Industrial Knowledge Forge (InKForge)

The project brief

This project aims to develop close links with industry and embed development of industrial knowledge for early career researchers, through industrial networking and partnering for research projects, across the Faculty of Medicine, Dentistry & Health.

This is achieved through a variety of activities including seminars, lectures, networking meetings, workshops, career expos and an industrial mentoring programme.

Key impacts

Understanding of the sector(s): Taking a research-led approach to developing both the content and the methods of delivery of the InKForge programme has allowed creation of tailored events for each MDH department that have internal buy-in and are shaped, owned and driven by internal champions. Engaging industry representatives in discussions about the value of an interaction with TUoS has allowed us to ensure their engagement. We have worked to align with, and inform the work of the Sheffield Healthcare Gateway (SHG), also communicating findings through faculty governance.

Industry-Academia Networking: Vastly increased opportunity for networking with representatives from across the industry sector for PGRs, ECRs, and academic staff. Approximately 230 PGRs and ECRs and academic staff have attended/participated in InKForge events since the launch in January 2012.

Employability: We have increased awareness of potential careers in industry and the skills and attributes that employers are seeking, as well as promoting the potential for academic-industrial collaborations both now (current academics) and to the next generation of academic leaders, enhancing the academic CV.

Developing Trusting Partnerships: Mutual trust has been established and consolidated with a wide range of industry partners who are potential sources of research funding. Since the launch of InKForge, 41 industrial visitors, from global pharmaceutical to local biotechnology companies including GSK, Lonza, Astra Zeneca, UCB, Lilly, IDS, Unilever, Novartis, Metaphase, Peakdale Molecular, Tissue Gnostics, Allergan, OI Pharma and Kymab Ltd, have taken part in 22 events (seminars, project scoping meetings, workshops, and conferences), and agreed to join the InKForge network.
Industry Presence at TUoS Conferences: Eighteen industry guests have attended high-profile TUoS-hosted conferences (1) Medical School Research Meeting (2) Centre for Integrated research into Musculo-skeletal Ageing Conference (3) Krebs Meeting on Molecular Mechanisms of Ageing (4) Translational Cancer Research (5) Good Practice in Multi-Criteria Decision Analysis. These events link academic research with translational applications, providing opportunities for the Faculty to showcase its research capabilities and for ECRs to present their research for comment from an industry perspective.

Furthering TUoS Understanding: Interviews with academic staff have raised awareness of the aims of Industrial Knowledge Forge and increased participation in events and allowed reflection on motivators and barriers to engaging with industry at PI level. This helps us to help others (e.g. SHG, Faculty Lead for Research & Innovation) communicate the value of industry collaboration.

Outcomes observed

Increased provision of impactful ECR/PGR training and development events and research meeting events e.g. the Krebs Meeting and the School of Clinical Dentistry/GSK Partnering Meeting.

Establishing of Industry Mentoring - A formal 1-year paired mentoring programme has been designed and is due to pilot in 2014 with full evaluation of an industry-linked PGR cohort and a control group who are not linked to industry. A semi-formal programme run through an online-portal will also launch in Faculty MDH in 2014.

BiotechnologyYES Business Plan Competition - InKForge supported three teams to enter in Autumn 2012 and five teams in Autumn 2013. Our interviews with industrial employers showed that it is a highly regarded scheme, helping to bridge the gap for ECRs in academia by exposing them to industry culture. Participants from 2012 were highly impressed by the scheme:

Culture Change - InKForge aims to effect a step change in the numbers of researchers interacting with industry. We believe that in the last year we have increased the numbers of researchers who are ‘contemplating’ a career in industry, or a joint project with industry. This is the first transformational shift (pre-contemplation→contemplation) in the Transtheoretical Model of change (Prochaska, 1992). Two key examples of a reinforced Faculty commitment to change are (1) Faculty funding of the InKForge project administrator post, and (2) an invitation to co-host the Med School Research Meeting in 2014, theme: Industry-Partnering for Research.

Developing Networks: - InKForge has recruited a network of 57 industry partners to date, through targeted communications with our alumni, via fostering connections through Faculty academic staff and by personal recruitment at partnering events (e.g. Genesis Conference). Network members are involved in both the design and delivery of events and activities.
Ensuring Even Provision - InKForge has hosted a programme of 22 events across the Faculty, including seminars, meetings, workshops, and industry-linked conferences that have been hosted by (and open to) all participating MDH departments. Many events have been inter-Faculty with Science and Engineering staff and students attending as appropriate. Furthermore, the ‘Industry Career Day’ welcomed 16 researchers from Sheffield Hallam University.

Enhancing Reputation - We have worked to promote a positive attitude to engagement with industry at all levels and to encourage partnering for research projects. We have showcased Faculty research capabilities to external audiences throughout our work. Our guests have repeatedly remarked on the quality of the interaction with TUOS. Our industry-led seminars have helped to inform researchers in academia about the potential for partnerships with industry:

Involvement of Industry in Teaching and Training - InKForge has facilitated one-to-one meetings between academics and appropriate members of the network interested in teaching and lecturing. Outcomes are:

- recruitment of Dr Gemma Satterthwaite (AZ) to the position of Honorary Lecturer in Neuroscience
- recruitment of three industry tutors for a new MSc course in Translational Oncology
- the creation of an upcoming online learning resource for MRes students by Professor Stuart Farrow (GSK)
- a new workshop on commercial finance from a Finance Director and a Business Analyst at AZ will pilot in Sept 2013 to inform the business plans of Biotechnology YES competitors. Going forward this could meet a need for training for academic staff in this area

The legacy

An application to Higher Education Innovation Fund (HEIF) to support events for PGRs, ECRs and PIs has been successful, with £21, 500 per year allocated until 31st July 2015.

In addition, external funding for one-off events is being sought from other sources, including BBSRC Knowledge Exchange and Commercialisation seminar series and industry sponsorship and new funds will be sourced as available.

Enterprise

Being able to recruit people from industry into curriculum development and delivery for teaching and training in MDH has been warmly appreciated by all stakeholders. Working with academic module leaders to open industry guest lecturers out to all PGRs and ECRs has enabled us to resource share.
Innovation

The GSK-dentistry meeting, and the CIMA Industry-Interaction day. These two events were in a previously untried format for MDH, and brought academia and industry together in a ‘low-pressure’ setting. There were lots of really valuable, interesting talks from industry guests about their research, sparking debate, ideas, and interest amongst academics that could translate into an increased culture of collaboration. Both also held opportunities for ECRs and PGRs to receive feedback on their research work from well-respected industry professionals.

Quotes and personal experience

“I enjoyed my visit to Sheffield very much and was really impressed with the consistent high quality of the posters and oral presentations. I'll look forward to next year's event.”

Professor Stuart Farrow, GSK

“Please do keep me posted regarding future events as this (InKForge) is such an important initiative.”

Dr Janet Fernihough, Vertex Pharmaceuticals

“The poster session was particularly useful as I received good suggestions that are likely to improve my experiments.”

PGR

“It was a real pleasure to come up to Sheffield last week for the Research Meeting. The younger researchers were all very good at presenting their work and keeping to time in a tight schedule. They should all be congratulated! If there is any way I can help with InKForge or indeed, teaching in general, at Sheffield please don’t hesitate to ask.”

Alan Wallace, AZ

“I will be more ready to approach folk with ideas, they can only say no right? I think I am realising the industry folk do a fair amount of horizon scanning and also ‘watching brief’ work, so I am hoping this meeting puts us on their radar and also would open door for our department to interactions.”

Academic

“From attending dept seminars I have gained knowledge of technical terms, and how the same thing may have a different name in industry. It has strengthened my career aspirations: this knowledge will help me better interact with industry, while still being in academia. I understand more about commercialising research, or how academics can partner with industry for research.”

ECR

“I most certainly feel that all of them have made clear that companies want to now collaborate with academia and also laid out a path for doing so and made clear what kind of ideas companies might be interested in investing.”

PGR

To find out more contact
Juliet Harland (j.harland@sheffield.ac.uk)
Faculty of Medicine, Dentistry and Health