

Maryam Hanafiah

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Education

October 2008 – October 2009 **School of Pharmacy, University of London**

MSc in Pharmacognosy

Modules:

- Pharmaceutical analysis and drug discovery
- Therapeutic uses of plants
- Methods in pharmacognosy
- Therapeutic natural products and ethnopharmacology

Research project: Evaluation of natural products as anti-plasmid agents.

I performed crude extractions of the aerial parts of four *Plectranthus* species: *P. spicatus*, *P. hadiensis*, *P. thyrsoideus* and *P. cylindraceus* and tested these extracts together with *E. rutaecarpa* fruit extracts, cannabidiol, gambogic acid and a compound derived from *Hypericum olympicum*, against a range of bacteria including *E. coli* and antibiotic-resistant strains of *E. faecalis* and *S. aureus* to determine their minimum inhibitory concentrations. Then I tested the active extracts against plasmids, namely IncP and IncI₂.

July 2004-July 2008 **Nanyang Technological University**

BSc (Hons) in Biological Sciences

Final year research project: The mode of action of defensins: role of oligomerisation

I ran molecular simulations and energy calculations to investigate how human defensin molecules dimerise. I used APBS to determine the dimer conformation with the lowest static binding free energy and visualise the electrostatic surface potentials of the dimers and AMBER to simulate dimer formation and determine the conformation with the lowest dynamic binding free energy. I used modelling programs such as PyMol to visualise the structures and to generate other possible molecular conformations crystal structures of human defensin molecules.

Employment and Experience

7 January 2010 – present **Medicines and Healthcare Products Regulatory Agency**

Temporary Scientific Administrator

I work within the Information Processing Unit as part of a group which handles applications for Type IB and II variations to current drug licences and performs data capture, indexing and case validation. My duties include editing and indexing documents, updating and otherwise accurately processing case folders for new variation applications.

July-August 2008 **Viscion Media (Singapore)**

Beauty Intern

I worked with the editorial and beauty teams at two women's magazines (BeautyBlackBook and Smitten Magazine). My duties as a Beauty Intern included:

- Writing reviews of beauty and non-beauty related products and services.
- Writing summaries and reports of daily world headlines and other news items for a women's newspaper that was planned at the time.
- Representing the magazine at events and product launches.
- Conducting interviews for articles.

- Administrative duties: handling telephone calls, reception duty, liaising with external companies, handling incoming and outgoing mail, data entry.

May-August 2007

Royal Botanic Gardens, Kew

Intern at the Centre for Economic Botany/Sustainable Uses Group

Duties included:

- Organising photographs for a Chinese medicines book.
- Digitising *Cinchona* museum specimens by photographing and editing the images in Photoshop for a project on the history of *Cinchona*.
- Updating a database with historical articles and documents about *Cinchona* and cross-referencing them with specimens and images in the collection.
- Updating the Ethnomedica database (data entry).

August 2004-January 2006

Kawai Music School

Part-time Piano Teacher

I taught piano and music theory to children from the ages of 7-10.

January 2002-November 2003

Singapore Cheshire Home

Volunteer

I was a companion at the Cheshire Home for the disabled. I assisted with feeding, day excursions and general companionship. I also sold handicrafts for charity.

January-December 2003

Pertapis Orphanage

Volunteer

I was on the committee for a team of student volunteers that organised the repair and installation of second-hand computers at the orphanage.

January-December 2002

Kandang Kerbau Women's and Children's Hospital

Children's playroom volunteer

I assisted with looking after the children at the playroom and with the Arts and Crafts corner.

Skills and languages

- Comfortable with natural product extraction, aseptic technique, bacterial plating, MIC testing, immunoassays, using spectrophotometers and gel electrophoresis methods.
- Familiar with analytical spectroscopy, NMR, PCR theory.
- Comfortable with the following tools: PyMol, VMD, RasMol, AMBER, APBS, TreView, BLAST
- Computer skills: Linux/Unix, MS Office, SPSS, Photoshop, HTML, CSS, Bash.
- Typing speed: 103wpm
- Languages spoken: English (fluent), Malay (fluent), French (intermediate)

Interests

- Ethnobotany, plants and nature
- Sewing felt animals
- Music