

2018 Grand Challenges in Plant Pathology Study Group Report

By Floren Scrafton

Last month I participated in an awesome 3-day residential problem-solving course called 'Grand Challenges in Plant Pathology Study Group'. The event was sponsored by the British Society for Plant Pathology (BSPP) and situated in the inspirational setting of the Royal Society's HQ, Chicheley Hall. The Study Group brought together PhD students, postdocs, early-career researchers and one enthusiastic undergraduate student from 16 different institutes. Additionally, we were joined by seven 'Champions'; these were internationally networked experts with an immense diversity of work experience from: molecular plant pathology research, disease management and science policy, science technology to outreach and agricultural capacity building. This collection of expertise and vision, different nationalities, backgrounds and ages naturally created an engaging and innovating atmosphere within which to debate and formulate novel solutions to important challenges related to plant pathology.



Structure of the course

Each day the morning's activities kicked off with short introductions from participants and were followed by back-to-back masterclass sessions led by the Champions who importantly set the scene for the team challenges. The Champions doubled up as both speakers and mentors, presenting eye-opening details and inspiring personal insights from their past and current work while guiding us to critically analyse problems and develop our own solutions. Before lunch, we were split into groups of five and assigned our own Champion and one of four major themes to explore: **Adopting Innovations in Agriculture; Emerging diseases in Europe; Plant Disease and Food Security, and Post-Brexit Challenges in Plant Health.**



The challenge was to define a specific problem to address, critically dissect available information and to work towards designing a novel and interdisciplinary solution, for which we'd have 15 minutes to pitch to the audience later the same day. The presentations were delivered before and after dinner and always stimulated lots of questions to discuss and feedback. The course was structured so that each day two of the **four major themes** were covered and

tackled by three teams. This widened the scope for showcasing a broad range of novel solutions while also allowing us to appreciate the most relevant, outstanding needs wherever the convergence of ideas occurred (e.g use of similar technology or theoretical strategies). The final day concerned the 'management of messages': we were tasked with producing photosheets and factsheets for crop diseases, following professional standards and designed for specific end users such as smallholder farmers or policy makers.

Personal highlights

The daily team challenges were by far the best part of the course as it allowed us to work closely with new peers and to practise efficient teamwork to maximise our resourcefulness and creativity within a short 3-hour timeframe. Everyone brought a different skillset and outlook, triggering lots of interdisciplinary thinking and an equal division of leadership. The Champions participated to the initial brainstorming and provided continuous constructive criticism to keep us focussed on producing realistic solutions and structured arguments.



My favourite challenge was in **'Adopting Innovations in Agriculture'**, led by Dr Jeff Bentley, an agricultural anthropologist currently based in Cochabamba, Bolivia who currently helps design farmer-scripted educational videos for Agro-Insight. Our group came

up with the idea of a new mobile App for connecting farmers worldwide. The App was envisaged as a self-help and externally linked platform with several features we thought could educate and inform farmers with the latest and most relevant mitigation strategies for emerging diseases to help boost their crop security and safe-guard their livelihoods.



Conclusions

Invaluable tips and feedback were provided throughout the three days of activities, and with different projects to design each day it meant you could immediately reflect, implement changes and improve your contributions. The days were intense, fast-paced and required a fair bit of intellectual stamina, but the enthusiastic vibe of the Study Group kept everyone engaged and our work ethic on-point. Important additional highlights were the residential peacocks, gourmet coffee breaks, the buffet style breakfast, lunch and dinner and a local pub two minutes down the road!

I would like to thank the DTC for covering the cost of the Global Challenges in Plant Pathology course. The course left me with lots to think about, key contacts for my PIPS placement and perhaps most importantly, a real appreciation of the limitless career opportunities that can stem out from postgraduate studies - in the life sciences or otherwise – and I would highly recommend this course to future students! Many thanks to BSPP and the course organisers Prof. Murray Grant (BSPP President), Dr Vardis Ntoukakis of the University of Warwick and Dr Eric Boa (BSPP Programme Secretary).