

Three Brown Faculty Elected to World's Largest Scientific Society

The American Association for the Advancement of Science (AAAS) has elected three Brown University professors – Mary Carskadon, Stephen McGarvey and Carle Pieters – fellows for their significant contributions to the life and physical sciences.

PROVIDENCE, R.I. [Brown University] — Sleep expert Mary Carskadon, international health researcher Stephen McGarvey, and planetary geoscientist Carle Pieters have been awarded the distinction of fellow from the American Association for the Advancement of Science (AAAS).

Fellows are elected by their peers in AAAS, the world's largest general scientific society, publisher of the journal *Science*. Carskadon, McGarvey, and Pieters are among 471 members awarded the honor this year for distinguished efforts to advance science and its applications.

This year's AAAS fellows will be announced in the Oct. 26, 2007, edition of *Science* and honored in a formal ceremony at the 2008 AAAS Annual Meeting in Boston in February.

Mary Carskadon

As part of the section on psychology, Carskadon was elected for "probing the nature of circadian rhythms in human adolescence."

Carskadon is professor of psychiatry and human behavior at The Warren Alpert Medical School of Brown University and director of chronobiology at Bradley Hospital. She is widely considered the world's foremost expert on adolescent sleep; her laboratory was the first to identify changes in the timing of circadian rhythms and sleep biology of adolescents and how these bioregulatory processes affect sleep patterns. Carskadon's work, which shows that the adolescent urge to stay up late and get up late has a biological basis, has raised public awareness about the consequences of insufficient sleep in teens. Her work has affected policy, prompting school districts across the country to consider later daily starting times for high school students.

Carskadon is the winner of several major sleep research and education awards, including the Distinguished Scientist Award of the Sleep

Research Society, and serves as deputy editor of the journal *Sleep*. She has taught at Brown since 1985.

Stephen McGarvey

As part of the section on anthropology, McGarvey was elected for “discoveries about genetic, global, and local environmental contributions to diabetes, obesity and smoking among Pacific Islanders and the ecology of schistosomiasis in East Asia.”

McGarvey is professor of community health and anthropology and director of the International Health Institute at The Warren Alpert Medical School of Brown University. For more than 30 years, he has studied the effects of economic development on the health of Samoans, making him one of the world’s most established researchers on biological and health responses to global economic change. McGarvey has studied how modernization in Samoa has led to obesity and related illnesses such as diabetes and high blood pressure through changes in diet, physical activity, stress and other environmental factors and the interplay of these factors with genetic susceptibilities. McGarvey has also conducted groundbreaking work on schistosomiasis, a debilitating parasitic disease, and the first demonstration of the effects of the disease on school-age children.

McGarvey has sat on several expert panels, including for the National Institutes of Health and the World Health Organization. He serves as co-editor of *Annals of Human Biology* and sits on various editorial boards, including *the American Journal of Human Biology and Anthropological Science*. He has taught at Brown since 1984.

Carle Pieters

As part of the section on astronomy, Pieters was elected for “distinguished contributions to the study of the Moon and to our knowledge of the composition of planetary bodies through infrared spectroscopy.”

Pieters is professor of geological sciences at Brown and one of the world’s leading lunar scientists. She began her career studying lunar samples from the Apollo missions and is now principal investigator on the Moon Mineralogy Mapper (M3), an imaging spectrometer that flies next year on Chandrayaan-1, India’s first lunar mission. Pieters oversees the team that designed and built M3 and will analyze data from the instrument to provide the first high-resolution compositional

map of the lunar surface. M3 data will provide details on the mineral makeup of the Moon as well as the evolution of its surface features. Pieters is also a leading expert in infrared spectroscopy, a research technique that uses near infrared light to determine the mineral composition of asteroids, planets and satellites. She is currently involved in NASA's Dawn mission, launched in September, which will study Vesta and Ceres, two of the largest asteroids in the solar system.

Pieters is the author of more than 150 articles in peer-reviewed journals and is an elected member of the International Academy of Astronautics. She has taught at Brown since 1980.

Editors: Brown University has a fiber link television studio available for domestic and international live and taped interviews and maintains an ISDN line for radio interviews. For more information, call the Office of Media Relations at (401) 863-2476.

#####