

Insights from

Nobel Laureates, for scientists everywhere

The Nobel Prize Inspiration Initiative (NPII) is a global programme designed to help Nobel Laureates share their inspirational stories and insights. By taking Nobel Laureates on visits to universities and research centres around the world, and by capturing their thoughts on video, the Initiative seeks to bring the Laureates into closer contact with the worldwide scientific community, and especially with an audience of young scientists.

The Initiative is organised by Nobel Media, the company managing media rights for the Nobel Prize, in partnership with AstraZeneca.

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The Nobel Prize Inspiration Initiative would like to thank the Charité Comprehensive Cancer Center, Charité – Universitätsmedizin Berlin for hosting the event.

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Please note: during today's event photos and/or videos will be taken which may be published in various media in reports on the event or general PR material.



Nobel Prize Inspiration Initiative presents:

TIM
HUNT

2001 Nobel Laureate in Physiology or Medicine

*“A Life in Science:
Stumbling on the Secret of Cell Division”*

Lecture followed by audience Q&A

Tuesday 20 June 2017

10:00 – 11:30

Langenbeck-Virchow-Haus

Luisenstraße 58/59 | 10117 Berlin (Mitte)



Nobel Prize
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IN PARTNERSHIP WITH:



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Comprehensive Cancer Center
Universitätstumorzentrum



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Tim Hunt

2001 Nobel Laureate in Physiology or Medicine

Tim Hunt is an emeritus 'Principal Scientist' at The Francis Crick Institute, London, and a visiting researcher at the Okinawa Institute of Science and Technology (OIST) in Japan. He was born in 1943 and grew up in Oxford until moving to Cambridge to read Natural Sciences in 1961. He did his PhD in the Department of Biochemistry entitled "The Synthesis of Haemoglobin" (1968).

Dr Hunt spent almost 30 years based in Cambridge, at first working on the control of protein synthesis, with spells in the United States; he was a postdoctoral Fellow at the Albert Einstein College of Medicine from 1968–1970 and spent summers at the Marine Biological Laboratory, Woods Hole, from 1977 until 1985. In 1982, he discovered cyclins, which led to a share of the 2001 Nobel Prize in Physiology or Medicine, with Lee Hartwell and Paul Nurse, "for their discoveries of key regulators of the cell cycle".

Dr Hunt has written two books, "The Cell Cycle: An Introduction" (with Andrew Murray) and "Molecular Biology of the Cell: The Problems Book" (with John Wilson).

Dr Hunt has served on numerous scientific advisory panels, and on advisory boards of laboratories across the world. He chaired the Life Sciences Panel for selection of European Young Investigators, and was chairman of the council of EMBO. He was a member of the Scientific Council of the European Research Council (ERC) and of the Board of Governors of OIST.

Dr Hunt is a Fellow of the Royal Society, a Fellow of the Academy of Medical Sciences, a Foreign Associate of the National Academy of Sciences of the USA, a Member of EMBO, a Foreign Member of the American Academy of Arts and Sciences, and a Member of Academia Europaea. He was knighted in June 2006. He is married to Mary Collins, who is Dean of Research at OIST, and they have two children.

Programme

Tuesday 20 June 2017

10:00 – 10:10

Opening Remarks

10:10 – 11:00

Lecture by Tim Hunt

"A Life in Science: Stumbling on the Secret of Cell Division"

11:00 – 11:30

Audience Questions And Answers

Moderated by Professor U. Keilholz

A Life in Science: Stumbling on the Secret of Cell Division

I grew up in Oxford wanting to be a scientist, loving gadgets and processes like melting lead pipes, or electrolysing salt solutions to make poisonous and explosive gases. Luckily, I had excellent teachers who channelled these enthusiasms into a deeper and more formal understanding of chemistry and biology (physics, alas, was beyond my grasp), so that it was possible to study at Cambridge University and carry on there with a Ph.D. in biochemistry, on the business of the control of haemoglobin synthesis. I'll explain how I arrived at this — it was an accident — and also where I pursued the subject. It took ten years, many interesting side roads, a lot of travel and a devastating fire to solve the problem of how the synthesis of haem was coordinated with the synthesis of globin.

After that, it took another seven years or so to find a really good new problem to work on, but on 22 July 1982 I was teaching and researching at the Marine Biological Laboratory, Woods Hole, and saw to my amazement that a prominent protein, later called cyclin, disappeared just before fertilised sea urchin eggs divided for the first (and every subsequent) time. Finding out what this protein was, and what it did, took another six or seven years of very exciting work, leading away from the control of protein synthesis to the control of cell division. Yet amazingly, the underlying mechanisms were identical, involving protein kinases, which attach phosphate residues onto other proteins, thereby modifying their behaviour. I've always liked biological switches and finding how they work.

Most recently, however, I've been drawn to the study of the enzymes that remove phosphates from proteins and their control, which turn out to be very important in the switches that initiate and terminate cell division. The path was marked by unexpected discoveries all along the way, almost always stemming from sensible experiments designed to test something different!