

The 2024 CAPA Winter Symposium

(www.chembiocapa.org)

December 20th, 2024, 9:30 am – 6:00 pm

TMC3 Collaborative Research Building, 7255 Helix Park Ave, Houston, TX 77030

(<https://maps.app.goo.gl/jaWrXaeWDB6Uwxm86>)

SCHEDULE

09:30-09:35 Welcome remarks (*Wenshe Liu*, CAPA President)

Session 1: Synthesis in Health 1 (Chaired by *Tian Qin*, Associate Professor, University of Texas Southwestern Medical Center)

09:35-10:05 **The ups and downs of tankyrase**
Chuo Chen, Professor, University of Texas Southwestern Medical Center

10:05-10:35 **Dissecting complex methylome network with substrate and cofactor mimics**
Minkui Luo, Professor, Memorial Sloan Kettering Cancer Center

10:35-11:05 **Exploring NextGen therapeutics for human health**
Jin Wang, Professor, Baylor College of Medicine

11:05-11:35 **New approaches to target undruggable proteins**
Jian Jin, Professor, Icahn School of Medicine at Mount Sinai

11:35-11:50 **Vendor Presentations**
Sino Biological, Silver Sponsor, 5 min
ChemScene, Gold Sponsor, 10 min

11:50-13:30 Lunch break and social hours

Session 2: Polymer Science in Health (Chaired by *Prof. Lei Fang*, Texas A&M University)

13:30-14:00 **Topology design of bottlebrush homopolymers via simulations and machine learning**
Yaxin An, Assistant Professor, Louisiana State University

14:30-15:00 **From polypeptides to biomimetic materials: Harnessing helix-accelerated ROP-NCA for tailored mechanical properties**
Yao Lin, Professor, University of Connecticut

15:00-15:30 **Biomimetic designs for semiconducting and light-emitting polymers**
Sihong Wang, Assistant Professor, University of Chicago

15:30-16:00 Coffee Break and social time

Session 3: Synthesis in Health 2 (Chaired by *Prof. Jianfeng Cai, University of South Florida*)

- 16:00-16:30 **Highly selective DNA aptamer sensor for intracellular detection of coenzyme A**
Yuan Ma, Assistant Professor, Rice University
- 16:30-17:00 **Engineering modified nucleic acids for bioimaging**
Quanbing Mou, Assistant Professor, Rice University
- 17:00-17:30 **Engineered CRISPR systems for drug discovery**
Xue Shery Gao, Associate Professor, University of Pennsylvania
- 17:30-18:00 **Unraveling metabolism across systems and spatial scales**
Yihui Shen, Assistant Professor, University of Pennsylvania
- 18:00-18:05 Closing Remarks (*Wenshe Liu*, CAPA President)
- 18:30-21:00 Dinner Gathering for CAPA Members (Pepper Twins Kirby, 3915 Kirby Dr., Houston, TX 77098. <https://maps.app.goo.gl/xGinvd9oDyaoTBA88>)

Hotel Recommendations:

1. Blossom Hotel Houston
2. Hyatt House/Place Houston Medical Center

Both hotels are in walking distance to the TMC3 meeting site.

(I have frequently stayed in Hyatt House Houston Medical Center. It provides complimentary breakfast.)

