

Dr. Joseph M. DeSimone Receives Henry F. Whalen, Jr. Award for Business Development

Press Release

The ACS Division of Business Development and Management (BMGT) honored Dr. Joseph M. DeSimone, Distinguished Professor of Chemistry and Chemical Engineering at the University of North Carolina at Chapel Hill and North Carolina State University, with the Henry F. Whalen, Jr. Award for Business Development at the 232nd national meeting of the American Chemical Society in San Francisco.

With this award, BMGT recognizes Dr. DeSimone for his ability to identify market needs, develop novel technologies to address those needs, and transfer that technology from the laboratory to viable commercial businesses. Like Henry Whalen, he has made outstanding contributions to the development of business within the industry.



Dr. DeSimone received his BS from Ursinus College in 1986 and his Ph.D. from Virginia Polytechnic Institute and State University in 1990, both in chemistry. He has written more than 200 refereed articles and issued over 100 patents. In 1995 he co-founded Micell Technologies, Inc., a company that pioneered CO₂ technology for replacement of perchloroethylene in the dry cleaning process. He served as chairman from 1996-2003. Dr. DeSimone also co-founded in 2002 BioStent, a company designed to develop and commercialize polymeric drug eluting stents for cardiovascular applications. These stents have been approved for a 60 patient clinical trial outside the U.S.

Liquidia, incorporated by Dr. DeSimone in 2004, has commercialized his Fluorocur™ fluoropolymers, which enable mass production of precise, uniform micro and nanoparticles. The company offers a novel method for generating custom-shaped organic particles ranging in size from tens of nanometers to hundreds of microns and is exploring applications for these particles as targeted delivery and imaging contrast agents in nano-medicine. DeSimone is now the co-PI on a \$24 million Center for Cancer Nanotechnology Excellence funded by the National Cancer Institute at the University of North Carolina at Chapel Hill.

Dr. DeSimone has served on the editorial boards of several leading chemical publications including *Macromolecules*, *Journal of Polymer Science*, and *Industrial and Engineering Chemistry Research*. He is a founding board member of both the Green Chemistry Institute and the Center for Environmentally Advanced Technologies.

Currently Dr. DeSimone serves as Director of the NSF Science Technology Center for Environmentally Responsible Solvents and Processes, which brings together the resources and expertise of five universities and covers such areas as chemistry, chemical engineering, materials science, information and library sciences, psychology, and education. He is also Director of the newly formed UNC Institute for Advanced Materials, Nanoscience and Technology (IAM), a multidisciplinary research group coordinating research efforts in polymer science, nanomaterials, and nanobiosciences.

Topics of research within his group at UNC include all aspects of polymer synthesis and processing, from fundamental aspects of chemical systems to the most effective and environmentally friendly ways to manufacture polymers and polymer-based products and devices. Applications include novel drug delivery and diagnostic systems to user-friendly lab-on-a-chip devices. Other areas of interest include

development of proton exchange membranes for fuel cells and exploration of chemical reactions in supercritical CO₂.

Dr. DeSimone has been recognized with numerous awards throughout his highly productive career. In recent years he has been elected as a member of the American Academy of Arts & Sciences and the National Academy of Engineering. In 2005, Dr. DeSimone received the Entrepreneurial Excellence Award for Life Science Spin-out of the Year for Liquidia Technologies and the American Chemical Society Award for Creative Invention. Prior to that he received the Presidential Green Chemistry Challenge Award (1997), the Carl S. Marvel Creative Polymer Chemistry Award (1999), the Governor's Entrepreneurial Company of the Year Award for Micell Technologies (2001), the Ernst & Young 2001 Entrepreneur of the Year in Technology (Carolinas), and DuPont's Engineering Excellence Award (2002), among others.

"Joe DeSimone is truly a pioneer in polymer synthesis and processing and has been recognized for his research by numerous organizations," said Madeleine Jacobs, Executive Director and CEO of the American Chemical Society. "Now it is a pleasure to see his business acumen recognized by the ACS Division of Business Development and Management. Through his application of basic research, Dr. DeSimone has used new technologies to create new chemical business opportunities. This nation clearly needs more of the kind of innovation that Dr. DeSimone represents."

The ACS Division of Business Development and Management is comprised of over 1,000 members from chemical companies around the world. The mission of BMGT is to champion business development and management of the chemical enterprise. The vision of the division is to be globally recognized as the preferred resource for creating, growing and managing chemical business. For more details, visit the BMGT website at www.chemicalenterprise.com.