

## **Biography: Mano Manoharan, Alnylam Pharmaceuticals, 2026**

Dr. Muthiah (Mano) Manoharan serves as the Senior Vice President of Drug Innovation, a Scientific Advisory Board Member, and a Distinguished Research Scientist at Alnylam Pharmaceuticals, Cambridge, Massachusetts. In 2003, he was the founding chemist hired at Alnylam as the Head of the Drug Discovery. He and his team pioneered the discovery and development of numerous chemical modifications, GalNAc conjugation chemistry, lipid conjugates (the first in vivo demonstration of RNAi in 2004) and Lipid Nanoparticles (LNP) delivery platform that made RNA interference-based human therapeutics possible. Based on these contributions 6 siRNA drugs for 7 indications have been approved from Alnylam Pharmaceuticals.

Prior to joining Alnylam, he worked at Isis (Ionis) Pharmaceuticals in the field of antisense oligonucleotides. He is an author of more than 250 publications (more than 77,000 Google Scholar citations with an h-index of 127 and an i10-index of 468) and over 500 abstracts, as well as an inventor of over 300 issued U.S. patents.

Dr. Manoharan has earned, numerous awards including the Lifetime Achievement Award of the Oligonucleotide Therapeutics Society (OTS, 2019) and has been honored with the Ronald Breslow Biomimetic Chemistry National award by the American Chemical Society (ACS) for the year 2024. He is also an ACS Fellow and the ACS Division of Medicinal Chemistry Hall of Fame inductee. He has earned M. L. Wolfrom and D. Horton awards from the ACS Division of Carbohydrate Chemistry in the years 2007 and 2021 respectively.

Dr. Manoharan was born in Madurai, Tamil Nadu, India and received his B.Sc. and M.Sc. degrees in chemistry at the American College, Madurai, India. He earned his Ph.D. in chemistry at the University of North Carolina, Chapel Hill, (Professor Ernest L. Eliel) and learned the field of oligonucleotides at Yale University and University of Maryland as a post-doctoral research associate (Professor John A. Gerlt).