Neuroscience Center of Excellence

LSU Health Sciences Center School of Medicine, New Orleans

SEMINAR

Novel Anti-Inflammatory & Pro-Resolving Lipid Mediators: Resolvins and Protectins

Charles N. Serhan, Ph.D. Center for Experimental Therapeutics and Reperfusion Injury, Brigham and Women's Hospital, Harvard Medical School, Boston, MA

A well-integrated inflammatory response and it's ending, i.e. *resolution*, is essential in health and disease. Our research focuses on understanding the cellular and molecular events that govern resolution. This lecture will give an overview of recent advances from studies by the author and colleagues on the biosynthesis and actions of the novel anti-inflammatory lipid mediators, resolvins, and protectins that generated from the omega-3 fatty acids (EPA and DHA). These previously unappreciated families of lipidderived mediators were originally isolated from experimental murine models of acute inflammation captured during the natural spontaneous resolution phase. They possess anti-inflammatory, proresolving, and protective properties. Since the resolvins and protectins in animal models control the duration and magnitude of inflammation, mapping of these resolution circuits may provide new avenues for appreciating the molecular basis of many inflammatory diseases. Hence, defective resolution mechanism(s) may underlie our current appreciation of the inflammatory phenotype(s) that characterize some prevalent human diseases.

> December 8, 2006, 2:00-5:00pm, 1st Floor, Lecture Room A, Medical Education Building, 1901 Perdido Street