# PSL-Qlife Quantitative Biology Winter School 2026, March 23rd – 27th
# Quantitative Approaches to DNA Damage and Repair

## Monday, March 23rd

*8:45 – 9:00 am Welcome Coffee*
*Room 305*

9:00 – 9:20 am
**Terence Strick & Patrick Charnay**
Introduction
*Room 306*

9:20 - 10:25 am
**Following Replication Errors and Mutations in Real Time at the Single-Cell Level**
Marina Elez
*Room 306*

*10:30 - 10:55 am Coffee break – Room 305*

10:55 - 12:00 am
**Machine learning for DSB formation and repair**
Raphaël Mourad
*Room 306*

*12:00 – 1:15 pm Lunch - Room 305*

1:15 - 2:00 pm
**Student presentations (Flash talks)**
*Room 306*

2:00 - 5:30 pm
Digital workshop
**Following Replication Errors and Mutations in Real Time at the Single-Cell Level**
Marina Elez
*Room 321*

2:00 - 5:30 pm
Digital workshop
**Machine learning for DSB formation and repair**
Raphaël Mourad
*Room 313*

*5:30 - 6:00 pm Coffee break – Room 305*

6:00 - 7:00 pm
**Visualizing and quantifying replication using 2D gel and electron microscopy**
Dana Branzei
*Room 306*

## Tuesday, March 24th

*8:45 - 9:00 am Morning Coffee*
*Room 305*

9:00 – 10:15 am
**Single molecule tracking of phase separating FUS during early stages of DNA repair**
Judith Mine-Hattab
*Room 306*

*10:15 – 10:45 am Coffee break – Room 305*

10:45 – 12:00 am
**Quantitative methods for studying DNA breaks and genomic rearrangements**
Nicola Crosetto
*Room 306*

*12:00 - 1:30 pm Lunch - Room 305*

1:30 – 5:00 pm
Digital workshop
**FreeTrace and BI-ADD, SPT software to analyze the molecular properties under fBm in video microscopy**
Judith Mine-Hattab
*Room 321*

1:30 – 5:00 pm
Digital workshop
**BLISS data processing, analysis and integration with other omics data**
Nicola Crosetto
Fabio Iannelli
*Room 313*

*5:00 – 5:30 pm Coffee break – Room 305*

5:30 - 6:30 pm
**TBA**
Angela Taddei
*Room 306*

6:30 pm - 8:30 pm
**Poster session I**
**Wine & Cheese** *Room 306*

## Wednesday, March 25th

*8:45 - 9:00 am Morning Coffee*
*Cafeteria*

9:00 - 10:15 am
**Single-Cell Insights into DNA Replication Dynamics and Genome Instability**
Chunlong Chen
*Favard Room*

*10:15 - 10:45 am Coffee break – Cafeteria*

10:45 - 12:00 am
**How telomere length determines replicative senescence**
Teresa Teixeira/ Marie Doumic
*Favard Room*

*12:00 - 1:30 pm Lunch - Room 305*

1:30 - 5:00 pm
Digital workshop
**Single-Cell Insights into DNA Replication Dynamics and Genome Instability**
Chunglong Chen
*Room 321*

1:30 - 5:00 pm
Digital workshop
**How telomere length determines replicative senescence**
Teresa Teixeira
Marie Doumic
*Room 313*

*5:00 - 5:30 pm Coffee break – Room 305*

5:30 - 6:30 pm
**Meiotic Hotspots and Chromosome Axes: Orchestrating Recombination in Early Prophase I**
Corinne Grey
*Favard Room*

7:30 pm
**Faculty dinner**

## Thursday, March 26th

*8:45 - 9:00 am Morning Coffee*
*Cafeteria*

9:00 - 10:15 am
**TBA**
Martin Taylor
*Favard Room*

*10:15 - 10:45 am Coffee break – Cafeteria*

10:45 - 12:00 am
**Role of SMC complexes in regulating homology search during DNA break repair**
Aurelle Piazza
*Favard Room*

*12:00 - 1:15 pm Lunch - Room 305*

1:15 - 4:45 pm
Digital workshop
**Mutation clusters and asymmetry in the inference of molecular mechanisms**
Martin Taylor
*Room 321*

1:15 - 4:45 pm
Digital workshop
**Role of SMC complexes in regulating homology search during DNA break repair**
Aurèle Piazza
*Room 313*

*4:45 - 5:00 pm Coffee break – Room 305*

5:00 - 6:00 pm
**TBA**
Terence Strick
*Favard Room*

6:00 pm – 8:00 pm
**Poster session II & Cocktail**
*Room 306*

## Friday, March 27th

*8:45 - 9:00 am Morning Coffee*
*Cafeteria*

9:00 – 10:15 am
**Searching for partners in a crowded nucleus**
Leonid Mirny
*Favard Room*

*10:15 - 10:45 am Coffee break – Cafeteria*

10:45 - 12:00 am
**Turning Microscopy Images into Robust and Reliable Quantitative Analysis**
Paolo Fagherazzi
Hana Polasek-Sedlackova
*Favard Room*

*12:00 - 1:30 pm Lunch - Room 305*

1:30 - 5:00 pm
Digital workshop
**Understanding Chromosome Organization Using Polymer Physics and Hi-C Data**
Leonid Mirny
*Room 321*

1:30 - 5:00 pm
Digital workshop
**Turning Microscopy Images into Robust and Reliable Quantitative Analysis**
Paolo Fagherazzi
*Room 313*

*5:00 - 5:30 pm Coffee break – Room 305*

5:30 – 6:00 pm
**Closing remarks**
*Room 306*