

In Memoriam: Ronald G. Thurman, Ph.D. (1941-2001)



For over 30 years, Ron Thurman was an outstanding investigator in the fields of hepatic metabolism, alcoholic liver disease, and toxicology. Upon his sudden death from acute myocardial infarction on 14 July 2001, his many colleagues and friends lost a productive and creative researcher and teacher.

Ron was born in Carbondale, IL, on 25 November 1941. He started his career with a B.S. in Pharmacy from the St. Louis College of Pharmacy (1963) and a Ph.D. in Pharmacology from the University of Illinois Medical College (1968). He received postdoctoral training in biophysics with Dr. Britton Chance at the Johnson Foundation of the University of Pennsylvania (1968-69) and with Dr. Roland Scholz at the Institute for Physiological Chemistry at the University of Munich, Germany (1969-72). He served as Assistant Professor of Biochemistry and Biophysics at the University of Pennsylvania (1972-77) and moved to the University

of North Carolina Medical School in Chapel Hill in 1977, where he rose through the academic ranks to become Professor of Pharmacology (1982) and Director of the Laboratory of Hepatobiology and Toxicology (1988). He served in these capacities until his demise. He was also Visiting Professor in the Cancer Research Center at the University of Vienna, Austria (1999-2000).

Ron approached the complex entity of alcoholic liver disease in a focused, rational, and precise manner. Over the years, Ron's body of work established the basic concepts that guide current research on alcoholic liver disease in laboratories throughout the world. He characterized hepatic alcohol metabolism and especially the adaptive swift increase in alcoholic metabolism that he liked to call "SIAM." Ron's seminal contributions established the role of lipopolysaccharides (LPS) to stimulate Kupffer cell activation in the pathogenesis of alcoholic steatohepatitis.

Recently, using an intragastric ethanol feeding model in rats and mice, Ron defined the key genetic components in alcoholic steatohepatitis. By studies in knockout mice with viral gene delivery systems, he demonstrated critical roles of the tumor necrosis factor receptor-1 (ICAM-1), NADPH oxidase, CD14, and Toll-like receptor-4 in alcoholic liver injury.

The concept that emerged from Ron's work was simple but unexpected: drinking alcohol promotes LPS translocation across the gut mucosa. The chronic exposure to LPS causes Kupffer cell activation and the release of cytokines, free radicals, and other inflammatory mediators that induce hepatocellular injury and may produce fibrosis as well. This concept of pathogenesis will surely guide alcohol research for many years to come.

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Ron was a coauthor of more than 400 original research papers and he contributed many review articles and book chapters. He also attracted outstanding graduate students and postdoctoral fellows from all over the world. What's more, he inspired them to strive for excellence. Alumni of his laboratory have pursued outstanding careers in clinical gastroenterology, gut research, and pharmacology. Ron presented superlative papers at meetings of the *Association of Clinical Scientists* (1996, 2001) and he was active in the *American Gastroenterological Association*, the *American Association for the Study of Liver Diseases*, and the *Society of Toxicology*. Recently, he became an associate editor of the journal, *Gastroenterology*.

In his curriculum vitae, Ron summarized his philosophy of education as follows: "I feel the best way to train graduate students is to be an appropriate role model. Accordingly, I see little difference between my research goals and my role as an educator. It is my aim to encourage graduate students

to gather data sufficient for them to appreciate how exciting biomedical research can be, and then guide them through the publication process."

Ron's personal life was focused primarily around his research. His avocations included growing vegetables, travelling widely, and exploring new applications of his computer. He is survived by his parents, Mr. and Mrs. J. Glenn Thurman, who reside in Herrin IL.

Although his untimely death prevents Ron from pursuing the research he loved so dearly, his many students and collaborators will continue his work and will encourage their students to achieve the standards of excellence that Ron met and that he demanded of others.

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