

Newsletter June 2020

Welcome to the 21st edition of the PopGen ALUMNI newsletter!

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Recent events and news

December 2019:

PopGen Vienna students and faculty were shaken and deeply saddened by the loss of our dear colleague, faculty member and PhD advisor **Christian Lexer** who passed away before Christmas.



Obituary *Molecular Ecology*: https://onlinelibrary.wiley.com/doi/full/10.1111/mec.15363

Obituary Univ. of Vienna: https://preview.tinyurl.com/ycxkshor

December 2019: Alumni career News

PopGen Vienna faculty alumna **Andrea Betancourt** (University of Liverpool) was promoted to Professor! Congratulations, Andrea!

December 2019: PhD defense

Congratulations to **Thomas Taus** who defended his PhD thesis successfully on December 18th, 2020: "Experimental Evolution with *Drosophila simulans* under Thermal Stress". We wish him all the best for his career outside Academia as Data scientist at Porsche Informatik GmbH in Salzburg.

January 2020: New Year celebration

December had brought a sad closure to the year 2019, and we tried to welcome the new year with a positive outlook. 34 members and friends of the Vienna Graduate School of Population Genetics met for a creative night out to paint mugs for each other and enjoy dinner together.



March 2020

Due to the Covid-19 pandemic, PopGen Vienna has moved into home office mode. We stay connected during seminars, journal clubs and project discussions using online tools. Some mutual cheering up is happening during virtual coffee breaks and beer hours.

April 2020: Lots of alumni career news

We're happy to announce career advances of several alumni and congratulate them all!

- Claudia Bank (currently PI at Gulbenkian Institute) was appointed professor at the Institute of Ecology and Evolution (University of Bern) and will move there in Autumn 2020.
- **Polina Novikova** (currently PD at Gent University) will join the Department of Chromosomal Biology (MPIPZ Cologne) as group leader in September 2020.
- **Christian Huber** (currently ARC DECRA fellow at the University of Adelaide) accepted a faculty position at Penn State. His lab will be opening January 2021.
- Alumna Ana Marija Jakšić (currently at Cornell University/home lab in Croatia) accepted
 a group leader position at the EPFL in Lausanne to work on experimental evolution of the
 cognitive brain in flies.

May 2020: SAB meeting

Covid-19 forced us to move this year's SAB meeting online. We enjoyed four intense afternoons of student presentations and interactions with our board members Andy, Virginie, Nick and John. We're grateful for their invaluable feedback, particularly during these demanding times. They also entertained us with changing backgrounds on Zoom ©









Alumni lab portraits

In this edition, several of our alumni share their status quo during the pandemic mid-April 2020:

Nicola de Maio (EMBL-EBI, UK):

"This tweet by S. Colbert well summarizes my feelings:"



Kerstin Spitzer (Statistics Austria):

"It took a while in the very beginning of the crisis until *Statistik Austria* had tweaked the infrastructure to allow home office for many employees. Until then, our work processes were shut down to the minimum because many of us weren't allowed to go to the office. In the mean time, home office works well. A suitable example for the situation is the permanent anarchy in our flat: both my husband and I work full-time from home these days, so little Frederik has to play a lot on his own, leading to complete chaos..."



Tom Hill (Univ. of Kansas, US):



"We've been working from home for about a month now, luckily I've gotten to a point where I'm exclusively writing manuscripts so it hasn't affected much, though I don't have a work station at home so am limited to working on the sofa with a dog on my lap and I'm not being hugely productive on the five manuscripts I'm supposed to finish right now.

The PhD students in the lab have had to stop their experiments, and I'm not sure what they're going to do afterwards, so I've gotten off easy however.

Kansas luckily has a smart governor so everything was shut down mid-March before any cases in the state. However the whole situation here has really put into perspective how lucky I am to work in research, and how much safer and secure it is compared to nearly every other profession."

Claudia Bank (Gulbenkian Inst., PT):

"This is today's office view, starting my work day early (8:15 in Portugal) to listen to PopGen Vienna student Martin Pontz presenting his work in the Mabs journal club.

To highlight two positive sides of this crisis among mind-blowingly many negative ones:

- 1) Suddenly distance doesn't matter, which means easy access to seminars in Vienna and the world, and to drinks with my former colleagues lnes Hellmann and Andrea Betancourt.
- 2) ...in my pajamas, while having *sourdough* pancakes."



Upcoming seminars

We're planning to resume our PopGen seminar series starting in October, either with in-person visits or online seminars – depending on the Covid-19 situation.

Wishing you a happy Summer after the long lockdown, stay safe!

Publications of our students so far in 2020

Eriksson MC, **Szukala A**, Tian B and Paun O. Current research frontiers in plant epigenetics: an introduction to a Virtual Issue. *New Phytol*. 226, 285–288. (2020) https://nph.onlinelibrary.wiley.com/doi/full/10.1111/nph.16493

Jakšić AM, Karner J, Nolte V, **Hsu S-K**, Barghi N, Mallard F, Otte KA, Svečnjak L, Senti KA and Schlötterer C. Neuronal function and dopamine signaling evolve at high temperature in *Drosophila*. *Mol. Biol. Evol.* (2020), in press

Mazzucco R, Nolte V, **Vijayan T**, Schlötterer C. Long-term dynamics among Wolbachia strains during thermal adaptation of their *Drosophila melanogaster* hosts. *Front. Genet.* 11, 482. (2020) https://www.frontiersin.org/articles/10.3389/fgene.2020.00482/full

Törmä L, Burny C and Schlötterer C. Reversed sex-biased mutation rates for indels and base substitutions in *Drosophila melanogaster*. *bioRxiv* 031336. (2020) https://www.biorxiv.org/content/10.1101/2020.04.08.031336v1

Törmä L, **Burny** C, Nolte V, Senti KA and Schlötterer C. Transcription-coupled repair in *Drosophila melanogaster* is independent of the mismatch repair pathway. *bioRxiv* 029033. (2020) https://www.biorxiv.org/content/10.1101/2020.04.07.029033v1

Wierzbicki F, **Schwarz F**, Cannalonga O and Kofler R. Generating high quality assemblies for genomic analysis of transposable elements. *bioRxiv* 011312. (2020) https://www.biorxiv.org/content/10.1101/2020.03.27.011312v1

Pontz M and Feldman MW. Loss of genetic variation in the two-locus multiallelic haploid model. *bioRxiv* 981852. (2020)

https://www.biorxiv.org/content/10.1101/2020.03.07.981852v1

Burny C, Nolte V, Nouhaud P, Dolezal M and Schlötterer C. Secondary evolve and re-sequencing: an experimental confirmation of putative selection targets without phenotyping. *Genome Biol. Evol.* 12(3), 151–159 (2020)

https://academic.oup.com/gbe/advance-article/doi/10.1093/gbe/evaa036/5803073

Hsu S-K, **Jakšić AM**, Nolte V, **Lirakis M**, Kofler R, Barghi N, Versace E and Schlötterer C. Rapid sex-specific adaptation to high temperature in *Drosophila*. *eLife* 9. (2020) https://elifesciences.org/articles/53237

Spitzer K, **Pelizzola M** and Futschik A. Modifying the Chi-square and the CMH test for population genetic inference: adapting to over-dispersion. *Ann. Appl. Stat.* (2020) https://www.e-

publications.org/ims/submission/AOAS/user/submissionFile/39844?confirm=afa966e8

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