



## **Exemplar Genetics Awarded Subcontract to Advance New Therapeutic Models for Sickle Cell Disease**

**Sioux Center, Iowa; Jan. 26, 2017** – [Exemplar Genetics](#), a wholly owned subsidiary of [Intrexon Corporation](#) (NYSE: XON) committed to enabling the study of life-threatening human diseases, has been awarded a subcontract to create genetically engineered miniswine models of sickle cell disease as part of a national resource that could lead to new treatments for the disorder.

The subcontract is with Leidos Biomedical Research, Inc., prime contractor for the Frederick National Laboratory for Cancer Research, sponsored by the National Cancer Institute, part of the National Institutes of Health (NIH). Work under the subcontract will support the NIH's [National Center for Advancing Translational Sciences](#) (NCATS) in creating genetically engineered miniswine models of sickle cell disease. Exemplar Genetics will develop several versions of genetically engineered miniswine models of sickle cell disease that more accurately replicate the human pathology as compared to traditional research models.

“We believe these models will be an excellent resource for the research community to help enable significant advancements in the understanding of sickle cell disease mechanisms, ultimately leading to new treatments,” said John R. Swart, Ph.D., president of Exemplar Genetics. “The Leidos subcontract serves as further recognition that better models are needed and genetically engineered porcine models can fill that void.”

Insufficient animal models create a significant barrier to progress in the discovery of disease mechanisms and in the development of therapeutics. This may hold particularly true in therapeutic development for rare genetic diseases and orphan indications where there is no clear path for evaluation or an insufficient patient population.

Genetically engineered miniature swine represent a powerful investigational platform with greater similarities to humans, specifically in physiology, anatomy, and size, surpassing many of the limitations of murine systems. Miniature swine models developed by Exemplar Genetics are detailed in more than 30 peer reviewed publications and have been demonstrated to be excellent models of disease.

“The development of these models is critical as new treatment options are discovered and need to be evaluated. A humanized pig model of sickle cell disease will provide a large animal system for testing both gene editing and drug therapy approaches for treatment of this disease that affects so many families in the U.S. and worldwide,” said Tim Townes, Ph.D., director of the University of Alabama at Birmingham’s Stem Cell Institute and chair of UAB’s Department of Biochemistry and Molecular Genetics.

### **About Exemplar Genetics**

Exemplar Genetics, a wholly owned subsidiary of Intrexon Corporation (NYSE: XON), enables discovery by providing models and services that aid scientists in the development of next-generation procedures, devices and therapeutics. Through its innovative models and AAALAC-certified facilities, Exemplar Genetics assists researchers in making advances in the discovery of human disease mechanisms, the optimization of novel diagnostics, and the development of new treatments. For more information, visit [www.exemplargenetics.com](http://www.exemplargenetics.com).

### **About Intrexon Corporation**

Intrexon Corporation (NYSE:XON) is Powering the Bioindustrial Revolution with Better DNA™ to create biologically-based products that improve the quality of life and the health of the planet. The Company's integrated technology suite provides its partners across diverse markets with industrial-scale design and development of complex biological systems delivering unprecedented control, quality, function, and performance of living cells. We call our synthetic biology approach Better DNA®, and we invite you to discover more at [www.dna.com](http://www.dna.com) or follow us on Twitter at [@Intrexon](https://twitter.com/Intrexon), on [Facebook](https://www.facebook.com/Intrexon), and [LinkedIn](https://www.linkedin.com/company/intrexon).

### **Safe Harbor Statement**

Some of the statements made in this press release are forward-looking statements. These forward-looking statements are based upon our current expectations and projections about future events and generally relate to our plans, objectives and expectations for the development of our business. Although management believes that the plans and objectives reflected in or suggested by these forward-looking statements are reasonable, all forward-looking statements involve risks and uncertainties and actual future results may be materially different from the plans, objectives and expectations expressed in this press release.

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