

Kavli Prize Ceremony in Oslo

Hiroshi Ooguri

Kavli IPMU Principal Investigator

Fred Kavli is an innovator and entrepreneur. After studying physics at the Norwegian Institute of Technology, he moved to the US and founded a company specializing in sensors for aeronautic, automotive and industrial applications. In 2000, he divested his interest in the company and established the Kavli Foundation to support fundamental research in science.

The Kavli Foundation is sponsoring a worldwide network of sixteen Kavli Institutes. This February, the Foundation established an endowment to support research at the IPMU, which is now called the Kavli IPMU. The Foundation has also set up endowed chairs at several universities, and I am holding the inaugural Fred Kavli professorship at Caltech.

The Kavli Prize is a partnership between the Kavli Foundation, the Norwegian Academy of Science and Letters, and the Norwegian Ministry of Education and Research, which recognizes scientists for their seminal advances in astrophysics, nanoscience, and neuroscience. Every second year, the Norwegian Academy appoints a prize committee in each of the three areas to select Kavli Laureates. The Prize



Fred Kavli addressing the 2012 Kavli Prize Ceremony. Sitting on the front row are (left to right) David Jewitt, Jane Luu and Michael Brown, the Kavli Laureates in Astrophysics, and Ann Graybiel, one of the Kavli Laureates in Neuroscience.

consists of USD 1,000,000 in each of the scientific fields. Each laureate also receives a scroll and a gold medal. The first Prizes were awarded in 2008.

In early September, I was invited to attend the third Kavli Prize Award Ceremony. After giving a talk at an international conference in Berlin, I flew to Oslo in the weekend before the Ceremony. On Sunday evening, there was a reception at the Grand Hotel hosted by the Kavli Foundation, gathering directors of Kavli Institutes, Kavli professors, past Kavli Prize winners and, of course, this year's Kavli Laureates.

It was also an excellent occasion for the Kavli IPMU to be inducted in the network of Kavli Institutes. In the area of astrophysics, all the directors of Kavli Institutes gathered in Oslo and took the opportunity to have an informal meeting to discuss their research strategies. Hitoshi Murayama, the director of the Kavli

IPMU attended the meeting as the newest member of the Kavli family.

On Monday morning, there were lectures by the new Kavli Laureates at the University of Oslo. The citation of the astrophysics prize was “the discovery and characterization of the Kuiper Belt and its largest members.” Among its three recipients was my Caltech colleague, Michael Brown, who is also known for his discovery of large Kuiper Belt objects, which led to the demotion of the Pluto to a dwarf planet. The nanoscience prize was awarded to Mildred Dresselhaus “for her pioneering contributions to the study of nanostructures.” She was the first ever solo recipient of the Kavli Prize. The neuroscience prize was awarded “for elucidating neuronal mechanisms under perception and decision.” I was particularly impressed with the fruitful collaborations between neuroscience and nanoscience in developing high energy imaging in the living brain. I should also note that four out of seven Kavli Laureates were female scientists.

In the afternoon, we moved to the center of the city to attend the Kavli Science Forum on Science and Global Health, with Kiyoshi Kurokawa from the National Graduate Institute for Policy Studies in Tokyo as one of its panelists. After the Forum, we walked through the Queen’s Garden of the Royal Palace to attend a reception at the Norwegian Academy. There was an enormous memorial of Niels Abel, who proved mathematically that there is no algebraic solution for the roots of a general quintic equation. I found it refreshing that the most prestigious location in the capital is reserved for the memorial of the mathematician.

The Award Ceremony on the next day was held in the Oslo Concert Hall. His Majesty King Harald V of Norway attended the Ceremony and presented



Kavli IPMU Director Hitoshi Murayama (right) and Principal Investigator Hiroshi Ooguri (left) at the Kavli Prize Banquet.

the Kavli Prizes. Fred Kavli gave a passionate speech describing his interest in the latest advances in astrophysics, nanoscience, and neuroscience and speaking eloquently on the joy of life enhanced by the scientific understanding of nature.

The Award Banquet was held at the Oslo City Hall, which is also the location for the Nobel Peace Prize Banquet. It started with a welcome address by the Mayor of Oslo. Mildred Dresselhaus, who was introduced as the “Queen of Carbon,” gave a speech on behalf of all of the Kavli Laureates. There was an entertaining show by young Norwegian musicians. It was a wonderful dinner with elegant but unpretentious Scandinavian hospitality. After dessert, the Mayor invited us upstairs for coffee. Dancing started on the second floor overlooking Oslo Bay, and by the time we returned to our hotel room, it was close to midnight.