Repository Spotlight – Dr. Bob Axtell, Oklahoma Medical Research Foundation

When ACP provides Repository samples and clinical/phenotype data to researchers, we stipulate that their results must be returned to ACP, where they are available as an open resource for further study by other scientists. ACP has received several sets of returned research data from scientists who have completed their studies. One such researcher is Dr. Bob Axtell at the Oklahoma Medical Research Foundation. Dr. Axtell analyzed a broad range of different sample types from people with Neuromyelitis optica (NMO), a neuroinflammatory disorder that affects optic nerves and the spinal cord. Dr. Axtell examined different samples in order to get a comprehensive perspective on the genetic and biological basis of disease. These samples include DNA (to understand genetic linkages to disease), RNA (to examine how genes are expressed in disease), and blood plasma (to examine the changes in the profiles of cytokines, molecules that regulate the immune response). In addition, Dr. Axtell studied whole immune cells from blood to profile how different classes of immune cells (T-and B-cell subsets) change during disease. Dr. Axtell’s data, and other returned data sets, enrich the ACP Repository as a resource to advance and accelerate research into demyelinating diseases.