



FOR IMMEDIATE RELEASE

PharmOptima Announces Abstract Acceptance and Presentation at the Association for Research in Vision and Ophthalmology Annual Meeting

PORTAGE, Mich., Feb. 13, 2018. PharmOptima, a preclinical Contract Research Organization (CRO) and division of Genesis Drug Discovery & Development, announced that its abstract entitled "GDF-15 Levels Increase in Aqueous Humor Following Hypertonic Saline Injection into the Episcleral Vein in a Rat Glaucoma Model" has been accepted for presentation at the Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting taking place April 29th through May 3, 2018 in Honolulu, HI. ARVO is the leading authority on eye and vision research with a membership of nearly 12,000 researchers from over 75 countries.

GDF-15 has been described as a potential biomarker for glaucoma using a chronic mouse glaucoma model and a rat optic nerve crush model. In this study it was demonstrated that GDF-15 levels significantly increase in aqueous humor and the retina using a rat hypertonic saline induced model of glaucoma. The increase in GDF-15 occurred on day 7 post injection with hypertonic saline as opposed to day 30 when increases in intraocular pressure (IOP) and loss of retinal ganglion cells is observed. Further studies using agents that protect against the loss of retinal ganglion cells, and to determine if these agents prevent or modify the increase in GDF-15 will help establish the use of GDF-15 as a glaucoma biomarker.

Steven J. Weber, Ph.D. Chief Executive Officer of PharmOptima commented, "We are pleased to have our abstract accepted and look forward to presenting the results regarding our validation of the model at the 2018 ARVO Annual Meeting. The use of this model and biomarker assay will help expedite the screening of potential glaucoma therapeutics."

About PharmOptima

Since 2003, PharmOptima has been advancing drug discovery and development in various therapeutic areas and has filled a niche in ocular drug development. PharmOptima's *in vivo* services include studies in the fields of drug absorption, distribution, metabolism, and excretion (ADME), pharmacokinetics (PK), and pharmacology. It provides liquid chromatography and mass spectrometry (LC-MS/MS) bioanalysis in support of discovery and development programs, including method development and validation in accordance with regulatory guidelines. Its biochemistry expertise allows them to assess the role of biomarkers in numerous disease models. PharmOptima's biochemical capabilities include *in vitro* and cell based assay development for compound profiling as well as protein cloning and expression. Its expertise extends to the custom development of enzyme-linked immunosorbent assays (ELISA) and electrochemiluminescence multiplex formats.

About GD3

Genesis Drug Discovery & Development (GD³) offers a comprehensive portfolio of contract research drug discovery services in multiple therapeutic areas. From point solutions to program management, their experts in preclinical drug discovery ensure the efficient development and coordination of unique preclinical programs from discovery through candidate selection. By providing a single point-of-contact throughout the project lifetime, the GD³ streamlines transitions between all phases of the discovery cycle to shorten timelines for faster project completion and potential market advantage.

About GBG

GBG is a consortium of vertically integrated corporate research entities, which facilitates the overall market implementation and delivery of bio medical science products and services related to diagnostics and drug discovery. Through the consolidation of research activities, and the collaboration of diverse groups of scientists with expertise in molecular biology, genetics, high throughput screening (HTS), pharmacology, molecular modeling, and medicinal chemistry, GBG will be better positioned to create and sustain complex research platforms in drug discovery and the design of surrogate biomarkers for chronic diseases.

To find out more, please visit www.genesisbiotechgroup.com, www.gd3services.com or www.pharmoptima.com.

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