GeneTether

Increasing Efficiency in Gene Editing

A final prospectus containing important information relating to the securities described in this document has been filed with the securities regulatory authorities in each of the provinces of British Columbia, Alberta and Ontario. A copy of the final prospectus, and any amendment, is required to be delivered with this document. This document does not provide full disclosure of all material facts relating to the securities offered. Investors should read the final prospectus and any amendment for disclosure of those facts, especially risk factors relating to the securities offered, before making an investment decision.

Corporate Presentation – General Version | Sept. 2022

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Reference to Prospectus

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Disclaimer

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These forward looking statements are based on a number of assumptions which may prove to be incorrect including, but not limited to: general economic, market and business conditions, the outcome of research studies, the ability to obtain certain approvals, the accuracy of cost estimates, ability to obtain sufficient capital on satisfactory terms, availability of equipment and supplies, changes in customer demand, currency exchange rates and the impact of changes in applicable laws and regulations. The forward looking statements contained in this presentation are made as of the date hereof or the dates specifically referenced in this presentation, where applicable. Except as required by law, GeneTether undertakes no obligation to update publicly or to revise any forward looking statements that are contained or incorporated in this Presentation. All forward looking statements contained in this presentation are expressly qualified by this cautionary statement.

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GeneTether

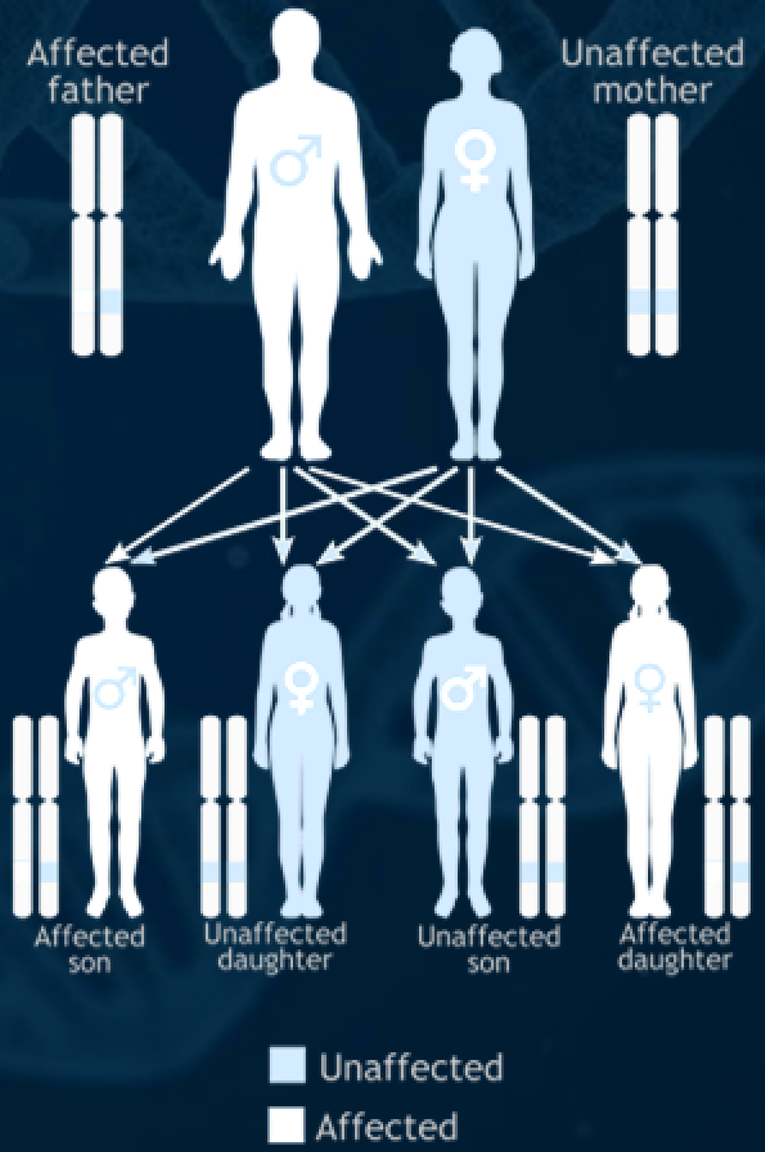
We are on a mission to develop new, curative therapies for patients with devastating genetic diseases using our GeneTether platform technology

Genetic Diseases

Approximately 10,000 diseases are known to be caused by aberrant DNA sequences that are inherited by one or both biological parents.

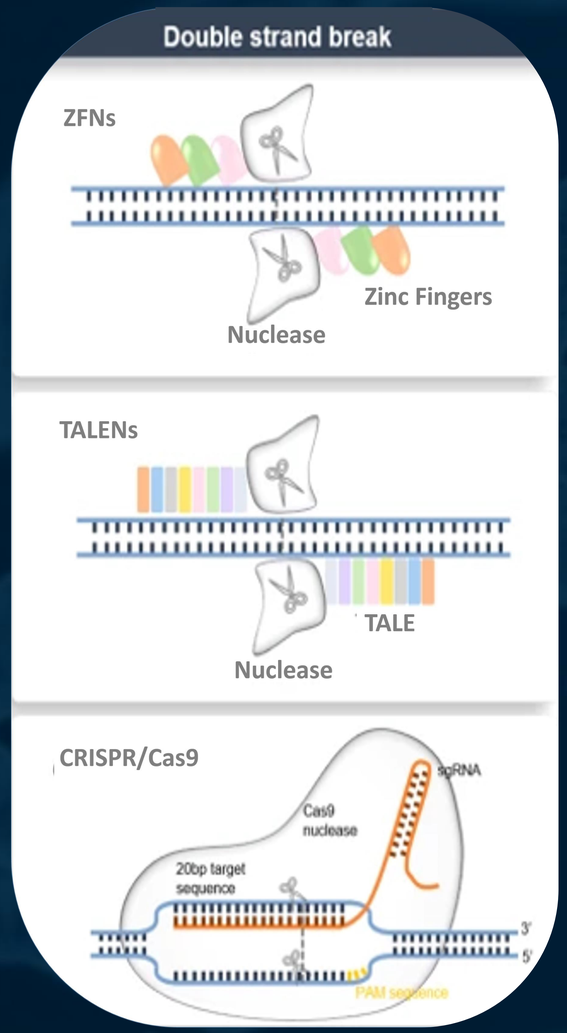
Traditional small molecule and biologic therapies have had limited success in treating many of these diseases because they fail to address the underlying genetic causes.

Recent advances in gene editing technologies provide the potential for curative therapies for many genetic diseases.



Gene Editing – How it Works

Creating double-strand breaks

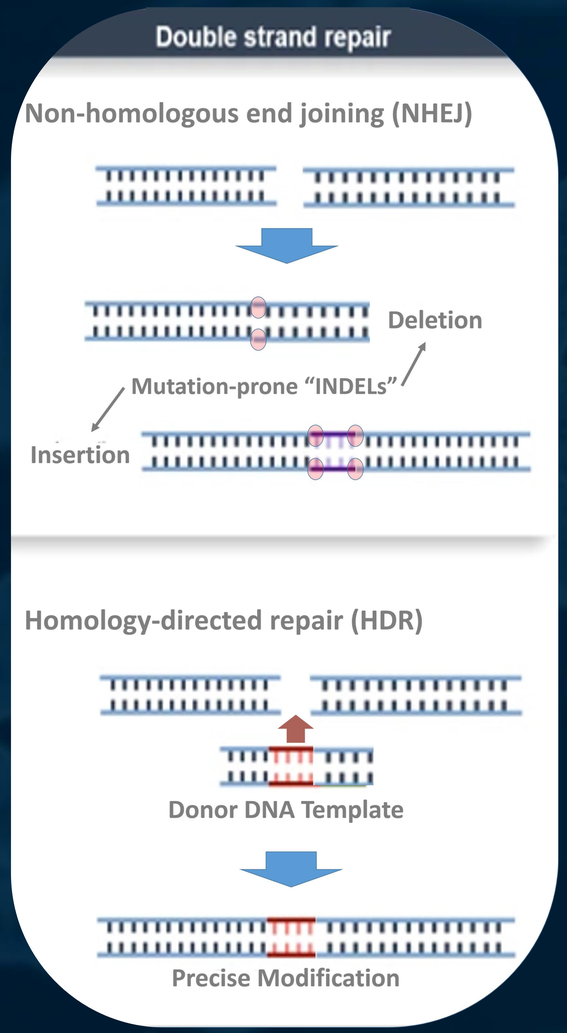


A gene editing nuclease, CRISPR/Cas9 for example, is guided to a precise, predefined location in a cell's DNA where it creates a double-strand break (DSB).

Creating double-strand breaks is like a biological "find and delete" function.

Gene Editing – How it Works

Repairing double-strand breaks



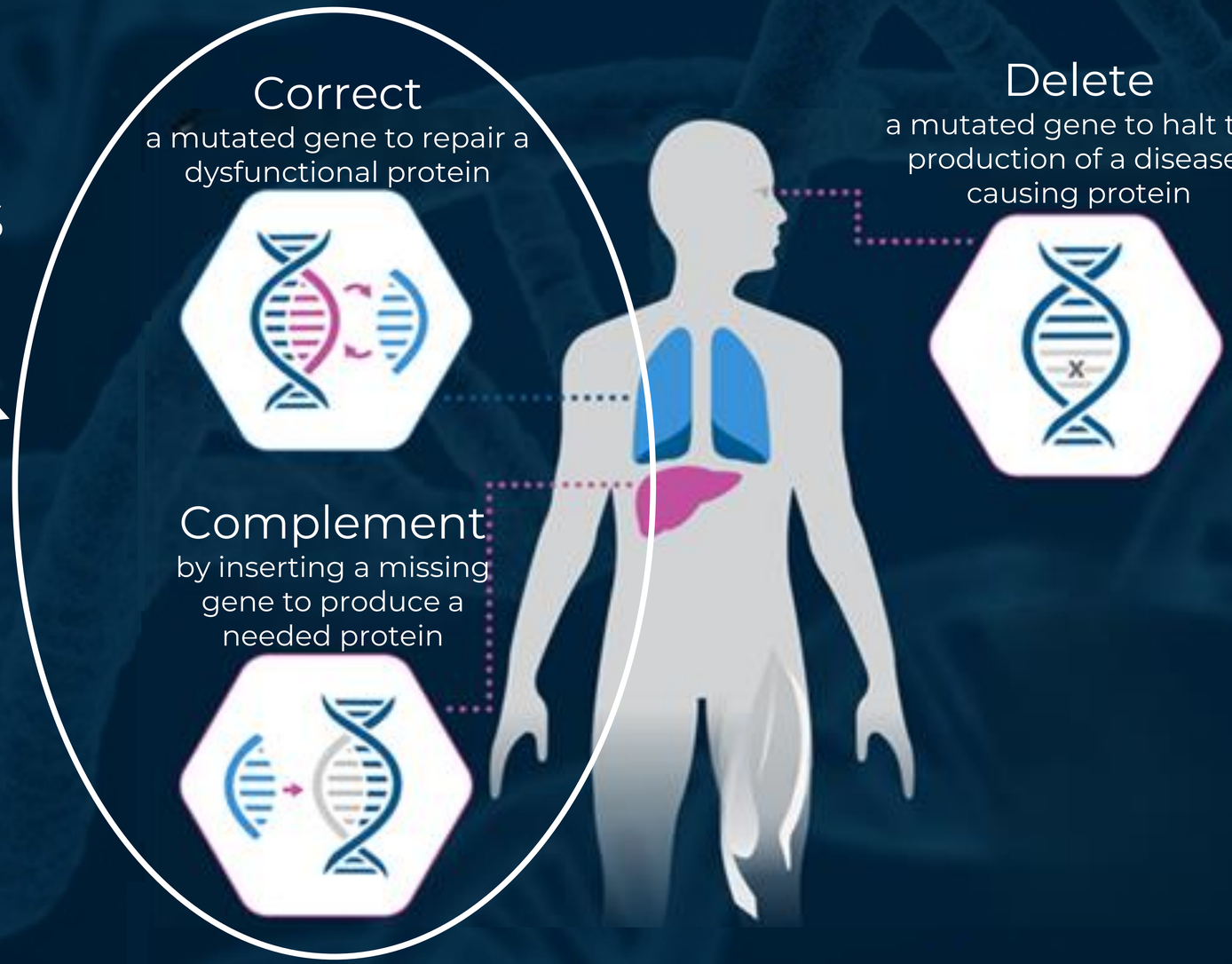
Double-strand breaks are repaired by one of two competing cellular repair mechanisms: non-homologous end joining (NHEJ) or, in the presence of a DNA repair template, homology-directed repair (HDR).

Repair via HDR is like a biological "find and replace" function.

The Gene Editing Ecosystem

Altering a DNA Sequence in an Endogenous Gene

GeneTether's
current focus



The Problem

Current technologies for correcting or complementing aberrant genes are inherently inefficient

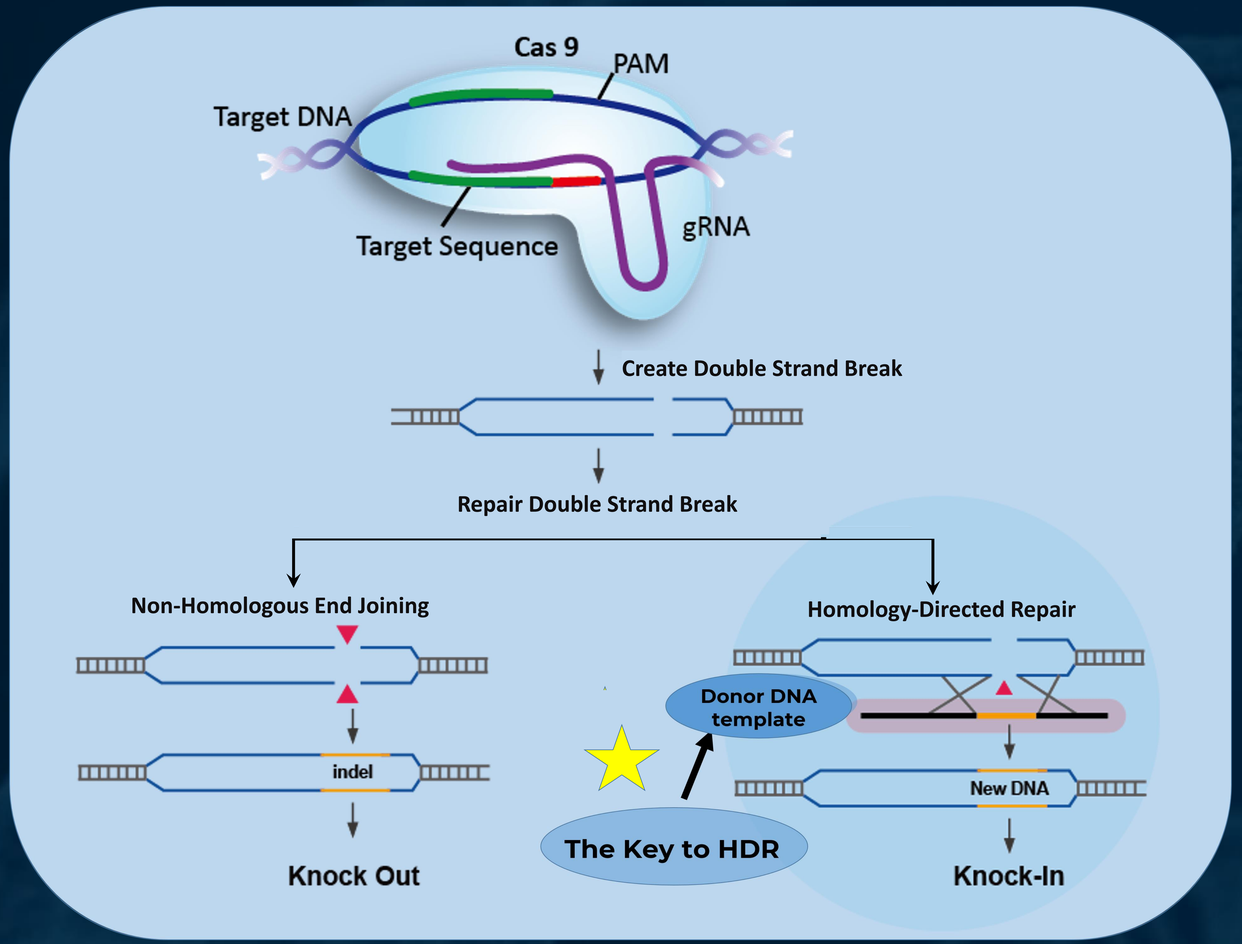
Efficiency: The ratio of gene edits actually made versus the maximum number that *could* have been made through the insertion of donor DNA templates.

Correcting or complementing with a donor DNA template requires that a strand break be repaired via HDR. HDR requires a donor DNA template in the immediate vicinity of a break.

Efficiency rates vary from gene to gene and from cell type to cell type, but all are currently below rates that make large scale, cost-effective commercialization feasible.

Gene Editing Efficiency

Homology-Directed Repair vs Non-Homologous End Joining



Correcting and complementing genes requires delivery of a donor DNA template to the site of a DNA double strand break.

If a donor DNA template is not located near a double strand break, repair will not incorporate the donor DNA template via HDR.

The result is error-prone repair via NHEJ, leading to low gene editing efficiency, DNA mutation and rearrangements, and cell death.

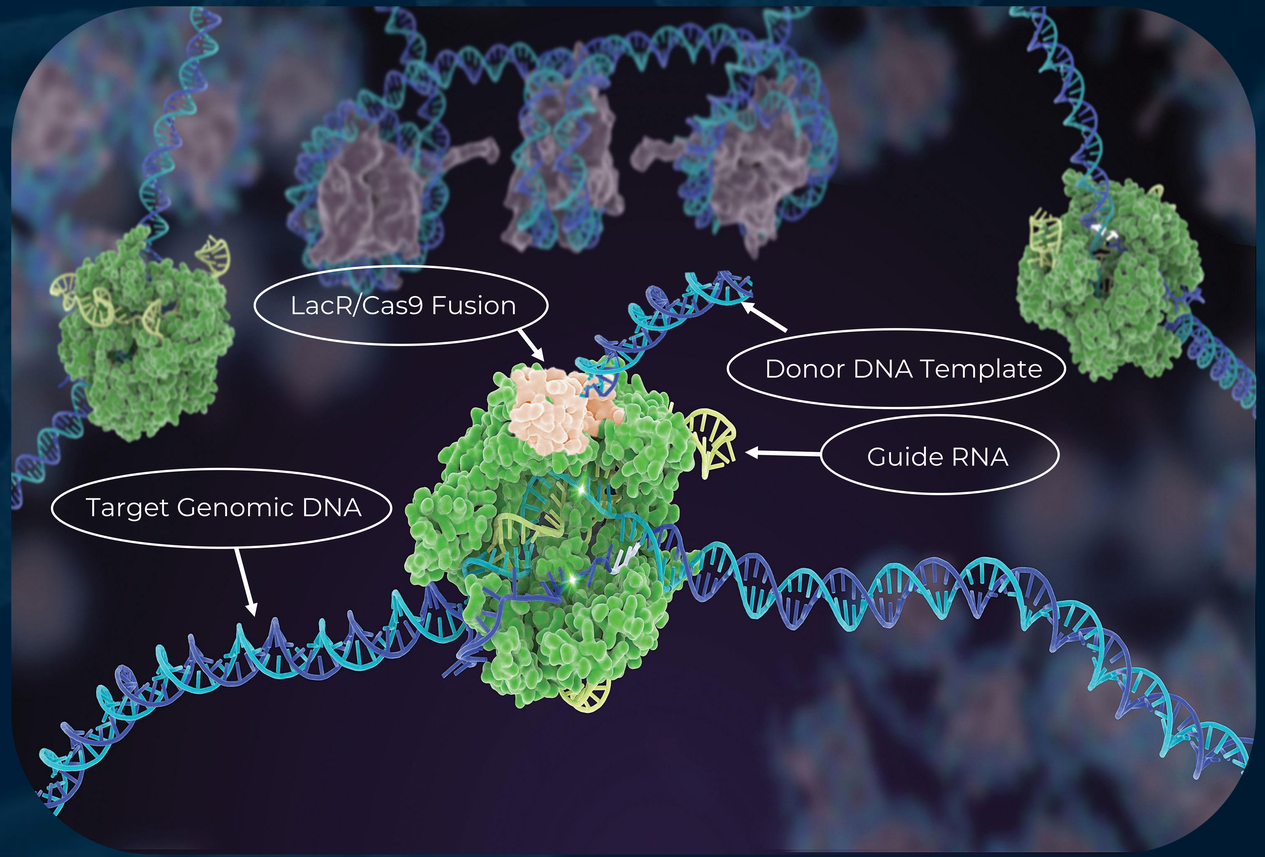
The GeneTether Solution

Proximity Matters

GeneTether has developed a proprietary method to attach, or "tether," donor DNA templates to gene editing nucleases.

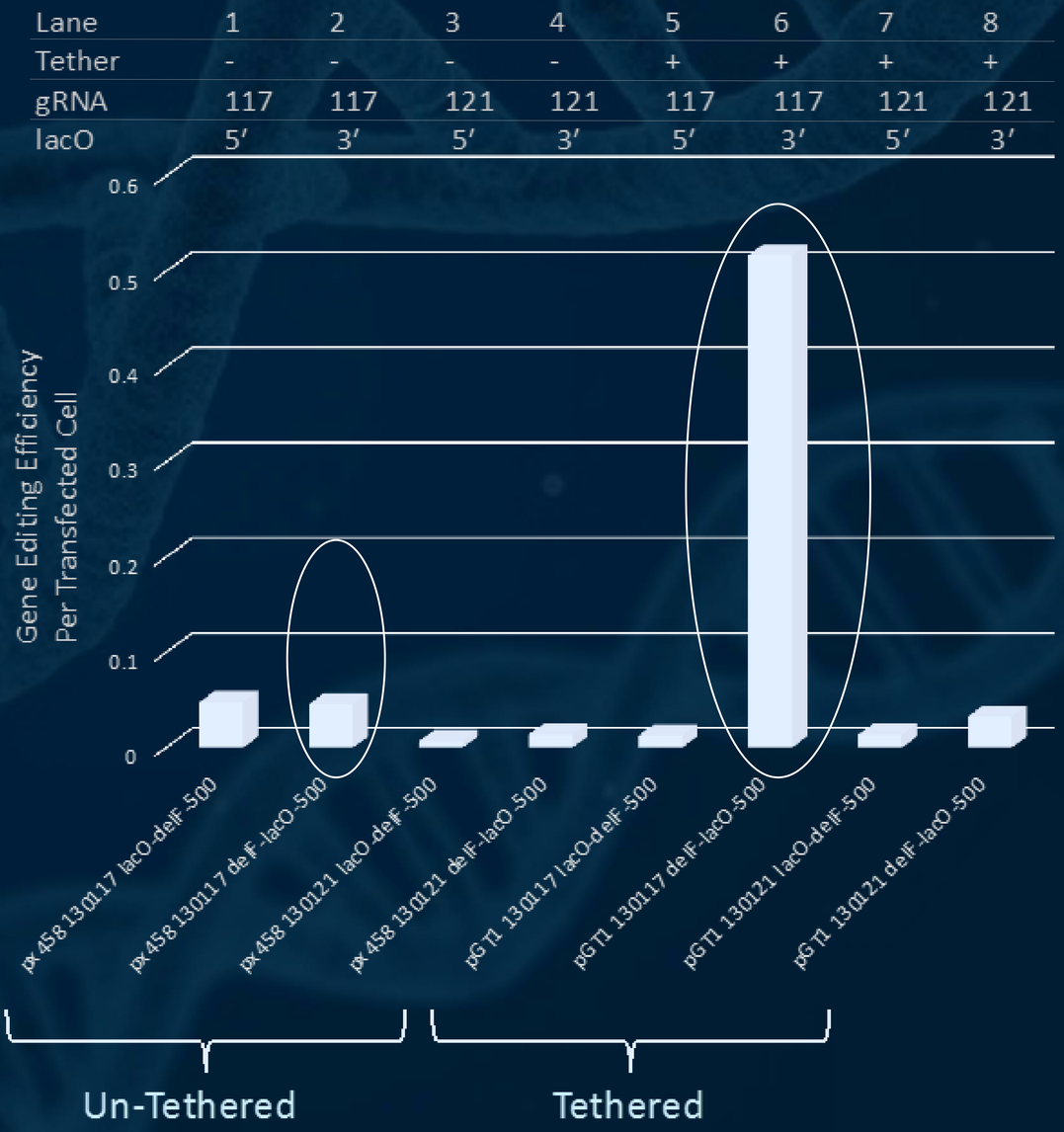
The result is that the donor DNA template is nearby at the time a strand break is induced.

Correspondingly, there is an enhanced likelihood that **repair of the break will take place via HDR**, thereby allowing a far **greater number of gene edits** per payload delivery and **reducing the risk of mutagenesis or off-target gene edits**.



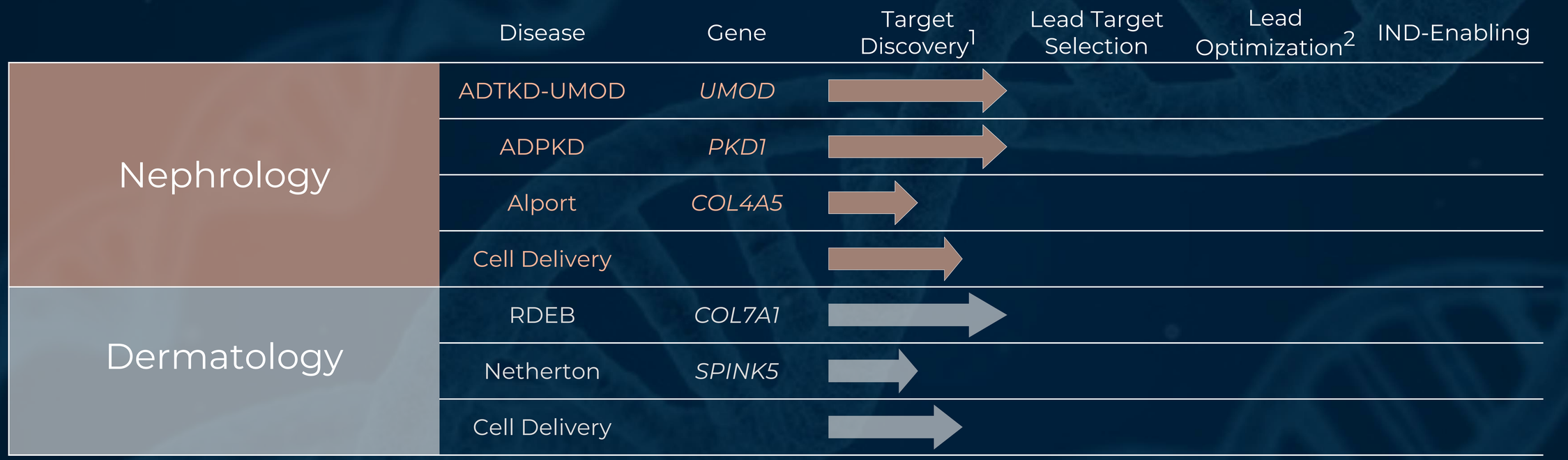
Proof of Concept Study Results

As shown, the lactose repressor-Cas9/GeneTether plasmid (pGT1) with the 130117 guide (lane 6) demonstrated a robust editing efficiency, resulting in **~7x more edits** than the px458 vector with unmodified Cas9 and the same donor DNA fragment (lane 2).



Our Research Pipeline

Therapeutic Programs



Platform & Intellectual Property Expansion

	Initiated	Target Completion	Study Site
Large animal cell lines	✓	Q2 2022	UCDAVIS
Zebrafish	✓	Q2 2022	ZeClinics® Powering discovery with Zebrafish
In vitro editing in human cell lines		Ongoing	

[1] Target discovery includes identifying and/or developing cell line and animal models, conducting proof-of-concept studies, and identifying and/or developing tissue selective delivery vehicles.

[2] Lead optimization includes refinement of GeneTether construct and delivery formulation, and demonstrating efficacy and tolerability in animal models.

Intellectual Property

Patents and Pending Applications[1]

Wholly-owned patent portfolio; no 3rd party financial obligations

We will seek to continue to innovate and strategically protect our innovations in the following three main areas:

- Composition of matter claims combining components of our GeneTether platform with other components of various gene editing systems;
- Uses in monogenic kidney disorders, monogenic skin disorders, and other non-kidney and non-skin disease targets; and
- Cell delivery into tissues and cells of interest.

Granted

USA

Australia

Pending

Canada

China

Japan

Korea

Israel

EU

Singapore

[1]There is no guarantee that new patents will issue or effectively protect the commercial prospects of GeneTether's assets if they do. GeneTether has not received any written legal opinion in relation to patentability of the subject matter disclosed and claimed in its patent applications.

Capital Structure

Share Structure

		Exerc. Price and Expiry	
Shares Outstanding	49.2M		
Warrants	8.1M	C$0.60	(2025)
Options	9.8M	C$0.19	(2031)
Fully Diluted	**67.1M**		

Owned by Insiders **~80%**

Cash (at June 30, 2022) **US$2.4M**

Investment Highlights

Experienced Team

- Focused on harnessing next generation technology to significantly increase efficiency of gene editing and potentially cure serious and life threatening genetic diseases
- Extensive public life science company experience
- Global capital markets experience and extensive investor network

Disruptive Platform Technology

- Highly efficient insertion of DNA into the genome for gene correction and complementation strategies
- Proof of concept studies showed ~7x higher gene editing efficiency using GeneTether compared to unmodified Cas9
- Expected to result in superior efficacy, safety, and flexibility

Rare Genetic Diseases

- Pursuing curative therapies for rare genetic diseases
- Genetic kidney diseases that progress to chronic and end-stage kidney disease
- Life-threatening genetic skin diseases

IP Portfolio

- Wholly-owned intellectual property; no 3rd party financial obligations
- 2 issued patent (US & Australia)
- 7 others pending

Experienced Life Sciences Team

Roland Boivin, MBA
Chief Executive Officer & Director

R. Geoffrey Sargent, PhD
Co-Founder & Chief Scientific Officer

Jean Jen, CPA, CA, MPAcc
Chief Financial Officer

Peter Sampson, PhD
Vice President, R&D

Kuldeep Neote, PhD
Chair – Scientific Advisory Board
Innovation/Strategy Consultant

Medexus Pharmaceuticals Inc. · Pediapharm · 3M

Cancer Research UK · Baylor College of Medicine · UC Berkeley Extension · UCSF

KPMG · Tekmira · Arbutus BIOPHARMA · Shackelford Pharma

AMRI Albany Molecular Research Inc. · Affinium Pharmaceuticals · UHN (Toronto General, Toronto Western, Princess Margaret, Toronto Rehab, Michener Institute)

National Institutes of Health · FACIT · Lilly · Johnson & Johnson Innovation JLABS · Pfizer

Experienced Board of Directors

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Co-Founder & Executive Director

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