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Aerie Pharmaceuticals and GrayBug Announce Research Collaboration

Focused on Novel Delivery Technologies for Aerie Product Candidates

IRVINE, Calif. & BALTIMORE--(BUSINESS WIRE)-- Aerie Pharmaceuticals, Inc. (NASDAQ:AERI), a clinical-stage pharmaceutical company focused on the discovery, development and commercialization of first-in-class therapies for the treatment of patients with glaucoma and other diseases of the eye, and GrayBug, Inc., a venture-stage pharmaceutical company developing microparticle controlled release drug delivery technologies for the treatment of ocular diseases including wet age-related macular degeneration (AMD) and glaucoma, today announced a research collaboration and license agreement to deliver certain of Aerie's preclinical product candidates to both the front and back of the eye using GrayBug's proprietary technology.

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Collaboration Highlights

- Initially, the partnership will focus on evaluating the ability of GrayBug's polymer-based delivery technology to provide multi-month drug release capability for an Aerie small molecule for wet AMD. Pre-clinical in vivo studies showed that Aerie's AR-13154 molecule reduced wet AMD lesion size more than the market-leading product Eylea® (aflibercept). AR-13154 targets Rho Kinase, Janus Kinase 2, and platelet-derived growth factor receptor beta.
- The research collaboration also provides Aerie with the ability to evaluate long-term sustained delivery of the active ingredient in Rhopressa™ to the anterior chamber of the eye for patients with glaucoma and ocular hypertension.
- The terms of the agreement provide for a one-year research collaboration and include an exclusive option for Aerie to obtain from GrayBug an exclusive license to use the GrayBug technology to develop and commercialize sustained-release versions of Aerie's ophthalmic products.

"We are delighted to collaborate with GrayBug, and we believe their technologies will provide Aerie with the ability to make excellent progress in understanding the potential of Aerie's small molecules to provide new treatment approaches to serious diseases of the eye. AR-13154 has shown impressive results pre-clinically, and we believe the best way to provide sustained delivery of this product to the back of the eye is through GrayBug's unique delivery platform. We are also interested in further evaluating front of the eye applications for our glaucoma product set," said Vicente Anido, Jr., Ph.D., Aerie's Chairman and Chief Executive Officer.

Jeffrey L. Cleland, Ph.D., GrayBug Interim Chief Executive Officer, commented, "We believe Aerie is an excellent partner to apply our unique delivery technologies for practical application in the treatment of serious ocular diseases. GrayBug has an extensive background in polymer-based delivery technologies including the ability to formulate different release profiles and we believe we have unparalleled potential to drive sustained delivery of Aerie's products to both the front and back of the eye."

Under the terms of the license agreement, GrayBug will receive development milestone payments from Aerie and will receive royalty payments upon successful commercialization of any products arising from the collaboration. Initial commitments, including research and execution investments, are not considered material to Aerie's financial statements at this time.

About Aerie Pharmaceuticals, Inc.

Aerie is a clinical-stage pharmaceutical company focused on the discovery, development and commercialization of first-in-class therapies for the treatment of patients with glaucoma and other diseases of the eye. Aerie is currently conducting a Phase 3 registration trial in the United States named Rocket 2, where the primary efficacy endpoint is to demonstrate non-

inferiority of IOP lowering for Rhopressa™ compared to timolol, along with a Phase 3 registration safety-only trial, named Rocket 3, in Canada. Aerie completed its initial Phase 3 registration trial, named Rocket 1, the three-month efficacy results of which were initially reported in April 2015, and expects to commence a fourth Phase 3 registration trial, named Rocket 4, in the third quarter of 2015. Aerie also completed in 2014 a Phase 2b clinical trial in which Roclatan™ met the primary efficacy endpoint, demonstrating the statistical superiority of Roclatan™ to each of its components, and plans to commence the first Phase 3 registration trial for Roclatan™, named Mercury 1, in the third quarter of 2015.

About GrayBug, Inc.

GrayBug was founded in September 2011 as a spin-out of the Wilmer Eye Institute of the Johns Hopkins University School of Medicine. GrayBug is developing injectable controlled release technologies to reduce the frequency of ocular therapy to a few times per year (as few as twice per year). These technologies have solved the problems with tolerability and blockage of vision noted with many injectable sustained release ocular products. GrayBug is initially focused on developing its own products for the treatment of wet AMD and glaucoma. GrayBug's technologies were co-developed by GrayBug founder, Justin Hanes, Ph.D., who is the Lewis J. Ort Professor of Ophthalmology at the Wilmer Eye Institute of the Johns Hopkins University, in collaboration with GrayBug cofounders, and leading ophthalmology clinician-scientists from the Wilmer Eye Institute, Peter A. Campochiaro, M.D. and Peter J. McDonnell, M.D. The technologies were licensed from Johns Hopkins University. For more information, please visit www.graybug.com.

Forward-Looking Statements

This press release contains forward-looking statements for purposes of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. We may, in some cases, use terms such as "predicts," "believes," "potential," "proposed," "continue," "estimates," "anticipates," "expects," "plans," "intends," "may," "could," "might," "will," "should," "exploring," "pursuing" or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. Forward-looking statements include statements related to, among other things: the success, timing and cost of ongoing and anticipated preclinical studies and clinical trials for Aerie's current product candidates, including statements regarding the timing of initiation and completion of the studies and trials; expectations regarding the clinical effectiveness of Aerie's product candidates and results of its clinical trials; the timing of and Aerie's ability to obtain and maintain U.S. Food and Drug Administration or other regulatory authority approval of, or other action with respect to, its product candidates; expectations regarding the commercialization of Aerie's product candidates; Aerie's plans to pursue development of its product candidates for additional indications and other therapeutic opportunities; Aerie's plans to explore possible uses of its existing proprietary compounds beyond glaucoma; and expectations regarding collaborations. By their nature, forward-looking statements involve risks and uncertainties because they relate to events, competitive dynamics and industry change, and depend on regulatory approvals and economic circumstances that may or may not occur in the future or may occur on longer or shorter timelines than anticipated. Many of these risks are discussed in greater detail under the heading "Risk Factors" in the quarterly and annual reports that Aerie files with the Securities and Exchange Commission. In particular, the preclinical research discussed in this press release is preliminary and the outcome of such preclinical studies may not be predictive of the outcome of later clinical trials. Any future clinical trial results may not demonstrate safety and efficacy sufficient to obtain regulatory approval related to the preclinical research findings discussed in this press release. Forward-looking statements are not guarantees of future performance and our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from the forward-looking statements contained in this press release. Any forward-looking statements that we make in this press release speak only as of the date of this press release. We assume no obligation to update our forward-looking statements whether as a result of new information, future events or otherwise, after the date of this press release.

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