RALPH A. DEFRONZO, MD, is a professor of medicine and chief of the Diabetes Division at the University of Texas Health Science Center and the deputy director of the Texas Diabetes Institute, in San Antonio, TX. A graduate of Yale University and Harvard Medical School, he completed his training in internal medicine at Johns Hopkins Hospital in Baltimore, MD. He completed fellowships in endocrinology at the National Institutes of Health and Baltimore City Hospitals and in nephrology at the Hospital of the University of Pennsylvania in Philadelphia. Subsequently, he joined the faculty at the Yale University School of Medicine (1975–1988) as an assistant/associate professor before moving to Texas and taking up his present roles in 1988.

His major interests focus on the pathogenesis and treatment of type 2 diabetes and the central role of insulin resistance in the metabolic-cardiovascular cluster of disorders known collectively as the insulin resistance syndrome. Using the euglycemic insulin clamp technique in combination with radioisotope turnover methodology, limb catheterization, indirect calorimetry, and muscle biopsy, he has helped to define the biochemical and molecular disturbances responsible for insulin resistance in type 2 diabetes.

For his work in this area, Dr. DeFronzo received the prestigious Lilly Award (1987) from the American Diabetes Association (ADA), the Banting Lectureship (1988) from the Canadian Diabetes Association, the Novartis Award (2003) for outstanding clinical investigation worldwide, and many other national and international awards. He also is the recipient of the ADA’s Albert Renold Award (2002) for lifetime commitment to the training of young diabetes investigators. He received the Banting Award from the ADA (2008) and the Claude Bernard Award from the European Association for the Study of Diabetes (2008). These represent the highest scientific achievement awards given by the American and European diabetes associations, respectively. In 2008, Dr. DeFronzo also received the Italian Diabetes Mentor Prize and the Philip Bondy Lecture at Yale University. In 2009, he received the Presidential Award for Distinguished Scientific Achievement from the University of Texas Health Science Center at San Antonio. He has also received the Outstanding Clinical Investigator Worldwide Award from the World Congress on Controversies to Consensus in Diabetes, Obesity and Hypertension (2012); the Outstanding Scientific Achievement Award from the American College of Nutrition (2014); the Samuel Eichold II Memorial Award for Contributions in Diabetes from the American College of Physicians (2015); the George Cahill Memorial Lecture from the University of Montreal (2015); and the Priscilla White Memorial Lecture from the Joslin Clinic & Brigham and Women’s Hospital (2015). Most recently (2017), he received the Hamm International Prize for his many seminal observations on the pathogenesis and treatment of type 2 diabetes and the Distinction in Endocrinology Award from the American College of Endocrinology.

With more than 800 articles published in peer-reviewed medical journals, Dr. DeFronzo is a distinguished clinician, teacher, and investigator who has been an invited speaker at numerous major national and international conferences on diabetes.

Diabetes Spectrum associate editor Carolina Solis-Herrera, MD, coordinated this From Research to Practice section.

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