Expert in Environmental Fluid Dynamics joins UC San Diego School of Engineering

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Paul F. Linden, a renowned scientist who studies fluid dynamics of the ocean and the atmosphere, will join the University of California, San Diego (UC San Diego) School of Engineering as the first holder of the Blasker Chair in Environmental Science and Engineering. Linden will come to UC San Diego from Cambridge University in England where he directs one of Cambridge's major research laboratories. Linden will strengthen the School of Engineering's focus on environmental technology and foster environmental research collaborations with other areas of UC San Diego including Scripps Institute of Oceanography.

The Blasker Chair in Environmental Science and Engineering is supported by a $500,000 endowment to UC San Diego from the Blasker-Rose-Miah Fund, which is administered by the San Diego Foundation. UC San Diego School of Engineering will also receive an annual award in perpetuity of three fellowships to outstanding students for graduate study in the environmental field. Ultimately, this endowment will allow for three Blasker Fellows in residence. An endowed chair and fellowships have also been established at San Diego State University through the Fund. The fellowships are administered through Achievement Rewards for College Scientists (ARCS) Foundation.

Linden has taught geophysical fluid dynamics and mathematics at Cambridge University for the past two decades. He directs the Fluid Dynamics Laboratory within the Department of Applied Mechanics and Theoretical Physics and leads a research group of 20 people.

Linden employs theoretical models and laboratory tests to study how forces change the motion of air and water flows, which affects the dispersion and transport of pollutants in the ocean and atmosphere. In addition to government funded research, his lab works with oil and gas companies, water companies, environmental regulators and architects to solve problems related to pollution reduction.

Linden is a leader in developing natural ventilation systems for buildings. He is a director of the Cambridge Environmental Research Consultants, one of the leading companies focusing on air dispersion in the United Kingdom. The company works with industry to design better-ventilated buildings and to predict and design improved ways to emit fewer pollutants into the air from manufacturing plants. Linden intends to establish an U.S. branch of the company in San Diego.

Linden is also interested in water quality and conservation and currently leads a large project of the European Economic Community to study how water flows and transport of pollutants affect the biological life and water quality of the Black Sea. The collaboration includes scientists from Spain, Russia, the Ukraine and the U.K.

Linden's work complements ongoing environmental research at the UC San Diego School of Engineering. The Division of Mechanical Engineering is nationally recognized for research in combustion, thermosciences, fluid dynamics, and turbulence. Much of this fundamental research applies to environmental issues such as

pollution and air quality, energy efficiency, and water resources. This environmental research is focused within the multidisciplinary Center for Energy and Combustion Research. The Center's members are creating new technologies to assess the impact of pollutantion, clean-up damaged resources, reduce and control emissions at the source, and monitor the results of environmental efforts.

For example, basic work in combustion at UC San Diego is leading to a radically new model to reduce nitric oxide and carbon monoxide emissions from gas, diesel and turbine engines. Other work in fluid mechanics has led to new jet engine designs that produce remarkably less noise.

"Paul Linden will help us strengthen our focus on water quality which is one of the most important environmental problems in the region," said Juan Lasheras, chair of mechanical engineering. "We are grateful to the San Diego Foundation for its vision in creating the Blasker Chair which has allowed us to attract such an outstanding faculty member to UC San Diego."

Linden will also serve on the Committee of Experts for the Blasker Award for Environmental Science and Engineering. Funded through the Blaker-Rose-Miah Endowment and established by the San Diego Foundation, this unique new award is among the largest prospective prizes that recognize contributions addressing significant environmental issues. Every year, the distinguished Committee of Experts for the Blasker Award will propose an environmental problem for which an award will be made two years later to the individual or group with the best contribution relative to the problem. The Blasker Award recipient will receive $250,000 and international recognition. Additional information about the Blasker Award can be found on the Website http://www.blasker.org.

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