Ironwood Pharmaceuticals Announces Board of Directors for Ironwood and Cyclerion, Effective Following Separation

January 24, 2019

- Board members bring diverse experience tailored to the distinct opportunities and strategies of each new company -
- Julie McHugh to serve as chair of Ironwood board; Marsha Fanucci to serve as chair of Cyclerion board -
- Ironwood and Cyclerion expected to have annually elected directors and single classes of common stock -

CAMBRIDGE, Mass.--(BUSINESS WIRE)--Jan. 24, 2019-- <u>Ironwood Pharmaceuticals, Inc.</u> (NASDAQ: IRWD) today announced the composition of the Ironwood and Cyclerion Therapeutics, Inc. ("Cyclerion") boards of directors, in connection with the previously announced planned business separation which is on track to be completed in the first half of 2019. The directors were selected after a comprehensive global search for candidates who comprise the professional qualifications as they relate to the specific needs of the two new companies, and who can effectively represent shareholders' interests.

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Additionally, Ironwood announced that at its 2019 annual meeting of stockholders, the Ironwood board plans to recommend to its shareholders the elimination of its classified board and transition to a single class of directors to be elected annually. If stockholders approve the proposal, the Ironwood directors on the board immediately following the annual meeting will serve the remainder of their terms in office. All Ironwood directors will be elected annually beginning at the 2022 annual meeting of stockholders. Cyclerion is also expected to elect directors annually. Both Ironwood and Cyclerion will have a single class of common stock.

"We are pleased to announce two highly-qualified and experienced boards, with owner-oriented members dedicated to creating shareholder value for each company," said Terrance G. McGuire, chair of Ironwood's board of directors. "The directors collectively and individually bring significant wisdom, expertise and judgment in areas critical to driving success for each business – small biotech and large pharma, commercial development, R&D, and capital allocation – in addition to significant diversity and leadership experience."

Ironwood

Following the planned separation, Ironwood intends to become a leading GI-focused healthcare company, building upon its commercial success to-date with LINZESS® (linaclotide) and advancing its late-stage, first-in-category development candidates for persistent GERD and abdominal pain towards the market.

The new Ironwood board of directors will continue to be comprised of 9 members. Julie McHugh will serve as chair. The board is expected to include the following directors who currently serve on the Ironwood board:

- Julie McHugh, Chair. Ms. McHugh brings 28 years of senior leadership experience in the biopharmaceutical industry, including as chief operating officer of Endo Health Solutions, chief executive officer of Nora Therapeutics, group chairman of Johnson & Johnson's world virology business unit, and president of Centocor. While at Johnson & Johnson, Ms. McHugh oversaw the development and launches of multiple products including Remicade® (infliximab), Prezista® (darunavir) and Intelence® (etravirine). She also led the marketing communications for Prilosec® (omeprazole) at Astra-Merck. In addition to serving on the Ironwood board since 2014, Ms. McHugh's public company board membership includes Aerie Pharmaceuticals, Lantheus Holdings and Trevena.
- Andrew Dreyfus. As president and chief executive officer of Blue Cross Blue Shield (BCBS) of Massachusetts, one of the largest independent, not-for-profit BCBS plans in the country, Mr. Dreyfus brings expertise in the evolving healthcare payor landscape and its reimbursement practices as well as broad management and executive leadership experience. In addition to serving in a variety of senior roles at BCBS of Massachusetts, Mr. Dreyfus also previously served as executive vice president of the Massachusetts Hospital Association and held a number of senior positions in Massachusetts state government, including undersecretary of consumer affairs and business regulation. Mr. Dreyfus has served on the Ironwood board since 2016.
- Lawrence Olanoff, M.D., Ph.D. Dr. Olanoff brings detailed knowledge of the pharmaceuticals industry, including broad operational and R&D experience, having served in a variety of senior executive roles at Forest Laboratories including chief operating officer and chief scientific officer, as well as president and chief executive officer of Celsion Corporation and senior vice president of clinical research and development at Sandoz Pharmaceutical Corporation. In addition, he is currently an adjunct assistant professor and special advisor to the president for corporate relations at the Medical University of South Carolina. Dr. Olanoff has served on the Ironwood board since 2015.
- Edward Owens. Mr. Owens brings 38 years of experience in evaluating and investing in life sciences companies, having served as the partner, portfolio manager and global industry analyst at Wellington Management Company LLP. Mr. Owens was the portfolio manager of the Vanguard Health Care Fund for 28 years from its inception in 1984 until his retirement from Wellington in 2012. During his tenure, the Vanguard Health Care Fund was the best performing mutual fund among all mutual funds and was the largest mutual fund in the global health/biotech category. In addition to serving on the Ironwood board since 2013, Mr. Owens board membership includes Stealth BioTherapeutics.

Newly appointed directors are expected to include:

- Mark Mallon. Mr. Mallon is the incoming chief executive officer of Ironwood upon completion of the planned separation and brings with him a strong track record of success building creative, industry-leading brands and businesses in the U.S. and globally, in addition to his deep knowledge of the gastrointestinal category. Mr. Mallon joins Ironwood following 24-years at AstraZenenca, where he was most recently executive vice president of Global Product and Portfolio Strategy.
- Mark Currie, Ph.D. Dr. Currie brings nearly 30 years of experience and world-leading R&D expertise across many disease areas including GI, having pioneered the discovery and development of LINZESS as well as the discovery and development of Ironwood's leading GI development candidates, IW-3718 and MD-7246. He is currently senior vice president, chief scientific officer and president of R&D at Ironwood and incoming president of Cyclerion upon completion of the planned separation. Prior to Ironwood, Mark was vice president of discovery research at Sepracor. He also initiated, built and led discovery pharmacology and served as director of arthritis and inflammation at Monsanto Company, leading an effort that resulted in marketed Cox-2 inhibitors such as CELEBREX® (celecoxib) for the treatment of pain in humans and animals.
- Jon Duane. Mr. Duane brings over 30 years of experience at McKinsey, currently serving as Senior Partner Emeritus. Before retiring from McKinsey in 2017, he advised some of the largest pharmaceutical companies on strategy and was a key advisor for some of the largest M&A transactions in the industry. Mr. Duane founded and led the firm's biotechnology practice, advising companies and academic research centers across the life science and medical device industries, including corporate and product line strategy development, M&A transactions, pricing and reimbursement, organizational design and operational improvement. Jon serves as the executive chairman of Nashville Biosciences, a clinical genomics analytics company.
- Marla Kessler. Ms. Kessler brings over 20 years of experience in the healthcare industry, most recently leading strategy, marketing and communications as senior vice president of IQVIA (formerly IMS Health and Quintiles). Previously, Ms. Kessler served in various roles of increasing responsibility at IMS Health, including as vice president for real world evidence marketing and European lead for IMS Consulting Group, and held marketing, public affairs and consulting roles at Pfizer Inc. and McKinsey & Company.
- Catherine Moukheibir. Ms. Moukheibir brings 30 years of experience in the biopharmaceutical industry and in
 international finance, serving as chief financial officer for Movetis N.V. from 2008 until its acquisition by Shire Plc in 2010.
 She is also the former senior advisor for finance and member of the executive board at Innate Pharma. Ms. Moukheibir's
 current company board membership includes MedDay Pharmaceuticals, Orphazyme A/S, GenKyoTex, and Zealand
 Pharma A/S.

The remaining current Ironwood directors – Marsha Fanucci, Peter Hecht, Terrance McGuire, Amy Schulman, and Douglas Williams – are expected to transition off of the Ironwood board in connection with the planned separation.

Cyclerion

Following the planned separation, Cyclerion expects to advance a robust portfolio of five sGC stimulator programs for the treatment of serious and orphan diseases, harnessing its deep expertise in cyclic guanosine monophosphate pharmacology.

Cyclerion's board of directors will be comprised of 9 members. Marsha Fanucci will serve as chair. The board is expected to include the following directors:

- Marsha Fanucci, Chair. Ms. Fanucci brings a track-record of overseeing strategies for growth and profitability at
 biopharmaceutical companies and a long career of leadership in public company finance, most recently serving in a variety
 of executive roles at Millennium Pharmaceuticals, including chief financial officer, vice president of finance and corporate
 strategy, and vice president of corporate development and strategy. Prior to Millennium, Ms. Fanucci was vice president of
 corporate development and strategy at Genzyme Corporation. In addition to serving on the Ironwood board since 2009,
 Ms. Fanucci's public company board membership includes Alnylam Pharmaceuticals, Inc. and Syros Pharmaceuticals, Inc.
- Peter Hecht, Ph.D. Dr. Hecht has served as the co-founder and current chief executive officer of Ironwood Pharmaceuticals since 1998 and is the incoming chief executive officer of Cyclerion upon completion of the planned separation. Under his leadership, Ironwood grew from nine Ph.D. scientists to a commercial biotechnology company that discovered, developed and is now commercializing LINZESS the branded prescription market leader in its class. Additionally, during his tenure the company has pioneered new areas of science, delivered a promising development portfolio with multiple innovative drug candidates, and established a valuable network of global partnerships. Through a combination of private and public equity, structured debt and partnerships, Dr. Hecht and his team raised over one billion dollars to fund these efforts. He has served on the Ironwood board since 1998.
- Kevin Churchwell, M.D. Dr. Churchwell brings over 25 years of experience as a clinician, researcher, hospital executive and administrator, as well as valuable perspective in designing and implementing patient treatments. He currently serves as president, executive vice president of Health Affairs and chief operating officer at Boston Children's Hospital. Previously, he served as chief executive officer of Nemours/Alfred I. DuPont Hospital for Children from 2010 to 2013 and as chief executive officer and executive director for the Monroe Carrell Jr. Children's Hospital, part of the Vanderbilt University Medical Center, from 2007 to 2010. Dr. Churchwell has been a clinician and faculty member at Boston Children's Hospital, Vanderbilt University Medical Center and was recently appointed the Robert and Dan Smith Associate Professor of

Anesthesia at Harvard Medical School.

- George Conrades. Mr. Conrades brings significant public company board and executive officer experience, as well as corporate governance, growth and business strategy experience. Over his career, Mr. Conrades has served in leadership roles for both Fortune 50 enterprises and entrepreneurial start-up companies. He is currently an executive advisor to Akamai Technologies, Inc, and previously served as chairman of Akamai from 2010 to 2018, executive chairman from 2005 to 2010, chief executive officer and chairman from 1999 to 2005, and a director from 1998 to 2018. Prior to Akamai, Mr. Conrades served as executive vice president of GTE, as chief executive officer of BBN Corporation, and senior vice president at IBM. Mr. Conrades is a managing partner at Longfellow Venture Partners and is partner emeritus at Polaris Partners. In addition to serving as a member of the Ironwood board from 2005 until 2016, Mr. Conrades currently serves on the board of Oracle Corporation.
- Ole Isacson, M.D.-Ph.D. Dr. Isacson brings extensive medical and scientific insight with a deep understanding of central nervous system diseases, as well as experience leading the R&D function of a multinational biopharmaceutical company. He currently serves as the professor of neurology and neuroscience at Harvard Medical School, a principal faculty member at the Harvard Stem Cell Institute and is the founding director of the Neuroregeneration Institute at McLean Hospital, where he has served as a director since 2010. From 2016 to 2017, Dr. Isacson served as chief scientific officer and senior vice president for Pfizer's Neuroscience and Pain Worldwide R&D division.
- Stephanie Lovell. Ms. Lovell brings extensive healthcare payor and reimbursement, as well as government and regulatory affairs, experience. She has served as executive vice president, Medicare and chief legal officer of Blue Cross Blue Shield of Massachusetts since 2015, where she previously served as senior vice president and general counsel since December 2011. Before that, she served as senior vice president of administration and general counsel for Boston Medical Center, New England's largest safety net hospital, from 2007 to 2011, as first assistant attorney general for the Massachusetts Office of the Attorney General and as executive director for the Massachusetts State Ethics Commission.
- Terrance McGuire. Mr. McGuire brings 25 years of biotechnology venture capital experience as co-founder and general partner of Polaris Partners, including early stage investing in over 50 medical and information technology companies. Prior to starting Polaris Partners, Mr. McGuire spent seven years at Burr, Egan, Deleage & Co., investing in early stage medical and information technology companies. Mr. McGuire was formerly chair of the National Venture Capital Association. In addition to serving on the Ironwood Board since 1998, Mr. McGuire's public company board membership includes Arsanis and Pulmatrix. Mr. McGuire also serves on the boards of Adimab and Direct Vet Marketing (Vets First Choice), among others. Mr. McGuire has previously served on the boards of Cubist Pharmaceuticals and Acceleron Pharma, among others.
- Michael Mendelsohn, M.D. Dr. Mendelsohn brings over 30 years of experience as an academic and industry leader in R&D, as well as expertise as a cardiovascular clinician and scientist and as a consultant to leading research efforts for multinational biopharmaceutical companies. He currently serves as executive chairman and president of Cardurion Pharmaceuticals. Previously, Dr. Mendelsohn led cardiovascular research at Merck Research Laboratories from 2010 to 2013. From 1993 to 2010, he was on the faculty at Tufts Medical Center and Tufts University School of Medicine, where he was founder and executive director of the Molecular Cardiology Research Institute and served as the first chief scientific officer. Previously, he was on the cardiovascular faculty at the Brigham and Women's Hospital and Harvard Medical School. He has served as a member of Ironwood's pharmaceutical advisor committee since 2014.
- Amy Schulman. Ms. Schulman brings extensive leadership in the pharmaceutical and biotechnology industries, including commercial strategy, corporate development, strategic transactions and capability building. She is a partner at the LSPIF affiliate fund of Polaris and is the co-founder and chief executive officer of Lyndra Therapeutics. Ms. Schulman previously served as executive vice president and general counsel at Pfizer, where she also ran the nutrition and consumer divisions. Before joining Pfizer, she was a partner at the law firm DLA Piper, where she was a member of the board and executive policy committees. In addition to serving on the Ironwood board since 2017, her public company board membership includes Alnylam Pharmaceuticals.

Ironwood is on track to complete the separation in the first half of 2019, subject to customary conditions, including a favorable opinion with respect to the tax-free nature of the transaction, and final approval of Ironwood's board of directors.

About Cyclerion Therapeutics

Cyclerion Therapeutics is a clinical-stage biopharmaceutical company harnessing the power of sGC pharmacology to discover, develop and commercialize breakthrough treatments for serious and orphan diseases. Cyclerion plans to advance its portfolio of five differentiated sGC stimulator programs with distinct pharmacologic and biodistribution properties that are uniquely designed to target tissues of greatest relevance to the diseases they are intended to treat. These programs, each of which have important milestones in 2019, include olinciguat in Phase 2 development for sickle cell disease, praliciguat in Phase 2 trials for heart failure with preserved ejection fraction (HFpEF) and for diabetic nephropathy, IW-6463 in Phase 1 development for serious and orphan central nervous system diseases, and two late-stage discovery programs targeting serious liver and lung diseases, respectively.

About Ironwood Pharmaceuticals

Ironwood Pharmaceuticals (Nasdaq: IRWD) is a commercial biotechnology company focused on creating medicines that make a difference for patients, building value for our fellow shareholders, and empowering our passionate team. We discovered, developed and are commercializing linaclotide, the U.S. branded prescription market leader for adults with irritable bowel syndrome with constipation (IBS-C) or chronic idiopathic constipation (CIC). Our pipeline priorities for linaclotide include a Phase IIIb trial evaluating its efficacy and safety on multiple abdominal symptoms,

including abdominal bloating, pain, and discomfort in adult patients with IBS-C, as well as research into a formulation of linaclotide designed to relieve abdominal pain associated with IBS.

We are also advancing a pipeline of innovative product candidates in areas of significant unmet need, including persistent gastroesophageal reflux disease, and the product candidates that Cyclerion expects to advance following completion of the planned separation of Ironwood and Cyclerion into two independent, publicly-traded companies. The separation is expected to be completed in the first half of 2019. Ironwood was founded in 1998 and is headquartered in Cambridge, Mass. For more information, please visit www.twitter.com/ironwoodpharma; information that may be important to investors will be routinely posted in both these locations.

Forward-Looking Statements

This press release contains forward-looking statements. Investors are cautioned not to place undue reliance on these forward-looking statements, including statements about the leadership and board structure of each of Ironwood and Cyclerion following the separation and the strength and value thereof; the proposed separation of our operations into two independent, publicly traded companies, including the status, structure, completion and timing of the separation; and the business and operations of Ironwood and Cyclerion and any benefits or costs of the separation, including the tax treatment; and the business and operations of each company and the benefits of a potential separation. Each forward-looking statement is subject to risks and uncertainties that could cause actual results to differ materially from those expressed or implied in such statement. Applicable risks and uncertainties include those related to the risk that the leadership or board structure of the Company and Cyclerion will be different than currently contemplated; the possibility that we may not complete the separation on the terms or timeline currently contemplated, if at all, that we may not achieve the expected benefits of a separation, and that a separation could harm our business, results of operations and financial condition; the risk that we may be unable to make, on a timely or cost-effective basis, the changes necessary to operate as independent companies; Cyclerion's lack of independent operating history and the risk that its accounting and other management systems may not be prepared to meet the financial reporting and other requirements of operating as an independent public company; the risk that a separation may adversely impact our ability to attract or retain key personnel; and the risks listed under the heading "Risk Factors" and elsewhere in Ironwood's Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, and in our subsequent SEC filings, including SEC filings related to the proposed separation. These forward-looking statements (except as otherwise noted) speak only as of the date of this press release, and Ironwood undertakes no obligation to update these forward-looking statements.

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