INTRODUCTION TO THE MACY-GYÖRGY AWARD LECTURE

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The Macy-György Award for Research in Human Milk and Lactation is awarded by ISRHML to honor individuals who have made outstanding, original scientific contributions to the field. It was named for Icie Gertrude Macy (Hoobler) and Paul György, whose seminal work provided a foundation for all of our work on human milk and infant health. The 1997 recipient of this award was Dr. Stuart Patton.

Icie Gertrude Macy Hoobler was born in Missouri in 1892. Her undergraduate training in chemistry was at the University of Chicago, and in 1920 she earned a Ph.D. in chemistry from Yale University where her mentor was Lafayette Mendel. In 1923 she accepted the position of Director of the Nutrition Research Project at the Merrill-Palmer School for Motherhood and Child Development in Detroit, “the vanguard in applying the new science of nutrition.” In her 31 years at the Nutrition Research Project (which expanded in 1931, becoming the Research Laboratory of the Children’s Fund of Michigan), she directed research on such diverse topics as infant growth and development, the metabolism of women during the reproductive cycle, and lactation. Her studies proved that malnutrition and proper nutrition profoundly affect the health of infants, and her findings set many dietary standards for children. Her 1953 publication on the composition human milk served as a standard. Her investigation of the influence of dietary factors on nutrients in milk led to the standardization of methods for supplementation of milk with vitamin D (which eradicated rickets as a major health problem) and with vitamin B. She also studied amino acids in foods and the standardization of vitamin C. Her most popular book, Chemical Anthropology, was a long-
term study of metabolism, diet, and growth of children. Her book *Hidden Hunger* promoted good nutrition and diet. The first woman to chair a Division of the American Chemical Society (Division of Biological Chemistry), Icie Macy is recognized as one of the best biochemists of the beginning of the twentieth century, a pioneer who laid the foundation for much of what is known today about the biochemistry of nutrition and of human milk components. Dr. Macy died in 1984, at the age of 92.

Paul György was born in Hungary in 1893, completed his medical training in Budapest in 1915, and served on the faculty at University of Heidelberg from 1920 through 1933. Work there with T. Wagner-Jauregg and Richard Kuhn resulted in the isolation and identification of riboflavin from eggs and milk. It was there that he became impressed with “the antiinfective properties of human milk, for which he developed an almost mystical respect.” During two years at Cambridge University in the U.K., he discovered vitamin B₆. In 1935 he moved to Western Reserve University, Cleveland, Ohio, where he determined the structure of pyridoxine (B₆), and made seminal observations regarding pantothenic acid, nicotinic acid, and choline. In 1944, he joined the University of Pennsylvania, where he isolated *Lactobacillus bifidus* var. *pennsylvanicus* (now *Bifidobacterium bifidum*), a major bacteria in the intestinal flora of breast-fed infants. He then isolated the bifidus factor from human milk that stimulated the growth of this bacteria and, with colleagues at Harvard and the Institut für Physikalische Chemie, Bonn, found that the activity resided in N-acetyl glucosamine-containing glycoconjugates. As a consultant to Wyeth Laboratories, he worked to develop infant formulas that more closely resembled human milk, for example by lowering the protein content, and developing a whey-dominant formula. As an early advocate of breast-feeding, György was responsible for coining and popularizing the phrases “breast is best” and “cow’s milk is for calves.” Among his many awards, Paul György was awarded the National Medal of Science (USA) in 1976, but he died before he could be notified, and the medal was awarded posthumously.

Stuart Patton has had a long and distinguished career that began, after a wartime stint in the Navy, with a degree in Dairy Science in the 1940s. He immediately joined the Department of Dairy Science at the Pennsylvania State University, where he rose to Professor and was granted the Evan Pugh Chair of Agriculture in 1966, a post he held until his formal retirement in 1980. Dr. Patton continued his research, retaining the Evan Pugh Professorship in an Emeritus status as well as adjunct appointments in the Department of Neurosciences, University of California-San Diego and in

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