Curriculum Vitae

Roy E. Meyler

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Personal Profile

I am a recent graduate, achieving a 1st Class Honours B.Sc. in Analytical Science and B.S. in Chemistry. I have a hunger for learning, I am technically minded and excel when tasked with creative problem solving, even when working to strict deadlines. I have a proven track record for fervidly pursuing high academic standards and research opportunities, receiving scholarships and awards for engaging in my passion for science. I have exceptional interpersonal and communication skills with proven competency when it comes to working as part of a multi-disciplinary team or on my own initiative. I relish a challenge and through hard work, I aim to prove myself and grow within the field of science.

Education

- **Java Junior Developer, Oracle**
  - Oracle Certified Associate (OCA), Java SE7, 2012 - 2013.

- **Dublin City University, Glasnevin, Dublin**.
  - B.Sc. Analytical Science, 2008 - 2012 (1.1 First Class Honours).
  - First Class Honours 2009, 2010, 2012.

- **Kansas University, Lawrence, Kansas.**
  - B.S. Chemistry, 2010 – 2012, expected 2013 (>3.5/4.0 GPA Magna Cum Laude+).
  - "Honor Roll" - Fall 2010, Spring 2011.

Honours and Awards

- Received Clarity Intern Scholarship for Summer 2012
- Awarded honours for academics in both Fall and Spring semesters during US studies
- Received Atlantis Scholarship in 2010 from the European Commission and US Department of Education to study for a dual degree at the University of Kansas
- Awarded the Irish President's Gaisce Award in 2006 and 2007

Work Experience

- **Advanced Sensor Group, Clarity, National Centre for Sensor Research, Dublin City University, Dublin. (January – May 2012) (Summer Internship: May – July 2012)**

  Position: Researcher at Clarity – Centre for Sensor Web Technologies.

  Aim: To develop a novel sensor for the detection of glucose.
  Main responsibilities:
  - Sensor assay development for a point-of-care medical device, improving on usability, deployment and cost compared to other market leaders.
  - Executing an independent research project which involved using bottom-up nanofabrication techniques, handling and preparation of biological materials, biofilms and nanoparticles.
  - Daily use of techniques such as protein isolation and purification, bioconjucation, FeSEM, TEM, DLS, ellipsometery, nanodrop UV-Vis, FT-IR, contact angle microscopy, fluorometry, and microfabrication.
  - Presenting research to visiting academics and research sponsors, also providing knowledge and skill transfer to new interns.

  Achievement: Development, optimisation and characterisation of the chemistry behind a novel multi-step assay for a point of care (POC) device.

- **Lunte Group, Adams Institute of Biochemical Research, Lawrence, Kansas. (August 2010 – August 2011)**

  Position: Independent Researcher.

  Aim: To develop a wearable sensor for the study of Alzheimer's and Parkinson's disease.
  Main responsibilities:
  - My role was to design and build a mircofludic platform which would allow continuous brain dialysate analysis.
  - Designed and fabricated a novel microfluidic device which would couple hydrodynamic sample flow/injection with an electrophoretic separation channel.
  - Utilised computer aided design (AutoCAD), photolithography and mircofabrication in ISO 5 or Class 100 cleanroom.
  - Participated in group meetings and project troubleshooting exercises.
  - Managed and updated a promotional MERLOT blog on research activities on behalf of the University of Kansas, coupled with production of periodic reports and presentations.
  - Tasked with training new and existing staff in photolithography, spin coating, and ISO 5 (Class 100) best practices.

  Achievement: Designed, identified and fabricated a suitable microfluidic chip, began characterisation and integration of other device components.

- **Kunz and Touraud Groups, University of Regensburg, Regensburg, Germany. (June – August 2010)**

  Position: Chemistry Intern.

  Main responsibilities:
  - Kunz group, patent validation for L'Oreal, Kraft Point analysis of surfactant recipes.
  - Touraud group, method development and optimisation for growing open ended cylindrical silica gardens, preliminary investigations into membrane permeability to introduced ions, internal microscopic investigations.

  Achievement: Compilation, validation and statistical analysis of required data sets for filing patent. Method development and recording of preliminary data for silica gardens. Development of overall research methods and skills.

Note: all of the above positions required record keeping and documenting to satisfy local intellectual property policies and strict adherence to non-disclosure agreements, as well as reporting to Project Leads, Department Heads and Center Director.

Other Experience

- **Undergraduate Research Projects:**
  - Projects:
    - Water analysis for Kansas Environmental Protection Agency (EPA)
    - Independent investigation into lead content in juice drinks commonly consumed by young American children:
  - Main Responsibilities: Preparation of project proposal including schedule of deliverables and budget projections, preparation and implementation of sampling plan and standardised analysis methods, method validation, sample collection, qualitative and quantitative sample analysis, statistical data analysis, quality assurance and instrument calibration.

- **Other Work:**
  - Wexford County Council: Rescue Swimmer, Junior and Senior beach guard, and Beach Guard-in-Charge (2007-2009)
  - Irish Red Cross Ambulance Corps: medic and voluntary member
  - Irish Water Safety: Water Safety Instructor and Swim Teacher

Presentations

- Bottom –Up Colorimetric Sensor Development for the Analysis of Medically Interesting Analytes
- The Analysis of Cocaine on Banknotes
- Carcinogens in the Water – An Analysis of Total Cr and Cr(VI) in Kansas Drinking Water
- Are Your Toddlers Drinking Lead? – An Analysis of Apple Juice and its Lead Content
- Forensic Techniques for the Discrimination of Fibres and Textiles

Associations and Affiliations

- Member of the Royal Society of Chemistry (RSC) - professional body for Chemists
- Organization for Cooperation, Exchange and Networking among Students (OCEANS)
- Irish Water Safety (IWS).
- Mentor for the Wexford County Meithal Alliance
- Alumni of the St. Peter's College Debating Team

Other Skills

- IT literacy: Excellent management/administration on: Microsoft Windows, Mac OSX
- Applications/programs: Excellent abilities and usage of advanced features in Microsoft Office for Windows/Mac OSX (for additional please enquire)
- Full Driving Licence: Clean

Interests and Hobbies

- Swimming: Wexford Swimming Club, Coaches Award 2004, St. Peter's College
- Sailing: Courtown Sailing Club, team competitor in the U.K. and Irish Formula 1 Sailing Championships
- Kayaking: member of the DCU Kayaking Club 2009-2010, Awarded REC3 for Rescue Environmental Care, successfully completed the river runs of The Three Sisters; Barrow, Nore and Suir throughout 2011.
- Hiking: hiking "The Bright Angel Trail" of the Grand Canyon Arizona, July 2011.

References available upon request