



## **Stanley T. Crooke, Ph.D., M.D, to retire from Ionis to focus on his scientific interests and n-Lorem Foundation**

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CARLSBAD, Calif., Dec. 17, 2020 /PRNewswire/ -- Ionis Pharmaceuticals, Inc. (NASDAQ: IONS), the leader in RNA-targeted therapeutics, announced today that its founder and executive chairman Stanley T. Crooke, M.D., Ph.D., will retire from Ionis and its board of directors effective June 2021. Dr. Crooke is stepping down so that he may focus on his scientific interests and the nonprofit organization he founded, the n-Lorem Foundation. Dr. Crooke will continue to serve as a scientific advisor to Ionis including providing advice regarding Ionis' research and development programs and guiding the core antisense research group he founded at Ionis.



Dr. Crooke founded Ionis more than 30 years ago and is credited with being the pioneer of RNA-targeted therapeutics. Under his leadership, Ionis developed its novel antisense technology and created one of the largest, most advanced pipelines in the industry. He has personally led the development of more than 20 marketed drugs throughout his career and supported the creation and growth of several companies based on Ionis' antisense technology. In addition, Dr. Crooke is responsible for creating one of the most innovative and scientifically driven cultures that has an unwavering passion for discovering and developing future-creating therapies and a steadfast commitment to saying yes to the patients who are depending on them.

"The brilliance of Stan's vision isn't just represented by the founding and success of Ionis, but it is also reflected in his creation of an entirely new chemical class of medicines, antisense oligonucleotides," said Joseph Loscalzo, M.D., Ph.D., head, Department of Medicine and Physician-in-Chief, Brigham & Woman's Hospital, Harvard Medical School and Ionis board member. "His scientific contributions will no doubt continue to provide extraordinary benefit to the healthcare industry and the many patients who once were told there isn't any hope or treatment for their disease. With Stan solely focusing on his scientific interests and n-Lorem, we can only expect his impact to continue."

Dr. Crooke has received numerous honors and awards for his pioneering work in RNA-targeted therapeutics including the prestigious Massry Prize, the Oligonucleotide Therapeutics Society Lifetime Achievement Award, the American Chemical Society's E.B. Hershberg Award for Important Discoveries in Medicinally Active Substances, the Prix Galien Best Biotechnology Award for Spinraza, the Scrip Lifetime Achievement Award, and BIO's Helix Award for the most important innovation. In addition, Ionis' board of directors named the main headquarters building in honor of Dr. Crooke in 2019 to recognize his extraordinary role in creating Ionis. Dr. Crooke has published nearly 600 scientific publications, edited more than 20 books, and is a named inventor on numerous patents.

"Thanks to Stan's vision and perseverance, thousands of patients are benefiting from the transformative and life-changing antisense medicines discovered and developed by Ionis," said Brett P. Monia, Ph.D., Ionis chief executive officer. "We are pleased that Stan will continue to provide advice and counsel to Ionis and applaud his efforts to use the technology that was created at Ionis to bring hope and therapies to the patients who will benefit greatly from the n-Lorem foundation."

n-Lorem Foundation, founded in 2019 by Dr. Crooke and initially funded by him, his wife Dr. Rosanne Crooke, Ionis and Biogen, provides free individualized antisense treatments to patients living with ultra-rare diseases (1 to 30 patients worldwide) for life. In less than a year of its founding, the Foundation has garnered support from global partners such as the Korean Institute of Toxicology, many donors, has received more than 40 requests for treatment and has 10 patients being treated or about to be treated with an investigational antisense medicine that was designed for each one's specific genetic mutation that's causing their disease.

**About Ionis Pharmaceuticals, Inc.**

As the leader in RNA-targeted drug discovery and development, Ionis has created an efficient, broadly applicable, drug discovery platform called antisense technology that can treat diseases where no other therapeutic approaches have proven effective. Our drug discovery platform has served as a springboard for actionable promise and realized hope for patients with unmet needs. We created the first and only approved treatment for all patients, children and adults with spinal muscular atrophy, as well as the world's first RNA-targeted therapeutic approved for the treatment of polyneuropathy in adults with hereditary transthyretin amyloidosis. Our sights are set on all the patients we have yet to reach with a pipeline of more than 40 novel medicines designed to potentially treat a broad range of disease, including neurological, cardio-renal, metabolic, infectious, and pulmonary diseases.

To learn more about Ionis visit [www.ionispharma.com](http://www.ionispharma.com) and follow us on Twitter @ionispharma.

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