

### First Decade Award — Debra Lightly Mascaro '95

## The pleasures of research



Debra Lightly Mascaro '95

**D**ebra Lightly Mascaro '95 has been fascinated by serious scientific research since the summer following her first year at Gustavus Adolphus College, when she worked as an undergraduate research assistant in the Department of Physics measuring the optical energy gaps of silicon-tellurium glasses. In the 10 years since her graduation, she has distinguished herself at the Massachusetts Institute of Technology Laboratory of Organic Optics and Electronics and more recently at the North Dakota State University Center for Nanoscale Science and Engineering.

A Goldwater Scholar in her junior and senior years at Gustavus, Mascaro enrolled in a Ph.D. program in electronic, photonic, and magnetic materials at MIT after graduating from Gustavus. A National Science Foundation (NSF) Graduate Fellow for three years, she focused her research in the area of "organic electronics," which refers to the use of carbon-based materials rather than silicon and other inorganic materials to make electronic devices such as transistors and light-emitting devices. She was awarded a Ph.D. in materials science and engineering from MIT in 2004.

In January 2004, Mascaro joined NDSU's Center for Nanoscale Science and Engineering in Fargo as a research scientist. There her primary project was the miniaturization of chemical vapor sensors for the detection of chemical warfare agents and explosives. In September 2004 she was awarded her first NSF grant (\$300,000 over two years) for a collaborative project combining expertise in materials science, fluid dynamics, and electrical engineering to grow and utilize large organic crystals in active nanostructured optoelectronics. Achieving the targeted goals of this program would allow integration of organic crystals with existing optoelectronic devices for the first time, enabling development of entirely new technologies.

In January 2005 Mascaro joined the faculty of the Department of Mechanical Engineering at the University of Utah, where she is establishing a research program in the areas of organic electronics and nanofabrication.

### 2005 First Decade Award Nominees

**Women** *Amy Becker*, Branford, CT, child and adolescent psychiatry fellow, Yale University; *Erin Cunningham*, Berkeley, CA, postdoctoral research fellow, Miller Institute for Basic Research in Science, University of California at Berkeley; *Elisabeth Potts Dellon*, Chapel Hill, NC, clinical fellow, University of North Carolina, Department of Pediatrics, Division of Pulmonology; *Wendy Garbers*, San Francisco, CA, associate, Morrison & Foerster LLP; *Aimee Pugh-Bernard*, Denver, CO, postdoctoral fellow, National Jewish Medical Research Center; *Ellie Merritt*, Columbus, OH, TV news anchor, WBNS-TV; *Britta Ramseth Reiersen*, Loretto, MN, family practice physician, Park Nicollet Golden Valley Clinic; *Amy Seidel*, Minneapolis, MN, attorney, Faegre & Benson LLP; *Jamie Snyder*, Phoenix, AZ, executive director, Governor's Council on Developmental Disabilities; *Kaaren Williamsen*, Northfield, MN, director, Gender and Sexuality Center, Carleton College.

*First Decade Award — Joe Gaugler '95*

## A focus on aging

If most people think about aging only as they pass their prime, **Joe Gaugler '95** has focused on it within the first 10 years of his college graduation. Joe's interest—at this point—is professional, and the volume of his papers, presentations, and other professional activities in the fields of gerontology, Alzheimer's disease, and family caregiving attests to the fact that he is showing no signs of slowing down.

After graduating from Gustavus *summa cum laude* with Phi Beta Kappa honors, Gaugler used an NCAA Postgraduate Scholarship and a Penn State Graduate Fellowship to enroll at the Pennsylvania State University, where he earned an M.S. in human development and family studies in 1996. He completed his Ph.D. at Penn State three years later on a National Science Foundation Graduate Fellowship and then spent a year at the Center on Aging at the University of Minnesota on a National Institute on Aging Postdoctoral Fellowship.

In July 2000 Gaugler joined the faculty at the University of Kentucky College of Medicine in

Lexington. He taught in the Department of Behavioral Science and also was affiliated with the Sanders-Brown Center on Aging and the university's Ph.D. program in gerontology. It was here that he honed his academic interests in family caregiving for adults with chronic disabilities, social integration of older adults in residential long-term care settings, and community-based and psychosocial services for disabled adults and their caregiving families. In 2003 he was recognized with a Springer Early Career Achievement Award in Research on Adult Development and Aging by the American Psychological Association for his work. He was invited back to his alma mater to make a presentation on "Caregivers and Policy Issues" at the 2004 Nobel Conference on aging.

In September 2005 Gaugler returned to Minnesota, accepting a faculty position in the Center for Gerontological Nursing at the University of Minnesota's School of Nursing.



*Joe Gaugler '95*

**Men** *John D. Anderson*, Cold Spring, MN, ambulatory care clinical pharmacy specialist, Department of Veterans Affairs Medical Center, St. Cloud; **Andrew Benson**, St. Paul, MN, group director, Use Experience Architect, Zentropy Partners; **John Goodpaster**, Ammendale, MD, forensic chemist, Bureaus of Alcohol, Tobacco, Firearms, and Explosives; **Tom Jackson**, Minneapolis, MN, president/CEO, Bridgewater Mortgage; **Yoshi Makino**, Sarajevo, Bosnia, political adviser to the High Representative, Office of the High Representative; **Brett Mitchell**, Houston, TX, assistant professor, Department of Molecular Physiology and Biophysics, Baylor College of Medicine; **Scott Moe**, St. Peter, MN, men's golf coach, Gustavus Adolphus College; **Eric Weber**, Ames, IA, assistant professor of mathematics, Iowa State University.