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UF ZOOLOGIST RECEIVES \$1 MILLION FROM HOWARD HUGHES MEDICAL INSTITUTE

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GAINESVILLE, Fla. --- Louis Guillette, a University of Florida distinguished professor of zoology, has been selected as one of 20 Howard Hughes Medical Institute, or HHMI, professors and will receive \$1 million over the next four years to support undergraduate science education efforts at UF.

"The scientists whom we have selected are true pioneers—not only in their research, but in their creative approaches and dedication to teaching," said Thomas R. Cech, HHMI president. "We are hopeful that their educational experiments will energize undergraduate science education throughout the nation."

The institute awarded \$20 million to the first group of HHMI professors in 2002 to bring the excitement of scientific discovery to the undergraduate classroom. HHMI does not tell the professors what to do or how to approach science education. Rather, HHMI provides them with the resources to turn their own considerable creativity loose in their undergraduate classrooms. Some will design programs to attract more women and minorities to science. Others will turn large introductory science courses or classes for non-science majors into engaging, hands-on learning experiences that challenge students to think like working scientists.

As an HHMI professor, Guillette plans to build a multigenerational mentoring program involving high school students, university freshmen and sophomores, advanced undergraduates, graduate students and faculty at UF. He wants to train young faculty and graduate students to be effective mentors and to increase the numbers of undergraduates and high school students getting hands-on research experience, both in his lab and in the field. "If we can get graduate students to see the value of mentoring undergrads and undergrads learning to mentor high school students, our impact on science will be much greater," said Guillette.

Guillette also proposes a summer workshop on modern research techniques coupled with a "Laboratory Research Experience" where students spend 10 to 12 hours per week in a research lab and several hours each week in lab meetings where the basics of being a scientist are taught. Topics could include academic honesty, ethics or research, basic philosophy of science, data collection and

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notebook keeping and basic skills in science communication. Guillette plans to target new faculty and graduate student mentors with workshops on “Mentoring the Next Generation.”

“I believe if we develop a mentoring program early in a student’s undergraduate career that involves inquiry based learning in a research laboratory, they will have not only gained an early appreciation of the difference between studentship—being a passive student and being taught—and scholarship—the individual or group pursuit of new knowledge—but will have established a personal network of mentoring that can be drawn upon during their academic career.”

A member of the UF faculty since 1985, Guillette has taught thousands of undergraduate and graduate students in Introductory Biology, Embryology and Reproductive Biology and other courses related to his research in comparative reproductive biology. Guillette received UF’s top faculty honor, the Teacher/Scholar of the Year Award, in 1998, and was also named a UF Distinguished Alumni Professor in 1999. He also serves as the associate dean for research in the College of Liberal Arts and Sciences.

Internationally recognized for his work in comparative reproductive biology and developmental endocrinology, Guillette has advised countries such as New Zealand, Australia, Mexico and Botswana on the development of reproductive biology programs for endangered wildlife. He and his students work on a variety of organisms from alligators and fish to frogs and humans. His research examining the role of environmental contaminants as inducers of birth defects in various wildlife species, and its implications for children’s health, has drawn international attention and has been featured on national and international media programs, including “Nova,” “Frontline” and the BBC.

A nonprofit medical research organization, HHMI was established in 1953 by the aviator-industrialist Howard Hughes. Headquartered in Chevy Chase, Md., it is one of the largest philanthropies in the world with an endowment of \$14.8 billion at the close of its 2005 fiscal year. HHMI spent \$483 million in support of biomedical research and \$80 million for support of a variety of science education and other grants programs last year. Visit www.hhmi.org for more information.