

Program

Sunday, 29 August 2021

17:00 – 20:00 Registration

from 18:00 *BUFFET SUPPER / Informal get together*

20:00 – 21:00 Wolfgang Knoll **Happy 40th Anniversary - from
"Lipid Monolayers on Alkylated
Planar Glass Surfaces" to
Supported/Tethered Membranes**

Monday, 30 August 2021

07:30 – 08:30 *BREAKFAST*

08:30 – 08:45 Scientific organizers **Welcome and Organization**

08:45 – 09:00 Stefan Jorda **About the Wilhelm and Else Heraeus
Foundation**

Session I: Chair: Fredrik Höök

09:00 – 09:45 Marite Cardenas
(online) **Model cellular membranes: From flat
to strongly curved structures**

09:45 – 10:30 Giovanna Fragneto **The structure of model membranes**

10:30 – 11:00 *COFFEE BREAK
and posters*

11:00 – 11:45 Stephen Evans
(online) **Membranes at solid and quasi-solid
interfaces models for new
biosensors**

11:45 – 12:30 Claudia Steinem **Pore spanning membranes: Recent
developments and applications**

12:30 *LUNCH*

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Session II: Chair: Claudia Steinem

13:45 – 14:30	Erik Reimhult	Hybrid lipid and block copolymer membranes and vesicles
14:30 – 15:15	Raya Sorkin	Membrane remodeling in synaptic vesicle fusion and migrasome formation
15:15 – 15:35	<i>COFFEE BREAK</i>	
15:35 – 16:15	Poster flashes Chair: Marta Bally	
16:15 – 17:00	Online poster session I	
17:00 – 17:45	Online poster session II	
17:45 – 18:30	Atul Parikh (online)	Structured fluids: Transient assembly of lipid amphiphiles into myelin figures
18:30 – 19:15	Steven Boxer (online)	Tethered proteins, vesicles and viruses
19:15	<i>DINNER</i>	

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Tuesday, 31 August 2021

08:00 *BREAKFAST*

Session III: Chair: Susan Daniel

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| 09:00 – 09:45 | Andela Saric | ESCRT-III filaments in reshaping and splitting cells across evolution |
| 09:45 – 10:30 | Stephen Block | Probing enzymatic activity and multivalent interactions using optical microscopy |
| 10:30 – 11:00 | <i>COFFEE BREAK</i>
and posters | |
| 11:00 – 11:45 | Marta Bally | Virus diffusion at the cell surface: from cell-surface mimics to live cell microscopy |
| 11:45 – 12:30 | Peter Kasson
(online) | Using tethered membranes to uncover the physical determinants of enveloped virus entry |

12:30 *LUNCH*

Session IV: Chair: Andreas Janshoff

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| 13:45 – 14:30 | Susan Daniel | Re-creating cellular protein synthesis and posttranslational modification on-chip for the cell-free bionanomanufacturing of therapeutics |
| 14:30 – 15:15 | Peter Jönsson
(online) | Protein binding across immune-cell contacts and its influence on T-cell activation |

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15:15 – 15:45 *COFFEE BREAK*
and posters

15:45 – 16:30 Ralf Richter **The glycocalyx – tailored model
systems to reveal mechanisms of
assembly and function of the sweet
coats around our cells**

16:30 – 17:15 Neha Kamat **Harnessing Bilayer Membranes and
Cell-Free Systems to Investigate and
Control Biological Processes**

17:15 – 19:15 **Social activity** (a hike in the vicinity)

19:30 *HERAEUS DINNER at the Physikzentrum
(cold & warm buffet, with complimentary drinks)*

Program

Wednesday, 1 September 2021

08:00 *BREAKFAST*

Session V: Chair: Erik Reimhult

09:00 – 09:45	Antreas Kalli (online)	Understanding the function of mechanosensitive channels using multiscale molecular dynamics simulations
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09:45 – 10:30	Nam-Joon Cho (online)	Solvent-assisted lipid bilayer formation: beyond vesicle fusion
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10:30 – 11:00	<i>COFFEE BREAK</i> and posters	
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11:00 – 11:45	Fredrik Höök	Supported cell-membrane mimics on porous silica for studies of vesicle fusion and cargo delivery
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11:45 – 12:30	Andreas Janshoff	The role of membranes in cell deformation
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12:30 – 12:40	Scientific organizers	Closing remarks and poster awards
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12:40	<i>LUNCH</i>	
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End of Seminar / Departure