

Candidate For MSc

PROJECT DETAILS Title: Nanoformulation of rotigotine intended for direct nose to brain targeting in Parkinson disease

Project Description:

Parkinson's disease (PD) is a brain disorder that causes trembling of hands and slowness of movement. It is most common after the age of 60. It is estimated that about 15,000 to 20,000 individuals suffer from PD in Malaysia. Oral levodopa represents the most widely used drug for the treatment of PD. However, chronic treatment with oral levodopa leads to development of severe motor complications and dyskinesias. Therefore, improvement of motor complications remains a significant unmet clinical need in the treatment of PD. Rotigotine is dopamine agonist that has been shown to be effective for the therapy of PD clinically. However, despite the therapeutic potential of rotigotine, its clinical application has been hindered due to low oral bioavailability, extensive first-pass effect and nonspecific targeting. Hence, there is a need for an improved drug delivery system which would increase bioavailability of rotigotine and provide site-specific deposition in the brain. This project aims to investigate direct nose to brain delivery system for rotigotine using polymeric nanoparticles to improve the clinical potential of rotigotine for the treatment of PD. This technology has the potential of improving drug delivery to the brain and thus drug efficacy and reducing the spiraling healthcare costs associated with neurodegenerative diseases including PD.

Scholarship/Stipend: RM 2000/-

Entry requirement:

- Relevant Bachelor Degree in Science (B.Pharm/Pharm chemistry / Biomedical / Molecular Medicine)
- Preferably a Malaysian citizen
- Possess basic MS Office skills
- Self-motivated and be able to work independently on a lab based project
- Have good interprofessional skills

Duration: 2 years

Commencement date of the project: August

HOW TO APPLY Interested candidates can contact **Dr. Shadab Md, (Shadabmd@imu.edu.my)** for further details. Alternatively, you may call directly at 0172071973 and 0327317061 Ext: 1335.