

TEXT OF THE INTRODUCTORY ADDRESS DELIVERED BY: **PROFESSOR PATRICK FITZPATRICK**, Head of the College of Science, Engineering & Food Science, University College Cork on 8 June 2012, on the occasion of the conferring of the Degree of Doctor of Science, *honoris causa*, on **KIRAN MAZUMDAR-SHAW**

A Sheansailéir agus a mhuintir uilig na hOllscoile,

Kiran Mazumdar-Shaw is the Chairman and Managing Director of India's leading biotechnology company *Biocon*.

To get some idea of the scale of her influence, I might begin by telling you that she is listed among

- *TIME* magazine's 100 most influential people in the world
- The *Forbes* list of the world's 100 most powerful women
- The *Financial Times* top 50 women in business

In 2008, *Biocon*, the company that Kiran founded, was ranked, by *Med Ad News*, a leading US trade publication, as the 20th leading biotechnology company in the world and the 7th largest biotechnology employer in the world. It now has well over 6,000 employees.

In 2001, *Biocon* became the first Indian company to gain the approval of the US Food and Drug Administration (FDA). This was granted for the manufacture of a cholesterol-lowering molecule. In subsequent years, *Biocon* continued to expand, with the testing and development of the world's first orally consumed insulin product among its most notable undertakings. *Biocon* has Asia's largest insulin and statin facilities and also the largest perfusion-based antibody production facilities. Its net annual income is over \$1bn.

Kiran Mazumdar-Shaw has received numerous honours and awards.

- The *World Economic Forum* (an international conference for the discussion of world economic, political, and social development) recognized her as a *Technology Pioneer* in 2000
- In 2002, she was *Ernst & Young's Entrepreneur of the Year* in Life Sciences and Healthcare
- She was voted by *Nature Biotechnology* in 2006 as the most influential person in bio-business outside Europe and USA.
- Her most cherished awards are the two national awards she received from the government of India: Padma Shri (1989) and Padma Bhushan (2005). These are among India's highest civilian honours and were presented to her by the President of India for her leadership in biotechnology.

Kiran has received several honorary doctorates including ones from the University of Glasgow and Heriot-Watt University in Edinburgh.

She also received an honorary degree from Ballarat University in Australia and that brings me to the beginning of her story.

Kiran's father was a master brewer. He had a profound influence on her ambition, at a time when the progression of women in the workplace was not a feature of Indian society. This situation has changed to a certain extent, influenced by Kiran and others, not as quickly as they would like... but in the mid-1970's, Kiran faced almost insurmountable hurdles in fulfilling her ambition to become a scientist.

She started out with a bachelor's degree in zoology awarded in 1973 by the University of Bangalore and then followed in her father's footsteps by embarking on a career as a brewer. She took a masters degree in brewing in 1975 from Ballarat University, but when she returned to India she found it impossible to gain employment in that domain. As a consequence, she took up an invitation in 1978 from Leslie Auchincloss to join, as a Trainee Manager, a company called *Biocon Biochemicals* in Ringaskiddy, here in Co Cork, Ireland. In the same year, she started a subsidiary company *Biocon India* in the garage of her rented house in Bangalore. She faced enormous challenges in doing so. As she says herself "I faced credibility challenges: my youthful age, my gender and my unfamiliar business model posed enormous barriers. No bank wanted to lend to me, no professional wanted to work for me, and it proved to be a real challenge to set up a business because women were considered 'high risk' in the business world."

But even these personal obstacles were not the only ones. Again as Kiran says "I had to face the technological challenges of trying to build a biotechnology business in a country where infrastructure was too primitive to support a high-tech industry which is so dependent on uninterrupted, high-quality power, high-quality water, sterile laboratories, imported research equipment, advanced scientific skills and the like."

But overcome these hurdles she did!

In its early years and through the 1980's, *Biocon Biochemicals* was located in a number of centres around the world. However, eventually the other parts of the business were sold on, and by 1998, *Biocon India* had become independent. Interestingly, the track for the parts that were sold went through Unilever, ICI and its subsidiary, Quest International. Eventually, the food ingredients part of Quest was taken over by *Kerry Group*.

From an initial focus on industrial enzymes, *Biocon* grew into a fully integrated biopharmaceutical enterprise encompassing a portfolio of products and services with a research focus on diabetes, oncology and auto-immune disease.

Biocon has established a number of subsidiaries including *Syngene* (1994) to provide development support services for discovery research and *Clinigene* (2000) to provide services in clinical development. The increasing focus on research culminated in the formation of *Biocon Research Limited (BRL)*. Several subsidiaries of *Biocon* have been established abroad including in Switzerland, Malaysia and the United Arab Emirates.

In 2004, Kiran fulfilled a long-held ambition to "give back to the community" by establishing *Biocon Foundation* with the aim of undertaking programmes in healthcare, education, sanitation, and the environment for the benefit of the economically weaker sections of society.

Through the *Foundation*, and in partnership with Dr Devi Shetty, Kiran established a 1,400-bed cancer care hospital in Bangalore where the poor are treated for free.

The *Foundation's* clinics focus particularly on children's health and health education. They offer clinical care, generic medicines and basic tests for those who cannot afford them. Each of the clinics serves a population of 50,000 people living within a radius of 10 km. All the clinics organize regular general health checks in remote villages by bringing in physicians and doctors from network hospitals. Each year, the *Foundation* touches more than 300,000 lives through its holistic healthcare approach.

One of Kiran's key beliefs is that where possible people should be helped to help themselves so sustainability is a very important part of *Biocon Foundation's* principles. She was motivated by the micro-finance movement that swept through India in the

1990's to introduce a scheme of micro-finance health insurance. Because India's population is relatively young, the number of people who need hospital treatment is relatively small. However the cost of hospital treatment is prohibitive and potentially ruinous to families who must bring together life savings to provide care for a sick relative. Kiran's *Foundation* set up a micro-insurance project and she assures me that for a premium of \$3 a year the participants can be guaranteed safety from such an eventuality. I was surprised at how low the premium was but as she says – "well the math works!"

And on that note, another project of the *Foundation* is to develop the teaching of mathematics at elementary school level. Kiran supported a teacher friend, Pratima Rao, in writing a pupil-friendly primary level mathematics textbook with the aim of "making mathematics fun by replacing rote learning by clear understanding of concepts". With the help of the *Foundation*, the book was distributed first to 70,000 pupils in 800 rural communities and has now been adopted as a textbook by Karnataka Province.

Kiran is a very influential role model for Indian women. On a recent visit to Mt Carmel College in Bangalore where Kiran worked for her primary degree, one of my colleagues happened to mention UCC's connection with her and was very forcefully struck by just how highly she is respected by the upcoming generation of young Indian women.

At *Biocon*, Kiran has established an environment where women's contributions are valued equally with men's. She provides crèche facilities and respects the value of a balance between work and life. She greatly values the support of her extended family and describes her husband John as "my anchor".

She is a member of many trade organisations and advisory committees such as the Indo-American Chamber of Commerce, the Prime Minister's Council on Trade and Industry, and the Advisory Council of the Government's Department of Biotechnology where she has been instrumental in bringing government, industry and academia together, to chart a clear and progressive growth path for biotechnology in India. She cares deeply about the environment and is especially concerned with the progressive deterioration of the urban environment in Bangalore, and works tirelessly at local and national government levels to promote improvements.

Kiran served on the founding Board of Science Foundation Ireland, and continues to maintain her links with Ireland in various ways through visits and personal contacts. One of the projects that her *Foundation* worked on was a joint project with *Irish Aid*, and former Tánaiste, Mary Harney, is a member of the Board of *Biocon*. In 2007, Kiran was appointed Honorary Consul of Ireland in Bangalore, and has become very well known for the legendary St Patrick's Day celebrations she organises!

Apart from the day job - and you may well ask does she actually have time for anything else? - Kiran is incredibly multi-faceted. She is an art collector and a writer. She wrote a coffee-table book about famous brewing families and beer firms which is illustrated by drawings and painting by some of India's most famous artists and goes by the wonderfully punny title *Ale and Arty*. She enjoys classical music and swimming and likes to watch sports. She used to play a lot of golf, but doesn't have so much time for active sports these days - although she still keeps fit with work in the gym and yoga.

Kiran Mazumdar-Shaw is an entrepreneur, innovator, businesswoman, environmentalist, philanthropist, and role model, and it is with great pleasure that we present her with the Honorary Degree of Doctor of Science.

Praehonorabilis cancellarie, totaque universitas:

Praesento vobis hanc meam filiam, quam scio tam moribus quam doctrina habilem et idoneam esse quae admittatur, honoris causa, ad gradum Doctoratus Scientiae, idque tibi fide mea testor ac spondeo, totique Academiae.