

University Graduate College

Exploring Career Options Beyond Academia: Physical Sciences & Engineering

Friday 22 November 2013
Trevithick Building, Seminar Rooms 1 and 2

Programme

- 13.45 Registration with tea and coffee
- 14.00 **Welcome**
Professor Ken Wann, Deputy Dean, University Graduate College
- 14.10 **Careers Exploration Experience**
An opportunity to hear a selection of speakers reflecting on their career journeys.
Introduced by Josie Grindulis, Career Development Manager for Research Staff
(Including tea and coffee break)
- Dr Olly Ansell, Principal Etch Applications Engineer, SPTS Technologies
[Manufacturing]
- Dr Louisa Dunlop, Patent Attorney, Wynn Jones IP **[Legal Services]**
- Dr Tom Fricker, Researcher, and Mr Richard Hill, Recruitment Manager, ATASS Sport
[Statistical Analysis]
- Dr Jennifer Geroni, Researcher, Office of Chief Scientific Advisor for Wales **[Government]**
- Dr Hannah Loebel, Quantitative Analyst, EDF Energy **[Energy]**
- Dr Ciarán Martin, Optical Development Engineer, Perkin Elmer **[Engineering]**
- Dr Elodie Phillips, Microscopy Imaging Specialist, Olympus Medical **[Medical Technology]**
- Dr Richard Thompson, Technology Venture Investor, Finance Wales **[Business Investment]**
- 16.00 **Tips for Job Searching**
Hints and tips for job hunting outside academia.
Josie Grindulis

16.15 **Q&A with Speaker Panel**
Opportunity to ask questions to the panel of speakers

16.30 **Reception** (networking opportunity with refreshments)

Information Stands: Careers & Employability, Go Wales, Vitae

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Speaker Biographies

Dr Olly Ansell

Principal Etch Applications Engineer, SPTS Technologies

SPTS Technologies is a growing force at the forefront of the development and manufacture of semiconductor production equipment for a global market. Our headquarters are based just off the M4 motorway between Cardiff and Bristol, with state of the art manufacturing sites also based in San Jose and Pennsylvania and an extensive sales and service function throughout Europe, Asia and USA. We have enjoyed significant growth in recent years, and have recently won the prestigious Insider Made in Wales ‘Manufacturer of the Year Award’ for 2013.

I completed an MEng in Electrical and Electronic engineering from Bristol in 2003 and followed this with a PhD from the Bristol photonics group titled “Design and fabrication of photonic components based on active vertical coupler structures”. I joined SPTS after my PhD at the start of 2007 as a Process Engineer and have enjoyed the different challenges and opportunities that this has given me. My job title is Principal Etch Applications Engineer and I work on a mixture of plasma process, hardware and software design for the group that works mainly on R&D for our etch products.

Dr Louisa Dunlop

Patent Attorney, Wynn Jones IP

Louisa Dunlop’s first degree was an MPhys in Physics and Astronomy at the University of Cardiff, which she completed in 2003. This was followed by a PhD in the Cavendish Laboratory, at the University of Cambridge in Detector Physics. As part of her PhD research she worked on the design and construction of a bolometric Interferometer for the detection of the B-mode polarisation component of the CMB radiation. Consideration was also given to the detection and understanding of the foreground radio sources that hinder the B-mode detection. After completing her PhD, Louisa was successful in obtaining a job as a trainee Patent Attorney at a firm in Cardiff. Louisa is now a Part-qualified European and UK Chartered Patent Attorney and has experience in prosecuting Patent Applications for a broad range of clients including multinationals, SME’s, Universities and individuals. Louisa handles a wide variety of technology including Electronics, Detectors and Instrumentation, Signal Processing, Physics and Mechanical related inventions.

Dr Tom Fricker

Researcher, ATASS Sports

Tom Fricker is a researcher at ATASS Sports. After completing an undergraduate maths degree he decided to have a break from numbers and became a tea taster for Tetley. After a few enjoyable years he decided that his maths skills were probably better than his taste buds, so returned to university to do a masters in statistics, followed by a PhD at the University of Sheffield. He then fell into a short post-doc job at Sheffield before joining the University of Exeter as a research associate in climate statistics. In 2012 he decided to move into the commercial sector, taking up his current role in ATASS Sports where he works as a statistical sports modeller.

Dr Jennifer Geroni

Researcher, Office of Chief Scientific Advisor for Wales

Jennifer graduated from her first degree in Chemistry at the University of Oxford in 2002. After five years working as a chemistry teacher she returned to higher education to pursue a Masters degree and PhD in Cardiff School of Engineering. Jennifer is now employed as a research associate in the School of Engineering working on remediation options for mining wastes and waste waters and is currently on secondment as a researcher in the Office of the Chief Scientific Advisor for Wales.

Mr Richard Hill

Recruitment Manager, ATASS Sport

Richard Hill is the Recruitment Manager at ATASS Sports. He graduated from Warwick with a degree in economics last century and spent 13 years working in the utility sector before taking up his current role three years ago. He has worked on everything from market structures and incentives to deterioration modelling and investment planning, being lucky enough to have lived in such exciting places as Melbourne, Edinburgh and Ipswich. Although not holding a PhD himself, throughout his career he has worked with PhDs and researchers, both in academic and commercial organisations, and has a good understanding of the differences between the two sectors.

Dr Hannah LoebI

Quantitative Analyst, EDF Energy

My first degree was a Joint Honours BSc in Maths and Physics at Cardiff. After graduating, I stayed on in the Physics department to do a PhD in Monte Carlo simulations of Biopolymers. Due to the scarce funding in this field, and the uncertainty of short-term research contracts, I decided to leave academia. I applied for a job with British Energy, which owned most of the nuclear power stations in the UK and had a wholesale power trading business. My first job was as a Trading Analyst, which involved simple data analysis and tool building. After a short time in this job, I was encouraged to apply for the role of Quantitative Analyst, which has enabled me to put to use both the maths from my first degree and the modelling and programming skills I gained during my PhD. My job title has remained the same for the last 8 years but my work has varied considerably. The main role of the team is to build mathematical models and analyse complex data. Personally, I have taken more of a management role in general model development, including building a large Monte Carlo model to understand our hedging strategy.

Dr Ciarán Martin

Optical Development Engineer, Perkin Elmer

Ciarán gained his BSc in Chemistry from Queens University, Belfast and went on to do a PhD at the University of Bristol on colloidal stability of polytetrafluoroethylene (PTFE) latexes. His PhD work has led to the development of numerous products which have been commercialised and are currently marketed globally by his PhD sponsor, Asahi Glass Fluoropolymers UK Ltd.

From 2007 until March 2013, Ciarán was employed as a business development chemist for ITW foils based in Blaenavon where he was in charge of several major projects including the design and building of a new laboratory. He also led the design and manufacture of new products and was responsible for managing quality. While working at ITW foils, he completed the Royal Society of Chemistry's development programme to achieve the designation of Chartered Chemist and Chartered Scientist.

Ciarán now works as Optical Development Engineer at Perkin Elmer where he looks after all development activities for the optics manufacturing facility. Perkin Elmer manufactures replicated diffraction gratings which are used in a multitude of spectroscopy techniques. In his current role, Ciarán has drawn on his previous experience of physical vapour deposition and polymer chemistry to look at the replication process whilst also looking at the physics involved in the usage of the optics.

Dr Elodie Phillips

Microscopy Imaging Specialist, Olympus Medical

Bio on its way.

Dr Richard Thompson

Technology Venture Investments, Finance Wales

Richard works in Finance Wales's dedicated technology venture investments team.

Richard actively sources and leads on completing new investments across a range of technology sectors which sometimes involves relocating companies to Wales.

He has both new and follow-on investment experience and represents Finance Wales at board level in a number of its technology investments, including four of its life-science technology investments (Calon Cardio Ltd., Creo Medical Ltd, Q Chip Ltd. and Acuitas Medical Ltd.)

Richard has a deep understanding of university spinout companies having worked with the HE sector including Cardiff University for many years.

He led the pan Wales support for University Spinouts for five years before moving into Venture Capital. He joined Finance Wales in 2003 following an international career in commercial R&D, business development and manufacturing based in the UK, the Netherlands and Australia. He holds a PhD and BEng (Hons) in Materials Science and Engineering both from the University of Bath.

Finance Wales is a leading UK SME investor with funds under management approaching £400 million. In Wales it makes commercial investments into small and medium-sized businesses and specialises in early stage /technology, development capital and succession deals.

Previous roles:

- led the Wales Spinout Programme (spinning technologies out of the Welsh Universities)
- Senior Consultant and Programme Manager at BRE (the UK's leading consultancy for the built environment)
- Business development manager at a Dutch Research and Consultancy company
- Research Scientist at CSIRO in Melbourne
- Production/process engineer at AB Micro Electronics (sponsored student)