





# Welcome to the Biodiversity Genomics course!

Joana Meier, Karin Näsvall, Nicol Rueda, Patricio Salazar Tree of Life Programme, Wellcome Sanger Institute



The Branco Weiss Fellowship Society in Science

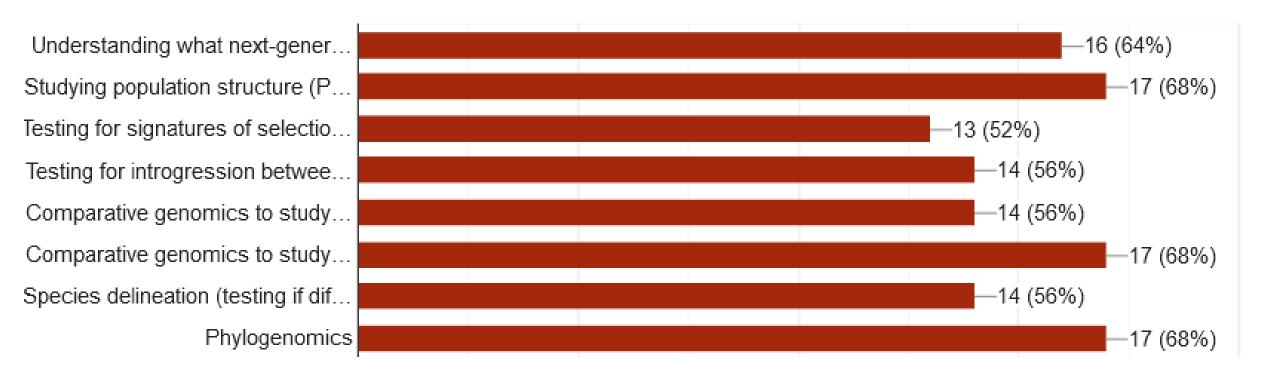








### What you wanted us to cover in the course



Basically everything we offered! We will thus give an introduction to each of these fields

#### **Tentative schedule**

- Saturday, 20 July:
  - introduction to biodiversity genomics, Linux, NGS data
  - Filtering and quality checks of Illumina data
- Sunday, 21 July:
  - Mapping reads to a reference genome
  - Variant calling and filtering vcf files
- Monday, 22 July:
  - Population structure with PCA and phylogenetics
  - Genome scans to identify regions under selection
- Tuesday, 23 July:
  - Genome scans to identify introgressed regions
  - Comparative genomics
  - Phylogenomics with reference genomes
- Wednesday, 24 July:
  - Buffer, topics of interest & discussing own projects

#### **Daily sessions:**

- 9:00-10:30: First session (1.5 hours)
- 10:30-11:00: Coffee break (30 min)
- 11:00-12:30: Second session (1.5 hours)
- 12:30-1:30: Lunch break (1 hour)
- 1:30-3:30: Third session (2 hours)
- 3:30-4:00: Coffee break (30 min)
- 4:00-6:00: Fourth session (2 hours)

## Researchers who contributed to organising this course and can help with questions about IKIAM / Tena



Dr Patricio Salazar



**Franz Chandi** 



**Kimberly Gavilanes** 



**Alex Arias** 





María José Sánchez



**Prof Caroline Bacquet** 

**Lead organiser** 

Chief of lunch breaks Chief of coffee breaks & facilities

Chief of class room infrastructure

Jack of all trades

**Key facilitator** 

## A few tips and housekeeping rules

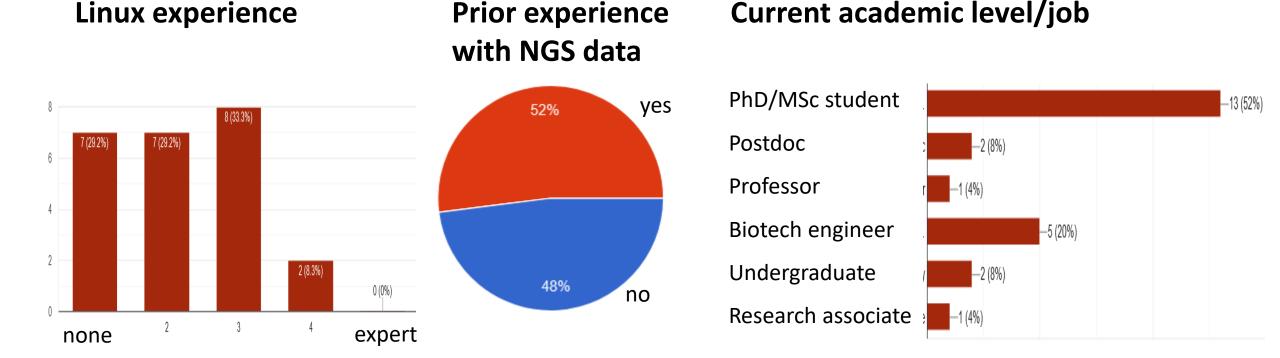
- Be kind to each other
- Sexism, racism, or any other kind of unfair behaviour is not tolerated. Please let me, Patricio, Nicol or Karin know if you experience or see anything like this.
- To ask questions, please raise your hand. Questions are very much encouraged. If you do not understand something, just ask!
- If you are struggling to follow an exercise or need help, put the green card visible on your desk and someone will come to help you.
- Please arrive on time.

### Where to get help

All course materials (including slide presentations) can be found here:
 http://github.com/rapidspeciation/biodiversity\_genomics\_course

## We are a very diverse group, which is great!

- Always feel free to ask questions at any time. It is likely that at least one other person is sooo happy that you asked.
- Our diversity is a big advantage. Let's learn from each other!

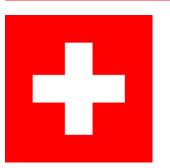


Please, introduce yourself with your name and if you wish also your country, study organism or research question

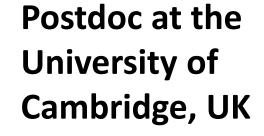
#### Joana Meier

#### Childhood





PhD on cichlid fish Speciation in Bern, **Switzerland** 

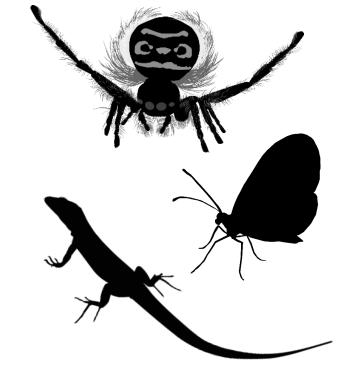






**Group leader at the Wellcome Sanger** Institute





#### My wonderful team members

#### @Sanger



Arif Maulana
PhD Student



Dr Karin Näsvall
Postdoctoral Fellow



Dr Nicol Rueda
Postdoctoral Fellow



Dr Patricio A.
Salazar-Carrión
Postdoctoral Fellow



Jonah Walker
PhD Student



Eva van der Heijden PhD student

## @IKIAM in Ecuador



Franz Chandi



Kimberly Gavilanes



Alex Arias



María José Sánchez

and key collaborator



**Prof Caroline Bacquet**