



Learning objectives of fourth week of structured training

A Career in Clinical Research: The Academic Clinician Scientist Perspective & the Full-Time Clinician Perspective Prof Louise Kenny (UCC)

Effective translational research requires Clinician Scientists at the interface between basic science research and clinical care. However, the career pathway for clinical academic training in Ireland remains poorly defined and the opportunities to undertake high quality and appropriate research training are few. Furthermore the demands of clinical training, particularly in craft disciplines, inevitably dissuade candidates from undertaking lengthy PhD programs. Nevertheless, demand for Clinician Scientists in all aspects of medicine is increasing, and will continue to do so, and the career prospects for those that succeed are exceptional. A brief personal account of Clinician Scientist training in a craft discipline will be shared.

Writing up your PhD – Workshop Prof Alan Kelly (UCC)

Learning objectives:

- Understand advanced aspects of scientific publication process (including recent developments and bibliometrics) and reflect on own and peer experiences of publication
- Consider aspects of presentation of one's research at conferences and how to approach scientific conferences (including new resources for poster preparation)
- Consider preparation for future careers as a researcher in terms of knowing what key expectations are for a PhD graduate
- Develop plans for writing the thesis and understand the function of the PhD examination and viva and start planning for same

Research Creativity Workshop Dr Jay Chopra (Pfizer)

Content:

- Overview of the process, climate, culture and tools required for Creativity & Innovation
- Introduction to practical tools relating to Creativity and Innovation and implementation of these tools to solve a fun challenge

Learning Outcomes:

- Appreciate the potential for use of these tools in research

Opportunism as the Basis for a Clinical Research Career Prof Eamonn Quigley (UCC)

The goals of this presentation are three-fold:

- To discuss research and clinical research, in particular, in the context of modern medicine and medical education
- To describe the peripatetic but personally fulfilling career voyage of a clinical research journeyman



- To make some observations on the climate for clinical research today in Ireland and elsewhere and to speculate a little on what the future may hold for the discipline. A major objective along the way will be to illustrate, through my own experience, how an individual committed to research but scarcely endowed with innate talent can still cobble together a satisfying and stimulating career in academic medicine by availing of opportunities to collaborate with high-quality researchers and study what is prevalent in the immediate environment

The Health Research Board – Building Capacity in Clinical and Translational Research Dr Teresa Maguire (HRB)

Clinical relevance and potential for translation has an increased emphasis in the new HRB strategy. In an attempt to increase opportunities for medical professionals to pursue roles that mix clinical and academic responsibilities, the HRB continues its strong tradition of offering opportunities for research training at doctoral, post-doctoral and at senior investigator levels through a range of personal awards and fellowships. In addition to describing current and planned initiatives in this area, this presentation will report on recent relevant collaborations with both Science Foundation Ireland and the HSE.

Communicating your Research Message: Sound Bites and Elevator Speeches Niall Kiely (Carr Communications)

Niall Kiely of Carr Communications will provide MMI Clinician Scientist Fellows with training in simple, effective and concise communication of sometimes complex and arcane research. After the course, the PhD students will be better able to structure, write and edit updates on their research topics, and thus communicate more effectively with the media and general public.

Research Commercialisation Process Dr. David Corkery (UCC)

Current policy relation to research in Ireland is placing strong emphasis of the effective transfer of technology into the commercial arena where possible and appropriate.

Learning outcomes from this presentation will include

- A preliminary overview on Intellectual Property Rights
- An understanding of the national policy backdrop to this activity
- Common university approaches to commercialising IP and
- How offices of Technology Transfer can achieve commercialisation with the researcher

Pharmabiotics for the Prevention of Infection Prof Colin Hill (UCC)

A number of plausible mechanisms have been proposed to account for the ability of certain probiotic strains to ameliorate infection in humans and animals. These include improved



barrier function, direct antagonism, immunomodulation and competitive exclusion. This presentation will focus on one of these mechanisms, direct antagonism, mediated by the production of bacteriocins. Evidence will be presented which unequivocally demonstrates bacteriocin production by a probiotic strain as the key anti-infective strategy employed by *Lactobacillus salivarius* UCC118 to protect mice against *Listeria* infection. The precise definition of a probiotic strategy offers several key opportunities in probiotic research. Firstly, a more rigorous selection strategy can be employed to select naturally occurring probiotics with a higher likelihood of efficacy against selected target pathogens; secondly, existing probiotics could be manipulated to improve efficacy in a directed manner; and thirdly, the bacteriocins can be exploited as pharmabiotics – probiotic derived molecules with therapeutic possibilities. Lastly, the effect of bacteriocins on host flora other than the target pathogens will be discussed, highlighting a possible benefit of these natural substances over classical antimicrobials – a targeted host range. An example of where bacteriocins have been used to target *Clostridium difficile* without causing collateral damage to the commensal microbiota.

Role of the Irish Medicines Board in Clinical Research Dr Elaine Breslin (IMB)

The presentation will cover the following topics:

- The remit of the IMB
- The definition of a medicinal product and a medical device
- The authorisation process for clinical trials (medicinal products) and clinical investigations (medical devices)
- Good clinical practice inspections

SAFEMED: Leadership, Stress Regulation & Life skills for Clinician Scientists – Workshop Dr Margaret O'Rourke (UCC)

The SAFEMED programme is concerned with stress identification, regulation and management. The course objectives are to identify stress and to construct personal support plans to reduce negative effects and manage stress. On completion of this course participants will be able to:

- Identify functional and dysfunctional stress
- Understand the relationship between stress, skills, and wellbeing.
- Use self awareness tools (SATs) to identify sources of unproductive stress.
- Develop and apply biopsychosocial personal support plans (antidotes to stress)
- Develop and apply evidence based stress prevention and reduction strategies