Newsletter January 2024

Welcome to the 30th edition of the PopGen ALUMNI newsletter!

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https://www.popgen-vienna.at/news/seminars/

HAPPY NEW YEAR!

Recent events and news

December 2023: Experimental Evolution course
Also this year our students organised the international practical course "Experimental evolution: Exploring evolutionary forces in controlled environments" from Nov 27 to Dec 1, 2023 at the Vetmeduni. Our students planned the entire course, invited speakers for the morning sessions, screened applications from around the world and taught and tutored all practical sessions for the 25 participants to train on real data.

Link to course website: https://www.popgen-vienna.at/training/experimental-evolution-course/

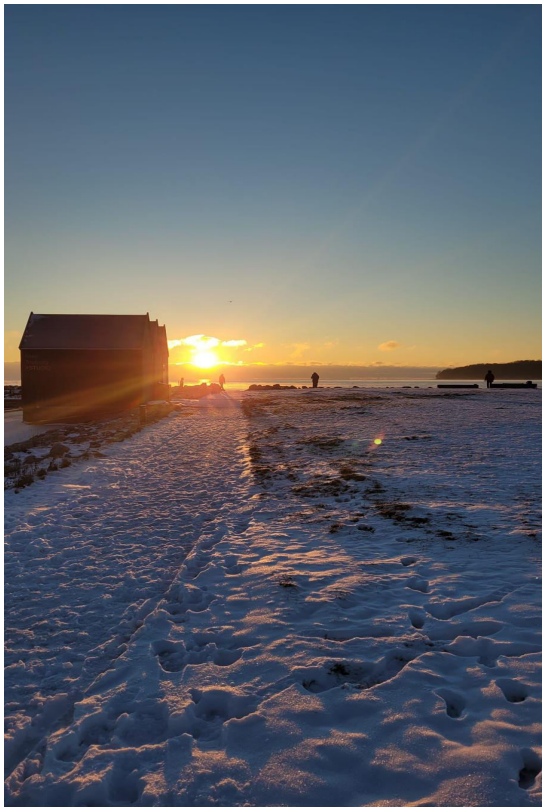
November, December 2023: PopGen Xmas
We enjoyed a Xmas dinner to celebrate a successful year soon coming to an end. Ice skating had been planned as our team activity but was was postponed to December due to bad weather (see proof below).

October 2023: retreat
31 PhD students and faculty joined this year's retreat at the beautiful surroundings of Altaussee. We had great weather at the foot of the Loser mountain and listened to exciting talks with plenty of discussion opportunities, had a free afternoon for hikes and relaxing and enjoyed traditional food, good company and a night walk.

Alumni portraits

We feature a brief report about one of PopGen's graduate and faculty alumni in the Newsletter. This time, PopGen Vienna graduate alumna **Marta Pelizzola** (former PhD student of the Futschik group) gives us some insight into her postdoc research in Denmark:

„My name is Marta. I finished my PhD at Popgen under the supervision of Andreas Futschik in February 2022. Despite COVID, I did my stay abroad during the PhD at Popgen, and this is how I got to know Asger Hobolth and his group at Aarhus University. After the end of my PhD, I started a postdoc with Asger.



Within my postdoc, I have several projects with different collaborators at the Department of Bioinformatics and at Aarhus University Hospital. My main projects consist in developing methods for 1. discovering mutational signatures from the mutational counts data from cancer patients and 2. predicting the treatment burden after radio-chemotherapy for cancer patients in different treatment arms. It has been very exciting to work on a different research area and I have been learning a lot about these applications.

Within my second project, I am working with a team of medical physicists and medical doctors at the hospital which is a new experience compared to the PhD. Everyone is very involved with the patients and patients contribute to our research in different ways and it is extremely fascinating for me.

I still have two more years of postdoc to go. Right now, I've begun to think about what to do and where to apply for my next position and we are starting a new collaboration, so I will start some new popgen projects soon as well 😊 *"*

The snowy landscape above is a picture from the beach in Aarhus (January 8, 2024). And this is a group picture from last year's summer retreat with the Department of Bioinformatics.

Out of sight, out of mind?

Experiences of our students abroad

Many of our students choose to spend three to six months abroad during their study time. **Howard Chen** (advisor Andreas Futschik) spent 6 months at the University of Bremen, hosted by Werner Brannath.

"Last year, I had the privilege of joining the research group led by Werner Brannath at the University of Bremen for half a year through an opportunity offered by PopGen Vienna. The research group, unlike the one at the graduate school in Vienna, was mathematically oriented and focused on applications in clinical trials. This distinct environment gave me a diverse and enriching experience, as I not only found myself in another country but also worked with individuals from different fields.

The research seminars they offered were particularly interesting, where people talked about their previous work. The subject matter provided me with new knowledge and invaluable insights. My project there started with something theoretical, where we aimed to reduce the conservativeness of a subset selection test. With the overarching goal of establishing connections between population genetics and clinical trials, we hope to apply our proposed method in both fields. Thanks to countless suggestions from researchers in the group, this became much more achievable.

The visit to Bremen coincided with the summer months, which at the time in Bremen was known to be one of the hottest summers ever recorded in history. Fortunately, being a coastal city, the temperature wasn't too unbearable thanks to the refreshing sea breeze. A visit to the harbour, part of an activity at the MCP conference, also made the stay more enjoyable. The conference, which I had the fascinating opportunity to both attend and contribute to its organization, was also a wonderful experience. It also allowed the opportunity to present previous work done in Vienna to a broader audience.

It was a great experience having spent my time in Bremen, and I would recommend everyone to seize the opportunity of going for a research stay abroad whenever possible."

Foto: A landmark structure at Uni Bremen: The Bremen Drop Tower at the Center of Applied Space Technology and Microgravity.

Upcoming seminars

Our Tuesday seminars are arranged as hybrid (or online) seminars, so you can join us from all over the world! The list of guests is growing and includes **C. Baer, R. Nielsen, B. Blackman, D. Obbard, C. Landry, N. Galtier, T. Lenormand, N. Chen, O. X. Cordero** during the Summer term!

Sign up here to receive reminders and Zoom links:
https://forms.gle/eE7ZoaUL326TCX4M6

Have a successful and healthy 2024!

Publications of our students 2023

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