



Molecular Medicine Ireland Clinician Scientist Fellowship Programme Structured Training

Schedule for Period 6 July – 10 July 2009

Monday 6 July

Venue: Foyer, Ground Floor, Orbsen Building, NUI Galway	
0800 - 1000	Registration
Venue: McKenna Computer Suite, Aras Ui Chathail, NUI Galway	
0930 - 1300	Biostatistics workshop - Session 1 Dr John Newell (NUI Galway) <u>Summarising data</u> <ul style="list-style-type: none"> • Understand the key concept of variability • Understand the ideas of population, sample, parameter and statistic • Differentiate between common types of data and display them appropriately using a simple statistical package • Understand the basic concepts of Normal and Binomial distributions
1300 – 1400	Lunch
Venue: Lecture Theatre, Ground Floor, Áras Uí Chathail, NUI Galway	
1400 – 1500	Professor Abhay Pandit (NUI Galway) <i>Functional Biomaterials based approaches for Tissue Engineering and Regenerative Medicine</i>
1500 – 1540	Professor Larry Egan (NUI Galway) <i>How to review a scientific manuscript</i>
1540 - 1600	Tea/coffee
1600 – 1700	Keynote Speaker Professor Matthew Griffin, Professor of Transplant Biology, REMEDI, NUI Galway <i>Man on Wire: How do you keep your balance as a clinician scientist?</i>

Tuesday 7 July

Biostatistics	
Venue: McKenna Computer Suite, Aras Ui Chathail, NUI Galway	
0930 - 1300	Biostatistics workshop - Session 2 Dr John Newell (NUI Galway) <u>Interval Estimation</u> <ul style="list-style-type: none"> • Understand simple ideas of point estimation • Produce and interpret interval estimates in some simple cases



	<ul style="list-style-type: none"> • Recognise the additional benefits of calculating interval estimates for unknown Parameters and be able to interpret interval estimates correctly • Check assumptions underlying these simple procedures and know how to deal with departures from these assumptions • Understand the difference between paired and independent data and be able to recognise both in practice • Apply knowledge of confidence intervals and tests to investigate simple questions of interest regarding categorical data
1300 – 1400	Lunch
Venue: McKenna Computer Suite, Aras Ui Chathail, NUI Galway	
1400 – 1700	Dr Thomas Kropmans (NUI Galway) <i>Bibliometrics: Finding the needle in the Information-stack</i>

Wednesday 8 July

Biostatistics	
Venue: McKenna Computer Suite, Aras Ui Chathail, NUI Galway	
0930 - 1300	Biostatistics workshop - Session 3 Dr John Newell (NUI Galway) <u>Hypothesis Testing and p-values</u> <ul style="list-style-type: none"> • Understand the relationship between a confidence interval and a hypothesis test as well as the relative merits of both • Understand the concept of a p-value • Carry out a variety of commonly used hypothesis tests • Understand how to interpret test results correctly and in non-technical language
1300 – 1400	Lunch
Venue: Lecture Theatre, Ground Floor, Áras Uí Chathail, NUI Galway	
1400 – 1500	Dr Ciaran Morrison (NUI Galway) <i>Grant Writing</i>
1500 – 1540	Professor Peter McHugh (NUI Galway) <i>BioEngineering</i>
1540 - 1600	Tea/coffee
1600 – 1700	Dr John Kavanagh (NUI Galway) <i>Intellectual Property and Patents in Ireland's Smart Economy</i>



Thursday 9 July

Biostatistics	
Venue: McKenna Computer Suite, Aras Ui Chathail, NUI Galway	
0930 - 1300	Biostatistics workshop - Session 4 Dr John Newell (NUI Galway)
	<u>Designing a Study</u>
	<ul style="list-style-type: none"> • Understand the difference between a designed experiment and an observational study, and the need for both • Understand the aims and desirable features of a randomized experiment • Use simple techniques for ensuring that an experiment gives valid, reliable and precise results • Be able to calculate the required sample size for a variety of study designs • Critiquing the Statistical Component in a Medical paper
1300 – 1400	Lunch
Venue: Lecture Theatre, Ground Floor, Áras Uí Chathail, NUI Galway	
1400 – 1500	Dr Ger Flaherty (NUI Galway) <i>The Road Less Travelled; A Career in Medical Education</i>
1500 – 1540	Techniques I*
1540 - 1600	Tea/coffee
1600 – 1630	Techniques II*
1630 - 1700	Techniques III*

Techniques I*	Techniques II*	Techniques III*
<i>Basic Molecular Biology Techniques</i> Dr Jill McMahon	<i>Real Time PCR</i> Dr Enda O'Connell	<i>Immunohistochemistry / Immunocytochemistry</i> Dr Jill McMahon
<i>Flow Cytometry (FACs)</i> Prof Rod Ceredig	<i>DNA / RNA / Protein Isolation</i> Dr Helen Dodson	<i>Microarrays</i> Dr Enda O'Connell



Friday 10 July

Biostatistics Venue: McKenna Computer Suite, Aras Ui Chathail, NUI Galway	
0930 - 1300	Biostatistics workshop - Session 5 Dr John Newell (NUI Galway) <u>Examples of more 'complicated' analytic techniques</u> <ul style="list-style-type: none">• Simple and Multiple Regression• Logistic Regression• Survival Analysis• Analyzing Cluster Randomized Trials• Be able to calculate the required sample size for a variety of study designs
1300 – 1400	Lunch
Venue: Lecture Theatre, Ground Floor, Áras Uí Chathail, NUI Galway	
1400 – 1540	Professor Peter Dockery (NUI Galway) <i>An Introduction to Stereology</i>
1540 - 1600	Tea/coffee
1600 – 1700	Keynote Speaker Dr Christine A. Dingivan, Chief Medical Officer, PPD, Inc.