

# Ionis Announces Management Transitions

November 7, 2017

## Brett Monia to become Chief Operating Officer Lynne Parshall to become Senior Strategic Advisor to Ionis

CARLSBAD, Calif., Nov. 7, 2017 /PRNewswire/ -- Ionis Pharmaceuticals, Inc. (NASDAQ: IONS) announced today management transitions to be effective January 15, 2018. Brett P. Monia, a founder of Ionis, and head of drug discovery and the inotersen program, will become chief operating officer. In his new role, in addition to continuing to play a key role in drug discovery and development, including taking responsibility for the transition of research programs into development, Dr. Monia will assume responsibility for the company's regulatory, patient advocacy, human resources and business functions, including corporate communications, investor relations, business development, alliance management and competitive intelligence. B. Lynne Parshall, who has been with Ionis for 27 years, will become senior strategic advisor to Ionis and remain a member of the board of directors of Ionis and Akcea. In addition to supporting Dr. Monia in his transition, Ms. Parshall will continue to be involved in strategic planning, business development, and with Ionis' important relationships with Biogen and Akcea.



"For nearly 30 years, Lynne and I have partnered to navigate the course for Ionis. So, as we progress toward even more substantial success, it is particularly gratifying to me to know that Lynne will continue to play the vital strategic role she has always played, yet be able to devote more time to her family," said Stanley T. Crooke, M.D., Ph.D., chief executive officer and chairman of Ionis.

"I am also pleased that Brett is taking this important step in his career. Brett is a founding member of the Ionis team. His leadership has been instrumental to the productivity of our drug discovery program. He has also made important contributions to our drug development activities and, together with Lynne and myself, been instrumental in achieving and managing our many partnerships. Additionally, he has contributed to our strategic decision making and the building of a productive culture at Ionis. The board and I are confident that Brett is the ideal choice to be chief operating officer and is fully prepared to assume these new responsibilities. It is particularly gratifying that our succession planning efforts have prepared Brett for this new set of responsibilities," Dr. Crooke concluded.

### ABOUT IONIS PHARMACEUTICALS, INC.

Ionis is the leading company in RNA-targeted drug discovery and development focused on developing drugs for patients who have the highest unmet medical needs, such as those patients with severe and rare diseases. Using its proprietary antisense technology, Ionis has created a large pipeline of first-in-class or best-in-class drugs, with over three dozen drugs in development. SPINRAZA<sup>®</sup> (nusinersen) has been approved in global markets for the treatment of spinal muscular atrophy (SMA). Biogen is responsible for commercializing SPINRAZA. Drugs that have successfully completed Phase 3 studies include inotersen, an antisense drug Ionis is developing to treat patients with hereditary TTR amyloidosis (hATTR), and volanesorsen, an antisense drug discovered by Ionis and co-developed by Ionis and Akcea Therapeutics to treat patients with either familial chylomicronemia syndrome or familial partial lipodystrophy. Akcea, an affiliate of Ionis, is a biopharmaceutical company focused on developing and commercializing drugs to treat patients with serious cardiometabolic diseases caused by lipid disorders. If approved, volanesorsen will be commercialized through Ionis' affiliate, Akcea. Inotersen filings for marketing approval have been submitted in the U.S. and EU. Volanesorsen filings for marketing approval have been submitted in the U.S., EU, and Canada. Ionis' patents provide strong and extensive protection for its drugs and technology. Additional information about Ionis is available at [www.ionispharma.com](http://www.ionispharma.com).

### IONIS' FORWARD-LOOKING STATEMENT

This press release includes forward-looking statements regarding Ionis Pharmaceuticals' business and the therapeutic and commercial potential of Ionis' technologies and products in development, including SPINRAZA, inotersen, and volanesorsen. Any statement describing Ionis' goals, expectations, financial or other projections, intentions or beliefs is a forward-looking statement and should be considered an at-risk statement. Such statements are subject to certain risks and uncertainties, particularly those inherent in the process of discovering, developing and commercializing drugs that are safe and effective for use as human therapeutics, and in the endeavor of building a business around such drugs. Ionis' forward-looking statements also involve assumptions that, if they never materialize or prove correct, could cause its results to differ materially from those expressed or implied by such forward-looking statements. Although Ionis' forward-looking statements reflect the good faith judgment of its management, these statements are based only on facts and factors currently known by Ionis. As a result, you are cautioned not to rely on these forward-looking statements. These and other risks concerning Ionis' programs are described in additional detail in Ionis' annual report on Form 10-K for the year ended December 31, 2016, and its most recent quarterly report on Form 10-Q, which are on file with the SEC. Copies of these and other documents are available from the Company.

In this press release, unless the context requires otherwise, "Ionis," "Company," "we," "our," and "us" refers to Ionis Pharmaceuticals and its subsidiaries.

Ionis Pharmaceuticals<sup>™</sup> is a trademark of Ionis Pharmaceuticals, Inc. Akcea Therapeutics<sup>™</sup> is a trademark of Ionis Pharmaceuticals, Inc. SPINRAZA<sup>®</sup> is a registered trademark of Biogen.

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