

The **Universidad Autónoma de Nuevo León (UANL)** will be the host institution of the twenty-fourth Award Ceremony of the **World Cultural Council** that will be celebrated on Saturday, November the 24th, 2007 at 18.00 hrs in the the University Theatre, Campus Mederos, Monterrey,N.L., México.

At this venue the “**Albert Einstein**” World Award of Science and the “**Leonardo da Vinci**” World Award of Arts will be granted by the President of the World Cultural Council, Dr. José Rafael Estrada, our Directive Board members and the Rector of the **UANL**, Dr. José Antonio González Treviño.

The **World Cultural Council** invited the **UANL** as the host institution for this 2007 occasion. It is one of Mexico’s leading institutes of further education and the University is currently the third largest university in Mexico and the top public institute of higher education in the northeast of the country, with the widest range of academic options.

The **2007 “ALBERT EINSTEIN” World Award of Science** will be granted to **Prof. J. Fraser Stoddart**, Professor of Chemistry and the Fred Kavli Chair in NanoSystems Sciences at the University of California, Los Angeles, USA.

The members of the Interdisciplinary Committee of the World Cultural Council make this recognition for his outstanding and pioneering work in *molecular recognition and self-assembly and the introduction of quick and efficient template-directed synthetic routes to mechanically interlocked molecular compounds, which have changed the way chemists think about molecular switches and machines.*

The Prize offered to **Prof. Stoddart** also recognizes the educational impact that he has developed, *being responsible for putting chemists at the forefront of the burgeoning field of nanoscience and nanotechnology; impacting and inspiring several generations of scientists, and taken discoveries from key fundamental observations to important technological advances.*

The “**Albert Einstein**” **World Award of Science** was created as a means of recognition to those persons who have accomplished scientific and technological achievements which have brought progress to science and benefit to mankind.

The distinctive characteristic of the “**Albert Einstein**” **World Award of Science** comes from the fact that it is granted by the Interdisciplinary Committee of the Council, which is constituted by scientists acknowledged worldwide.

Achievements

Prof. J. Fraser Stoddart is considered as one of the few chemists to have created a new field of chemistry over the past quarter century by introducing an additional bond — the mechanical bond — into chemical compounds and a determining feature in dictating their unique properties.

His choice of viologen and tetrathiafulvalene subunits for many of these mechanically interlocked compounds was ingenious. Not only did the choice allow him to use weak noncovalent interactions to template the assembly of the molecular structures, but their redox properties allowed him to pioneer the concept of mechanical bonds that could be driven by external means, namely by light, electricity and chemicals. He has forged some very strong collaborations to evaluate how those exotic chemical compounds behave in the context of memory and logic in molecular electronic devices and as actuators in artificial molecular machines.

Many in the nanoscience community feel that these mechanically interlocked compounds are going to be the key to advancing the promising fields of molecular electronics and NanoElectroMechanical Systems (NEMS).

Prof. Stoddart pioneered the use of molecular recognition and self-assembly to create mechanically interlocked compounds called catenanes (which consist of two or more interlocked rings, as in the links of a chain) and rotaxanes (dumbbell-shaped components with at least one ring threaded in a manner reminiscent of an abacus).

Although in the first generation of these exotic molecular compounds, the components, which move relatively between two states, were indistinguishable, in the second generation, stability was introduced, resulting in the making of the world's tiniest on/off switches, measuring roughly 1 cubic nanometer in volume. Since then, these molecular switches have been incorporated at high densities into molecular random access memory (RAM) circuits.

The scope of **Prof. Stoddart's** research has broadened over the years — under the umbrella of activities he calls “molecular Meccano” (a reference to the children's model-construction kit) — as a result of introducing the two-state molecular switches into devices where actuation becomes the key to their operation.

As an example, **Prof. Stoddart** designed and constructed nanovalves that consist of moving parts in the form of numerous switchable rotaxane molecules attached to a tiny sphere of porous glass roughly 500 nanometers in diameter. The channels in the porous glass are long, but they are only a few nanometers in diameter, just big enough to allow small molecules to enter. These nanovalves, which are much smaller than living cells, are capable of crossing cell membranes and are now being adapted for use as highly targeted drug-delivery systems for cancer cells, as well as for harvesting the contents of such cells, after the fashion of a lunar-landing vehicle collecting samples of dust from the surface of the moon.

He was born in Edinburgh, Scotland, in 1942, received his bachelor of science (1964) and Ph.D. (1966) degrees from the University of Edinburgh. He moved to the University of Birmingham in 1990, where he had been a professor of organic chemistry since 1990 and had headed the University's School of Chemistry since 1993. In 1997 he moved to the University of California, Los Angeles. In 2005, he received an honorary doctor of science degree from the University of Birmingham, and he received the same honor from the University of Twente in the Netherlands in December 2006.

Prof. Fraser Stoddart is a fellow of the Royal Society (1994), the German Academy of Natural Sciences (1999), the American Association for the Advancement of Science (2005) and the Science Division of the Royal Netherlands Academy of Arts and Sciences (2006).

His work has been recognized by many awards, this year he was knighted by the Queen of England (Knight Bachelor) and received the 2007 King Faisal International Prize in Science, the 2007 Tetrahedron Prize for Creativity in Organic Chemistry, and the 2008 Arthur C. Cope Award from the American Chemical Society.

Accordingly to ISI (Institute for Scientific Information), **Prof. Stoddart** is the third most cited chemist in the world. He has more than 60 major international honors and named lectureships under his belt. He has published more than 790 communications, papers and reviews, and has delivered more than 700 invited lectures around the world.

His major contributions have identified important new directions for chemistry, creating an entirely new school of thought that interfaces the largest subdiscipline in chemistry with the field of nanoscience and nanotechnology.

The **World Cultural Council** will present the **2007 "LEONARDO DA VINCI" World Award of Arts** to **Prof. Anne Moeglin-Delcroix** who has produced, in the course of her career as scholar of art and philosopher, an outstanding number of works dealing with the status of the artists work and book. Her work in this field is both ground-breaking and extremely insightful; she has given prominence to a little considered object, the artist's book, while constantly remaining at the forefront of philosophical reflexion in the field.

This recognition is for her contributions to the Art-Philosophy and the promotion of the arts through "alternative spaces".

The "**Leonardo da Vinci**" **World Award of Arts** is conferred upon a renowned artist, an avant guardist or an authority on the subject whose work has made a significant contribution to the artistic legacy of the world.

The World Award laureates will receive a Diploma, a Commemorative Medal and an Award Cheque.

Achievements

In the course of her career **Prof. Anne Moeglin-Delcroix** has explored almost all the facets of the artistic world, while specializing in the fascinating topic of artists' books. Currently a Professor of philosophy of art at the University of Paris 1, she is also Director of a research unit on contemporary philosophy and philosophy of art.

Prof. Moeglin-Delcroix has been in charge of the Department of photographs and prints for the Bibliotheque Nationale de France, and has been instrumental in making the artist's book emerge as work of art per se.

In her words, « *If one wishes to apprehend what in the artist's book constitutes a work of art, it is essential to seek to determine the irreducible characteristics of the «book as a form », or to try to conceive of the work of art as a form of book.* ». Her ground-breaking work, *Aesthetics of the Artist's book, 1960-1980* (1997) has been recognised as the most important work in this field. Another work, *Artists' books: the invention of a genre* (1997) clearly states what **Prof. Anne Moeglin-Delcroix** has succeeded in doing through her research: to have an entire and neglected genre recognized by the community of artists and critics.

Prof. Moeglin Delcroix has been consultant for a vast number of museum exhibits: at the Bibiothèque nationale de France; at the Centre Georges Pompidou ("Livres d'artistes"), at the Centre for contemporary art in Garehead (U.K.) ("Artists' books. Outside of a dog"); at the Casa del Mantegna (Mantua, Italy). The great number of international conferences and seminars for which her contribution is valued speaks of itself.

The **World Cultural Council** is an international organization based in México, founded in 1982, that acknowledges every year individuals or institutions that have made outstanding achievements in science, education and the arts by means of its awards.

The final objective is to increase the efficient and positive use of knowledge and to promote fraternity among people, nations and governments, looking for a true understanding among all, based on the respect for the ideology, opinion, religion, race, and sex of each person.

The World Cultural Council is constituted by a Directive Board and an Interdisciplinary Committee formed by eminent scientific, educational and artistic personalities; since its foundation there have been several Nobel Prize winners among its members.

Consejo Cultural Mundial
Public Relations Department