
E v o l D i r

September 1, 2020

M o n t h i n R e v i e w

Foreword

This listing is intended to aid researchers in population genetics and evolution. To add your name to the directory listing, to change anything regarding this listing or to complain please send me mail at Golding@McMaster.CA.

Listing in this directory is neither limited nor censored and is solely to help scientists reach other members in the same field and to serve as a means of communication. Please do not add to the junk e-mail unless necessary. The nature of the messages should be “bulletin board” in nature, if there is a “discussion” style topic that you would like to post please send it to the USENET discussion groups.

Instructions for the EvolDir are listed at the end of this message.



Foreword	1
Conferences	2
GradStudentPositions	10
Jobs	27
Other	46
PostDocs	50
WorkshopsCourses	81
Instructions	84
Afterword	85

Conferences

JBJC ClubForEvolutionaryNeuroscience Oct22-23 .. 2	Online EvolutionEcology Aug26 6
Marseilles 24thEvolutionaryBiology Sep21-24 2021 .. 2	Online EvolutionEcology Sep2 7
Online BiodiversityGenomics Oct5-9 3	Online GenesAsEnvironment Nov15-18 7
Online ClimateChangeSoil Aug7 3	Online GraduateEvolBiol Sep28-30 8
Online DiversityInScience Aug8 3	Online LinkedSelectionMicrobialDiversity Aug18-25 8
Online EcolEvolution Sep4 4	Online Transposons Sep30-Oct02 9
Online EvoDevo Aug26 5	Prague CZ ESEB20201 CallForSymposia DeadlineOct15
Online EvolutionEcol Aug12 5	9
Online EvolutionEcol Aug5 6	

JBJC

ClubForEvolutionaryNeuroscience Oct22-23

This is a call for abstracts and datablitz submissions for the 2020 J.B. Johnston club for evolutionary neuroscience, which is due on *September 1st*. The JB Johnston club is an annual meeting that is focused on comparative neuroscience. The 2020 JBJC meetings will be held virtually on October 22nd and 23rd. The Karger Workshop in Evolutionary Neuroscience will be organized by Andrew Halley, and is titled "Heterochrony in comparative neurodevelopment". The abstract form for 2020 to submit your abstract is available here: <https://www.jbjclub.org/abstract-and-datablitz-submission.html>. Note that *you must be a member to submit an abstract*. If you need to join or renew your membership, you may do so on our website: <https://www.jbjclub.org/join-today.html> Christine Charvet <charvetcj@gmail.com>

Marseilles 24thEvolutionaryBiology Sep21-24 2021

Dear all The 24th EBM is will take place September 21 - 24 2021 registrations will start October 1st 2020 web site <http://aebf.fr> <https://ebm24.sciencesconf.org> twitter :EvolBiolMeetingMarseilles

all the best

Pierre

PONTAROTTI Pierre <pierre.pontarotti@univ-amu.fr>

Online Biodiversity Genomics Oct5-9

Dear EvolDir Community,

Biodiversity Genomics 2020 will bring together researchers across the world to celebrate our achievements in genome sequencing across the eukaryotic tree of life, explore current challenges and their likely solutions, and look forward to the coming decade of the application of genomics across the globe.

Sessions will cover many interconnected topics including evolutionary and comparative genomics, hence sharing with this list.

Full details and the registration (free!) link are available at: <https://www.sanger.ac.uk/science/biodiversity-genomics-2020/> There will be a session focused on Arthropod Genomics, to which we invite talk and virtual poster submissions for all types of arthropod genomics projects.

Meeting registration open: NOW
Poster and talk abstract submission open: NOW
Talk abstract submission close: 1 September 2020
Notification of speaker choices: 10 September 2020
Poster abstract submission close: 20 September 2020
Registration to attend closes: 2 October 2020

Please share this invitation widely with your colleagues.

Best wishes, Dorith Rotenberg and Surya Saha
On behalf of the organizing committee

\\ Robert M. Waterhouse O0o- www.rmwaterhouse.org
“” SNF Prof & SIB Group Leader Univ. Lausanne +41 21 692 41 05

Robert Waterhouse <robert.waterhouse@gmail.com>

Online ClimateChangeSoil Aug7

Dear EvolDir

Our University of Adelaide Ecology & Evolution community host free, monthly seminars. Thanks to COVID, we???re now running these through zoom so everyone can join us.

We???d love to share these seminars with our EvolDir community too. The link to RSVP is below so you can join us if you???d like to ??? we hope you do!

Best wishes, Jasmin

Curious. Cutting-edge. Community.

We hope you can join us for our Ecology & Evolution Seminar this Friday, the final in our Winter Series on Conservation Technology.

Zoom in for our free, monthly, first Friday’s seminar: exciting, cutting-edge science by one of our fabulous finishing PhD Candidates, Amelie Jeanneau, and Dr Ramesh Raja Segaran. Please spread the word to everyone who might like to join us.

RSVP at the bottom of this page for the zoom link.

Friday 7 August

3???4 pm via Zoom

Amelie Jeanneau Soil erosion is more common than we think and can have dramatic impacts on agricultural productivity. My research aimed to develop new tools to predict the impact of climate change and extreme environmental conditions (e.g. drought, bushfires) on future soil losses.

Dr Ramesh Raja Segaran

Leading cutting-edge conservation technology, Dr Ramesh Raja Segaran is director of the Unmanned Research Aircraft Facility (URAF) - the University of Adelaide’s???drone hub???

If you???re a PhD Candidate and wish to count seminar attendance as part of your CaRST credit, please register here.

See you there! Bowie and Jasmin

Jasmin Packer PhD Convenor | Ecology & Evolution Seminar Series
Research Fellow Environment Institute | The University of Adelaide

Jasmin Packer <j.packer@adelaide.edu.au>

Online DiversityInScience Aug8

Dear EvolDir community,

We hope you are well during these unprecedented times! We are a group of paleontology graduate students and early career professionals at Cornell University in charge of organizing the *14th Annual Summer Symposium

on Saturday August 8th, 2020 at the Paleontological Research Institution* in Ithaca, NY. This year, due to the effects of COVID-19 we are going *virtual* !

Given recent events across the world both outside and within our field, we felt the need to facilitate a conversation on diversity, equity, and inclusion with our peers. Consequently, we are dedicating the PRI Summer Symposium to the topic of *Diversity, Equity, and Inclusion in Paleontology* and are inviting speakers to share their experiences and discuss a path forward in our field during several short sessions. *Registration is free & still open! * <https://www.priweb.org/event/-summer-symposium?rq=symposium> . For any inquiries, please email symposium@priweb.org. We hope to see you there!

Caren Shin <cps257@cornell.edu>

Online EcolEvolution Sep4

We hope you can join us for our Ecology & Evolution Seminar < <https://sciences.adelaide.edu.au/biological-sciences/engagement-industry/seminars-ecology-evolution-series> > next Friday, the first in our Spring Series on Environmental Diversity. Hosted by The University of Adelaide.

Zoom in for our free, monthly, first Friday's seminar: exciting, cutting-edge science by highly respected Professor Sean Connell and PhD Candidate, Angus Mitchell. Please spread the word to everyone who might like to join us.

Friday 4 September

3-4 pm via Zoom (local Adelaide time, ACST - UTC +9:30) Recording will be available online < <https://sciences.adelaide.edu.au/biological-sciences/engagement-industry/seminars-ecology-evolution-series> > the week after live seminar.

Angus Mitchell < <https://researchers.adelaide.edu.au/profile/angus.mitchell> >

Growing up by the sea drove Angus' fascination with the ocean. After completing Honours on the effects of temperature on tropical and temperate fish, he decided to delve deeper.

Angus is now looking at the effects of ocean warming and acidification on tropical fish shifting their home range, and on their new temperate neighbours. Angus is a PhD student with Professor Ivan Nagelkerken < <https://researchers.adelaide.edu.au/profile/ivan.nagelkerken> >

< <https://researchers.adelaide.edu.au/profile/ivan.nagelkerken> > and external Co-supervisor Professor David Booth.

Professor Sean Connell < <https://researchers.adelaide.edu.au/profile/sean.connell> >

Sean is a highly respected marine biologist who's intrigued by how our brains respond to the world around us. Along with his students, Sean has boosted evidence-based policies to create cleaner and healthier coasts. They've improved the treatment of coastal seas and restored 20 hectares of oyster reefs [with a second one on its way for 2020]!

To launch our Spring Series, Sean will explore how diversity provides ecological mechanisms that allow natural systems to withstand shocks and partner with humans for their restoration.

If you're a PhD Candidate and wish to count seminar attendance as part of your CaRST credit, please register here < <https://goo.gl/forms/RrScv47rdvhIdIVx1> >.

See you there!

Bowie and Jasmin

Jasmin Packer Convenor | Ecology & Evolution Seminar Series Research Fellow Environment Institute | The University of Adelaide Adelaide, Australia.

Hi there,

Jasmin Packer is inviting you to a scheduled Zoom meeting. Join from a PC, Mac, iPad, iPhone or Android device:

Please click this URL to start or join: <https://adelaide.zoom.us/j/96273278658?pwd=-TUVhbnJlc0VPZ2JEb0Frc2M2WkovQT09> Password: 518083

Join from dial-in phone line: Dial: +61 8 7150 1149 Meeting ID: 962 7327 8658 International numbers available: <https://adelaide.zoom.us/j/96273278658> Join from a H.323/SIP room system: Dial: 96273278658@zoom.aarnet.edu.au or SIP:96273278658@zmau.us or 103.122.166.55 (Australia)

Meeting ID: 962 7327 8658 H323/SIP Password: 518083

Jasmin Packer Research Fellow Environment Institute | The University of Adelaide Work days: Mondays-Thursdays

j.packer@adelaide.edu.au

Online EvoDevo Aug26

Dear EvoDir,

Join us on August 26th for the Stowers Research Conferences (SRC) Early Career Symposia: Evolutionary Developmental Biology

WHAT: Early Career Symposia are a series of FREE online webinars which celebrate the achievements and promote the development of early career researchers from around the world.

Evolutionary Developmental Biology speakers and sessions:

Bauplan of Adaptation - Emily Hager | Harvard University - A tale of tails: Tail length evolution in deer mice - Rachel Thayer | UC Berkeley - Genetic basis and evolutionary context for structural color shift in Buckeye butterflies - Shuonan He | Stowers Institute for Medical Research - An axial Hox code guides tissue segmentation in the starlet sea anemone *Nematostella vectensis*

Evolution of Behavior and EvoPhysio - Carole Hyacinthe | Harvard Medical School - Underground sounds: Evolution of acoustic communication in *Astyanax mexicanus* - Arjuna Rajakumar | McGill University - Origin and elaboration of a Major Evolutionary Transition in Individuality - Marion Lebouvier | University of Bergen - An evolutionary perspective on digestion: endocytosis in the sea anemone *Nematostella vectensis*.

Extreme EvoDevo - Alexa Sadier | University of California, Los Angeles - Bat teeth at the cusp: finding rules for the evo-devo of serial organs - Aditya Saxena | University of California, San Diego - How the Jerboa got its long feet: Identifying genetic mechanisms that control the evolution of skeletal proportions. - Itzel Sifuentes-Romero | Florida Atlantic University - Eye morphogenesis: the role of rx3 in eye size reduction in cavefish

WHEN: August 26, 2020 - 12:00pm-3:30pm US Central Time

WHERE: Online via Zoom Webinars

Registration is FREE: <https://www.stowers.org/-conferences> Registration Deadline: August 25, 2020

For updates and information please follow us on Twitter: @Stowers_SRC

Visit <https://www.stowers.org/conferences> to register and view the Program and Schedule.

Thank you! Nicolas Rohner, Symposium Host Matt Gibson, SRC Organizer

“Dreyer, Abby” <ADreyer@stowers.org>

ADreyer@stowers.org

Online EvolutionEcol Aug12

Dear EvoDir,

Join us for the next week of our popular online seminar series in Evolution and Ecology.

—
Wed 12 August

Prof. Martha Muñoz (Dept. of Ecology & Evolutionary Biology, Yale University, USA)

“Behaviour is a motor and a brake for evolution”

—
When: 5-6PM BST / 9-10AM PDT, Wednesdays

Where: talks live-streamed to our YouTube channel <https://www.youtube.com/channel/UCMsYvoHLNVm4rbcTLj162zQ>, post your questions for our speakers via Slack

Publicity: upcoming talks promoted on Slack & Twitter @EvoEcoSeminars (<https://twitter.com/EvoEcoSeminars>)

How to join: our Slack ‘Evolution and Ecology Seminars’ here https://join.slack.com/t/evolutionecol-x154980/-shared_invite/zt-ev4fe0io-M7B~D6p74bIV_ZRcDtmAcg Please follow our Twitter feed and join the Slack group for details of future upcoming talks.

Hope that you can join us. Feel free to circulate to anyone who may be interested.

Many thanks,

Dr. Elizabeth Duxbury Dr. Andreas Sutter Dr. Iulia Darolti Dr. Wouter van der Bijl

Dr. Elizabeth Duxbury Senior Postdoctoral Research Associate Prof. Alexei Maklakov Group School of Biological Sciences University of East Anglia Norwich Research Park UK

“E.Duxbury@uea.ac.uk” <E.Duxbury@uea.ac.uk>

Online EvolutionEcol Aug5

Dear EvolDir,

Join us for the next week of our popular online seminar series in Evolution and Ecology.

—
Wed 5 August

Prof. Swanne Gordon (Dept. of Biology, Washington University, USA)

“Diversity in nature, why and how it is maintained: a test using a ‘non-model’ model system”

—
When: 5-6PM BST / 9-10AM PDT, Wednesdays

Where: talks live-streamed to our YouTube channel <https://www.youtube.com/channel/UCMsYvoHLNVm4rbcTLj162zQ>, post your questions for our speakers via Slack

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“Elizabeth Duxbury (BIO - Staff)”
<E.Duxbury@uea.ac.uk>

Online EvolutionEcology Aug26

Dear EvolDir,

Join us for the next week of our popular online seminar series in Evolution and Ecology.

—
Wed 26 August

Prof. Simen Sandve (Centre for Integrative Genetics, Norwegian University of Life Sciences)

“Evolution of gene regulation following whole genome duplication in salmonids”

—
When: 5-6PM BST / 9-10AM PDT, Wednesdays

Where: talks live-streamed to our YouTube channel <https://www.youtube.com/channel/UCMsYvoHLNVm4rbcTLj162zQ>, post your questions for our speakers via Slack

Publicity: upcoming talks promoted on Slack & Twitter @EvoEcoSeminars (<https://twitter.com/EvoEcoSeminars>)

How to join: our Slack ‘Evolution and Ecology Seminars’ here https://join.slack.com/t/evolutionecol-xl54980/-shared_invite/zt-ev4fe0io-M7B~D6p74blV_ZRcDtmAcg
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Senior Postdoctoral Research Associate Prof. Alexei Maklakov Group School of Biological Sciences University of East Anglia Norwich Research Park UK

“Elizabeth Duxbury (BIO - Staff)”
<E.Duxbury@uea.ac.uk>

Online EvolutionEcology Sep2

Dear EvoDir,

Join us for the next week of our popular online seminar series in Evolution and Ecology.

—
Wed 2 Sept

Prof. Ruth Hufbauer (Dept. of Bioagricultural Sciences & Pest Management, Colorado State University, USA)

“Eco-evolutionary dynamics of small populations in novel habitats”

—
When: 5-6PM BST / 9-10AM PDT, Wednesdays

Where: talks live-streamed to our YouTube channel <https://www.youtube.com/channel/UCMsYvoHLNVm4rbcTLj162zQ>, post your questions for our speakers via Slack

Publicity: upcoming talks promoted on Slack & Twitter @EvoEcoSeminars (<https://twitter.com/EvoEcoSeminars>)

How to join: our Slack 'Evolution and Ecology Seminars' here https://join.slack.com/t/evolutionecol-x154980/-shared_invite/zt-ev4fe0io-M7B~D6p74blV_ZRcDtmAcg

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— Dr. Elizabeth Duxbury

Senior Postdoctoral Research Associate Prof. Alexei Maklakov Group School of Biological Sciences University of East Anglia Norwich Research Park UK

“Elizabeth Duxbury (BIO - Staff)”
<E.Duxbury@uea.ac.uk>

Online GenesAsEnvironment Nov15-18

AGA2020 President’s Symposium - Genes as Environment: Indirect Genetic Effects in Evolution, Agriculture, and Medicine

Indirect genetic effects (IGE) are genetic effects of an individual on the trait values of others in the same species. IGE provides a unifying framework for traditional quantitative genetics, maternal and paternal genetic effects, inclusive fitness, and multilevel selection.

The pandemic is still with us, so the AGA is moving the President’s Symposium online. To maximize the number of people who can participate in real time, the meeting will take place over 4 consecutive days from 15:00 -19:00 UTC (11:00 - 15:00 EST, 08:00 -12:00 PST, 16:00-20:00 GMT).

There will be breakout rooms for question-and-answer sessions, and virtual coffee/lunch breaks and happy hours so all participants can interact. Speakers will also have the option to make videos of presentations available for a short time period, to accommodate participants who cannot view talks in real time.

AGA student and postdoc members who submit a “poster” abstract before September 1st will receive free registration and the opportunity for a short presentation. The exact format for “posters” has not been finalized, and we are currently considering several options, including 3-minute lightning talks. President Kim Hughes will select several of the abstracts for 15-minute oral presentations and \$50 Presentation Awards.

Register now at <https://www.theaga.org/-agatwentytwenty.htm> Key Distinguished Lecturer Allen J Moore will open the meeting with his address, *Why we need to understand indirect genetic effects*.

Invited speakers include: Nathan Bailey Amelie Baud Piter Bijma Butch Brodie Nancy Chen Niels Dingemans Kathleen Donohue Courtney Fitzpatrick Maren Friesen Swanne Gordon Andrew McAdam Joel McGlothlin Stephanie Porter David Rand Julia Saltz Michael Wade Alastair Wilson

theaga@theaga.org

Online GraduateEvolBiol Sep28-30

Dear colleagues,

The registration to the 25th DZG Graduate Meeting Evolutionary Biology (aka the 1st DZG ONLINE Graduate Meeting) to be held on the 28-30 September is still open. Please register until the 1. Sept.

Invited speakers: - Kelly Swarts (GMI Vienna) - Joachim Hermisson (University of Vienna)

The 25th DZG (German Zoological Society) Graduate Meeting in Evolutionary Biology will be organized by the Institute of Population Genetics at the Vetmeduni Vienna in September 2020. While the meeting's main topic is "Genetics of adaptation: from single loci to polygenic traits", all scholars of evolutionary biology are welcome to discuss their plans and results. The meeting is supported by the DZG.

We have over 20 slots available for 15 minutes talks (+ 5 minutes discussion) and 24 slots for short poster presentations (5 minutes including questions). The poster presentations will be selected on a 'first come, first served' basis. The registration is free.

If you would like to participate at the meeting, please send us an email (dzg25th@gmail.com) no later than 1.9.2020 with the following information: - indicate if you prefer a talk or a poster - in case of talk: your consent to record your talk and put it online (not mandatory, if you prefer your talk not to be recorded, please inform us) - in case of a poster: your consent whether the poster can be shared with the other participants - short abstract (<250 words) with title and all authors, indicate presenting author

You can find more information about the meeting <https://dzgevol.wordpress.com/2019/11/19/25th-dzg-graduate-meeting-evolutionary-biology/> Hope to see you online!

Best wishes, Robert, Neda and Christian

Organizing committee: - Robert Kofler - Neda Barghi - Christian Schlötterer

Robert Kofler <rokofler@gmail.com>

Online LinkedSelectionMicrobialDiversity Aug18-25

Emory University is holding a free online symposium on August 18th and 25th, co-organized by Daniel Weissman and Matt Hahn and hosted by the Theory and Modeling of Living Systems (TMLS) initiative. The first session, on the 18th, will be focused on linked selection, and the second session, on the 25th, will be focused on microbial diversity. Both sessions are organized as a series of short talks followed by discussion with an additional discussion period at the end. Information below.

Symposium: "Can we predict the diversity of real populations?" August 18th and 25th Registration (free): <https://forms.gle/3K8PEht5SDK7aUpa7> Website: <http://livingtheory.emory.edu/programs/conferences-symposiums.html> Stream available from the Emory TMLS YouTube channel: <https://www.youtube.com/channel/UCSzB7CmWksZPxQUjI0inU-Q>. Please register for direct links to the streams.

Session 1: "What is linked selection doing to populations?" August 18th, 12:30-2:20pm EDT

Schedule: 12:30-12:40: Introduction 12:40-1:00: Christelle Fraïsse (IST Austria/CNRS), "Multilocus barriers to introgression between hybridizing species: sex chromosomes vs. autosomes" 1:00-1:20: Derek Setter (U Edinburgh), "Sweeps in time: leveraging the joint distribution of branch lengths" 1:20-1:40: Kim Gilbert (U Lausanne/U Bern), "Drivers of genetic diversity in regions of low recombination" 1:40-2:00: Ivana Cvijovic (Stanford), "The effect of background selection on genetic diversity" 2:00-2:20: Discussion

Session 2: "What determines microbial diversity?" August 25th, 11:25am-1:50pm EDT Schedule: 11:25-11:30: Introduction 11:30-12:00: Erik van Nimwegen (U Basel), "Bacterial phylogenies reflect complex patterns of recombination rates" 12:00-12:30: Jacopo Grilli (ICTP), "Laws of diversity and variation in microbial communities" 12:30-1:00: Maitreya Dunham (U Washington), "Microbial diversity between and within species in beer" 1:00-1:30: Nandita Garud (UCLA), "Evolution in the Human Gut Microbiome" 1:30-1:50: Discussion

dbweissman@gmail.com

Online Transposons Sep30-Oct02

Dear colleagues,

The registration for the 4th Uppsala Transposon Symposium (virtual) to be held on September 30 - October 02, 2020, is open!

Invited speakers: - Irina Arkhipova (Marine Biological Laboratory) - John Coffin (Tufts University) - Molly Hammell (Cold Spring Harbor Laboratory) - Aris Katzourakis (University of Oxford) - Alice Eunjung Lee (Harvard University) - Kenji Kojima (Genetic Information Research Institute) - Rita Rebollo (INRA Lyon) - Arian Smit (Institute for Systems Biology) - Nathan Springer (University of Minnesota)

Registration is free, includes coffee breaks (please B.Y.O.B.) and discussion rounds for networking, and the opportunity to present your research as a regular talk or lightning talk with poster. We encourage especially early-career researchers to submit abstracts on topics related to transposons, viruses, and genetic conflicts! Abstract submission deadline is September 13.

You can find more information about the meeting and this year's virtual format here: <https://transposonsymposium.wordpress.com/4th-uppsala-transposon-symposium-gone-virtual/> Welcome and please stay safe everyone!

Best wishes, Alex

(on behalf of the organizing committee)

Organizing committee: - Alexander Suh (University of East Anglia and Uppsala University) - Claudia Kutter (Karolinska Institute) - Patric Jern (Uppsala University) - Contact us: transposonsymposium@gmail.com

Dr. Alexander Suh Dept. of Organismal Biology - Systematic Biology Evolutionary Biology Centre Uppsala University Norbyvägen 18D SE-752 36 Uppsala, Sweden Alexander.Suh@ebc.uu.se https://twitter.com/alexander_suh (Twitter) <http://genomicocsm.wordpress.com> (Blog) <https://www.iob.uu.se/research/systematic-biology/suh/> (Lab website)

Alexander Suh <alexander.suh@ebc.uu.se>

Prague CZ ESEB20201 CallForSymposia DeadlineOct15

CALL FOR SUBMISSION OF SYMPOSIUM PROPOSALS FOR ESEB 2021

A defining feature of ESEB congresses is the “bottom-up” approach to determining the scientific content of each meeting. The vast majority of the scientific program is arranged in symposia topics that are suggested by ESEB members, and the symposium organisers then also play a major role in selecting the oral and poster presentations from the submitted abstracts. Symposia topics can be on any theme related to evolutionary biology: specific or broad, emerging or well established. A—symposium normally consists of around 5-12 oral presentations, 1-2 of which are invited, with remaining abstracts in the theme being presented together in the poster sessions. Invited speakers typically have their congress registration covered (but not travel or accommodation), and have extended speaking time.

SYMPOSIUM PROPOSAL

You will be asked to provide:

- (1) The names and email addresses of the primary organiser (for all communication) and 1-2 co-organiser(s), who must be committed to attend the whole meeting.
- (2) Optional - Links to the professional web pages of organisers and short biographies of organisers (maximum 150 words each biography).
- (3) The proposed symposium title.
- (4) A—maximum 200 word explanation justifying why you feel your proposed topic warrants a symposium at the conference.
- (5) The names of two potential invited speakers (please check beforehand whether they are indeed available). You can also submit titles of potential invited talks (optional).

Balance, in terms of gender, nationality and career stage of invited speakers and symposium organisers will be included as one criterion used by the scientific committee when selecting symposia, and successful symposium organisers are expected to do the same when selecting oral presentations. ESEB also supports diversity via conference attendance aid grants.

When organising your symposium at the ESEB conference, we would like you to consider a Target Review paper or Special Issue on the symposium topic to be published in the *Journal of Evolutionary Biology* (*JEB*), the official journal of the society, soon after the confer-

ence or in parallel. /JEB /is particularly interested in publishing summary or synthesis papers of any current evolutionary topic discussed at the ESEB conference.

HOW TO SUBMIT A SYMPOSIUM PROPOSAL

* Please submit your symposium proposal only via the online form that is accessible in the user zone. * Proposals sent by e-mail cannot be considered. * Symposium proposal has to be submitted by a primary organiser of the symposium. * A—primary organiser of the symposium is considered to be a contact person. * At least one of the organisers must be an ESEB member at the time of the “final date for presenters and symposia organisers to register”. The organisers will be required to prove member status at a later time, upon registering for the congress.

DEADLINE

The deadline for submission is OCTOBER 15, 2020.

EVALUATION

Proposals will be double-blind evaluated by the Scientific Committee, and the selected list will be communicated in December 2020.

CONTACT

Enquiries can be directed to abstracts.eseb2021@guarant.cz. We will be happy to assist you.

European Society for Evolutionary Biology Email: office@eseb.org Website: eseb.org

ESEB <office@eseb.org>

GradStudentPositions

Antwerpen CichlidGenomics	11	OsnabrueckU SoilBacteriaEvolution	19
Australia ClimateChangeAdaptation	11	SGN Frankfurt EvolutionaryGenomics	20
ETH Zurich YeastCoevolution	12	Taiwan AvianEvolutionMatingSystems	21
JagiellonianU BankVoleEvolution	12	TiHo Hannover AposematismEvolution	22
JagiellonianU EvolutionMicrobiome	13	UExeter SocialCognitionCoevolution	23
KielU EvolutionHumanLongevity	14	UMississippi CrayfishConservationGenetics	24
Krakow JagiellonianU EvolutionaryBiology	15	UNorthDakota WildlifeGenomicsPaleoecology	24
Lausanne MycorrhizalSymbiosis	15	USouthernMississippi OysterDomesticationGenomics	25
LiverpoolJohn MooresU EvolutionObesity	16	USouthFlorida AdaptationDynamics	25
LiverpoolJohn MooresU FlyGutMicrobiota	17	UTexasAM PopulationGenomicsAquaticInvertebrates	26
Liverpool LJM U EvolutionAgonisticSignalling	17		
Liverpool LJM U EvolutionCognitionSociality	18		
MaxPlanck EvolutionFacialVariability	18		

Antwerpen CichlidGenomics

***** Deadline extended till 25 August 2020 *****

Fully funded 4-year PhD position in cichlid fish Evolutionary Genomics available in the Svardal lab at the University of Antwerp

Application deadline: 25 August 2020

The hundreds of closely related but ecologically diverse species of Lake Malawi cichlid fishes provide an exceptional model to study the genomic mechanisms involved in rapid adaptation and diversification.

Cichlid fishes are known for their spectacular adaptive radiations, but some populations are also under recent heavy fishing pressure leading to strong human-induced selection. In this PhD you are going to dissect genomic and phenotypic responses to fisheries-induced and natural evolution.

- You will apply computational genomic approaches to whole-genome sequencing data of 100s of Malawi cichlids to identify genomic adaptations. – Ideally, you will also have an interest in developing your own computational methods in python, R, or C/++ etc. – You will apply ancient DNA methods to sequencing data from museum specimens to track adaptation through time.
- Depending on your interest, there will be scope for experiments and field work in Malawi: E.g., measuring growth and maturation traits under controlled conditions in our state-of-the-art fish facilities and (2) using transcriptomes to understand population differences.

Prior knowledge in bioinformatics, data analysis, or statistics is a plus for this position, but also candidates with a different background will be considered, if they can demonstrate strong motivation to develop in this direction.

You can apply for this vacancy through the University of Antwerp's online job application platform until 10 August 2020. Click on the 'Apply' button, complete the online application form and be sure to include the following attachments: a motivation letter (max 2 pages, in English) clarifying specifically why you want to work in our group on this project, your academic CV, your master's grades and percentile in peer group (if available).

<https://www.uantwerpen.be/en/jobs/vacancies/-academic-staff/?q=1182&descr=Doctoraatsbursaal-evolutionaire-en-adaptatiegenomica> Looking forward to your application. Best wishes,

Hannes Svardal

– Hannes Svardal Research Professor in Evolutionary, Ecological and Environmental Omics Department of Biology University of Antwerp

Campus Groenenborger, room U758
hannes.svardal@uantwerpen.be

Hannes Svardal <Hannes.Svardal@uantwerpen.be>

Australia ClimateChangeAdaptation

Genetics of climate-change adaptation in Great Barrier Reef corals

We are seeking expressions of interest for PhD positions working under the supervision of scientists at the Australian Institute of Marine Science (Dr. Line Bay), the University of Queensland (Prof. Cynthia Riginos, Dr. Cheong Xin Chan), and Southern Cross University (Dr. Emily Howells).

Global warming and associated changes to earth's climate threaten the survival of corals worldwide. Australia's iconic Great Barrier Reef has experienced multiple episodes of severe and widespread bleaching. Thus, it is becoming increasingly urgent to determine how quickly corals can adapt to elevated temperatures and other environmental stressors. A large-scale integrative project is underway as part of the Reef Restoration and Adaptation Program that will use whole genome sequencing of multiple coral species in association with the examination of physiological phenotypes, microhabitats, and geography to advance our understanding of the genetic basis of heat adaptation in GBR corals.

PhD projects will be part of this larger research program. Students will take primary responsibility for sub-elements of this broader project such as focusing on the physiology, quantitative genetics, and seascape genomics of coral hosts and their symbionts. There is considerable scope for students to develop additional projects depending on their specific interests. Competitive applicants will have demonstrated relevant research experience encompassing some combination of a) marine field work involving diving for research, b) experience undertaking physiological experiments on corals or related taxa, c) advanced training in evolution and genetics (Masters or Honours degree with associated publications), d) experience with bioinformatics and computer scripting (R, python, perl or other relevant language). Note that we do not expect applicants to have experience in all of

these areas.

Full funding (living expenses and fees) for strongly qualified applicants will be provided by UQ (for one domestic or international student) and SCU (for one domestic or international student). Strongly qualified domestic (Australian and New Zealand) must be eligible for the Australian Research Training Program scholarship or other stipend funding. Applicants should be available to start their studies in January 2021, although delays may be unavoidable due to COVID travel restrictions.

Expressions of interest should be submitted via the RRAP portal https://www.gbrrestoration.org/en_US/enquiry-form by August 21 2020 with a single PDF file that includes: a brief cover letter/statement of interest and experience (1 page maximum), a CV including the names and contact details of 3 referees (2 pages max), and an academic transcript. Please tag your submission with “PhD in Genetics of climate-change adaptation”. Short listed candidates will be contacted and video interviewed in the first week of September. Email enquiries can be directed to emily.howells@scu.edu.au.

c.riginos@uq.edu.au

ETH Zurich YeastCoevolution

Our group at ETH Zurich has a position for a PhD student to study co-evolutionary dynamics in the “killer yeast” model system. The “killer yeast” system features eco-evolutionary interactions among plants, animals and fungi, as well as viruses. Core of the system is the winemaking yeast *Saccharomyces cerevisiae*, which is mostly found in ephemeral fruits. Yeast modify their niche to drive the coevolution of mutualism between themselves and *Drosophila* flies. Yeast is also used as a host by various double stranded RNA viruses. Certain dsRNA virus combinations (dsRNA L-A virus and M satellite dsRNA) convert the yeast to a killer phenotype providing the yeast strain with a competitive advantage over other coexisting strains. The actors in the killer yeast system - *S. cerevisiae*, dsRNA viruses and *Drosophila* are all excellent research models in their own right with well-established population genetic, -omic and ecological toolboxes. The system is suitable for both field and laboratory studies, which are expected to be part of the developed PhD project. We invite applications from candidates who are interested in studying the coevolutionary dynamics and population ecology of the interacting species, whilst focusing on topics that

are not only of broad interest within fundamental research, but also highly relevant to more applied fields (e.g. winemaking). The PhD candidate should take this system as a platform to develop a project around her/his own interests complementing the general goals of understanding the coevolutionary dynamics determining the structure of natural yeast populations and their infecting virus populations.

We are looking for a highly motivated, enthusiastic and independent person with a passion for science. Candidates for this position should have a strong interest in evolutionary ecology and should be open to learning new skills in experimental hypothesis testing, population genetics and evolutionary biology. Formally, candidates need to hold a MSc degree in biology, environmental sciences or another relevant field.

The PhD candidate will be supervised by Dr. Claudia C. Buser and Prof. Jukka Jokela of the Aquatic Ecology group at the Institute of Integrative Biology at ETH Zürich, Switzerland. Further information about PhDs at ETH Zürich is available here: <https://ethz.ch/en/-doctorate.html>. Information about being employed at ETH Zürich is here: <https://ethz.ch/en/the-eth-zurich/-working-teaching-and-research.html>. To apply send a single combined pdf to claudia.buser@env.ethz.ch including (1) cover letter, (2) CV, (3) contact details for 2-3 referees. We will start reviewing applications after 15th of September and continue until the position is filled. The position is for four years, during which the PhD dissertation at ETH Zurich is expected to be completed. The earliest available start date is likely to be winter 2020.

Dr. Claudia C. Buser ETH Zurich Aquatic Ecology/Eawag Institute of Integrative Biology (IBZ) Äberlandstrasse 133 8600 Dübendorf, Switzerland E-mail: claudia.buser@env.ethz.ch Web: <https://n.ethz.ch/~busercl/>

Claudia Buser ETH <busercl@ethz.ch> Claudia Buser ETH <busercl@ethz.ch>

JagiellonianU BankVoleEvolution

PhD position in evolutionary and biomedical physiology at the Jagiellonian University, in a project:

Experimental evolution of the thrifty and spendthrift genotypes, and its consequence for susceptibility to adverse effects of “Western diet”: insights from a selection

experiment on bank voles

The project is based on a unique experimental evolution model system, with lines of a common rodent, the bank vole, selected in three distinct directions: http://www.eko.uj.edu.pl/en_GB/zespolfizjologii-ewolucyjnej/badania. We will answer the question how the selection for high performance under the conditions of unlimited vs restricted energy sources affects vulnerability of animals to adverse effects of the Western diet.

Conditions of employment: A warranted scholarship for 48 months of 5000 PLN / month, equivalent to mean gross income in Poland. Formal requirements

§MSc in life science (biology, biotechnology, ecology, evolution, or related; effective on 18.09.2020),

§admission in the International PhD Biology program at the Jagiellonian University effective on 1.10.2020 (<https://science.phd.uj.edu.pl/>).

Merit requirements

§Good communication skills, good level of spoken and written English;

§Previous experience in molecular or biochemical laboratory as well as working with terrestrial vertebrates (preferably rodents)

§Achievements such as publications or conference presentations are considered advantageous. Preliminary enquiries: email to the principal investigator - Paweł Koteja (pawel.koteja@uj.edu.pl)

Detailed information about the enrollment procedure and other formal issues - see here:

https://wb.uj.edu.pl/wydzial/aktualnosci/-ogloszenia-konkursowe/-/journal_content/-56_INSTANCE_NepRLepShInQ/41643/145578301

The application should be sent by email (pawel.koteja@uj.edu.pl) by 16.08.2020 (the term will be automatically prolonged if needed).

The applications will be considered by the selection committee according to the regulations of the PhD School and the regulations of scientific scholarships in research projects financed by the National Science Centre, Poland (https://www.ncn.gov.pl/sites/default/files/pliki/-2019-09-16_koszty_w_projektach_NCN.pdf) and the general regulations of the PhD in Biology Programme: (https://science.phd.uj.edu.pl/en_GB/rekrutacja/-rekrutacja-2020/2021/phd-programme-in-biology).

The pre-selected candidates will be invited for interviews (scheduled for 21-28 August 2020). The decision of acceptance will be made by 31 August 2020.

Contact person: Paweł³ Koteja (pawel.koteja@uj.edu.pl)

The Evolutionary Physiology Research Team http://www.eko.uj.edu.pl/en_GB/zespolfizjologii-ewolucyjnej/badania Institute of Environmental Sciences Jagiellonian University 7 Gronostajowa Street, 30-387 Kraków, Poland e-mail: pawel.koteja@uj.edu.pl office phone: +48 12664 5209 skype: pkoteja ORCID: 0000-0003-0077-4957 ResearcherID: O-4039-2015 Scopus Author ID: 6603751464

Paweł³ Koteja <pawel.koteja@uj.edu.pl>

JagiellonianU EvolutionMicrobiome

PhD position in evolutionary and ecological physiology at the Jagiellonian University, in the project:

The effects of energy availability on pace of life and microbiome of bank voles

The project: Acquiring energy from the environment is fundamental for the reproduction and survival of all organisms and animals have evolved many ways to gain energy. The community of microbes inhabiting the animal intestine (gut microbiota) has coevolved with animal hosts and participates in the critical task of extracting energy from food eaten by the animal (e.g. by producing different short-chained fatty acids). The microbiota can thus be especially important in matching the energy requirements of the animal with the resource availability in its environment. Coping with limited resources should depend on both the animal's metabolic demands and the efficiency of the gut microbes to extract energy from food. To test this idea, we study the effects of food manipulations at different life stages on the life history, physiology, and gut microbiome of animals from a unique experimental evolution model system: selection lines of a non-laboratory rodent, the bank vole (*Myodes glareolus*), selectively bred for a high metabolic rate and unselected control lines. The project is a part of a long-term research program based on an artificial selection experiment using a common rodent, the bank vole (http://www.eko.uj.edu.pl/en_GB/zespolfizjologii-ewolucyjnej/badania). Conditions of employment: A warranted stipend (4500 PLN/month gross) is available for 2.5 years, followed by 1.5 years of the stipend offered through the regular PhD program of the Jagiellonian University.

Formal requirements: - MSc in life science (biology,

biotechnology, ecology, evolution, or related; achieved by the time of enrollment), - admission in the International PhD Biology program at the Jagiellonian University effective on 1.10.2020 (<https://science.phd.uj.edu.pl/>).

Merit requirements: - evidence of good quantitative/computational skills; - strong English language, communication, organizational and collaboration skills; - experience with molecular laboratory analyses and bioinformatics. - Previous experience with analyses of microbial communities, working on small mammals, animal physiology and/or evolutionary biology are considered advantageous.

For detailed information about the enrollment procedure and other formal issues, see:

https://wb.uj.edu.pl/en_GB/wydzial/aktualnosci/-ogloszenia-konkursowe/-/journal_content/-56_INSTANCE_NepRLepShInQ/41643/145754689

Preliminary enquiries: email to the principal investigator Anni Hämäläinen (anni.m.hamalainen@gmail.com), with a copy to the prospective PhD school supervisor, Paweł³ Koteja (pawel.koteja@uj.edu.pl).

The formal application should be sent by email to the above two addresses and to the PhD School secretary (anna.stec@uj.edu.pl) by 16.08.2020.

Contact person: Dr Anni Hämäläinen anni.m.hamalainen@gmail.com The Evolutionary Physiology Research Team http://www.eko.uj.edu.pl/en_GB/zespol-fizjologii-ewolucyjnej/badania Institute of Environmental Sciences Jagiellonian University 7 Gronostajowa Street, 30-387 Kraków, Poland

Anni Hämäläinen <anni.m.hamalainen@gmail.com>

KielU EvolutionHumanLongevity

1 PhD Position in Translational Evolution - Genomics of Human Longevity

In the framework of the Research Training Group (RTG) 2501 for Translational Evolutionary Research (TransEvo) (<https://transevo.de/>) at Kiel University, Germany, we are seeking

a PhD student

to conduct research on the genomic architecture of human longevity (RTG project 6.1) using next generation sequencing (NGS) and genome-wide association studies (GWAS). The successful candidate will perform

big-data analysis including bioinformatics and statistics. In particular, the focus will be on analyses of GWAS chip arrays, exome and HLA data to identify new longevity-associated loci, following evolutionary informed approaches.

Your profile:

* An MSc in a discipline relevant for the project (e.g. bioinformatics, genetics, evolutionary genomics, statistical genetics) is a prerequisite

* Background in vertebrate or human genetics/genomics is a must

* Programming skills (ideally in R or python) are required, branching and version control programming with Git is desirable

* Expertise in the analysis of NGS and SNP data (vcf and plink format) is very advantageous

* Strong interest in working in a research environment focusing on evolutionary biology

* Very good written and spoken English is required

We offer:

*Exciting projects in the Human Longevity Group using large-scale data sets already generated from nonagenarians and centenarians

*Exceptional infrastructure (NGS and bioinformatics) in the Institute of Clinical Molecular Biology (<https://www.ikmb.uni-kiel.de>)

*Integration into the interdisciplinary RTG 2501, stimulating collaborations with scientists from various disciplines, in particular from the Helmholtz Center for Ocean Research Kiel (GEOMAR)

*The contract runs for three years and starts on September 15, 2020. The salary will be according to the German salary scale TV-L (PhD student 65%, German TV-L E13).

Application:

Please submit your documents including a motivation letter, CV (both in English), certificates and contact details of two references as one pdf file (10 Mb max).

*****The application deadline is August 31, 2020.*****

Please apply online via the following link: <https://jobs.uksh.de/job/Kiel-Doctoral-Researcher-Position-in-Computational-Genomics-at-ikmb-Schl-24105/-612003801/> For more information, please contact Prof. Almut Nebel (a.nebel@mucosa.de), Dr. Guillermo Torres (g.torres@ikmb.uni-kiel.de) or Dr. Janina Dose (j.dose@ikmb.uni-kiel.de).

Almut Nebel, PhD

Institute of Clinical Molecular Biology Kiel University
Rosalind-Franklin-Str. 12 24105 Kiel Germany Tel.:
+49-431-500-15155

a.nebel@mucosa.de

Krakow JagiellonianU EvolutionaryBiology

Graduate position:Krakow_JagiellonianU.Evolutionary_Biology

PhD position in Evolutonary Biology - deadline for applications is approaching

PhD student position is offered from October 2020 within the Polish National Science Centre grant Environment-dependent balancing selection in a gene involved in sexual conflict in Genomics and Experimental Evolution Group at Jagiellonian University, Institute of Environmental Sciences.

The project The maintenance of genetic variability, enabling populations to adapt to novel environments, is one of the greatest puzzles in evolutionary biology. This is because ubiquitous directional selection should lead to depletion of genetic variation in selected traits. This is especially the case with sexually selected traits, in which directional selection is particularly strong. Yet, substantial genetic variance in these traits is maintained. A potent force proposed to maintain genetic variation is balancing selection which can take a form of a crossover genotype by environment interaction for fitness in heterogeneous environments. It causes selection to act in environment-dependent manner so that one allele is favored in one environment and the other at another one. We aim to investigate the maintenance of polymorphism in Phosphogluconate dehydrogenase (6Pgdh) ?a sexually selected gene associated with sexual conflict in the bulb mite *Rhizoglyphus robini*. 6Pgdh polymorphism (with two alleles, S and F) is associated with differences in male reproductive success. The S-bearers have advantage in male-male competition, but decrease fecundity of their partners. Previous studies suggest that 6Pgdh polymorphism is maintained by environment-dependent balancing selection, but the exact mechanisms driving this selection are unknown. PhD candidate will investigate ecological factors that determine persistence of the polymorphism.

Scope of work PhD candidate will assess the level of 6Pgdh polymorphism in natural populations and determine environmental factors affecting 6Pgdh allele

frequencies in the field. He/she will conduct experimental evolution and will be involved in phenotypic measurements in the lab that will enable direct test of the role of potential factors driving 6Pgdh frequencies. Real-time PCR with TaqMan probes will be used to genotype individuals. PhD candidate may also be involved in other molecular analyses conducted in frames of the project, including transcriptomics.

Place and salary The Student will join a dynamic, cooperative research group at the Institute of Environmental Sciences, Jagiellonian University, Krakow, Poland (www.eko.uj.edu.pl/en_GB). The Institute of Environmental Sciences is one of the most influential and best-recognized research institutions in the fields of Ecology and Evolution in Central Europe located in a beautiful medieval city with rich history and lively cultural life, well connected to other European cities.

The PhD student will receive a tax-free scholarship from doctoral school (ca. 2500 PLN) and/or a tax-free research stipend from the National Science Centre grant (3000 PLN per month).

Requirements

The successful candidate will have a M.Sc. degree in biology or other relevant fields by the start of the studentship. We are looking for a student with good English, strong background in Evolutionary Biology and experience in molecular techniques as well as good skills in data analyses. Excellent communication and organizational skills are also required.

Documents

Please send a CV including contact details for two references and a cover letter to Agata Plesnar-Bielak (agata.plesnar@uj.edu.pl) by August 10. The selected candidate will be assisted with a formal application to the PhD program at Jagiellonian University (the exam will take place between 9th and 14th September 2020)

For more information, please e-mail Agata Plesnar-Bielak.

Agata Plesnar-Bielak <agata.plesnar@gmail.com>

Lausanne MycorrhizalSymbiosis

PhD student position - The role of the soil microbiome in determining plant responses to the mycorrhizal symbiosis (Uni. Lausanne, Switzerland & collaboration with the ETH Zürich)

Job Description: PhD student position available in the Sanders' group on The role of the soil microbiome in determining plant responses to the mycorrhizal symbiosis using experimental approaches. Research will build on previous work in the group showing that mycorrhizal fungi shape soil microbial communities. We now want to know how the soil microbiome influences how the plant responds to inoculation with mycorrhizal fungi.

The results of this project will be combined with research in the field where our work is leading to real solutions to increase production of food in areas of the world where starvation is a major problem. More information can be found at <http://people.unil.ch/iansanders/>. The project is part of a large collaboration at the new Swiss Centre for Excellence in Research (NCCR) - Microbiomes, created between University of Lausanne and the ETH Zürich <https://nccr-microbiomes.ch>. Your skills and qualifications: Candidates must be highly motivated, have an MSc (or very soon), and have a strong interest in community structure, coupled with microbial metagenomics and/or microbial communities. You must have a strong interest in investigating this topic using an experimental approach. An interest in using appropriate bioinformatics tools will be a clear advantage, as will, an interest in solving problems in an analytical way. The successful candidate will work on this project with a postdoctoral researcher. You should have good interpersonal skills and an ability to work well in a multicultural team and department.

Job information: The position is available as soon as possible. A PhD at the University of Lausanne takes between 3 and 5 years. The contract is initially for 1 year, renewable. Most of the PhD student's time will be dedicated to research, but contributing to some teaching activities is expected and there is the additional possibility of supervising master students.

Applications: You must apply online to the University of Lausanne job portal and upload a CV and motivation letter in English. The letter must include the names of 2-3 referees. The link to apply is: Microbiomes and the mycorrhizal symbiosis (16336): <https://bit.ly/-2XTc2jq>. Applications must be received not later than 30th September 2020. Informal enquiries may be made by email to ian.sanders@unil.ch but you MUST ONLY APPLY ONLINE. You must NOT send your application to this email address.

ian.sanders@unil.ch

LiverpoolJohnMooresU EvolutionObesity

We are looking for a strong candidate to apply for a fully funded PhD in genetics of obesity in non-human primates at Liverpool John Moores University. Understanding and tackling obesity is currently at the forefront of the political agenda in many developed countries. While obesity is multifactorial, a heritable genetic component is important, with an estimated 40-70% of the variance in body mass index due to genetic factors. A number of hypotheses advanced to explain the propensity for obesity and metabolic disease involve evolutionary events in the ancestors of modern humans, relating to the body's response to fluctuating food availability. This is not limited to humans however, and many other species face similar circumstances. Indeed, animals kept in captivity can also become obese, with different species showing different propensities to do so. Therefore, understanding obesity in other species may help us to understand obesity as a phenomenon and may have important implications for how we tackle this issue.

The project will involve comparing candidate genes associated with obesity across non-human primates and link these to environmental factors to help understanding of potential selection pressures. It will use comparative genomics and molecular evolutionary computational approaches to study genes involved in energy metabolism and adipose tissue homeostasis in apes.

You must hold a good BSc and a master's degree (or demonstrable research experience) in a relevant discipline. UK/EU applicants only.

Send your CV and a cover letter explaining your interest in the topic and demonstrating how your skills make you suitable for this project (max. 2 A4-pages, font Arial 11 or equivalent, space 1.5) to G.D.Weedall@ljmu.ac.uk. Deadline for initial applications is September 1st 2020. This is a two-stage process: the selected candidate will then be invited on the 5th of September to prepare the final proposal in collaboration with the LJMU supervisory team.

More information on the call can be found here: <https://www.ljmu.ac.uk/about-us/news/articles/-2020/7/28/ljmu-vc-phd-scholarships>. If you have any questions, contact G.D.Weedall@ljmu.ac.uk.

You can find more information about the supervisory team in the following links: <https://www.ljmu.ac.uk/about-us/staff-profiles/faculty-of-science/school-of-biological-and-environmental-sciences/gareth-weedall> <https://www.ljmu.ac.uk/about-us/staff-profiles/faculty-of-science/school-of-biological-and-environmental-sciences/richard-brown> <https://www.ljmu.ac.uk/about-us/staff-profiles/faculty-of-science/school-of-biological-and-environmental-sciences/fatima-perez-de-heredia-benedicte> <https://www.ljmu.ac.uk/about-us/staff-profiles/faculty-of-science/school-of-biological-and-environmental-sciences/serge-wich> “Brown, Richard” <R.P.Brown@ljmu.ac.uk>

<https://www.ljmu.ac.uk/about-us/staff-profiles/faculty-of-science/school-of-biological-and-environmental-sciences/mirko-pegoraro> Dr Susanne Zajitschek

<https://www.ljmu.ac.uk/about-us/staff-profiles/faculty-of-science/school-of-biological-and-environmental-sciences/susanne-zajitschek> Dr Gareth Weedall

<https://www.ljmu.ac.uk/about-us/staff-profiles/faculty-of-science/school-of-biological-and-environmental-sciences/gareth-weedall> Prof Charalambos P. Kyriacou

<https://www2.le.ac.uk/departments/genetics/people/kyriacou> “Zajitschek, Susanne” <S.R.Zajitschek@ljmu.ac.uk>

LiverpoolJohnMooresU FlyGutMicrobiota

Applications are invited for a fully funded PhD on seasonal adaptation of flies gut microbiota based at Liverpool John Moores University.

Supervisors: Dr Mirko Pegoraro, Dr Susanne Zajitschek, Dr Gareth Weedall and Prof Charalambos P. Kyriacou (University of Leicester).

Brief description of the PhD project: Seasonal changes in the fly gut microbiota. This project will involve investigating the role of *Drosophila melanogaster* gut microbiota in the flies' seasonal response using molecular biology experiments, behavioural essays and fitness tests.

Criteria: a good BSc and MSc in a relevant area. UK/EU citizens only.

Desirable: knowledge of R, publication (accepted, in press, under review or submitted).

Deadline for initial applications: 4th September 2020, midnight.

Please email a cover letter and CV to Dr Mirko Pegoraro (m.pegoraro@ljmu.ac.uk) . The cover letter should be a maximum of 2 sides of A4 and also explain your interest in the topic and demonstrate your skill set relevant to the post. Please include also contacts details of 2 references. This is a two-part process and the selected application will be invited to apply for a second assessment round with a mid-September deadline.

Staff research profiles can be viewed here:

Dr Mirko Pegoraro

Liverpool LJMU EvolutionAgonisticSignalling

To live together, animals must communicate, and so to understand social groups, we need to understand communication. How the receiver of a signal reacts depends on the signal content, the characteristics of the signaller, and the context in which the communication takes place. We will be using realistic computer-generated stimuli to control and manipulate all of these aspects of signal production in order to investigate how animals respond to social signals at behavioural, neural, and hormonal levels. Our study system is the highly social daffodil cichlid fish (*Neolamprologus pulcher*), which has a fascinatingly complex social behaviour and signalling repertoire.

I am looking for students with excellent CVs (first class degree and/or distinction at Masters level, plus relevant experience and/or publication success in peer reviewed journals) to apply for a competitive 3 year doctoral scholarship in the school of Biological and Environmental Sciences at Liverpool John Moores University (<https://www.ljmu.ac.uk/research/phd-scholarships>).

We will make use of an established daffodil cichlid breeding colony at LJMU. Social behaviours can be scored using both live observations and high definition video recordings. We plan to use 3D scanning and computer animation to produce highly realistic artificial stimuli which can vary in phenotype and can be programmed to display a variety of signalling behaviour. We intend to measure the response to these stimuli using detailed behavioural analysis, hormone measurements, and immediate early gene responses to quantify neural activation. This is a highly integrative project which will combine functional analysis of behaviour with measurements of

proximate mechanisms while making use of computer generated stimuli.

Preferred candidate characteristics include a keen interest in animal social behaviour; experience studying behaviour in the laboratory; strong writing and analytical skills; knowledge of experimental design and statistical analysis. Previous experience with one or more of the following: behaviour coding, hormone analysis, immunohistochemistry, 3D modeling and computer animation would be highly valuable. Previous experience working with fish is desirable but not essential. UK/EU nationals only.

Please apply by email to a.r.reddon@ljmu.ac.uk with a CV, a brief statement outlining your interest, and the names and contact information for two references. Please feel free to email me with any questions.

Due date: Aug 31, 2020

Adam R. Reddon, Ph.D. Lecturer in Behavioural Ecology School of Biological and Environmental Sciences Liverpool John Moores University Room 346, James Parsons Building t: +44 (0)151 231 2034 www.adamreddon.ca "Reddon, Adam" <A.R.Reddon@ljmu.ac.uk>

Liverpool LJMU EvolutionCognitionSociality

Living in a group requires a set of advanced cognitive skills, such as recognizing individuals, understanding social rank and modulating behaviour to the social context. For this reason, it has been proposed that sociality has driven the evolution of cognition in many taxa, including humans (the social brain hypothesis). We will investigate the role of sociality on the evolution of cognitive abilities using *Lamprologine* cichlid fishes. Our study system consists of several closely related cichlid species that have evolved highly distinct social systems in independent evolutionary events. The Ph.D. candidate will compare these species in a battery of cognitive tasks and use phylogenetically controlled methods to assess associations between social system and interspecific variation in cognition. In addition, the molecular mechanisms underpinning observed differences will be investigated by quantifying neural activation via immediate early gene expression and using immunohistochemistry and qPCR. The project will be primarily based at Liverpool John Moores University in the UK but may require research

periods at the University of Ferrara, Italy.

We are looking for students with excellent CVs (first class degree and/or distinction at Masters level, plus relevant experience and/or publication success in peer reviewed journals) to apply for a competitive 3 year doctoral scholarship in the school of Biological and Environmental Sciences at Liverpool John Moores University (<https://www.ljmu.ac.uk/research/phd-scholarships>).

Preferred candidate characteristics include a keen interest in animal behaviour and evolution; experience studying behaviour in the laboratory; strong writing and analytical skills; knowledge of experimental design and statistical analysis. Previous experience with one or more of the following: behavioural testing, immunohistochemistry, RNA extraction, qPCR would be highly valuable. Previous experience working with fish is desirable but not essential. UK/EU nationals only.

Please apply by email to a.r.reddon@ljmu.ac.uk and tyrone.luconxiccato@unife.it with a CV, a brief statement outlining your interest, and the names and contact information for two references. Deadline for application: August 31 2020. Please feel free to email us with any questions.

Adam R. Reddon, Ph.D. Lecturer in Behavioural Ecology School of Biological and Environmental Sciences Liverpool John Moores University Room 346, James Parsons Building t: +44 (0)151 231 2034 www.adamreddon.ca "A.R.Reddon@ljmu.ac.uk" <A.R.Reddon@ljmu.ac.uk>

MaxPlanck EvolutionFacialVariability

PhD position

Craniofacial development and evolutionary aspects of intra- and interspecies facial variability.

We are seeking a highly motivated candidate with an interest in craniofacial development and evolutionary aspects of facial variability, to join our group at the Max Planck Institute for Evolutionary Biology.

Our research is focused on the early stages of head formation and we combine inter-disciplinary approaches and different vertebrate models. Specifically, we utilize single-cell transcriptomics and genomics, high-resolution and whole-mount imaging, multiplex in situ hybridization, micro-computed tomography and 3D reconstruction

tions, genetic tracing, tissue-specific gene modifications and a spectrum of in vivo & in vitro methods to reveal the genetic, cellular and molecular basis of vertebrate head development. Our goal is to characterize cell types participating in the early head morphogenesis and dissect their interactions on a cellular and molecular level. We are particularly interested in the evolutionarily conserved link between the development of the nervous system and the skull. By investigating the signals originating from the emerging nervous tissues, we aim to elucidate the mechanisms of cartilage and bone induction, growth, and shaping across different vertebrate species. Our main research models are mouse, chicken, zebrafish, and *Xenopus*.

The applicant is expected to have a deep knowledge of the research in fields of (including but not limited to) developmental and molecular biology. Prior experience working with the above-mentioned animal models is beneficial but not essential. Knowledge and experience with bioinformatics analysis of single-cell sequencing data are beneficial. A Master of Science degree or a Diploma as well as a strong interest in EvoDevo biology are prerequisites for joining our group. We offer international, stimulating and collaborative environment, access to state-of-the-art equipment and further professional development. Applicants with a strong motivation for a career in science, outstanding bench and organizational skills, and excellent written and verbal English communication skills are welcome to apply.

The position is open from 01.01.2021. Candidates should send their CV, motivation letter, along with the names of at least two references to kaucka@evolbio.mpg.de. Deadline for applications is 1st of October 2020.

For more details on the institute, research group and the university, please, see: <https://www.evolbio.mpg.de/2169/en> <https://www.evolbio.mpg.de/CraniofacialBiology> <https://www.studium.uni-kiel.de/de> The Max Planck Society has set itself the goal of employing more severely disabled people. Applications from severely disabled people are expressly welcome. In addition, the Max Planck Society strives for gender equality and diversity. We welcome applications from any background. The Max Planck Institute for Evolutionary Biology in Plön (Schleswig-Holstein) consists of three departments: Evolutionary Genetics, Evolutionary Theory, and Microbial Population Biology. It is focused on basic research to unravel general evolutionary processes, such as ecological adaptations, benefits of sexual reproduction, or evolution of cooperation. The scope of the work includes ecological, organismic, molecular, and theoretical approaches

Marketa Kaucka <kaucka@evolbio.mpg.de>

OsnabrueckU SoilBacteriaEvolution

*** Two Research Assistants (m/f/d) (Pay scale E 13 TV-L, 65%) ***

The Department of Ecology at the School of Biology/Chemistry at the University of Osnabrück (Germany) is seeking to appoint 2 Research Assistants to commence work at the earliest possible date.

This is a temporary, three-year position.

Your Duties:

- Participate in the DFG-funded research project: “Testing the black queen hypothesis in communities of soil-living bacteria”
- Perform large-scale coculture experiments to test hypotheses regarding the ecology and evolution of metabolic cross-feeding interactions in soil microbial communities
- Use state-of-the-art microscopic techniques and microfluidic devices
- Characterize and analyze the exo-metabolome of bacterial cells using LC/MS/MS
- Generate and characterize bacterial mutants
- Handle and analyze large data sets (16S rRNA, genome sequences, statistics)
- Work together with other group members and collaboration partners (e.g. metabolic modelling, population dynamics models, individual-based models)
- Opportunity to work towards a PhD

Requirements:

- Completed degree (M.Sc.) in biology or a related field
- Practical experience in microbiological techniques and molecular biological methods
- Excellent command in written and spoken English
- Strong motivation and curiosity
- Ability to work in an interdisciplinary team
- Structured and independent way of working

Additional Qualifications:

- An excellent university degree
- Creative way of working
- Sound knowledge of ecological and evolutionary theory
- Practical experience in the application of microscopic techniques (microfluidics, FISH-labelling)
- Practical experience in the generation, analysis, and handling of large data sets (16S rRNA sequencing, whole genome sequencing)
- In-depth knowledge of quantitative methods (qPCR) and tools of statistical analysis
- Ability to develop and analyze theoretical models (metabolic modelling, population dynamics, individual-based models) is an asset
- Scientific publication(s) in peer-reviewed international journal(s)

We offer:

- An exciting and highly topical research project
- Collaboration in an interdisciplinary and international research team
- Participation in the excellent graduate education programs at the University of Osnabrück (ZePrOS, EvoCell graduate school)
- Use of the state-of-the-art research infrastructure at the School of Biology/ Chemistry (e.g. CellNanOs)
- Live and work in the vibrant city of Osnabrück

Osnabrück University is a certified family-friendly university and is committed to helping working/studying parents balance their family and working lives.

Osnabrück University seeks to guarantee equality of opportunity for women and men and strives to correct any gender imbalance in its schools and departments.

If two candidates are equally qualified, preference will be given to the candidate with disability status.

Please submit your application (including a letter of motivation, CV, publication list, copies of certificates, as well as names and contact details of 3 referees) to arrive by September 9, 2020 as one PDF file via email (Code: "ÄBH" to the Dean of the School of Biology/ Chemistry (Email: bewerb-bio@uni-osnabrueck.de). We are very much looking forward to receiving your application.

For further information regarding this vacancy, please contact Prof. Dr. Christian Kost:

Email: christiankost@gmail.com

Homepage: www.kostlab.com Christian Kost
<christiankost@gmail.com>

SGN Frankfurt Evolutionary Genomics

The Senckenberg Gesellschaft für Naturforschung (SGN) is a member of the Leibniz Association and is based in Frankfurt am Main, Germany. LOEWE Centre for Translational Biodiversity Genomics (LOEWE-TBG) is a joint venture of the Senckenberg Gesellschaft für Naturforschung (SGN), Goethe-University Frankfurt, Justus-Liebig-University Giessen and Fraunhofer Institute for Molecular Biology and Applied Ecology IME aiming to intensify biodiversity genomics in basic and applied research. We will establish a new and taxonomically broad genome collection to study genomic and functional diversity across the tree of life and make genomic resources accessible for societal-demand driven applied research.

The Senckenberg Gesellschaft für Naturforschung and the LOEWE-TBG invite applications for a PhD Position (m/f/d) - Evolutionary genomics of mobile DNA (part time 50%)

Your tasks:

§Comparative genomic analysis of mobile DNA in non-model organisms, with a focus on invertebrates

§Evolutionary inference of mobile DNA to study dynamics, phylogeny, and/or mode of transmission

§Phylogenomic analysis of whole genome data using state of the art methodology

Your profile:

§A master degree in the fields of biology, evolution or bioinformatics

§Preferred experience with genome assemblies, bioinformatics and basic scripting languages (bash, perl and/or python)

§Interest in mobile DNA and its genomic influences

§Experience and exceptional interest in comparative genomics, evolutionary biology research and phylogenomics

§Teamwork oriented and excellent communication skills in written and spoken English, you also work independently and meet deadlines

What is awaiting you?

§Become part of a dynamic team of researchers in an

international research group and join the new LOEWE excellence centre with its 20 new research groups.

§Access to unpublished genomes from exotic animal phyla.

§The possibility to create a network with scientists in interdisciplinary fields in translational biodiversity genomics.

Salary and benefits are according to a part time public service position in Germany (TV-H E13, 50%). The contract should start as soon as possible and will initially limited for 36 months. The place of employment is in Frankfurt am Main, Germany. The employer is the Senckenberg Gesellschaft für Naturforschung. Equally qualified handicapped applicants will be given preference.

Please send your application, mentioning the reference of this job offer (ref. #12-20017) before 7th September, 2020 by e-mail (attachment in a single pdf document) and including a cover letter detailing research interests and experience, a detailed CV and a copy of your certification to:

Senckenberg Gesellschaft für Naturforschung

Senckenberganlage 25

60325 Frankfurt am Main

E-Mail: recruiting@senckenberg.de

For more information please contact Prof. Dr. Axel Janke (axel.janke@senckenberg.de).

Mit freundlichen Grüßen /Best Regards

Maria di Biase Personalsachbearbeiterin

SENCKENBERG

Gesellschaft für Naturforschung (Rechtsfähiger Verein gemäß § 22 BGB) Senckenberganlage 25 60325 Frankfurt am Main Besucheradresse: Mertonstraße 17-21, 60325 Frankfurt am Main (1. OG)

Telefon/Phone: 0049 (0)69 / 7542 -

Leiterin Personal & Soziales - 1458 Loke, Uta

Stellv. Leiterin Personal & Soziales - 1319 Elsen, Carina

Team Personalbeschaffung (Recruiting) - 1564 di-Biase, Maria - 1313 Helm, Jessica

- 1478 Gajcevic, Isabel

Fax: 0049 (0)69 / 7542-1445 Mail: recruiting@senckenberg.de

Direktorium: Prof. Dr. Dr. h.c. Volker Mosbrugger, Prof. Dr. Andreas Mulch, Stephanie Schwedhelm, Prof. Dr. Katrin Böhning-Gaese, Prof. Dr. Karsten Wesche

Präsidentin: Dr. h. c. Beate Heraeus Aufsichtsbehörde: Magistrat der Stadt Frankfurt am Main (Ordnungsamt) Mitglied der Leibniz-Gemeinschaft Vernetzen Sie sich mit uns: www.senckenberg.de/socialmedia recruiting <recruiting@senckenberg.de>

Taiwan

AvianEvolutionMatingSystems

PhD position on the breeding ecology and evolution of mating systems in shorebirds in Taiwan

Mating systems can influence sexual selection, parental behaviour, and other social behaviours in wild animals. Despite many studies investigating the causes and consequences of several common mating systems such as polygamy and monogamy (with or without extra-pair mating), our understanding on polyandry remains limited. The diverse mating systems in shorebirds make them an ideal system to study the causes and consequences of sex-role reversal in polyandry. The objective of this studentship is to investigate these fundamental issues by means of fieldwork and population genetics on breeding shorebirds in Taiwan.

WHAT:

We seek one bright and highly motivated student with strong interests in evolutionary ecology and behavioural ecology. The successful candidate is expected to conduct extensive fieldwork in residential areas, so strong willingness to conduct fieldwork and good communication ability with residents are essential. This student will search for nests, trap and ring birds, take blood samples and record their behaviours. In addition, this student will use molecular methods to reconstruct the pedigree of avian population(s). Previous experience with avian field biology and the ability to work independently is important.

The successful candidate will be co-supervised by Yu-Hsun Hsu and Tamás Székely. Both supervisors share their research interests on the evolution of avian mating systems. Professor Tamás Székely is one of the core members of the *ÁLVONAL SHROEBIRD SCIENCE*. By participating in this PhD project, the successful candidate may have the opportunity to meet and collaborate with other shorebird ornithologists.

WHERE:

This student will be based in the Department of Life Sciences in National Cheng Kung University (NCKU)

(<https://www.bio.ncku.edu.tw/english>). Full funding is available by the *ÁLVONAL SHOREBIRD SCIENCE* to cover the fieldwork, attending conferences and visiting Tamás Székely in the University of Bath, UK. Scholarship for the first year will be provided by NCKU. The amount of scholarship may increase by Yu-Hsun Hsu's grant funding for the second year onwards depending on your performance.

To apply, please send your CV, the name of two referees, and a concise statement of your research interests, the transcripts of your BSc and MSc as a single PDF file to yuhsunhsu@mail.ncku.edu.tw. All documents should be in English. The deadline of application is 15th September 2020. A double interviews with both Yu-Hsun Hsu and Tamás Székely will be held soon thereafter. After the interviews, the successful candidate will need to go through the official application process in NCKU before 10th October 2020. For further information concerning this position, please contact Yu-Hsun Hsu (yuhsunhsu@mail.ncku.edu.tw).

Websites with related information:

Yu-Hsun Hsu: <https://sites.google.com/site/yuhsunhsu/> Hsu, Y.-H.. The consequences of infidelity in non-human animals. In: **Handbook of Infidelity**. Expected in 2020. Edited by T. Shackelford & T. DeLece. Oxford University Press. Invited review. **Accepted**.

Hsu, Y.-H., R. B. Cocroft, R. L. Snyder & C.-P. Lin. 2018. You stay, but I hop: Host-shifting near and far co-dominated the evolution of **Enchenopa** treehoppers. **Ecology and Evolution** 8(4): 1954-1965.

Hsu, Y.-H., J. Schroeder, I. Winney, T. Burke & S. Nakagawa. 2015. Are extra-pair males different from cuckolded males? A case study and a meta-analytic examination. **Molecular Ecology** 24(7): 1558-71

Tamás Székely: <https://researchportal.bath.ac.uk/en/persons/tamas-szekely> Kubelka, V., M. Áálek, P. Tomkovich, Zs. Végvári, R. Freckleton & T. Székely. 2018. Global pattern of nest predation is disrupted by climate change in shorebirds. **Science** 362: 680-683.

Eberhart-Phillips, L. J., C. Küpper, M. C. Carmona-Isunza, O. Vincze, S. Zefania, M. Cruz-López, A. Kosztolányi, T. E. Miller, Z. Barta, I. C. Cuthill, T. Burke, T. Székely, J. I. Hoffman & O. Krüger. 2018. Demographic causes of adult sex ratio variation and their consequences for parental cooperation. **Nature Communications** 9:1651

Pipoly, I., V. Bókony, M. Kirkpatrick, P. F. Donald, T. Székely & A. Liker. 2015. The genetic sex-determination system predicts adult sex ratios in tetrapods. **Nature**

527: 91 - 94.

ÁLVONAL SHROEBIRD SCIENCE: <https://elvonashorebirds.com> Department of Life Sciences in NCKU: <https://www.bio.ncku.edu.tw> -

Yu-Hsun Hsu PhD. Assistant Professor Department of Life Sciences National Cheng Kung University, Taiwan
Email: yuhsunhsu@mail.ncku.edu.tw

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This message has been arbitrarily truncated at 5000 characters. To read the entire message look it up at <http://life.biology-mcmaster.ca/~brian/evoldir.html>

TiHo Hannover AposematismEvolution

PHD ON APOSEMATISM EVOLUTION - TiHo Hannover

ABOUT THE PROJECT

Aposematism is the association of conspicuous coloration with chemical defenses. Although present in several taxa, its evolution is challenging because it must enhance individuals' fitness, but, chemical defenses are costly, and conspicuousness increases predation risk. In the Pröhl group, at the University of Veterinary Medicine Hannover, we investigate the evolution of aposematism, using poison frogs as a model, and with a focus on how their chemical defenses influence their behavior. Aiming to determine the relationship between dietary drugs, behavior, and conspicuous coloration in the aposematism of poison frogs, in this project you could make use of techniques such as: GC-MS, analysis of micro- and macronutrients, behavioral assays, whole-brain fluorescent imaging (iDISCO), gene expression (qPCR, RNA-Seq and scRNA-Seq), DNA methylation analysis, target enrichment sequencing, coloration spectrometry and pattern analysis. Although we already have an idea of the experiments, these are flexible and might change according to your interests and own ideas.

APPLICATION

After considering the recommendations listed below, send CV, motivation letter, and 1 or 2 letters of recommendations to eugenia.sanchez@tiho-hannover.de with the subject 'Doktorand 2021'. The deadline is 30. of September, and we will contact you for an interview in early October 2020.

- Make sure your CV contains the following sections:

Education: bachelor and/or master degree, including major, specialization or elective courses

Continuing education: list any course or workshop, and the hours of each

Grants and fellowships: include also prices here.

Research and field experience: add projects, techniques, countries visited, or organisms you have worked with

Languages: include the level of human (A1-C2) and programming languages (R, python, bash, C, etc.)

Research interests: in an ideal world, what would you like to work with or research?

Other: write information that you consider relevant.

DO NOT INCLUDE: biasing information such as pictures, sex, gender, religion, nationality, age, etc.

- In the Motivation letter try to answer: Why are you interested in making a PhD? What are your personal and professional expectations? How do you see yourself in 5 years?

- For the recommendation letters, please, ask contacts to send them separately to the same email address with the subject 'Doktorand: [YOUR NAME]', and to try to answer: How long and from which context do you know the applicant? Whereby does the applicant stand out? How do you assess the applicant's potential? How would a Ph.D. on 'Aposematism evolution' impact the academic or professional growth of the applicant? Is there any additional information you would like us to consider?

"Sanchez, Eugenia" <Eugenia.Sanchez@tiho-hannover.de>

UExeter SocialCognitionCoevolution

Leverhulme-funded PhD Opportunity, University of Exeter (Penryn Campus), UK.

Co-evolution of social relationships and cognition: a theoretical investigation

Supervisors: Sasha Dall & Alex Thornton, Centre for Ecology and Conservation, University of Exeter, Penryn Campus, Cornwall

We are looking for an enthusiastic, analytically-minded

student to join us in beautiful Cornwall.

Full details of how to apply are here: <http://www.exeter.ac.uk/studying/funding/award/?id933>

Project Description Relationships can be hard work. Indeed, the challenges of maintaining social relationships are widely thought to drive the evolution of large brains and intelligence in humans and other animals such as primates, cetaceans and corvids. This idea, known as the Social Intelligence Hypothesis, has been hugely influential in biology, psychology and anthropology for over 50 years. However, it remains highly controversial and lacks predictive power, largely because it is based on verbal arguments rather than formal models with explicit assumptions. In this PhD, part of the Leverhulme-funded project "The role of social relationships in cognitive evolution" you will develop a novel theoretical framework to analyse whether and under what circumstances social relationships generate cognitive demands and how those demands in turn influence social evolution.

By integrating game theoretical approaches with recent advances in the ecology of information use, you will develop mathematical and/or computational models to analyse the implications of evolutionary costs and benefits of tracking information from social partners to make decisions across differing social and ecological conditions. These models will generate explicit predictions of whether and under what circumstances social relationships generate cognitive demands for monitoring and responding to partner behaviour, and how those demands in turn influence social evolution. Predictions from the models will be tested using data from co-supervisor Alex Thornton's long-term field studies of wild corvids and meta-analyses of published data.

The successful candidate will be supervised by Dr Sasha Dall and Dr Alex Thornton at the lively research environment of the Centre for Ecology and Conservation, at the University of Exeter's Penryn Campus in Cornwall. Prof. John McNamara FRS (Mathematics: University of Bristol) will be involved with the project as an external partner. You will be an active member of both Thornton's Wild Cognition Research Group, and the wider Behaviour Discussion Group, one of the largest concentration of behavioural biologists in the world.

This award provides annual funding to cover UK/EU tuition fees and a tax-free stipend. For students who pay UK/EU tuition fees the award will cover the tuition fees in full, plus at least 15,285 per year tax-free stipend. Students who pay international tuition fees are eligible to apply, but should note that the award will only provide payment for part of the international tuition fee and no stipend.

Entry requirements Applicants for this studentship must have obtained, or be about to obtain, a First or Upper Second Class UK Honours degree, or the equivalent qualifications gained outside the UK, in an appropriate area of science or technology (e.g. biology, psychology, mathematics, computer science). A Master's degree in a related area is desirable.

Applicants must have strong mathematical and/or computational skills and research interests in the evolution of cognition and behaviour. Experience of theoretical modelling would be a strong advantage.

If English is not your first language you will need to have achieved at least 6.5 in IELTS and no less than 6.0 in any section by the start of the project. Alternative tests may be acceptable (see <http://www.exeter.ac.uk/postgraduate/apply/english/>).

www.wildcognitionresearch.com

www.culturalminds.co.uk Dr Alex Thornton Associate Professor of Cognitive Evolution Centre for Ecology and Conservation University of Exeter, Penryn Campus Cornwall, TR10 9FE, U.K.

Tel: +44 (0)1326 255081

“Thornton, Alex” <alex.thornton@exeter.ac.uk>

UMississippi CrayfishConservationGenetics

The Garrick lab at U. Mississippi is currently recruiting graduate students for Spring or Fall 2021. The lab has interests in understanding evolutionary processes that generate, maintain, or compromise diversity within and among species, and an opening exists for an early career researcher to contribute to a conservation genetics project focusing on threatened crayfish species from the southeastern US. This initiative has collaborative support and funding from the USDA Forest Service.

Students with interests in population genetics, molecular phylogenetics, freshwater ecology, morphometrics, species distribution modelling and/or applied conservation biology are encouraged to contact Ryan Garrick (email: rgarrick@olemiss.edu, lab website: rcgarrick.org).

The U. Mississippi Department of Biology deadline for receipt of graduate student applications is 1st October 2020 for a Spring 2021 start, or 1st February for Fall 2021 start (<https://biology.olemiss.edu/programs/graduate/>-

[application-procedure](#)), but initial conversations should start now to allow planning for supplementary fellowships.

Ryan Garrick Department of Biology 508 Shoemaker Hall University of Mississippi University, MS 38677-1848, USA

webpage: <http://www.rcgarrick.org> “rgarrick@olemiss.edu” <rgarrick@olemiss.edu>

UNorthDakota WildlifeGenomicsPaleoecology

Wildlife Genomics and Paleoecology

U. North Dakota. WildlifeGenomicsPaleoecology.

The Laboratory of Evolutionary and Forensic Genetics at the University of North Dakota (www.und.edu) is inviting applications from highly motivated students who pursue a PhD degree. MS candidates will be also considered.

Students will be engaged in a project on the historic, current and future status of bison herds from biological, archaeological, and cultural perspectives. This cross-disciplinary project represents an opportunity to get intensive training in the methods of ancient and modern DNA analyses including high-throughput genome sequencing, stable isotope studies, computational analysis and statistical modelling. The examples of our recent publications: Ovchinnikov et al. Diversity and Origin of the Feral Horses in Theodore Roosevelt National Park. PLoS One, 2018, 13(8); Davies et al. Isotopic Paleoecology of Northern Great Plains Bison during the Holocene. Scientific Reports, 2019, 9(1): 16637. Although the wildlife project is focused on bison genetics and paleoecology, we have opportunities to develop new projects on computational analysis of big oral and environmental microbiome data as well as on genomics and microbiome study of human migrations and evolution.

Candidates should demonstrate motivation for hard laboratory work and strong interest in genomics and computational biology. Preference will be given to candidates with a proven record of computational analysis and bioinformatics skills. Additional experience in sequencing technologies is a plus.

If you are interested, you need to apply to the University of North Dakota Biology Graduate Program using the regular procedure. Requirements and How to Apply

procedure can be found in the UND Biology Graduate School websites:

<https://und.edu/programs/biology-phd/-requirements.html> <https://und.edu/admissions/-graduate/apply.html> The additional information can be also found in the Biology Department website:

<https://arts-sciences.und.edu/academics/biology/> The position starts in January 2021. To receive full consideration, the Biology Graduate Program needs to receive your application and required materials by September 15, 2020 for priority consideration but not later than October 15, 2020.

Potential graduate students are also encouraged to make contact with Dr. Igor Ovchinnikov.

Contact information:

Dr. Igor Ovchinnikov Associate Professor Lab. of Evolutionary and Forensic Genetics Department of Biology Forensic Science Program University of North Dakota

Email: igor.ovtchinnikov@und.edu

“Ovtchinnikov, Igor” <igor.ovtchinnikov@und.edu>

USouthernMississippi OysterDomesticationGenomics

A graduate student position is available in our laboratory to conduct studies of domestication and breeding of eastern oyster in the Gulf of Mexico as part of the Gulf of Mexico Oyster Genetics and Breeding Research Consortium.

The successful applicant will be provided a 12-month full-time Research Assistantship with a tuition waiver. Candidates should possess a Bachelor’s degree in a relevant field (e.g. Biology, Ecology& evolutionary biology, Fisheries science) when applying for this position. Bioinformatics skills and experience with molecular techniques are assets. The position is available starting in spring 2021.

Interested individuals should email a CV, GRE scores if available, and unofficial transcripts to:

Eric Saillant, Ph.D Associate Professor

The University of Southern Mississippi School of Ocean Science and Technology

Thad Cochran Marine Aquaculture Center 103 McIlwain Drive Ocean Springs, MS, 39564 Tel. (1) 228-818-8007

Fax (1) 228-872-4204 E-mail: eric.saillant@usm.edu

Eric Saillant <Eric.Saillant@usm.edu>

USouthFlorida AdaptationDynamics

Graduate positions in Evolutionary Genomics

University of South Florida

The Margres Lab in the Department of Integrative Biology at the University of South Florida is looking for highly motivated graduate students (M.S. and Ph.D.) to study adaptation dynamics in two co-evolving systems: (1) Tasmanian devils and a species-specific transmissible cancer, and (2) venomous snakes and their prey. We use a combination of field work, ’omics, and bioinformatic approaches in both systems to answer fundamental questions in evolutionary biology related to adaptation, the genotype-phenotype relationship, and coevolution.

Candidates should have a background in ecology, evolution, genetics and/or bioinformatics and be an independent learner with a strong work ethic. Familiarity with R, Linux/Unix, computing clusters, and the use of bioinformatic tools would be advantageous, but prospective students interested in establishing these skillsets are also encouraged to apply. Candidates should also have strong lab and interpersonal skills allowing them to work well in a laboratory setting and in a group. The Margres lab is committed to increasing diversity in STEM, and we encourage applications from underrepresented groups.

Interested applicants should contact Dr. Margres directly at margres@usf.edu. The desired start date is Fall 2021. Applications for domestic students are open 11/30/2020 through 2/15/2021. Applications for international students are due 11/30/2020. Please contact Dr. Margres no later than 11/1/2020 if interested. See here for more details: <https://www.usf.edu/arts-sciences/-departments/ib/graduate/how-to-apply.aspx> Mark J. Margres, Ph.D. Assistant Professor Department of Integrative Biology University of South Florida, Tampa (813)-974-4576

margreslab.com

“Margres, Mark” <margres@usf.edu>

UTexasAM PopulationGenomic- AquaticInvertebrates

Ph.D. Position - Population Genomics of Aquatic Invertebrates

A Ph.D. assistantship is available in the Hogan Lab at Texas A&M University - Corpus Christi (TAMUCC). The student will join an NSF Macrosystems-funded project to study population genomics of wetlands invertebrates. The project is using reduced representation genome sequencing (RADseq) to assess patterns of genetic diversity and gene flow among invertebrate populations across the central United States by wind driven processes and animal vectors (birds) as well as determining genome-by-environment correlations. The Ph.D. student will join a team of researchers that includes Dr. Jim Thorp (University of Kansas), Dr. Kevin McCluney (Bowling Green State University), and Dr. Chris Patrick (Virginia Institute of Marine Science), and others.

The student will lead field work in Texas to sample temporary wetlands ecosystems for invertebrates, as well as contribute to the maintenance of mesocosm experiments at TAMUCC. The student will develop population genomic datasets from spatial and temporal samples from five study populations, including patterns of diversity and signatures of selection, and genetic drift. Extensive opportunities for collaboration across the multi-institutional team, including within the HoBi Lab and Marine Genomics Lab at TAMUCC.

The position is ideally suited to researchers with a background in wetlands ecology, population genomics, or population and community ecology. No specific experience in wetlands ecology is required. Experience with genetic techniques and the analysis of population genetic datasets is highly sought after, including experience with DNA extraction, gel electrophoresis, PCR, RAD library preparation, RADseq analysis pipelines, analysis of population genetics data, and database management. Applicants with evidence of productivity, strong oral and written communication abilities, and enthusiasm

are especially encouraged to apply. The successful applicant will be an independent, motivated person who communicates well and enjoys working in a collaborative team.

****Assistantship details**** The Ph.D. assistantship in TAMUCC's Marine Biology (MARB) program will begin in Spring or Summer 2021 (exact start date is negotiable). Partial RA funds and tuition support are available. Competitive assistantships are also available through the MARB program that cover salary and benefits. Assistantship includes health insurance and other benefits. Teaching Assistantships are also available. Funding for conference travel is available. Applicants ideally will have an MS degree prior to starting.

****Application process**** Review of applications will begin immediately and will continue until the position is filled. Interested candidates should email Dr. J. Derek Hogan (james.hogan@tamucc.edu). In your email please include: 1) a one-page cover letter describing your interest in the position and your relevant skills you possess. The letter must address your experience in population genetics; 2) a CV including education history, publications, conference presentations and grant/scholarship funding; and 3) the names and contact information for three scientists familiar with your research work.

****Texas A&M University - Corpus Christi**** TAMUCC is located in Texas' coastal bend on the Gulf of Mexico. TAMUCC has recently been ranked as a tier 2 research university by the Carnegie Classification of Institutions of Higher Education. The Marine Biology program is the largest Ph.D. program on campus and consists of approximately 30 research faculty and 50 graduate students engaged in research in marine, estuarine, freshwater, and terrestrial research in the fields of ecosystem, community, and population ecology, evolutionary biology, biogeography, microbial ecology, developmental genetics, restoration ecology, and biomedical research. Corpus Christi is known for an active outdoor life-style including wind surfing, sailing, sea kayaking, and salt-water fishing. The city is 2.5 hours from San Antonio, and 4 hours from cultural centers including Houston and Austin Texas.

J. Derek Hogan Associate Professor Department of Life Sciences Texas A&M University - Corpus Christi Corpus Christi, Texas, 78412 USA james.hogan@tamucc.edu

"Hogan, James" <James.Hogan@tamucc.edu>

Jobs

Egham UK BiodiversityBioinformatics	27	UAmsterdam EvolutionBehaviour	38
EmbarkVeterinaryInc DogGenomics	28	UBath MicrobiologyEvolution	39
EMBL Bioinformatics	29	UCalifornia LosAngeles ConservationGenomics LabTech	39
EmporiaStateU FishEvolution	30	UCincinnati TeachingEvolution	39
Ewha Korea PlantSystematicsEcology	31	UIC Chicago EcoEvoDevo	40
Harvard AncientDNA Bioinformatics	31	UIllinois Chicago GeneEnvironment	41
IndianaU BioinformaticAnalyst	32	UmeaU Sweden EvolutionaryBiology	42
JohnInnesCentre UK ResAssist PlantEvolution	33	UMuenster TheoreticalEvolutionaryBiology	42
MortonArboretum USA BiologicalIntegration	34	UVirginia ResTech HostParasiteEvolution	43
Museum Illinois STEMEducation	35	WestChesterU AquaticEvolutionaryBiol	44
NHM Vienna Bioinformatician	36	Wyoming Bioinformatics	45
StMarysC Maryland EvolutionaryBiology	36		
Surrey UK BiodiversityMonitoring	37		

Egham UK BiodiversityBioinformatics

Location: Egham, Surrey Salary: pounds 40,000+ per annum, depending on experience Start: Immediately Duration: Permanent

Applications are invited for an Ecological Data Scientist to join an expanding science-based start-up. The successful candidate will work closely with the bioinformatics and science teams to develop new ways of analysing and visualising the big biodiversity data generated by the company. Providing customers with state-of-the-art visualisation and decision-making tools will be key tasks for the successful applicant. NatureMetrics works with major corporates, NGOs and governments around the world to improve Environmental Impact Assessment in high impact industry and monitor conservation and restoration projects.

Applicants should have significant experience with ecological data science and statistics. Evidence of advanced data visualisation for biodiversity data is required, as is one or more of computational ecology, big data analytics, data mining, machine learning, or advanced ecological statistics. The successful applicant will be a proactive problem-solver with a high level of attention to detail and excellent oral and written communication skills adaptable for a range of target audiences.

The successful applicant will be comfortable working independently and as part of a wider team. They will be required to take a leadership role in the evolution of the data analysis services provide by the company.

NatureMetrics is a high-growth start-up company leading the revolution in molecular biodiversity monitoring, enabling environmental managers to measure and monitor biodiversity with DNA-based tools. We have grown steadily for four years and are now expanding following a recent investment raise. We are a team of bright, enthusiastic individuals who are excited to be breaking new ground and disrupting the world of biodiversity monitoring. We take great pride in our work and are seeking new team members who will do the same.

The full specification can be found below. To apply please email careers@naturemetrics.co.uk including a CV and covering letter, and state that you are applying for the Ecological Data Scientist role. There is no fixed deadline for applications and the position will be held open until we find the right candidate. Applicants are encouraged to submit examples of their work as part of their application.

Roles & responsibilities General - Be the company expert on the analysis of the data we generate on biodiversity to support better decision making for our clients and for nature - Develop interactive data visualisations for use by clients to explore and understand their results. - Develop metrics to quantify and qualify biodiversity change, facilitating decision making that benefits nature. - Lead the data analysis of large projects that may require a bespoke approach. - Ensure that analy-

ses produced by the company are statistically robust.
 - Contribute to scientific publications and reports. -
 Contribute to the preparation of grant applications and
 tenders where relevant.

Documentation - Maintain version-controlled, annotated
 scripts. - Write guides/explainers for developed tools
 suitable for different audiences. - Prepare reports for
 funders where relevant.

Reporting - The role reports to our CEO and works
 closely with our head of bioinformatics and head of sci-
 ence Communication - Attend regular update meetings
 with the wider team. - Update wider company, manage-
 ment or board on progress when required. - Work col-
 laboratively with the bioinformatics and science teams. -
 Work closely with clients and other environmental stake-
 holders to understand and meet their needs for data
 analysis and visualisation

Person Specification Education & qualifications - You
 will have a PhD in data science or computational ecol-
 ogy, or an allied field. Specialist knowledge, skills &
 experience - Evidence of expertise in complex data visu-
 alisation is required. - Strong R and Python coding is
 essential, plus knowledge of relevant packages. - Experi-
 ence with community and/or metabarcoding data would
 be an advantage. - Experience with supervised and un-
 supervised machine learning, and related techniques,
 would be an advantage. - Experience in occupancy
 modelling, power analysis, time-series analysis and joint
 species distribution modelling would be an advantage.
 Interpersonal & communication skills - Organised &
 meticulous with effective communication skills - Able
 to work independently and as part of a team

Additional requirements - All applicants are legally re-
 quired to demonstrate the right to work/permission to
 work in the UK.

Terms and Conditions Location

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 To read the entire message look it up at <http://life.biology.mcmaster.ca/~brian/evoldir.html>

EmbarkVeterinaryInc DogGenomics

Research Scientist - Ancestry - Embark Veterinary Inc.
 Ithaca, NY

About Us

Discover your dog more than fur deep with the most
 comprehensive DNA test on the market. Designed by
 world leaders in dog genetics, in partnership with Cor-
 nell University, the Embark DNA Test tells owners what
 breeds make up their pets, how to prevent future possi-
 ble health problems, and what features and traits their
 pet might have. Help us end preventable disease in dogs
 and improve the lives of pets and their people through
 genomics.

Embark's market-leading dog DNA Test is not only
 the most comprehensive on the market for breed mix,
 health, traits, inbreeding, and finding relatives, it is also
 an engine driving scientific discovery in dogs. Embark
 uses a 220,000-marker research-grade DNA microarray,
 enabling us to give our customers the most accurate and
 comprehensive results on the market. More importantly,
 it allows Embark to do ongoing research into the genetics
 of dogs, which are a unique population for genetic study
 and discovery due to selective breeding over time. Our
 research focuses on mapping new traits and diseases,
 improving personalized veterinary medicine, and devel-
 oping new breeding programs to eliminate preventable
 diseases.

Interested in joining? We're looking for highly moti-
 vated and driven employees who will help us stay on
 the cutting edge of creativity and innovation in the
 fast-growing consumer genetics space.

The Role

We are looking to expand our Ancestry team and are
 accepting applications for Scientists with extensive train-
 ing and experience in Population Genetics, Genomics
 and Computational Biology, or Data Science. Talented
 candidates at all levels of experience are encouraged to
 apply.

This team is applying a combination of population ge-
 netics and data science approaches to improve Embark's
 core Ancestry products, develop new products such as
 the next generation of breeding tools, and conduct evo-
 lutionary research in dogs, with the goal of accelerating
 canine genetic science and a long-term vision of ending
 preventable disease in pets.

The Opportunity

The principal objectives of this role are to continually
 maintain and improve upon Embark's Breed and Ancestry
 offerings.

- Contribute to the development of Embark's best-in-
 class Dog Ancestry products, including the world's only
 Dog Relative Finder.

- Build population genetic resources to assess and moni-

tor genetic diversity.

- Understand the phenotypic impact of inbreeding and inbreeding depression across dog breeds.
- Work collaboratively across teams to develop and accelerate Embark's resources tailored for dog breeders and professionals.
- Add to a culture of teamwork and continuous learning/teaching.

Requirements

- PhD in Population Genetics, Computational Biology, Bioinformatics, or a related field.
- Comfort with Linux/Unix environments and coding experience including python, R, and SQL.
- Excellent statistical proficiency.
- Excellent oral and written communication skills.
- Experience in applied population genetics preferred.
- Experience with Amazon Web Services preferred.
- A passion for pet health and desire to build products to improve the lives of pets and pet owners.

What We Offer

- Dog friendly office in downtown Ithaca, NY.
- Perks tailored for dog lovers including Trupanion pet insurance and paw-ternity leave.
- Startup perks with big-company benefits.
- Competitive salaries, all-inclusive health care, and equity participation.
- A flexible vacation policy along with paid maternal and paternal leave.
- Fully-stocked office snack bar and regular office events.
- New iMacs and MacBook Pros, or laptops running Linux.
- Continuing education, including attending conferences.

Embark Veterinary Inc. is an equal opportunity employer and values diversity at our company. We do not discriminate on the basis of race, religion, color, national origin, gender, sexual orientation, age, marital status, veteran status, or disability status.

Please apply directly here: <https://embarkvet.com/careers/research-scientist-ancestry/> Aaron Sams <asams@embarkvet.com>

EMBL Bioinformatics

Bioinformatics Trainee - EvoCELL Short-term Early Stage Researcher (MSCA) About the team/job The position is available from the EvoCELL Marie Skłodowska-Curie Innovative Training Network (www.evocell-itn.eu). EvoCELL comprises 12 European partner laboratories working together to investigate the evolution of animal cell types by comparative whole-body single-cell RNA-seq approaches. The project entails testing and developing bioinformatic tools that allow tracking cell types and cell type families across animal phylogeny. We are looking for a bioinformatician to join forces to assist with bioinformatic analysis, which is key to the success of this innovative and exciting project.

Your role The successful candidate will be trained to help analyse and build tools for the analysis and integration of single cell RNA-seq data collected from diverse marine animals by laboratories of the EvoCELL network. The researcher will be hosted in the Arendt lab at EMBL (Heidelberg, Germany) and cooperate with all EvoCELL labs across Europe.

The network, coordinated by EMBL Heidelberg, brings together 10 academic and 2 non-academic organizations from 6 European countries, including a company and a museum. Partners have complementary expertise in evolutionary developmental biology (EvoDevo), bioinformatics, functional neurobiology, and paleontology. In this unique environment the researcher will have the opportunity to take part in the network training activities and benefit from established collaborations.

You have Prior experience writing code and performing data analysis in Python or R, as well as basic experience with Linux/Unix environments.

You might also have Prior experience with phylogenetics, single-cell analysis, or analyzing RNA-seq data in an evolutionary or ecological context, and/or web development.

This is a 12-months position with a possibility of extension up to 20-24 months. Working language is English, therefore proficiency in this language is required.

Eligibility Criteria In order to be eligible to apply for this position, candidates should have completed their Master studies (or the degree that allows them to embark in a PhD in their country of origin or in the hosting country), not longer than 4 years from the start of the

fellowship.

At the time of recruitment, the candidate must not have resided or carried out their main activity (work, studies, etc.) in the country of their recruiting organisation for more than 12 months in the 3 years immediately prior to start of the project. Short stays such as holidays and/or compulsory national service are not taken into account. Candidates can be of any nationality, but are required to undertake transnational mobility. Candidates should ideally possess a Master's degree in a relevant academic field, or a degree that allows them to embark in a PhD. Candidates must be within the first four years of their research career. Applications from candidates who already possess a doctoral degree will not be considered. Furthermore, this short-term position cannot lead to a PhD at EMBL.

Why join us EMBL is an inclusive, equal opportunity employer offering attractive conditions and benefits appropriate to an international research organisation with a very collegial and family friendly working environment. The remuneration package consists of a competitive salary, a comprehensive pension scheme, medical, educational and other social benefits, as well as financial support for relocation and installation, including your family and the availability of an excellent childcare facility on campus.

What else you need to know We are Europe's flagship research laboratory for life sciences an intergovernmental organisation performing scientific research in disciplines including molecular biology, physics, chemistry and computer science. We are an international, innovative and interdisciplinary laboratory with more than 1600 employees from many nations, operating across six sites, in Heidelberg (HQ), Barcelona, Hinxton near Cambridge, Hamburg, Grenoble and Rome.

Our mission is to offer vital services in training scientists, students and visitors at all levels; to develop new instruments and methods in the life sciences and actively engage in technology transfer activities, and to integrate European life science research.

Please note that appointments on fixed term contracts can be renewed, depending on circumstances at the time of the review.

Application link <https://www.embl.de/jobs/searchjobs/-index.php?ref=HD01809&newlang=1&pos%5b%5d=0&loc%5b%5d=0> Detlev Arendt <arendt@embl.de>

EmporiaStateU FishEvolution

The Dept of Biological Sciences at Emporia State University in Emporia, KS, invites applications for a nine-month, tenure-track position at the rank of Assistant or Associate Professor, to begin August 2021. Salary starts at \$50,000, commensurate with experience and qualifications. The position is partially supported by a generous endowment and the successful candidate will be named the "Jones Endowed Professor of Aquatic Sciences." The advert may be found at: <https://sites.google.com/g.emporia.edu/human-resources/faculty-staff-open-positions/21290-assistant-or-associate-professor> Responsibilities: The successful candidate will be expected to teach an Ichthyology course, with laboratory, and an Introductory Zoology course. Additional courses could include Fisheries Management, Population Ecology, Fish Ecology, Aquatic Biology, Stream Ecology, Limnology or other specialty courses that complement our existing offerings at the undergraduate and graduate levels. Faculty members typically teach 12 contact hours (or equivalent) per semester. The successful candidate will also be expected to develop an active research program, including the supervision of graduate (M.S.) and undergraduate research, and she or he will be encouraged to apply for extramural funding. Dedicated research space will be available in the new on-campus Prophet Aquatic Research and Outreach Center.

Qualifications: A Ph.D. and relevant research experience are required by the start date. Postdoctoral experience is highly desirable. Applicants should have field-based research expertise in ichthyology and freshwater aquatic ecology (fisheries/conservation/population, community, landscape, and/or behavioral biology), including experience with contemporary statistical modeling approaches. Expertise in applied/fisheries ecology is strongly desired for mentorship of our students in the Fisheries and Wildlife/Ecology and Biodiversity concentrations and also for potential collaboration with the on-campus Research and Survey Office of the Kansas Department of Wildlife, Parks and Tourism.

Apply: Screening will begin on September 4, 2020, and continue until the position is filled. Please email a letter of intent, separate statements of teaching philosophy and research interests, CV, and contact information for three references (including email, phone, and postal address)

to Dr. William E. Jensen at wjensen1@emporia.edu (email preferred). Application materials are also accepted by mail to: Dr. William E. Jensen, Search Committee Chair, Department of Biological Sciences, Campus Box 4050, Emporia State University, 1 Kellogg Circle, Emporia, KS 66801-5415. Phone: 620-341-5339; Fax: 620-341-5607.

About the University: Emporia State University is a small public university (~6,500 students) located in the beautiful Flint Hills region of Kansas. The university has built its reputation on quality teaching, research, and service, and strives to keep classroom sizes small to promote high-impact learning experiences. Please visit the ESU website (<https://www.emporia.edu>) and the departmental website (<https://biology.emporia.edu>).

Darren Rebar <drebar@emporia.edu>

Ewha Korea Plant Systematics Ecology

Division of EcoScience at Ewha Womans University, in Seoul, Korea, invites application for a faculty position in plant systematics or/and plant ecology. It is a tenure-track full-time position at the ranks of either Assistant or Associate Professor starting in March 2021. Applicants must have PhD degree in biological science and at least two years of post-doctoral research experience. The candidate will teach, in both Korean and English, minimum 6 credit hours (approximately two lecture courses) per semester, including graduate classes, and establish a strong research program leading to publications in major journals in the fields of ecology and evolutionary biology. Applicants must submit information and statements to the faculty recruitment system of Ewha (<https://faculty.ewha.ac.kr>) which will be open for application from August 31 to September 14.

Yuseob <yuseob@ewha.ac.kr>

Harvard Ancient DNA Bioinformatics

Bioinformatics Data Manager, Harvard Medical School Job Code 52391BR (Apply here: <https://>

[/sjobs.brassring.com/TGnewUI/Search/Home/Home?partnerid%240&siteidS41#jobDetails30332_5341](https://sjobs.brassring.com/TGnewUI/Search/Home/Home?partnerid%240&siteidS41#jobDetails30332_5341))

Job Summary

We offer an opportunity to support a cutting-edge laboratory that has so far been responsible for producing more than half of the world's ancient DNA data. The successful candidate will assume a computational biologist/data scientist position and will work closely with scientists in the lab studying DNA from human remains up to 20,000 years ago.

Under limited supervision, this role is responsible for computational data analysis of the assigned project. Collaborates and consults with researchers and scientists to analyze problems, recommend technology-based solutions, and design computational strategies for a project. Contributes to the design, development, implementation, and testing of bio-computing tools. Ability to communicate analyzed data to analysts writing scientific papers

An article on our laboratory ancient DNA work can be found here: <https://www.nytimes.com/2018/03/20/science/david-reich-human-migrations.html> The John Templeton Foundation "Ancient DNA Atlas of Humanity" initiative that will support this work is described here: <https://www.templeton.org/news-john-templeton-foundation-awards-15-5m-for-ancient-dna-atlas-of-humanity> This is an ideal opportunity for candidates with several different backgrounds:

- Recent graduates with college or masters degrees in bioinformatics or computer science more generally
- Experienced bioinformatician with a background in processing genomic data.
- Experienced data scientist who has broad experience working with data and databases

We are looking for candidates intending to stay for an extended period (at least three years).

Job-Specific Responsibilities

(1) Processing data through a bioinformatic pipeline and working with its software engineer designers to improve the pipeline: Our laboratory team is constantly producing new genetic data. Each year, we produce trillions of new DNA sequences on more than ten thousand ancient individuals. We need a person who will take charge of day-to-day computational processing this stream of data, taking the sequences from their raw form (as the data are generated by DNA sequencers) to a processed form that can be used by analysts writing scientific papers based on the data. We have a full-time software engineer who has built a software pipeline that makes this processing efficient, but the processing needs to be actively supervised, and frequently repeated with new parameter settings or redone depending on the

needs of particular analyses. This is an exciting position that will put the person who fills the position at the heart of the work in our laboratory, and will involve active communication with laboratory-based personnel, with senior software engineers constantly working to improve our data processing capabilities, and with analysts writing scientific papers

(2) Extracting data from published papers, incorporating it into the laboratory's dataset, curating datasets, and harmonizing meta-data: Second major area of responsibility will be to download data published by a variety of scientific groups onto our computers, and re-process this externally generated to make it possible to co-analyze with data generated by our group. Different scientific groups upload data to public databases in a variety of formats, and process their data in a variety of ways, and a key aspect of this position will be to grapple with this variety of formats, reprocess data when necessary, and create a homogeneous combine dataset that can be reliably analyzed. Importantly, the person who fills this position will not only be downloading data but will also need to download meta-data (for example, information on the location and age of the ancient individuals which needs to be extracted from scientific papers), so that users of the data can have this information available for their analyses

Basic Qualifications - Bachelor's degree in computer science, data science experience preferred

- Fluency in a scripting language (e.g. Python or Perl)
- Linux/Unix proficiency

Additional Qualifications - Some experience in biology or genomics

- SQL database experience
- High-Performance Computing experience (SLURM)
- Interest in anthropology, archaeology or history (need not be professional)
- Excellent written, documentation, and oral communication skills
- Ability to multi-task

Additional Information This is a one-year term position with strong potential for renewal.

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IndianaU Bioinformatic Analyst

The National Center for Genome Analysis Support (NCGAS), housed at Indiana University in Bloomington, Indiana, has an opening for a Bioinformatic Analyst. We are looking to hire someone with a biological and computational background, a willingness to learn new skills on the job, and help us toward our goal to reduce computational roadblocks to genomic research.

Who we are: The National Center for Genome Analysis Support (NCGAS) helps the U.S. biological research community analyze, understand, and make use of the vast amount of genomic information now available. Primary focus areas include transcriptome- and genome-level assembly, phylogenetics, and metagenomic, meta-transcriptomic, and community genomic analysis. NCGAS is a collaborative project between Indiana University (IU) and the Pittsburgh Supercomputing Center (PSC) at Carnegie Mellon University.

Through NCGAS, users can access: - Compute resources at IU and XSEDE. - Curated software packages maintained on high-performance computing (HPC) clusters. - Consulting time and expertise from NCGAS staff. - Training materials and workshops about genomics and related HPC tools.

These services at no cost to NSF-funded researchers (or those doing similar work). All researchers may obtain computational and storage resources on a fee-for-service basis from NCGAS.

NCGAS is affiliated with the Indiana University Pervasive Technology Institute (PTI) as a Cyberinfrastructure and Service Center. PTI Service and Cyberinfrastructure centers focus on developing and delivering leading-edge services that benefit the university, the state of Indiana, and the national scholarly community. Please see our website (ncgas.org) for more information on our services, staff, and activities.

General duties of the job include: -Working independently and as part of a coordinated team, provides computational-biology consulting for life science researchers at Indiana University and nationally, with an emphasis on the appropriate use of existing applications.

-Acts as a representative of IU and NCGAS in outreach and training, presenting at meetings and project-related

sessions, and presents technical information to interested groups and constituencies. Trains, mentors and provides guidance and feedback to co-workers - and REU students - less experienced in areas of expertise.

-Working independently, installs, configures, customizes, and supports analytical software for genomics and other 'omics research on IU research computing systems. This includes appropriate developer, administrator, and user documentation for software and gateways like Galaxy and GenePattern.

-Works with individual researchers within IU and nationally to provide intellectual contributions to their projects, publications, and grants.

-Performs metrics of performance and participates in grant and report writing in support of the goals of NCGAS, Science Community Tools, and Research Technologies.

-Performs other professional duties as assigned.

Please feel free to send questions about the opening to Dr. Sheri Sanders, NCGAS Manager, at ss93@iu.edu.

For more details to be found here: https://hrms.indiana.edu/psc/-PH1PRD_PUB/EMPLOYEE/HRMS/c/-HRS_HRAM_FL.HRS_CG_SEARCH_FL.GBL?Page=-HRS_APP_SCHJOB_FL&Action=U Sheri Sanders Manager (Acting), Bioinformatic Analyst National Center for Genome Analysis and Support (NCGAS)

NCGAS is a management unit of the Research Technologies division of UITS; NCGAS is affiliated with the Indiana University Pervasive Technology Institute.

“Sanders, Sheri” <ss93@iu.edu>

JohnInnesCentre UK ResAssist PlantEvolution

Research Assistant

Salary: 32,255 - 39,345 depending on qualifications and experience. Contract: Full-time, 23 months Location: John Innes Centre, Norwich, UK. Closing date: 10 September 2020 Reference: 1003931

An exciting opportunity has arisen for a Research Assistant to join the Byers Group at the John Innes Centre.

About the John Innes Centre:

The John Innes Centre is an independent, international

centre of excellence in plant science, genetics and microbiology. We nurture a creative, curiosity led approach to answering fundamental questions in bioscience, and translate that knowledge into societal benefits.

Our employees enjoy access to state-of-the-art technology and a diverse range of specialist training opportunities, including support for leadership and management. Click here to find out more about working at the John Innes Centre.

About the Byers Group:

Dr. Byers started at JIC in August 2020, so this is a chance to help build a lab from the ground up and contribute your expertise and passion to the group and its culture. The lab is a part of the Cell and Developmental Biology department and the Genes in the Environment ISP at the John Innes Centre.

The group studies the effect of floral scent on the evolution of flowering plants from a genetic, phenotypic, and ecological perspective, focusing particularly on how it drives interactions with animal pollinators. We use several different plant systems, including monkeyflowers (*Mimulus*), orchids (*Gymnadenia*), and bedstraws (*Galium*).

The role:

As a Research Assistant, your role will be to manage the lab's day to day affairs, including managing a wet molecular and chemical ecology lab, greenhouse/glasshouse plant populations, and potentially assisting with field-work both within the UK and in the United States and central Europe. You may be asked to assist others in the lab with experiments and tasks, including Postdoctoral Researchers and PhD students, and there may be the scope to develop some of your own interests as well, pending funding, space, and time availability.

Depending on your project involvement, you may also be asked to help prepare or edit manuscripts (for which you would receive authorship credit where appropriate) and talks for publication and presentation. Work will be primarily with plants, but may also include work with pollinating insects, including bees (subject to a risk assessment for e.g. allergies). You will be an active part of the lab group.

The ideal candidate:

The ideal candidate will have at least a BSc (undergraduate) degree in life sciences with wet lab experience. A Master's or PhD in life sciences or equivalent experience is desirable. You'll be passionate about science! You will have experience with molecular biology and genetics techniques (ideally including plant transformation through e.g. VIGS, Agrobac-

terium, CRISPR, etc., as well as library preparation for genome/transcriptome/marker sequencing), strong record-keeping skills (e.g. lab notebook, collections maintenance, data storage and organisation) and a strong command of written and spoken English. You'll also be comfortable maintaining the lab on a day to day basis, including developing standard operating procedures, ordering and maintaining laboratory supplies, managing and disposing of chemical inventory safely, and working with greenhouse/glasshouse plant collections. You will have experience with plant cultivation and plant science.

You will be comfortable working both independently and as a member of a larger team, as well as having good time management, attention to detail, and prioritisation skills. You'll be comfortable collaborating with international and local colleagues from diverse cultures and backgrounds. You will be able to travel locally and internationally for e.g. collaborations, meetings, and fieldwork, and may be asked to work limited unsociable hours for crucial experiments. Some fieldwork may take place in remote areas without public transport access (but reasonable adjustments will be considered in the case of a disability).

Additional information:

The position is available for 23 months in the first instance, with the possibility of further renewal.

Interviews will be held in early October either in person or via video conference depending on travel needs and current restrictions; no particular preference will be given to candidates who are able to interview in person.

For further information and details of how to apply, please visit our web site <http://jobs.jic.ac.uk> or contact the Human Resources team on 01603 450462 or nbi.recruitment@nbi.ac.uk quoting reference 1003931.

We are an equal opportunities employer, actively supporting inclusivity and diversity, and particularly encourage applications from individuals often underrepresented in STEM, including racial and ethnic minorities, Indigenous, and BAME individuals; LGBTQIA+ individuals; individuals

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Morton Arboretum USA Biological Integration

The Morton Arboretum invites applications for a part-time, term-limited (16 months) project assistant for the Design phase of a tree-focused Biology Integration Institute (https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505684).

The Biology Integration Institute (BII) program at the National Science Foundation is a new initiative to create a multi-disciplinary research center that brings together expertise from numerous fields of science to address big general questions confronting modern biology. During the design process our team will better define our scientific theme and questions, the scope and schedule of projects and activities, culminating in the submission of a proposal to the National Science Foundation for the full implementation grant in January 2022.

The successful candidate will work closely with the Director and scientists in the Center for Tree Science (CTS), Arboretum staff in several other departments, and a diverse national group of collaborators. The successful candidate will play a critical role in organizing, facilitating, and documenting discussions on the scientific, logistic, and educational objectives of the BII. While the successful candidate should have knowledge of plant biology, preferably with an undergraduate degree in a related field, strong communication, organizational and interpersonal skills and documented experience in science communication and/or meeting facilitation are a key to success. The position will involve arranging virtual meetings among participants dispersed across the country, helping facilitate and maintain notes during group meetings, facilitating frequent communication, and ensuring the team meets deadlines.

Given the expected sustained impact of COVID-19 on travel and in-person meetings, we anticipate that much of the work, at least the first eight months, will be performed from the successful candidate's home. For this reason and because virtual collaboration and coordination of the project is essential, we will not require that the successful candidate move to the Chicago region. Hopefully, once travel and in-person meetings are feasible again, the assistant will join us at the Arboretum for short scheduled periods to work in-person and potentially join team visits to collaborator sites.

Expectations include being self-motivated with an ability to work independently; the ability to manage virtual meetings involving numerous participants and presenters, take detailed technical notes, integrate perspectives from multiple viewpoints, and clearly and effectively communicate the notes and products from these meetings; support and facilitation of the development and writing of the final Full Implementation proposal; producing reports and making presentations for broader public audiences.

Qualifications: Bachelor's degree preferred, with demonstrated experience in science communication or program coordination. Working knowledge of plant biology or relevant biological discipline strongly recommended. Strong organization and independent working skills required. Proficiency with a variety of web-based and software platforms, particularly for teleconferencing and digital content sharing, and Microsoft Office or Google applications beneficial.

Applications may be submitted until the position is filled; applications received by Sept 14 are guaranteed consideration. A start date in September 2020 is preferred. Please address your questions to Dr. Chuck Cannon at cts_bii@mortonarb.org. Please apply here: <https://careers.hireology.com/-themortonarboretum/431866/description> –

Sean Hoban | Tree Conservation Biologist | The Morton Arboretum 4100 Illinois Rt 53, 3rd Floor Research Bldg, room 324, Lisle, IL 630-719-2419 | shoban@mortonarb.org | Tweets @seanmhoban

Our recent major paper in Proceedings B Taxonomic similarity does not predict necessary sample size for ex situ conservation Recent letter in Science: Post 2020 goals overlook genetic diversity

Recent publication in Biological Conservation: Genetic diversity targets and indicators in the CBD post-2020 Global Biodiversity Framework must be improved with policy summary in 2 pages (in 8 languages) here

research webpage: <http://sites.google.com/site/hoban3/> ResearchGate Profile: http://www.researchgate.net/profile/Sean_Hoban/ food blog: <http://cuisineraveclevin.blogspot.it/> Sean Hoban <shoban@mortonarb.org>

Museum Illinois STEMEducation

Museum Education Lead < <https://earlham.edu/-human-resources-and-business-operations/current-openings/?job=72011> > (FTE)

August 11, 2020 Description

The Joseph Moore Museum of Natural History, on the campus of Earlham College, seeks a creative, enthusiastic, and motivated educator to lead a revitalization of our educational programs and college student tour guide training program. The Museum Education Lead will strengthen our undergraduate interpreter training program to better prepare our undergraduate educators to teach confidently and update the delivery of our school programs to provide online learning options and ensure learner-centered experiences aligned with current best practices in informal education. As a natural history museum within a small liberal arts college of ~1,000 students, we provide professional museum training for undergraduates while simultaneously offering educational programming for PreK-12 and the public in a geographic area of high poverty and STEM education need.

The Lead will work with the museum director, collections manager, administrative assistant, student leaders, college faculty/staff, and community members to design and facilitate delivery of inquiry-based programs featuring our museum collections. Our programs cover a wide variety of topics ranging from biomedical science to Native American studies, with new programming planned for high school audiences. The Lead must be passionate about working with Earlham College students, providing sustained support for their growth as museum educators as part of their college learning experiences. This is a full time, 12 month, 3 year, grant-funded position supported by a part-time administrative assistant. Primary Duties & Responsibilities

- Supervise, train and mentor Earlham College undergraduate student staff in outreach (i.e. interacting with the public through tours, events, and museum hosting during open hours). The majority of the Education Lead's work is teaching and supporting students who engage with the community, though the Lead will also lead some programs. Tour guide training is a continuous process and will use methods from the National Association for Interpretation and Reflecting on Practice.
- Plan and implement community educational

programs for the Joseph Moore Museum in line with the museum's mission and vision, including designing, scheduling, staffing/leading, publicizing and promoting educational programming, including field trips that meet state standards throughout the school year and in summer. In fall 2020, programming will need to be both converted to virtual experiences and administered online.

- Plan and implement special events to connect Earlham community members with each other and the broader Wayne County community around topics of importance to science and society. Must be available on evenings and weekends to oversee events.
- Document, assess and report on community engagement to the Director. This includes keeping daily statistics on program attendance, student tour leader performance and diversity and inclusion practices.
- Build and maintain sustained relationships with teachers in the community and on campus
- Assist with exhibits, including maintenance, refurbishment and design, ensuring a strong connection between outreach and the physical exhibits.

Experience & Qualifications

- Experience providing informal science education to children and youth
- A commitment to the field of museum education and an interest in continued study in pedagogical strategies and practices
- Ability to engage, challenge, and interest young people in the natural world
- Experience designing and implementing developmentally appropriate curricula
- Experience working in customer service roles, ideally in a museum or non-profit environment
- Experience in a supervisory role
- Strong organizational skills and attention to detail with a proven ability to manage multiple tasks and priorities, plan ahead, anticipate and articulate program needs
- Ability to problem-solve, be flexible, and imaginative
- Ability to work independently and as a team
- BS in biology/geology and/or education, or museum studies with an education focus, demonstrated college-level understanding of science
- Preferred: Masters degree, appropriate Indiana or Ohio teacher license, experience with Reflecting on Practice Program and/or NAI certification process

Application Instructions

Qualified applicants should send a letter of interest, resume, contact information for three references and a hyperlink to a 5-minute sample science education video for a single grade in the range of 3rd to 12th grade (specify grade level) all in a single pdf file to:

Human Resources Office Earlham College

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This message has been arbitrarily truncated at 5000 characters. To read the entire message look it up at <http://life.biology.->

mcmaster.ca/~brian/evoldir.html

NHM Vienna Bioinformatician

We are pleased to announce that the Natural History Museum Vienna is opening a position for a bioinformatician. Please, feel free to spread the information.

<https://www.nhm-wien.ac.at/en/information/-jobs> <https://www.nhm-wien.ac.at/information/-stellenausschreibungen>

Dr. Luise Kruckenhauser
Molekulare Systematik Zentrale Forschungslaboratorien
Naturhistorisches Museum Wien Burgring 7, A-1010
Wien Tel.: +43 1 52177-403

Kruckenhauser Luise <luise.kruckenhauser@NHM-WIEN.AC.AT>

StMarysC Maryland EvolutionaryBiology

Evolutionary Biologists are encouraged to apply.

The Department of Biology at St. Mary's College of Maryland invites applications for a tenure-track *assistant professor in plant biology* position beginning August 2021. We are particularly excited about, but not limited to, applicants with a focus on cellular processes. Teaching responsibilities include participating in biology core courses as needed (Contemporary Biosciences, Principles of Biology I, Principles of Biology II, Genetics, Ecology and Evolution) and upper division electives in their specialty. Ph.D. required; postdoctoral training and/or teaching experience preferred. An interest in attracting and retaining students from underrepresented groups is desirable. Because both teaching and research are highly valued, we seek candidates with a commitment to excellence in teaching as well as an active research program that has the potential to involve undergraduates. Employment will be contingent upon successful completion of a criminal background check.

Non-sectarian since its founding, St. Mary's College of Maryland is a public Carnegie Baccalaureate, Arts and Sciences institution which has been designated as Maryland's public honors college. We are located in

St. Mary's City, 70 miles southeast of Washington, D.C. With selective admissions policies, academically talented students, and a rigorous curriculum, we offer a small college experience similar to that found at exceptional private colleges. St. Mary's faculty benefit from a comprehensive program of support for scholarship, research, travel, and curriculum development, including course releases for pre-tenure faculty and leaves for tenured faculty. The quality of life is enhanced by the recreational opportunities of the Chesapeake region and by our proximity to Washington, D.C. and Baltimore.

St. Mary's College (www.smcm.edu) embodies diversity and inclusion in its mission. We create an environment that recognizes the value of individual and group differences and we encourage inquiries from applicants who will contribute to our cultural and ethnic diversity. Application materials should include a cover letter in which candidate includes how his/her teaching at the College will contribute to a culture of inclusion and campus diversity, curriculum vitae (including e-mail address), statement of teaching philosophy, statement of research interests, and evidence of teaching effectiveness (if available). Applicants should also arrange for the submission of three confidential letters of recommendation. Applicants can request confidential letters through their Interfolio Dossier account, and may be uploaded for free by the letter writer directly to our Interfolio-hosted account for committee review. Applications are being accepted online at: [*apply.interfolio.com/78068](http://apply.interfolio.com/78068) <<http://apply.interfolio.com/78068>>*. Questions may be directed to Dr. Aileen Bailey.

Review of applications will begin September 14, 2020 and continue until the position is filled. St. Mary's College of Maryland is an affirmative action/equal opportunity employer.

Visit our website: [*www.smcm.edu/hr*](http://www.smcm.edu/hr) Employment will be contingent upon successful completion of a criminal background check.

kjemerson@smcm.edu

Evolutionary Biologists are encouraged to apply.

The Department of Biology at St. Mary's College of Maryland invites applications for a tenure-track *assistant professor in plant biology* position beginning August 2021. We are particularly excited about, but not limited to, applicants with a focus on cellular processes. Teaching responsibilities include participating in biology core courses as needed (Contemporary Biosciences, Principles of Biology I, Principles of Biology II, Genetics, Ecology and Evolution) and upper division electives in their specialty. Ph.D. required; postdoc-

total training and/or teaching experience preferred. An interest in attracting and retaining students from underrepresented groups is desirable. Because both teaching and research are highly valued, we seek candidates with a commitment to excellence in teaching as well as an active research program that has the potential to involve undergraduates. Employment will be contingent upon successful completion of a criminal background check.

Non-sectarian since its founding, St. Mary's College of Maryland is a public Carnegie Baccalaureate, Arts and Sciences institution which has been designated as Maryland's public honors college. We are located in St. Mary's City, 70 miles southeast of Washington, D.C. With selective admissions policies, academically talented students, and a rigorous curriculum, we offer a small college experience similar to that found at exceptional private colleges. St. Mary's faculty benefit from a comprehensive program of support for scholarship, research, travel, and

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This message has been arbitrarily truncated at 5000 characters. To read the entire message look it up at <http://life.biology.mcmaster.ca/~brian/evoldir.html>

Surrey UK BiodiversityMonitoring

Senior Operational Scientist Location: Surrey, United Kingdom Salary: 45 000 - 50 000+ - depending on experience Start: Immediately Duration: Permanent

Applications are invited for an operational scientist role to work with a rapidly expanding science-based start-up company.

NatureMetrics is a high growth, biotech start-up with an exciting potential for combining commercial excellence with a positive impact on nature and the environment.

Our amazing team of scientists has commercialised a process to bring DNA-based monitoring technologies to the frontline of environmental management and biodiversity conservation around the world.

We are excited to be disrupting the world of biodiversity monitoring, by accelerating the power and pace of data acquisition in sectors such as the agriculture, infrastructure and extractive industries. We've already delivered client projects across three continents. Now we want to scale up our operations, increasing throughput whilst

maintaining the highest possible quality standards. We will also continue to further develop our methods and processes and optimise new assays and technologies into a wider set of fully commercial product offerings.

Trading since early 2016, we have established ourselves as the leading provider of DNA-based monitoring services in the UK, as well as building a presence in Scandinavia, Latin America, Africa and South-East Asia. We have established strong relationships with key players in industry, policy and academia nationally and internationally, poising us for rapid growth over the next few years. We are currently a team of over 20 people which is continuing to rise over the coming months. Further, we anticipate that we will more than double the volume of samples processed in the next 2 years.

To apply, please email careers@naturemetrics.co.uk including both a CV and covering letter as soon as possible. There is no fixed deadline for applications, and the position will be held open until we find the right candidate.

Roles & responsibilities General . Experience in managing a lab and a lab team. This role will currently be managing 6 labs, 6 scientists and a lab manager. . Experience in extraction of DNA and working with high throughput sequencing techniques including, importantly; MiSeq, qPCR. . Experience in research and new product development . Experience in delivering quality product at scale preferably with some commercial scale experience . Experience in setting up a lab. This role will work with a design consultant to bring the company a lab that is able to scale up quickly as well as to ensure our extremely high-quality standards are set and maintained in our new, larger HQ . Experience of working to maximise efficiency of costs, resources and delivery time in the lab . Experience in overseeing quality control and bringing in new and innovative technologies and methods. . Ability to bring in automation and process optimisation to the business. . Ability to work closely with our head of product validation to drive new product development from a laboratory delivery perspective, ensuring accuracy and efficiency . Ability to drive product delivery - organise the lab technicians on a day to day basis and working closely with the lab manager to ensure that samples are processed in a timely manner in accordance with client deadlines. . Role will be responsible for working towards an ISO accreditation.

Communication . Reporting to our Director of Operations with a dotted line to our Head of Science and managing our Lab Manager. . Overseeing the lab team and working closely with the operations and business development teams to understand how our products can

be developed and refined. . Role will bridge the gap between the lab team and the operations teams.

Safety Use COSHH and risk assessments, oversee compliance with company procedures and HSE legal requirements

Person Specification Education & qualifications . A PhD is not necessary, but it would be an advantage.

Specialist knowledge & skills . Understanding of issues relating to scale up of molecular labs, innovation, HSE, excellence in product delivery, efficiency and process optimisation.

Interpersonal & communication skills . Organised & meticulous with effective communication skills . Able to work independently and as part of a team . Dynamic & flexible with the ability to work with a variety of different people at different levels **Relevant experience** . The preferred candidate will have at least 3 years experience in overseeing a lab and managing a team. . Experience in working in a molecular lab and working with DNA.

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This message has been arbitrarily truncated at 5000 characters. To read the entire message look it up at <http://life.biology.mcmaster.ca/~brian/evoldir.html>

UAmsterdam EvolutionBehaviour

The Faculty of Science at the University of Amsterdam has a vacancy for an assistant professor in Cognitive behavioral ecology to develop empirical research on the evolution and development of cognitive abilities, and to develop courses in the field of Evolutionary Psychobiology and Evolutionary Anthropology. This position offers many opportunities for collaborations at different interdisciplinary, interfaculty and university levels within the fields of biology, psychobiology, anthropology and sociology. This field also offers opportunities for long-term public collaborations with the Amsterdam zoo ARTIS. Teaching will be ~50% of the activities, while the other duties (50%) consist of research, organisation, acquiring funding and outreach activities. For more information, see:

<https://www.uva.nl/en/content/vacancies/2020/-08/20-501-assistant-professor-cognitive-behavioural-ecology.html?origin=dxuSI3bDRY2CW7N9J3yPlw>
Application deadline: 7 September 2020

“Groot, Astrid” <a.t.groot@uva.nl>

Tiffany Taylor T.B.Taylor@bath.ac.uk. Apply via the University website: <https://www.bath.ac.uk/-jobs/Vacancy.aspx?ref=CC7550> Tiffany Taylor <tt515@bath.ac.uk>

UBath MicrobiologyEvolution

Revealing Rewiring Routes to Natural Selection: making predictions on gene regulatory network evolution based on gene co-expression profiles

Come and join the Taylor lab at the University of Bath, UK (<https://tiffanybtaylor.wordpress.com/>) as a full-time research assistant on a 13-month fixed-term contract funded by a Royal Society 2020 Enhancement Award.

Project description: How are opportunities for rewiring events between gene regulatory networks (GRNs) revealed to selection? Previous work has shown that GRNs are dynamical such that connections are forged and lost frequently across an evolutionary timescale. We predict network activity to be a key factor in revealing opportunities for rewiring events between previously disconnected networks, facilitating novel genetic innovations. With a microbial model system, you will use experimental evolution combined with molecular manipulations to explore the role of environmentally contingent network activity in predicting rewiring between GRNs using motility rescue as a model system. This will inform our understanding of the role the environment plays in shaping GRN arrangement, with the potential for different environments to rewire GRNs differently.

Location: This project will be conducted under the direct supervision of Dr Tiffany B. Taylor, and based within the Department of Biology and Biochemistry at the University of Bath (UK) in the new Milner Centre for Evolution (<http://www.bath.ac.uk/groups/milner-centre-for-evolution/>).

Requirements: We are looking for a biology graduate who has a strong interest in genetics, microbiology and evolution. Some practical experience in microbiology and molecular techniques is highly desired. The successful candidate will be enthusiastic, highly motivated, independent, have experience in microbiology, molecular biology or evolutionary biology (or a combination), and have a relevant degree. The applicant must meet the standard University of Bath English language requirements.

Planned start date: 1 September 2020 (13 months funding)

Contact: For informal enquiries please contact

UCalifornia LosAngeles ConservationGenomics LabTech

We are looking to hire a lab assistant in the Department of Ecology and Evolutionary Biology at the University of California, Los Angeles.

The position will primarily support the laboratory research requirements of the California Conservation Genomics Project, a state-wide initiative that seeks to assemble a large multispecies genomic data set for California's wild taxa. The position involves processing tissue and DNA/RNA extracts for next-generation sequencing in a high-throughput research setting. Previous experience in a molecular biology laboratory is preferable. The successful candidate will have a demonstrated ability to work with some supervision on large-scale projects that require attention to detail and molecular skills. If time permits, the employee may also help with similar research tasks supporting related projects. The Lab Assistant will also be responsible for some general lab management, including equipment maintenance and supply stock ordering.

Please see full job description and apply online: hr.mycareer.ucla.edu/applicants/Central?quickFindy221.

Thanks you!

Happy hand washing, ~Tara~

Tara Luckau Lab Manager, UCLA Shaffer Lab tkluckau@ucla.edu | 310.825.5063 pronouns: she/her/hers

TARA LUCKAU <tkluckau@ucla.edu>

UCincinnati TeachingEvolution

Hi all,

For those of you who are interested in the philosophy of science, science communication, and science outreach, the University of Cincinnati is hiring a full-time position for a person to act as the Executive Director of

the Philosophy of Science Association (0.75 FTE) and the Program Director for the UC Center for Public Engagement with Science (0.25 FTE). More details are below. I encourage you to apply and/or forward this to potentially interested parties.

All my best,

Nate

Nathan Morehouse

Associate Professor Department of Biological Sciences
University of Cincinnati 711H Rieveschl Hall Cincinnati, OH 45221-0006 Office: (513) 556-9757 coloremolution@uc.edu <https://homepages.uc.edu/~morehonn/@morehouselab> < <https://twitter.com/morehouselab> >

“Il y a un autre monde mais il est dans celui-ci.” - Paul Aluard

“One can give nothing whatever without giving oneself that is to say, risking oneself. If one cannot risk oneself, then one is simply incapable of giving.” - James Baldwin

The University of Cincinnati (UC) seeks to fill a full-time staff position to serve as Executive Director of the Philosophy of Science Association (PSA) < <https://www.philsci.org> > and Program Director for the UC Center for Public Engagement with Science < <https://ucengagingscience.org> >. We invite applications from candidates with an interest in nonprofit leadership, budgets and fundraising, and philosophy of science. Experience in these areas is desired but not required, as is an advanced degree in philosophy or another discipline in the humanities or sciences. Minimum degree requirement is a Bachelor’s degree.

Approximately three-quarters of the job (or 0.75 FTE) is dedicated to serving as Executive Director (ED) of the PSA. The ED is the executive leader and public face of the PSA, responsible for overseeing the organization’s administration, programs, and strategic planning. The ED works closely with the President, Governing Board, and PSA committees to develop and implement initiatives that further the mission of the organization, such as public outreach, expanding and diversifying the membership, and fundraising. Key responsibilities include managing business office operations, including the website and member communications, facilitating board meetings, serving as the principal liaison with the editors and publisher of the journal *Philosophy of Science*, and above all ensuring the successful functioning of PSA biennial conferences.

The remaining one-quarter (or 0.25 FTE) is dedicated to serving as Program Director for the UC Center for

Public Engagement with Science. This Center is an interdisciplinary initiative to expand and enrich the interface between science and the public to benefit all stakeholders. The Program Director will serve on the Center’s leadership team, managing organizational matters, budget and fundraising, and performing other activities congruent with PSA ED responsibilities.

This is a continuing, twelve-month appointment with an annual salary of \$60,000 and benefits. Start date is negotiable with the aim of October 19, 2020.

Application Process Interested and qualified candidates must complete the online application at UC’s recruitment website (link < <https://jobs.uc.edu/job/-Cincinnati-Program-Director,-Philosophy-OH-45201/-664573400/> >). In addition to the online application, please include a cover letter detailing your qualifications and interest in the position, curriculum vitae or resume, and the names of at least three references (who will not be contacted without advance notification to the applicant). Review of applications will begin on August 24, 2020, and will continue until the position is filled.

The University of Cincinnati, as a multi-national and culturally diverse university, is committed to providing an inclusive, equitable and diverse place of learning and employment. As part of a complete job application you will be asked to include a Contribution to Diversity and Inclusion statement.

The University of Cincinnati is an Affirmative Action / Equal Opportunity Employer / Minority / Female / Disability / Veteran.

“Morehouse, Nathan (morehonn)”
<morehonn@ucmail.uc.edu>

UIC Chicago EcoEvoDevo

The Alexander Shingleton Lab at University of Illinois at Chicago invites applications for Visiting Research Specialist. Successful candidate will conduct research on the regulation and evolution of gene-environment interactions by rearing, crossing and maintaining fruit flies (*Drosophila melanogaster*); conducting functional analysis of developmental physiology by generating flies that contain specific combinations of transgenic constructs designed to modify gene expression and/or protein function within specific tissues; rearing flies under a range of environmental conditions (variation in temperature, nutrition and oxygen level); assaying effects

of environmental variation and/or changes in gene expression/protein function on fly growth development and adult morphology; dissecting tissues from larval and adult flies; mounting dissected materials on slides; imaging dissected materials using transmitted and incidental light microscopy; using image analysis software to measure morphology of dissected materials; collating morphological data from various sources for statistical analysis; conducting statistical analysis; managing teams of junior researchers in data collection; assisting with the general function of the lab through purchasing supplies and equipment necessary for research. They will both conduct their own research and assist with the principle investigator's research.

Key Responsibilities/Duties:

- Generate and maintain *Drosophila* strains
- Conduct genetic crosses
- Dissect adult and larval *Drosophila*
- Mount dissected material on slides
- Image dissected material using both transmitted and incidental light microscopy
- Collate database of morphological measurements
- Analyze data both locally and using cloud-based resources
- Develop, troubleshoot and implement new protocols for data collection
- Supervise the operation and maintenance of highly-specialized equipment like microscopes.
- Train and supervise undergraduate students in research techniques, use of equipment, laboratory database usage and other related research as needed.
- Manage data collection by undergraduate students
- Coordinate, analyze, and document results for publication
- Purchase supplies and equipment necessary for research

Minimum Requirements:

- Bachelor's degree in biological sciences required
- Minimum of 3 years of laboratory research experience in a *Drosophila* genetics laboratory required
- Strong background in database management is required
- Strong background in morphometric analysis is highly desirable
- Successful candidate should be able to walk into the laboratory and know how to use light and fluorescent microscopes without additional training

For fullest consideration, submit an application, cover letter and CV at <https://jobs.uic.edu/job-board/job-details?jobID=134856> by August 21, 2020.

The University of Illinois at Chicago is an Equal Opportunity, Affirmative Action employer. Minorities, women, veterans and individuals with disabilities are encouraged to apply. The University of Illinois may conduct background checks on all job candidates upon acceptance of a contingent offer. Background checks will be performed in compliance with the Fair Credit Reporting Act.

Alexander Shingleton Associate Professor

Department of Biological Sciences The University of Illinois at Chicago

4283 SELE, MC 067 840 West Taylor Street Chicago, IL 60607 tel: (312) 996-0203 web: shingletonlab.org

"Shingleton, Alexander" <ashingle@uic.edu>

Uillinois Chicago GeneEnvironment

The Alexander Shingleton Lab at University of Illinois at Chicago invites applications for Visiting Research Specialist. Successful candidate will conduct research on gene-environment interactions by rearing, crossing and maintaining fruit flies (*Drosophila melanogaster*); conducting functional analysis of developmental physiology by generating flies that contain specific combinations of transgenic constructs designed to modify gene expression and/or protein function within specific tissues; rearing flies under a range of environmental conditions (variation in temperature, nutrition and oxygen level); assaying effects of environmental variation and/or changes in gene expression/protein function on fly growth development and adult morphology; dissecting tissues from larval and adult flies; mounting dissected materials on slides; imaging dissected materials using transmitted and incidental light microscopy; using image analysis software to measure morphology of dissected materials; collating morphological data from various sources for statistical analysis; conducting statistical analysis; managing teams of junior researchers in data collection; assisting with the general function of the lab through purchasing supplies and equipment necessary for research. They will both conduct their own research and assist with the principle investigator's research.

Key Responsibilities/Duties: - Generate and maintain *Drosophila* strains - Conduct genetic crosses - Dissect adult and larval *Drosophila* - Mount dissected mate-

rial on slides - Image dissected material using both transmitted and incidental light microscopy - Collate database of morphological measurements - Analyze data both locally and using cloud-based resources - Develop, troubleshoot and implement new protocols for data collection - Supervise the operation and maintenance of highly-specialized equipment like microscopes. - Train and supervise undergraduate students in research techniques, use of equipment, laboratory database usage and other related research as needed. - Manage data collection by undergraduate students - Coordinate, analyze, and document results for publication - Purchase supplies and equipment necessary for research

Minimum Requirements: - Bachelor's degree in biological sciences required - Minimum of 3 years of laboratory research experience in a Drosophila genetics laboratory required - Strong background in database management is required - Strong background in morphometric analysis is highly desirable - Successful candidate should be able to walk into the laboratory and know how to use light and fluorescent microscopes without additional training

For fullest consideration, submit an application, cover letter and CV at <https://jobs.uic.edu/job-board/job-details?jobID=134856> by August 21, 2020.

The University of Illinois at Chicago is an Equal Opportunity, Affirmative Action employer. Minorities, women, veterans and individuals with disabilities are encouraged to apply. The University of Illinois may conduct background checks on all job candidates upon acceptance of a contingent offer. Background checks will be performed in compliance with the Fair Credit Reporting Act.

Thank you,

Jacquelyn DeLaurentis Human Resource Associate — Department of Biological Sciences The University of Illinois at Chicago — 845 W Taylor St. 3238 SES, MC 066 Chicago, IL 60607 jdelaur@uic.edu

Jacquelyn DeLaurentis <jdelaur@uic.edu>

UmeaU Sweden EvolutionaryBiology

The Faculty of Science and Technology, Umea University, Sweden, has opened up five six-year positions as assistant professor. These positions will be filled in competition with applicants from all disciplines within the faculty, including Evolutionary Biology, Genetics and

Ecology. Candidates should be within five years after PhD-defense.

The deadline for the application is 19 Oct 2020. See the ad at: https://www.umu.se/en/work-with-us/open-positions/up-to-five-tenure-track-positions-as-assistant-professor_339630/ Xiao-Ru Wang

Xiao-Ru Wang <xiao-ru.wang@umu.se>

UMuenster TheoreticalEvolutionaryBiology

Job Announcement

The Institute for Evolution and Biodiversity (IEB) in the Faculty of Biology at the University of Münster, Germany, is seeking to fill a permanent position for a

Scientific Staff

einer Studienrätin/eines Studienrates im Hochschuldienst

(Salary Level A13, 100%)

The teaching obligation associated with this position is 13-17 (hours of instruction per week during semester), depending on the other general tasks assigned to the position. The weekly working time is currently 41 hours.

The primarily obligations associated with the position involve teaching in the area of Zoology and Evolutionary Biology, in particular organizing and running modules for the Bachelor of Biology, Master's of Science and Master's of Education in German and English. The successful candidate will also be heavily involved in the statistical education of bachelor, master's and doctoral students in the Faculty of Biology. They will also take over general tasks at the IEB according to her/his past experience.

In addition to teaching, the candidate is encouraged to develop their own research program in collaboration with colleagues at the IEB and Faculty of Biology and acquire third party funding.

Requirements for this position are a university degree and a doctoral degree in biology, physics, chemistry or mathematics, as well as comprehensive experience in theoretical evolutionary biology (e.g. statistical methods, modelling, etc.).

To be eligible for "Beamtenverhältnis" (German civil servant status) according to § 45 LVO, the candidate

needs to be able to prove employment for 3 years and 6 months after finishing her/his university degree or for 1 year after completing a doctoral degree. If the requirements are not yet fulfilled, the candidate can instead be employed as a public servant (TV-L E13) and change to the status of “Beamtenverhältnis” at a later stage. If the employee does not fulfill the requirements for a “Beamtenverhältnis” she/he can be permanently employed as a public servant (TV-L E13).

The University of Münster is an equal opportunity employer and is committed to increasing the proportion of women academics. Consequently, we actively encourage applications by women. Female candidates with equivalent qualifications and academic achievements will be preferentially considered within the framework of the legal possibilities. The University of Münster is committed to employing more staff with disabilities. Candidates with recognised severe disabilities who have equivalent qualifications are given preference in hiring decisions.

Applications including a CV, certificates of university and doctoral degrees, and details of teaching experience and publications should be sent by email as a single PDF file to evolecol@uni-muenster.de by 1 September 2020.

https://sso.uni-muenster.de/Rektorat/Stellen/-ausschreibungen/st_20200807_tb2.html Prof. Dr. Jürgen Gadau

Institute for Evolution und Biodiversity Hüfferstraße 1, 48149 <https://www.uni-muenster.de/Evolution/-molevolsoebio/> “Gadua, Jürgen Rudolf” <gadauj@uni-muenster.de>

UVirginia ResTech HostParasiteEvolution

The Department of Biology is hiring a Lab and Research Technician in the Gibson lab at the University of Virginia in association with a recently funded project to understand how environmental factors promote or impede the evolution of resistance. The Research Technician will be responsible for assisting with this and other ongoing projects in the lab.

The Gibson lab (coevolving.org) studies the evolutionary ecology and genetics of host-parasite interactions with the goal of understanding how organisms adapt to rampant uncertainty ’V uncertainty in the species and strain of parasite a host might encounter and uncertainty in the

environment in which that encounter will unfold. Our research makes use of the fabulous experimental tools and resources available for the model nematode *C. elegans* and its natural parasites. These include experimental evolution with cryogenic preservation, high-throughput phenotyping, a variety of transgenic methods, and wild isolates with whole genome sequences. Researchers in the lab have ample opportunity for creative experimental design, independence, and training in a variety of skills and areas of scholarship. In joining the lab, new members sign on to our commitment to promoting an inclusive and safe environment, supporting all the members of our team in realizing their full potential, and actively valuing the creativity and productivity that comes from the meeting of diverse minds.

Experience performing basic molecular techniques including DNA extraction, PCR, or gel electrophoresis, and familiarity with Excel and R is also highly preferred. In addition, the qualified candidate will have excellent verbal and written communication skills and the ability to work accurately and with attention to detail.

Duties:

- * Performing phenotyping assays to measure parasite resistance
- * Overseeing and assisting in experimental evolution projects
- * Entering and formatting data for use by researchers developing and parameterizing mathematical models
- * Staying up to date on relevant experimental techniques and implementing these in the lab to improve accuracy and efficiency
- * Training undergraduates in the lab and managing their schedules and responsibilities
- * Animal husbandry, including tracking levels of archived stocks, archiving additional stocks, ordering new stocks, and maintaining the condition of stocks
- * Ensuring normal day-to-day operations of the lab and compliance with environmental safety standards.

The anticipated salary range for the position is \$14 - \$16/hr.

This full-time position will remain open until filled.

APPLICATION PROCESS:

Process for External Applicants: Please apply at https://uva.wd1.myworkdayjobs.com/en-US/-UVAJobs/job/Charlottesville-VA/Biology-Gibson-Lab-and-Research-Tech_R0017086 .Complete an application online and attach a cover letter, CV/resume, and contact information for three professional references (name, email address, telephone number, and address).

Process for Internal UVA Applicants: Please apply through your Workday Home page, search “Find Jobs”, and search for “Biology Gibson Lab and Research Tech”. Complete an application online and attach a cover letter,

CV/resume, and contact information for three professional references (name, email address, telephone number, and address).

For questions about this position or the application process please contact Rich Haverstrom, Faculty Search Advisor, at rkh6j@virginia.edu.

The Laboratory and Research Technician role provides career tracks for laboratory technicians, geological technicians, and laboratory animal caretakers that perform a variety of laboratory and/or research tasks in support of research/teaching, clinical services, geological services, field research or a regulatory laboratory. Employees are responsible for a variety of standard procedures that range from routine to specialized in the areas of cleaning and decontamination; media preparation; performing standard/routine laboratory testing; sectioning and preparing rock and mineral samples for various mineralogical and laboratory analyses; preparing samples; assisting in autopsy, necropsy, or routine surgical procedures; maintaining animal health and welfare; recording data, and operating and maintaining tools and equipment.

The University of Virginia, including the UVA Health System and the University Physician's Group are fundamentally committed to the diversity of our faculty and staff. We believe diversity is excellence expressing itself through every person's perspectives and lived experiences. We are equal opportunity and affirmative action employers. All qualified applicants will receive consideration for

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WestChesterU
AquaticEvolutionaryBiol

West Chester University of Pennsylvania Tenure Track Assistant Professor of Biology Freshwater Ecologist College of the Sciences and Mathematics

Join a vibrant campus community whose excellence is reflected in its diversity and student success. West Chester University of Pennsylvania's Department of Biology invites applicants for the position of Freshwater

Ecologist. This is a tenure-track, Assistant Professor position starting August 2021. Actual starting salary is commensurate with experience.

Responsibilities:

Teaching: Teaching responsibilities will include both Wetlands and Freshwater Ecology lecture and laboratory sections, as well as upper division courses in the candidate's area of expertise or graduate courses as needed. The candidate may also be asked to teach lecture and/or laboratory sections of General Biology and Ecology. The teaching load at WCU is 12 student contact hours per week per semester.

Advising: Advise biology majors regarding academic planning and course scheduling. Faculty must schedule 5 hours of advising/consultation time each week for students.

Research: Establish an active, externally funded research program in freshwater ecology, with a field-based component, involving graduate and/or undergraduate students. Faculty members are expected to present results at national meetings and publish in refereed journals.

Service: Contribute to the university community and department by serving on committees, helping to recruit potential students, and performing other services as needed.

Requirements:

An earned doctorate in Ecology or a related discipline is required. The selected candidate must be qualified to teach Wetlands (lecture and laboratory), Freshwater Ecology (lecture and laboratory), and lecture and/or laboratory sections of General Biology and Ecology. Research focus in some area of freshwater ecology, with a field-based component, is required. Applicants must successfully complete the interview process, including a teaching demonstration and a research seminar, to be considered as a finalist.

To apply, upload a cover letter, curriculum vitae, teaching philosophy statement, research statement, diversity statement (please review guidance on the WCU Biology website: <https://www.wcupa.edu/sciences-mathematics/biology/diversityStatement.aspx>), and all undergraduate and graduate unofficial university transcripts to the online application system at <http://-agency.governmentjobs.com/wcupa/default.cfm>. In addition, provide email addresses for three references when completing the application. An email will be sent to each reference with information regarding how to upload letters of recommendation into the applicant tracking system. For any questions, contact Dr. Jessica Schedl-

bauer at Search-Bio@wcupa.edu.

Review of applications will begin on 10/5/20 and continue until the position is filled. Developing and sustaining a diverse faculty and staff advances WCU's educational mission and Strategic Plan, Pathways to Student Success. West Chester University is an Affirmative Action/Equal Opportunity Employer. Women, minorities, veterans, and persons with disabilities are encouraged to apply.

General Information: Approximately 14,500 undergraduate and 2,600 graduate students attend West Chester University (WCU), located 25 miles west of Philadelphia in scenic southeastern Pennsylvania. The University's strategic goals (<https://www.wcupa.edu/-/president/strategicPlan/default.aspx>) comprise learning, diversity and inclusion, sustainability, personal and professional development, and community engagement. The Department of Biology has 20 full time tenured/tenure-track faculty, approximately 750 undergraduate majors in six different concentrations, and 25+ graduate students in the M.S. program. Microscopy equipment in the Department includes epifluorescence microscopes, apparatus for video microscopy, scanning and transmission electron microscopes, a laser dissection microscope, cryostat, a microtechniques laboratory, and a spinning disk confocal microscope with TIRF capabilities. The Department has well-equipped teaching and research greenhouses, as well as growth chambers. It also houses a vertebrate collection containing over 2500 specimens and the Darlington Herbarium, one of the most historically important herbaria in the eastern U.S. with more than 20,000 specimens. The University is home to the 97-acre Gordon Natural Area, a protected area containing grassland, forest, riparian, and wetland habitats, available for teaching and faculty research. Also available within the Department of Geography and Planning's Center for Geographic Information Systems and Spatial Analysis are up to date GIS resources including ArcGIS and Arc Hydro. For

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Wyoming Bioinformatics

The Wyoming INBRE Bioinformatics (IBC) is seeking to expand its team with the hire of a data scientist experienced in working with biological data. Our team currently consists of scientists whose expertise covers model system genetics, bacterial evolution, marine biology, forest population genomics and computational biology.

Please see the complete post and online application information here: https://uwyo.taleo.net/careersection/00_ex/jobdetail.ftl?job=20002838&lang=en Additional information about the IBC can be found here: <https://ibc.uwyo.online> Additional information about the WY INBRE program can be viewed here: <http://www.uwyo.edu/wyominginbre> -----

Education/Outreach Coordinator - - Research Scientist in Bioinformatics - (20002838)

The University of Wyoming invites diverse applicants to consider our employment opportunities. We are also especially interested in candidates who have experience working with diverse populations and/or diverse initiatives.

JOB TITLE: Education/Outreach Coordinator - Research Scientist in Bioinformatics

RESEARCH SCIENTIST IN BIOINFORMATICS Department: The NIH-funded grant Wyoming INBRE Bioinformatics Core is seeking to hire a Research Scientist. The position will support the bioinformatics research and education activities of the Core, and will include service (60%), teaching (30%), and research (10%) components.

ESSENTIAL DUTIES AND RESPONSIBILITIES: The Core serves a state-wide network that includes the University of Wyoming (Laramie and Casper), as well as several community colleges, so some travel within the state is associated with the position.

The successful applicant will collaborate with faculty across the state to develop curricula and training in bioinformatics skills with college and university science instructors so that they can effectively integrate bioinformatics into their science curricula and help their students prepare for the 21st century workplace, and these activities will constitute the service component of the positions.

The research component is anticipated to mostly consist of co-authored publications arising from these collaborative projects. However, as long as the service goals of the positions are achieved, maintenance of an independent research program will be encouraged.

The teaching component will consist of organizing and conducting formal training activities (short courses,

workshops), as well as one-on-one training sessions with researchers.

Nicolas Blouin Associate Director, INBRE Bioinformatics Core University of Wyoming

“Nicolas A. Blouin” <nblouin@uwyo.edu>

Other

Belgium Internship PlantPestInteraction	46	Spain Internship PlantPestInteraction	49
CharlesU AvianEvolution	47	StudentAwards GenesAsEnvironment DeadlineAug31	
Online EvolCompGen Seminars	48	50	
Online EvolutionTeachingResources answers	48		
RobbLeary Obituary	48		

Belgium Internship PlantPestInteraction

Impact of climate changes on plant-pest interaction: insights from the rosy apple aphid and its apple host in a context of domestication

Amandine Cornille's group (<http://moulon.inra.fr/-index.php/fr/equipements/group-leader-amandine-cornille-young-atip-avenir-team>) and Tim Belien's group (<https://be.linkedin.com/in/tim-beli%C3%ABn-4a41164>) are recruiting a Master student and a bachelor to investigate the adaptation to climate and plant host of aphid pests.

Lab address?(supervision): PC-Fruit pcfruit vzw Fruit-tuinweg 1 3800 Sint-Truiden Belgium

Supervisors?: Amandine Cornille (amandine.cornille@inrae.fr), Ammar Alhmedi (Am-

mar.alhmedi@pcfruit.be) and Tim Belien (tim.belien@pcfruit.be)

Project summary Understanding the extent of local adaptation in natural populations and the mechanisms enabling individuals to adapt to their native environment is a major avenue in evolutionary ecology research. Host-pathogen coevolution is widely seen as a major driver of local adaptation and has therefore been a study model to dissect the evolutionary processes at work during local adaptation. However, the relative contributions of species interactions (i.e. biotic factor) and abiotic factors to local adaptation are still unclear. Addressing these issues is more than a simple academic exercise. Understanding of local adaptation processes in host-parasite interactions will also help tackling pressing issues, such as the ways in which environmental change alters the emergence of pathogens leading to host extinctions, how to promote sustainability of agroecosystems in the face of emerging crop diseases or in guiding for public health practices as more human pathogens and their vectors expand their ranges.

In this project, we investigate whether local adaptation occurred during the recent rapid colonization of cultivated apple by *Dysaphis plantaginea*, the major aphid pest of cultivated apple orchards, in Europe. We will carry out in April 2020 experimental tests for *D. plantaginea* fitness differences across environments (i.e. host and climate) to investigate whether the aphid is locally adapted to its host and/or climate. This project will generate original results adding to our understanding of how species interactions and abiotic conditions can shape local adaptation.

Master project The project involves the transplant of Belgian, French and Spanish aphid genotypes on Belgian, French and Spanish apple varieties in three locations (Belgian, France and Spain). The candidate will be involved in the assessment of the adaptive capacities at the ecological level of the rosy apple aphid at the BELGIAN site located at PCFruit (Sint-Truiden, Belgium). The project can last four (Bachelor) to six months (Master), and will consist in participating in aphid infestations and rearing on the field, tree measurement, associated statistical analyses, and final report writing.

1) The candidate will lead the launching of the experiment there during Spring 2021 by transplanting aphids on several apple cultivars and will measure several phenotypic traits. The growth rate of each colony will be measured after 12 days of infestation. Various functional traits which are proxies of the condition of the plant (i.e. chlorophyll content, carbon/nitrogen balance, and flavonol and anthocyanin content measured with the Dualex[®] pincel) will also be measured.

2) If wanted, He/She will analyze the dataset that will be generated.

Methodology: Statistical analyses (linear and mixed models, R), ecophysiology, phenotypic measurement, rearing, insect biology, field experiment.

Profile preferred for the candidate: Ideally, the candidate will have skills in ecology and evolution or at least will show strong interest in these fields. He/She will have to be highly motivated about field experiment, as this one will be intense the first two months. He/she will not necessarily be familiar with apple or aphid model.

Deadline for submission: The sooner the better.

Duration : 2 to 4 months, starting date: March 2021, contact Amandine CORNILLE for further discussions.

Supervision?: Amandine CORNILLE - Chargée de Recherche CNRS CRCN Génétique Quantitative et Evolution - Le Moulon Ferme du Moulon 91190, Gif-sur-Yvette, France

mail?: amandine.cornille[at]gmail.com Google Scholar

profile : <https://scholar.google.com/citations?user=-EqIE2h8AAAAAJ&hl=fr> Personal page : <http://moulon.inra.fr/index.php/fr/equipes/dygap/355> Group page?:

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CharlesU AvianEvolution

Do you like birds? Are you interested in the field of behavioural ecology and bioacoustics? We are looking for a highly motivated student to join our research group at the Department of Ecology of Charles University in Prague.

What do we offer? A degree final project on geographic song variation of the spectacled warbler (*Sylvia conspicillata*). This species presents different migratory strategies (sedentary in islands VS migrant in the mainland) that might be leading to divergence in song structure in different populations within the same species. We have acoustic data from islands of three different archipelagos (Madeira, the Canaries and Cape Verde) as well as from continental areas (the Iberian Peninsula). The selected candidate will assess the song differentiation among populations within archipelagos and among archipelagos, and also among islands and the mainland. In order to achieve this, the student will be trained in the use of specialized software for bioacoustics studies such as the widely used Avisoft and Raven and the up-and-coming Luscinia. Besides that, the student might have the chance to get some fieldwork experience by giving a hand in other projects of this group conducted in different field sites around the Czech Republic.

This is a perfect opportunity for international students that want to carry out their degree final project abroad (Bachelor's/ Master's thesis). For students from European universities, they can get money to cover/reduce monthly living costs by applying for Erasmus funding (e.g. Erasmus + traineeship grant).

Please contact the head of the lab (Tereza Petrusková) if you wish to apply or want to find out more about it: kumstatova@post.cz

Do you still want to know more about our research group? Check the following link:

<https://www.natur.cuni.cz/biology/ecology/research/-ongoing-projects/bioacoustic-research-group/about>

Javier Oñate Casado <javiatocha@gmail.com>

Online EvolCompGen Seminars

Dear colleagues,

You are invited to the next online journal club on Evolution and Comparative Genomics organized by ISCB and SMBE (as part of the ISCBacademy series of webinars) on Evolution and Comparative Genomics.

The next seminar will take place next week, Monday August 24, at 11:00AM EDT: Unravelling the mystery of orphan genes to understand the origins of genetic novelty by Nikos Vakirlis (BSRC Alexander Fleming).

Participation is free for any member of ISCB or SMBE, but registration is required. Please follow the link below: <https://www.iscb.org/iscbacademy-upcoming#vakirlis>
Links to the articles:

* Vakirlis, N., Carvunis, A.-R., McLysaght, A., 2020. Synteny-based analyses indicate that sequence divergence is not the main source of orphan genes. *eLife* 9, e53500. <https://doi.org/10.7554/eLife.53500> * Vakirlis, N., Acar, O., Hsu, B., Castilho Coelho, N., Van Oss, S.B., Wacholder, A., Medetgul-Ernar, K., Bowman, R.W., Hines, C.P., Iannotta, J., Parikh, S.B., McLysaght, A., Camacho, C.J., O'Donnell, A.F., Ideker, T., Carvunis, A.-R., 2020. De novo emergence of adaptive membrane proteins from thymine-rich genomic sequences. *Nature Communications* 11, 1- 18. <https://doi.org/10.1038/s41467-020-14500-z> If you are interested in presenting, or you want to suggest an article of interest for the journal club, please send an abstract to webinar@evolcompgen.org with “Abstract for Webinar” as the title of your message.

All the best,

Aida Ouangraoua, on behalf of the organizing committee.

“Aida.Ouangraoua@USherbrooke.ca”
<Aida.Ouangraoua@USherbrooke.ca>

Online EvolutionTeachingResources answers

Dear all,

I recently posted a request on Twitter for online evolution resources that could be used in teaching to replace museum specimens.

I promised I would share any signposted links via EvolDir, so they are listed below ??? hope they are helpful, and many thanks to those who responded to the call.

I hope everyone is doing okay in these strange and troubling times, and best wishes,

Zen

Flies: <https://www.ento.csiro.au/biology/fly/-flyGlossary.html> JOVE: <https://www.jove.com/science-education/10561/evolutionary-relationships>

The one above is part of a suite of resources: <https://www.jove.com/science-education-library/41/lab-bio>.

They can be integrated into teaching platforms, instructions here: <https://www.jove.com/facultyresources> .

Everything: <https://www.idigbio.org/> . Skulls: <https://sketchfab.com/> . UK NHM: https://data.nhm.ac.uk/-dataset/collection-specimens/resource/05ff2255-c38a-40c9-b657-4ccb55ab2feb?view_id=6ba121d1-da26-4ee1-81fa-7da11e68f68e&filters=collectionCode%3AZOO

. Invertebrates: <https://arludo.com/game/pinned-diversity/> . Professor Zenobia Lewis @Zen_of_Science

Room G53, Ground Floor, Biosciences Building School of Life Sciences University of Liverpool Liverpool L69 7ZB UK

+44(0) 151 795 4384

“Lewis, Zenobia” <Z.Lewis@liverpool.ac.uk>

RobbLeary Obituary

It is with great sadness that I report the death of Robb F. Leary on 27 July 2020. In 1984, Robb was awarded the Theodosius Dobzhansky Prize by the Society for the Study of Evolution for his work on understanding the developmental genetic basis of fluctuating asymmetry.

Robb once said that one of the smartest things he ever did was to turn a fish over to the other side.

Robb was born on 11 April 1955 in Hartford, CT, USA. He did his undergraduate work at the University of Massachusetts-Amherst, his MS research at the University of Wisconsin-Stevens Point, and he received his PhD from the University of Montana in 1986. Robb devoted his life to the study of the genetics, evolution, and conservation of native fishes in positions at the University of Montana and with the Montana Department of Fish, Wildlife and Parks. He was recognized for this work in February 2020 by receiving the Montana Chapter of the American Fisheries Society Career Achievement Award. Please contact fred.allendorf@gmail.com if you would like more information.

Fred Allendorf <fred.allendorf@gmail.com>

Spain Internship PlantPestInteraction

Impact of climate changes on plant-pest interaction: insights from the rosy apple aphid and its apple host in a context of domestication

Amandine Cornille's group (<http://moulon.inra.fr/index.php/fr/equipements/group-leader-amandine-cornille-young-atip-avenir-team>) and Enrique Dapenas's group (<https://be.linkedin.com/in/tim-beli%C3%ABn-4a41164>) are recruiting a Master or a bachelor to investigate the adaptation to climate and plant host of aphid pests.

Lab address?(supervision): SERIDA. ?rea de Cultivos Hortofrut?colas y Forestales. Apdo 13. 33300 Villaviciosa Asturias (Espa?a).

Supervisors : Amandine Cornille (amandine.cornille@inrae.fr), Enrique Dapenas (edapena@serida.org) and Marcos Minarros (mminarro@serida.org)

Project summary Understanding the extent of local adaptation in natural populations and the mechanisms enabling individuals to adapt to their native environment is a major avenue in evolutionary ecology research. Host-pathogen coevolution is widely seen as a major driver of local adaptation and has therefore been a study model to dissect the evolutionary processes at work during local adaptation. However, the relative contributions of species interactions (i.e. biotic factor) and abiotic factors to local adaptation are still unclear.

Addressing these issues is more than a simple academic exercise. Understanding of local adaptation processes in host-parasite interactions will also help tackling pressing issues, such as the ways in which environmental change alters the emergence of pathogens leading to host extinctions, how to promote sustainability of agroecosystems in the face of emerging crop diseases or in guiding for public health practices as more human pathogens and their vectors expand their ranges.

In this project, we investigate whether local adaptation occurred during the recent rapid colonization of cultivated apple by *Dysaphis plantaginea*, the major aphid pest of cultivated apple orchards, in Europe. We will carry out in April 2020 experimental tests for *D. plantaginea* fitness differences across environments (i.e. host and climate) to investigate whether the aphid is locally adapted to its host and/or climate. This project will generate original results adding to our understanding of how species interactions and abiotic conditions can shape local adaptation.

Master project The project involves the transplant of Belgian, French and Spanish aphid genotypes on Belgian, French and Spanish apple varieties in three locations (Belgian, France and Spain). The candidate will be involved in the assessment of the adaptive capacities at the ecological level of the rosy apple aphid at the SPAIN site located at SERIDA (Villaviciosa, Spain). The project can last two (Bachelor) to three months (Master), and will consist in participating in aphid infestations and rearing on the field, tree measurement, associated statistical analyses, and final report writing.

1) The candidate will participate in the launching of the experiment there during Spring 2021 by transplanting aphids on several apple cultivars and will measure several phenotypic traits. The growth rate of each colony will be measured after 12 days of infestation. Various functional traits which are proxies of the condition of the plant (i.e. chlorophyll content, carbon/nitrogen balance, and flavonol and anthocyanin content measured with the Dualex? pincel) will also be measured.

2) If wanted, He/She will analyze the dataset that will be generated.

Methodology: Statistical analyses (linear and mixed models, R), ecophysiology, phenotypic measurement, rearing, insect biology, field experiment.

Profile preferred for the candidate: Ideally, the candidate will have skills in ecology and evolution or at least will show strong interest in these fields. He/She will have to be highly motivated about field experiment, as this one will be intense the first two months. He/she will not necessarily be familiar with apple or aphid model.

Deadline for submission: The sooner the better, deadline mid-septembre.

Duration : 2-3 months, starting date: March 2021, contact Amandine CORNILLE for further discussions.

Supervision?: Amandine CORNILLE - Charg?e de Recherche CNRS CRCN G?n?tique Quantitative et Evolution - Le Moulon Ferme du Moulon 91190, Gif-sur-Yvette, France

mail?: amandine.cornille[at]gmail.com Google Scholar profile : <https://scholar.google.com/citations?user=-EqIE2h8AAAAJ&hl=fr> Personal page : <http://moulon.inra.fr/index.php/fr/equipes/dygap/355> Group page?:

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**StudentAwards
GenesAsEnvironment
DeadlineAug31**

Awards available for students and postdocs who submit abstracts for the November online AGA2020 President's Symposium: Genes as Environment: Indirect Genetic Effects in Evolution, Agriculture, and Medicine

AGA student and postdoc members who submit a "poster" abstract before September 1st will receive free registration and the opportunity for a short presentation. Because of the switch to a virtual meeting, "poster" presentations will actually be lightning talks, so by submitting an Abstract, you will be able to present a short (3-min) talk at the AGA Genes as Environment Symposium. President Kim Hughes will select several of these abstracts for 15-minute oral presentations and \$50 Presentation Awards.

Register now at <https://www.theaga.org/-agatwentytwenty.htm> To maximize the number of people who can participate in real time, the meeting will take place over 4 consecutive days, 15-18 Nov, from 15:00 -19:00 UTC (11:00 - 15:00 EST, 08:00 -12:00 PST, 16:00-20:00 GMT).

There will be breakout rooms for question-and-answer sessions, and virtual coffee/lunch breaks and happy hours so all participants can interact. Speakers will also have the option to make videos of presentations available for a short time period, to accommodate participants who cannot view talks in real time.

Key Distinguished Lecturer Allen J Moore will open the meeting with his address, *Why we need to understand indirect genetic effects*.

Invited speakers include: Nathan Bailey Amelie Baud Piter Bijma Butch Brodie Nancy Chen Niels Dingemans Kathleen Donohue Courtney Fitzpatrick Maren Friesen Swanne Gordon Andrew McAdam Joel McGlothlin Stephanie Porter David Rand Julia Saltz Michael Wade Alastair Wilson

theaga@theaga.org

Anjanette Baker <theaga@theaga.org>

PostDocs

AarhusU Denmark StatisticalGenetics	51	Surrey UnitedKingdom Biodiversity	67
Bergen Norway NeuronEvolution	52	TempleU PlantPollinatorInteractions	68
CarnegieStanford EcoEvolutionaryGenetics	53	UCalifornia Berkeley HumanEvolutionaryGenetics ..	69
Chile EvolutionaryPhysiology	54	UCalifornia Davis FishEvolution	70
ConsortiumPlantInvasionGenomics Aug10deadline ..	55	UCDavis PlantEvolutionaryEcology	70
CzechRepublic 2 Bioinformatics	56	UColorado LichenMetagenomics	71
DalhousieU PhylogeneticModeling	57	UCopenhagen WildlifePopGen	71
FieldMuseum Chicago MolecularEvolutionComparativeGenomics	58	UDresden EvolutionarySpermBiology	72
FloridaAtlanticU EvolutionaryGenomics	58	UEasternFinland HumanSexualSelection	72
FreieU Berlin EvolutionaryDemography	59	UFlorida MelastomataceaePhylogenomics	73
GEOMAR Kiel SeagrassEvolutionaryGenomics	59	ULethbridge SalamanderConservationGenomics ...	74
HalleJena Germany ViralEvolutionaryBioinformatics	60	UManchester EvolutionaryMicrobiology	75
INRAE CNRS France ModelingEcoEvolutionaryDynamics	60	UMichigan ModelingDiseases	76
JohnInnesCentre UK EvolutionPlants	61	UOxford EcoEvoHostParasite	76
Lausanne SoilMicrobiome	63	UPadova HumanPopGenetics	77
Liverpool MosquitoGenomics	63	UToronto 2 PlantPopulationGenomics	77
MarineBiolLab MicrobialSymbioses	64	UUlm WildlifeImmuneEvolution	78
Muenster Germany ForecastModelDiseaseDynamics	65	UVirginia HostParasiteEvolution	78
Normandy EvolutionRespiratoryViruses	65	VanderbiltU MicrobialSymbiosisEvolution	79
Oxford UK GenomeEvolution	66	WoodsHole MA TransgenerationalInheritance	80
Paris-SaclayU PhylogenomicsOriginEukaryotes	67	YorkU BeeEvolution	80

AarhusU Denmark StatisticalGenetics

Aarhus University is recruiting two 2-year postdocs in statistical genetics based at the Center for Quantitative Genetics and Genomics (QGG). The provisional starting date is 1st November 2020.

The positions The primary supervisor will be myself (Doug Speed, QGG), with co-supervision from Drs Bjarni J Vilhjalmsson (NCR) and Søren Åstergaard (Department of Clinical Medicine). Below are the two main aims of the positions, however the specific projects will be decided according to the interests and experience of the successful applicants.

1 - Heritability analysis of genome-wide association study (GWAS) data. I have created the software package LDAK which contains a variety of methods for analysing GWAS data. These include tools for estimating SNP heritability, heritability enrichments and genetic correlations and for performing single-SNP and gene-based association tests. Each of these methods starts with the linear mixed model. Possible projects include extending these methods or developing new versions (e.g. adapt them to accommodate different datatypes, generalizing

them to multiple phenotypes, or create versions that require only summary statistics). The primary focus will be methods for human data (e.g., UK Biobank), but there is also the opportunity to work with animals and plants.

2 - Using artificial intelligence to improve genetic prediction of complex traits This work will be part of a project investigating whether artificial intelligence methods can be applied to genetic data in order to improve prediction of complex traits. As described in the project description “Many complex diseases are highly heritable (e.g., schizophrenia, major depression, Ischemic Stroke and Alzheimer’s Disease all have heritability between 40 and 80%), and so it should be possible to accurately predict which individuals will develop them based on genetic information. However, at present this is not the case. For most complex diseases, the best prediction models have accuracy less than a fifth the theoretical maximum. In an attempt to move the field of personalized medicine forward, we will adapt tools for natural language processing (NLP), a branch of artificial intelligence, for use with genetic data.”

Relevant references 1 < <https://www.nature.com/naturecareers/job/two-postdocs-developing-gwas-methods-with-a-focus-on-prediction-of-complex-traits-aarhus-university-au-728333#fn1> > Speed et al. Reevaluation of SNP heritability in complex human traits (Nature Genetics, 2017)

2 < <https://www.nature.com/naturecareers/job/-two-postdocs-developing-gwas-methods-with-a-focus-on-prediction-of-complex-traits-aarhus-university-au-728333#fn2> > Speed and Balding. SumHer better estimates the SNP heritability of complex traits (Nature Genetics, 2019)

3 < <https://www.nature.com/naturecareers/job/-two-postdocs-developing-gwas-methods-with-a-focus-on-prediction-of-complex-traits-aarhus-university-au-728333#fn3> > Speed et al. Evaluating and improving heritability models using summary statistics (Nature Genetics, 2020)

Supervisors and supervision I specialize in developing statistical methods for analyzing large scale GWAS data. I have released the software LDAK which contains tools for detecting causal variants, constructing prediction models and better understanding genetic architecture, using both individual-level data and summary statistics (see www.ldak.org for more details).

I believe that when performing a statistical analysis, it is very important to understand what the analysis is doing. Further, if you understand an analysis, it increases the chance that you can find ways to improve the analysis or to transfer the ideas to other problems. In general, I only use software that I could in theory code up myself (I say in theory, because it would be very inefficient to always make my own software). Therefore, I am keen that people I supervise also understand the analyses they perform, and am happy if they spend time trying to understand methods (I will also try and help explain methods, where I can).

Bjarni J Vilhjalmsón is interested in developing and applying statistical methods that integrate health records and large genetic datasets to study the etiology of diseases and psychiatric disorders. This includes causal inference, heritability analysis, GWAS, as well as polygenic risk scores.

Søren Dinesen Åstergaard is a medical doctor who focuses on psychiatric

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Bergen Norway NeuronEvolution

Postdoctoral Research Fellow position: Evolutionary Origin of Synapses and Neurons at Sars Centre in Bergen, Norway

There is a vacancy for a postdoctoral research fellow position at the Sars International Centre for Marine Molecular Biology (www.sars.no) in the research group headed by Dr. Pawel Burkhardt. The position is for a period of 3 years and is funded on the Sars Centre core budget. The Sars Centre belongs to the University of Bergen and is partner of the European Molecular Biology Laboratory (EMBL) (www.embl.de). The place of work will be at the Sars Centre. The preferred starting date is between October and December 2020.

About the project/work tasks:

The Burkhardt group combines comparative biological systems in the laboratory to understand when and how the first synapses and neurons evolved. The group is particularly interested in studying the origin and evolution of synaptic proteins. We are looking for a highly self-motivated and enthusiastic Postdoctoral Research Fellow with interests in evolutionary biology, neurobiology and cell biology. The project will focus on the functional characterization of synaptic protein homologs in choanoflagellates and ctenophores to better understand the evolution of first neuron-like cell types in animals. The successful candidate will undertake research with the possibility to use a variety of techniques, ranging from generating transgenic reporter lines, CRISPR/Cas9-mediated genome editing, super resolution immunofluorescence and electron microscopy to study synaptic protein homologs in choanoflagellates and/or ctenophores. The successful candidate will work in close association with the group leader and other lab members with the aim to contribute to the further development of the project in line with her/his interests.

Qualifications and personal qualities:

- The applicant must hold a Norwegian PhD or an equivalent degree or must have submitted his/her doctoral thesis for assessment prior to the application deadline. It is a condition of employment that the PhD has been awarded - Strong motivation/enthusiasm to perform research at an internationally competitive level - Practical experience with CRISPR/Cas9-mediated genome editing and with different fluorescence imaging techniques

is highly desirable - Specific experience with choanoflagellates or ctenophores is beneficial, but not essential - The ability to work both independently and to cooperate with others in a structured manner is essential⁷ - Proficiency in both written and oral English

About the position of postdoctoral research fellow:

The position of postdoctoral research fellow is a fixed-term appointment with the primary objective of qualifying the appointee for work in top academic positions. The fixed-term period for this position is 3 years. Individuals may not be hired for more than one fixed-term period as a postdoctoral research fellow at the same institution.

Upon appointment, applicants must submit a project proposal for the qualifying work including a work schedule. It is a requirement that the project is completed in the course of the period of employment.

We can offer:

- A professional, challenging and international working environment.
- Well-equipped, modern laboratories and facilities
- Salary at pay grade 59 (code 1352 / pay range 24, alternative 1) according to the state salary scale upon appointment. This constitutes a gross annual salary of NOK 523.200. Further promotions are made according to length of service. For particularly highly qualified applicants, a higher salary may be considered
- Enrolment in the Norwegian Public Service Pension Fund
- Good welfare benefit

Your application must include:

- A cover letter of the applicant's research interests and motivation for applying for the position.
- The names and contact information of 2-3 reference persons. One of these must be the main advisor from the PhD programme.
- CV
- Transcripts and diplomas and official confirmation that the doctoral thesis has been submitted
- Relevant certificates/references
- List of publications or other relevant scientific work

The application and appendices with certified translations into English or a Scandinavian language must be uploaded at JobbNorge (<https://www.jobbnorge.no/en/available-jobs/job/190639/-postdoctoral-research-fellow-position-evolutionary-origin-of-synaptic-proteins>).

Application Deadline: 30.08.2020

General information:

Detailed information about the position can be obtained by contacting: Group Leader Pawel Burkhardt, tlf.: +47 906 48 539, email: Pawel.Burkhardt@uib.no

The state labour force shall reflect the diversity of Nor-

wegian society to the greatest extent possible. Age and gender balance among employees

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CarnegieStanford EcoEvolutionaryGenetics

4 Postdoc or Technician Positions in Eco-Evolutionary Genetics, Field Experimental Ecology, Genome Sequencing, and/or Gene Editing in Plants

Description Moi Exposito-Alonso Lab - www.moisesexpositoalonso.org Carnegie Institution for Science & Stanford University, California 94305, USA Annual salary \$64,268 (for postdoc level, may vary depending on qualifications) Up to 5 years (extendable for technician positions) Publication date: Aug 2020 Earliest starting date: Sep 2020 (flexible) Closing date: accepting applications until filled

Description We aim to recruit highly motivated and creative people with strong training in at least one of the following areas: quantitative and population genetics, bioinformatics, next-generation sequencing, gene editing, experimental ecology.

We seek to study the impact of climate change on species and how or whether they will genetically adapt to such changes. Specifically, we aim to experimentally quantify the mode and tempo of genetic adaptation to different climates, find genetic loci involved in past adaptations, and model experimental populations using population genetic theory and computational approaches. A core project of the lab involves next-generation sequencing of experimental populations in ~50 locations around the world (GrENE-net.org), and the analyses of this sequence data to understand evolutionary processes related to evolutionary rescue. A parallel project involves engineering plants with CRISPR or other tools to study the impact of engineered mutations in similar experimental evolution settings as GrENE-net. The lab is also involved in analysing ecological and genomic data of threatened keystone species (Aspen and Joshua trees) and sustainable bioenergy crop species (Pennycress). These positions require conducting research independently using large genomic and experimental datasets,

participating in collaborative projects, preparing publications, and presenting research in scientific meetings.

Equal opportunity employer Carnegie is an equal opportunity employer. All qualified applicants will receive consideration for employment without regard to race, religion, color, national origin, sex, sexual orientation, gender identity, age, veteran status, disability or any other protected status in accordance with applicable laws. We aim to have a vibrantly diverse lab, which is essential to tackle scientific questions from different creative angles. The main requirement for these positions is that you are passionate about the topics above, so please apply!

Requirements Required qualifications for these positions are a doctoral degree in any of the following areas: molecular biology, population genetics, evolutionary biology, ecology, bioinformatics, computer sciences, or statistics; a track record of research productivity and independence, and a willingness to work closely with collaborators and lab members.

Position details This is a full-time position with a competitive annual salary of \$64,638 and benefits. The lab is located at the Carnegie Institution on the Stanford University campus. Carnegie Postdocs have access to Stanford facilities. Stanford campus is a vibrant community embedded in the San Francisco Bay area, with opportunities for extensive social and scientific interactions. The initial position will be for one year with potential renewal of up to five years depending upon performance.

Additional information: The Department of Plant Biology of the Carnegie Institution for Science (formerly known as the Carnegie Institution of Washington) is a private endowment U.S.-based non-profit, located on the campus of Stanford University since 1928. Andrew Carnegie founded the Carnegie Institution of Washington in 1902 as an organization for scientific discovery to serve as a home to exceptional individuals - men and women - with imagination and extraordinary dedication capable of working at the cutting edge of their fields. Today, Carnegie scientists work in six scientific departments on the west and east coasts and at the Las Campanas Observatory in Chile. Carnegie investigators have made key discoveries in plant biology, including early experiments of local adaptation (Clausen, Keck, Hiesey), the discovery of transposable elements (McClintock), plant ecophysiology at global scales (Berry, Field), the discovery of key photosynthesis and phototropism genes (Grossman, Briggs), or The Arabidopsis Information Resource TAIR (Rhee, Somerville). The Department of Plant Biology (<https://dpb.carnegiescience.edu>) and Global Ecology (<https://dge.carnegiescience.edu>) have

state-of-the-art facilities for molecular genetic studies of plants, greenhouses and field sites, and computer resources.

The lab is co-affiliated with the Department of Biology at Stanford

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Chile Evolutionary Physiology

Is this too long?

[Postdoc call in Evolutionary Physiology] Global warming, conservation and hibernation in the relict marsupial *Monito del Monte*, in Southern South America

Our laboratory is looking for postdoctoral associates interested in applying to the next Fondecyt competition, for developing a 3-years research project in populations of the relict marsupial “monito del monte” (*Dromiciops gliroides*). Possible topics are listed below, and will depend on applicant’s background:

1. Hibernation and climate change. To develop a physiological model predicting geographic shifts and survival in *D. gliroides* populations, using the temperature projections of global warming. This includes parameterizing a model with field data from temperature data loggers and nests, across an altitudinal gradient in Southern Chile and Argentina (Humphries et al., 2002).
2. Mesocosm experiments and the bioenergetics of hibernation. To perform a replicated outdoor experiment for measuring field metabolic rates in hibernating monitos, including thermographic images and thermal gradients in animals located within field enclosures in the Valdivian forest (example: Nespolo et al., 2020).
3. Local adaptation of hibernation genes, across monitos geographic range. This includes to use the recent whole genomic sequencing of monitos, to assess local adaptation by resequencing and testing for positive selection in genes with functional significance for the cold (example: Ngatia et al., 2019). Sampling (blood) in our field locations at extreme Andean North/South populations in Chile and Argentina is required.
4. Seasonal changes in body composition during hibernation using quantitative magnetic resonance. This

includes to use the recently obtained quantitative resonance equipment (Fondequip) for studying how monitos manage to accumulate reserves and spend them during hibernation (example: Hindle et al., 2015).

Interested researchers are asked to provide a one-page outline of their proposal before Aug, 31, 2020. Contact: Roberto Nespolo Rossi (robertonespolorossi@gmail.com), Universidad Austral de Chile. Official deadline for application in Fondecyt: middle September, 2020, for starting in April, 2021. Requisite: to have the PhD.

Location: Valdivia, Chile.

Fondecyt website: <https://www.anid.cl/concursos/-concurso/?id=281> Hindle, A. G., Otis, J. P., Epperson, L. E., Hornberger, T. A., Goodman, C. A., Carey, H. V. & Martin, S. L. 2015. Prioritization of skeletal muscle growth for emergence from hibernation. *Journal of Experimental Biology* 218: 276-284.

Humphries, M. M., Thomas, D. W. & Speakman, J. R. 2002. Climate-mediated energetic constraints on the distribution of hibernating mammals. *Nature* 418: 313-316.

Nespolo, R. F., Fontebello, F. E., Mejias, C., Contreras, R., Gutierrez, P., Oda, E., Sabat, P., Hambly, C., Speakman, J. R. & Bozinovic, F. 2020. A mesocosm experiment in ecological physiology: adaptive modulation of energy budget in a hibernating marsupial under chronic caloric restriction. *bioRxiv*.

Ngatia, J. N., Lan, T. M., Dinh, T. D., Zhang, L., Ahmed, A. K. & Xu, Y. C. 2019. Signals of positive selection in mitochondrial protein-coding genes of woolly mammoth: Adaptation to extreme environments? *Ecology and Evolution* 9: 6821-6832.

Roberto Nespolo Rossi Instituto de Ciencias Ambientales y Evolutivas robertonespolo@uach.cl Edificio Pugin, oficina 338, laboratorio 302 Avenida Rector Eduardo Morales 23 Campus Isla Teja, Universidad Austral de Chile Valdivia - Chile Fono 56-63-2221704

Roberto Nespolo <robertonespolorossi@gmail.com>

Consortium Plant Invasion Genomics Aug10deadline

The Consortium of Plant Invasion Genomics (CPING; www.invasiongenomics.com) invites applications for its postdoctoral researcher fellowship competition. CPING

is an NSF-funded project spanning five universities with the joint missions to determine how and why certain plant species become invasive and to train the next generation of botanists to use modern genomic and bioinformatic tools. Specifically, we are reconstructing genomic time series for five focal invasive plant species using herbarium specimens to investigate the roles of colonization history, admixture and adaptation in the invasion process. We also will be hosting genomics boot-camps for professors from EPSCoR regional universities and colleges. This training network will both promote genomics/bioinformatics expertise and create the opportunity for participants to contribute to CPING research projects.

Possible Mentors / Home Universities Applicants may apply to work with any Co-PI in the network and can be based at any of the four CPING hub institutions: University of Louisiana at Lafayette, West Virginia University, University of Alabama, South Dakota State University and Wichita State University. Co-PI projects are described below:

Barrett Lab - West Virginia University Projects in the Barrett lab will focus on genomic, phenotypic, and environmental aspects of rapid adaptation in the invasive Japanese stiltgrass. Potential projects for the CPING postdoc include genotype-phenotype associations using common garden and reciprocal transplant experiments; population genomics of invasion history in the native vs. invasive ranges; comparative genomics and genomic architecture of invasiveness; and the role of transposable elements in invasion history and success.

Latvis Lab - South Dakota State University Projects will focus on Russian thistle, using historical specimens to examine population structure, admixture, and ploidy through time in the introduced range. Potential postdoc projects include population genomics of invasion history and admixture with closely related species; inference of ploidy from historical specimens and ecological niche modeling of differing ploidal levels (cytotypes)

Kooyers lab - University of Louisiana at Lafayette Projects in the Kooyers lab focus on the role of adaptation in facilitating invasions while evolving to match changing climates. Potential projects for the CPING postdoc could include assessing adaptation lags in multiple introduced regions using resurrection experiments, investigating and investigating the genomic architectures of invasiveness and adaptation to climate change, or comparing the population genomics of invasion history across multiple geographically disparate introductions using herbarium specimens.

McKain Lab - University of Alabama Projects in the McKain lab will focus on the generation and analysis of

whole genome sequences for multiple accessions across the US range of Johnsongrass. Potential projects for the CPING postdoc in the McKain lab include the comparison of subgenome fractionation across accessions, identification of transcription factor binding sites and their variation for homoeologs in different populations, and comparison of structural variation associated with adaptation. Generation of methylome and open chromatin data to add to current CPING analyses is also of potential interest.

Preferred Qualifications *The optimal candidate would possess some or all of the following:*

- PhD in invasion biology, botany, evolutionary biology, ecology, computational biology, or a related field
- Experience constructing genomic libraries
- Experience working with herbaria or other natural history collections
- Experience in bioinformatics (working in a Unix environment, genome assembly, phylogenomic or population genomic analyses)
- Experience coding in R, python, Perl, or another computing language
- Experience researching polyploid species
- Desire and propensity to teach genomics and bioinformatics to all levels of trainee
- Excellent communication and organization skills.

The successful applicant will focus his/her research efforts on one of the CPING focal invasive species, while having latitude to pursue independent research interests related to CPING projects. The successful applicant will also collaborate with other CPING labs to leverage the strength of the network to their advantage. Opportunities for outreach through participation in genomics and bioinformatics bootcamps will also be available. The initial appointment is for one year with the opportunity to extend up to three years. Support includes a competitive salary and a benefits package including retirement and health care. A stipend for independent research (\$5,000/year) is also included.

Informal inquiries about the position can be sent to any

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CzechRepublic 2 Bioinformatics

Position 1

Postdoctoral Position in Bioinformatics (Aquatic Parasitology)

Expires on September 30, 2020

The position for experienced bioinformatician is open to analyse large genomic & transcriptomic datasets of parasites 24-month-position in “Aquatic Parasitology” from January 1, 2021 to December 31, 2022 is available to work on myxozoans (parasitic cnidarians) and parasitic flatworms (a joint project of the Laboratory of Fish Protistology - head Astrid Holzer, and Laboratory of Helminthology - head Tomáš Scholz).

The research project will be focused on comparative analyses of genomes, transcriptomes and proteomes to better understand host-parasite interactions at the molecular level and to elucidate the evolution of parasitism in cnidarians and flatworms (Platyhelminthes).

<https://www.paru.cas.cz/en/sections/aquatic-parasitology/> <https://jobs.bc.cas.cz/en/detail/37>

Requirements Candidates should have at maximum of 7 years after PhD (no earlier than in 2014 with the exception of the maternity leave and long-term illness) in the area of bioinformatics, biostatistics, applied mathematics, computational biology or related research fields.

The candidate should demonstrate strong programming skills and experience with assembly and filtration of next-generation sequencing data (Illumina, Nanopore), statistical modelling, or machine learning. Having first-authored research publications in the field of sequence analyses is a strong plus. Candidates that worked in the Czech Republic for the past two or more years are excluded.

Benefits - Friendly international working environment
 - Dedicated funds for conference and workshops attendance and for open-access publications
 - Benefits from a social fund
 - Support of leisure time activities
 - Health insurance

Applicants are requested to submit a motivation letter, curriculum vitae, list of publications and scanned copy of PhD certificate before September 30, 2020. For questions or additional information, contact Roman Kuchta (krtek@paru.cas.cz).

The Institute of Parasitology is one of the largest centres of parasitological research and provides all state-of-the-art facilities required to undertake a multi-disciplinary repertoire of methods, enabling studies on host-parasite interactions at the organismal, cellular and molecular levels. The Institute is located in Āeské BudĀ(Budweis), the central district to the South Bohemia region and known for its original Budweiser (Budvar) beer. Āeské

Budějovice, two hours south of Prague in South Bohemia, and the proximity to other cities and countries is favourable, as it is tucked in a nook between upper Austria and Bavaria. The city is surrounded by the UNESCO heritage sites of Český Krumlov and Hološovice, and the pristine nature of the Bohemian Forest National Park.

The Biology Centre of the Czech Academy of Sciences is a holder of the HR Excellence in Research Award. Our selection process is transparent, open, non-discriminating and fair. For more information about the researchers recruitment policy at our institution, see www.bc.cas.cz/en/about-us/employment/. Position 2

Postdoctoral Position in Bioinformatics (Ticks and Tick-borne Diseases)

Expires on September 30, 2020

The position for experienced bioinformatician is open to analyse large genomic & transcriptomic datasets of parasites.

17-month-position in “Ticks and Tick-borne Diseases” from March 1, 2021 to July 31, 2022 is available as a joint project of the Laboratory of Vector Immunology (head Petr Kopáček) and Laboratory of Genomics and Proteomics of Disease Vectors (head Michail Kotsyfakis). The applicant’s responsibility will be the creation of a dynamic expression database of proteins throughout tick (*Ixodes ricinus*) life stages and in response to blood feeding. The resulting database should be placed on publicly accessible server (will be discussed) and should be performed under the headline of the Institute of Parasitology BC CAS. This database will be based on MACE-Seq - 3’ mRNA / UTR sequencing for copy number/mRNA representativeness accompanied with RNAseq data for full-sequence reads.

<https://www.paru.cas.cz/en/sections/biology-of-disease-vectors/> <https://jobs.bc.cas.cz/en/detail/38>

Requirements Candidates should have at maximum of 7 years after PhD (no earlier than in 2014 with the exception of the maternity leave and long-term illness) in the area of bioinformatics, biostatistics, applied mathematics, computational biology or related research fields.

The candidate should demonstrate strong programming skills and experience

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DalhousieU PhylogeneticModeling

Postdoc in Phylogenetic modeling:

Two 3-year funded postdoctoral research positions in statistical phylogenetic modeling are available in the laboratories of Andrew J. Roger and Edward Susko at Dalhousie University in collaboration with Laura Eme (Univ. Paris-Saclay) and Minh Bui (Australian National University). The research project will be to develop, test and apply novel phylogenetic statistical models/phylogenomic methods to determine billion-year relationships related to the origin of eukaryotes. Roger and Susko are part of the world-renowned Centre for Comparative Genomics and Evolutionary Bioinformatics (CGEB: <http://cgeb.dal.ca>), a large collaborative group of faculty and trainees at Dalhousie university with shared research interests in deep evolution, comparative genomics, phylogenetics, microbiomics and computational biology.

The successful candidates participate in an international collaborative project (with Dr. Laura Eme in Orsay, France and Dr. Minh Bui in Canberra, Australia) related to the origin of eukaryotic cell by developing novel phylogenetic models and applying them to phylogenomic analyses to resolve key phylogenetic problems. The goals are to develop new more realistic phylogenetic models including approaches to model heterogeneity in the process of protein sequence evolution across sites and branches of phylogenetic trees and accommodate multiple different phylogenetic histories for different genes or sites. New models will be implemented in maximum likelihood framework and their statistical properties will be investigated. Other related topics are also open for investigation.

The ideal candidates should have a Ph.D. in statistics, computational biology or related disciplines (e.g. phylogenetics with an emphasis on method development and implementation). Knowledge and expertise in statistical modeling, theory/implementation of phylogenetic models in a likelihood framework and comparative genomic methods are an asset. Programming experience using scripting languages (e.g. Python), the R statistical package and, ideally, C or C++ would be invaluable.

For more information about the Roger and Susko labs and the CGEB Centre see <http://rogerlab.biochem.dal.ca>,

<https://www.mathstat.dal.ca/~tsusko/> and <http://cgeb.dal.ca> To apply please send an application package consisting of: - a cover letter that describes why you are interested in this position and highlights your expertise - a curriculum vitae (CV), and - the names and contact details of 2 or more individuals who have agreed to write reference letters

The applications should be sent by email to: Andrew Roger: andrew.roger@dal.ca . The ideal start time for the positions is Oct. 1, 2020.

Review of complete applications will occur continuously until the search is closed. Please note, only those candidates chosen to continue on through the selection process will be contacted.

Dalhousie University is committed to fostering a collegial culture grounded in diversity and inclusiveness. We encourage applications from qualified individuals from all equity-seeking groups including people who identify as indigenous, African Nova Scotian, differently-abled, ethnic minorities, minority sexual orientations and gender identities, and all other qualified candidates who would contribute to the diversity of our community.

Andrew J. Roger Ph.D. F.R.S.C. Canada Research Chair Centre for Comparative Genomics and Evolutionary Bioinformatics Dept. of Biochemistry and Molecular Biology Dalhousie University tel: (902) 494 2620 lab website: rogerlab.ca CGEB: cgeb.dal.ca Twitter: @andrewjroger <https://scholar.google.ca/citations?user=Dm-pAawAAAAAJ&hl=en> Andrew Roger <Andrew.Roger@Dal.Ca>

analyses, including genome sequencing, assembly, and annotation. You should be able to demonstrate experience in comparative genomics, generating and analyzing genomic datasets, competency with at least one scripting language (e.g., Perl, Python, R), and interest in applying new statistical approaches. Experience with phylogenetics and population genomics is a plus. Well-developed communication (verbal and written) and organizational skills are essential. You will join a diverse team of bioinformaticians, evolutionary biologists, and molecular scientists. You will also demonstrate leadership ability to assist the PI with the guidance and training of students.

In this postdoc role, you are expected to publish at least one research paper as lead author within a year and collaborate as co-author on additional research papers. Guidance will be provided following the Postdoctoral Mentoring Plan. Please apply at <https://careers.hireology.com/fieldmuseum/420103/-description>. With your application, include a statement of interest and CV with publication list.

As we adjust to working during this unprecedented time the Field Museum is committed to finding as much flexibility as possible with regards to remote working for this position. Review of applications will begin on September 1st and continue until the position is filled.

Please contact with questions Felix Grewe (www.felixgrewe.de, fgrewe@fieldmuseum.org)

Felix Grewe <fgrewe@fieldmuseum.org>

FieldMuseum Chicago MolecularEvolutionComparativeGenomics

Postdoctoral Research Scientist, Molecular Evolution and Comparative Genomics The Grainer Bioinformatics Center of the Science and Education Department at the Field Museum is recruiting a full-time Postdoctoral Research Scientist to conduct comparative genomics of non-model organisms, with a focus on symbiotic fungi. We are looking for an individual with a strong interest and background in computational biology and/or bioinformatics. The position is for a term of 12 months, with the possibility for extension.

The research entails studies on molecular evolution and genomic adaptation of asexual organisms. You will be involved in various aspects of comparative genome

FloridaAtlanticU EvolutionaryGenomics

The DeGiorgio group (<http://degiorgiogroup.fau.edu/>), at Florida Atlantic University, is seeking to hire a postdoctoral scholar to work on NIH-supported projects.

We have active projects related to - machine learning and signal processing methods in genomics - statistical approaches for detecting natural selection - probability models and algorithms in phylogenetics - local adaptation and demographic history of the Americas

The ideal candidate will have a solid computational background, and will be given extensive freedom in choosing their research direction within the broad scope of research areas covered in the group.

The position will also offer a competitive salary, and

the university is situated in the beautiful city of Boca Raton, FL.

Interested candidates please contact me directly at mdegiorg@fau.edu with a CV. More information about the DeGiorgio group can be found at <http://degiorgiogroup.fau.edu/>.

– Michael DeGiorgio Associate Professor Department of Computer & Electrical Engineering and Computer Science Florida Atlantic University Boca Raton, FL 33431 USA mdegiorg@fau.edu <http://degiorgiogroup.fau.edu>

FreieU Berlin EvolutionaryDemography

We look for a post-doc candidate at the Freie Universität Berlin to join the evolutionary demography group led by Ulrich Steiner. The aim of the group is to understand stochastic, evolutionary neutral, and deterministic influences on population dynamics in variable environments. The post-doc is expected to conduct highly automated single-cell microfluidic experiments on bacteria to quantify transcription factor dynamics and link those dynamics to the demographic fates of the cells and population dynamics. In addition to this empirical work a theoretical part is to formulate matrix population models.

Candidates should show strong interest in cross-disciplinary work and ideally have a background in evolutionary biology, quantitative ecology, systems biology, biophysics, biomathematics, or similar fields. Strong quantitative/statistical skills, programming experiences, and excellent command of English are expected.

Experiences in microfluidics/microscopy, modelling complex systems, image analysis, and molecular biology would be an asset. We offer a nurturing work environment, in a multicultural and dynamic setting that fosters personal development and creativity.

The position is limited to 3-years, the starting date is 1.Dec 2020 or thereafter. For further information please contact Ulrich Steiner (usteiner@zedat.fu-berlin.de). Please apply before the 24th of August 2020 by mentioning AG Steiner_PostDoc (preferably as single PDF) electronically to usteiner@zedat.fu-berlin.de. The official post is only available in German under https://www.fu-berlin.de/universitaet/beruf-karriere/-jobs/wiss/21_fb-biologie-chemie-pharmazie/BC-AG-Steiner_PostDoc.html Some related publications: Two

stochastic processes shape diverse senescence patterns in a singled cell organism <https://doi.org/10.1111/evo.13708> Ulrich Steiner <usteiner@zedat.fu-berlin.de>

GEOMAR Kiel SeagrassEvolutionaryGenomics

GEOMAR Helmholtz Centre for Ocean Research Kiel is one of the internationally leading institutions in the field of marine sciences. The research unit Marine Evolutionary Ecology within the research division “Marine Ecology” is inviting applications for a

Postdoctoral Researcher (m/f/d) in Marine Evolutionary Genomics/ Asexual Adaptation of Seagrass Clones starting the earliest 1 December 2020. The position is available for a funding period of three years until 30 November 2023.

Job and Project Description

Although asexually growing, large clones of seagrasses are the basis for stable and productive ecosystems in many marine coastal locations. Recent findings discovered abundant somatic genetic polymorphisms that could play a role in local adaptation and resilience of seagrass to rapid environmental change (see *Nature Ecol Evol* 2020; <https://doi.org/10.1038/s41559-020-1196-4>).

The aim of ADAPTASEX is to experimentally test a possible role of somatic genetic polymorphisms for evolutionary adaptation of seagrass clones. A second objective, addressed together with theoretical colleagues in the ADAPTASEX collaborative project, is to distinguish neutral and selective allele frequency changes and to model temporal and spatial adaptation dynamics. A further comparative question will be whether and how somatically generated mutations in corals and seagrasses can also influence genetic variation within the sexual reproductive cycle. The work is embedded into the recently funded “Human Frontiers of Science Program” (HFSP) project ADAPTASEX, which aims to study and model diverse asexual adaptation processes in coral colonies, seagrass clones and cancer tumors in a comparative approach.

Required and desirable qualifications

The successful candidate should have a PhD or doctoral degree in biology or oceanography along with a solid education and/or postdoctoral experience in (marine) evolutionary biology or evolutionary ecology. Publica-

tions in international scientific journals, ideally in the field of (marine) genomics or evolutionary biology, are expected. Experience in high-throughput sequencing, bioinformatics including scripting in programming languages, population genetic modeling, or the performance of evolutionary ecology experiments is highly desirable, as is knowledge of marine coastal habitats including seagrass beds.

The salary depends on qualification and could be up to the class E13 TVöD-Bund of the German tariff for public employees. This is a full-time position that cannot be split. Yet, flexible working time models are in principle possible that allow for a temporary reduction of the working time to 75% of a full-time employment. GEOMAR Helmholtz Centre for Ocean Research Kiel seeks to increase the proportion of female scientists and explicitly encourages qualified female academics to apply.—GEOMAR is an equal opportunity employer and encourages scientists with disabilities to apply. Qualified disabled applicants will receive preference in the application process.

Please send your application via email in a single pdf-file, mentioning the keyword “ADAPTASEX” in the subject line. We would like to receive your application no later than 25 September 2020 to bewerbung@geomar.de. As soon as the selection procedure is finished, all application data will be removed according to data protection regulation.

GEOMAR is a member of the Helmholtz Association. For further information please visit www.geomar.de or www.helmholtz.de.—GEOMAR is committed to a non-discriminatory personnel selection. Our job advertisements address all people.

For further information regarding the position, the project or the research unit please contact Prof. Thorsten Reusch (treusch@geomar.de).

Thorsten Reusch Professor Marine Ecology GEOMAR Helmholtz Centre for Ocean Research Kiel Marine Ecology - Marine Evolutionary Ecology Dusternbrooker Weg 20 24105 Kiel Germany

Thorsten Reusch <treusch@geomar.de>

HalleJena Germany ViralEvolutionaryBioinformatics

A two-year postdoc position is available in the labs of Robert Paxton (Uni. Halle, Germany), specializing in bee-virus experimental approaches, and Manja Marz (Uni. Jena, Germany), who heads the European Virus Bioinformatics Center based at Jena. The aim of the research is to quantify evolutionary processes to inform on viral adaptive potential following viral spillover among insect pollinator species. Using honey bees and their viruses as a model system, we seek a highly motivated postdoc with skills in viral bioinformatics to explore the genetic underpinning of viral spillover. Opportunities exist to develop the research through lab-based experiments coupled to molecular genetic analysis of bees and their viruses. The position is one of six new postdocs offered by iDiv, the German Centre for Integrative Biodiversity Research Halle-Jena-Leipzig. If interested, please contact Robert Paxton (robert.paxton@zoologie.uni-halle.de) for further details.

Applications should include: a cover letter describing motivation for the project, research interests and relevant experience, a cv with names and contact details of at least two scientific references, and a digital copy of MSc and PhD certificates or equivalent. Please send applications as a single pdf file, quoting the reference number 4-8989/20-D, via the application portal at <https://apply.idiv.de>. Submission deadline is 10 September 2020. Selected candidates will be invited to an online joint recruitment symposium on 28 - 29 September 2020. “robert.paxton@zoologie.uni-halle.de”

INRAE CNRS France ModelingEcoEvolutionaryDynamics

Postdoctoral position in eco-evolutionary dynamics of introduced populations

Position Summary This postdoc is focused on modeling processes driving outcomes of small population in novel habitats, including evolutionary rescue and extinction

vortices. The host lab is based near Antibes, France, this position is for 18 months, with start date negotiable, but ideally this fall. French is not required, and visas can be arranged. Application deadline is Oct. 1. See below for all the details!

Background A crucial area of research in Ecology and Evolutionary Biology is understanding the role of eco-evolutionary dynamics in determining the fate of small populations. Specifically, declining populations are extinction-prone, and introduced populations often fail to establish. A general explanation is that low numbers trigger deleterious demographic and genetic processes such as inbreeding depression, Allee effects, and stochasticity. Although each process is well-studied, their relative influence and mutual dependence remain unclear. Do these processes reinforce one another and drive small populations into an extinction vortex, or do they provoke a form of evolutionary rescue underpinned by a purge of the genetic load?

Such a question is of prime importance for population management, including biological control. Populations of biocontrol agents experience dramatic variation in the number of individuals during collection, importation, rearing and releases. Meta-analyses suggest that low numbers partly explain establishment failure, but some experiments tell a different story. Our aim is therefore to develop a general simulation model implementing demographic-genetic interactions in a context of population introduction. The model will serve to analyze the consequences of these interactions on the dynamics of small introduced populations, and to search for optimal scenarios maximizing establishment probability.

Beyond biological control, we seek a better understanding of eco-evolutionary feedbacks and the functioning of small populations, with relevance to Invasion and Conservation Biology.

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97(11) : 3131-3142. - The genetic Allee effect: A unified framework for the genetics and demography of small populations. Luque G, Vayssade C, Guillemaud T, Facon B, Courchamp F & Fauvergue X. 2016. *Ecosphere*. 7(7) : e011413.

Location The position is housed at ISA (Institut Sophia Agrobiotech), a research institute funded by INRAE, CNRS and Université Côte d'Azur (ISA website). ISA hosts about 200 professors, researchers, engineers and technicians distributed across 13 research teams, as well as an international Master school and many students. Research will be supervised by Xavier Fauvergue, research director at INRAE (xavier's website). The Institute is based in Sophia-Antipolis, near Antibes on the French Riviera (GPS coordinates: 43.612906, 7.077723). Surroundings combined with Mediterranean climate offer great opportunities for outdoor activities in sea and mountain environments (les Alpes Maritimes). The position is for 18 months with a gross salary of about 2700 euro /month.

Qualifications Competitive applicants will have a PhD in Ecology, Evolutionary Biology or a related discipline by the start date, expertise in Population Genetics, and should show evidence of strong quantitative and modeling skills. English speaking and writing must be fluent, French is not mandatory.

Application To apply, please send a single pdf file including a letter of motivation, a curriculum vitae, contact information for at least two previous supervisors, and any first-author articles that are related with the position to xavier.fauvergue@inrae.fr. You are also welcome to use this mail for prior inquiries. Deadline for application: October 1st, 2020. Start date: negotiable, but ideally by November 15th, 2020.

“Hufbauer,Ruth” <Ruth.Hufbauer@colostate.edu>

JohnInnesCentre UK EvolutionPlants

Postdoctoral Researcher Salary: 32,255 - 39,345 depending on qualifications and experience.

Contract: Fulltime, 23 months Location: John Innes Centre, Norwich, UK.

Closing date: 17th September 2020 Reference: 1003935

An exciting opportunity has arisen for a Postdoctoral Researcher to join the Byers Group at the John Innes

Centre.

About the John Innes Centre:

The John Innes Centre is an independent, international centre of excellence in plant science, genetics and microbiology. We nurture a creative, curiosity led approach to answering fundamental questions in bioscience, and translate that knowledge into societal benefits.

Our employees enjoy access to state-of-the-art technology and a diverse range of specialist training opportunities, including support for leadership and management.

Click here to find out more about working at the John Innes Centre.

About the Byers Group:

Dr. Byers started at the Centre in August 2020, so this is a chance to help build a lab from the ground up and contribute your expertise and passion to the group and its culture, as well as to experience first-hand what starting your own group might look like. The lab is a part of the Cell and Developmental Biology department and the Genes in the Environment ISP at the John Innes Centre.

The group studies the effect of floral scent on the evolution of flowering plants from a genetic, phenotypic, and ecological perspective, focusing particularly on how it drives interactions with animal pollinators. We use several different plant systems, including monkeyflowers (*Mimulus*), orchids (*Gymnadenia*), and bedstraws (*Galium*).

The role:

As a Postdoctoral Researcher, you'll take ownership of a specific project within the group. This project will be developed in consultation between you and Dr. Byers. One potential/ideal project is to investigate the evolution of floral traits, particularly floral scent, across the phylogeny of monkeyflowers (*Mimulus* s.l.), a group of about 150 species that are developing model systems in evolutionary biology and ecology. Prior work in a small group of species within the genus has shown that shared patterns of floral scent phenotype have evolved using quite distinct genetic mechanisms, thus sparking our interest in investigating these patterns at a genus-wide level.

The ideal candidate:

The ideal candidate will have a PhD degree in evolutionary biology or ecology. Especially desirable is experience with macroevolutionary/phylogenetic approaches to trait evolution; chemical ecology; and/or pollination biology. You will have experience with plant cultivation and plant science; in particular, experience cultivating

difficult species (e.g. requiring seed pre-treatment or special growth conditions) would be valuable for this position. You will have demonstrable experience with molecular biology and genetics techniques and analysis, strong record-keeping skills (e.g. lab notebook, collections maintenance, data storage and organisation) and a strong command of written and spoken English. You'll be passionate about science!

You will be comfortable working both independently and as a member of a larger team, as well as having good time management, attention to detail, and prioritisation skills. You'll be comfortable collaborating with international and local colleagues from diverse cultures and backgrounds. You will be able to travel locally and internationally for e.g. collaborations, meetings, and fieldwork, and may be asked to work limited unsociable hours for crucial experiments.

Additional information:

Interviews are expected to be held on 15th October 2020.

For further information and details of how to apply, please visit our website <http://jobs.jic.ac.uk> or contact the Human Resources team on 01603 450462 or nbi.recruitment@nbi.ac.uk quoting reference 1003935.

We are an equal opportunities employer, actively supporting inclusivity and diversity, and particularly encourage applications from individuals often underrepresented in STEM, including racial and ethnic minorities, Indigenous, and BAME individuals; LGBTQIA+ individuals; individuals with disabilities, Deaf individuals, and those with chronic illness(es); and women and gender minorities. As a Disability Confident organisation, we guarantee to offer an interview to all disabled applicants who meet the essential criteria for this vacancy.

We are a member of Stonewall's Diversity Champions programme and are proud to hold a prestigious Gold Athena SWAN award in recognition of our inclusive culture, commitment and good practices towards advancing of gender equality. We offer an exciting, stimulating, diverse research environment and actively promote a family friendly workplace. Dr. Byers is committed to maintaining a respectful, inclusive, and friendly working environment for all staff and students, as well as promoting your personal and career development.

Kind regards

Eve

Eve Edwards Recruitment Coordinator

— / —

This message has been arbitrarily truncated at 5000 characters.

To read the entire message look it up at <http://life.biology.mcmaster.ca/~brian/evoldir.html>

Lausanne SoilMicrobiome

Postdoctoral position - The role of the soil microbiome in determining plant responses to the mycorrhizal symbiosis (Uni. Lausanne, Switzerland & collaboration with the ETH Zürich)

Job Description: We are looking for a highly motivated postdoctoral researcher to study the role of the soil microbiome in determining plant responses to the mycorrhizal symbiosis using experimental approaches. The research will build on previous work in the group showing that mycorrhizal fungi can shape soil microbial communities. We now want to know how the structure and composition of soil microbiomes influence how the plant responds to inoculation with mycorrhizal fungi.

It is intended that the results of this project will be combined with research in the field where our work is leading to real solutions to increase production of food in areas of the world where starvation is a major problem. More information about our work can be found at <http://people.unil.ch/iansanders/> The project is part of a large collaboration at the new Swiss Centre for Excellence in Research (NCCR) on Microbiomes, created between many research groups at the University of Lausanne and the ETH Zürich <https://nccr-microbiomes.ch>.
Your skills and qualifications: Candidates must be highly motivated, have a PhD (or very soon), and have a good conceptual knowledge in community structure, coupled with practical experience in microbial metagenomics and/or microbial communities. You must have a strong interest in investigating this topic using an experimental approach. Sound knowledge of appropriate bioinformatics tools will be a clear advantage, as will, an interest in solving problems in an analytical way. The successful candidate will work on this project with a PhD student. You should have good interpersonal skills and an ability to work well in a multicultural team and department.

Job information: The position is full-time and available as soon as possible and is initially for 1 year. A renewal of the contract may be possible but is not guaranteed since it is subject to the development and future direction of the project. Preference will be given to someone who very recently obtained, or will very soon obtain, a PhD.

Most of the researcher's time will be dedicated to research, but a contribution to teaching is expected, including the possibility of supervising master students. Formally, the contract stipulates: 70% Personal research, 25% Participation to teaching activities, 5% group-related tasks such as data management.

Applications: You must apply online to the University of Lausanne job portal and upload a CV and motivation letter in English. The letter must include the names of 2-3 referees. The link to apply is: <https://bit.ly/-2PU7K7e> Applications must be received not later than 30th September 2020. Informal enquiries may be made by email to ian.sanders@unil.ch but you MUST ONLY APPLY ONLINE. You must NOT send your application to this email address.

Ian Sanders <ian.sanders@unil.ch>

Liverpool MosquitoGenomics

The department of Vector Biology are looking for TWO experienced PDRAs to work within a project team bridging the groups of David Weetman and Martin Donnelly. You will provide bioinformatics and/or lab support for analysis of genomic and transcriptomic insecticide resistance data and samples. You will work primarily within the scope of a large programme grant aiming to identify genetic and transcriptomic variation underlying resistance to insecticides used for Anopheles malaria vector control in Africa, mapping the predictive value of diagnostic markers. The role will involve analysis of WGS (Whole-genome sequencing) and RNA sequencing data sets along with characterisation of putative insecticide resistance associated variants through laboratory approaches. Key responsibilities to this role:

- * Ability to analyse genomic and transcriptomic data from insect disease vectors and investigate candidate variants
- * Develop and deliver training to project partners from disease endemic countries
- * Provide training and supervision for postgraduate students and collaborate on their project analyses
- * Develop novel projects to help generate ideas and data to support new project applications
- * Produce and disseminate research outputs
- * Prepare and write peer-reviewed publications for the scientific community

Please see the job description for further details The ideal candidate will have excellent interpersonal skills with the ability to work as an integral and cooperative member of a multi-disciplinary, multi-national research

team. You will well-developed research skills with the ability to effectively present research findings in oral and written format. Ideally you will be able to demonstrate:

* PhD in relevant area (genetics, biology, biological computing) * Strong bioinformatic skills * Record of publication in peer reviewed international journals * Strong molecular genetic analytical skills * Experience in molecular laboratory techniques * An ability to communicate with specialists from a variety of disciplines: vector biology, biostatistics, parasitology, epidemiology * Knowledge of health and safety regulations and legal requirements * It is desirable that you can demonstrate experience of using programmes such as PYTHON and R and have previous experience in Vector Biology.

About LSTM Founded in 1898 and the oldest of its kind in the world, the Liverpool School of Tropical Medicine (LSTM) is an internationally recognised centre of excellence for teaching and research in tropical diseases. Through the creation of effective links with governments, NGOs, private organisations and global institutions and by responding to the health needs of communities, LSTM aims to promote improved health, particularly for people of the less developed/resource poorest countries in the tropics and sub-tropics. Closing Date: 16th August 2020 Please note: Interviews will be taking place week commencing 7th September 2020 More details at <https://www.lstmed.ac.uk/post-doctoral-research-assistant-6> <https://www.lstmed.ac.uk/post-doctoral-research-assistant-7> or get in touch with David (david.weetman@lstmed.ac.uk) or I

Martin

Martin James Donnelly Head of Department of Vector Biology Professor of Evolutionary Genetics Royal Society Wolfson Fellow

Department of Vector Biology Liverpool School of Tropical Medicine & Pembroke Place Liverpool L3 5QA Tel: +44(0) 151 705 3296 Fax: +44(0) 151 705 3369 Email: martin.donnelly@lstmed.ac.uk Web: <https://www.lstmed.ac.uk/about/people/professor-martin-james-donnelly> Skype: martin-donnelly Orcid: 0000-0001-5218-1497

Parasites and Microbes Programme Wellcome Sanger Institute Hinxton Cambridge CB10 1SJ Email: mjd@sanger.ac.uk Web: www.sanger.ac.uk/research/faculty/mdonnelly/ This e-mail message is sent on behalf of the Liverpool School of Tropical Medicine, a charitable company limited by guarantee registered in England and Wales with company number 222655 and whose registered office is at Pembroke Place Liverpool L3 5QA ("LSTM")

The contents of this e-mail are subject to LSTM's email

disclaimer found at: <http://www.lstmed.ac.uk/-disclaimer/email-disclaimer> Martin Donnelly <Martin.Donnelly@lstmed.ac.uk>

MarineBiolLab MicrobialSymbioses

Position Summary: The MBL is seeking a candidate for the position of Postdoctoral Scientist in the laboratory of Dr. Blair Paul to investigate physical interactions among uncultivated microbial symbioses from aquatic environments. For more information about our lab's work, see <https://www.mbl.edu/jbpc/staff/bgpc/>. This project is funded by The Betty and Gordon Moore Foundation's Symbiosis in Aquatic Systems Initiative and offers opportunities to collaborate with the labs of co-investigators at UC Berkeley, UC San Diego, and UC Santa Barbara. The ideal candidate will apply existing skills in biochemistry and genetics to assist with development of a high-throughput workflow for cell isolation. This research will involve a synergistic combination of experimental biology and bioinformatics to examine the molecular interface between microbial symbionts and their hosts. We enthusiastically encourage individuals from backgrounds that are underrepresented in STEM fields to apply for this opportunity.

Additional information: The position is for two years with potential for extension, contingent on performance and funding. Salary will be commensurate with experience and qualifications. For more information about MBL and living on Cape Cod, please visit: <https://www.mbl.edu/hr/employment/our-community/>. Basic qualifications: A Ph.D. in biology, microbiology, molecular biology, biochemistry, or a related field is required.

Preferred qualifications: Experience in the following areas is desirable: protein biochemistry, microbial cultivation, and/or bacterial or archaeal genetics.

Instructions: Apply on the MBL website (<https://www.mbl.edu/hr/employment/>) and provide the following required documents: (1) a cover letter describing your interests, skills, and prior research experience, including any specific experience with the job responsibilities listed above; (2) a curriculum vitae/resume; and (3) the names and contact numbers of three persons who can be contacted for letters of reference, at least one of whom must have acted as your supervisor in a previous research position.

Jennifer Larkum <jlarkum@mbl.edu>

Muenster Germany

ForecastModelDiseaseDynamics

Postdoc position full time for 2 years in Muenster, Germany Julius Kühn-Institute (JKI), Federal Research Centre for Cultivated Plants, Institute for Plant Protection in Horticulture and Forests, Vertebrate Research, Topheideweg 88, 48161 Muenster, Germany

Tasks Develop forecast model for rodent-borne diseases in humans (model species Hanta virus) Research, collate and organise data Develop, optimise and validate predictive model Report, publish and present results at national and international conferences

You have University degree in natural sciences or mathematics, optimally with a PhD in relevant field Experience in developing predictive/risk models Thorough knowledge of relevant model approaches/programs Published in peer-reviewed international journals Excellent skills in communication, organisation of research projects, initiative, team work and flexibility Drivers licence and be prepared to conduct work travel incl. driving work cars

We offer 2 year full time position at 39 hours/week starting as soon as possible (pending allocation of funds) under regulations of the federal public service (Tarifvertrag fuer den oeffentlichen Dienst (TVoED)) Depending on professional qualification and personal situation payment at salary scale E13 (pending allocation of funds)

We provide professional equality and flexible work hours to improve the balance of work and family life. JKI furthers the inclusion of disabled people in the workforce, encourages them to apply and gives their application priority in the selection process.

Please send you complete application documents (motivation letter, CV, university/degree certificates, list of publications) until 27 August 2020 preferably via e-mail to bewerbungen.muenster@julius-kuehn.de as one single pdf file of max. 10 MB and state the file number BS-GF-WA-46-20. Other formats will not be considered.

JKI is an institution of the German Federal Ministry of Food and Agriculture (BMEL).

Access to German version of announcement: <https://www.julius-kuehn.de/media/Stellen/2020/wiss/-BS-GF-WA-46-20.pdf> “jens.jacob@julius-kuehn.de” <jens.jacob@julius-kuehn.de>

Normandy

EvolutionRespiratoryViruses

Postdoc position - Dynamic'H project - last call Dynamic of respiratory Microbiome in Human Untangling the microbiome interplay with human respiratory viral infections Due to CoVID-19, this program has been delayed, recruitment process was stopped and we are now urgently looking for candidates.

A two-year postdoctoral position, with attractive salary, is available, starting as early as possible, in the historical, cultural and university city of Caen, Normandy. The post-doc will be hosted in a young and dynamic team, within the Virology Department of the University Hospital of Caen, Normandy (National Reference Center & WHO Coll. Center for Measles, Rubella and Mumps viruses). (Prof. Astrid Vabret & Dr. Meriadeg Le Gouil - <http://coronavirus.fr>) and at GRAM 2.0 (Group for Research on the Adaptation of Microbes, EA2656 UNICAEN/UNIROUEN), University of Caen, Normandy ; (Pr. Simon Le Hello). The position is part of a research project (Dynamic-H / RIN) funded by the region Normandy and European Commission (Feder).

Responsibilities: Leading and collaborating the research involved in the above-mentioned project under the supervision of Dr. Meriadeg Le Gouil (https://www.researchgate.net/profile/Meriadeg_Ar_Gouilh). The project includes the implementation and analysis of short and long reads sequencing / transcriptomics / targeted and untargeted sequencing of respiratory samples originating from 2 pre-characterized and rare human collections (n = 2000). The main objectives is to decrypt the species composition and the expression profile of the microbiome associated with respiratory viruses (Coronaviruses including SARS-CoV2, RSV, Rhinoviruses, Influenza, Parainfluenza, Metapneumoviruses, Adenovirus, Bocavirus ...) and to model the dynamics and expression of microbial communities. This will allow a better understanding of the microbial interactions and evolution of the healthy sick continuum for patients infected (or not) by respiratory viruses and will enhance our knowledge of the biological landscape and evolution of viral infections.

Prerequisites for an application include : 1 - A doctoral degree in natural sciences (biology, chemistry, biochemistry, etc.), with above-average grades and an interest in independent scientific work.

2 - Strong abilities to team co-working, networking, collaboration and socializing.

3 Preferably, strong knowledge and skills in : virology, mixed approach of high-throughput sequencing (short and long reads), analysis of NGS data (bioinformatics) and evolutionary analysis (phylogenetics) is desired. Scripting skills in bash, R and/or python would also be highly appreciated.

4 - We expect a very good command of English; French will be much appreciated.

For informal enquiries about the position, please get quickly in touch with : Meriadeg Le Gouil (meriadeg.legouil@unicaen.fr / meriadeg.legouil@normandie-univ.fr) or Astrid Vabret (vabret-a@chu-caen.fr).

Deadline for applications: interviews is starting and candidate will be selected as soon as possible. more infos : <https://euraxess.ec.europa.eu/jobs/471068> Application documents (CV, 1 page research statement, Publications) should be sent by PDF to the above contacts, or by post to:

Dr. Meriadeg Le Gouil GRAM 2.0 Service de Virologie, CHU de Caen Avenue Georges Clemenceau 14000 Caen FRANCE

Meriadeg Le Gouil, PhD, HDR

GRAM - Groupe de Recherche sur l'Adaptation Microbienne EA 2656 UNICAEN / UNIROUEN Normandie Université meriadeg.legouil@normandie-univ.fr

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Service de Virologie, CHU de Caen CNR ROR - Centre National de Reference pour les Virus de la Rougeole, Rubeole et Oreillons Av. Georges Clemenceau, 14033 Caen, Cedex tel. : 0231272554 - Fax : 0231272557 legouil-me@chu-caen.fr encrypted email : legouil-me.chu-caen@apicrypt.fr

Meriadeg research@Pasteur < <http://research.pasteur.fr/en/member/meriadeg-le-gouil/> > / Meriadeg@researchgate < https://www.researchgate.net/profile/Meriadeg_Le_Gouil > / Coronavirus.fr / Chiroptera.fr < <http://chiroptera.fr/-communaute/chiroblog/> >

“meriadeg.legouil@normandie-univ.fr”

Oxford UK GenomeEvolution

A 1-year postdoctoral researcher position (or part time pro rata) is available with the Barraclough lab, in the Department of Zoology, University of Oxford. The post will generate new genomic data and analyses for evolutionary time-series of multiple species, focusing on 8 fungal and 8 insect species in the UK. Funded by the John Fell Fund, the project will collaborate with the Big Data Institute in Oxford, the CABI living fungal collection, the Insect Survey at Rothamsted Research, and the Darwin Tree of Life project led by the Wellcome Sanger Institute.

The postholder should have prior experience of evolutionary genomics and a hold a PhD (or be near to completion) in a relevant area is essential, but experience could be in laboratory methods or in bioinformatic analysis or in both.

This position will manage sample acquisition, DNA extraction (including from tricky historical samples), submitting samples to genome sequencing centres, and the analysis and compilation of resulting genome sequence data. They will work closely with a range of partners including the Big Data Institute in Oxford, the UK's living fungal culture collection at CABI, the Insect Survey at Rothamsted and the Darwin Tree of Life project at the Sanger Institute.

Only applications made online will be accepted. You will be required to upload a CV and supporting statement as part of your online application.

Full-time and part-time applications (minimum 20 hours per week) are welcome.

Informal inquiries should be directed to tim.barraclough@zoo.ox.ac.uk.

The closing date for applications is 12.00 noon on 3 September 2020

https://my.corehr.com/pls/uoxrecruit/-erq_jobspec_version_4.jobspec?p_id=146687 Timothy Barraclough <tim.barraclough@zoo.ox.ac.uk>

Paris-SaclayU PhylogenomicsOriginEukaryotes

- Practical information – Contract type: Postdoctoral
Contract length: 3 years Location: Diversity Ecology and Evolution of Microbes (DEEM) team, Paris-Saclay University (Orsay, France) Starting date: October 1st, 2020 (negotiable)
- Project overview – The candidate will work in the DEEM team which focus on the diversity and evolution of microbial life across the three domains of life. This particular project is in close collaboration with the laboratories of Andrew J. Roger and Edward Susko (Dalhousie University), and Minh Bui (Australian National University). The research project will be to develop phylogenomic datasets to determine billion-year relationships related to the origin and early of eukaryotes and investigate potential biases affecting phylogenetic reconstructions based on those datasets. The candidate will take part in developing and extending various datasets to resolve ancient divergences (e.g, root of eukaryotes, origin of mitochondria, ...), applying sophisticated phylogenomic approaches and investigating various sources of potential phylogenetic artefacts.
- Your profile – We will prioritize candidates with a strong background in molecular phylogenetics preferably at large evolutionary scale. General knowledge about eukaryogenesis and the tree of eukaryotes will be a plus.
- Additional requirements – - English proficiency (written and spoken). - Good presentation and communication skills - Autonomy and organization
- Working environment – The Ecology, Systematics and Evolution (ESE) unit is coaffiliated CNRS 'V Paris-Saclay University 'V AgroParisTech, and is located on the Paris-Saclay campus in Orsay, 20 kms South of Paris and directly accessible by the RER (commuter rail). The candidate will work in the DEEM team (Diversity, Ecology et Evolution of Microbes: <http://www.deemteam.fr/en>), which focuses on the diversity and evolution of prokaryotic and eukaryotic microorganisms using molecular phylogenetics and comparative genomics. Our team is international and the working language is English. We work in a good atmosphere and an inclusive and supportive environment. We welcome candidates from all horizons.

– Applications – Application should include a detailed CV, a cover letter and contact information for at least two referees. Send them to laura.eme@u-psud.fr

Laura Eme <laura.eme@universite-paris-saclay.fr>

Surrey UnitedKingdom Biodiversity

Research Scientist - DNA assay developer

Location: Egham, Surrey, United Kingdom

Salary: 30,000 - 40,000 per annum

Start: ASAP

Duration: Full time, permanent.

Applications are invited for a postdoctoral scientist role to work with an expanding science-based start-up company. The position will focus on R&D relating to the development and validation of molecular methods to monitor biodiversity, using environmental DNA, metabarcoding and related technologies.

This role will also involve some routine analysis of client samples and assisting in the delivery of our more complex commercial contracts. The candidate will report to our Lead Scientist and will also work closely with other members of the R&D team and our bioinformaticians to ensure that R&D work is targeted towards the development of replicable and scalable tests for biodiversity that our clients are interested in.

Experience with environmental DNA and targeted assay development and subsequent validation are highly desired, and experience with HTS/NGS for metabarcoding and/or metagenomics are very welcome. You will be a proactive problem-solver with a high level of attention to detail and an ability to work on multiple projects at once. You should enjoy working in a dynamic, collaborative, team environment. You will need to be able to take a leadership role in the delivery of certain projects but be prepared to follow standard procedures where necessary.

NatureMetrics is a high-growth start-up bringing DNA-based tools to environmental managers to measure and monitor biodiversity. We are well-connected to the research world and have strong connections with academic research groups throughout Europe. Producing scientific publications is not our priority, but we do look to co-author papers with our collaborators and clients where relevant. We also present at national and international

conferences.

This is an ideal role for an early-career researcher with a PhD in the field of eDNA and molecular biomonitoring, who is looking to work in an applied setting to help deliver on the promise of these potentially game-changing tools for environmental management. We will be considering applications from candidates who have previously designed molecular assays & worked with DNA derived from complex real-world samples (e.g. eDNA/iDNA).

The full specification can be found on our website here <https://www.naturemetrics.co.uk/careers/-current-vacancies/>. To apply, please email careers@naturemetrics.co.uk including a CV and covering letter. There is no fixed deadline for applications, and the position will be held open until we find the right candidate.

Roles & responsibilities

General

Lead the design and execution of projects identified by the management team in collaboration with our clients and collaborators.

The primary focus of this role will be to develop new assays for biodiversity monitoring. This will include primer design, evaluation of existing primer sets, PCR optimisation, and assay validation, field validation and sample strategy development and optimization, as well as involvement in the bioinformatics processing and data analysis.

Be responsible for the generation, analysis and interpretation of experimental data, identify issues, troubleshoot and implement necessary changes.

Ensure the quality of experimental data, results and methodology used.

Generate SOPs and train other members of the team to carry out protocols developed from your research activities.

Where necessary, contribute to routine analysis of client samples and delivery of results within a specified time frame.

Contribute to scientific publications and outreach activities.

Contribute to the preparation of grant applications and tenders where relevant

Documentation

Keep detailed laboratory notes

Follow internal protocol for sample tracking & documentation

Prepare reports as required by project funders where relevant

Progress reports to management team and the wider company as required

Generate standard protocols for internal use as an R&D output

Safety

Use COSHH and risk assessments, compliance with company procedures and HSE legal requirements

Education & qualifications

You will have a PhD (or equivalent) in a related subject.

Specialist knowledge, skills & experience

Experience in development & optimisation of assays targeting single or multiple species. Desired: eDNA assay publication history.

Bioinformatics skills for in silico assay design and to analyse data from research projects.

Field experience - and knowledge of how to validate an assay.

Core laboratory skills: DNA extraction, PCR, NGS library preparation etc.

Experience of working with environmental DNA.

Able to pick up and apply new methods with minimal guidance.

Experience in training other scientists to follow methods you use (could be collaborators, colleagues, students or technicians).

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TempleU PlantPollinatorInteractions

The Spigler Lab at Temple University in Philadelphia, PA, USA (<http://rachelspigler.weebly.com>) is looking for a postdoctoral researcher to conduct research on plant-pollinator interactions. The primary goals of the position are to (i) analyze existing datasets on pollinator foraging and (ii) develop and carry out field studies

related to understanding links between resource availability, floral resources, and pollinator foraging. The postdoc will have considerable latitude in developing the specific project and opportunities to collaborate on ongoing research in the lab related to nectar chemistry, plant-pollinator interaction networks, and selection on floral traits. There are also opportunities to mentor undergraduates in research and to design and participate in outreach efforts.

Candidates must have a PhD in Ecology, Evolutionary Biology, Botany, or related field; experience designing, conducting, and managing field studies; strong quantitative and writing skills. Strong preference for candidates with experience analyzing networks. Depending on the realities of COVID19 in 2021, the candidate will need to be prepared to travel to field sites in central Pennsylvania for up to weeks at a time during the summer flowering season (Driver's License required). Anticipated start date is October/November. There is the possibility to begin remotely. Funding is available for one year, with an additional year based on satisfactory progress and funding. Salary is commensurate with experience, and health benefits are provided.

Applicants should submit a SINGLE PDF file containing a cover letter describing your previous research and research goals, a full CV, and names and contact information for three references to Rachel Spigler (rachel.spigler@temple.edu) by September 15. Review of applications will begin immediately. The Spigler Lab is committed to equitable access to opportunities in research and career development. All qualified applicants will receive consideration for employment without regard to age, ethnicity, color, race, religion, sex, sexual orientation, gender identity or expression, marital status, national origin, disability status or protected veteran status.

Rachel Spigler <rachel.spigler@temple.edu>

UCalifornia Berkeley HumanEvolutionaryGenetics

Post-doctoral position ??? University of California, Berkeley ??? Human Evolutionary Genetics.

Description: The Moorjani Lab (<https://moorjanilab.org/>) at University of California, Berkeley uses computational and statistical methods to investigate questions in human evolutionary genetics, in

particular on mutation rate, demographic inference and archaic ancestry. A central aim in the lab is to understand the impact of evolutionary history on genetic variation and to apply this knowledge to learn about human history and disease. To this end, we use genetic data from ancient specimens and present-day species to learn about: (1) when key events (such as introgression and adaptations) occurred in human history, (2) how different evolutionary processes such as mutation rate evolve across primates, and (3) how we can leverage these patterns to identify genetic variants related to human adaptation and disease. The research in the lab involves both development of new methods and large-scale genomic data analysis.

Responsibilities: A successful candidate will develop and apply computational approaches to large genomic datasets to characterize patterns of population history and evolution. The main responsibilities include conducting research, attending regular lab meetings and journal clubs, and preparing research results for publication and presentations at scientific meetings. Opportunities may also exist for mentoring graduate and undergraduate students.

Required qualifications: Ph.D. or equivalent in genetics, genomics, computational biology or related fields and demonstrated record of productivity and publications. Experience with programming (e.g. C/C++, Python/Perl, R or other programming languages), genomic data analysis and methods development.

Please contact Priya with your CV and a brief overview of research questions you are interested in pursuing. Please also request three recommenders to send a letter of reference on your behalf. The position is open until filled with an anticipated start date in 2019/2020.

Salary: This is a multi-year postdoctoral position (initial appointment is for 12 months and renewable annually up to three more years). Salary is commensurate with qualifications and experience.

Contact: Priya Moorjani Assistant Professor Department of Molecular and Cell Biology Center for Computational Biology <https://moorjanilab.org/> Email: moorjani@berkeley.edu

Priya Moorjani <moorjani@berkeley.edu>

UCalifornia Davis FishEvolution

Two postdoctoral scholar positions are open at the UC Davis Fish Conservation and Culture Laboratory (FCCL: <https://fccl.ucdavis.edu/>). The FCCL is a part of the Department of Biological and Agricultural Engineering at University of California, Davis. Note that the location of the FCCL is off the main campus in Byron, CA. These appointments will be full time for a duration of one year with the possibility of extension for another year.

The successful candidates will be involved various studies, potentially focused on, but not limited to: * developing sperm preservation methods * determining sperm competition between individuals and among species * development of fish culture methods for a smelt species * working with collaborators on various research projects * maintaining the safety program in the lab

General responsibilities also include: laboratory support, animal trial support, sample analysis, and data management. The candidate should also be actively and significantly involved in reviewing journal articles, engaging in discussions on research and the interpretation of research results, participating in appropriate professional societies or groups and other educational and research organizations, presenting research data at conferences, and publishing manuscripts.

The ideal candidates will have strong interpersonal, communication, and decision-making skills, as well as the ability to work well both independently and as part of a team. Full-time salary and benefits are included and are consistent with UC Davis policy and commensurate with applicant experience. START DATE: October 2020 or ASAP.

Application materials (Cover letter and C.V.) must be submitted to Dr. Tien-Chieh Hung at thung@ucdavis.edu. The position will remain open until filled, but to ensure consideration, application materials should be received by August 28, 2020.

See job adverts here: <https://recruit.ucdavis.edu/-/JPF03723> <https://recruit.ucdavis.edu/JPF03726>
 "areads@ucdavis.edu" <areads@ucdavis.edu>

UCDavis PlantEvolutionaryEcology

Postdoctoral Associate in Evolutionary Ecology of Plant Climate Response

The Gremer, Schmitt, Strauss and Maloof labs at UC Davis are together seeking a postdoctoral associate to conduct research on an NSF-funded Dimensions of Biodiversity project exploring the ecology and evolution of the seasonal niche and its impact on population and species responses to current and future climates. Ongoing work using the Brassicaceae clade **Streptanthus** and allies is characterizing how responses to environmental cues, such as temperature and precipitation, drive seasonal timing of germination and flowering, how that has evolved across the clade, and the implications for fitness and population dynamics in the face of climate change. This postdoc will focus on relating these cue responses to seasonal timing and fitness, as well as to species and population persistence under current and future climate scenarios. To address these questions, we use common garden experiments, demographic monitoring, and process-based and demographic models.

Duties will include demographic modeling, niche modeling, and participating in field demography censuses; the postdoc will also oversee greenhouse experiments and field seed collections from populations across the state of California. Opportunities for genomic analyses of the basis of germination responses are possible. While modeling experience is not required, it is preferred, and demonstrated interest in the above-mentioned areas is necessary.

The postdoc will co-supervise a technician, along with PIs, and will work with the technician on data collection and project management. The postdoc will assist with supervision and mentoring of undergraduate students, as well as coordination with graduate students, and will participate in lab meetings and activities and be an active member of the lab and campus research community. Experience managing people, experiments, and datasets and good communication skills are essential.

The postdoc will receive professional mentoring from PIs, and can expect to have individual weekly meetings with one or more PI, in addition to weekly lab and project meetings.

The SSGM labs embrace open and equitable access to opportunities for scientific learning and development, re-

ardless of race, ethnicity, gender and gender expression, age, disability, nationality, sexual orientation, citizenship status, veteran status, religious/non-religious beliefs, socio-economic class, or any other differences that have been the basis for oppression, misunderstanding or bias.

This position will be for 12 months with possibility of extension for additional years.

Please email a CV, names of three references, and a 2 page statement of your interest and experience as they pertain to this position to jrgremer@ucdavis.edu. Review of applications will begin on September 1, 2020.

Johanna Schmitt <jschmitt@ucdavis.edu>

UColorado LichenMetagenomics

Subject: Postdoctoral Researcher in Lichen Metagenomics (Boulder, Colorado)

Dear colleagues, Please see / share the following advertisement for a postdoctoral research scientist in metagenomics. The position will be based at the University of Colorado (Boulder, CO), Department of Ecology & Evolutionary Biology.

<https://jobs.colorado.edu/jobs/JobDetail/?jobId=-26493&emailCampaignId=168> Thanks so much, Erin Tripp

'X Associate Professor, Department of Ecology & Evolutionary Biology Curator of Botany, Museum of Natural-History University of Colorado, Boulder 303.492.2462 (Herbarium) Ruellia Pages:<https://trippreport.com/the-ruellia-pages/> President, Society of Herbarium Curators (2020-2022) 'X

Erin Tripp <erin.tripp@colorado.edu>

UCopenhagen WildlifePopGen

Postdoctoral position in Population Genomics

Position summary

The Department of Biology, Faculty of Science at University of Copenhagen is offering a post doc position working on population and evolutionary genetics in Asian

and African mammals, commencing December 1st 2020 or as soon as possible thereafter. The 2-year post doc position is available with Tenure-track Assistant Professor Rasmus Heller. The successful candidate will be working on questions such as speciation, admixture, adaptive introgression and population history in large Asian and African mammals. There will be considerable freedom to decide which of our existing projects is most suitable for the candidate, and field trips are definitely possible.

Description of the scientific environment

The position will be in the lab of Tenure-track Assistant Professor Rasmus Heller (RH). RHs lab works on using population genetic methods to infer evolutionary processes in wildlife species, including population divergence, local adaptations and speciation, mainly in ruminants of Africa and Asia (<https://rathmuth.wixsite.com/wildlifegenetics>). We have access to a unique set of large mammal samples from Africa and Asia through our in-house collection as well as our comprehensive international network of collaborators. The RH lab is part of the Statistical and Population Genetics group (www.popgen.dk), consisting of a dynamic team of four PIs working on animal and human population genetics, high throughput data analyses, statistical genetics and method development. Furthermore, RH plays a leading role in the Ruminant Genome Project, a consortium aiming to use the full suite of omics tools to study evolutionary questions in wild ruminants (<http://animal.nwsuaf.edu.cn/code/index.php/-RGD>). The University of Copenhagen has a strong and growing population genetic research environment spread on several different institutes, bound together by many collaborative projects and monthly research seminars. The city of Copenhagen is consistently considered as one of the most liveable cities in the world.

Qualifications

Applicants must have a PhD in population genetics/genomics, evolutionary genomics, bioinformatics or a similar quantitative field. In addition, the following are formal requirements to apply: - comprehensive experience in working with linux/unix and command lines, as well as some proficiency in one or more programming languages (such as R, Python, Perl, C/C++). - experience in working with high-throughput sequencing data, ideally with whole-genome sequencing data. - experience with population genomic analyses. - a demonstrated ability to communicate his/her scientific work in writing and in oral presentations. - must have published high-quality peer-reviewed papers.

In addition to these formal requirements, the following will be considered advantageous in candidates:

- is highly motivated, able to work independently and has good interpersonal skills. - has prior experience with admixture analyses, including inferring local ancestry and demographic history. - has an interest in mammal biology and/or animal domestication and/or livestock genetics. - is willing to travel to Asian and African countries as part of the collaboration with researchers and institutions in these countries.

Inquiries about the position can be made to Rasmus Heller, email rheller[at]bio.ku.dk.

Terms of employment

The starting salary is currently up to DKK 437.843 including annual supplement (+ pension up to DKK 74.871). Negotiation for salary supplement is possible.

To apply

The application must be submitted electronically by clicking APPLY NOW on the following website (<https://employment.ku.dk/faculty/?show=3D152464>). The application should include the following items:

- Cover letter detailing your motivation and background for applying for this position (max. 2 pages) - Curriculum vita - Complete publication list - Diplomas (Master and PhD degree or equivalent) - 1-3 reference letters (if any) The deadline for applications is 10 September 2020, 23:59 GMT +1

rheller@bio.ku.dk

UDresden EvolutionarySpermBiology

Postdoc 3yrs+, Germany, U Dresden, Evolutionary sperm biology and metabolism, deadline 30 Sept

Dear All,

I am looking for a postdoc to study evolutionary aspects of sperm metabolism, sperm membranes, sperm mitochondria/ mito-nuclear interactions..., preferably in insects (our current models are Drosophila, bedbugs and crickets). Applicants should have experience in one, and a keen interest in the other of the following two fields: i) evolutionary biology, experimental design and statistics and ii) sperm/ cell/ insect physiology to measure metabolism by microscopic, genetic or biochemical means, e.g. extending existing ex vivo microscopy methods to characterise the sperm metabolism. The position will involve some teaching in the areas of evolution, mi-

croscopy, entomology, statistics, or biodiversity (exact field depending on any command of German).

The position can start any time but is negotiable. It is for three years, but can be extended for a maximum of another three years - so the development of an independent research programme is desired (incl. to qualify for a habilitation for those in whose countries that thing still exists). Payment is "E 13 TV-L", which allows for comfortable living.

Our lab is currently rejuvenating, with two more positions to be announced soon but major technological skills are being retained. We are generously equipped concerning space, facilities, resources, microscopy and technician's support. Dresden is a beautiful city and the surroundings are amazing. Lots of amazing international research with ample opportunity to collaborate.

The official deadline was unfortunately tightly set to 4 Sept. Please get in touch if you miss(ed) that - I am happy to consider applications till 30 September.

Information about the position can be obtained from me, from current publications (<https://tudaz.net/>) and the official announcement is here: <https://tinyurl.com/-yxj3bchz> Many thanks, Klaus

Klaus Reinhardt Professor of Applied Zoology Faculty of Biology, TU Dresden, Germany <http://tu-dresden.de/bio/appzoo> internal lab page: <http://tudaz.net> klaus.reinhardt@tu-dresden.de +49 351 463 37534

Klaus Reinhardt <klaus.reinhardt@tu-dresden.de>

UEasternFinland HumanSexualSelection

The University of Eastern Finland, UEF, is one of the largest multidisciplinary universities in Finland. We offer education in nearly one hundred major subjects, and are home to approximately 15,500 students and 2,700 members of staff. We operate on two campuses in Joensuu and Kuopio. In international rankings, we are ranked among the leading universities in the world. The Faculty of Science and Forestry operates on the Kuopio and Joensuu campuses of the University of Eastern Finland. The mission of the faculty is to carry out internationally recognised scientific research and to offer research-education in the fields of natural sciences and forest sciences. The faculty invests in all of the strategic research areas of the university. The faculty's

environments for research and learning are international, modern and multidisciplinary. The faculty has approximately 3,800 Bachelor's and Master's degree students and some 490 postgraduate students. The number of staff amounts to 560. See: <http://www.uef.fi/en/lumet/-etusivu> We are now inviting applications for:

Postdoctoral Researcher / Project Researcher (cryptic female choice in humans), Department of Environmental and Biological Sciences, Joensuu and/or Kuopio Campus

We are seeking a motivated Postdoctoral/Project Researcher for our project "Towards molecular-level understanding of fertilization and sexual selection" (funded by the Academy of Finland, more information from research: <https://gamcomgroup.wordpress.com/>).

Fertilization is one of the most complex and enigmatic biological processes, which severely hinders our understanding about reproduction, evolution and beginning of life. It has traditionally been assumed that fertilization is a completely unbiased process, leading to random fusion of gametes. Against this assumption, our recent findings have indicated that gametes often combine non-randomly, which bias fertilization towards particular (compatible) reproductive partners. However, the molecular-level mechanisms of this gamete-level sexual selection (cryptic female choice) have remained unclear. The primary aim of our research is to clarify these mechanisms in humans and this way also gain better understanding of the mechanistic basis of fertilization and infertility.

See our recent publications on the topic:

<http://dx.doi.org/10.1098/rspb.2018.0836> and <http://dx.doi.org/10.1098/rspb.2020.1682> The Postdoctoral/Project Researcher will participate in experimental research that aims to clarify these mechanisms in humans. Depending on the expertise of the researcher, the duties can include either:

1) Molecular and/or immunological analyses (e.g. RNA sequencing, human leucocyte antigen analyses, and mass spectrometry of reproductive proteins), 2) sperm motility and chemotaxis measurements, or 3) determination of female-induced physiological changes in sperm. The researcher's tasks also include data analysis and reporting of the results in scientific journals.

The applicant is expected to have good skills in written and spoken English. Earlier experience in laboratory work, relevant methods in molecular biology (e.g. RNA seq, other next-generation sequencing methods or proteomics) and cell biology (e.g. sperm motility or viability analyses, ELISA assays or flow cytometry) will be considered a benefit for the applicant. If you have any of

these skills, please indicate that in the accompanying CV and/or motivation letter (see below).

The person to be appointed as Postdoctoral/Project Researcher is expected to hold a doctoral degree from an applicable field. If the employee has been awarded his or her doctoral degree less than five years ago, the post will be one of a Postdoctoral Researcher. If the doctoral degree has been awarded more than five years ago, the post will be one of a Project Researcher. In this context, the five years refer to a net period of time, which does not include maternity leaves, parental leaves, or military service, etc.

The position is filled for a fixed term for two years starting from 1.10.2020 or as agreed (starting at the latest 1.1.2021).

The salary of the Postdoctoral Researcher or Project Researcher position is determined in accordance with the salary system of Finnish universities and is based on level 5 of the job requirement level chart for teaching and research staff (2 967,84 euro 7/month). In addition to the job requirement component, the salary is supplemented by a personal performance component, which can be a maximum of 50% of the job requirement component.

For further information on the position, please contact: Associate professor Jukka Kekäläinen, tel.+358 29 445 1004, email: jukka.s.kekalainen@uef.fi. For further information on the application

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UFlorida MelastomataceaePhylogenomics

The Majure and Cellinese labs at the Florida Museum of Natural History, University of Florida, are seeking a postdoctoral associate to study the phylogenomics, biogeography and morphological evolution of the pantropical clade Melastomataceae. This is a 4 year NSF-funded project in collaboration with Fabian Michelangeli at the New York Botanical Garden. The project aims to understand the systematics and evolution of at least 3000 taxa in this clade.

Selection criteria: - Ph.D. in molecular evolution, systematics, evolution, bioinformatics, genomics, or a related field. - Research experience in molecular systematics, evolution, biogeography, particularly using next-generation sequencing data. Therefore, familiarity in bioinformatics and with relevant software packages for phylogenetic and post-tree analyses is required. - Prior experience with herbarium methodology highly preferred - Ability to work independently and as part of a team - Excellent verbal and written communication skill - A strong interest in tropical plant systematics and biogeography is advantageous.

Responsibilities: - Collection and organization of samples - DNA extractions and data analyses of hyb-seq datasets - Maintenance of laboratory equipment and supplies pertinent to the project - Coordination with all project members, including students, and domestic and foreign collaborators - Mentoring graduate and undergraduate students - Presentation of research results at relevant professional meetings and publications

This position is available as soon as the successful candidate is able to start, and hopefully at the latest by Jan 1, 2021.

How to apply: To apply please submit a letter of interest and CV, together with the names and contact information of three academic references to Dr. Lucas C. Majure (lmajure[at]floridamuseum.ufl.edu) and Dr. Nico Cellinese (ncellinese[at]flmnh.ufl.edu).

The position will remain open until filled. The University of Florida is an Equal Opportunity Employer.

Nico Cellinese, Ph.D. Associate Curator, Botany & Informatics Joint Associate Professor, Department of Biology

University of Florida Florida Museum of Natural History
354 Dickinson Hall, 1659 Museum Rd. Gainesville, FL
32611-7800, U.S.A. Tel. 352-273-1979 Fax 352-846-1861

Lab: <http://www.flmnh.ufl.edu/museum-voices/-cellinese-lab/> <http://www.Phyloref.org> Twitter @ncellinese

ncellinese@flmnh.ufl.edu

ULethbridge SalamanderConservationGenomics

The Lee-Yaw Lab at the University of Lethbridge and the Weisrock Lab at the University of Kentucky are

looking for a post-doc who is interested in using genomic data to inform amphibian conservation efforts in the Rocky Mountains of southwestern Alberta.

We are specifically using genome-wide estimates of genetic diversity and genotype-environment-associations to identify ideal source populations for the planned reintroduction of long-toed salamanders to high-elevation sites where they had been extirpated by historic fish stocking programs. Tissue samples have already been collected and the ideal candidate will work with current lab members on library preparation and sequencing, as well as lead the bioinformatics for the project. Reintroduction sites are located in the beautiful Waterton Lakes National Park (sister park to Glacier National Park in the USA) and this work is being done in close collaboration with Parks Canada as part of their Nature Legacy Program. Depending on interest and additional funding, there may be opportunities for the successful candidate to be directly involved in the reintroductions and post-reintroduction monitoring to determine establishment success.

Additional Details:

We are seeking candidates with experience generating and analyzing genomic data. This appointment is funded for 18 months, with a possible extension depending on funding (ideally, the candidate will work with us to develop applications for additional external funding). The start date for this appointment is January 1, 2021.

The position is based in Lethbridge, Alberta, Canada. Lethbridge is a smaller, affordable city with an active university community. We are about 2 hours south of Calgary, 2 hours north of the Canada-US border, and have fantastic hiking, skiing, and other recreational opportunities close by (Waterton Lakes National Park and Castle Provincial Park are ~1.5 hours away; Banff National Park is ~3 hours away). The collaborator labs will be working closely and, depending on COVID restrictions, some activities may take place in Kentucky. If you are interested in applying, please send an email to Julie Lee-Yaw (julie.leeyaw@uleth.ca) to discuss next steps. Please use the subject line "post-doc" and include a brief statement of your research interests and relevant experience, as well as a current CV.

The Lee-Yaw lab is committed to diversity, equity, and inclusion and particularly welcomes applications from researchers with diverse backgrounds, perspectives, and experiences.

Lee-Yaw Lab: <https://julieeyaw.weebly.com/> Weisrock Lab: [wesirocklab.com](https://www.uleth.ca/artsci/biological-sciences) U of L Biological Sciences: <https://www.uleth.ca/artsci/biological-sciences> Biology

U of K: <https://bio.as.uky.edu/> Julie A. Lee-Yaw

Department of Biological Sciences University of Lethbridge
skype: julleeyaw

“Lee-Yaw, Julie” <julie.leeyaw@uleth.ca>

UManchester Evolutionary Microbiology

Research Associate in Single-cell Evolutionary Microbiology

Location: Manchester Salary: 32,816 - 35,845 p.a. Start: November 2020 Duration: 3 years

A fully funded postdoctoral position (3-year full-time position in the first instance) is available within the new research group of Dr Rok Křavec to study mechanisms involved in mutation avoidance and DNA repair in a single bacterial cell.

Rok’s lab at the Faculty of Biology, Medicine and Health focuses on the spontaneous mutation, a fundamental biological process that drives evolutionary innovations and generates the key global challenge of antimicrobial resistance. Rok’s lab is built on his previous research findings that bacterial pathogens at lower population densities have more than 20-fold higher chance of becoming resistant to multiple antibiotics (Křavec et al., *Nature Commun.*, <http://doi.org/skb> ; Křavec et al., *Plos Biology*, <http://doi.org/cb9s>). This ‘density-associated mutation rate plasticity’ critically depends on mutation avoidance proteins and cell-cell interactions.

The aim of this inter-disciplinary project is to combine a live fluorescence microscopy and microfluidics to measure quantitatively and dynamically the molecular processes involved in mutation avoidance and DNA repair. The project will deepen our fundamental understanding of how evolution works and will enable us to better predict mutation-based resistance in microbial communities. This will extend the usefulness of existing antibiotics and inform the development of longer-lasting novel drugs.

The postdoctoral researcher will i) develop multi-parameter experimental (microfluidics and live fluorescence microscopy) and computational methods in order to track single molecules of Nudix hydrolases and DNA repair proteins, ii) integrate single-molecule and single-cell quantitative measurements with statistical modelling, and iii) determine roles of environments and

cell-cell interactions on single-molecule dynamics.

The successful candidate will perform single-cell and single-molecule experiments in the cutting-edge bioimaging facility, regularly interact with enthusiastic team of outstanding young scientists in Manchester (e.g. from the Microbial Evolution Research Manchester (MER-Man) cluster) and collaborate with the groups of Sir David Klenerman (University of Cambridge) and Martin Ackermann (ETH Zürich).

The ideal candidate is an outstanding experimentalist who holds (or expects to hold shortly) a PhD in microbial evolution, microbial ecology, molecular biology, biochemistry, biophysics, biophysical chemistry or related field. You should have extensive and up-to-date theoretical and practical knowledge either in live fluorescence microscopy/quantitative cell imaging or in molecular biology/DNA repair/protein-nucleic acid interactions. Being experienced in both areas is an advantage but it is not necessary, because we will provide appropriate training, substantial technical support and expertise for this position. However, enthusiasm for the project and a strong interest in crossing research fields are essential.

The position includes a generous career development package within a long-term, inter-disciplinary and well-resourced project. You will work together with a full-time research technician exclusively associated with this UKRI funded research programme, with the aim to study factors that affect cells’ capability to avoid and repair mutations.

The University of Manchester is the largest single-site university in the UK with over 40,000 students and more than 12,000 staff. The integrated structure of our Faculty enables a truly translational approach to biology, medicine and health - from pure discovery science through to clinical application and patient care. It also encourages collaborative working, enabling staff to deliver innovative, world-leading research that has a very real and positive impact on people’s lives, as well as high-quality education and training to over 11,000 undergraduate and postgraduate students.

We are strongly committed to promoting equality and diversity, including the Athena SWAN charter for gender equality in higher education. The School holds a Silver Award which recognises their good practice in relation to gender; including flexible working arrangements, family-friendly policies, and support to allow staff achieve a good work-life balance. We particularly welcome applications from women for this post. All appointment will be made on merit.

This vacancy will close for applications at midnight on the closing date (DD/MM/YYYY): 04/10/2020

Contract Duration: Available from 1 November 2020 until 31 October 2023

To submit an application and to gather further information on responsibilities, accountabilities, duties, and person specification criteria, please visit:

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UMichigan ModelingDiseases

Postdoctoral position available

Modeling WASH (Water, Sanitation, and Hygiene) interventions

Applications are invited for a postdoctoral research position to develop and work with a computational modeling framework to answer policy, programmatic, and epidemiological questions related to WASH infectious disease exposure pathways and community-based interventions. This work will incorporate observational and trial data from low-income settings to understand the relative roles of various pathogens and pathways, and to identify coverage thresholds to inform and improve the effectiveness of future WASH interventions.

Qualifications: Successful candidates will have strong quantitative, oral, and written skill sets and a Ph.D. in a relevant field (epidemiology, applied math, statistics, computer science, ecology and evolution, engineering, or a related field). *Candidates should have previous experience (professional or personal) in a low- or middle-income country context.* The ideal candidate will be highly motivated, be able to work independently, have previous R programming experience, and be able to write peer-reviewed manuscripts. Additional helpful skills include knowledge of dynamical systems, parameter estimation, and/or infectious disease modeling. We are seeking applicants with a commitment to contributing to a diverse, equitable and inclusive environment for all members of our community.

Workplace: The University of Michigan School of Public Health is pursuing a healthier, more equitable world through education, research, and action. We work with compassion, innovation, and inclusion to create meaningful, lasting impact. Within the School of Public

Health and across the University, there is a vibrant mathematical modeling and complex systems community. Modeling expertise expands across departments including Epidemiology, Health Management and Policy, Complex Systems, Ecology and Evolutionary Biology, Mathematics and Statistics.

Details: Compensation (salary and benefits) will be offered according to University of Michigan and NIH guidelines. The position is available immediately, but the starting date is negotiable. To apply please, submit a cover letter, CV, names of three references, and two publications to Dr. Joseph Eisenberg via email at jnse@umich.edu or mail at Joseph Eisenberg, Department of Epidemiology, School of Public Health, University of Michigan, 1415 Washington Heights, Ann Arbor, MI 48109. Applications will be considered on a rolling basis.

– Kevin M. Bakker www.kevinmbakker.com NIH Ruth L. Kirschstein National Research Service Award Postdoctoral Fellow Department of Statistics University of Michigan

Kevin Bakker <bakkerke@umich.edu>

UOxford EcoEvoHostParasite

A 2-year post-doctoral researcher position is available with the King Lab (thekinglab.com) in the Department of Zoology, University of Oxford.

This post is part of an inclusive, dynamic, and interdisciplinary research group working on the evolutionary ecology and genetics of host-microbe interactions. The project will use a natural bacterial parasite in *Caenorhabditis* nematode populations to examine the consequences of host contact for the spread and evolution of infectious disease. The post-holder will be given the opportunity to contribute to the development and direction of this project.

The successful candidates should have prior experience in infectious disease ecology/evolution and microbiology, and hold a PhD/DPhil (or near to completion) in a relevant area. The start date is flexible.

Only applications made online before 12.00 mid-day (UK time) on 11 September 2020 will be considered. You will be required to upload your CV and supporting statement. For more information see: https://my.corehr.com/pls/uoxrecruit/-erq_jobspec_version.4.display_form?p_company=-

10&p_internal_external=E&p_display_in_irish=-
 N&p_process_type=&p_applicant_no=-
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 Y&p_refresh_search=Y&p_recruitment_id=-
 145926 Please send informal inquiries to
 kayla.king@zoo.ox.ac.uk

Kayla

Kayla King Professor of Evolutionary Ecology Department of Zoology University of Oxford

Tutorial Fellow in Biology Christ Church College, Oxford

<https://www.zoo.ox.ac.uk/people/dr-kayla-king> <http://www.thekinglab.com/> “kayla.king@zoo.ox.ac.uk”
 <kayla.king@zoo.ox.ac.uk>

UPadova HumanPopGenetics

Hello,

please find here <https://tinyurl.com/PadovaPostdoc> a call for a 16 months Postdoctoral position at the University of Padova, Italy, to improve calculation of Polygenic Scores in recently admixed individuals (PI: Luca Pagani - <https://scholar.google.co.uk/citations?user=-2TYX99YAAAAJ&hl=en>).

The candidate is expected to further expand the Marretto et al. 2020 method developed by the PI's research group (<https://www.nature.com/articles/s41467-020-15464-w>) with the help of the local research team and in collaboration with the Institute of Genomics of the University of Tartu, Estonia.

Computational experience on human whole genome data and programming skills are mandatory. Deadline for the application is 5th August 2020. Starting date: 1st September 2020. Salary after taxes: ~1850 EUR/month. Most of the work can be carried out remotely or in presence.

The position is part of the PI's ASPERA Project: https://www.biologia.unipd.it/news/leggi/news/-grant-and-awards-series-starsunipd-luca-pagani/?tx_news_pi1%5Bcontroller%5D=News&tx_news_pi1%5Baction%5D=detail&controller=News&action=detail

Please circulate to potential candidates and encourage them to get in touch for further info. Email: lp.lucapagani@gmail.com or luca.pagani@unipd.it

Best and thank you, Luca Pagani

Associate Professor, Department of Biology, University

of Padova Via Ugo Bassi 58/B, 35131 Padova, Italy

Luca Pagani <lp.lucapagani@gmail.com>

UToronto 2 PlantPopulationGenomics

Hi Everyone-

I have reposted these jobs to allow remote-work during the first year (at least) because of the pandemic.

Please forward to anyone interested.

cheers,

John

On 3/17/2020 6:44 PM, John Stinchcombe wrote:

Two post-doctoral fellowships are available to work with John Stinchcombe in the general area of ecological genetics and plant population genomics. I am looking for people with bold ideas on how they can push their research, and my lab's,— forward.

The full ad with the application details, how to apply, etc is here:

<https://t.co/cL7aQtplpd?amp=1> Potential topics include validating novel candidate genes underlying flowering time variation, genomic and transcriptomic approaches to plant-microbe interactions, and empirical work at the intersection of quantitative and population genetics.

Job Requirements:—The candidate(s) must have a recent PhD in evolutionary biology, genomics, population/statistical/ quantitative genetics or a related field, with strong evidence of published research productivity. The ideal candidate would have some combination of extensive experience with data analysis and statistical skills, experience working next-generation sequencing or transcriptome data, and/or facility implementing greenhouse or field experiments with large numbers of plants. A burning desire to test evolutionary hypotheses with genetic and ecological data in plants would be favorable.

To apply:—All individuals interested in this position must submit the following documents to Professor John Stinchcombe (john.stinchcombe@utoronto.ca) by the closing date. 1. A cover letter indicating the intersection of their research interests and expertise with recent work in the lab, including how both will be extended;—

2. A current C.V.;— 3. Three (3) relevant publications

or preprints; and 4. Contact information for three (3) references by the closing date (June 1, 2020).— Review of complete applications will begin March 30, 2020.

Cheers, and stay safe and socially-distant, John

John Stinchcombe <john.stinchcombe@utoronto.ca>

UUlm WildlifeImmuneEvolution

The Institute of Evolutionary Ecology and Conservation Genomics / University of Ulm, Germany invites applications for a

Postdoc position in Wildlife Immunogenomics / Host-microbiome interactions

Applications are invited for an initial 3-year postdoc position investigating the effects of environmental changes on wildlife health. Our research focus on the relationships between land-use changes, wildlife genome-wide and immune genetic diversity, host's microbiome, and zoonotic infections. We offer a very stimulating, multi-national research community with excellent infrastructure. We are looking for a skilled, creative and highly-motivated postdoc who is able to work independently and in a team. The position requires social, teaching, organizational and time-management skills. A high standard of spoken German and English, and manuscript writing proficiency is required. The candidate should be willing to support teaching in German and English, and supervising undergraduate and PhD students' projects as well as developing and performing own research. Candidates should hold a completed doctoral degree and have a strong background in evolutionary ecology and genomics, microbiome and/or metagenomics research, and should be qualified by a very good publication record. Preference will be given to a candidate with own practical experience with next generation sequencing and analysis of large bacterial and metagenomic data sets, including bioinformatic data processing (QIIME2), multivariate modelling and statistics, and R and Python programming languages.

The appointment is made by the Central University Administration. Please upload your application referring to the call with the index number 20066.

<https://stellenangebote.uni-ulm.de/jobposting/-4f1e9d57b7f943945025e3aa03a0b95f3fa72f43>,

The application should include a letter describing your past research experience and particular skills and motivation for this position (max. 2 pages), an outline of planned

own future projects (max. 2 pages), a CV, a summary of the PhD thesis, 2-3 letters of recommendation or contact details of referees and your publication list. For enquiries please contact Prof. Dr. Simone Sommer (simone.sommer@uni-ulm.de).

The anticipated starting date is November 2020. The position is open until filled, and applications will be reviewed continuously, but for full consideration please apply by September 10th, 2020. Remuneration is in accordance with TV-L 13 (100%). The applicants assessed as the best qualified will be called to a web-based interview.

Physically disabled applicants receive favorable consideration when equally qualified. Job sharing is always possible for full time positions. The University of Ulm is committed to increase the share of women and teaching positions and therefore explicitly encourages female candidates to apply.

Simone Sommer <Simone.Sommer@uni-ulm.de>

UVirginia HostParasiteEvolution

The Department of Biology at the University of Virginia invites applicants for a post-doctoral research associate position to work in the lab of Professor Amanda Gibson.

The Gibson lab (coevolving.org) at the University of Virginia studies the evolutionary ecology and genetics of host-parasite interactions with the goal of understanding how organisms adapt to rampant uncertainty 'V uncertainty in the species and strain of parasite a host might encounter and uncertainty in the environment in which that encounter will unfold. We are starting a five-year NIH-funded project to determine how genetic and environmental contexts changes the selective advantage of resistance alleles. This research will make use of the fabulous experimental tools and resources available for the model nematode *C. elegans* and its natural parasites. These tools include experimental evolution with cryogenic preservation, high-throughput phenotyping, a variety of transgenic methods, and wild isolates with whole genome sequences. Researchers on the project will have ample opportunity for creative experimental design, independence, and training in a variety of skills and areas of scholarship. In joining the lab, new members sign on to our commitment to promoting an inclusive and safe environment, supporting all the members of our team in realizing their full potential, and actively valuing the creativity and productivity that comes from

the meeting of diverse minds.

The lab is recruiting a Postdoctoral Research Associate to contribute to this work. The proposed research integrates techniques and concepts associated with the fields of host-parasite coevolution and evolutionary genetics, and eligible candidates will have demonstrated strengths in one of these areas or in closely allied fields. The postdoc will be involved in designing and implementing experimental evolution studies, quantitative trait mapping and high-throughput phenotyping (using e.g. qPCR, fluorescence microscopy, flow cytometry and other automated phenotyping schemes), mentoring of undergraduate trainees, data analysis, and writing of manuscripts. The postdoc will receive mentorship from the PI and support to pursue independent research projects.

QUALIFICATION REQUIREMENTS: An ideal candidate would have:

- * A PhD in Biology or a related field
- * Excellent written and oral communication, demonstrated by a strong publication record, consistent with the candidate's career stage, and presentations at conferences
- * Demonstrated ambition, creativity, independence, and ability to work well with others
- * A strong background in experimental design, data analysis, and data management
- * Experience with analysis and interpretation of genomic data and design of mapping studies
- * Interest and confidence in developing new techniques, notably molecular genetic tools, for hypothesis testing
- * Experience in mentoring undergraduate students and a dedication to promoting underrepresented groups in STEM
- * An enthusiasm for nematodes

The Biology Department at UVA (<http://bio.as.virginia.edu/>) is an excellent training environment for curious, highly motivated scientists. The successful applicant can expect to interact frequently with the department's strong, collegial group of evolutionary ecologists and geneticists (<https://www.eebvirginia.org/>). There may be opportunities for research, training, and

outreach at Mountain Lake Biological Station (<https://mlbs.virginia.edu/>), in southwestern Virginia.

APPLICATION PROCEDURE: Apply online at https://uva.wd1.myworkdayjobs.com/en-US/UVAJobs/job/Charlottesville-VA/Research-Associate-in-Biology_R0017284 and attach a cover letter, curriculum vitae, 2-3 writing samples (preferably first-author publications, published or in prep), and contact information for three individuals who can provide professional reference letters. In the cover letter, please address your fit with the qualifications

above and your experience in mentoring undergraduates. Applications by members of all underrepresented groups are strongly encouraged.

Please note that multiple documents can be uploaded in the box.

APPLICATION DEADLINE: Review of applications will begin on August 15, 2020, but the position will remain open until filled. The University will perform background checks on all new hires prior to employment.

The University of Virginia, including the UVA Health System which represents the UVA Medical Center, Schools of Medicine and Nursing, UVA Physician's Group and the Claude Moore Health Sciences Library, are fundamentally committed to the diversity of our faculty and staff.

— / —

This message has been arbitrarily truncated at 5000 characters. To read the entire message look it up at <http://life.biology-mcmaster.ca/~brian/evodir.html>

Vanderbilt U MicrobialSymbiosisEvolution

Postdoctoral or technician positions are offered to join the Bordenstein Lab in the Department of Biological Sciences and Vanderbilt Microbiome Initiative in Nashville, TN.

The first project seeks applicants with interests, experience, or skill sets in the evolution and function of phage genes underpinning selfish drive systems including cytoplasmic incompatibility and male killing. The project will involve nucleotide and amino acid sequence analyses, fluorescence microscopy, antibody development, and high throughput sequence analytics. Experience in *Drosophila* is preferred but not required.

More information about the lab, topics, and systems can be found at: lab.vanderbilt.edu/bordenstein. If interested, contact Seth Bordenstein (s.bordenstein@vanderbilt.edu) with informal inquiries or a single, compiled pdf including: (i) earliest start date (ii) a full curriculum vitae with at least three references (iii) a statement of intent, career goal, research experience, and your areas of growth and (iv) two example publications or other writings.

The Vanderbilt University campus is a National Arboretum located in the heart of Nashville, the capital of Tennessee, known internationally as “Music City USA”, Nashville is also home to Nashville Hot Chicken or Tempeh (a lab favorite), professional sports teams, the Nashville Symphony, the Frist Center for the Visual Arts, and numerous activities for outdoor enthusiasts.

Education required: * Degree(s) in symbiosis, genetics, biochemistry, evolutionary biology or closely related fields

Desirable Qualifications: * Experience in evolutionary genetics, fly transgenics, fluorescent microscopy, antibody-based tools, gene expression, and/or gene knockdown technology * Strong background in team leadership, community organizing, scientific independence, writing, and teaching.

Preferred Starting date: as soon as possible

Application Deadline: until position is filled

“Bordenstein, Seth R” <s.bordenstein@Vanderbilt.Edu>

scientific rigor, productivity, and creativity; the ability to work independently and as part of a team; and a strong publication record. Excellent oral and written communication skills are required. Highly motivated individuals with experience in other model systems and a background in biochemistry, cell/molecular biology, epigenetics, and/or bioinformatics are encouraged to apply. Salary will be commensurate with experience and qualifications.

Applicants must apply for this position via the Marine Biological Laboratory careers website: <https://www.mbl.edu/hr/employment/>. Please submit: a cover letter with a brief description of your research experience and how your expertise will contribute to research on the mechanisms of parental effects and transgenerational inheritance; a CV including a list of publications, and contact information for three references.

Jennifer Larkum <jlarkum@mbledu>

WoodsHole MA TransgenerationalInheritance

Post Doc at MBL - Genetic and Epigenetic Mechanisms of Transgenerational Inheritance

Marine Biological Laboratory | Woods Hole, MA | Salary commensurate with experience and qualifications

A postdoctoral research position is available in the laboratory of Dr. Kristin Gribble at the Marine Biological Laboratory, Woods Hole, MA. The interests of the lab include the mechanisms and evolution of the biology of aging, and maternal and transgenerational effects on offspring health. We use rotifers as a model system for our work. For more information about our lab's work and a list of publications, see www.mbl.edu/jbpc/-gribble. Qualified applicants will have the opportunity to study the genetic and epigenetic mechanisms of aging in a novel experimental model system, focusing on how maternal effects influence offspring health and lifespan. This NSF-CAREER funded research program will use experimental, genetic, biochemical, and bioinformatic approaches to elucidate the mechanisms of transgenerational epigenetic inheritance.

Applicants should possess a Ph.D. in molecular biology, cell biology, biochemistry, genetics, bioinformatics, or a related field. The ideal candidate will have a record of

YorkU BeeEvolution

Wild Bee Microbial Ecology and Landscape Genomics Postdoc

The Rehan Lab (www.rehanlab.com) is hiring a postdoc to study landscape genomics and microbial ecology of wild bees. The candidates will join a collaborative group of researchers, staff, and students focusing on bee health, behaviour, and conservation. We are located at York University in Toronto, Canada.

This position will examine metagenomics of wild bees to determine their dietary breadth and microbial ecology across landscapes. The successful candidate will have technical expertise in molecular biology and bioinformatics. Writing and analytical skills as well as familiarity with microbiome and genomic data are highly desirable.

York University is an Equal Opportunity Employer and encourages applications from women and underrepresented groups. If interested, please send a CV, names of three references, and a short statement of interests to Sandra Rehan sanrehan@yorku.ca by September 16, 2020. The postdoctoral position is available for one year (starting as soon as October 2020 and as late as January 2021) and renewable up to three years with successful progress and performance.

– Sandra Rehan, FRES | Associate Professor of Molecular Evolution Department of Biology | Faculty of Science | York University 4700 Keele Street | 109 Far-

quharson Building | Toronto ON | M3J 1P3 Email: 416.736.2100 ext. 77822
 sanrehan@yorku.ca | Web: www.rehanlab.com | Tel: Sandra Rehan <sandra.rehan@gmail.com>

WorkshopsCourses

Online DatavizInRggplot Nov9-13	81
Online DeepLearning Sep28-Oct1	81
Online FundamentalsOfMuseumStudies	82
Online IntroNGS Sep7-11	83
Online PhylogenyR Aug24-28	83
Online StatisticalGenetics Oct1-Dec10	84

Online DatavizInRggplot Nov9-13

Dear all,

we will run a 5-day ONLINE course on “Data visualization in R with ggplot2” in November (9-13) : <https://www.physalia-courses.org/courses-workshops/course56/> In this course, you learn how to use R to load, transform, explore and visualize data. The course also covers the basic concepts in data visualization and a suite of different chart types and tricks to make appealing and informative-rich plots using ‘ggplot2’.

This course is aimed at researchers and technical workers with a background in any data-related field. In general, no programming experience is needed. The course teaches all relevant steps to load, transform and visualize the data. However, basic knowledge of R is beneficial.

After completing the course, students should be in a position to:

- know and apply the principles of good data visualization such as the right choice of colors and chart types -

load and transform data in R using ‘tidyverse’ - understand the layered structure of ‘ggplot2’ - visualize the data in multiple ways using ‘ggplot2’ - create publication quality and easy understandable figures - perform reproducible by using version control and project organization

Session content: <https://www.physalia-courses.org/-courses-workshops/course56/curriculum56/>

Here is the full list of our courses and Workshops: (<https://www.physalia-courses.org/courses-workshops/>)

Best regards,

Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR info@physalia-courses.org <http://www.physalia-courses.org/> [@physacourses](https://twitter.com/physacourses) mobile: +49 17645230846 <https://groups.google.com/forum/#!forum/physalia-courses> info@physalia-courses.org

Online DeepLearning Sep28-Oct1

Dear all,

The registration deadline is soon approaching and we have the last 4 seats left on our Physalia course on “INTRODUCTION TO DEEP LEARNING FOR BIOLOGISTS”.

It will be held online from the 28th of September to the 1st of October.

Course website: (<https://www.physalia-courses.org/courses-workshops/course67/>)

The course is aimed at students, researchers and professionals interested in learning what deep learning is and how to develop a deep learning model for applications in biology. It will include information useful for both absolute beginners and more advanced users willing to delve into some aspects of the implementation of deep learning. We will start by introducing general concepts of deep learning presenting a functioning model and then we will progressively describe the main building blocks of a deep learning model and how the internal machinery works. Attendees are expected to have a background in biology and the research problems involving prediction, inference, pattern discovery; previous exposure to predictive experiments would be beneficial.

There will be a mix of lectures and hands-on practical exercises using mainly Python, Jupyter Notebooks and the Linux command line. Some basic understanding of Python programming and the Linux environment will be advantageous, but is not required.

Programme: (<https://www.physalia-courses.org/courses-workshops/course67/curriculum67/>)

Our other online courses: (<https://www.physalia-courses.org/courses-workshops/>)

All the best,

Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR
 info@physalia-courses.org <http://www.physalia-courses.org/> Twitter: @physacourses mobile: +49 17645230846 <https://groups.google.com/forum/#!forum/physalia-courses> info@physalia-courses.org

Online FundamentalsOfMuseumStudies

Dear all,

We have developed a Museum studies course, MSM 211 'V Fundamentals of Museum studies that we are

delivering online for the first time this fall.

Course Description: This 3-credit course will introduce students to the inner world of museums, how they function and the many different skills they bring together. We will consider museum science with a wide lens to give you the broadest possible experience and answer critical questions including: - What are the different types of museums and what do they do? - What kind of museum jobs are available? - What other jobs can museum skills prepare you for? - How are objects (specimens/artifacts) collected and conserved? - How are collections data managed and shared? - How do we develop exhibitions and media for the public? - What ethical issues do museums face? - What are the challenges that museums may face in the future?

Instructors: Stefanie Ickert-Bond, Curator of the Herbarium, Professor of Botany Patrick S. Druckenmiller, Director, UA Museum, Professor of Geology Leonard Kamerling, Curator of Film, Professor of English Angela Linn, Senior Collections Manager, Ethnology and History Andres Lopez, Curator of Fishes, Associate Professor of Fisheries Josh Reuther, Curator of Archaeology, Associate Prof. of Anthropology Derek Sikes, Curator of Insects, Professor of Entomology

Course website: <https://msm211.community.uaf.edu/>
 Dates: Aug. 24 'V Dec. 12, 2020

Delivery: Online delivery, interactive with 1 weekly synchronous cohort meetings (optional).

This course will be valuable for students curious about pursuing a career in museums as educators, administrators or curators, for those who interact with museums, and for those already in related fields seeking professional development opportunities. This course is taught by staff at the University of Alaska Museum of the North, Alaska's only teaching, collecting, and research museum. Our instructors are practicing museum professionals and educators whose expertise spans a spectrum of disciplines, including natural and cultural history, art, film, exhibit design and museum administration.

Audience: Anybody interested in museum collections, links on how to register can be found here: <https://msm211.community.uaf.edu/about-this-course/> Questions: Contact Steffi Ickert-Bond <smickertbond@alaska.edu> or Angela Linn <ajlinn@alaska.edu>

– Steffi Ickert-Bond, Ph.D.

Professor of Botany and Curator of the UA Museum Herbarium (ALA) FNA Regional Coordinator Alaska-Yukon University of Alaska Fairbanks 1962 Yukon Drive Fairbanks, AK 99775-6960

Phone: 907-474-6277 (office) 907-474-5285 (WRRB lab) <info@physalia-courses.org>
Fax: 907-474-5469 email: smickertbond@alaska.edu
<http://www.uaf.edu/museum/collections/herb/> Stefanie Ickert-Bond <smickertbond@alaska.edu>

Online IntroNGS Sep7-11

Dear all,

we have the last 3 seats left on our “Summer School in Bioinformatics” which will be held online (via Zoom) from the 7th to the 11th of September (2-8 pm Berlin time).

General Topic: Understanding and Working with Next Generation Sequencing Data

Course website: <https://www.physalia-courses.org/-courses-workshops/course68/> Instructors: Dr. Daniel A. Pass (Cardiff University) and Dr. Christoph Hahn (University of Graz)

The course is aimed at researchers with a biological background but with no to basic hands-on experience with NGS data. This course will introduce participants into the field of NGS biology, understanding both the concepts and handling of the data. We will cover a broad range of software and analyses from quality assessment of sequencing runs, through assembling and annotating small genomes, RNAseq and differential gene expression, and phylogenomics with NGS data. Primarily focussed on Illumina data, we will also look at the different requirements and opportunities when utilising long read data (Nanopore/PacBio). This course will be accompanied with sessions on the use of the Linux command line, and docker which is the preferred platform for most bioinformatic analyses, as well as software containers, through Docker or Singularity, with particular focus on best practices for reproducibility.

Here is the full list of our courses and Workshops: <https://www.physalia-courses.org/courses-workshops/> Should you have any questions, please feel free to contact us: info@physalia-courses.org

Best regards,

Carlo

Carlo Pecoraro, Ph.D Physalia-courses DIRECTOR
info@physalia-courses.org <http://www.physalia-courses.org/> Twitter: @physacourses mobile: +49 17645230846 <https://groups.google.com/forum/#!forum/physalia-courses> “info@physalia-courses.org”

Online PhylogenyR Aug24-28

Dear evoldir members,

Transmitting Science is offering the LIVE ONLINE course ‘Phylogenetic Analysis Using R’.

Instructors: Dr. Emmanuel Paradis (Institut de Recherche pour le Developpement, France) Dr. Klaus Schliep (Graz University of Technology, Austria)

Dates & Times: August 24th-28th, 2020 8:00-10:30 & 11:30-14:00 (GMT+1, London time)

COURSE OVERVIEW:

This course is for biologists dealing with the analysis of multiple molecular sequences at several levels: Populations, species, clades, communities. These biologists address questions relative to the evolutionary relationships among these sequences, as well as the evolutionary forces structuring biodiversity at different scales.

The objectives of the course are: (i) to know how to choose a strategy of molecular data analysis at the inter- or intraspecific levels, (ii) to be able to initiate a phylogenetic analysis starting from the files of molecular sequences until the interpretation of the results and the graphics.

The software used for this course will be centered on the R language for statistics. This will include the use of specialized packages particularly ape, phangorn, and adegenet.

For more information and registration: <https://bit.ly/phylogenetic-analysis-R> Contact: haris.saslis@transmittingscience.com

All the best,

Haris Saslis, PhD Course Coordinator Transmitting Science www.transmittingscience.com Haris Saslis <haris.saslis@gmail.com>

Online Statistical Genetics Oct1-Dec10

The Institute for Public Health Genetics and the Department of Biostatistics at the University of Washington invite online participation in BIOS T 551 “Statistical Genetics” taught by Bruce Weir for 3 hours of graduate credit. The course will be taught entirely online, 10:00-11:20 am Pacific on Tuesdays and Thursdays, starting Thursday October 1 and ending Thursday December 10.

The course includes material covered in Module 13 “Statistical Genetics” of the Summer Institute in Statistical

Genetics (<https://si.biostat.washington.edu/suminst/sisg2020/modules/SM20130>). It considers five major areas: Allelic association, Population structure and relatedness, Quantitative genetics, Heritability and inbreeding depression, and Association mapping. Students will work through current literature and analyze public-domain SNP data.

Application is made through the University of Washington Continuum College (phone 206-543-2310, email c2reg@uw.edu) with forms at (<https://www.nondegree.uw.edu/register/register-as-an-nm-student/>) Prior to submitting the registration form, email Bruce Weir (bsweir@uw.edu) to receive email approval (before October 1, 2020 to avoid a late fee). The tuition cost for this 3-credit graduate course is \$2,738.

Bruce

Bruce S Weir <bsweir@uw.edu>

Instructions

Instructions: To be added to the EvolDir mailing list please send an email message to Golding@McMaster.CA. At this time provide a binary six letter code that determines which messages will be mailed to you. These are listed in the same order as presented here — Conferences; Graduate Student Positions; Jobs; Other; Post-doctoral positions; WorkshopsCourses. For example to receive the listings that concern conferences and post-doctoral positions this would be 100010. Messages are categorized on the basis of their subject headings. If this subject heading is not successfully parsed, the message will be sent to me at Golding@McMaster.CA. In addition, if it originates from ‘blackballed’ addresses it will be sent to me at Golding@McMaster.CA. These messages will only be read and dealt with when I have time. The code 000000 has all channels turned off and hence gets only a once monthly notification of the availability of a monthly review pdf file.

To be removed from the EvolDir mailing list please send an email message to Golding@McMaster.CA. Note that ‘on vacation’, etc, style messages are automatically filtered and should not be transmitted to the list (I hope), but should you wish to avoid the e-mail’s your code can be temporarily changed to 000000.

To send messages to the EvolDir direct them to the email evoldir@evol.biology.McMaster.CA. Do not include encoded attachments and do not send it as Word files, as HTML files, as \LaTeX files, Excel files, etc. . . . plain old ASCII will work great and can be read by everyone. Add a subject header that contains the correct category “Conference:, Graduate position:, Job:, Other:, Postdoc:, Workshop:” and then the message stands a better chance of being correctly parsed. Note that the colon is mandatory.

The message will be stored until the middle of the night (local time). At a predetermined time, the collected messages will be captured and then processed by programs and filters. If the message is caught by one of the filters (e.g. a subject header is not correctly formatted) the message will be send to me at Golding@McMaster.CA and processed later. In either case, please do not expect an instant response.

Afterword

This program is an attempt to automatically process a broad variety of e-mail messages. Most preformatting is collapsed to save space. At the current time, many features may be incorrectly handled and some email messages may be positively mauled. Although this is being produced by L^AT_EX do not try to embed L^AT_EX or T_EX in your message (or other formats) since my program will strip these from the message.