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My name is Madhur Varadpande. I have just finished my 4<sup>th</sup> year of medical school at Imperial College London, where I intercalated in BSc Pharmacology. Around a year ago, my medical school informed me about my eligibility for the prestigious Sir Colin Dollery Clinical Pharmacology Training Award. Driven by my passion for pharmacology, I eagerly prepared an application. This involved submitting a reference from a supervisor at medical school, my full academic transcript, and a motivation statement. Eventually, I received communication that my application was successful - a memory that remains a highlight in my medical school journey. I am immensely grateful to the British Pharmacological Society and the Dollery family for their support in my intercalated year.

For the past couple years, I have been interested in pain pathways. It was a pleasure to attend the British Pharmacological Society's annual President's Lecture. Professor Ralf Baron delivered a fascinating talk on stratifying neuropathic pain patients in pharmacological trials. I further explored pain pathways in taught modules during my BSc course. The taught modules also included a range of quantitative calculations, various pharmacotherapeutic mechanisms, and laboratory work. I learnt how to carry-out and write-up a range of research work, from poster presentations to a literature review. One project involved writing a commentary on a UK biobank study, investigating if replacing device-measured sedentary time with physical activity was associated with a lower risk of coronary heart disease, regardless of genetic risk. My group's response was published on the National Institute for Health and Care Research (NIHR) website.

My final, self-selected research project investigated the effect of medical cannabis in cancer pain. Many cancer patients experience pain, and it can severely affect their quality of life. With cancer's incidence set to rise, cancer pain emerges as a growing public health concern. I worked closely with the research team at Imperial College London to investigate the use of medical cannabis in the pharmacotherapeutic management of cancer pain. My initial steps involved searching databases to identify and critically analyse relevant literature. I learnt about the endocannabinoid system, focusing on the two most abundant cannabinoids: cannabidiol (CBD) and delta-9-

tetrahydrocannabinol (THC). CBD inhibits the enzyme fatty acid amide hydrolase, increasing levels of an endogenous cannabinoid called anandamide. This acts as an agonist at the cannabinoid-1 receptor, inhibiting nociceptive firing and so, decreasing the body's perception of pain. THC acts as a partial agonist at the cannabinoid-1 receptor, leading to similar analgesic effects. Then, I conducted an observational case series, analysing data from the UK's largest medical cannabis registry for patient outcomes. I wrote this up, comparing my study's results to existing literature, acknowledging limitations, and identifying future directions. Working with real-world data that could influence future randomised controlled trials and clinical decisions was an enriching experience. We are looking to submit the work soon for publication in a peer-reviewed journal.

Alongside my studies, I held several committee roles, including Vice-President of a national non-profit medical organisation. For the pharmacology student society, I lectured medical students on the management of heart failure. Other teaching included acting as a mock OSCE examiner and providing mentorship to Y3 students.

Overall, I have thoroughly enjoyed my intercalation year and once again, extend profound gratitude to the Dollery family and the British Pharmacological Society. The award provided a great financial support and motivated me to strive for academic excellence, also supporting me in engaging with various volunteer work. I am keen to continue research into pharmacotherapeutic options for pain and the endocannabinoid system, with an end-goal of making advances in the field.

To all eligible students passionate about pharmacology, I strongly encourage you to apply – it is a golden opportunity! I wish you the best of luck with your application.