

SOFI CDT Newsletter

May 2015

SOFI Student: Jake McClements

My name is Jake McClements, and I am a student from the first SOFI CDT cohort. I graduated from The University of Leeds in 2014 with a degree in Physics.



I have really enjoyed the initial 6 months on the SOFI CDT. I have gained a much broader knowledge of soft matter science, and met a lot of great people. The CDTs connections to industry have provided huge insight and experience into the industrial side of soft matter.

I have decided to work on a project which studies the interfaces between polymer and carbon composites. This is an experimental project based in Edinburgh with Michelin, and I am looking forward to pursuing it further, whilst maintaining my connections to the SOFI CDT.

SOFI Student: Ethan Miller

I am Ethan Miller, I graduated from the University of Manchester in 2013 with a Masters in Physics. The SOFI CDT appealed to because of its comprehensive training in the soft matter field, awareness of the importance of understanding industry and the chance to be part



of a growing, innovative cohort of academics. Even in these first few months the program has really delivered, from engaging with seasoned academics and members of industry, to working with a great group of my peers.

Currently I am in Durham, working on an experimental project involving the design and characterisation of functional biointerfaces; with an industrial connection with GSK. I am excited to see where my research will lead, and future possible collaboration with the rest of the SOFI CDT.

SOFI Staff: Tiffany Wood

Dr Tiffany Wood is Operations Director of the Edinburgh Complex Fluids Partnership. She also holds a Royal Society Industry Fellowship. She is also heavily involved with the Edinburgh Complex Fluids Partnership



The Edinburgh Complex Fluids Partnership is a division of the Soft Matter Research group in Edinburgh, established to support researchers and students in working with companies through consultancy and research collaborations.

Often, companies are looking to gain a better understanding of their products to improve performance or reduce wastage. Alternatively, companies are keen to employ advanced technologies, developed through soft matter science, to create more innovative products. ECFP has worked across a wide-range of sectors including pharmaceuticals, agrochemicals, coatings and paints, food, personal care and veterinary care.

If you are interested in finding out more, please contact Dr. Tiffany Wood (tiffany.wood@ed.ac.uk) or Dr. Joe Tavaoli (jtavaco2@staffmail.ed.ac.uk). Also see our website at www.edinburghcomplexfluids.com 

Back to the beginning...

SOFI CDT cohort one began their journey on the 22nd of September 2014 with an Induction Week. This was a week of intense researcher skills development which involved learning about the CDT process, being introduced to Responsible Research and Innovation for the first time, receiving diversity and equality training, as well as acquiring many other research skills. Working in teams of five, the cohort also completed a mini-thesis exercise, familiarising themselves with literature searching techniques and including sitting through a mock viva.



Week 1 was also a week of socialising and networking. On Tuesday, the cohort sat down for wine and a buffet with academics and industrial partners. Then over the weekend, the cohort joined Piero Vitelli of Focus Six for two days of fun and formative team building exercises, followed by white water rafting at the Tees Barrage International White Water Centre, helping to reinforce bonds between the cohort members that had grown over past week and would only get stronger over the coming six months.

EPSRC Call

Durham and Leeds with SOFI partners P&G and Akzo-Nobel have answered a call for Expressions of Interest in funded research from EPSRC up to £3.5M to assess the underpinning science of Formulated Products. Please contact Prof. Tom McCleish for further details: t.c.b.mcleish@durham.ac.uk

Outreach

As part of SOFI CDT training, cohort one spent three days in Durham learning about how they could stimulate science in the community using outreach events to encourage a better understanding of scientific research and its applications. To put their training into action, the group were challenged with creating an outreach event for some local secondary school students from Framwellgate School.



The result of several days of hard work was an interactive workshop "*There is interesting science in everyday things*". Through some exciting hands-on demonstrations using ice cream, paint, custard and a variety of other soft matter materials, the cohort manage to successfully teach some soft matter science to the local pupils, in ways they might not have imagined before. The day was a massive success for all involved, and was likely the first of many SOFI CDT outreach events.

As the cohort develops so will its outreach programme, which will be lead by the SOFI CDT students themselves, educating the public about the exciting scientific research and community the members are a part of.

Meet the rest of Cohort 1!

Rahul Chacko - Studied Maths and Physics at the University of Warwick; now working on dense non-Brownian suspensions at Durham University.

Dan Coward - Studied Chemistry and Maths at Durham University; now working on a synthetic polymer chemistry project with Synthomer in Edinburgh.

Alessandro Gulotta - Studied Food Science and Technology at University of Udine, Italy; now working on solvency effects on biopolymer interactions with Mondelez International at Leeds.

Michael Heeran - Studied Chemistry at Durham University; now working on a synthetic chemistry project with AkzoNobel in Durham.

Denise Li - Studied Chemistry at Durham University; now working on a biophysical project with GSK at Leeds.

Jon Millican - Studied chemistry at the University of York; now working on a polymer chemistry project in Durham with Epigem.

Axa Piñeiro - Studied chemistry at Universidad Autónoma de Madrid, Spain; now working on deposition of droplets on leaves in Durham.

Ben Robertson - Studied Chemistry at Durham University; now working on a computational/physical polymer chemistry project in Durham with Lucite International.

Laura Sawiak - Studied Physics at Queen Mary, University of London; now working at the University of Edinburgh on colloidal suspensions.

Edgar Simmons - Studied Physics at University of Manchester and now working on dynamics of glassy polymers in Leeds with Lucite and P&G.

Daniel Taylor - Studied Physics at The University of Bristol; now working on bacterial growth in emulsion micro-environments at Edinburgh with Unilever.

Papoole Valadbaigi - Studied Food Science at the University of Leeds; now working on generation of ultrastable microbubbles for industrial application in Leeds with Akzo Nobel

Industrial Q&A: SYNTHOMER PLC

Dr. Paul Ross-Gardner is a Senior Scientist with nearly 20 years of experience with Synthomer plc, a publicly listed FTSE 250 company.



Could you give us a brief introduction to your company?

We are a world-class supplier of water-based synthetic polymers to industry. Our product portfolio comprises of polymers for a wide variety of applications, ranging from paints and adhesives to textiles, speciality paper coatings, plastics and dipped products

What attracted you to become involved with the SOFI CDT?

Synthomer was attracted to the SOFI CDT concept, since it demonstrates aims which are closely aligned with our own business needs and offers access to additional expertise to that which we have in-house.

What advice would you give to the SOFI students?

Some good advice given to me when I was a research student was, "You've got two ears and one mouth. Use them in those proportions!"

Meet us at...

- **SOFI CDT Industrial Network Event** in Edinburgh on June 17th -18th 2015. Find out more and register at <http://www.eventsofi.meeting-mojo.com/>
- A Royal Society Discussion Meeting held in London on Oct 12 and 13, 2015, with the title: **Soft Interfacial Materials: From Fundamentals to Formulation** Find out more and register at <https://royalsociety.org/events/2015/10/soft-interfacial-materials/>