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Commission on Humanities and Social Sciences: Amy Gutmann and Kathleen Hall Jamieson

University of Pennsylvania President Amy Gutmann and Kathleen Hall Jamieson, Elizabeth Ware Packard Professor of Communication and Walter and Leonore Annenberg Director of Penn's Annenberg Public Policy Center, have been named to a new national commission to bolster teaching and research in the humanities and social sciences.

The announcement was made in Washington, D.C., by Leslie Berlowitz, president of the American Academy of Arts and Sciences. The new Commission on the Humanities and Social Sciences will be chaired by Richard H. Brodhead, president of Duke University, and John W. Rowe, chairman and CEO of Exelon Corporation.

"The humanities and social sciences provide the intellectual framework for the nation's economic, political and governing institutions," Dr. Brodhead said. "They enrich our lives and our understanding. Americans already appreciate the importance of math and science to our future; this Commission will remind Americans of the long-term importance of the liberal arts as well."

"The American Academy, with its long record of stewardship and support for the humani-



Amy Gutmann



Kathleen Hall Jamieson

ties and social sciences, is well-suited to lead this effort," Ms. Berlowitz said. "Scholarship and education in these disciplines enable our citizens and our government to adapt to evolving circumstances at home and abroad. They are critical to our ability to compete in a global economy."

Dr. Gutmann is a political philosopher and scholar of democratic deliberation, public pol-

icy and ethics. As president of Penn, she has dramatically increased financial aid, replacing loans with grants for undergraduates and helped raise nearly \$250 million to date for undergraduate financial aid.

She has expanded Penn's global partnerships, further beautified the campus, by adding 20 percent more green space, and raised \$3 billion for the University, more than all previous fundraising campaigns at Penn combined.

Dr. Jamieson is an expert on political communication and has written or co-written 15 books on political science and communication, most recently *The Obama Victory: How Media, Money and Message Shaped the 2008 Election*, in 2010. (See *Honors & Other Things*, page 4)

The findings of the Commission on the Humanities and Social Sciences will serve as a companion to a forthcoming report of the National Academies on the future of the research university and ways to strengthen the American scientific enterprise.

The Commission expects to complete its work in 18 to 24 months.

Additional information at www.amacad.org

\$2 Million from NIH to Test Macular Degeneration Drug at Penn Medicine: John Lambris



John Lambris

Dr. John Lambris, Dr. Ralph and Sallie Weaver Professor of Research Medicine in the department of pathology and laboratory medicine at the University of Pennsylvania School of Medicine, has been awarded a \$2 million grant from the National Eye Institute to test a new class of drugs called complement inhibitors in a primate model of age-related macular degeneration (AMD).

The complement system is an evolutionarily ancient branch of the immune response. One of its key functions is to mark both bacterial and dying host cells for elimination by the body's cellular cleanup services; yet dysregulated complement has also been implicated in at least 30 diseases, including stroke, myocardial infarction, and AMD. Complement inhibitors, discovered in the Lambris lab, were licensed by Louisville, KY-based Potentia Pharmaceuticals and are about to enter a Phase II clinical trial for the same disease (to be conducted by Alcon Inc.).

While the clinical trial will focus on wet AMD—the more serious form of the condition—the animal studies covered by the grant will primarily focus on the efficacy and prevention mechanisms of newly discovered complement inhibitors in the early- and late-onset forms of dry AMD found in monkeys at the Tsukuba Primate Research Center at Tsukuba City, Japan and the SICONBREC primate facility in

the Philippines, respectively.

The macula lutea is an oval-shaped yellow spot near the center of the retina and is the site of the progressive destruction of the macula that is the hallmark of AMD. It is only found in the eyes of humans, primates, and some birds, said Dr. Lambris, so the animal model of macular degeneration, developed by co-investigator Dr. T. Iwata at the National Institute of Sensory Organs in Japan, represents one of the closest disease models for human AMD. It offers a unique opportunity to study the effect of complement activity and inhibition on the development and progression of AMD, the major cause of blindness in elderly people in the US.

"This is our life's opportunity to test complement inhibitors on disease progression in a clinically relevant animal model of AMD," added Dr. Lambris. For the last 10 years, researchers have shown that activation of the complement system has been associated with AMD. A genome-wide association study in an American population with dominantly dry-type AMD revealed a strong association with single nucleotide polymorphisms (SNPs) of complement genes. The lipid-proteins clumps that make up drusen—small, yellow or white deposits in the retina of the eye or on the optic nerve head and one of the most common early signs of AMD—contain a plethora of active complement molecules in both humans and non-human primates.

These findings, said Dr. Lambris, have led his lab to consider the possibility of suppressing complement cascade in the subretinal tissue to delay or reverse the onset of AMD. To test this hypothesis, they are using analogs of an inhibitor called Compstatin in a non-human primate model with early-

onset macular degeneration that develops drusen in less than two years after birth. Their preliminary results showed drusen disappearance six months after injecting Compstatin into the eye. Despite years of research on the molecular correlation between complement activation and disease progression in AMD, many aspects are still unresolved.

Dr. Lambris, in collaboration with Dr. Daniel Ricklin, research assistant professor and Dr. Joshua Dunaief, assistant professor of ophthalmology, devoted another part of the grant to a systematic molecular analysis of complement components in patients with AMD. Together, the studies proposed in the awarded grant are designed to shed more light into the etiology of this severe and abundant disease, and may well pave the way to introduce therapeutic options that interfere with disease progression much earlier than currently available drugs.

Dr. Lambris holds several patents on Compstatin and clinical use of complement inhibitors. He is the founder of Anosos Biotherapeutics, which develops complement therapeutics for various diseases. It was established using Penn's UPSTART program, aimed at developing Penn intellectual property by helping faculty form new companies based on their inventions and technological innovations.

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