



Update in Plant Biology & Biotechnology:

Six professorial inaugurations and a 25th anniversary!

Six new professors have been employed at Department of Plant Biology and Biotechnology. You are kindly invited to attend the inaugural lectures by Alexander Schulz, Peter Olesen, Peter Ulvskov, William G. T. Willats, Barbara Ann Halkier and Poul Erik Jensen. We also invite you to celebrate Birger Lindberg Møllers 25th anniversary as professor.

August 24th, 2009 at 13.00 in Auditorium 3-14, Thorvaldsensvej 40, 1871 Frederiksberg C

13.00 Welcome by Anna Haldrup, Head of Department

13.10 Wolfgang Amadeus Mozart: Flute Quartet in D, K.V. 285, 1. Movement
Played by Silke Westendorf-Schulz, Pia Johansson Bache, Liisa Tuomaala and Caroline Tarras-Wahlberg

13.20 Professor of Cell Biology and Bioimaging Alexander Schulz
Cell Biology and Bioimaging: Recording Life Live

13.50 Professor in Plant Biotechnology with specific emphasis on food innovation Peter Olesen (PMSO)
Potentials of Plant Bioactives in Health and Food Innovations

14.20 Professor in Plant Biotechnology Peter Ulvskov (PMSO)
From Basic Cell Wall Research to New Technology

14.50 Refreshments and coffee

15.30 Professor in Plant Cell Wall Molecular Biology William G. T. Willats (PMSO)
Why Study Plant Cell Walls?

16.00 Professor in Molecular Plant Biology and Bioengineering Barbara Ann Halkier (PMSO)
Healthy Plants for the Future

16.30 Professor in Molecular Biology of Plant Photosynthesis Poul Erik Jensen (PMSO)
Photosynthesis – in the Light of Life

17.00 Break

17.15 Professor in Plant Biochemistry Birger Lindberg Møller,
Always Look on the Bright Side of LIFE

All are welcome

Anna Haldrup, Head of Department
Department of Plant Biology and Biotechnology





Alexander Schulz: Cell Biology and Bioimaging: Recording Life Live

Biology in a nut shell: this might be taken as a valid picture of Cell Biology. The anatomy, physiology, biochemistry and molecular biology of cells can be studied by classical means, i.e., after stopping all internal developmental, metabolic and transport processes. However, the complexity of internal cell processes and cell communication is better revealed using non-invasive Bioimaging methods, where life processes are recorded live, if possible without disturbing them.

Peter Olesen: Potentials of Plant Bioactives in Health and Food Innovations

Health-promoting bioactive compounds in plants provide important innovation potentials for keeping future populations in a healthier state – new healthier products, as well as public advice, recommendations and incentives to support healthier dietary habits. Sustained health of future populations is a major societal challenge – not the least within the perspectives of climate and energy crises, shortage of arable land and food supply, and the continued growth and aging of populations. However, several paradigm shifts are needed in order to implement such innovation potentials.

Peter Ulvskov: From Basic Cell Wall Research to New Technology

Where does new technology come from? From incremental improvements of current technology, or perhaps from applied research? I will argue that it arises from fundamental research and will present cases of new technology arising from my own interest in how cells expand their walls during growth and in the evolutionary origin of the cell wall. The new technologies are relevant to diverse areas: Food ingredients, vaccine production, implants and biofuel.

William G. T. Willats: Why Study Plant Cell Walls?

Plant cell walls are all around us. Not only are they a major part of every plant, and therefore an important part of our diet, but they also have a huge number of industrial applications - from paper to nutraceuticals to bio-fuels. However, despite their importance and more than 300 years of research, there is still a great deal that we don't know about the structure, biosynthesis and evolution of these fascinating, complex and ubiquitous structures. In this talk, I will discuss some of the challenges facing plant cell wall research and some of the techniques and ideas that have recently emerged.

Barbara Ann Halkier: Healthy Plants for the Future

Plants are organic chemist par excellence, and throughout human history plant natural products have been an important source of e.g. medicines. Advances in our basic understanding of the biosynthetic machinery, the underlying metabolic regulatory networks, and the transport processes are important prerequisites for successful establishment of synthetic biology technology platforms for production of valuable natural and unnatural products in the future.

Poul Erik Jensen: Photosynthesis – in the Light of Life

In Photosynthesis the Earth abundant ingredients, water and carbon dioxide, is combined in reactions fueled by sunlight to form complex, energy rich compounds in the form of sugars, lipids, proteins and other organic compounds. The research focus is the pigment-protein complexes and the enzymes constituting the photosynthetic complexes and their organization within the plant cell. Especially, the dynamic regulation of the photosynthetic apparatus in the ever changing environment to circumvent stress and avoid damage is pivotal for stable biomass productivity. Synthetic biology will be used to study, manipulate and improve these vital processes.

Birger Lindberg Møller: Always Look on the Bright Side of LIFE

Anatomy, physiology, biochemistry, molecular biology, genomics, synthetic biology..... Where are the arts taking us?