Ross Coleman
Personal Statement

Like most people who choose to study physics, I am enthralled by its beauty. That we can describe phenomena as diverse as motion, light interference, and thermodynamic processes with the precision and rigor of mathematics is a surprising result that ancient philosophers never expected. Furthermore, the goal of physics is to understand natural phenomena at the most fundamental level, an ideal area of study for someone who always asks not just how things work, but also why. So why would I grow up being fascinated by physics and major in it in college, yet choose a career path in something other than pure physics? Because somewhere along the way I learned to appreciate a quieter and more lasting kind of pleasure than I find in learning the answer to the question, "Why?"

Though I have thoroughly enjoyed just about every course I have taken at college, I have had an ever increasing desire to make a real difference to those in need. This desire is manifest in my evangelistic mission trip to Trinidad and Guyana, because I see evangelism as a way of making a difference in a person's life and afterlife. I was especially attracted to serving the poor and the homeless in inner-city D.C., occasionally sharing the good news with those I served. The joy I've found in making a difference for a person has superseded the joy I find in satisfying my own curiosity.

I began taking pre-med courses in college because medicine was practical and pure physics had limited job opportunities. I learned that physics had more job opportunities than I expected. I found, however, that I enjoyed having the breadth of knowledge of science that these courses afforded, and I enjoyed many aspects of the courses as much as my physics courses. As I spent more time serving, I began to see medicine as an outlet for both my inquisitive nature and my budding altruism. I began shadowing physicians. One of the patients of Dr. Westgate, a radiation oncologist I shadowed, was terminally ill. Dr. Westgate shared his perspective on how to help someone live the rest of his life as well as he can. The visit was particularly long, and by the end he gave the sister a hug and comforted the man who was crying. The thought of how much Dr. Westgate was able to make a difference for these people was stunning. Though the situation saddened me, I knew that what Dr. Westgate did would be truly satisfying. I have observed several doctors make real differences in the lives of their patients, and I long to be able to do that too. In spite of all of the demands placed on doctors, I cannot see how medicine can ever grow old or mundane.

By no means do I think that my physics education will have been a waste. Physics is hard. Physics challenges my ability to reason and problem solve much more than anything else I have studied. In the process, my mind has grown. I have learned how to approach intimidating, complex problems in a rigorous, methodical way. One small mistake in a derivation that stretches several pages can significantly alter a final result. These higher thought processes will be highly advantageous in medicine. Also, I earnestly hope to be involved in medical research, be it clinical or basic science research. My background in physics and my corresponding abilities to think quantitatively may very well allow me to see things that other physician researchers miss. Research areas such as blood flow modeling and imaging would allow me to apply my physics training

directly. Regardless of the area of research I pursue, the intense training in problem solving I have received will be fundamentally useful.