



## ***Newsletter March 2014***

Welcome to the 3<sup>rd</sup> edition of the PopGen ALUMNI newsletter!

### ***Recent events***

#### **November 2013: MIND THE GAP meeting**

On 1st and 2nd of November we hosted the 4th MIND THE GAP meeting at the new premises of the Faculty of Mathematics. MIND THE GAP aims at bringing together theoretical and empirical population geneticists. This was the fourth meeting in a series of conferences held in Freiburg (2009), Plön (2010), and Cologne (2011) and attracted more than 120 attendants.

Our students were involved in all steps of the organisation, starting from choosing the topics to suggesting and contacting speakers to designing the meeting schedule. The topics spanned Viral and Predictive Evolution, Experimental Evolution, Signatures of Complex Selection as well as Introgression, Hybrid Zones, and Clines, and talks were given by Michael Desai, Philip Gerrish, Nicolas Bierne, Simon Boitard, Luis-Miguel Chevin, Toni Gossmann, Michael Lässig, Henrique Teotónio and Jarle Tufto to name a few.

#### **November 2013: Christmas Event**

On November 21, around 30 happy PopGen people spent a great night out: we could show our creativity at the social ceramic painting event in the spacious and cosy "Made by you" shop in the 9<sup>th</sup> district. Everyone acted as Secret Santa for a colleague, and many beautiful, funny and extraordinary mugs were the result. After three hours of painting we enjoyed American food at a diner in the 9<sup>th</sup> district.



## ***Alumni careers***

Congratulations to our recent graduates:

### **Recent Graduates:**

**Peter Klepsatel** (Advisors Thomas Flatt/Christian Schlötterer) defended his thesis in January 2014. Peter continues to work as a Postdoc in the lab of Ronald Kühnlein at the MPI for Biophysical Chemistry in Göttingen.

**Ada Akerman** (Advisor Reinhard Bürger) defended her thesis "*The effects of dominance, linkage, and gene flow on local adaptation and differentiation*" in November 2013. We congratulate Ada and wish her all the best for her future career.

## ***Alumni lab portraits***

We feature a brief report about one of PopGen's graduate and faculty alumni in every Newsletter. Thomas Flatt told us about his lab in Lausanne in the last edition.

This time, graduate **Claudia Bank** gives us some insight into her postdoc time, and reminisces about her time at the Vienna Graduate School of Population Genetics:

"I am currently spending a semester as a Research Fellow at the [Simons Institute for the Theory of Computing](#) at UC Berkeley and will afterwards return to my postdoc position in the Jensen lab at the [EPFL](#) in Lausanne.

The attached photo shows me and my dog during a recent weekend trip down the beautiful Pacific coast near Monterey.

Coming from an undergraduate background in Mathematics, the first time I heard about population genetics was when I applied for grad school in Vienna (I recall googling the term back then). My participation in the PhD Program Population Genetics significantly changed my life, and here are three of the reasons:

(1) Due to the interdisciplinary nature of the program, I was forced to dive into the biology that is now a most essential part of my research program.

(2) Presenting my work to diverse audiences in various formats (ranging from seminar talks to one-by-one meetings with the guest speakers) in the framework of the PhD program taught me to easily talk with anyone about my work at an appropriate level, which is a door-opener for job searches, networking, and exciting trips to new places.

(3) Because my advisor Joachim Hermisson gave me the opportunity to go abroad for a semester, and to attend conferences and workshops, I have made a number of friends all over the world. During a lecture at one of the first workshops I attended, Mark Kirkpatrick told us participants to look around in the room, and he reminded us that the people we saw would likely be those we would also meet in 20 years from now at conferences. To me, that is one of the beauties of being a scientist.

To wrap up here, I want to suggest any student to be bold and go for the questions you find the most exciting (even if it is not your current area of expertise), and enjoy the fun aspects of doing science!”



## ***Out of sight, out of mind? Experiences of our students abroad***

Many of our students choose to spend 3 months in foreign labs during their study time. In each of the Newsletters one of them tells us about their experiences.

**Daniel Fabian** (advisors Thomas Flatt and Christian Schlötterer) was hosted by Bruno Lemaitre as guest student at the **University of Lausanne** from September to December 2013:

*“Within the course of analyzing whole-genome sequences of *Drosophila* populations selected for increased lifespan, we found surprisingly many candidate genes involved in immunity. Remarkably, this was found by a number of other studies that examined similar data sets. My aim was therefore to experimentally investigate the age-dependent relationship between lifespan and immune defense in our long-lived *Drosophila* populations.*

*To test my hypotheses, I joined Bruno Lemaitre’s lab at the EPFL in Lausanne, in the French speaking part of Switzerland, for three months. Bruno’s group has profound experience in *Drosophila* immunity and a very well developed infrastructure. I particularly found the wide range of tools applied by my co-workers impressive: from genomics using genome-wide association studies to real-time tracking of hemocytes in *Drosophila* mutants, Bruno’s lab exhibits a huge pool of knowledge. Although it would have been amazing to apply all of these tools, I mainly focused on survival assays and infected my flies with the fungus *Beauveria bassiana* and two different bacteria. This was quite time consuming and sometimes pretty exhaustive, but the great working climate and amazing colleagues could really make up for that.*

*The EPFL - together with the neighbouring University of Lausanne (UNIL) - is a great university and offers many interesting biology talks, including evolutionary genetics, almost on a daily basis. In addition to the awesome science performed on the campus, there are nice canteens and one outstanding pub called “Satellite”, which offers an illustrious variety of international beers. This was the usual place where me and my colleagues had our after-work get-togethers. Moreover it was amazing to walk home next to Lake Geneva and enjoy the panoramic view on the Alps, which makes Lausanne a real special place. Apart from that, we often went to have dinner in one of Lausanne’s authentic cheese fondue restaurants, which is really satisfying for a cheese fanatic like me. I also enjoyed the cultural richness of Switzerland and visited some fascinating castles and medieval towns, such as Greyerz, where the world-famous “Le Gruyère” cheese is produced. Becoming familiar with the*



glorious past of Switzerland was surely another highlight of my life in Lausanne.

The photo shows me in front of the town gate of Greyerz. It was quite a grey day - perfect for a time travel into the age of dragons and knights.”



### ***Upcoming events***

This year's **SAB meeting** will be held on May 14 and 15, 2014. On May 16, the SAB members will again give talks in the frame of a **Mini-Symposium**. The schedule will soon be available at <http://www.popgen-vienna.at/>

### ***Upcoming seminars***

We're looking forward to talks in the upcoming Summer term by **Sergey Gavrilets, Tecumseh Fitch, Felicity Jones, Boris Igic, Mattieu Foll, Outi Savolainen, Xavier Verkemans, Aneil Agrawal, Daniel Wegmann, Tony Long and Anna di Rienzo** to name a few.

## ***Publications of our students***

New publications from our students since the last Newsletter edition in November:

E. Versace, V. Nolte, R.V. Pandey, **Raymond Tobler**, Schlötterer C. (2014) **Experimental Evolution Reveals Habitat Specific Fitness Dynamics among Wolbachia Clades in *Drosophila melanogaster***. *Mol Ecol.* 23(4):802-814.

**Peter M. Klepsatel**, M. Gáliková, **Christian D. Huber**, T. Flatt (2014) **Similarities and differences in altitudinal versus latitudinal variation for morphological traits in *Drosophila melanogaster***. *Evolution* (accepted)

H. Bastide, A. Betancourt, V. Nolte, **Raymond Tobler**, P. Stöbe, A. Futschik, C. Schlötterer (2013) **A genome-wide, fine-scale map of natural pigmentation variation in *Drosophila melanogaster***. *PLoS Genet.* 9(6):e1003534.

***Have a lovely spring!***