

## Precigen Exemplar to Develop Genetically Engineered Animal Models to Advance Research with the Support of FSHD Patient Community

*-Animal models will provide a more human-like disease phenotype for pre-clinical research-  
-Swine models to be the first developed using Göttingen minipigs-*

CORALVILLE, Iowa, June 17, 2021—Precigen Exemplar, a wholly owned subsidiary of Precigen, Inc. (Nasdaq: PGEN) and the groundbreaking pioneer in the development of genetically engineered models of human disease, announced today the company has collaborated with the global facioscapulohumeral muscular dystrophy (FSHD) patient community and a leading FSHD research group to develop genetically engineered large animal models of FSHD, types 1 and 2. FSHD is one of the more common forms of muscular dystrophy that equally affects men, women, and children and there are currently no treatments or cure.<sup>1,2</sup> The first of their kind, these models will be critical tools in the understanding and treatment of this complex genetic disease that affects an estimated one million people worldwide.<sup>1</sup> The project is set to begin this year with the goal of having animals available in late 2022.

“The lack of models for this type of FSHD research has been a huge obstacle in the path to the clinic for up-and-coming FSHD-specific therapeutics,” said Dr. Peter Jones, the Mick Hitchcock Endowed Chair of Biomedical Chemistry at the University of Nevada, Reno School of Medicine “Working with Precigen Exemplar to create and characterize these swine models will provide a much-needed opportunity for testing drug efficacy at doses that will be relevant for patients.”

This collaborative project is funded by the William R Lewis Family, the FSHD Canada Foundation, the Chris Carrino Foundation for FSHD (USA), and the FSHD Global Research Foundation (Australia).

“Given the genetic similarity to humans, these models will be critical for advancing therapies from research labs to the clinic, ultimately benefiting FSHD patients around the world. Their creation highlights the key role and impact that international patient communities play in translational rare disease research,” said Neil Camarta, CEO and Founder of the FSHD Canada Foundation.

Since the company’s start in 2008, Precigen Exemplar has developed over twenty genetically engineered research models using swine genetics as a background in a variety of human disease areas including neurodegenerative, cardiovascular, cancer, and rare diseases. Precigen Exemplar’s swine models allow investigators to better understand the pathogenic mechanism in a more physiologically and genetically similar organism than rodent models. These models will be the first created in Göttingen minipigs as part of Precigen Exemplar’s partnership with Ellegaard Göttingen Minipigs, headquartered in Denmark.

Göttingen minipigs have for decades been used extensively in biomedical research because of their anatomical and physiological similarities to humans and their small size, health status and known genetics. At the new frontier of genetic engineering, these animals are ideal for studying human diseases and the translational relevance from discovery to potential new medicines makes them an even more relevant fit for preclinical research.

“We believe this collaboration will significantly improve the ability for the FSHD research community to better understand the disease and ultimately discover life improving therapeutic interventions,” said Chris Rogers, PhD, Chief Executive Officer and Chief Scientific Officer for Precigen Exemplar. “This opportunity is a perfect example of leveraging the latest advances in techniques and technology around genetic engineering to advance preclinical development for diseases lacking treatments.”

#### **About Precigen Exemplar**

Precigen Exemplar, a wholly owned subsidiary of Precigen, Inc. (Nasdaq: PGEN), 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, Precigen Exemplar 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.precigen.com/exemplar](http://www.precigen.com/exemplar) or follow us on Twitter [@PGENExemplar](https://twitter.com/PGENExemplar) and [LinkedIn](https://www.linkedin.com/company/precigen-exemplar).

#### **Precigen: Advancing Medicine with Precision™**

Precigen (Nasdaq: PGEN) is a dedicated discovery and clinical stage biopharmaceutical company advancing the next generation of gene and cell therapies using precision technology to target the most urgent and intractable diseases in our core therapeutic areas of immuno-oncology, autoimmune disorders, and infectious diseases. Our technologies enable us to find innovative solutions for affordable biotherapeutics in a controlled manner. Precigen operates as an innovation engine progressing a preclinical and clinical pipeline of well-differentiated unique therapies toward clinical proof-of-concept and commercialization. For more information about Precigen, visit [www.precigen.com](http://www.precigen.com) or follow us on Twitter [@Precigen](https://twitter.com/Precigen) and [LinkedIn](https://www.linkedin.com/company/precigen).

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#### **Cautionary Statement Regarding Forward-Looking Statements**

Some of the statements made in this press release are forward-looking statements. These forward-looking statements are based upon the Precigen Exemplar's current expectations and projections about future events and generally relate to plans, objectives, and expectations for the development of the company's business, including the timing and progress of the company's development of genetically engineered research models using swine genetics. 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, including the possibility that the timeline for the development of research models might be impacted by the COVID-19 pandemic, and actual future results may be materially different from the plans, objectives and expectations expressed in this press release. Neither Precigen nor Precigen Exemplar has any obligation to provide any updates to these forward-looking statements even if its expectations change. All forward-looking statements are expressly qualified in their entirety by this cautionary statement. For further information on potential risks and uncertainties, and other important factors, any of which could cause the actual results to differ from those contained in the forward-looking statements, see the section entitled "Risk Factors" in Precigen's most recent Annual Report on Form 10-K and subsequent reports filed with the Securities and Exchange Commission.

#### **References**

<sup>1</sup> [What is FSHD? Key Facts](#). Accessed on FSHD Global Research Foundation Ltd website.

<sup>2</sup> [What is FSHD? FSHD 101](#). Accessed on FSHD Global Research Foundation Ltd website.

#### **For more information, contact:**

##### **Investor Contact:**

Steven Harasym  
Vice President, Investor Relations  
Tel: +1 (301) 556-9850  
[investors@precigen.com](mailto:investors@precigen.com)

##### **Media Contact:**

Glenn Silver  
Lazar-FINN Partners  
[glenn.silver@finnpartners.com](mailto:glenn.silver@finnpartners.com)