

MICHAEL DIMATTIA

NIH-Oxford Scholar 2008

Degree: University of Florida, B.S., Biochemistry and Molecular Biology, 2007

Research interests: Structural biology, virology, and immunology



Michael DiMattia graduated as Salutatorian at the International Baccalaureate program at Palm Harbor University High School in 2003 and then graduated summa cum laude with a Bachelor of Science in Biochemistry and Molecular Biology from the University of Florida in 2007. During his freshman undergraduate year, he studied under the tutelage of Dr. Mavis Agbandje-McKenna and Dr. Robert McKenna in the Macromolecular Structure Group at the University of Florida College of Medicine. As an undergraduate researcher, he quickly found himself interested in the structural biology of macromolecules and molecular biophysics. Michael's undergraduate research specifically focused on structural-to-function studies of various Adeno-associated viruses (AAVs) and other Parvoviruses. AAV is a non-pathogenic virus with great potential for gene therapy application to treat and possibly cure many hereditary diseases. He worked with other members of the lab to elucidate the various roles and actions of AAV in its viral life cycle so that they can be more effectively utilized as a treatment modality in the near future. Some of the academic honors that Michael has earned at the University of Florida include elected membership to Phi Beta Kappa, Dean's List for multiple semesters, graduating with highest honors in Biochemistry and Molecular Biology, and receiving an internal research scholarship at UF to be a University Scholar. During his undergraduate career, Michael had the privilege of attending two scientific conferences—the American Crystallographic Association Conference in Honolulu, HI in 2006 and the Biennial Phage/Virus Assembly Conference in Barrie, Ontario in 2006; he was able to present his work at both meetings. After graduation, Michael maintained a dual role in the lab, serving as a post-baccalaureate research assistant and as a Laboratory Manager/Technician. During this time, his work involved delving further into X-ray crystallography and cryo-electron microscopy for the lab. As an undergraduate, Michael was able to garner one peer-reviewed first-author publication, and has three other first-author manuscripts in preparation. At the NIH, he will embark on structure-related projects involving HIV, the Hepatitis B Virus (HBV), and inflammasomes, as yet largely unknown protein complexes that form in lymphocytes during inflammation. Michael is fascinated with structural biology and biophysics and its relevance to a multitude of other fields, including virology and immunology, both of which he will be exploring on his own as well as in collaboration with many others internationally in the coming years. Michael is an avid runner, hoping to run a marathon within the coming year and enjoys playing soccer, racquetball and other sports. He has a passion for learning languages and studied Chinese (Mandarin), Greek, and Spanish during high school and college. Michael serves as an Eagle Scout with the Boy Scouts of America.