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faculty spotlight

An interview with Dr. John Waterbor

Naveed Farrukh

He thought he would only spend two or three years down in the South, but it has been nearly three decades since John Waterbor said goodbye to Philadelphia, his beloved Phillies baseball team, and the University of Pennsylvania Medical School. Dr. Waterbor has taken an incredibly free spirited approach to becoming a public health researcher. His journey has been anything but a well-worn path and should demonstrate to undergraduates aspiring toward careers in research that there exists a dimension wherein creativity marries work. Dr. John W. Waterbor's current positions and research are born from a desire to chase his passions and intuition.

Dr. Waterbor's roots can be traced back to his father, a math teacher who instilled in him an aptitude for working with numbers. As Waterbor pored over anatomy, pathology, and pharmacology in pursuit of his medical degree, there was little time left for mathematics, calculations, and numerical trends. That was, until he sat down on a Tuesday afternoon for a short combined course in Epidemiology and Biostatistics. Most students paid it no heed, reading newspapers in the back of the classroom or outright skipping class, while Dr. Waterbor looked around astonished at the apathy. In just four afternoons, he fell in love with the subjects and knew that medical school was not the most conducive outlet for his passions. However, with the help of his friends and an impressive show of commitment, Dr. Waterbor stayed onboard and completed his medical degree from the University of Pennsylvania, though he never obtained a license to practice because his heart was set on another course.

He next sought a doctoral program and was given the opportunity to work with Dr. Cole, at the time the chair of Epidemiology at Harvard. Dr. Cole was transferring to the University of Alabama at Birmingham, and importantly, had funds to support doctoral students. Dr. Waterbor was also accepted to Johns Hopkins and Pittsburgh but was informed

that funding from those schools would be limited. Despite his initial hesitation about moving to the South, he decided that the opportunity to work for Dr. Cole with money available was too fortuitous to pass up. The two clicked immediately, thus beginning Dr. Waterbor's career in cancer epidemiology, and he has attributed the spark of his interest to Dr. Cole's enthusiastic teaching.

Under Dr. Cole's guidance, Dr. Waterbor conducted an Occupational Mortality Study that formed the basis of his dissertation. Everyone dies due to some cause, and Occupational Mortality Studies quantify and characterize these causes in a given population. In this format, most researchers study deaths resulting from dangerous occupations; but Dr. Waterbor took a novel approach and decided to study positive exposure. He selected a cohort of baseball players: well-paid individuals living comfortable lifestyles with increased physical activity. He wondered whether the physical benefits of their lifestyles in their twenties and thirties would extend their lives. With his characteristic creative insight, Dr. Waterbor found a way to channel his love for baseball into a dissertation that was actually enjoyable to write. He gathered the death certificates of various players from their respective health departments as a primary means of data collection. The results, somewhat surprisingly, showed that strenuous physical activity and a comfortable lifestyle in early adult years did not affect the longevity of life. Baseball players had, on average, similar lifespans to those of the general population. His interpretation of the results centered on the tendency for these players to slide back into unhealthy habits, thus negating any benefits gained in their early adult years as athletes. He describes the aftermath of his dissertation as his "15 minutes of fame," during which he was flooded with inquiries from news stations about his study on baseball players, and the intriguing result that being fit for just one section of your life did not necessarily give you free reign for the rest of your life. While Dr. Waterbor appreciated the attention, he certainly placed greater emphasis on being able to bring together his interests of epidemiology and baseball.

With his own educational story in mind, Dr. Waterbor has some simple but powerful advice for undergraduates. First, he suggests that students seek a similar relationship with a professor or researcher that he shared with Dr. Cole: one based on mutual respect, and one in which the student can see the mentor as a role model. Interested students can pursue research opportunities by approaching professors teaching classes that interest them. Even if the professor cannot facilitate a research project, they will probably have the knowledge and connections to point students in the right direction. Other times a subject can become interesting through the people with whom you work. Dr. Waterbor is Director of the CaRES (Cancer Research Experiences for Students) program, so he regularly sees graduate and medical students paired with mentors who have proposed projects for an 8-12 week summer program. Research can best be achieved when two goals are met: feasibility and personal interest. Also, while there are many interesting projects out there, students should take into account how long and arduous an undertaking they might have on their hands. How willing and patient are they prepared to be to see a project to completion?

Dr. Waterbor's personal research interests reveal a man adept at wearing many hats, one with a keen eye for seeking out interdisciplinary opportunities. While cancer epidemiology remains his main research, he has made great strides in the field of injury epidemiology as well. He has previously co-taught EPI 603: Injury Epidemiology (available to undergraduates) with Dr. Russ Fine and has gained appointment to the Injury Control Research Center. His most recent project involved studying head injuries caused by tornadoes, specifically the deadly 2011 Alabama tornadoes. Data gathered by Dr. Robert Brissie, a Jefferson county medical examiner, showed that nearly 50% of all fatalities due to these tornadoes resulted from head injuries. At the time, the CDC's only guidelines for protection included covering your head with your hands to protect against flying debris. Dr. Waterbor and his team proposed spreading messages about the utilization of bike or football helmets for protection. However, despite the downto-earth, common sense nature of the approach, the CDC was reluctant to back it, citing the lack of sufficient studies. Their stance prompted Dr. Waterbor to address an epistemological question regarding the nature of research: where is the line between waiting for more research and implementing a very straightforward solution? Nevertheless, he and his colleagues hope to continue gathering data to make a case for simple and improved head protection guidelines.

In continuing to explore new opportunities, Dr. Waterbor has also immersed himself in providing healthcare to rural counties in Wilcox, AL. He and his team discovered a dearth of physicians and many basic preventive services in that area.



John Waterbor, M.S., M.D., Ph.D.

With a slice of luck, he remembered attending a few meetings with Dr. Conan Davis (outreach coordinator for the School of Dentistry) and Mrs. Mary Jean Sanspree (outreach coordinator for the School of Optometry), each of whom applied for funding from his or her respective school to provide a One-Stop healthcare shop in an abandoned high school in Wilcox. As a team, they provide cancer screenings, diet and exercise advice, basic dental services, and eye exams to the rural population. While they only have grant funding right now, they hope to eventually develop a sustainable model. The power of granting access to hundreds through this One-Stop healthcare shop developed from chance, enthusiasm, and execution. Dr. Waterbor saw an opportunity to work with leaders in other disciplines after learning of a problem and, most importantly, took the steps to ensure action.

Having lived in Birmingham for nearly 30 years, Dr. Waterbor has participated in the UAB community as a student and a professor. His experiences have helped him realize that UAB is constantly growing, and he has offered his own insights into some of the changes we should embrace. According to him, more infrastructure for meeting spaces and greater communication cross-campus should be high priorities. One fun way to accomplish this goal might be a central faculty dining facility where professors from entirely different schools can come to share their work and even make connections that may develop into partnerships. Dr. Waterbor points out that a large university, especially one growing as quickly as UAB, runs the risk of the right hand not knowing what the left is doing. He believes there needs to be a far more extensive and queryable database of researchers that anyone on campus can use to find scientists in different departments based on tags such as "rural health" and "community research."

Dr. Waterbor ascribes to the motto that you don't deserve to play until you've put in hard work. Even then, he admits with a wry smile that he is just one of those people who is more comfortable in a state of work. Most of his time outside his multiple ongoing projects is spent with his wife, stepdaughter, and tennis racket. As a UAB alumnus, he also enjoys attending many sporting events, including football and basketball games. Despite the years, time, and effort that he has poured into UAB and the community at large, he has yet to kick an old habit – checking Phillies.com to keep updated on how his baseball team is doing.