American Society for Investigative Pathology
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Rouse-Whipple Award - 2003
Janardan K. Reddy

ASIP NAMES DR. REDDY RECIPIENT OF ROUS-WHIPPLE AWARD
Dr. Reddy lauded for his groundbreaking cancer research with peroxisomes and carcinogenesis

The American Society for Investigative Pathology (ASIP) presents **Dr. Janardan K. Reddy**, Chairman of Pathology at Northwestern University Medical School, the 2003 Rous-Whipple Award.

The Rous-Whipple Award is given to a pathologist with an illustrious career in research and continued productivity at the time of the award. With his groundbreaking research on peroxisomes, Dr. Reddy has distinguished himself as a researcher dedicated to the field of carcinogenesis.

Dr. Reddy began his career in India in 1961, as a Rotating House Office at the Osmania General Hospital in Hyderabad. Progressing from an instructor at Kakatiya Medical College to a postgraduate student at the All-India Institute of Medical Sciences, Dr. Reddy eventually moved to Kansas, where he stayed until 1976 before moving on to Northwestern.

Dr. Peter Ward writes that Dr. Reddy's “international stature in the field of peroxisomes and carcinogenesis, his many years of service to organizations such as the NIH and the Society of Toxicology, his senior status in the field of academic pathology, and his frequent invitation to participate in international symposia are hallmarks of a world-recognized academic pathologist.”

Dr. Nelson Fausto notes “Dr. Reddy is one of the most distinguished scientists in academic pathology.” Adds Dr. Yashpal Kanwar, “He and his colleague, Dr. Sambasiva Rao, demonstrated that peroxisomal proliferation can be achieved by a variety of agents, including hypolipidemic drugs, and thus linked their biology to lipid metabolism, and that served as an impetus for the discovery of the peroxisomal beta-oxidation system.”

Dr. Rao, who worked closely with Dr. Reddy on these discoveries observed, “In the last 30 years no other single scientist contributed more to the understanding of peroxisome biology and peroxisome proliferator-induced hepatocarcinogenesis than Dr. Reddy. He has been universally recognized as a pioneer in this field . . . Dr. Reddy is a man of reason, unaffected by power and achievements, and always willing to help and guide anybody that approaches him. Dr. Reddy is a great teacher with a unique talent of simplifying complex problems.”

"The Rous-Whipple Award recognizes the work started approximately 35 years ago when I was a resident in pathology, beginning with a morphological phenomenon of increase in the number of peroxisomes (which were then called microbodies) in liver cells,” said Dr. Reddy. “Over the years, this work led to the identification of structurally diverse classes of chemicals - several lipid lowering drugs, certain phthalate ester plasticizers used in the manufacture of polyvinyl chloride plastics, herbicides and certain solvents - all of which exert similar effects - namely peroxisome proliferation. These are now called peroxisome proliferators, a designation we introduced in 1975."

Dr. Reddy demonstrated that despite their structural diversity, various peroxisome proliferators induce the development of liver cancer, and act in a cell-specific manner by receptor-mediated mechanisms. Dr. Reddy identified a peroxisome proliferator-activated receptor (PPAR) subfamily that plays a pivotal role in lipid metabolism.

Dr. Reddy adds, “Thus the work has progressed from morphology to cell, biochemical and molecular biological, and genetic approaches to unravel the role of these receptors as sensors for endogenous and exogenous ligands. This has been, and continues to be, an exciting and fascinating journey. We still have a long way to go in terms of understanding the molecular complexity of cells and gene-specific and receptor-specific signal transduction. I consider this award a tribute to the field and those who contributed to our understanding of this fascinating phenomenon.”