Good Brain, Bad Brain – Drug Origins

What is a MOOC?

A MOOC is a Massive Open Online Course - these are free, open, online courses designed to offer a taste of higher education to learners from across the UK and the world. The University of Birmingham is delivering new MOOCs in partnership with Futurelearn, the UK's first MOOCs provider established by the Open University.

Delivered by world-class academics from the University of Birmingham, the courses enable learners worldwide to sample high-quality academic content via a interactive web-based platform from a leading global University, increasing access to higher education for a whole new cohort of learners.

The courses have been developed by senior academic staff and their content is quality-assured in line with our other programmes. The courses do not offer credits towards admission to the University of Birmingham.

Good Brain, Bad Brain – Drug Origins

This course is designed for anyone who has ever wondered how the drugs in their medicine cabinet were found in the first place and how they have ended up as pills in a bottle.

We will start with reflecting on the nature of drugs and take a historical perspective on some everyday drugs which have been taken by humans for centuries. What this will show us is that many drugs in common use were found somewhat accidentally and often, at least originally, without any understanding of the science behind how they worked. Over time this apparently random process has been refined and improved and so we will go on to consider recent advances in identifying potential drugs.

However, finding a molecule that has the potential to act as a drug is not the end of the process. The critical questions then are how to get it into the body, how much needs to be taken and will it be safe enough as well as effective.

The course will take an interactive approach allowing you to integrate your experience with some resources with any jargon explained for the non-specialist.

How to apply

The next course will start on the 9th March 2015 and you can sign up now on the **FutureLearn (https://www.futurelearn.com/courses/good-brain-bad-brain-drugs)** website.

Study here and find out why the University of Birmingham was awarded The Times and The Sunday Times University of the Year 2013-14 (http://www.birmingham.ac.uk/news/latest/2013/09/20-sep-Birmingham-announced-as-University-of-the-Year.aspx)

Contact

For any queries about this course or any technical issues you may experience with signing up to the course please email: **feedback@futurelearn.com (mailto:feedback@futurelearn.com)**

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Details

Course knowledge requirements

You will need to have a basic knowledge of what the brain is made of, how these component cellular parts are organised and the principles of how these cells function normally. This would be appropriate for someone who has taken the MOOC "Good brain, bad brain: basics of the brain" or who has studied neuroscience in the early years of their undergraduate degree.

Course duration and week by week content

- Week 1: Principles of drug science and the processes through which drugs are discovered
- Week 2: Drug development: getting the drug form the laboratory to the patient

Lead academic

A lifelong interest in biology resulted in Dr Alison Cooper reading for a degree in Natural Sciences. During this a developing interest in neuroscience led to a PhD in the laboratory of Alan Crossman in the neuroanatomy department at the University of Manchester. The behavioural pharmacology aspects of the PhD required Alison to acquire skills which, at the time, were going out of fashion, but which are now recognised to be deficient in the science base, particularly in relation to drug discovery. During her post-doctoral phase, Alison was required to undertake some teaching and, after finding that she thoroughly enjoyed it, sought out more teaching opportunities. This led to her being appointed as a teaching fellow at Birmingham which became a lectureship followed by promotion to senior lecturer on the basis of the extent and expertise required for her diverse teaching.

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