

2008

Lisa O. Bontrager, professor of Music, received the Arts and Humanities Medal. Bontrager is one of the leading brass instrument musicians in the U.S. and abroad, with versatility in the tenor horn and French horn. She performs regularly with two world-renowned ensembles -- the Millennium Brass and the Brass Band of Battle Creek -- presenting concerts and recording many CDs with both groups. An exceptional performer as a soloist and in ensembles, she is much sought after as an outstanding teacher, recording artist, a commissioner of new works and a leader in her profession. Many of her tours have included clinics, master classes, lectures and workshops with emerging musicians. She is an artist clinician for Holton/Conn-Selmer, the leading maker of brass instruments, and served for two terms as an elected member of the Advisory Council of the International Horn Society.

Keith C. Cheng, Professor of Pathology, Biochemistry & Molecular Biology, and Pharmacology, received the Life and Health Sciences Medal, for his research and discovery of the golden gene, which played an important role in the evolution of the light skin of European peoples. The discovery resulted from study of a light-skinned variant of the zebrafish, bringing to light new molecular and cellular mechanisms of regulating skin color. His work was published as a cover article in the journal *Science* in 2005, attracting substantial national and international attention. He continues to enjoy collaborative work on the mechanisms and genetics of human pigmentation. At Penn State, Cheng has been a consistent leader in genetics, genomics and now whole-genome analysis of human complex traits. He continues his pioneering use of the zebrafish to study cancer, and is working with Penn State colleagues to develop computational tools for the use of microanatomy -- work that has important implications in systems biology, toxicology and human disease.

Nitin Samarth, Professor of Physics, received the Physical Sciences Medal for his contributions to solving critical materials physics issues in spintronics. His expertise lies in the design and measurement of spin-engineered quantum structures, where the charge and spin of electrons are independently controlled in nanoscale geometries. His work has placed him at the cutting edge of semiconductor device physics, and has been featured on the covers of *Scientific American*, *Science* magazine and *Nature*. Samarth is an international leader in semiconductor spintronics, an emerging area of condensed matter physics that explores new paradigms for information technology.

Janice C. Light, Distinguished Professor of Communication Sciences and Disorders, received the Social and Behavioral Sciences Medal for her work in conducting unique interdisciplinary work in the field of augmentative and alternative communication, which aims to improve the quality of life for individuals with severe communication disabilities and who are unable to use speech to communicate. These individuals include children and adults with cerebral palsy, mental retardation or autism; people with stroke or traumatic brain injuries; and those with degenerative neurological disorders such as multiple sclerosis. She has studied the design of technology for increasing the effectiveness of communication, the role and training of partners in communication, and the icons and picture symbols used to represent language concepts in AAC systems. Her research has produced some of the most important changes in the lives of people with disabilities and their families in the past 25 years.