

Cover illustration: Part of the MHC region in the pangenome graph of Woodhouse's Scrub Jay (*Aphelocoma woodhousei*), visualized with minigraph and Bandage

# Pangenomes

## Evolution and Computation

### 2021

The organizers, Scott V. Edwards and Alexander Schliep, gratefully acknowledge generous support from our sponsors.



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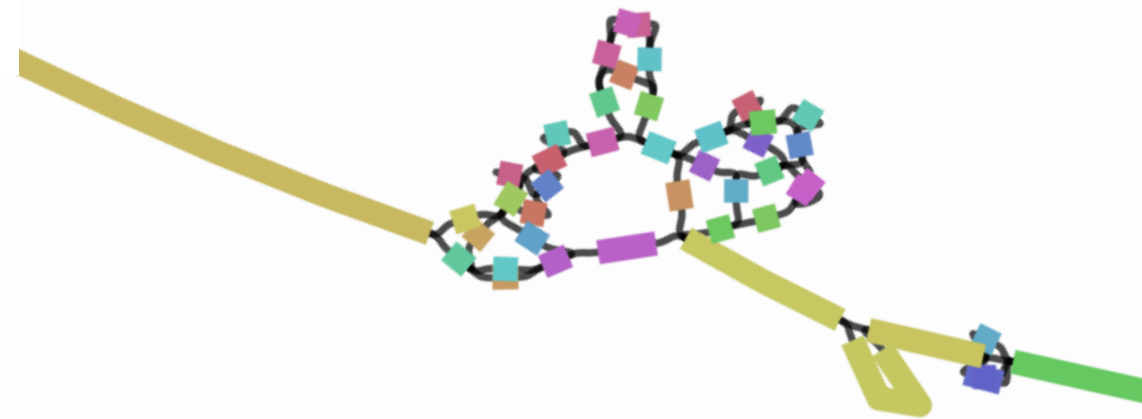
MUSEUM OF COMPARATIVE ZOOLOGY



HARVARD UNIVERSITY



<https://pgec2021.schlieplab.org/>



Wallenberg Conference Center  
University of Gothenburg, Sweden  
November 17, 2021



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# Program

**9:00–9:10 Introduction** Scott V. Edwards (Harvard, USA)

## 9:10–10:10 Session 1

Chair: Christine Bacon (University of Gothenburg)

9:10–9:40 Kaisa Thorell (Sahlgrenska Academy, University of Gothenburg): *Expanding Helicobacter pylori comparative genomics: a pangenome perspective*

9:40–10:10 Martin Mascher (Leibniz Institute of Plant Genetics and Crop Plant Research (IPK), Germany): *Pan-genomics for crop improvement*

## 10:10–10:40 Coffee Break

## 10:40–12:10 Session 2

Chair: Ana Tronholm (University of Gothenburg)

10:40–11:10 Shilpa Garg (University of Copenhagen, Denmark): *Efficient, high-resolution computational methods for biodiversity genomics*

11:10–11:40 Kerstin Lindblad-Toh (Uppsala University): *Using comparative genomics at single-base resolution constraint to understand mammalian genome evolution and human disease*

11:40–12:10 Tobias Marschall (Uniklinik Düsseldorf, Germany): *Structural variation and pangenome-based genome inference*

## 12:10–13:30 Lunch at the Wallenberg Center

(included in in-person registration)

## 13:30–15:00 Session 3

Chair: Bengt Oxelman (University of Gothenburg)

13:30–13:50 Gabriel David (Uppsala University): *Calling structural variants with confidence\* from short-read data in wild bird populations*

13:50–14:10 Marcel Martin (National Bioinformatics Structure, Sweden): *One reference is not enough for Sweden*

14:10–14:30 Scott V. Edwards (Harvard, USA): *First glimpses of pangenomes from birds*

14:30–15:00 Gianni Liti (IRCAN, Université Côte d'Azur (UCA), France): *Origin and evolution of yeast pangenomes*

## 15:00–15:30 Coffee Break

## 15:30–17:30 Session 4

Chair: Lars Arvestad (Stockholm University)

15:30–16:00 Leif Andersson (Uppsala University): *The genetics of evolutionary change – lessons from Atlantic herring and Darwin's finches*

16:00–16:30 Doreen Ware (USDA ARS, Cold Spring Harbor Laboratory, USA): *Fluid plant genomes: one of the strategies for plants success*

16:30–17:00 Heng Li (Dana Farber Cancer Institute, USA): *Next-generation pangenome assembly*

17:00–17:30 Benedict Paten (UC Santa Cruz, USA): *Building and using human pangenomes*

**17:30–17:35 Closing** Alexander Schliep (University of Gothenburg)