Planting the Seeds of Cross-Disciplinary Teaching & Assessment
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Introduction and Aims
- The School of Medical Sciences has traditionally had little interaction with Cruickshank Botanic Garden until the current academic year.
- Curriculum reform at UoA – breadth in curriculum, awareness of world events and issues.
- Pharmacopoeia exhibition at University Library – perhaps not exploited enough?
- Gardens underused by other disciplines apart from expected ones such as botany?
- Aim to understand origins of some of the more commonly-used drugs, and consider drug development issues

What can we do in a 6 week course with a class of just over 100 students from a variety of disciplines (>10 degree programmes!)?

How does it fit in with the course in question (BM3502 Neuroscience & Neuropharmacology)?

What logistical considerations/academic expertise/technical support would this require?

Aims
- To combine botanical expertise with pharmacological/physiological knowledge to develop a teaching and assessment activity for level 3 students (exploit current resources more imaginatively)
- Introduce students to cross-disciplinary collaboration and the role of ethnomedicine in drug discovery (address curriculum reform and breadth)
- Provide further experience in problem-solving, practical work and scientific writing.
- Allow student choice in assessment topic, whilst allowing timely feedback.

What did we do?
- Ethnobotany & Ethnomedicine Workshop
  - Background to commonly exploited plants for drugs and constituents of common household products
- Abstract written on medicinal plant of student’s choice
- Lab practical on natural product extraction from plants to illustrate issues in using them as sources of new drugs
- Highlight importance of naturally-derived drugs throughout course lecture series

Positive outcomes
- Practical helped them understand difficulties of developing a new drug
- Abstract choice and originality (>60 different topics)
- Students engaged and interested
- Easy to mark, provide rapid and useful feedback

Negative outcomes
- Seasonal difficulties in obtaining plant material in Aberdeen!
- Some students irritated by challenging nature of natural product extraction
- Too much choice?
- Did we engage the entire class to same extent? – varied backgrounds and big class.

Conclusions
- We feel this educational exercise has been a success for staff and students and has shown how cross-disciplinary collaboration can facilitate teaching a large, diverse class, while allowing students choice in their assignment and enabling timely feedback via assessment in a novel way.
- Not perfect, but some good outcomes that we can build on.
- Added breadth to curriculum
- Increased volunteers for Botanic Garden
- Engaging and allows use of imagination/ originality
- Strengthened links between School of Medical Sciences and Botanic Garden
- Encouraged others to look at resources we already have and ask whether we could use them more effectively?