

Undergraduate projects in science outreach

As part of their third year research project, Biosciences undergraduates can choose to create a display within the school's undercroft entrance space. The websites below were produced by students to accompany current and past exhibits; click on them to explore more about the topics covered.

If you are interested to learn more about a specific project, or the Science Outreach projects in general, feel free to email the project coordinator, Dr Robin May (r.c.may@bham.ac.uk).

Current exhibit

Biotoxins

Emma Gray

Biotoxins are substances which are both toxic and have a biological origin. They come in many forms and can be produced by nearly every type of living organism: there are mycotoxins (made by fungi), zootoxins (made by animals) and phytotoxins (made by plants). Whilst some appear to have no advantage for the organism making them (they might be a waste product, for example), most are produced to help in two main activities – predation and defence against predation by other species, and so have very important roles in the life cycle of the organism. As we can see, biotoxins are varied in both function/mechanism and form: they can be used for a variety of activities or even none at all and can be anything from large complex molecules right down to fairly simple proteins. They can also be administered in lots of ways, including orally ingesting them, being injected as venom or being released into the environment via a type of pore.



Click to visit **Biotoxins website** (<http://www.biosciences-labs.bham.ac.uk/exhibit/>)

Past exhibits

Microbial Biopesticides

Katie Lee

Microbial biopesticides are a type of biological control. Biological control is defined as the use of natural enemies (i.e. predators, parasitoids, pathogens and competing species) to reduce a pest population (Harper, 2006). Microbial biopesticides use microorganisms (i.e. bacteria, fungi, viruses and nematodes) that are naturally pathogenic to specific crop pest insects.



Click to visit **Microbial Biopesticides website** (<http://www.biosciences-labs.bham.ac.uk/exhibit/klee>)