

Highlights by ACTA MÉDICA PORTUGUESA • STUDENT



Professor Erwin Neher



In 1991, Professor Erwin Neher was awarded, along with his colleague Bert Sakmann, the Nobel Prize in Physiology and Medicine for their "discoveries concerning the function of single ion channels in cells".

His lecture was about this finding and its Role in Biomedicine and Pharmacology

"The action potential is a consequence of permeability changes in the nerve membrane. But what is the mechanism of permeability? This was the burning question, when I started my Ph-D work. A researcher is driven by curiosity. We hoped to prove the channel-concept, but did not expect to find as many different types of ion channels."



Professor Jack Kreindler



Internationally known as an entrepreneur in medical technology in the areas of biosensors and artificial intelligence, Professor Jack Kreindler was one of the founders of the Center for Health and Human Performance in London, recognised for its work with athletes, health optimization and sport.

His lecture was about High Altitude - Emergency Medicine

"In some patients, predicting does not make a difference, but for some, it really does. Innovation, regulation and communication are three important barriers to overcome. But it is important not to underestimate the power of exponentials and of yourselves."



Professor Francesco Della Corte



Professor Francesco Della Corte served as Honorary Secretary to the European Society for Emergency Medicine and has been awarded with an Honorary Fellowship. At present, his research focuses on the development of new education tools and simulation games.

His lecture was about Disaster Medicine: Towards a New Academic Discipline?

"Education and training are very important in disaster medicine and medical students emphasize that they are willing to respond to public health emergencies and disaster. However, only a small number of medical schools worldwide have included disaster medicine education in their study program."



Professor Daniel Horner



Professor Daniel Horner is a dual consultant in emergency and intensive care medicine at Salford Royal NHS Foundation Trust and acting trauma team leader. His research targets the diagnosis and management of isolated distal deep vein thrombosis.

His lecture was about Decision Making in Emergency Medicine

"We all worry about practical skills in medicine, but decision making is also a core skill. We should all spend time thinking, about how we think. Information light, time critical decision making is essential in the practice of emergency medicine. To make good decisions, you have to create space to think, understand how you think, be aware of cognitive bias and seek to continuously improve your cognitive performance."



Doctor Lorena Diéguez



Doctor Lorena Diéguez is a Staff Researcher at the INL. Her research focuses on the development of integrated biosensing systems and nanobioengineered diagnostics microsystems for the isolation and characterization of tumour cells from body fluids of cancer patients, as well as the development of microfluidic organ-on-a-chip 3D models.

Her lecture was about Liquid Biopsy: Microfluidic Systems for CTC Isolation

"It is an interesting place to work because we not only do fundamental research, but also translational research. Our liquid biopsy microfluidic system detects the tumour cells circulating in the blood, contributing to an accurate prognosis and personalised treatment of cancer."



Professor Livia Eberlin



Professor Livia Eberlin research is focused on developing innovative mass spectrometry technologies to address critical problems in cancer diagnosis, allowing doctors to diagnose various types of cancer more efficiently.

Her lecture was about the Development of the Masspec Pen for Cancer Diagnosis and Surgical Margin Evaluation

"Anyone could operate this device and detect where cancer is. The MassSpec Pen is "clinical user" friendly, biocompatible, disposable, handheld and adaptable to various surgical modalities without significantly interfering with surgical workflow."



Doctor André Mansinho



Doctor André Mansinho works at the Medical Oncology Department in Hospital de Santa Maria, CHLN. He is also an investigator in several phase II and phase III clinical trials and a collaborator in translational investigation at Instituto de Medicina Molecular (IMM - Lisboa).

His lecture was about Immuno Oncology: Aiming for a Cancer Moonshot

"The Cancer Moonshot to accelerate cancer research aims to make more therapies available to more patients, while also improving our ability to prevent cancer and detect it at an early stage. We are not there yet, but we are getting closer."



Professor Teresa Leite



Professor Teresa Leite is a clinical psychologist and music therapist. She specializes in family and couple intervention, child/youth therapeutic residential care, trauma and abuse situations and multicultural issues.

Her lecture was about Music Therapy: Integrating Body and Mind, Patient and Person, Therapy and Life

"Clinical practice and empirical research show that music therapy is an integrative therapeutic intervention with multidimensional effects. The physical and interpersonal nature of music create the opportunity to bring together body and mind, Self and Other in a more gradual and less demanding process of change."



Professor John Bradford



Professor John Bradford is the President & Chief Operating Officer of SpaceWorks Enterprises, Inc. in Atlanta, Georgia.

His lecture was about the Future of Humanity in Space: Medical Challenges and Novel Solutions

"We need to pursue medical solutions that could more easily solve the challenges of human spaceflight. For example, the engineering solutions for the crew exposure to galactic cosmic radiation and solar particle events involve adding an extra weight we can't afford to transport. It will be more realistic and effective to solve this issue through the use of new pharmaceuticals, or possibly placing the body in a hypothermic state, or gene therapy. Any of these approaches could potentially be implemented with no mass penalty."



Professor Bon Verweij



Professor Bon Verweij is a neurosurgeon at the University Medical Center Utrecht. He and his team performed the world's first full skull surgery using 3D printing technology.

His lecture was about 3D Printing and Virtual Reality in Neurosurgery

"People who have a deformation in the skull are often seen as crazy by other people. So this technology is very important for them. What is interesting is that I learnt about 3D printing on a radio program, and I was inspired to bring it to the medical field."



Doctor Emanuel Furtado



Doctor Emanuel Furtado is one of the few surgeons in Portugal that succeeds in hepatic transplantation in small children. He has written and published many articles regarding liver transplantation and other diseases of the digestive tract. Currently, he works at CHUC.

His lecture was about his work on Hepatic Transplantation, First Hepatic Auto-Transplant and Future Perspectives

"Small size...big problem, but portuguese pediatric criteria are the most favorable."



Professor José Fragata



Professor José Fragata is currently chief of the hospital medical careers service and director of cardiothoracic surgery at Hospital de Santa Marta, Lisbon. He also dedicates part of his time to education and training of young surgeons and doctors.

His lecture was about Cardiac Transplantation and the New Approaches

"Heart failure represents an enormous Health Care burden. Advanced Heart Failure needs replacement therapy: this can be made primarily by Heart Transplantation and secondly by Mechanical Assist Devices (LVAD (Left Ventricular Assist Device)). Total Artificial Heart (TAH) is still not a valuable alternative. It might well be so in the future."



Professor Rui Cortesão



Professor Rui Cortesão works at the Electrical and Computer Engineering Department of the University of Coimbra, where he teaches medical robotics and control.

His lecture was about Robotics and Medicine

"Improving existing procedures includes real cooperation between surgeon and robotic systems ("hands-on" concept: comanipulation or tele-manipulation). Robots are not intelligent at all. We need an intelligent agent and that is the surgeon."



Professor Duarte Nuno Vieira



Professor Duarte Nuno Vieira is the Dean and Full-Professor of Forensic Medicine and Forensic Sciences and Medical Law of the Faculty of Medicine, University of Coimbra. He is also known for his work in the field of human rights, as member of the Forensic Expert Group of the International Rehabilitation Council for Torture Victims.

His lecture was about the Fundamental Role of Forensic Medicine in Criminal Investigation

"The medical experts are the glasses of the judge. Forensic medicine is essential to know if people are telling the truth. Time changes everything; so, it is fundamental that the expertise's are made as soon as possible."



Professor Silke Grabherr



Professor Silke Grabherr is the Director of the Centre Universitaire Romand de Médecine Légale in Lausanne, Switzerland. Her work is focused on post-mortem angiography in authopsies.

Her lecture was about Forensic Imaging and its Application in Modern Legal Medicine

"One image shows more than ten sentences that you can write down."



Professor Catarina Prado e Castro



Professor Catarina Prado e Castro is a biologist with research focus on Forensic Entomology. Her MSc and PhD studies were dedicated to the knowledge of the Portuguese insect community associated to cadavers and its succession patterns.

Her lecture was about Forensic Entomology

"Why using insects in crime investigations? 1st - They are the main cadaver consumers. 2nd - Insects are usually the first organisms to find a decomposing body and 3rd - The fauna found in the body changes in a predictable sequence along the decomposition process."



Doctor Paulo Moreira



Doctor Paulo Moreira is the founder of the brand Emotional Intelligence Training®. He has created innovative and unique programs for developing emotional and social skills.

His lecture was about the Impact of Emotional Intelligence in Medical Career

"There are some studies that have analyzed the amount of complaints that physicians received. Those studies show that physicians who receive more complaints are not the ones that give more incorrect diagnosis, but how they communicate those diagnosis with the patients."

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See you in the next edition!