

Jimmy Ryan

Dr. Ryan earned his Ph.D. from the Medical University of South Carolina in Charleston, in the department of Physiology and Neuroscience. His graduate work at the Storm Eye Institute focused on phototransduction in the retina. After his graduate degree, Jim did a post-doctoral stint at the University of Miami where he carried out gene expression profiling on spinal cord injuries.

In 2003 he moved back to Charleston to work for the National Oceanic and Atmospheric Administration (NOAA) Marine Biotoxins Program, where he researched the effects of marine neurotoxins using gene expression profiling. His work on neurologic injuries quickly led him into the study of neuroinflammation, and then to chronic, system inflammation caused by neurotoxins. The introduction to chronic inflammation was presented while studying patients who with only a single exposure to the marine neurotoxin ciguatoxin, developed a debilitating illness that lasted for years and was characterized by chronic inflammation. Patients with this chronic illness not only were without treatment options, but medical practitioners could not identify illness parameters since routine laboratory testing was normal in most cases.

In 2011, Dr. Ryan began working at ProteoGenomics, LLC, a company that specializes in diagnosing patients with chronic inflammatory response syndrome (CIRS).

The company uses medical methods such as history, physical and differential diagnosis to formulate a plan for further diagnostic interventions based on principles of evidence-based medicine. To date these additional diagnostic interventions have included measures of blood tests and cultures, all properly called “proteomics.” The unique addition to this process is use of genomic assay that provide evidence of differential gene activation that in turn provides a “fingerprint” that can add to accuracy of the standard evidence-based medicine approach. Further, use of genomics adds to the ability of the clinician to decide what treatment interventions will be required to affect the totality of a given inflammatory illness.