

State your reasons for wishing to pursue the combined MD-PhD degree. (3,000 character limit)

I have witnessed firsthand the ability to blend medical research with clinical practice during my time with the Pennesi lab at the Oregon Health & Science University. Over the course of over two years working with Dr. Pennesi, himself an MD/PhD, we have had several chances to discuss my career options, with Dr. Pennesi eventually recommending the option of pursuing an MD/PhD program and becoming a clinician scientist due to my interest in combining the scientific research with clinical practice. I requested to shadow Dr. Pennesi in his clinic, spending one to two days each week throughout the past two summers accompanying Dr. Pennesi to patient visits, surgeries, and clinical research trials. I noticed that the combination of their expertise of clinical techniques and their knowledge of the scientific process gives MD/PhDs a unique skillset that allows them to work as clinician scientists, using their clinical training to work directly with patients while also managing their own lab focused upon research that directly relates to the patients they see in their clinic. The direct experience working with a clinician scientist provided me with opportunities to see how my research work was directly applied in the clinic, allowing me to make necessary modifications to my research approach to better suit the needs of patients. My pursuit of a combined MD/PhD degree materialized as a result of these experiences.

In order to develop effective medical devices and procedures, scientific researchers must understand patient needs as well as the feasibility of proposed technologies in a clinical environment. While shadowing physicians, I have seen firsthand that medical professionals depend upon research for the evolution of the scientific understanding of disease pathways and innovative new treatment options while scientific investigators rely upon doctors to ensure that their research is utilized to treat the problems that they targeted. Because of this mutualistic relationship, researchers and clinicians often work collaboratively. MD/PhDs bridge the gap between these roles by optimizing the clinical relevance and feasibility of their research while simultaneously focusing upon projects that will directly benefit their patients and other clinicians in their field.

Because of my emphasis on research and my background in engineering during my undergraduate career, I believe that I have the skills necessary to propose, design, and develop practical and innovative clinical devices to advance medical research and evolve current clinical practices. Furthermore, observing the interactions between doctors and patients allowed me to develop creative new directions for our research in order to increase the clinical relevance of our work. While working as a clinician scientist, I hope to facilitate the healthy exchange of ideas between my peers that are researchers and clinicians, working to advance both scientific research and clinical work.