

The Bachelor of Medical Science (Honours) degree at the University of Auckland

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Belinda May is the Academic Systems Coordinator in the Medical Programme Directorate, the Faculty of Medical and Health Sciences at the University of Auckland. She works as part of the team which administers the medical programme and provides support for the BMedSc(Hons) programme. Belinda's background includes psychology, computer systems analysis, and primary school teaching. She is currently completing a Master of Education, in e-learning

Alison Mayson is the Manager of the Medical Programme Directorate which is responsible for the management of processes which support the curriculum. Originally a medical laboratory scientist, subsequent qualifications and experience in business education programme development have been brought together for this role. Alison has a lifelong interest in support for developing countries and their international students.

Dr Andrew Shelling is an Associate Professor in the Department of Obstetrics and Gynaecology in the Faculty of Medical and Health Sciences at the University of Auckland. He is head of the Medical Genetics Research Group, which is primarily interested in understanding the molecular changes that occur during the development of genetic disorders, focusing on infertility, breast and ovarian cancer. Andrew is currently Deputy Head of Department of Obstetrics and Gynaecology, and is involved in teaching reproduction, genetics and cancer at the University of Auckland. He has a life-style farm, and enjoys chainsaws, growing his own food, and running and multisport when he has time.

The Bachelor of Medical Science (Honours) degree is the intercalated research degree for medical students at the University of Auckland. It has recently been renamed from the old Bachelor of Human Biology (Honours) degree, which became an inappropriate title for the degree, when the undergraduate and graduate medical programme changed its name to the Bachelor of Medicine and the Bachelor of Surgery (MBChB). Students who undertake the BMedSc(Hons) are academically high achievers; and are often motivated to undertake research in a particular area of interest, because the programme may be used as a pathway to a PhD later in their career.

Academic clinical leadership positions need people with research backgrounds. So the Faculty of Medical and Health Sciences (FMHS) has an interest in investing in this programme, as they would like to see graduates from the qualification in these positions in years to come. With approximately one third of the medical students in the United Kingdom completing a similar qualification, any New Zealand medical student contemplating a career there may be wise to consider the competitive advantage obtained with this qualification.

The programme is designed to provide an opportunity for students to undertake a research project of their interest, and to develop skills in research and scholarship. The thesis component of the programme provides the opportunity to develop skills in critical appraisal, problem solving, study design and implementation, and writing for academic publication. Students can explore an area of personal interest within medicine in-depth, which they would not otherwise have the opportunity to do within the MBChB, and to contribute to the scientific body of knowledge. By completing the optional postgraduate papers during the course of the programme, students have an opportunity to pursue interests not taught in the medical programme, and to develop insight and skills important for their research project, such as medical statistics.

Students are often surprised about the range of research options available. They may choose to carry out research in one of a wide variety of areas including biomedical research, clinical research and public health research. Students with a particular area of interest may approach university departments or researchers directly, to talk about postgraduate research opportunities. For those who do not have a particular project in mind, researchers also advertise available projects on the University of Auckland FMHS research website. Sometimes students will choose a project that develops from a summer studentship project they have done, and may keep their summer studentship supervisor. Many students are interested in becoming involved in a research project, but are not sure where to begin or who to talk to first, and therefore, their first port of call is the Programme Director, currently Associate Professor Andrew Shelling.

A key to success is choosing a suitable BMedSc(Hons) supervisor, as this is an important relationship that can often be life-long. Students need to find someone who is able to help define the project, provide academic oversight and support for the student at the level expected of an Honours student project. In addition, if students are working in a laboratory and they do not have prior lab experience, they will need to have someone available to supervise them in the laboratory. This may not necessarily be the overall supervisor; it may be post-doctoral scientists, doctoral students or a lab technician; just someone who will be there on a day to day basis for support.

Students often report having the best experiences when they are part of a research group, with other postgraduate research students (e.g. Masters or Doctoral students), or academics who can support them and help them get up to speed in the area they are working. The opportunity for students to work collaboratively is regarded as a major 'draw card' for the programme, something students rarely get to experience within the MBChB.

At the University of Auckland, students completing the BMedSc(Hons) have two options; they can either complete two postgraduate papers across the year and write a dissertation based on their year-long research project, or write a thesis based just on their research project. Students choosing the papers and dissertation option may select papers to equip them with key background knowledge and enable them to 'specialise' in a particular topic. Students need to seek advice from a range of people including their supervisor when choosing their papers.

Jimmy Chong completed his BMedSc(Hons) at the University of Auckland in 2009, below he reviews his year's achievements and his future direction.

The Bachelor of Medical Sciences (Honours) programme offered me a unique opportunity to pursue my interests in research through working with a team of dedicated and enthusiastic supervisors and support people. My decision to undertake the year long programme stemmed from the experience gained during a summer studentship at the end of my second year of the MBChB. This showed me that this area of work brings together patients, families and health professionals, combining both statistical and clinical meaning. As well as this, research involves an intellectual drive for understanding and developing questions, technical skills contrasted with broad thinking, and also the challenges of peer review and cross discipline involvement.

My focus was to take a collaborative approach to understanding the perspectives of children with cerebral palsy attending tertiary level orthopaedic services. This integrated a backbone of health psychology and introduced new methods (such as the use of drawings) as possible means for children to communicate their thoughts and emotions. This fresh outlook I believe contributed greatly to the overall success of the project.

During the year, I looked for chances to involve myself in clinical and research networks by attending conferences and submitting abstracts of our work. We achieved first place in the clinical category of the Healthex forum 2009, which led to eventually reaching the oral finals of the university wide Exposure Postgraduate event. Most recently, I also presented four talks at the Australasian Cerebral Palsy and Developmental Medicine conference. This has shaped my future direction towards a speciality in paediatric rehabilitation with a strong interest in academic medicine.

ACKNOWLEDGEMENTS

Developed from an information sheet prepared by Anna Dare, and a report by Jimmy Chong.

