# Coding cells for novel cures

Biomedical innovation and a new generation of cures through precision engineered human cells.





#### Company snapshot

Cell Tx

disease verticals

## \$200m



BLUE YARD

MILKY WAY charles river

R Tencent



Employees Strong culture





3

#### **Research Product Pipeline**

Multiple programs per vertical in discovery /

preclinical development

ARCH VENTURE PARTNERS

FORESITE

Pipeline

4+3 ioWild Type cells9+15 ioDisease Model cells

Every single cell type has the potential to be the foundation of multiple next generation therapies and entire industries.

Imagine if a company had the power to create every human cell type.







#### The human cell problem

Current methods of cell production face several challenges



'A code script ... must form the kernel of biological theory' Sydney Brenner







#### Our Cell Identity Coding Platform

discovery platform<sup>™</sup> Transcription factor discovery ATAGITGATG CSSTWTGATCTC GTGTAATGATCGC GTGTAATGATCGC ACATCGATCGTAC TCCAGTATCTAC ATCGCGCTATCG GCTATCTGCCGA TACGGATCCTACC CTCTGTGTAAGCT ATCTCGAGCTCCAT



**opti-ox**<sup>™</sup> Precision reprogramming technology

## opti-ox

**Optimised induced overexpression** 

Deterministic reprogramming of stem cells into brain cells (glutamatergic neurons) in 4 days

> Pawlowski et al. Stem Cell Reports. 2017 Apr 11;8(4):803-812.

#### Generalising to multiple cell types...



Skeletal Myocytes



Glutamatergic Neurons



Adipocytes



Hepatocytes





GABAergic Neurons

Sensory neurons







Astrocytes

...and from there to every human cell.



Megakaryocytes





Monocytes



Microglia



#### A unique opportunity to become a cornerstone of the emerging cell industry

iPSC-derived cell therapy companies



(numbers of cell type protocols for therapeutic development)

#### Diminishing bias through enhanced research standards (...)



Diminishing bias through enhanced research standards (...)

### GBP4.89B/y possibly lost due to:

- 1. Problems with overall study design,
- 2. Incorrect biological reagents and/or reference materials,
- 3. Poorly thought-out or poorly reported laboratory protocols, and
- 4. Problems with data analysis and reporting.

https://www.science.org/content/blog-post/cost-irreproducibility

#### CORRESPONDENCE

### Believe it or not: how much can we rely on published data on potential drug targets?

Florian Prinz, Thomas Schlange and Khusru Asadullah

Validation of 67 published research studies at Bayer



#### A consistent source of human cells can change the way we discover drugs







#### Sir Gregory Winter

Roger Pedersen

#### Marie Claire Cordonier-Segger



S. 000

Marius Wernig