# The 10th New England Cryo-EM Symposium

**Friday, October 27, 2023 and Saturday, October 28, 2023**

## Schedule for Friday, October 27th, 2023

**YSM Marsh Lecture Hall**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:15 am - 8:45 am</td>
<td>Registration and Breakfast</td>
</tr>
<tr>
<td>8:45 am - 9:00 am</td>
<td>Opening Remarks:</td>
</tr>
<tr>
<td><strong>Jack “Kai” Zhang</strong>&lt;br&gt;Assistant Professor of Molecular Biophysics &amp; Biochemistry&lt;br&gt;Yale University</td>
<td><strong>Joel Butterwick</strong>&lt;br&gt;Assistant Professor of Pharmacology&lt;br&gt;Yale University</td>
</tr>
<tr>
<td>8:45 am - 9:00 am</td>
<td>Session 1a:</td>
</tr>
<tr>
<td><strong>Speaker</strong></td>
<td><strong>Lab</strong></td>
</tr>
<tr>
<td>Yong Xiong</td>
<td>Yong Xiong</td>
</tr>
<tr>
<td>9:20 am - 10:00 am</td>
<td>Talk 2&lt;br&gt;<strong>Jianbin Ruan</strong>&lt;br&gt;UConn Health Center</td>
</tr>
<tr>
<td>10:00 am - 10:20 am</td>
<td>Talk 3&lt;br&gt;<strong>Sayan Bhattacharjee</strong>&lt;br&gt;Columbia University</td>
</tr>
<tr>
<td>11:00 am - 11:20 am</td>
<td>Talk 4&lt;br&gt;<strong>Johannes Elferich</strong>&lt;br&gt;UMass Chan Medical School</td>
</tr>
<tr>
<td>10:20 am - 10:40 am</td>
<td>Coffee Break</td>
</tr>
<tr>
<td><strong>Session 1b:</strong></td>
<td><strong>Hosted by Qinhui Rao, Associate Research Scientist, Yale University</strong></td>
</tr>
<tr>
<td>10:40 am - 11:00 am</td>
<td>Talk 5&lt;br&gt;<strong>Tianming Fu</strong>&lt;br&gt;Ohio State University</td>
</tr>
<tr>
<td>11:00 am - 11:20 am</td>
<td>Talk 6&lt;br&gt;<strong>Bonnie Su</strong>&lt;br&gt;MIT</td>
</tr>
<tr>
<td>11:20 am - 11:40 am</td>
<td>Talk 7&lt;br&gt;<strong>Ling Xu</strong>&lt;br&gt;Yale University</td>
</tr>
<tr>
<td>11:40 am - 12:10 pm</td>
<td>Keynote Speaker&lt;br&gt;<strong>Xiangxi Wang</strong>&lt;br&gt;Institute of Biophysics, Chinese Academy of Sciences</td>
</tr>
<tr>
<td>12:10 pm - 2:00 pm</td>
<td>Lunch and Poster Session</td>
</tr>
<tr>
<td>Time</td>
<td>Session 2a:</td>
</tr>
<tr>
<td>--------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>2:00 pm - 2:20 pm</td>
<td>Talk 9</td>
</tr>
<tr>
<td>2:20 pm - 2:40 pm</td>
<td>Talk 10</td>
</tr>
<tr>
<td>2:40 pm - 3:00 pm</td>
<td>Talk 11</td>
</tr>
<tr>
<td>3:00 pm - 3:20 pm</td>
<td>Talk 12</td>
</tr>
<tr>
<td>3:20 pm - 3:40 pm</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>Session 2b:</td>
<td>Hosted by Ling Xu, Postdoctoral Fellow, Yale University</td>
</tr>
<tr>
<td>3:40 pm - 4:00 pm</td>
<td>Talk 13</td>
</tr>
<tr>
<td>4:00 pm - 4:20 pm</td>
<td>Talk 14</td>
</tr>
<tr>
<td>4:20 pm - 4:40 pm</td>
<td>Talk 15</td>
</tr>
<tr>
<td>4:40 pm - 5:00 pm</td>
<td>Talk 16</td>
</tr>
<tr>
<td>5:00 pm - 6:30 pm</td>
<td>Best Poster Award and Happy Hour</td>
</tr>
</tbody>
</table>
### Schedule for Saturday, October 28th, 2023
**Bass 305**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker(s)</th>
<th>Affiliation</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 am - 9:00 am</td>
<td><strong>Breakfast and Discussion</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:00 am - 9:20 am</td>
<td><strong>Session 3a:</strong> Hosted by Victor Gomes, Graduate Student, Yale University</td>
<td>Wenwei Li, Walter Mothes</td>
<td>Yale University</td>
<td>HIV-1 Env trimers asymmetrically engage CD4 receptors in membranes</td>
</tr>
<tr>
<td>9:20 am - 9:40 am</td>
<td><strong>Talk 18</strong></td>
<td>Kexin Zhang, Nikolaus Grigorieff</td>
<td>UMass Chan Medical School</td>
<td>A Better Metric for Template Matching of Cellular Cryo-EM Images</td>
</tr>
<tr>
<td>9:40 am - 10:00 am</td>
<td><strong>Talk 19</strong></td>
<td>Bogdan Toader, Roy Lederman</td>
<td>Yale University</td>
<td>SGD for high-resolution cryo-EM reconstruction</td>
</tr>
<tr>
<td>10:00 am - 10:20 am</td>
<td><strong>Talk 20</strong></td>
<td>Michael Grunst, Walter Mothes</td>
<td>Yale University</td>
<td>Structure and Inhibition of SARS-CoV-2 Spike Refolding in Membranes</td>
</tr>
<tr>
<td>10:20 am - 10:40 am</td>
<td><strong>Coffee Break</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:40 am - 11:00 am</td>
<td><strong>Session 3b:</strong> Hosted by Shuhui Wang, Postdoctoral Associate, Yale University</td>
<td>Nikhil Malvankar</td>
<td>Nikhil Malvankar</td>
<td>Yale University</td>
</tr>
<tr>
<td>11:00 am - 11:20 am</td>
<td><strong>Talk 22</strong></td>
<td>Ximena Zottig, Nikolaus Grigorieff</td>
<td>UMass Chan Medical School</td>
<td>Viral Translational Control Strategies Visualized with 2D Template Matching</td>
</tr>
<tr>
<td>11:20 am - 11:40 am</td>
<td><strong>Talk 23</strong></td>
<td>Seven Guo, Jun Liu</td>
<td>Yale University</td>
<td>Capturing and modeling the structural dynamics of the bacterial flagellar motor</td>
</tr>
<tr>
<td>11:40 am - 12:00 pm</td>
<td><strong>Talk 24</strong></td>
<td>Jack “Kai” Zhang, Jack “Kai” Zhang</td>
<td>Yale University</td>
<td>In-situ cryo-EM/ET at sub-2 Å</td>
</tr>
<tr>
<td>12:00 pm - 1:00 pm</td>
<td><strong>Session EX:</strong> Led by cryo-EM/ET experts at UMass and Yale</td>
<td>Free discussion driven by open questions with all attendees involved; Snacks available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:00 pm</td>
<td><strong>Closing remarks:</strong></td>
<td>Jack “Kai” Zhang, Assistant Professor of Molecular Biophysics &amp; Biochemistry, Yale University</td>
<td>Joel Butterwick, Assistant Professor of Pharmacology, Yale University</td>
<td></td>
</tr>
</tbody>
</table>