PROGRAM
CPLC SUMMER SCHOOL 2011

Sunday July 17 – ARRIVAL

Monday July 18 – Basic Training Day 1

8:00 – 9:00 pm Registration and Continental Breakfast (Hallway outside Loomis 144)
9:00 – 9:30 am Welcome – Jaya Yodh, Director of Education and Outreach (Loomis 144)
9:30 – 10:30 am Taekjip Ha
Lecture 1: Introduction to the CPLC & smFRET and Super-Resolution Fluorescence Microscopy (Loomis 144)
10:30 – 11:30 am Klaus Schulten
Lecture 2: Introduction to Structure Analysis (Loomis 144)
11:30 am – 12:00 pm Photo Shoot (Outside Loomis Courtyard)
12:00 – 1:00 pm Lunch (provided) (Hallway Outside Loomis 144)
1:00 – 6:15 pm MINI-COURSES: OPTICS, VMD, & MATLAB
(refer to individual schedules – courses are taught in 2.5 hour blocks from 1:00 - 3:30 pm and 3:45 – 6:15 pm)
I. VMD (Beckman 3rd Floor - Schulten Innovation Courtyard II)
II. OPTICS (Ha Lab Station Loomis 108B & Selvin Lab Station Loomis 363)
III. MATLAB (Advanced) (Loomis 257)
6:15 – 7:15 pm Dinner (on your own)
7:15 – 9:45 pm MINI-COURSE: MATLAB
III. MATLAB (Beginner) (refer to individual schedules) (Loomis 257)

Tuesday July 19 – Basic Training Day 2

8:30 – 9:30 am Yann Chemla
Lecture 3: Optical traps: molecules to cells (Loomis 144)
9:30 – 10:00 am Coffee Break (Hallway Outside Loomis 144)
10:00 - 11:00 am Alek Aksimentiev
Lecture 4: Observing Biomolecular Interactions with Atomic Resolution (Loomis 144)
11:00 am - 12:00 pm Zan Luthey-Schulten
Lecture 5: Introduction to Sequence Analysis (Loomis 144)
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<td>12:00 – 1:00 pm</td>
<td>Lunch (provided) (Hallway Outside Loomis 144)</td>
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<td>1:00 – 6:15 pm</td>
<td><strong>MINI-COURSES: OPTICS, VMD, &amp; MATLAB</strong>&lt;br&gt;refer to individual schedules – courses are taught in 2.5 hour blocks from 1:00 - 3:30 pm and 3:45 – 6:15 pm&lt;br&gt;<strong>I. VMD</strong>&lt;br&gt;Beckman 3rd Floor - Schulten Innovation Courtyard II&lt;br&gt;<strong>II. OPTICS</strong>&lt;br&gt;(Ha Lab Station Loomis 108B &amp; Selvin Lab Station Loomis 363)&lt;br&gt;<strong>IV. LABVIEW (Beginner)</strong>&lt;br&gt;Loomis 257</td>
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<td>6:15 – 7:15 pm</td>
<td>Dinner (on your own)</td>
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<td>7:15 – 9:45 pm</td>
<td><strong>MINI-COURSE (LABVIEW)</strong>&lt;br&gt;<strong>IV. LABVIEW (Beginner)</strong> (refer to individual schedules) (Loomis 257)</td>
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**Wednesday July 20 – Advanced Module Day 1**

8:00 am- Evening | Advanced Modules in Assigned Labs (refer to individual module handouts)<br>A. (Ha) smFRET (Loomis 108)<br>B. (Selvin) smFIONA (Loomis 364)<br>C. (Chemla) sm Force: Optical Traps (Loomis 128)<br>D. (Ha) Super-resolution fluorescence microscopy (Loomis 106J)<br>E. (Golding/Chemla) Single-Event Detection in Living Cells- Bacterial Swimming (Loomis 393)<br>F. (Golding) Single-Event Detection in Living Cells- Phage Infection (Loomis 393)<br>G. (Sokac) Membrane Dynamics in Living Fruit Fly Embryos (IGB 121)<br>H. (Gruebele) Fast Relaxation Imaging: heat shock response dynamics in living cells (CLSL A223) |

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<td>9:00 – 10:00 am</td>
<td>Ido Golding&lt;br&gt;Lecture 6: A physicist’s view of gene regulation (Loomis 141)</td>
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<td>4:00 – 5:00 pm</td>
<td>Paul Selvin&lt;br&gt;Lecture 7: Super-Accuracy &amp; Super-Resolution via Fluorescence Microscopy (Beckman 1005)</td>
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<td>5:00 – 6:30 pm</td>
<td>CPLC POSTER SESSION (with refreshments) (Beckman East Atrium Lobby)</td>
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**Thursday July 21– Advanced Module Day 2**

8:00 am - Evening | Advanced Modules in Assigned Labs (refer to individual module handouts) |

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<td>9:00 – 10:00 am</td>
<td>Martin Gruebele&lt;br&gt;Lecture 8: Fast Relaxation Imaging: Heat shock response dynamics in living cells (Loomis 144)</td>
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Friday July 22 – Advanced Module Day 3

8:00 am - Evening  Advanced Modules in Assigned Labs *(refer to individual module handouts)*

9:00 - 10:00 am  Anna Sokac  
*Lecture 9*: Membrane Dynamics in Living Fruit Fly Embryos  *(Loomis 144)*

Saturday July 23– Advanced Module Day 4

8:00 am – 12:00 pm  Advanced Modules in Assigned Labs *(refer to individual module handouts)*

12:00 – 1:00 pm  Lunch (provided)  *(Hallway Outside Loomis 144)*

1:00 – 3:00 pm  Student Presentations *(refer to separate schedule)* & fill out student evaluations  *(Loomis 144)*

3:00 – 3:30 pm  Coffee Break  *(Hallway Outside Loomis 144)*

3:30 – 5:30 pm  Student Presentations (continued)  *(Loomis 144)*

7:00 pm  DINNERS PARTY AT HOME OF TAEKJIP HA  
1703 Byrnebruk Dr. Champaign, IL 61822

Sunday July 24 – DEPARTURE