Peter Stahl is an exemplary namesake for the Advanced Design Forum. Peter started his career in 1969 at BASF in Ludwigshafen, Germany, where he worked in the production plant for acrylics and styrenics. He moved to General Electric (GE) Plastics in the early 1980s, when plastics use was growing rapidly but potential customers lacked an understanding of how to work with these new materials. One of Peter’s first accomplishments at GE Plastics was to set up the industry’s first plastics applications development laboratory. His fundamental work advanced and integrated materials testing, statistical design techniques, process and application design modeling, with intimate customer support.

An example of the impact of Peter’s work is the BMW Z1 Roadster, which featured body panels made from GE’s Xenoy, a polyester polycarbonate polymer. These body panels were non-load-bearing and were bolted to the chassis to lightweight the vehicle, reduce the cost of repairs, and with its integrated overall body design, provide an exciting and sleek design aesthetic. Peter spent the remainder of his career at GE Plastics, focused on building industry-leading applications, development capabilities, and customer support for engineering polymers. He was known for his technical breadth and rigor and customer collaboration.

The Peter O. Stahl Advanced Design Forum is enabled by a generous donation from Dr. Cynthia Arnold, CEMS External Advisory Board member, with co-sponsorship from the Industrial Partnership for Research in Interfacial & Materials Engineering (IPRIME).

The Peter O. Stahl Advanced Design Forum, enabled by a donation from Peter’s wife, Dr. Cynthia Arnold (pictured above), aims to bring together industry leaders, government stakeholders and academic researchers, to foster collaboration and sharing of data science, artificial intelligence and machine learning best practices, to transform the ways in which chemicals and materials are designed, developed and produced. It exemplifies the commitment of CEMS to excellence in research and education, now leveraging the emerging fields of data science and machine learning. We welcome you to the first Stahl Advanced Design Forum!
STAHL FORUM AGENDA

7:30-8:00 a.m.
Continental Breakfast, 3-176 Keller Hall

8:15-8:30 a.m.
Welcome & CEMS Data Science Initiative
• Prodromos Daoutidis, Professor, Department of Chemical Engineering & Materials Science (CEMS), University of Minnesota (UMN)

8:30-9:30 a.m.
Chemicals & Materials: Digital Transition At Scale & At Speed
• Jose Pinto, Director, Digital Americas, Linde
• Ivan Castillo, Senior Technology Manager, Chemometrics, AI & Statistics Group, Dow
• Jennifer Schumacher, Lead Data Science Specialist, Corporate Research Systems Laboratory, 3M

9:30-9:45 a.m.
Break

9:45-10:45 a.m.
Chemicals & Materials: Digital Transition At Scale & At Speed
• Sthitie Bom, Head of Global Factory, IT, Seagate
• Larisa Popadiuk, Associate Director, Data Analytics & Digital Solutions, Sherwin Williams
• Fred Hulting, Director, Global Knowledge Solutions, General Mills

11:00-11:20 a.m.
Research Priorities & Funding Opportunities at NSF
• Ray Adomaitis, Program Director, CBET, National Science Foundation (NSF)

11:20-11:30 a.m.
Break

11:30 a.m.-12:15 p.m.
Panel: How is Data Science Boosting Innovation, Agility & Economic Benefit in Your Corporations?
Sthitie Bom, Ivan Castillo, Fred Hulting, Jose Pinto, Larisa Popadiuk, Jennifer Schumacher

12:15-1:15 p.m.
Lunch, 3-176 Keller Hall

1:15-1:45 p.m.
Lightning Talks

1:45-3:05 p.m.
Digital Innovation in Pharma & Medicine
• Regina Barzilay, School of Engineering Distinguished Professor for AI & Health AI, Massachusetts Institute of Technology
• Yan Asmann, Associate Professor of Biomedical Informatics, Mayo Clinic College of Medicine
• Fernando Ulloa: Head Data & Computational Sciences, mRNA Center of Excellence, Sanofi
• Salvador García Muñoz, Executive Director of Engineering, Eli Lilly & Company

3:05-3:15 p.m.
Break

3:15-4:15 p.m.
Data Management & Sharing: Frameworks & Tools for Accelerating Data Science Adoption
• Ellad Tadmor, Professor, Department of Aerospace Engineering & Mechanics, University of Minnesota
• Amalie Trewartha, Research Scientist, Energy & Materials, Toyota Research Institute
• Cristiana Lara, Senior Research Scientist, Amazon

4:15-5:00 p.m.
Panel: How Can Industry, Academia & Government Collaborate to Develop the Workforce of the Future?
Ray Adomaitis, Cristiana Lara, Salvador García Muñoz, Ellad Tadmor, Amalie Trewartha, Fernando Ulloa

5:00-5:30 p.m.
Poster Session

5:30-5:45 p.m.
Poster Competition Results & Closing Remarks

6:00 p.m.
Networking Reception