

# Australian Biochemist Students' Page

## Post-PhD Careers - Segues In Science

This list is intended to spark your imagination if the bench is not for you. Many scientists develop successful careers that incorporate the skills and knowledge they gain during their training, as well as their other interests or aptitudes. A great way to get ideas and to meet people who are in alternative careers in science is to attend career information seminars arranged by organisations such as the Australian Society for Medical Research (<http://www.asmr.org.au>) and Ausbiotech, as well as the Career Development Forum at ASBMB's annual ComBio conference.

### Alternative careers

#### 1. Industry

Biotechnology in Australia is growing, and with it, opportunities for employment. A good place to start for ideas is Ausbiotech (<http://www.ausbiotech.org>).

#### 2. Business

With further training, you may find the switch to managing the business side of science more to your taste. A three-year MBA in biotechnology is available. The Australian Institute of Management also has a number of shorter courses.

#### 3. Sales / customer service

Companies that sell consumables and equipment to research labs require representatives that understand the ins and outs of research in order to interface with the customers, who are scientific researchers. Positions are advertised on national employment sites and newspapers, but contact companies if you are keen to move into sales or marketing. There are also several specialised science and technology recruiters who advertise these positions.

<http://www.sciencepeople.com.au>

<http://www.onqrecruitment.com.au>

<http://www.perkinsresources.com>

#### 4. Science communication

There is a huge need for scientists with a good ability to communicate, in order to bring science to the public, industry professionals, the media and the government. Postgraduate courses in writing, publishing, media and communications are available, but may not be necessary for employment if you can demonstrate an aptitude for communication.

The Australian Science Communicators is a non-profit organisation established to bring together science communicators (<http://www.asc.asn.au>). You can also try the Australian and New Zealand Association for the Advancement of Science (<http://www.asc.asnzaas.org.au>).

##### a) Science writing / editing

Science writers, editors and journalists can come from either a science or journalism background. If you are interested in science writing, explore your options. Australian popular science magazines all consider submissions:

*Australasian Science* <http://www.control.com.au>

*Cosmos* <http://www.cosmosmagazine.com>

*New Scientist* has an Australasian edition <http://www.newscientist.com>

Also, local newspapers may accept submissions.

##### b) Public relations / media

Another area of science communication is in public relations. Universities and institutes will often employ a PR representative to liaise with the media by writing media releases and identifying newsworthy research. For these positions, a PhD in a relevant research field is often required.

#### 5. Patent law

The rise of biotechnology has created a branch of the law that is best understood by people with a background in science. Postgraduate courses in intellectual property and patent law are available and some companies may financially support your study whilst you gain experience working in the firm (for example, Freehills; see <http://www.freehills.com>).

#### 6. Further study

Graduate entry into many courses at the university level is possible. Some suggestions include: Diploma of Education - secondary teaching; public health; health science; medicine - graduate entry to medicine is available at seven universities Australia-wide. entry requires a degree, the GAMSAT exam and interview (<http://www.gamsat.acer.edu.au>).

For more career ideas (albeit centred on the US), see <http://www.nature.com/naturejobs/magazine/editors-choice-1.html>

Hilary Hoare

We want to make this page interesting to students, so please provide feedback about this page's contents, or your ideas for future issues, by contacting either: **Julia Archbold** ([Julia.Archbold@med.monash.edu.au](mailto:Julia.Archbold@med.monash.edu.au)) or **Erinna Lee** ([Lee@wehi.edu.au](mailto:Lee@wehi.edu.au))

# Monash Postgraduate Research Conference

The Monash University Department of Biochemistry and Molecular Biology postgraduate research conference was held this year on 12-13 July. The conference is run by the second year PhD candidates and the organising team did a fine job of arranging sponsors, catering, door prizes, and prizes for oral and poster presentations.

This year's program featured guest speaker Diana Henry, founder of Science People ([www.sciencepeople.com.au](http://www.sciencepeople.com.au)), a recruitment agency dedicated to jobs in the commercial science industry. In her presentation, she gave practical advice about moving from research to industry, including interview and resume tips. Research talks from the third year PhD candidates from Monash and affiliated institutes showcased the diverse range of research conducted in the department. Congratulations to the oral presentation prizewinners, Anne Pettikiriarachchi and Antony Matthews.

During her PhD with Mark Prescott, Anne constructed new chromoproteins for applications in biochemistry. Chromoproteins that are a different colour than those already available, mature quickly or are capable of switching between fluorescent and non-fluorescent states upon irradiation have many uses in cell and protein biology, including for fluorescence resonance energy transfer experiments. After many set-backs, and with meticulous controls, Anne engineered two new chromoproteins using random and semi-random mutagenesis.

Through extensive sequencing of 'wild' mice, Antony's research with Phil Bird into granzyme B revealed that the observed differences between the properties of human and murine granzyme B may be due to a 'founder effect'. The inbreeding of laboratory mice has caused the granzyme B gene to be almost invariant in these animals, which in turn, may have reduced its cytotoxicity.



*PhD students  
playing  
Celebrity  
Heads: Antony  
Matthews and  
Anja Knaupp.*

The presentations were punctuated by heats of Celebrity Heads, with representatives from various labs using their skills in deductive reasoning to guess which celebrity, cuisine or piece of scientific equipment they were. There were many laughs to be had at the departmental debate, 'Footy fans are more passionate than scientists'. One of the arguments to the contrary was: "I once worked with a guy whose wife divorced him because he had neglected her, spending too much time in the lab. He was relieved, because he was no longer nagged to come home, and could devote all of his attention to his true passion - science."

*Hilary Hoare*