



Dr. DeLotto received Bachelors degrees in Biochemistry and Biophysics from the University of Pennsylvania and a Ph. D. in Molecular Biology from Princeton University in 1984. He conducted postdoctoral studies at the University of Geneva, in Geneva, Switzerland where he molecularly cloned one of the first enzymes regulating cell fate determination during the development of the fruit fly, *Drosophila melanogaster*. In 1987-1988, he conducted postdoctoral studies in the laboratory of Nobel Laureate Christiane Nüsslein-Volhard at the Max Planck Institute of Developmental Biology in Tuebingen, Germany. Subsequently, Dr. DeLotto was appointed an Assistant Member of the Molecular Biology department of Memorial Sloan-Kettering Cancer Center in New York. In 1996, he was appointed Associate professor in the Genetics department of the Institute of Molecular Biology at the University of Copenhagen in Copenhagen, Denmark. From 2002-2007, he served as the Chairman of the Genetics Department. He currently holds two appointments, an Associate Professorship at the University of Copenhagen in the Department of Molecular Biology and a Research Associate Professorship at Rutgers University in Newark, New Jersey.

Dr. DeLotto's scientific research interests center around the molecular basis of embryonic patterning during early development and he works primarily with the model organism *Drosophila melanogaster*. In 1986, he proposed the existence of an extracellular protease cascade leading to the generation of an asymmetric signal defining cell identity across the axis of the embryo. Later work by his laboratory and others demonstrate that indeed such a cascade exists and functions through the Toll receptor, a signaling receptor that has evolved to function in the innate immune response. This signal leads to the nuclear translocation of NF-kappaB, a transcription factor with a wide variety of functions including immunity, differentiation of insulin secreting cells of the pancreas, learning and memory and cancer. More recently his laboratory has developed state of the art methods for determining the subcellular localization and dynamics of proteins in living embryos in real time. These approaches have revealed surprising new features of Toll like receptor (TLR) and NF-kappaB signaling with relevance to human immunity and cancer.

Dr. DeLotto has enjoyed participating in science fairs and exhibits in his youth and feels that introducing our youth to the sciences is paramount to our future as a nation.