

*This writer demonstrates how a past experience informs his short and long-term research goals. By beginning with a story of observing a doctor in the Pediatric Muscular Dystrophy Association Clinic, the writer is able to move efficiently into how muscular dystrophy has defined his research interests. The writer also does an excellent job delineating between short- and long-term goals, and demonstrating the connection between these goals.*

I watch intently as Dr. Whitaker winces with reservation. Palms quivering, the patient's two struggling hands are the first to outstretch. In a feeble attempt to stand, the young boy, laying prone, inches his grip toward his left thigh. He slowly propels himself upright with the waning strength of his girdle while his younger, unafflicted sister clenches at their mother's leg. One last thrust and the boy finally stands erect. His cheerful smile of triumph almost negates the impending diagnosis: Gower's sign positive. He will need a wheelchair before his tenth birthday; he has already asked for one with flame decals.

The boy, like many other young males at the Pediatric Muscular Dystrophy Association Clinic, is suffering from Duchenne muscular dystrophy. To date there is no cure, nor one therapy that can ameliorate his symptoms with any marked efficacy. Furthermore, research into the disease has been hardly prolific - save one exception attributed to Wyeth's now discontinued Stamulumab (MYO-29). This experimental drug was the first medication designed to treat muscular dystrophy by inhibiting myostatin muscle regulation. Despite showing promise in phase II clinical trials, additional research into this treatment mechanism for neuromuscular disease has been curtailed by Big Pharma.

The latency of pharmaceutical companies to explore the budding therapeutic applications of myostatin inhibition has refocused the responsibility to fill the void; academia must continue what industry has largely abandoned. In an effort to augment such applied research, I began an independent project this past summer. My study examined the myostatin machinery involved in muscle growth regulation, but specifically in terms of its pharmacological applications to disease

treatment. The resulting paper will be disseminated as exemplar work across future sections of writing intensive biology courses.

In addition to contributing to science, my research has also helped to narrow my scope of future occupations to that of a career in pharmacy. The professional pharmacy program enables me to weave both my research interests and personal aspirations within the trajectory of a dynamic and rewarding field. My motivation to pursue pharmacy is likewise met with an exceptional opportunity: to achieve my eventual educational and professional goals. My short-term ambition rests within the combined Pharm.D./Ph.D. program. Therein, I can cultivate my research interests alongside the structure of the professional pharmacy curriculum. Over the long-term, I plan to contribute to the field of pharmacy in an academic capacity: pioneering the next myostatin inhibitory drug for clinical trials while perhaps preparing a lecture for a future generation of student-pharmacists. As an academician in the field of pharmacy, I plan to give back to the pediatric patients I have volunteered with as a student, helping to ease their progression through life.

Such a lifespan progression follows that we crawl, we walk, and then we run. These developmental milestones mark a measure of vitality not observed in children suffering from neuromuscular disorders. With reinforcement through my research, volunteering at the Pediatric Muscular Dystrophy Association Clinic has provided me with a window to the harsh reality of living with muscular disease. The children I interact with have put a face to the pathologies a textbook can only describe. Knowing that in the future, through research and practice, I can work toward improving current disease treatment for muscular dystrophy is my ultimate motivation for pursuing a career in pharmacy.