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The American Association for the Advancement of Science recently named Duane Compton (left), Jason Moore (center), and George O'Toole (right) fellows.

AAAS honors three researchers

Three Geisel School of Medicine faculty members have been elected 2011 fellows of the American Association for the Advancement of Science (AAAS). Duane Compton, Ph.D., Jason Moore, Ph.D., and George O'Toole, Ph.D., all received the honor, bringing the total number of AAAS fellows on the faculty to 14. The AAAS is the world's largest scientific society and inducts new fellows each year to recognize scientists who have made significant contributions to their fields.

"The election of these outstanding faculty members as AAAS fellows illustrates Geisel School of Medicine's creative curiosity, scientific rigor, and passion to improve the lives of the people we serve," says Dean Wiley "Chip" Souba, M.D., Sc.D.

Nominations and elections are determined by other scientists, which the new fellows appreciate. "It is nice to know that our scientific peers recognize the contributions that my group has made," says Compton, a professor of biochemistry and the senior associate dean of research. "I'm honored by that and grateful to all the students and fellows that have contributed to the work in my lab over the years."

Compton's research has led to an improved understanding of

cell division. Much of his work has focused on the mechanics of chromosome segregation—and the problems caused when chromosomes are not properly distributed as a cell divides. Compton has also studied the related problem of chromosome instability—the tendency for cells to segregate their chromosomes incorrectly, which is a common feature of cancer cells. In 2009, Compton and other researchers in his lab were the first to report a successful attempt to suppress chromosome instability in cancer cells.

Moore, a professor of genetics and of community and family medicine, is the director of the Institute for Quantitative Biomedical Sciences and a leader in the field of computational genetics. For years he has argued for the importance of looking at the complexity of relationships between genes when teasing apart the causes of common diseases, which has run contrary to the field's focus on finding single genetic mutations to explain these diseases.

"Being named a fellow is important to me because it is an endorsement of our research program, which challenges the status quo of assuming that genes have simple effects on the risk of common human diseases," Moore says. "It is not easy to di-

rectly challenge mainstream approaches in human genetics, and this award is a recognition that we are doing so successfully."

O'Toole, a professor of microbiology and immunology, has conducted research that has led to a much better understanding of how bacteria form large colonies called biofilms, which has significant clinical implications for the treatment of diseases such as cystic fibrosis. Biofilms are more resistant to antibiotics than individual bacteria cells, so O'Toole's work on unraveling the mechanics of biofilm formation has opened the way to develop more effective treatments. "It was a great honor to be named an AAAS fellow," he says. "And I think it speaks well of the medical school to have three fellows named this year—I am fortunate to be in some excellent company here."

Moore points out that another researcher who was also named an AAAS fellow this year will soon join the Geisel School. Scott Williams, Ph.D., currently a researcher at Vanderbilt and a long-time collaborator with Moore, will arrive this summer to become the director of the Center for Integrative Biomedical Sciences, adding yet another AAAS fellow to the faculty.

— Amos Esty

Geisel School of Medicine faculty who are fellows of the American Association for the Advancement of Science (AAAS)

Charles Barlowe, Ph.D., chair and professor of biochemistry

Ta-Yuan Chang, Ph.D., professor of biochemistry

Ambrose Cheung, M.D., professor of microbiology and immunology

Duane Compton, Ph.D., professor of biochemistry

Jay Dunlap, Ph.D., chair and professor of genetics and professor of biochemistry

Jennifer Loros, Ph.D., professor of biochemistry and of genetics

Jason Moore, Ph.D., Third Century Professor, professor of genetics and of community and family medicine

Martin Lubin, M.D., Ph.D., professor of microbiology and immunology

George O'Toole, Ph.D., professor of microbiology and immunology

Elmer Pfefferkorn, Ph.D., professor of microbiology and immunology emeritus

Hilda Weyl Sokol, Ph.D., professor of physiology emeritus

Harold Sox, M.D., professor of medicine emeritus

Michael Sporn, M.D., professor of pharmacology and toxicology and of medicine

William Wickner, M.D., James C. Chilcott 1920 Distinguished Professor of Biochemistry