MOLECULAR MEDICINE IRELAND – Education & Training

Molecular Medicine Ireland Clinician Scientist Fellowship Programme Structured Training

Schedule for Period 30 June – 5 July 2008

Monday 30 June
Venue: Cheyne Lecture Theatre, Royal College of Surgeons in Ireland

1800-1815  Introduction

1815-1900  Clinician Scientist Keynote Lecture
   25 Years of Clinical Research – structure and serendipity
   Prof. William Powderly, Dean of Medicine, Head of UCD School of Medicine and Medical Science

1900-2000  Wine reception

Tuesday 1 July
Introduction to Research and Laboratory Methods for Clinician Scientists – Day 1
Venue: Fintan Gunne Lecture Theatre, Catherine McCauley Centre, Nelson St, Dublin 7
Course Organisers: Dr David Murray & Dr Peter Doran (UCD)

0830-0900  Registration Tea/Coffee

0900-0915  Introduction, Overview and Welcome
   Dr Ruth Barrington, Molecular Medicine Ireland.

0915-0940  Introduction to Scientific Research
   Dr Peter Doran, UCD Clinical Research Centre

0940-1010  Ethical & Legal Issues
   TBC

1010-1030  Coffee / Tea

1030-1115  Key elements of research proposal (experimental design)
   Dr Mary Codd, UCD School of Medicine

1115-1200  Statistics
   Dr Mary Codd, UCD School of Medicine

1200-1320  Lunch

1320-1400  Laboratory safety
   Ms Paola Bagaglia, UCD Clinical Research Centre

1400-1445  Cell biology & cell culture
   Dr Eoin Cotter, UCD Clinical Research Centre

1445-1515  Coffee/Tea
### Wednesday 2 July

**Introduction to Research and Laboratory Methods for Clinician Scientists – Day 2**

Venue: Fintan Gunne Lecture Theatre, Catherine McCauley Centre, Nelson St, Dublin 7

Course Organisers: Dr David Murray & Dr Peter Doran (UCD)

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>0830-0900</td>
<td>The Medics Perspective</td>
<td>Dr Nick Chew</td>
<td>UCD &amp; Mater Hospital</td>
</tr>
<tr>
<td>0900-0930</td>
<td>The supervisors perspective</td>
<td>Dr Peter Doran</td>
<td>UCD Clinical Research Centre</td>
</tr>
<tr>
<td>0930-1000</td>
<td>After the research degree, what next?</td>
<td>Dr Paddy Mallon</td>
<td>UCD &amp; Mater Hospital</td>
</tr>
<tr>
<td>1000-1030</td>
<td>Coffee/Tea</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1030-1130</td>
<td>Protein analysis</td>
<td>TBC</td>
<td></td>
</tr>
<tr>
<td>1130-1215</td>
<td>Technology Focused Talks &amp; Case Studies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1130-1215</td>
<td>Recent Advances and Biomedical Applications of Protein Array Technologies</td>
<td>Prof Dolores Cahill</td>
<td>UCD Conway Institute</td>
</tr>
<tr>
<td>1215-1300</td>
<td>Flow Cytometry</td>
<td>Dr Alfonso Blanco Fernández</td>
<td>UCD Conway Institute</td>
</tr>
<tr>
<td>1300-1345</td>
<td>Lunch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1345-1430</td>
<td>High Content Bioassay Screening</td>
<td>Dr Anthony Davies</td>
<td>TCD Institute of Molecular Medicine</td>
</tr>
<tr>
<td>1430-1530</td>
<td>Problem solving tutorial</td>
<td>Dr David Murray</td>
<td>UCD Clinical Research Centre</td>
</tr>
<tr>
<td>1530-1630</td>
<td>Tour of the Mater Hospital Clinical Research Centre and Laboratories</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1630-1715</td>
<td>Clinician Scientist Keynote Lecture</td>
<td>Prof. Noel Caplice</td>
<td>Professor of Cardiovascular Sciences (UCC)</td>
</tr>
</tbody>
</table>

### Thursday 3 July

**Writing & Communication Skills Workshop** – Prof Alan Kelly (UCC)

Venue: Fintan Gunne Lecture Theatre, Catherine McCauley Centre, Nelson St, Dublin 7
MOLECULAR MEDICINE IRELAND – Education & Training

0930-1030  Introduction to the literature
Why do scientists publish? The nature of scientific journals, impact factors, inter-field differences.

1030-1045  Coffee/Tea

1045-1215  The scientific paper
The objectives and sections of a scientific paper, designing good figures and tables, writing abstracts, etc.

1215-1300  Publication and beyond
Submission of papers to journals, the refereeing process (and all of its outcomes, with examples), how papers make an impact, bibliometry (h-indices, etc.), emerging issues such as open access journals.

1300-1400  Lunch

1400-1445  Publication and beyond (continued)

1445-1545  Publication ethics
Falsification, fabrication and plagiarism and other areas of misconduct, with examples

1545-1600  Coffee/Tea

1600-1800  Presentation skills
Designing and making effective scientific presentations, preparing to give talks, including Powerpoint design, designing effective poster presentations.

Friday 4 July
Venue: Fintan Gunne Lecture Theatre, Catherine McCauley Centre, Nelson St, Dublin 7

0930-1300  Translating your research into the clinical setting
- Siobhan Gaynor (Molecular Medicine Ireland / ICRIN)
Clinical research, definitions and regulations. Ethical & regulatory considerations of clinical trials, timelines, cost. The key players in clinical trials in Ireland

1300-1400  Lunch

1400-1700  Integrity in Scientific Research Workshop (Part 1)
- Prof David Brayden & Prof Alan Baird

Saturday 5 July
Venue: Fintan Gunne Lecture Theatre, Catherine McCauley Centre, Nelson St, Dublin 7

0930-1230  Integrity in Scientific Research Workshop (Part 2)
- Prof David Brayden & Prof Alan Baird

1230-1330  Lunch
Molecular Medicine Ireland Clinician Scientist Fellowship Programme

Learning objectives of first week of structured training

This July 2008 period of structured training encompasses at an introductory level four broad areas of skill development and learning for researchers.

Introduction to Research and Laboratory Methods
- Understand the processes of scientific research (including generating hypotheses, experimental design, and quantitative aspects).
- Be primed on the environment of PhD research (including laboratory safety, ethics, student-supervisor roles, career development).
- Understand various research techniques and technologies.

Writing and Communication Skills
- Understand the scientific publication process (including rankings, impact factors, citation rates, open access journals).
- Be familiar with the organisation of a scientific paper and the principles of good scientific writing (including abstract writing and the design of good figures and tables).
- Understand the process of submitting a manuscript for publication (from referees to proofs and beyond).
- Be aware of publication ethics (including areas of misconduct such as falsification, fabrication and plagiarism).
- Understand how to craft effective scientific presentations (including slide and poster design).

Translating your Research into the Clinical Setting
- Understand the terminology and conventions of clinical research.
- Be familiar with the drug development pathway, including the clinical trial process.
- Understand the various rules and regulations and issues of patient consent and safety.

Integrity in Scientific Research
- Understand ethical issues and obligations relating to access to confidential information obtained in a professional capacity.
- Be familiar with the obligations involved in collaboration with industrial collaborators and sponsors.
- Understand the need for high levels of integrity and transparency in interpreting research results.
- Understand the criteria that are used for determining authorship of research publications.