

# **Systems Chemistry Virtual Symposium 2021**

## **Co-Organizers**

Thomas Hermans – University of Strasbourg

Rein Ulijn – City University of New York (CUNY)

Beatriu Escuder – Universitat Jaume I

Job Boekhoven – Technical University of Munich

Dibyendu Das – Indian Institute of Science Education and Research (IISER) Kolkata

Elisa Franco – Samueli School of Engineering UCLA

# Systems Chemistry Virtual Symposium Program

## 7-9 July 2021

**Link to Gather.town:** <https://gather.town/app/3oETiNHYAHVMIiUg/SystemsChemistry>

**Link to ZOOM:** [https://us02web.zoom.us/webinar/register/WN\\_RFNKXjUGTo-wnwEC1pxdXA](https://us02web.zoom.us/webinar/register/WN_RFNKXjUGTo-wnwEC1pxdXA)

July 7, 2021	DAY 1
14:00-14:10	Session Introduction: <b>Thermodynamics and theory of dissipative self-assembly</b> Chair: Thomas Hermans
14:10-14:30	PANELISTS 1 & 2: Martha Grover & David Lynn Title: Integrating Physical and Chemical Networks for Biomaterial Assembly
14:30-14:50	PANELIST 3: Kyle Bishop Title: Keeping time with dissipative self-assembly
14:50-15:10	PANELIST 4: Dean Astumian Title: The role of kinetic asymmetry in non-equilibrium chemistry
15:10-16:10	Panel Discussion (1h)
16:10-16:30	Break 20 min
16:30-16:40	Flash presentation: Larissa von Krbek Title: Glucose Binding Drives Reconfiguration of a Dynamic Library of Urea-Containing Metal-Organic Assemblies
16:40-16:50	Flash presentation: Giulio Ragazzon Title: Visual insights on non-equilibrium systems
16:50-17:00	Flash presentation: Babis Pappas Title: Two Sides of the Same Coin: Emergence of Foldamers and Replicators from Single Monomers
17:00-17:10	Flash presentation: Subhabrata Maiti Title: Deconvoluting Transient Intermediates in a Fuel-Driven Transient Assembly
17:10-17:20	Flash presentation: Claudia Bonfio

	Title: Thermally-driven membrane phase transitions enable content reshuffling in primitive cells
17:20-17:30	Flash presentation: Emanuele Penocchio
17:30-17:35	Day 1 Final Remarks
17:35 - 19:00	Meet the speakers / Networking on the Beach / Poster session in Gather.Town (Intro from Job Boekhoven)
<b>July 8, 2021</b>	<b>DAY 2</b>
14:00-14:10	Session Introduction: <b>Active Phase Separation</b> Chair: Job Boekhoven
14:10-14:30	PANELIST 1: Evan Spruijt Title: Chemical conversion in coacervate protocells
14:30-14:50	PANELIST 2: Christoph A. Weber Title: How droplets affect chemical reactions
14:50-15:10	PANELIST 3: Christine Keating Title: Reaction microenvironments generated by phase separation
15:10-16:10	Panel Discussion (1h)
16:10-16:30	Break 20 min
16:30-16:40	Flash presentation: Allie Obermeyer Title: Intracellular phase separation of proteins via complex coacervation
16:40-16:50	Flash presentation: Lorraine Leon Title: Designing Synthetic Condensates using Peptide-Based Complex Coacervates
16:50-17:00	Flash presentation: Lauren Zarzar Title: Chemical design of swimming Janus oil droplets in water
17:00-17:10	Flash presentation: Selected from posters

17:10-17:15	Day 2 Final Remarks
17:15 – 19:00	Meet the speakers / Networking on the Beach / Poster session in Gather.Town
<b>July 9, 2021</b>	<b>DAY 3</b>
14:00-14:10	Session Introduction: <b>Systems Chemistry Materials</b> Chair: Elisa Franco
14:10-14:30	PANELIST 1: Zhibin Guan Title: Bioinspired Design of Dynamic and Active Materials
14:30-14:50	PANELIST 2: Monica Olvera de la Cruz Title: Actuating magnetoelastic matter
14:50-15:10	PANELIST 3: Neel Joshi Title: Biologically fabricated materials from engineered microbes
15:10-16:10	Panel Discussion (1h)
16:10-16:30	Break 20 min
16:30-16:40	Flash Presentation: Ghislaine VanTomme Title: Multi-component supramolecular polymeric materials – the interplay between covalent and non-covalent bonds
16:40-16:50	Flash Presentation: Jack Chen Title: Exploiting the Dynamic Nature of Self-assembled Catalyst Systems
16:50-17:00	Flash Presentation: Selected from posters Title: TBA
17:00-17:10	Flash Presentation: Ximin He Title: Structural Hydrogels via Salt-/Solvent-modulated Polymer Aggregation
17:10-17:15	Day 3 Final Remarks
17:15-17:20	Posters winners announcement

17:20- 17:25	End of conference remarks- Thank you sponsors
-----------------	---

\* Panelist Presentation: 20 min presentation relevant to panel topic & discussion (questions saved for Panel discussion)

\*\* Flash Presentation: 8 min, 2 min Q&A after each talk

\*\*\* Panel Discussion: 60 min (first ~15 min questions about talks, ~45 discussion led by chair)