

Professor Charles N. Serhan, Ph.D., D.Sc.



My research interests focus on structural elucidation of endogenous mediators that potently regulate leukocytes in the resolution of inflammation, infection and pain. Our overall mission is “To identify novel mediators, pathways, and cellular targets critical in promoting active resolution of inflammation and tissue protection and their relation/role(s) in human disease.” We’ve elucidated several new families of chemical mediators, coined the Resolvins, Protectins, and Maresins, collectively termed specialized pro-resolving mediators that stimulate resolution and are organ protective. We’ve also designed novel therapeutic approaches using these structures as biotemplates for human translation. Several of these novel designer therapeutics have already been found effective in human clinical trials. Charles is the Simon Gelman Professor of Anaesthesia (Biochemistry and Molecular

Pharmacology) at Harvard Medical School and also Professor of Oral Medicine, Infection and Immunity at Harvard School of Dental Medicine; He is Director of the Center for Experimental Therapeutics and Reperfusion Injury at Brigham and Women’s Hospital. He received a BS in biochemistry from Stony Brook University followed by a Doctorate in experimental pathology and medical sciences from New York University School of Medicine. He was a visiting scientist and post-doctoral fellow at the Karolinska Institutet, Stockholm with Professor Bengt Samuelsson (Nobel Laureate Medicine 82). In 1987, he joined the faculty at Harvard Medical School and received an honorary degree from Harvard University (1996).

For >25 years, Charles has led multidisciplinary research teams as PI/PD for Program Project “Molecular Mechanisms in Leukocyte-Mediated Tissue Injury” (P01-DE13499), PI/PD for “Specialized Center for Oral Inflammation and Resolution” (P50-Center Grant DE016191) and currently PI/PD of Program Project Grant entitled “Resolution Mechanisms in Acute Inflammation: Resolution Pharmacology” (P01-GM095467). From this point, he has trained >60 post-doctoral fellows that today have distinguished academic careers.

Charles has also received several research awards including an NIH MERIT award and has delivered > 60 keynote and plenary lectures. Among these are the **2008 William Harvey Outstanding Scientist Medal** and AAAS Fellow in 2011. In 2010, he received the **SLB Bonazinga Award**, The American College of Rheumatology **Hench (Nobel Laureate) Award Lecture in 2011** presented by the Mayo Clinic Hench Society. In 2016, he received the IUBMB Lecture Metal and **the Ross Prize in Molecular Medicine**. Recently, he received the International Eicosanoid Research **Foundation’s 2017 Lifetime Achievement Award**, the American Society of Investigative Pathology **2018 Rous Whipple Award** and the **2018 Gaddum International Prize and Award Lecture** from the British Pharmacology Society. As of 4-2019, Charles has authored > 500 publications most listed in <https://www.ncbi.nlm.nih.gov/pubmed/?term=Charles+Serhan>
h-index: 146 Citations: > **77,250** <http://serhanlab.bwh.harvard.edu/>