

Dr. Ponikau has an extensive background in chronic rhinosinusitis, asthma, airway immunology and histopathology. At the Mayo Clinic, he carried out laboratory-based and clinical research projects to investigate the role of eosinophils and fungi in Chronic Rhinosinusitis (CRS), asthma, allergic airway diseases and other eosinophilic inflammation in mucosal organs. He developed translational research programs to investigate the immunological mechanisms of CRS, identified immunological biomarkers (Major Basic Protein) resulting in the first immunologic test for CRS receiving regulatory approval in 2013, and developed novel therapeutic approaches for CRS patients, including leading a consortium of 59 centers for the first FDA phase 3 treatment trial for chronic rhinosinusitis. He has developed a novel culture and staining method for fungi in human airways, and successfully designed and completed randomized controlled clinical trials for CRS. He is currently the research chair director for the Department of Otorhinolaryngology at the University at Buffalo, The State University of New York.