Macromolecular, Supramolecular and Nanochemistry (MSN) Program

MSN Program Directors:

Kenneth R. Carter, Colby Foss, Tomislav Pintauer,

& Suk-Wah Tam-Chang (Lead)

(Thanks to Dr. George Janini and Dr. Ryan Jorn who served in MSN in FY23.)

Administrative Support:

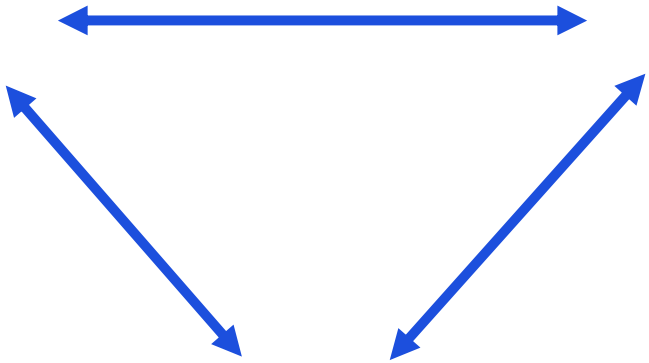
Nancy Carey

Macromolecular, Supramolecular and Nanochemistry (MSN) Program

Basic research that addresses fundamental questions and advances knowledge regarding the chemistry of macromolecular, supramolecular and nanoscopic structures.

Making

Novel synthetic approaches



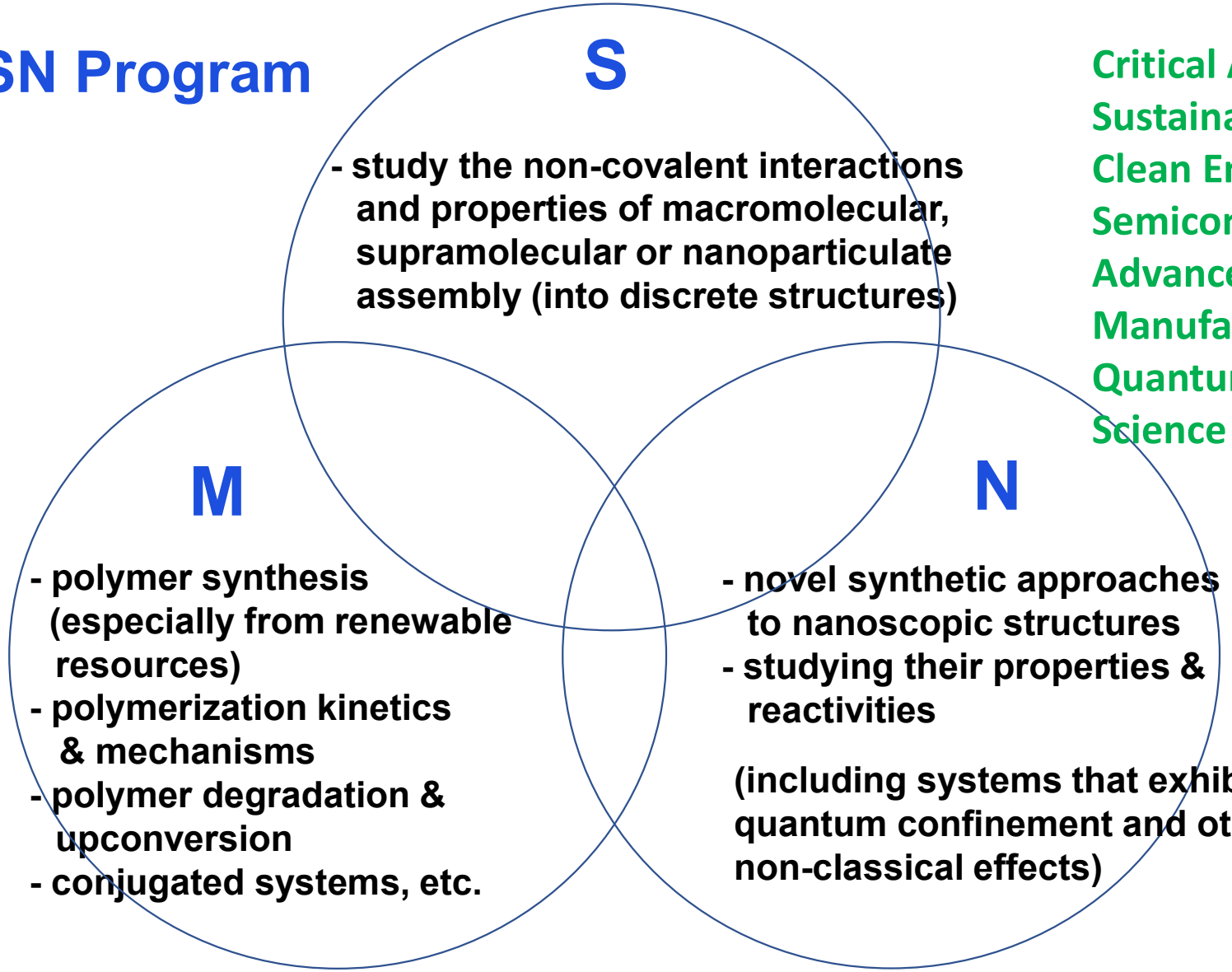
Measuring

To understand or predict
- **the chemical structures**
- **unique chemical and physiochemical properties**
- **chemical reactivities**

Modeling

(especially projects that demonstrate synergy between experiment and theory)

MSN Program



Critical Aspects of Sustainability (CAS);
Clean Energy;
Semiconductors;
Advanced Manufacturing
Quantum Information Science

Topics NOT of Interest to MSN

Proposals for which the primary focus is on the following:

- **single molecules**
- **extended solids (including metal organic frameworks)**
- **materials research**
- **fate of nanoparticles in the environment**
- **device properties**
- **engineering processes**
- **biological properties (e.g., toxicity, in-vivo or in-vitro cell studies)**
- **drug delivery**
- **selection or genetic engineering of enzymes**

Recent Awards Made by MSN

- Research NSF award database with the Program Element Code 6885
- Research hight https://www.nsf.gov/mps/che/Highlights/HighlightWebpages/highlights.jsp

Inquiries about Potential Proposal Submission to MSN

- Email/copy your inquiries to Suk-Wah Tam-Chang (stamchan@nsf.gov), Program Lead (Note: the program directors in the MSN program in FY24 are not the same as those in FY23)

- In your inquiry, please provide a white paper (2-3 pages) that
  - states clearly the project goal(s), the fundamental chemistry questions/challenges to be addressed, and the hypotheses to be tested
  - includes a concise description of the experimental/computational approach
  - describes briefly the broader impacts
  - provides an estimated total budget