Developing transferable skills in final year pharmacology undergraduates via a 'public engagement with drug discovery research' unit

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Background and Aims: Public engagement (PE) with research is a key activity for all professional scientists (1). Additionally PE, by its nature, provides opportunities to develop confidence in communicating so as to inform and engage the public whilst developing a range of transferable skills, which are vital in future careers and often identified as lacking by employers of STEM graduates (2). We have previously reported on the development of a "Toolkit" of resources for introducing PE to undergraduate curricula (3). Here we report the implementation of an optional PE unit for final year pharmacology students with a specific focus on the development of transferable skills.

Summary of work and outcomes: The 'public engagement with drug discovery research' unit used taught sessions to introduce students to the concept, context and importance of PE and to highlight a range of activities, approaches and audiences. Training was provided on effective communication, creative design, delivery and evaluation while students worked alongside a researcher to devise and deliver a novel PE activity. The unit was assessed through a group activity pitch; a written event plan; peer contribution and a reflective portfolio comprising a descriptive section detailing the event aims and a personal development section where students were encouraged to reflect on their performance and development goals. The success, or otherwise, of the PE activity was not assessed. Analysis of the unit by the markers and external examiners confirmed that the range of assessments mapped effectively to the learning outcomes of the unit and enabled evaluation of how well these had been achieved by each student.

Discussion: Students were initially daunted by the scope of the task. However, in their reflective portfolios, and end of unit evaluation, they commented that whilst finding the unit challenging, they felt they had learned a lot about themselves and their abilities and developed a range of skills.

Conclusion: Staff found the interactive methods of teaching stimulating and the enthusiasm of the students was great to see. Evaluation of their output confirmed that students had advanced their skills with greater confidence in communication, team working and project management.

References:

(1) Research Councils UK Concordat on Engaging the Public with Research: see http://www.rcuk.ac.uk/pe/concordat/ (accessed Sept 2017)

(2) "The Chemical Skills Pipeline", Warwick Institute for Employment Research, June 2009: see http://www.rsc.org/Education/CFOF/CCT.asp (accessed Sept. 2017)

(3) Bailey, SJ et al. (2015) Bringing public engagement into the undergraduate pharmacology curriculum: a cross-departmental initiative. At http://www.pA2online.org/abstracts/Vol13Issue3abst205P.pdf