

Cells for Therapy and Research



January 13, 2015



Forward Looking Statement

This presentation includes certain statements, estimates and projections with respect to the anticipated future business and performance of the Company, which are collectively referred to as forward-looking statements.

Forward-looking statements reflect various assumptions of management that may or may not prove to be correct, and are intended solely to convey our expectations or predictions about the future performance of the Company.

All forward-looking statements are inherently uncertain as they are based on our current expectations and assumptions concerning the future performance of our Company. This is not an offer to sell nor a solicitation to buy any security.



Cells for Therapy and Research

UniStemCell

Human Cell

Culture

Powerful stem cell platform

Proprietary

Scalable

Commercially successful human cell manufacturing subsidiary

> \$6 MM revenue Primary cells & media **Dermatology products**

portunities Robust pre-clinical pipeline addressing large unmet Property medical needs

Neural stem cells Parkinson's disease Stroke

> Liver cells Crigler-Najjar syndrome α₁-antitrypsin difficiency

Cornea & Retina cells Corneal blindness Age-related Macular Degeneration



Three Businesses in One



Core stem cell technology and IP
Therapeutic Research
Development Pipeline



\$6.2 million revenue (2013)

STEM CELL SCIENCE FOR SKINTM

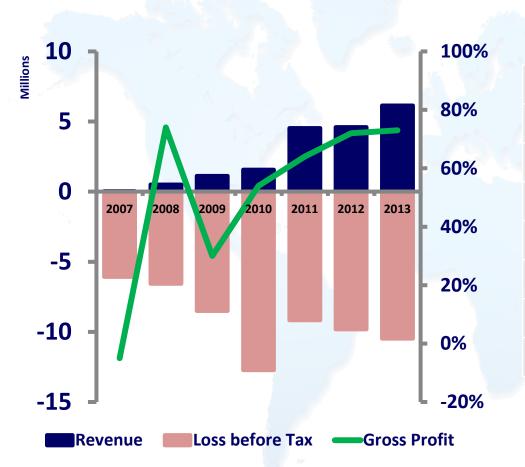
Branded skin care products
Proprietary stem cell skin
care technology



Biomedical research products
Primary human cells &
optimized cell culture media



Company Profile

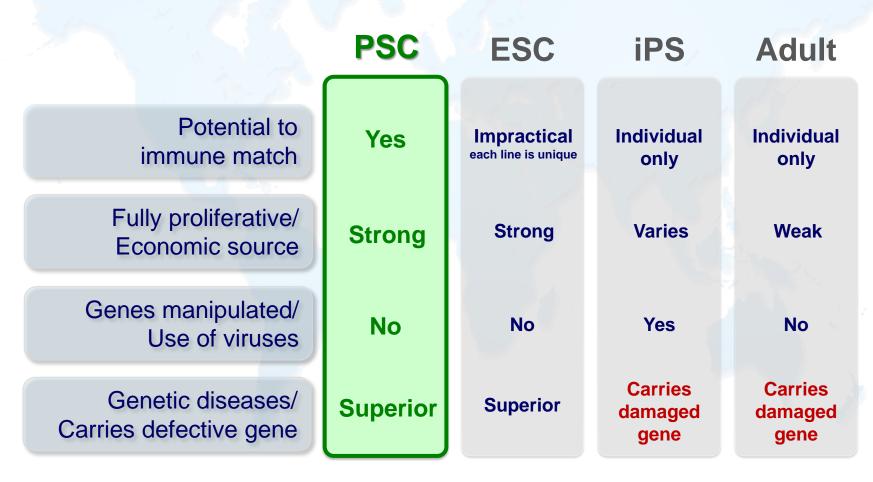


Trading symbol	OTCQB ISCO
Headquarters	Carlsbad, CA
Stock price	\$0.07
52 week range	\$0.06 - \$0.28
Market cap.	\$15.1 million
Ave. vol. (90 day)	918,292
Long-term debt	\$0
Full time employees	38



Pluripotent Human Stem Cells

Human parthenogenesis (unfertilized oocytes)





Intellectual Property

Freedom to operate in major jurisdictions Potential competitive advantages in EU

220 patents, applications and licenses

- Pluripotent cell development
- Cell banking
- Manufacturing methods
- Cell differentiation
- Treating diseases

Numerous publications

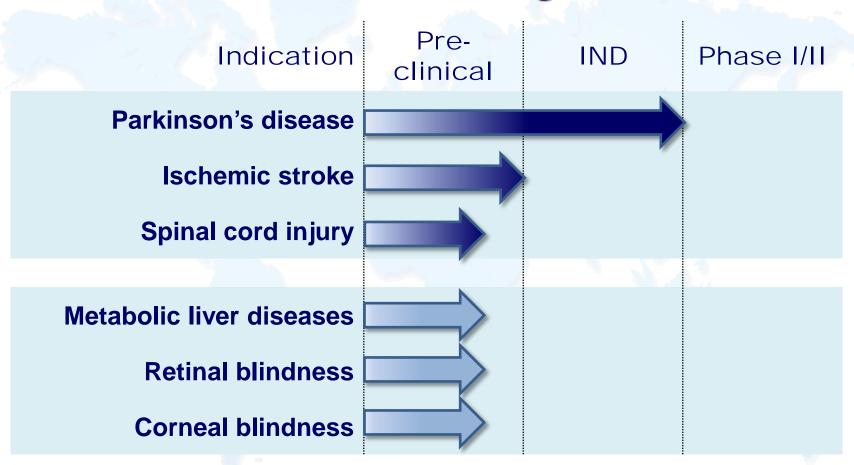
- Nature's Scientific Reports
- Cell Stem Cell





Broad Pipeline of Targets

Clinical success unlocks significant value



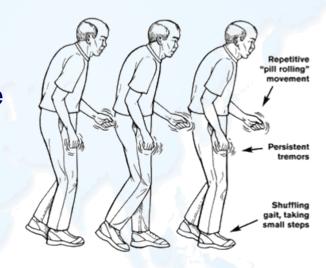
Partner for late-stage clinical development

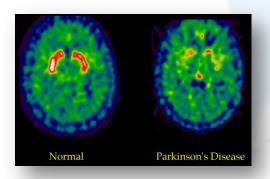


Parkinson's Disease

2 Neurodegenerative disease Limited treatment options (symptomatic only)

- About 1 million people in US have PD
- Direct and indirect costs ~\$25 billion
- Rarely diagnosed prior to 50 years of age
- Hallmark motor symptoms
 - Bradykinesia (slow movement)
 - Rigidity
 - Tremor





- Motor symptoms arise as a consequence of the degeneration of dopamine neurons in SNPC
- Greater than 50-70% of SNPC neurons degenerate prior to the appearance of overt symptoms



New Treatment Paradigm

One-time MRI-guided injection of NSC

- Disease modifying
- Rebuild nigro-striatal pathway
 - Migrates and innervate
 - Produce DA neurons
- Prevent further damage
 - Express neuro-protective factors

Previous human trials using fetal tissue with over 400 patients showed:

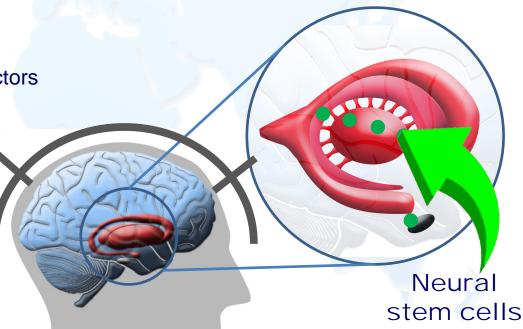
- Generally good safety and efficacy
- Cells persist > 10 years

Lack of donors

Ethically controversial

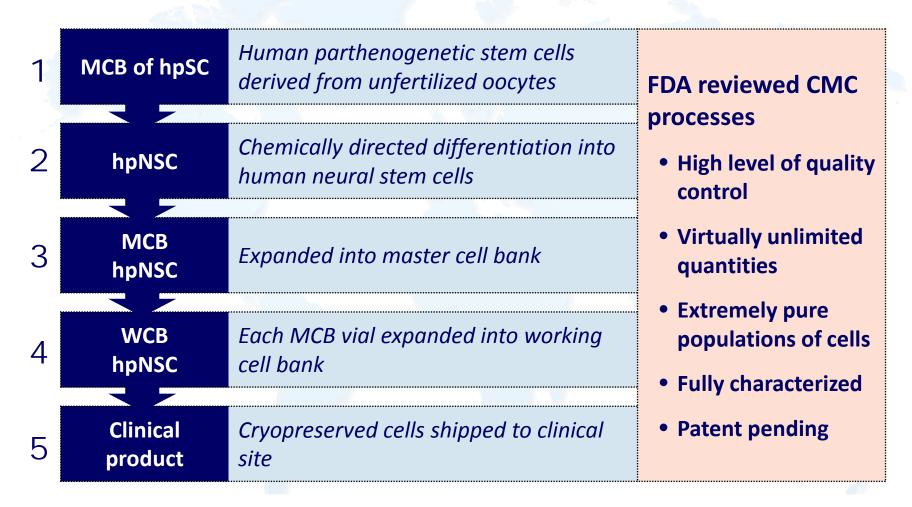
Graft induced dyskinesias







cGMP Manufacturing Process

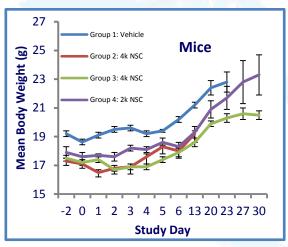


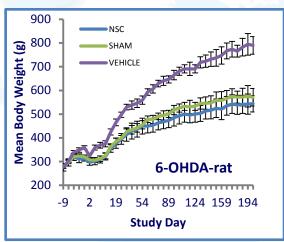
Cell manufacturing strategic asset



Good Pre-Clinical Safety Profile

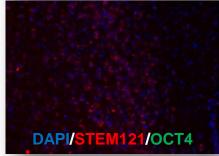
Body weights remains within normal ranges





Coronal section of the monkey brain stained with hematoxylin and eosin showing a normal morphology without the presence of ectopic tissue





Necropsies showed organs to be normal Biodistribution indicates no human cells in peripheral organs

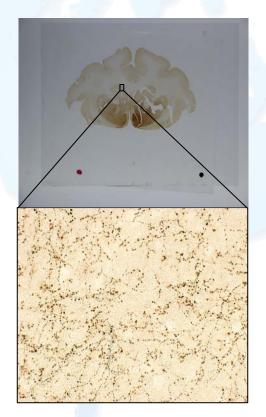
No visible tumors or pluripotent cells

Implantation site stained for human specific antibody STEM121 (in red) and OCT4 (in green), a marker of undifferentiated pluripotent stem cells. OCT4 is completely absent in the graft site.

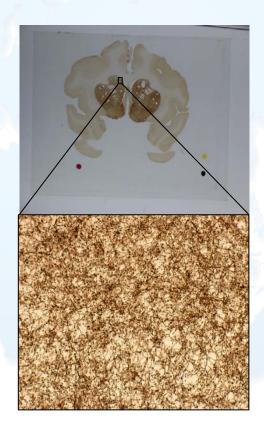


Transplanted Cells Integrate

Dopamine Fiber Innervation





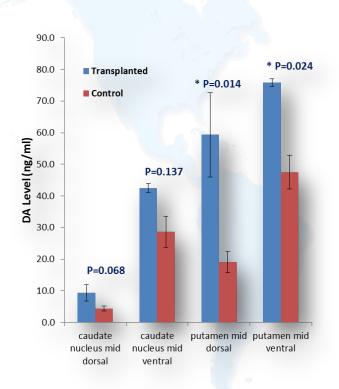


Treatment



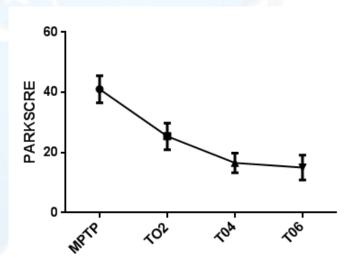
Functional Activity Established

Elevated DA levels 3 Month study



(n=6, asymptomatic)

Return of normal behaviors (12 Month Study)



(n=18, severely symptomatic)

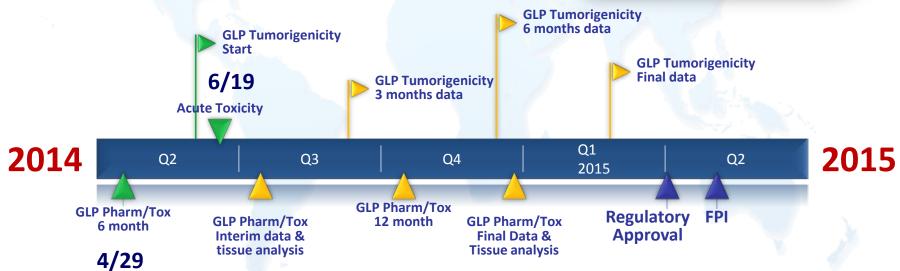
*Prof. Gene Redmond, Yale School of Medicine



Parkinson's Disease Milestones

- ✓ Manufacturing optimized
- ✓ Primate proof of concept
- ✓ GLP Pre-clinical safety







Phase 1 Clinical Trial Design

12 month single arm dose escalating study

- Doses based on primate data
- 12 subjects with idiopathic
 Parkinson's disease
- UPDRS < 49 in off-phase
- Stable on medications





Primary endpoints

- Safety
 - No worsening of symptoms
 - Brain lesions (MRI)
- Efficacy
 - Improvement in off-phase UPDRS score

Expected mid-2015



Strategic Partners

Rohto Pharmaceutical Company Inc. QOHT



THE

SCRIPPS

RESEARCH

INSTITUTE



Duke University Parkinson's clinical program Prof. Stacy MD, Vice Dean of Clinical Research - World-renowned movement disorder expert

Academic

Dr. Evan Y. Snyder, MD PhD, Sanford-Burnham

Dr. D. Eugene Redmond Jr. MD - Yale

Dr. Jeanne Loring, PhD - Scripps



ISCO Growth Opportunities



Regenerative Medicine Biotech

-\$6.2 million (2013) revenues

Pipeline addressing large unmet medical needs

- Pre-clinically validated targets
- Upcoming catalysts



Broadly applicable platform

- Almost inexhaustible source
- Good IP, distinct advantages in EU





Cells for Therapy and Research



January 13, 2015

