## Letter of Motivation

**Student: Eran Shorer**

**Student Number: SHRERA001**

BSc (Med)Hons. Neurophysiology (first class)

MBChB 6th year student

Herein I motivate to pursue an MSc in Theoretical/Computational Neuroscience concurrently with my MBChB 6th year.

MSc Project: Modelling chloride signalling in epilepsy

MSc Supervisor: Dr Joseph Raimondo MBChB (Cape Town) MSc (Oxford) DPhil Neuroscience (Oxford)

**UCT Senate,**

Thank you for considering my application to begin an MSc project during my 6th year MBChB.

The MSc project I hope to undertake entails constructing computational simulations of brain cells in order to better understand how seizures develop and further understand why the treatment of epilepsy is often unsuccessful. Such research will build on the research that is conducted in the Raimondo lab which ultimately aims to make a difference in the clinical treatment of epilepsy in South Africa and globally.

The initial phase of this work builds on the work of Kira Düsterwald (who also did her MBChB/MSc concurrently in 2017). Thus the ground work has already been laid such that I can ease into the project. I would like to begin this early phase of research during 6th year. I will then delay my medical internship to continue to the more intensive phase of the MSc in 2021.

I believe I will be able to accomplish this less intensive phase during my 6th year of MBChB for the following reasons:

1. As this MSc project is computationally based, I am able to work on the project wherever I have access to my laptop. This allows me to work-off campus and during my own hours, thus giving me the flexibility of time and space I would need to pursue the concurrent degrees.
2. During the MBChB 6th year program there are 6 weeks of elective time scheduled. Fortunately I have already completed this work in prior vacation time. This means that I would have 8-9 weeks, including the June Holiday, which I would otherwise have free (20% of the year). I would like to take the opportunity to use this 20% towards making progress on the MSc which would furthermore reduce pressure to do research work during my clinical rotations.
3. I have a proven track record of balancing my MBChB with extra-curricular activities.  I won the medal for the highest grade achieved in Molecular Medicine course which I pursued concurrently with my 3rd year MBChB. During my clinical MBChB time I have also concurrently completed multiple online courses which have also aided my research career and have given me confidence to balance an MBChB with my other career aspirations whilst still holding a first-class GPA. During my MBChB time I completed an intercalated BSc (Med) Hons degree in Neurophysiology and received the class medal for this degree. My commitment to academics reflects my aspiration to be a successful clinician-scientist.
4. Lastly and perhaps most importantly, beginning the MSc in 2020 is the only way in which I can pursue my dream of being a clinician-scientist. Once I complete my 6th year of medical training, I have to complete 2 years of internship in order to practice medicine. These 2 years need to be completed in a 3 year time-frame, and thus I am only able to take off 1 year to pursue the MSc. Unfortunately I would need longer than a year to finish the MSc. Starting my MSc in 6th year is the most plausible means to balancing my research and clinical aspirations.

I strongly believe that this step into research is crucial for my development as a clinician-scientist. Thankfully, I can look up to past students who have pursued an MSc-MBChB concurrently at UCT, these include: Dr Kira Düsterwald, Dr Richard Burman, Dr Matthew Amoni and, Dr Nicola Steinhaus. In my conversations with the students above, one message was clear: undertaking the MSc was a career defining step and something that they are so glad that they had the opportunity to do.

Thank you in advance for your consideration.

**Sincerely,**

**Eran Shorer**

I have compiled and attached a daily workplan as to how I shall balance my MBChB commitments with the early stages of the MSc. Moreover, I have support from the MSc supervisor (Dr Joseph Raimondo) and MBChB sixth year convenor (Prof. Ayanda Gcelu) who have both written motivations for me to pursue this endeavour.

For further enquires please contact me at SHRERA001@myuct.ac.za