



Arrowhead Pharmaceuticals Announces Planned Management Transition

November 15, 2019

PASADENA, Calif.--(BUSINESS WIRE)--Nov. 15, 2019-- Arrowhead Pharmaceuticals, Inc. (NASDAQ: ARWR) today announced that Bruce Given, M.D., Arrowhead's chief operating officer and head of R&D, plans to retire on May 1, 2020, after a more than 30 year career in biotechnology and pharmaceutical research, development, and sales and marketing. Arrowhead also announced the hiring of Javier San Martin, M.D., in the role of chief medical officer, and Curt Bradshaw, Ph.D., in the role of chief scientific officer, both effective on Monday, November 18, 2019. During the next six months, Dr. Given will work closely with Dr. San Martin and Dr. Bradshaw to ensure a smooth transition and will also be retained in an advisory capacity for a period of at least one year following his retirement.

Chris Anzalone, Ph.D., president and chief executive officer of Arrowhead, said: "On behalf of the whole Arrowhead team, I would like to thank Bruce for all of his contributions since he joined Arrowhead in 2011, and I look forward to his continued valuable input in the future. Bruce has been a strong contributor to the success of our R&D organization. His lasting legacy is a culture in R&D that rewards innovation and speed. In addition, he has helped to develop a strong team of leaders that enable Arrowhead to continue down that same path. I'm also happy to welcome Javier and Curt to the Arrowhead team. Both are highly accomplished and proven leaders who can provide strategic and operational guidance to both our research and development teams as we advance our growing pipeline of RNAi therapeutics that leverage our TRiM™ platform to target liver, lung, tumor, muscle, and additional extra-hepatic tissues."

Bruce Given added: "I am very proud of what we've been able to build together at Arrowhead and I look forward to helping the team during the next six months and beyond, as needed, during my retirement. It has been particularly gratifying to see Arrowhead's unwavering commitment to innovation during the good times and also the resilience needed to overcome challenging times, which biotechnology companies invariably experience. Javier and Curt share these same traits and I'm confident that they will be great additions to the Arrowhead team."

Dr. San Martin previously served as Senior Vice President and Head of Global Clinical Development at Ultragenyx since 2013, where he led the development of burosumab, a novel drug for the treatment of X-Linked Hypophosphatemia approved across major regions including the United States, the European Union, and Canada. Before his tenure at Ultragenyx, he served as Senior Vice President of Clinic Development at Alder Biopharmaceuticals, where he was responsible for managing the medical, regulatory, and clinical operations group focused on early clinical programs. From 2006 to 2011, Dr. San Martin was a Global Development Leader at Amgen, Inc., where he was responsible for two major development programs. He directed the romosozumab clinical program through the end of phase II, and before that, was responsible for the development and approval of denosumab, the largest branded anti-osteoporosis treatment for postmenopausal osteoporosis and the first monoclonal antibody to address a very prevalent disease treated by primary care physicians. Prior to his time at Amgen, he spent seven years at Eli Lilly and Company, supporting late stage clinical development as well as medical affairs activities, including the successful launch of Evista and Forteo. He received his medical degree from the University of Buenos Aires Medical School and completed his residence in internal medicine at CEMIC University Hospital in Buenos Aires, Argentina, serving as Chief Resident, and, thereafter, as Attending Physician responsible for the internal medicine ward.

Dr. Bradshaw was President, Chief Scientific Officer, and a member of the board of the directors for Tollnine, a company he co-founded to develop novel antibody conjugates for immuno-oncology. Prior to that, he was Chief Scientific Officer and a member of the board of directors of Solstice Biologics, where he managed and oversaw all company operations and research exploring novel siRNA technologies for the development of human therapeutics. Before Solstice, Dr. Bradshaw was Vice President of Research and Development and Chief Scientific Officer at Traversa Therapeutics. He had primary R&D oversight and was a key strategic contributor to internal technology development, business strategy, and oversaw research alliances with multiple major pharmaceutical collaborators. Prior to Traversa, he spent 7 years at CovX Research, a cornerstone of the Pfizer, Inc Bioinnovation and Biotherapeutics Center, where he was a member of the research, development, and corporate teams providing strategic and tactical support for research and development programs, codeveloping the research pipeline and feeding the clinical portfolio. He also oversaw chemistry efforts ranging from basic research through active pharmaceutical ingredient manufacturing. Prior to CovX, he spent 4 years at Ligand Pharmaceuticals, and was responsible for the chemical development of clinical-phase active pharmaceutical ingredients. Dr. Bradshaw started his career at Abbott Laboratories, where he spent 6 years as a Research Chemist, Senior Research Chemist, and Project Leader. He received a Ph.D. in Organic Chemistry from Texas A&M University.

In connection with the employment of Dr. San Martin and Dr. Bradshaw, as inducement to entering into employment with the Company, effective on November 18, 2019, the Compensation Committee of the Board of Directors approved "inducement" grants each new officer under Rule 5635(c)(4) of the NASDAQ Marketplace Rules. The restricted stock unit grants entitle Dr. San Martin and Dr. Bradshaw to receive 150,000 and 125,000 shares, respectively, vesting in four equal annual installments. Dr. San Martin and Dr. Bradshaw will be eligible for new grants after the third anniversary of their date of hire. The grants are outside of the Company's stockholder-approved equity incentive plans.

About Arrowhead Pharmaceuticals

Arrowhead Pharmaceuticals develops medicines that treat intractable diseases by silencing the genes that cause them. Using a broad portfolio of RNA chemistries and efficient modes of delivery, Arrowhead therapies trigger the RNA interference mechanism to induce rapid, deep, and durable knockdown of target genes. RNA interference, or RNAi, is a mechanism present in living cells that inhibits the expression of a specific gene, thereby affecting the production of a specific protein. Arrowhead's RNAi-based therapeutics leverage this natural pathway of gene silencing.

For more information, please visit www.arrowheadpharma.com, or follow us on Twitter [@ArrowheadPharma](https://twitter.com/ArrowheadPharma). To be added to the Company's email list and receive news directly, please visit <http://ir.arrowheadpharma.com/email-alerts>.

Safe Harbor Statement under the Private Securities Litigation Reform Act:

This news release contains forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. These statements are based upon our current expectations and speak only as of the date hereof. Our actual results may differ materially and adversely from those expressed in any forward-looking statements as a result of various factors and uncertainties, including the safety and efficacy of our product candidates, the duration and impact of regulatory delays in our clinical programs, our ability to finance our operations, the likelihood and timing of the receipt of future milestone and licensing fees, the future success of our scientific studies, our ability to successfully develop and commercialize drug candidates, the timing for starting and completing clinical trials, rapid technological change in our markets, and the enforcement of our intellectual property rights. Our most recent Annual Report on Form 10-K and subsequent Quarterly Reports on Form 10-Q discuss

some of the important risk factors that may affect our business, results of operations and financial condition. We assume no obligation to update or revise forward-looking statements to reflect new events or circumstances.

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