Physicist Alexei Sokolov Honored for Research Excellence

COLLEGE STATION -- Dr. Alexei V. Sokolov, professor of physics and astronomy at Texas A&M University, has been selected as the recipient of the 2011 JoAnn Treat Research Excellence Award by the Texas A&M Research Foundation Board of Trustees.

Named in honor of JoAnn Treat, who served 19 years as president of the Research Foundation before retiring in August 2003, the award is presented annually to a faculty member whose research is administered through the Foundation in recognition of research excellence and accomplishments during the past five years.

Each year the award alternates between two age-based categories of eligible faculty -- researchers 41 and older or younger than 41 by December 31 of the year of the award -- at all Texas A&M University System-affiliated institutions. The 2011 award recognizes the latter category.

Sokolov, widely recognized for his experimental expertise in fields ranging from laser physics and nonlinear optics to ultrafast science and spectroscopy, was presented with the award Friday (Dec. 9) as part of a ceremony held in conjunction with the Foundation’s annual councilor/trustee fall meeting. Along with the award, he received $10,000 and a commemorative plaque and will have his name inscribed on the JoAnn Treat commemorative glass vase on display in the Research Foundation office lobby.

A member of the Texas A&M Department of Physics and Astronomy faculty since 2002, Sokolov is the inaugural holder of the Stephen E. Harris Professorship in Quantum Optics and a key player in Texas A&M’s world-class quantum optics group within the Institute for Quantum Science and Engineering (IQSE). His research interests center around applications of molecular coherence to quantum optics, ultrafast laser science and technology, including generation of sub-cycle optical pulses with prescribed temporal shape and studies of ultrafast atomic, molecular and nuclear processes, as well as applications of quantum coherence in biological and defense-oriented areas.

Sokolov holds a master of science in physics (summa cum laude) from the Moscow Institute of Physics and Technology (1994) and a doctorate in physics from Stanford University (2001). While at Stanford, he served as a research assistant in the Edward L. Ginzton Laboratory under the supervision of Steve Harris and investigated quantum coherence effects in molecular systems, which led to efficient generation of short pulses of light -- expertise he brought with him to Texas A&M upon completion of his doctoral studies.

In addition to maintaining a robust and well-funded research group, Sokolov has supervised a number of postdoctoral and graduate students who have won numerous student awards. A fellow of the Optical Society of America (OSA) since 2009, he has served as an adviser to the Texas A&M student chapter of OSA since its inception in 2008.

Sokolov’s many honors include the inaugural Robert S. Hyer Award from the Texas Section of the American Physical Society (2007), the OSA’s Adolph Lomb Medal (2003) and a Research Corporation for Science Advancement Research Innovation Award (2003). He holds one patent related to his groundbreaking work with the IQSE to develop a new approach to detect biochemical molecules using an adapted form of Coherent Anti-Stokes Raman Spectroscopy, known as FAST CARS.

Sokolov is the fifth faculty member in the College of Science to receive the prestigious award since its inception in 2004. Dr. Deborah Bell-Pedersen, professor of biology, merited selection in 2005, followed by Dr. Alexey Belyanin, professor of physics, in 2007; Dr. D. Wayne Goodman, distinguished professor of chemistry, in 2008; and Dr. Timothy C. Hall, distinguished professor of biology, in 2010.

For more information on Sokolov and his research, visit his faculty page.