“Read why our current Honours & Master of Biomedical Science students chose their research projects”

HONOURS

and

Master of Science Students

Affiliations:
The Royal Melbourne Hospital, The Royal Women’s Hospital, NorthWest Academic Centre (NWAC), National Ageing Research Institute (NARI), The Peter MacCallum Cancer Centre, The Burnet Institute, Melbourne Brain Centre, Florey Neuroscience Institute, Melbourne Neuropsychiatry Centre, Mental Health Research Institute, CSIRO, Northern Clinical Research Centre, The Northern Hospital.
Adam WADE

Project Site: Department of Medicine, Royal Melbourne Hospital

Supervisors: Dr Dr Kim Powell

PROJECT: Investigating changes in cardiac calcium channel expression post-status epilepticus in rats

My name is Adam Wade and I graduated with a Bachelor of Science degree, majoring in neuroscience. I was particularly interested in epilepsy after studying it in my final year of science in my neuroscience subjects. After hearing from friends about how rewarding an honours year can be, I figured I may as well look into it. I decided to take a project at the Royal Melbourne Hospital with Dr Kim Powell as my supervisor and I look forward to getting started in the lab! From this year I hope to gain further knowledge regarding epilepsy and to work on my lab/research skills and independent learning.

Alissa MICHIENZI

Project Site: Peter MacCallum Cancer Centre, Department of Medicine, Royal Melbourne Hospital

Supervisors: Dr Sarah Everitt and A/Professor Tomas Kron

PROJECT: Cone-beam computed tomography (CBCT) for primary tumour volume assessment in non-small cell lung cancer (NSCLC)

I chose this project as I was immediately drawn to its clinical nature. I have always had an interest in radiographic imaging, particularly following my studies in anatomy and neuroscience, so this project was perfect for me! I was also lucky enough to find incredibly supportive and encouraging supervisors willing to guide my research.

My project’s aims include:
- To validate if primary lung tumour characteristics observed on cone-beam CT correlate to those seen on diagnostic CT
- To establish if cone-beam CT can be used to identify regression or progression in primary tumour volumes during radiotherapy
- To improve my scientific writing and oral presentation skills
- To improve my statistical and analytical reading skills

To date, honours has been a fast paced yet very enjoyable experience. It is fantastic to see how all my years of undergraduate, lecture-based study is finally translating into a clinical project which has the potential to change the way we currently monitor lung cancer patients.
Ashlee FRYE

Project Site: Department of Medicine, Royal Melbourne Hospital

Supervisors: Dr Adrian Achuthan, Professor John Hamilton

PROJECT: Molecular signalling pathways controlling gene expression during chronic disease progression.
My project is looking at monocytes/macrophages, which are innate immune cells important in the pathogenesis of Rheumatoid Arthritis (RA), and investigating how they respond to cytokines found to be elevated in the joints of patients with RA. I chose this project as I am interested in immunology and RA, and wanted to experience what it is like working in research and a real lab.
My experiences so far have been good, even though it isn’t always easy. Going from an undergraduate Uni lifestyle to being in the lab everyday was a shock to the system, but you get used to it. The other students and researchers are very friendly and there always seems to be a morning tea on at least once a week, which makes it worth it. Doing an honours year gives you a good insight into what research is really like, and I would recommend it to anyone considering a career in research or is unsure what they would like to do and would like to improve their grades.

Kavindu KULATHUNGA

Project Site: RMH Clinical Science Building

Supervisors: Dr Andrew Cook, Professor John Hamilton

PROJECT: The role of a novel macrophage inflammatory mediator in arthritis
I chose this project as having done pathology I realized one of my interests was inflammation. Having done an anatomy major, I was quite confused as to what path to take and therefore based my decision on the supervisors and how they promoted their project.
Aims/Goals
- See whether my novel cytokine has an influence in the arthritis world
- Develop experimental skills and animal handling skills
- To determine whether I would like to pursue a research career and get introduced to the world of research
- To get a H1 to increase my chances of getting into a postgrad course
I have had an enjoyable experience during honours and have made new friends in my lab. It has been an intense year and I have faced many difficulties making it an enjoyable experience when I overcame them. I would encourage an honours year for new friends and experiences.
What’s up everyone!

I’m Victor Vuu and I started my honours year straight after finishing an undergraduate course in Biomedicine (majoring in Pathology). Like many people, I only had a vague idea of what I wanted to do, so I browsed through everything and picked the first thing that interested me – in my case it was Malaria (And thankfully, it is very interesting!).

My project has me working with in-vitro human cell and malaria parasite models, and most of my time is spent in the lab. My project aims at deciphering the differential cytokine profiles of macrophages when they phagocytose malaria infected blood cells.

Enumerated now in short, not-really-succinct-and-awkwardly-phrased but hopefully helpful points are what I learnt from my course.

1. Honours will propel you head first into the research world, and upon finishing you will probably know if research is what you really want to do.
2. Biological hands on work. Remember that chapter of textbook you memorised last month? No? Alas, but now you could actually apply that knowledge!
3. It will teach (or Force, rather) you to manage your time
4. Do you know what working 9-5 Monday to Friday (and occasionally weekends), and then going home and doing more work is like? Well you will find out. Fun!
5. You will realise how comparatively easy you had it in your undergraduate course
6. On occasion you will cry (Both happy and sad tears)

To end this on a poignant note, I will say Honours has introduced me to a field of passionate, brilliant and hard-working people. Not only have I had first-hand experience with meaningful research, I have learnt about 6 mega tonnes about myself and the awesome world around us. Do it.

Good luck brethren!

PS: In-vitro work rocks
Dane LYONS

Project Site: Department of Medicine, Royal Melbourne Hospital

Supervisors: Dr Andrew Cook, Professor John Hamilton

PROJECT: The role of CCL17 in inflammatory pain and arthritis

After completing my undergraduate degree (Bachelor of Science, Pharmacology Major), I had no clue what I wanted to do with my life, I knew I was interested in inflammation but I also didn’t know what was out there in terms of careers stemming from my degree. I therefore chose honours to give myself a taste of research (and another year being a student with no responsibility). If you’re like me and have no idea what you want to do then give honours a go!

The transition from an undergraduate degree to honours is tough, I found myself working harder than I ever had in my short university career, however I also found myself wanting to put in that effort! The environment at the Royal Melbourne Hospital instils a sense of teamwork, where sharing of ideas is encouraged. Honours put me in a position to form opinions about my research, I wasn’t just reading from a book and reciting paragraphs, I actually got to use my brain! Also, due to the academic seminars, I ended up learning things about a plethora of topics and also ate a lot of free croissants at morning teas!

Things I learnt from honours:

- How to manage my time effectively
- What is required of someone working a full time job!
- How to work well in a group
- How to find free food
- A lot about arthritis and inflammation!

I would recommend honours to most students. It is an excellent opportunity to either get a glimpse of a field you may be interested in/mature as a person before entering post graduate study or learn something cool while you figure out what do with your life!
Anna SCOBIE

Project Site: Department of Medicine, Centre for Medical Research, Royal Melbourne Hospital

Supervisors: Nicola Reavley, Professor John Wark, Doctor Yasmin Jayasinghe, and Professor Suzanne Garland

PROJECT: Young Females’ Perceptions of Self Body Image

I chose this project as it is an area of interest to me, and because it allowed me to interact with people on an almost daily basis.

The aims of my project include:

- Studying how women view their bodies, and determining whether they are able to accurately measure their size/shape.
- Studying the associations between body image, and external factors, such as mental health, stressful life events, sexual experiences and sexual orientation.
- Improving my scientific writing skills.

Whilst my Honours year has been intense, I have gained invaluable experience and developed many new skills which I would not have otherwise. I would recommend undertaking an Honours year not only to gain insight into research, but also if you are not quite sure where in science you would like to end up.

Audrey GRECH

Project Site: Department of Medicine, Centre for Medical Research, Royal Melbourne Hospital, Parkville

Supervisors: Professor John Wark, Professor Suzanne Garland, Professor George Varigos and Stefanie Hartley

PROJECT: A critical analysis of sunsmart behaviour in young Australian Women

As much of an undergraduate degree is based on theoretical and lab-based knowledge, my clinical based project appealed to me as it would enable me to learn in a different way to what is provided in a bachelor degree. Furthermore, interacting with those involved in studies has been great in developing my ability to respond accordingly to various, unusual social situations.

Goals/Aims:

- Developing a strong rapport with others
- Gaining experience in the research field
- Aiding public health research
- Improving my scientific writing
- Developing professional relationships with hospital staff

Thus far, honours has been both challenging and rewarding. As the degree is short, I would recommend it to anyone who is unsure as to whether they would like to be involved in clinical practice or research.
Nazanin SHAJIEI

Project Site: Department of Medicine, Centre for Medical Research, Royal Melbourne Hospital, Parkville

Supervisors: Professor John Wark, Professor Suzanne Garland, Alexandra Gorelik and Stefanie Hartley

PROJECT: Measuring Bone and Muscle Health in young Women

I chose this project based on my bachelor degree in biology and my interest in science. My project’s main focus is on the relationship between bone and muscle health and establishing the normative data ranges for the key variables of bone and muscle parameters in young women aged 16-25.

Although Honours course has been very challenging and intense for me, it has helped me a lot to improve my research skills. During the course, I’ve learnt how to recruit people in human research projects and deal with site visit challenges. The Honours also helps me to be prepared for undertaking PhD. I would recommend Honours to anyone who wants to improve his/her abilities in research. That would be a really good start.

Sebastian SEAH

Project Site: Department of Medicine, Royal Melbourne Hospital

Supervisors: Professor. John Wark, Dr. Peter Simm

PROJECT: Bone Health in Children and Young People with Epilepsy Treated with Anti-epileptic Drugs

This project seemed interesting and something I was completely unaware of. As I researched this project further it seemed to be very relevant in terms of clinical health and exposed me to a whole new side health which I didn’t have much experience in. I was also drawn to the fact that it was a clinically based project rather than a lab based project, which meant I got to deal with patients and other allied health staff.

Aims/goals:

• I wanted to experience a different modality of learning, rather than lectures and exams.
• I wanted to challenge myself, research was a daunting prospect and I didn’t know how much I would enjoy it or how well I would do in it.
• I used it as an opportunity to experience the healthcare system from a hospital perspective and learn first hand the complexities of working in a healthcare profession.
• I also used it to improve my skills as a communicator to patients, doctors and other that I worked with.

This honours year has been up and down. Initially I was apprehensive of committing for a year to do research, as I didn’t particularly enjoy it in my undergraduate degree and stories I had heard made it seem more daunting than it is. Despite this I think this year has been invaluable in terms of the skills and experience you gain. Different challenges come up throughout the year and you have to find a way to deal with them. I would highly recommend an honours year to those who have just finished their degree and have aspirations to be in a health field in the future, or those that are unsure of where they want to go to next.
Gabriel SEGAL

Project Site: Royal Melbourne Hospital – Royal Park Campus

Supervisors: Professor Finlay Macrae, Dr Francesco Amico

PROJECT: Colon Capsule Endoscopy – Inter-observer Assessment of Bowel Preparation and Cleanliness

I felt that I would not be well suited to a lab-based project and thus looked for something that was directly involved in the treatment and care of patients. This project has allowed me to gain a great insight into the world of medical research, as well as learning about the transition from research into clinical practice.

I elected to do an honours year as a means to studying medicine and truly believe that not only will it improve my chances of acceptance into that course, but also has provided excellent preparation and experience for a career in medicine and research.

My main aims for the year are to receive great results for my work, and also to gain as much knowledge and experience as possible from my supervisors and interactions with patients.

Kim Det TAING

Project Site: Department of Medicine (RMH), Kenneth Myer Building

Supervisors: Dr. Chris French

PROJECT: In Vitro Brain Slice Epilepsy Models: Characterization of Ictogenesis; Response to Single Agent as well as Drug Combination Treatment

I am simply interested in electrophysiology, especially of the epileptic brain. The transition from the normal state to the disordered state still remains unclear - thus, it begs for further investigation. Also, some 30% of the patients are still not responding to the contemporary anti-epileptic drugs, leading to the need to employ further measures when they appear practicable -- therefore, I am keen to observe whether or not there are synergistic effects of AEDs, in particular, of phenytoin and valproic acid.

Aims/goals: To investigate
1. patterns of electrographic seizures and spatiotemporal dynamics of HFA at neuronal network level, of the preictal and ictal phases, in the CA1 and CA3 areas of rat hippocampal slices between two different ictogenic models: the low-magnesium and the high-potassium.
2. synergistic effects of AEDs: phenytoin and valproic acid, upon the ictogenic solutions-induced ictogenesis.

So far my Honours year has been challenging but meaningful and rewarding. I would recommend an Honours year here to anyone, not only for those who are interested in research but also for those who appreciate biophysics/biological science.
Diana CHUNG

Project Site: Melbourne Brain Centre, Department of Radiology, Royal Melbourne Hospital

Supervisors: A/Prof Bernard Yan, A/Prof Peter Mitchell

PROJECT: Pharmacogenetics – do mutations in CYP 2C19 alter the clinical effectiveness of clopidogrel in patients with cerebrovascular disease?

After completing my undergraduate degree, I decided I wanted to apply my knowledge and broaden my skills in a clinical setting. Despite having a major in Disease and Defence, the transfer into Neurology was new and challenging but very enjoyable.

My aims for this project are to:

- Find a correlation between patient’s genetics, clopidogrel response and their clinical outcomes
- Applying my problem solving skills and knowledge in a clinical setting and patient-interaction
- Improve my scientific writing and organization.

My experiences to date have been rewarding. Throughout the year, I have not only learnt a lot in my area of research but also a lot about myself. I would strongly recommend the honours program for anyone who is up for a challenge, interested in a career in medicine or research.

Jillian NAYLOR

Project Site: Department of Neurology, Melbourne Brain Centre, Royal Melbourne Hospital

Supervisors: A/Prof Bernard Yan

PROJECT: Imaging Predictors of stroke recovery: the impact of time on the ASPECT score

I chose this project as I was keen to translate the skills I learnt from my undergraduate science degree into research within the clinical setting. I was especially interested in research within the clinical setting so this project allowed me to gain experience, develop a skill-set and provide opportunities for the future.

My aims for this project are to:

- Experience research within the clinical setting
- Become proficient in image analysis software
- Apply my undergraduate knowledge to an Honours year
- Publish my first paper

My experience of Honours has been rewarding and motivating. I have developed the skills to continue further research and I have consolidated professional relationships to give myself great opportunities in the future. I would highly recommend an Honours year for the experience and opportunities it can provide you.
Vaidehi NAGANUR

Project Site: Epilepsy ward at the Royal Melbourne Hospital, Parkville.

Supervisors: Associate Professor Bernard Yan and Professor Terence O’Brien

PROJECT: The utility of a mobile Wireless Accelerometer in detecting psychogenic non-epileptic seizures through time frequency mapping of rhythmic limb movements

I chose this project primarily because it was clinical based and involved a substantial amount of interactions with patients. Furthermore, the project itself is quite fast paced with progressional updates, making the research process very interesting.

My aims include:

- Validating the capacity of the wireless accelerometer to depict rhythmic limb movements through frequency time maps, differentiating between psychogenic and epileptic seizures.
- To define the algorithm and test the automation of the WA on convulsive seizures captured.
- Develop strong rapport with patients.
- Improve my scientific writing skills, oral presentation skills and research abilities.

My honours year has been challenging but most certainly rewarding and fulfilling. There was a major shift in the learning style from a lecture based undergraduate degree to a more practical and hands on experience but this was a refreshing change and an opportunity I am grateful I had. RMH and the MBC have been great environments to work in with a friendly atmosphere and many other events to enhance your experience during your honours year.

Bevin KARUNARATNE

Project Site: Royal Melbourne Hospital/Mental Health Research Institute, Oak St, Parkville

Supervisors: Associate Professor Cassandra Szoeke

PROJECT: The relationship between balance and nutritional status in post menopausal women

I am doing my Honours project as part of research in the Women’s Healthy Ageing Project (WHAP). I chose this field of research as I am particularly interested in human research to do with ageing, and interventions that can be made to increase quality of life. My aims include, finding relationships between different dietary patterns and postural balance. I would also like to improve my research skills, and consolidate my communication skills with the participants involved in the project.

This year has been challenging but rewarding at the same time. It has been a pleasure to work with a great team and we are all very thankful to the participants that donate their time to contribute to our research.
Patrick McCOY

Project Site: Department of Surgery, Royal Melbourne Hospital

Supervisors: A/Professor Chris Hovens, Dr Michael Clarkson

PROJECT: Investigating the causes and consequences of genomic rearrangements in prostate cancer

I did a biochemistry major and decided I wanted to do an honours project that offered me the cancer to get experience in a range biochemical techniques. Spoke to several supervisors from multiple research fields, however, I decided that I was most interested in cancer research. The aim of my project is to identify physiological/pathological factors that can cause the genomic rearrangements in prostate cancer. I chose this project because it offered me the chance to get extensive experience in a cancer research lab. So far I have found the year to be a lot of work but very enjoyable. I would recommend honours to anybody finishing their undergrad degree.

Fiona JAMES

Project Site: Department of Surgery, Royal Melbourne Hospital

Supervisors: Dr Hongjian Zhu

PROJECT: Transforming growth factor-beta signalling pathways and drug resistance in ovarian cancer

In my final year of undergraduate studies I studied cancer biology and found it fascinating. I was drawn to a number of honours projects involved in cancer research but the enthusiasm and knowledge of my supervisor made this project stand out.

Aims/goals: My career goal has always been to enter medicine or medical research and I was keen to get a sense of what research would really be like day-to-day.

Your Honours/Master experience to date or any other experiences you would like to share: The honours year certainly answers any questions you may have about life as a researcher. It is challenging, rewarding and provides real-world work experience in your chosen field which you may follow on with if you choose. I've worked with some clever, interesting people throughout the year and feel very privileged to have been given the opportunity.
Hanh NGUYEN

Project Site: Department of Medicine (RMH), Peter Doherty institute/ Victoria Infectious Diseases Service (VIDS)

Supervisors: Dr Michael Duffy

PROJECT: Severe malaria transcriptomics and severe antigens

I was interested in doing further studies and getting into research. However, I was unsure which specific scientific field I would like to work in. Eventually, I chose a project which aligned with one of my third year BScience interests: Malaria.

Aims:
- Utilise optimised methods developed by the lab to investigate the transcriptomics of var genes from Indonesian patients RNA samples.
- Use a range of bioinformatics techniques to align sequencing data to existing database and de novo assembly domain cassettes of var genes
- Investigate the difference in the gene expression between severe and non-severe patients in order to provide insight into potential therapeutic targets.

My experience for honours year has been interesting. While the tasks can be challenging, the results are very rewarding. I also receive lots of encouragement from my lab members. In particular, interactions with many people from different scientific backgrounds broaden my knowledge and help me discover new interests. I would recommend doing Honours for students who are seeking to have a career in research or just to satisfy your curiosity about science.

James O’DONNELL

Project Site: Burnett Institute

Supervisors: Dr Jack Richards, Professor James Beeson

PROJECT: Development and optimisation of a new quantitative G6PD diagnostic test for resource poor settings

I graduated with a Bachelor of Science degree in June 2013 with a major in Human Structure and Function. I chose this major because I had a particular interest in the health sciences and wished to pursue a career in medicine or physiotherapy. However I always enjoyed the research aspect of medicine and the honours year offered me the perfect opportunity to experience life as a biomedical researcher before deciding on my future career path. After meeting with multiple project supervisors I decided to choose a project at the Burnet Institute based on the relationship between G6PD deficiency and malaria. Not only did this project interest me the most, but my supervisors and the rest of the staff at the Burnet were incredibly friendly and easy to get along with. Therefore making the decision on which project to choose very simple.

So far my honours year has been both challenging and extremely rewarding. A fantastic experience overall.
Kevin HSIEH

Project Site: Burnet Institute, Centre for Population Health

Supervisors: Dr Peter Higgs and Professor Margaret Hellard

PROJECT: Knowledge and Awareness of Hepatitis C Direct-Acting Antivirals in a Cohort of People who Inject Drugs

Originally, I was merely doing honours as a stepping stone to study Medicine in the future. However, the past year as well as my experience at the AIDS 2014 Conference has conceived the idea of Public Health as a viable and exciting alternative career path.

I’ve found the workplace environment at the Burnet Institute to be very welcoming – the never-ending supply of free food hasn’t hurt either. Although it is a challenging and largely independent year, there is a great support network of people to guide and assist in your Honours project at the centre. Moreover, there are numerous seminars which enhance your understanding of the wider medical and research landscape as well as reinforcing the context of your project.

I have been fortunate enough to conduct one-on-one interviews with injecting drug users in places like Footscray and Frankston, breaking up the monotony of sitting in front of the computer. My project seeks to increase treatment to some of the most marginalised people in society, providing me with a sense of accomplishment that I’m trying to make a very direct and meaningful impact on people who are often stigmatised and discriminated against.

James HARE

Project Site: Burnet Institute (Prahran)

Supervisors: Dr Megan Lim and Professor Paul Dietze

PROJECT: A Review and Investigation of Alcohol Marketing via Social Media

Graduating with a degree in Science (majoring in Anatomy), but following the Melbourne models marketing breadth stream, I saw this project as an opportunity to broaden my knowledge across both faculties. As I was undecided on a career path between medicine and marketing, this honours project provided me with a brief introduction to both fields simultaneously due to its focus on interpreting how alcohol marketing on social media is influencing young people’s drinking habits and the damage risky-drinking can have on their health.

Aims/goals: Project goals are:

- to continue the development of my writing and presentation skills
- to publish an article of work in a professional journal

The Burnet Institute has been a wonderful experience as an introduction into medical research. With friendly staff and students, together with a supportive team of supervisors, Burnet’s positive environment has allowed for the rapid development of my personal and professional skills.
Alex GROGAN

Project Site: The Northern Hospital, Epping and The Royal Melbourne Hospital, Parkville

Supervisors: Professor Judith Savige and Associate Professor Deb Colville

PROJECT: Small vessel changes in perioperative patients

I chose this project due to my interest in clinical based research and the opportunities it gave me to work within the hospital environment with patients directly.

My aims include:

• Determining how accurately retinal imaging describes small vessel changes within the body
• Working towards retinal imaging being used more often in the clinical setting
• Improving my scientific writing and research skills

So far my experiences within the hospital research setting have been challenging but rewarding. Working with patients has been great whilst working within the hospital has given me a clear idea around how the health system works.

Andrew Le TANG

Project Site: North West Academic Centre, WCHERE Building, Sunshine Hospital

Supervisors: Dr David Scott, Professor Peter Ebeling

PROJECT: Intramuscular and Intermuscular adipose tissue: impact on physical performance and associations with physical activity in older adults

I graduated with a Bachelor of Science majoring in human physiology and anatomy. I was particularly interested in musculoskeletal health, and as such took a great opportunity to complete my honours year with a project through the Australian institute of musculoskeletal science (AIMSS).

This year has been fantastic, I have had the opportunity to work within a clinical setting where I’ve taken measurements from older adults on regular basis and had the opportunity to work with some first class equipment including the DEXA and PQCT scans. I’ve greatly furthered my understanding in musculoskeletal systems of the body, which has opened my eyes to career paths that I wish to partake in the future.

My honours year has been great fun thus far, where I’ve been able to balance both the hard work of honours and running a small business on the side. I would definitely recommend an honours project at NWAC, Sunshine Hospital as everyone has been fabulous and supportive.
Tanja TRBOJEVIC

Project Site: Australian Institute of Musculoskeletal Science at the NorthWest Academic Centre
Sunshine Hospital

Supervisors: Dr. David Scott and Associate Professor Kerrie Sanders

PROJECT: The association between vitamin D and muscle quality in community dwelling older adult fallers

I chose this project as it not only offered the opportunity for me to further explore and input into the advancing field of sarcopenia, but it offered the chance for me to directly interact with participants and healthcare professionals in the hospital setting. Through this, I have learnt many new skills, some of which include participant communication and interaction, ability to analyse and interpret scientific literature and further, a sense of critically thinking about certain testing methodologies.

My supervisors remained extremely supportive and encouraging throughout this learning process. They provided me the best opportunity to develop as a young researcher and encouraged me to further reach my full potential with this project and my further research endeavours.

Upon completion of this honours project I aim to:
- Address the issue of vitamin D and muscle quality in older adult fallers and non-fallers
- Add to the literature in regards to the growing geriatric population
- Improve my scientific writing and analysis
- Continue to build my communication skills

This year has been a great learning curve and allowed for many new opportunities to develop as a young scientist. I recommend an honours project to anyone interested in research or if you are not sure exactly what future academic field you wish to pursue.

Denny BRAIL

Project Site: NorthWest Academic Centre (Sunshine Hospital)

Supervisors: Dr. David Scott, A/Professor Kerrie Sanders, Professor Peter Ebeling

PROJECT: Sarcopenia, Physical Performance, and Vitamin D in Older Adults

My name is Denny Brail and I graduated with Bachelor of Biomedicine with human structure and function as my major. The reason I chose this project is because it involves interaction with people especially older adults. For those who enjoy or would like to try new challenge of reaching out and having conversation with people, I would definitely recommend this project. Also, this project is really applicable in the future as it deals with ageing population and disability which indeed important issues in Australia.

My experience during my Honours year so far has been great. Of course, the shift from the undergraduate life to a full working week was a bit of shock for me. However, with a really good, sophisticated and friendly environment in Sunshine Hospital, the shock slowly and surely came to end. I enjoyed the opportunity to take charge in my project and as I said before, the experience of meeting with new people (ie participants) is definitely helpful especially for those who would like to work in area that involves people interaction.
David NGUYEN

Project Site: Royal Melbourne Hospital, Northern Hospital

Supervisors: Professor Judy Savige, Associate Professor Deb Colville

PROJECT: Retinal microvascular changes in cerebral white matter ischemia and psychosis

I chose this project since I wanted to work with patients in a clinical setting, rather than in a lab. As I wanted to get into medical school, I wanted first-hand experience working in a hospital, with real patients and real medical issues.

My aims for this project include:
- developing research skills and thought processes
- build upon intrapersonal communication skills, especially in a hospital setting
- experience clinical work in a hospital setting, to confirm if medicine was the right career

So far, Honours has been challenging, but very rewarding. I have developed valuable relationships with other students, researchers and clinicians. Doing research in a hospital has solidified my goal of becoming a doctor, and revealed the importance of biomedical research at the bedside level.

Nicolette LYTTLE

Project Site: Royal Melbourne Hospital & The Northern Hospital

Supervisors: Professor Judith Savige, Associate Professor Deb Colville

PROJECT: Retinal microvascular changes in patients with diabetes

This project appealed to me as it gave me the opportunity to develop my research experience through patient interaction and practical components in a clinical setting, as opposed to lab-based research. I saw it as a chance to immerse myself into the medical environment and as a way of determining whether the medical lifestyle was for me. I have had the opportunity to talk with and work alongside amazing colleagues, researchers and doctors.

My aims for the year include:
- Improving my research skills and scientific writing abilities
- Developing my communication skills with patients in a clinical setting
- Learning new research techniques and apply them throughout my project

This year has been a very challenging yet highly rewarding experience. I have learnt the fundamentals of research, whilst improving my patient communication skills. It has consolidated my love to help people, the importance of biomedical research, and increased my desire to become a doctor in the future.
Kevin TRUONG

Project Site: Australian Institute for Musculoskeletal Science (AIMSS) at Northwest Academic Centre

Supervisors: Dr Hossein Mokhtarzadeh, Associate Professor Peter Pivonka

PROJECT: Gender bias in ankle plantar flexor muscle function, kinematic, and kinetic differences between anterior cruciate ligament reconstructed patients and controls

My name is Kevin Truong and I graduated with a Bachelor of science with a major in human structure and function. I was always interested in injuries in general, however, after my degree, I was split on either focusing on research based work or more hands on; such as physiotherapy.

I was fortunate enough that there was a project related to biomechanics that did not require an engineering degree. This opened a new world of research based studies, something completely different from the usual coursework that one is used to in their bachelors. Some of the major differences comes from the fact that you are almost independent in your research, and that time management is essential. Luckily for me, my supervisors were beyond perfect in helping me to transition, explaining and showing me vital skills that will remain with me for the rest of my life.

Overall, the honours year helped me to develop the necessary skills to work independently as well as cooperatively, and has greatly prepared me for any path I choose after honours.

Kirra LIU

Project Site: Melbourne Neuropsychiatry Centre

Supervisors: Dr Sarah Whittle

PROJECT: Investigating the neuroanatomical basis of the moral sentiments guilt and shame

I chose my project as I have always been interested in neuroscience, particularly the more curious areas, for example emotions, as they were always considered to be autonomous and not directly related to the 'computer' like brain. This project is of particular interest to me as it delves into the moral sentiments guilt and shame, which are more complex than the basic emotions: happiness, sadness etc, and as such less is known about them. In addition to revealing aspects about the human condition, this project has also given me insights into the field of neuropsychiatry with research revealing dysfunctional guilt and shame processing in patients with remitted MDD. As such, I think that endeavouring to uncover the structural correlates of guilt and shame is important, considering their influence on human behaviour and social conduct, but also because of their links to psychiatric conditions.

My aims and goals for my career pathway are still up in the air. I would like to stay in the field of neuroscience, more specifically neuropsychiatry as I find research this area utterly fascinating. At this point in time, I am greatly enjoying my honours year. My supervisor has been extremely lovely and helpful and although it has been a very different experience to my undergraduate degree in terms of working on my own time and being entirely self-motivated, it has been a great learning experience.
Harene RANJITHAKUMARAN

Project Site: Children’s Cancer Centre at the Royal Children’s Hospital &
Department of Obstetrics and Gynaecology at Royal Women’s Hospital

Supervisors: Dr Lisa Orme, Dr Yasmin Jayasinghe, Assoc. Professor Lynn Gillam, Dr Sarah Drew

PROJECT: Fertility Preservation Toolkit: Implementing & Evaluating a Resource to Assist Clinical Discussion & Decision Making Regarding Fertility in Paediatric Oncology

My project aims to gain an understanding of the perspective of clinicians and allied health workers in relation to the use of a fertility preservation toolkit during fertility preservation consultations, and to examine the sustainability, feasibility and overall impact of the toolkit in clinic.

I had completed a lab-based project during my Bachelor of Biomedicine, so I thought it would be interesting to experience clinical research. This project has allowed me to gain an understanding of clinical work life as well as clinical research, which has assisted in making decisions for which type of post graduate education to enroll in.

It has been a challenging and yet rewarding year so far, having to adapt to a full time/on call working week from the relaxed hours of an undergraduate student, and becoming more independent and self-motivated with my work. However, it is a great experience as it allows for an opportunity to network, understand more about a field of interest and learn more about yourself, and I would recommend an honours year for anyone who is unsure of which direction they’d like to take in the future.

Xinyu LIANG

Project Site: Bio21, Women's Centre for Infectious Diseases, Royal Women's Hospital

Supervisors: Dr Yasmin Jayasinghe, Stefanie Hartley and Professor Suzanne Garland

PROJECT: Attitudes and acceptance of potential changes in cervical screening: views of obstetricians and gynaecologists

This seemed like an interesting project since cervical cancer screening guidelines were set to change during the research period. My supervisors were also very supportive and able to meet regularly.

Aims/goals of this project:
- Determine likelihood of physician adherence to changes in guidelines
- Discover factors that may contribute to the level of acceptance

Honours has been a really valuable year. I’ve learnt a lot about research in this time, and I’m certain it is something I’d like to be involved with in the future. I would definitely suggest undergoing an Honours year for those that are unsure of what to do for the next year.
Sumaiya TANJIL

Project Site: Royal Women’s hospital (Department of Obstetrics & Gynaecology)

Supervisors: Dr. Nuzhat Ahmed

PROJECT: Cell secreted factors and exosome: “A new paradigm to understand chemoresistant recurrent ovarian carcinomas”

My name is Sumaiya Tanjil and I graduated in Bachelor of Biomedicine with a major in Biochemistry and Molecular Science. I was particularly interested in laboratory work and the molecular biology of cancer has always fascinated me. After attending the RMH/RWH info session I chose a project on ovarian cancer as it will allow me do research in my area of interest and also in the great learning environment of RMH/RWH.

My aims include:
# To obtain the opportunity of conducting a year of scientific research under the guidance of an experienced researcher. At the same time to gain degree of independence and flexibility that will help me to develop the maturity and skills for transition to higher studies or employment.
# To acquire foundation skills in designing and undertaking research and to get exposure in research of national and international significance.
# Learning and improving scientific skills through gaining competence in critical thinking and data analysis, information technology, scientific software, and scientific communication via oral and written presentations.
# To improve career prospects and gain skills that are recognised by employers as essential in workplace, which will add significant value to my resume and make me more employable.

Samantha SLOSS

Project Site: Royal Women’s Hospital

Supervisors: Dr. Peter Davis and Dr. Jennifer Dawson

PROJECT: A feasibility study to measure lung injury markers in preterm infants at birth

I chose this project because it is clinically based and I wanted to do something more with a general biomedical application rather than something that was purely scientific and statistical.

With my project I am aiming to determine whether certain biomarkers can be identified in blood samples from preterm infants and whether this might help identify those infants most at risk of a poor respiratory outcome.

I have thoroughly enjoyed the year thus far and have learnt a great deal from the incredibly talented and renowned clinical research team at the RWH. The opportunity to be involved in, and experience the clinical side of things after a classroom based biomedicine degree has been something I have valued immensely.
LANI WHITE

Project Site: Royal Women’s Hospital
Supervisors: Dr Jennifer Dawson & Dr Peter Davis

PROJECT: Measuring Oxygenation in the Delivery Room
I chose this project because I have always been interested in obstetrics and neonatology, and it was clinical research rather than lab research.

Aims of the project is to measure oxygen saturation of extremely premature babies (<32 weeks gestation) during the first 10 minutes of life, and seeing if these are within International target ranges (that are based on healthy term babies not requiring intervention after birth), as well as seeing if clinicians are following the correct oxygenation protocol set by the RWH.

This year has been a very tough year, requiring a lot of energy and out-of-hours work. Despite this I have learnt a lot about neonatal clinical practice and how much research needs to be done to work out the best way to care for very sick infants. This year has confirmed my desire to go to medical school and has given me much sought after research experience that many of the junior doctors wish they already had.

Amelia BRICKLE

Project Site: Department of Obstetrics and Gynaecology, Mercy Hospital for Women
Supervisors: Professor Martha Lappas

PROJECT: Autophagy as a mediator of Preterm Birth
I chose this project as it was highly lab based and involved reproductive physiology which was an area I am particularly interested in. Following this year I aim to pursue a career in medicine and science.
My Honours year has been a steep learning curve for me but I can safely say it was one of the best decisions I have ever made. It has made me appreciate and understand scientific research so much more during the first three years of my undergraduate degree.
PROJECT: Understanding the role of neurotrophic factors in adolescent brain development

My name is Wendy Hwang and I graduated with Bachelor of Biomedicine with Neuroscience major. As a neuroscience student, I have always been very keen on doing my Honours at Florey Institute of Mental Health and was lucky enough to have met my supervisor in one of my Neuroscience lectures. Schizophrenia is a severely debilitating disorder that affects approximately 1% of the population which strikes at a young age. It is considered as a neurodevelopmental disorder with disruptions during the brain development periods leading to higher chance of having the disorder. My project focuses on one of such brain development periods – adolescence. Many structural and behavioural changes are observed and are caused by altered levels of molecular expressions such as neurotrophin factors. Moreover, with schizophrenia patients showing altered levels of Brain Derived Neurotrophin Factor (BDNF), we hypothesised that BDNF heterozygous mice will show an altered adolescent developmental profile of BDNF and disruptions in subsequent cell signalling cascade in the hippocampus. Hence, I aim to assess the effects of the BDNF heterozygous genotype on adolescent BDNF and GABAergic interneuron expression.

So far, I am having the best time of my life and honestly it feels like less work because I am actually studying and doing what I love every day. Moreover, the environment is wonderful and welcoming with friendly and helpful lab members and supportive and caring supervisors. I love this place!!

Sophie REID

Project Site: Florey Institute

Supervisors: Professor Steve Petrou and A/Professor Chris Reid

PROJECT: Disease-based mechanisms in epilepsy should be more effective

I chose honours in general to gain some experience to be able to decide whether I want to pursue research in the long-term.

Aims/goals
· This project has an overarching theme of precision medicine, which is currently being applied to neurological disorders such as epilepsy.
· It aims to distinguish between different genes that both lead to Dravet syndrome and how we can better treat this devastating condition.
· Be comfortable with academic literature, scientific writing and presenting

Your Honours/Master experience to date or any other experiences you would like to share

My honours experience has so far been great – I’ve learnt a lot about my topic as it is both interesting and stimulating. My supervisors and fellow students have been very helpful – I would definitely recommend an honours year to anyone with a passion for knowledge.
Carlos MAY

Project Site: Florey Institute of Neuroscience and Mental Health

Supervisors: Professor Anthony Hannan and Dr Emma Burrows

PROJECT: Utilising Touchscreen technology for preclinical modelling of attention in autism spectrum disorder

I chose this project because I am interested in the scientific and philosophical questions of how we learn from the world and interact with the people around us. Autism is an ideal disorder to investigate these questions as it involves deficits in social interaction and is associated with a variety of cognitive abnormalities, including attention deficit.

My aim for the project is to phenotype a mouse model of autism using novel touchscreen tests (Analogous to those used in humans) in order to validate future use of the model for investigating the causes of autism and test therapeutic strategies.

My Honours experience so far has been very informative about the dynamics of the research workplace and has further developed my ability in independent and critical thinking.

Hana FRASER

Project Site: Neurology Department, Department of Medicine, Royal Melbourne Hospital, Royal Park Campus

Supervisors: Professor Terence O’Brien, Professor Dennis Velakoulis and Dr Nigel Jones

PROJECT: Temporal Lobe Epilepsy, the HPA axis and Depression

Coming from a Biomedicine degree we were exposed to coursework based on the latest research. This led me to want to be a part of creating this research while still keeping my options open for higher degrees. I chose this project as it was the perfect balance between lab and clinical work offering me the opportunity to experience the best of both worlds as well as look at both quantitative and qualitative research.

My aims include:

- Investigating the link between childhood trauma (both physical and psychological) and seizure outcomes in both epileptic and non-epileptic patients.
- Analysing blood samples for epigenetic changes linked to early childhood hypersensitivity to stress due to childhood trauma.
- Developing my skills in working in both a clinical and laboratory setting including working with patients and learning different lab based techniques.
- Developing both my writing skills and my oral presentation skills.

While Honours is very different than the usual undergraduate coursework, it offers the perfect stepping stone into both research and higher study giving students a glimpse what is going on in the world of research. I would recommend Honours to anyone who would like to pursue research or even just to get research experience before going into a higher degree or into the work place.
Gemma CHASE

Project Site: Department of Obstetrics & Gynaecology, The Mercy Hospital for Women

Supervisors: Professor Martha Lappas

PROJECT: The inflammatory effects and natural, artificial and Stevia on gestational tissues

I chose this project because it was lab based, which was something I knew I wanted out of a project. Additionally, pregnancy research is something that interests me.

I hope to pursue a career in medicine or health science.

My honours year so far has proved to be a steep learning curve. However, it is definitely something I am glad that I did.

Cameron VENTURA

Project Site: Department of Medicine (RMH)/ Melbourne Brain Centre

Supervisors: Dr Melissa Gresle, A/Professor Helmut Butzkueven

PROJECT: How does Dimethyl Fumarate treatment effect monocytes in Relapsing-Remitting Multiple Sclerosis patients.

Graduating with a bachelor of Biomedicine majoring in genetics, I chose this project as it incorporates powerful genome wide tools in the context of a neurological condition, another area in which I am particularly interested.

Aims/Goals

- Characterise changes in immune cell populations with dimethyl Fumarate treatment
- Characterise changes in monocyte behaviour with dimethyl Fumarate treatment, as determined by RNA Microarray

My honours experience has been both rewarding and frustrating so far. The freedom to guide your own novel research in a field you are passionate about is fantastic; however the uncertainty in setting up and optimizing new experiments can be time consuming and frustrating when things don’t work as expected.
Stephanie Quak

**Project Site:** Department of Obstetrics & Gynaecology, University of Melbourne located at the Mercy Hospital for Women

**Supervisors:** Dr. Martha Lappas, Dr. Ratana Lim

**PROJECT:** Investigating the use of phytophenols as therapeutic agents in the management of preterm birth

This project piqued my interest as it is a combination of reproductive physiology and biochemistry – two topics that I enjoyed during my undergraduate course. This project also provides me with the exciting opportunity to conduct in vivo studies.

**My aims for this project are:**

- To increase public awareness of the risks associated with preterm birth.
- To develop the necessary skills to conduct a laboratory based research project
- To build professional relationships with senior researchers
- To translate knowledge into practice

I foresee that my Honours year would be challenging and stimulating. I love the idea of translating the raw scientific knowledge we have accumulated over our undergraduate studies and directing it to a specific field. I believe that anyone with a genuine interest in science will definitely enjoy a year of Honours research.
Nicholas YEE

Project Site: Department of Surgery, Royal Melbourne Hospital

Supervisors: Dr Andrew Morokoff, A/Professor Kate Drummond

PROJECT: Role of PI3K and mTOR Inhibition in Glioma Stem Cell

I graduated from the Bachelor of Biomedicine with a major in Biochemistry and Molecular Biology. Subsequently I took a gap year as I wasn’t too sure about what I wanted to do next. I decided to undertake an Honours year to experience a laboratory and research environment in order to potentially pursue an academic career. I ended up choosing my project as a result of my keen interest in cancer biology and neuroscience, coupled with my Biochemistry background.

In terms of getting something out of my Honours year, my goals are to develop my analytical and critical thinking skills which are highly regarded in pursuing any career within our increasingly competitive and globalised era.

So far my Honours year has been a challenging but very satisfying endeavour. RMH being situated within the Parkville biomedical research precinct makes it a very appealing place for me to pursue my research as there are always opportunities to be exposed to other research areas through attending seminars by different departments and institutes. Another highlight of being in my particular lab group is the rare opportunity to observe brain tumour surgeries and take tumour samples resected by the surgeon back to the lab to culture. Overall I have learned so much more in my Honours year than my past 3 years of undergraduate degree and I would highly recommend anyone who is still unsure about their future direction to pursue an Honours year with the Melbourne Academic Centre due to the wide range of projects available.
Hongyuan JIANG

Master of Science (Biomedical & Health Sciences)

Project Site: Bone Density Unit/ Department of Medicine, Royal Melbourne Hospital

Supervisors: Professor John Wark, Dr Chris Yates

PROJECT: Peripheral quantitative computed tomography (pQCT) measures contribute to the understanding of bone fragility in older patients with low-trauma fracture

After obtaining a medical degree in China last year, I started a Master of Biomedical Science here for research experience. I chose this subject as it has close relationship with clinical practices and its potential results could help solve the limited diagnostic value of dual energy X-ray absorptiometry (DXA), which is the diagnostic standard currently. As a new tool for determining bone mineral density, pQCT is not well established as a diagnostic standard for osteoporosis. I am really interested in its role in estimating bone loss and bone fragility.

The objectives of this study are:
1. To express the pQCT variables of low-trauma fracture patients as T-scores, using T-score scales previously obtained from studies of young women’s health (in which T scores were calculated using young women’s mean and standard deviation values for pQCT variables).
2. To evaluate the potential clinical utility of pQCT for the assessment of bone fragility.
3. To identify novel factors that may contribute to the prediction of low-trauma fracture in older patients with osteoporosis.

I would like to express my thanks to my supervisors and all staff and students in Dept of Medicine. Their professional supervision and friendly assistance make my research project go smoothly.

Mujun SUN

Master of Science (Biomedical & Health Sciences)

Project Site: Melbourne Brain Centre, Royal Melbourne Hospital

Supervisors: Dr Sandy Shultz, Professor Terence O’Brien

PROJECT: A multi-factorial dietary treatment for traumatic brain injury

I chose this project because I want to do brain research and I enjoy working with animals. I was unsure about my future before I started it, but once I involved in, I think I found the most thing that I want to do in my whole life.
Thy NGUYEN

Master of Science (Biomedical & Health Sciences)

Project Site: The Royal Women’s Hospital

Supervisors: Dr Padma Murthi, Professor Shaun P. Brennecke

PROJECT: How does vitamin D regulate feto-placental growth?

I chose this project for my MSc as I’ve always been interested in the miraculous process of pregnancy. I want to make a contribution to biomedical research and potentially improve the well-being of mothers and infants.

My project’s aims are to investigate the role of vitamin D and its receptor in trophoblast cell function, and have a better understanding of how the actions of vitamin D are executed.

I’ve gained many experiences and skills, which not only could be applied in biomedical research, but in many aspects of life. These skills include analytical, communication, planning, organisational and time management. I believe that the MSc program has given me a great foundation for my future career.

But of course, the people I’ve been fortunate to meet and work with, have made my MSc experience bearable and enjoyable. I like to think that the frequent morning/afternoon teas we have are energy boosts to work efficiently. Yes, they are guilt-free pleasures. (laughs)

Laura FINLAYSON-SHORT

Master of Science (Biomedical & Health Sciences)

Project Site: Melbourne Neuropsychiatry Centre and Orygen Youth Health Research Centre

Supervisors: Dr Sarah Whittle

PROJECT: Melbourne Neuropsychiatry Centre and Orygen Youth Health Research Centre

I chose this project because the existing options for Master of Biomedical Science students were not quite right for me. I found the research institute that I wanted to work in (MNC), contacted the Director, Christos Pantelis, and after some consultation found a project that perfectly aligned my interests in psychopathology, working with people and the philosophical side of the mind sciences.

My aims in carrying out this Masters are:

- Learn how to analyse fMRI data
- Develop my ability to work with and relate to people with a psychiatric disorder
- Establish the relationships (and get the marks) necessary to be accepted into a top-notch PhD program

My experience at the University of Melbourne so far has been excellent. My colleagues have been warm and welcoming and I have enjoyed a varied and flexible working week. My supervisors have been very encouraging of my interest in writing a thesis that incorporates my knowledge of philosophy, which is fantastic. I highly recommend the Master of Biomedical Science, and considering project options outside of those expressly offered, to those who want to have a career in biomedical research.
Fatiah Raja MALEK

Master of Science (Biomedical & Health Sciences)

Project Site: Department of Surgery, Royal Melbourne Hospital

Supervisors: Dr Hong Jian Zhu

PROJECT: Alterations of Transforming Growth Factor β (TGFβ); Signalling Regulation in Cancer

I choose this project because of my great interest in cancer. Nowadays, cancer is not something uncommon among the society and the fact that there are many unanswered mysteries on how cancer is regulated and how it is affecting our health really drives me to learn more. In addition, I am eager to explore this area because of its potential for better solutions to treat cancer and it give brighter hopes to the society especially cancer’s patients. Apart from that, this project is very useful in providing me chances to develop my analytical and practical skills rather than just learning about the theory. It also gives me an insight on how the life as a researcher should be. Although sometimes the journey can be rough and challenging and most of the time unpredictable, but always remember to keep the efforts continuously, stay positive and you’ll enjoy the ultimate experience and reward.

Kaixin ZHOU

Master of Science (Biomedical & Health Sciences)

Project Site: Department of Surgery, Royal Melbourne Hospital

Supervisors: Hong-Jian Zhu

PROJECT: Cell membrane-anchored therapeutics targeting TGF-beta signaling in human cancers

As an undergraduate majoring in Biochemistry I always enjoyed lab work. And I developed a strong interest in cancer research after attending a few cancer signaling lectures in third year. I found out about my current project at the RMH honours/masters expo in 2013 and thought it was a great starting point for my potential career in biomedical research. My aims in this project are to:

• Develop an engineered protein into an effective novel therapeutic for the treatment of cancer metastasis.
• Develop professional research skills and laboratory techniques that will prepare me for a career in biomedical research

This masters by coursework degree offers an excellent combination of coursework and research. Hence not only I have developed useful laboratory techniques, I also continued to expand my biochemistry knowledge and learnt a handful of essential writing and communication skills in research. Overall my experience in my project has been challenging yet very rewarding in preparing me for my future biomedical research career.
Thomas WARE

Master of Science (Biomedical & Health Sciences)

Project Site: Department of Surgery, Royal Melbourne Hospital

Supervisors: Dr Rodney Luwor, Dr Stan Stylli

PROJECT: Identifying a novel prognostic marker conferring to Glioblastoma Multiforme progression and resistance to treatment

With so many areas to choose from, it was initially difficult to decide which project to dedicate the next 2 years to. I limited it down based on personal interests but the deciding factor came during my meetings with the supervisors. Asking myself the rationale for pursuing research and what I was looking to get out of this degree, it became quite clear that this was the project I had been seeking. I understood what was trying to be accomplished, saw the endless possible routes of the project and flexibility to develop my own theories and take it in my own direction. For these reasons it became apparent that my goals for this degree were in personal and professional growth; the ability to complete a substantial research project with a high level of independence and learn integrate myself into a research environment.

There have been countless experiences during this project from learning new techniques to presenting at international cancer conferences. These involvements have been highly memorable and given me the opportunity to develop new interests in the field. My time as a MSc student has truly been an eye-opening experience.

Ahmad Sufyan Mohamed ASLAM

Master of Science (Biomedical & Health Sciences)

Project Site: Department of Medicine (RMH, Royal Melbourne Hospital

Supervisors: Dr Adrian Achuthan

PROJECT: Investigating the antagonistic effects of glucocorticoid on GM-CSF promoted monocyte survival and antigen presentation in Cancer

I choose this project because I was interested in doing research, especially those involving molecular pathways. It is just fascinating to know how things happen in the body, how one event leads to another, and what proteins or genes have a role in what’s happening. Inflammation research is important because it is not limited to Arthritis, but is the first symptom for various other conditions.

Doing research is definitely different than studying during undergraduate. There are a lot more responsibility, it is more hands on and it trains you to be more discipline. Being a masters student, balancing between coursework and research is a bit tough at first, but once I got used to it I knew how to manage my time. It has certainly been an interesting experience so far.