

# PROGRAM 2016 CPLC SUMMER SCHOOL

## Saturday July 23 – ARRIVAL

## Sunday July 24 – Summer School Day 1

- 8:00 – 8:40 am**      **Registration and Continental Breakfast**      *(Lobby outside Loomis 141)*
- 8:40– 11:00 am**      **Welcome & Lectures**      *(Loomis 141)*
- 8:40 – 9:00 am      **Welcome, Jaya Yodh**, Director of Education and Outreach
  - 9:00 – 10:00 am      **Yann Chemla**: Intro to the CPLC & Optical Trapping/DNA repair
  - 10:00 – 11:00 am      **Rafael Bernardi, *Schulten* group**: Introduction to Molecular Dynamics
- 11:00 – 11:30 am**      **Photo Shoot**      *(Outside Loomis Courtyard)*
- 11:30 – 12:30 pm**      **Lunch (provided)**      *(Lobby outside Loomis 141)*
- 12:30 – 8:30 pm**      **Assigned Theme/Tracks Groups** *(Refer to Theme/Track Block Schedules & Handouts)*

### Theme Track Groups

Genome Bio Track 1: Physics of DNA		Genome Bio Track 2: DNA repair	
Group A	Group B	Group A	Group B
Banigan, Edward	Chakraborty, Sagnik	Bain, Fletcher	Henneman, Bram
Chhabra, Munish	Gudnason, Daniel	Dubiel, Katarzyna	Rouzina, Ioulia
Heenan, Patrick	Pittman, Anna	Shafraz, Omer	Shinn, Min Kyung
Kumari, Nikita	Pollari, Russell		

Neurobiology		RNA Biology		
Group A	Group B	Group A	Group B	Group C
Beyene, Abraham	Dahl, Peter	Agrawal, Anurag	Dandpat, Shiba	Desai, Bijoy
Sarkar, Ankita	Stojkovska, Iva	Meijering, Anna	Tsafou, Kalliopi	Fernandes, Dennis
Yang, Sihui	Tomczak, Adam	Stam, Samantha	Khatib-Damavandi, Ojan	Tang, Jialei
				Zhang, Kailun

## Theme/Track/Module Locations

Scientific Theme/Track	Theme/Track/Module	Building & Room
Neurobiology Theme	Intro safety training (all neuro students) Sunday July 24 12:30pm	Roger Adams 314A
	Zhang Lab	Roger Adams Lab 317
	Selvin lab	Loomis 328
	Gruebele/Chemla lab	Loomis 118 (enter through 128)
Genome Biology Track 1: Physics of DNA	Ha (smFRET & sequencing)	Loomis 108
	Song lab (loop-seq analysis)	IGB 607
	Aksimentiev (lab)	Loomis 261
Genome Biology Track 2: DNA Repair	Chemla lab	Loomis 121
	Kuhlman lab	Loomis 397
	Schulten Lab	Beckman 3rd Floor, Schulten Innovation Courtyard II
RNA Biology Tracks 1 & 2 (Groups A, B, C)	Hoskins (TIRF & Slide Prep)	Loomis 108
	Schulten Lab	Beckman 3rd Floor, Schulten Innovation Courtyard II
RNA biology Track 1 (Groups A and B)	Initial meeting Tuesday (both Golding/Sokac groups) July 26 8:00 am	Loomis 322
	Golding lab	Loomis 397
	Sokac lab	IGB 121 (core microscopy facility)
RNA biology Track 2 (Group C)	Fei lab	Loomis 106B (enter through 108)
	Luthey-Schulten Lab	Noyes 151

## Monday July 25– Summer School Day 2

**8:00/8:30 am – 12:30 pm**

**Assigned Theme/Tracks Groups**

*(Refer to Theme/Track Block Schedules & Handouts)*

**12:30 – 2:30 pm**

**Lunch and Lectures**

*(Loomis 141 & outside lobby)*

- **Aaron Hoskins:** Single Molecule Studies of a Cellular Nanomachine
- **Tom Kuhlman:** Real time genome dynamics

**2:30 – 6:00 pm**

**Assigned Theme/Tracks Groups** *(Refer to Theme/Track Block Schedules & Handouts)*

**6:00 – 8:30 pm**

**Opening Dinner Reception and Poster Session**

*(Lobby outside Loomis 141)*

## Tuesday July 26 – Summer School Day 3

- 8:00/8:30 am – 12:30 pm**      **Assigned Theme/Tracks Groups**  
*(Refer to Theme/Track Block Schedules & Handouts)*
- 12:30 – 2:30 pm**      **Lunch and Lectures** *(Loomis 141 & outside lobby)*
- **Paul Selvin:** Super-resolution microscopy applied to neuroscience and beyond
  - **Zaida Luthey-Schulten:** Simulations of Cellular Processes: From Single Cells to Colonies
- 2:30 – 6:30 pm**      **Assigned Theme/Tracks Groups** *(Refer to Theme/Track Block Schedules & Handouts)*
- 6:30-7:30 pm**      **Dinner break**
- 7:30-9:00 pm**      **Assigned Theme/Tracks Groups** – continuation as needed  
*(Refer to Theme/Track Block Schedules & Handouts)*

## Wednesday July 27 – Summer School Day 4

- 8:00/8:30 am – 12:30 pm**      **Assigned Theme/Tracks Groups**  
*(Refer to Theme/Track Block Schedules & Handouts)*
- 12:30 – 2:30 pm**      **Lunch and Lectures** *(Loomis 141 & outside lobby)*
- **Ido Golding:** A Quantitative Look at Gene Regulation
  - **Heng Xu, Sokac lab:** Deciphering Transcriptional Regulation in a Single Cell
- 2:30 – 6:30 pm**      **Assigned Theme/Tracks Groups** *(Refer to Theme/Track Block Schedules & Handouts)*
- 6:30-7:30 pm**      **Dinner break**
- 7:30-9:00 pm**      **Assigned Theme/Tracks Groups** – continuation as needed  
*(Refer to Theme/Track Block Schedules & Handouts)*

## Thursday July 28 – Summer School Day 5

- 8:00/8:30 am – 12:30 pm**      **Assigned Theme/Tracks Groups**  
*(Refer to Theme/Track Block Schedules & Handouts)*
- 12:30 – 2:30 pm**      **Lunch and Lectures** *(Loomis 141 & outside lobby)*
- **Taekjip Ha:** DNA physics using single molecule technologies in vitro and in silico
  - **Jun Song:** Introduction to High-throughput Sequencing Analysis

**2:30 – 6:30 pm**      **Assigned Theme/Tracks Groups** (*Refer to Theme/Track Block Schedules & Handouts*)

**6:30-7:30 pm**      **Dinner break**

**7:30-9:00 pm**      **Assigned Theme/Tracks Groups** – *continuation as needed*  
(*Refer to Theme/Track Block Schedules & Handouts*)

## **Friday July 29 – Summer School Day 6**

**8:00/8:30 am – 12:30 pm**      **Assigned Theme/Tracks Groups**  
(*Refer to Theme/Track Block Schedules & Handouts*)

**12:30 – 2:30 pm**      **Lunch and Lectures**      (*Loomis 141 & outside lobby*)

- **Martin Gruebele:** Singular values: from proteins to fish.
- **Kai Zhang:** Developing an optogenetic toolbox for cell signaling control

**2:30 – 6:30 pm**      **Assigned Theme/Tracks Groups** (*Refer to Theme/Track Block Schedules & Handouts*)

**6:30-7:30 pm**      **Dinner break**

**7:30-9:00 pm**      **Assigned Theme/Tracks Groups** – *continuation as needed*  
(*Refer to Theme/Track Block Schedules & Handouts*)

## **Saturday July 30 – Advanced Module Day 4**

**8:00 – 11:30 am**      **Preparation for Student Presentations** (*refer to Theme/Track Schedules*)

**11:30 am – 4:30 pm**      **Lunch & Student Presentations** (*Schedule TBD*)      (*Loomis 141 & outside lobby*)

**4:30 – 5:00 pm**      **Fill out student evaluations**      (*Loomis 141*)

**6:00 – 9:00 pm**      **Dinner party at The Bread Company**  
*706 South Goodwin Avenue, Urbana, IL 61801*

## **Sunday July 31 – DEPARTURE**