



Corporate Overview

Forward-Looking Statements

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**“We aim to pioneer a new branch of
medicine, based on transplanting specific
cell types into the body”**

Business Overview

Company Overview

Innovative Platform

Manufacturing and transplanting *specific cell types* from a single pluripotent cell line; scalable “off the shelf” cell transplants for multiple conditions

Validating Partnerships

Genentech
A Member of the Roche Group

CIRM
CALIFORNIA STEM CELL AGENCY

CANCER RESEARCH UK

Three Clinical Programs

OpRegen: Dry Age-Related Macular Degeneration (dry AMD)

OPC1: Spinal Cord Injury

VAC2: Oncology (NSCLC)

Differentiated Data

Four cases of retinal tissue restoration in dry AMD patients

One-third of spinal injury patients gained at least 2 levels of motor function

Potent induction of immune responses observed in advanced cancer patients

Market Opportunity

Billion-dollar commercial opportunities with no or few treatment options





Financial Position

~\$65.1 million in cash and marketable securities as of Sep 30, 2021*

Market Capitalization

~\$347 million°

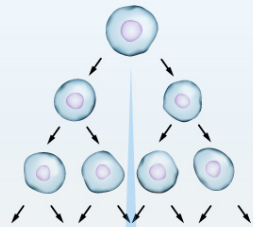
Novel Clinical Cell Therapy Pipeline

LINEAGE	PROGRAM	PHASE 1	PHASE 2	PHASE 3	PARTNERS
 Ophthalmology	OpRegen® Dry AMD with Geographic Atrophy (GA)		24 patients treated		Genentech <i>A Member of the Roche Group</i>
 Demyelination	OPC1 Spinal Cord Injury (SCI)		30 patients treated		CIRM <small>CALIFORNIA / STEM CELL AGENCY</small>
 Immuno-oncology	VAC2 Non-Small Cell Lung Cancer (NSCLC)	7 patients treated			 CANCER RESEARCH UK

Lineage Technology Platform – Allogeneic Cell Transplants

Expansion

- Product development starts from a frozen vial of self-renewing stem cells
- These pluripotent cells can become any cell type in the body when provided with the correct instructions



Differentiation

- Lineage's proprietary process, honed from decades of institutional experience, creates only the cell type which is desired
- No alterations are made to the cell's DNA
- In-house cGMP manufacturing allows for commercial-scale production from a single vial of stem cells



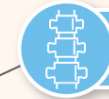
Development

- Value is created through developing and implementing clinically and commercially-viable product attributes
- Pipeline expands by broadening indications or adding additional cell types



Retinal Cells

→ **OpRegen**



Spinal Cord Cells

→ **OPC1**



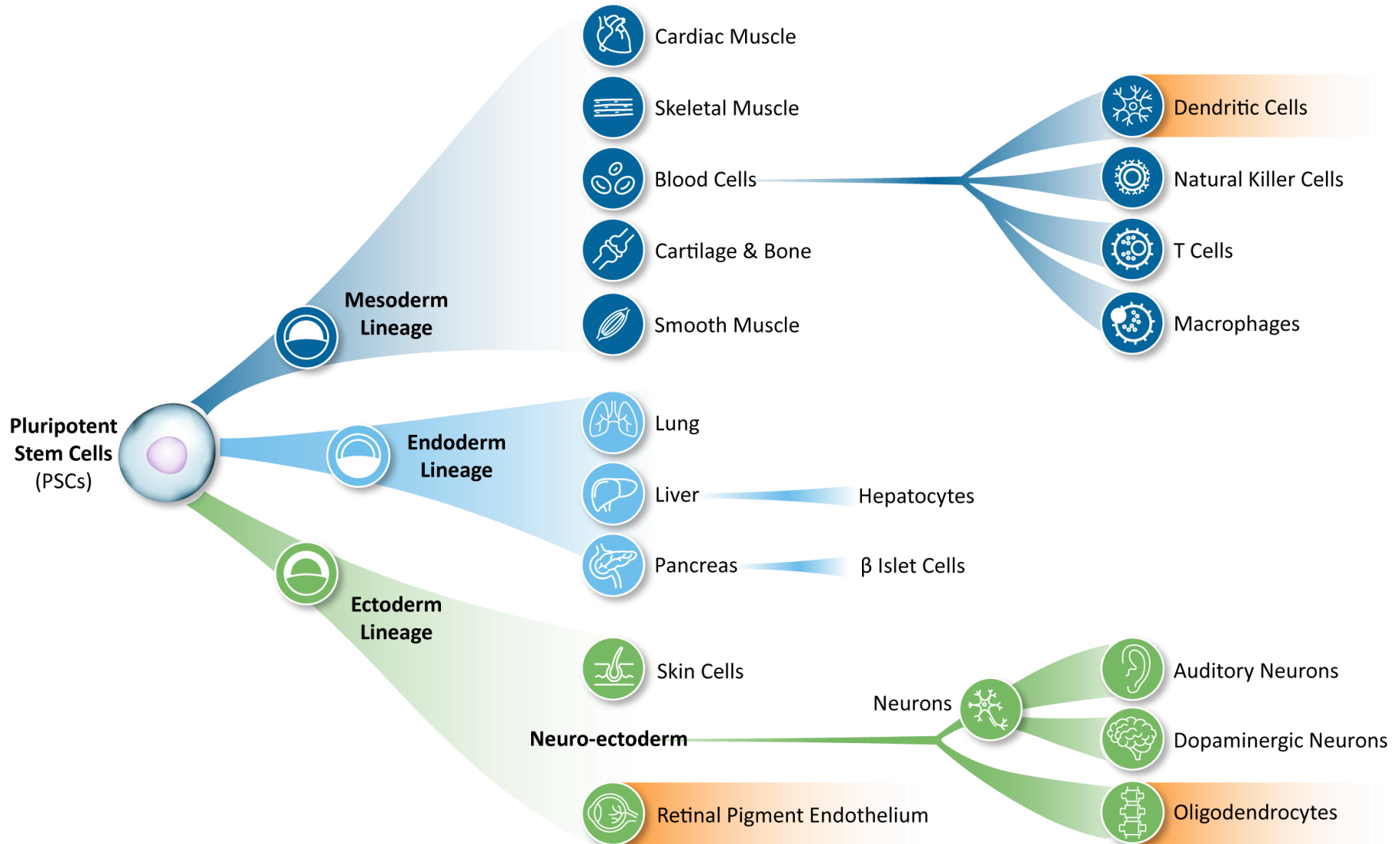
Immune Cells

→ **VAC2**



Other Pipeline Programs

Future Product Candidate Opportunities



Competitive Advantage – Differentiation (Process Development)

Lineage's competitive advantage is the *differentiation* of an *unlimited* supply of pluripotent stem cells into *specialized cell types*

Capabilities

- Source cell characterization, banking and versatile expansion systems
- Differentiation process development; culture conditions, systems, optimization of differentiation cues (growth factor selection, timing, etc.)
- Analytical method development for process control and product release
- Scale-up modalities, substrates, harvesting protocols
- Enhancements; genetic modification (optional), various expression systems
- Clinically compatible post-production processing

cGMP Facility



**Multiple Clean Rooms for Parallel
cGMP Production Runs**

**Extensive IP portfolio covers
processes, products, and methods
of use**



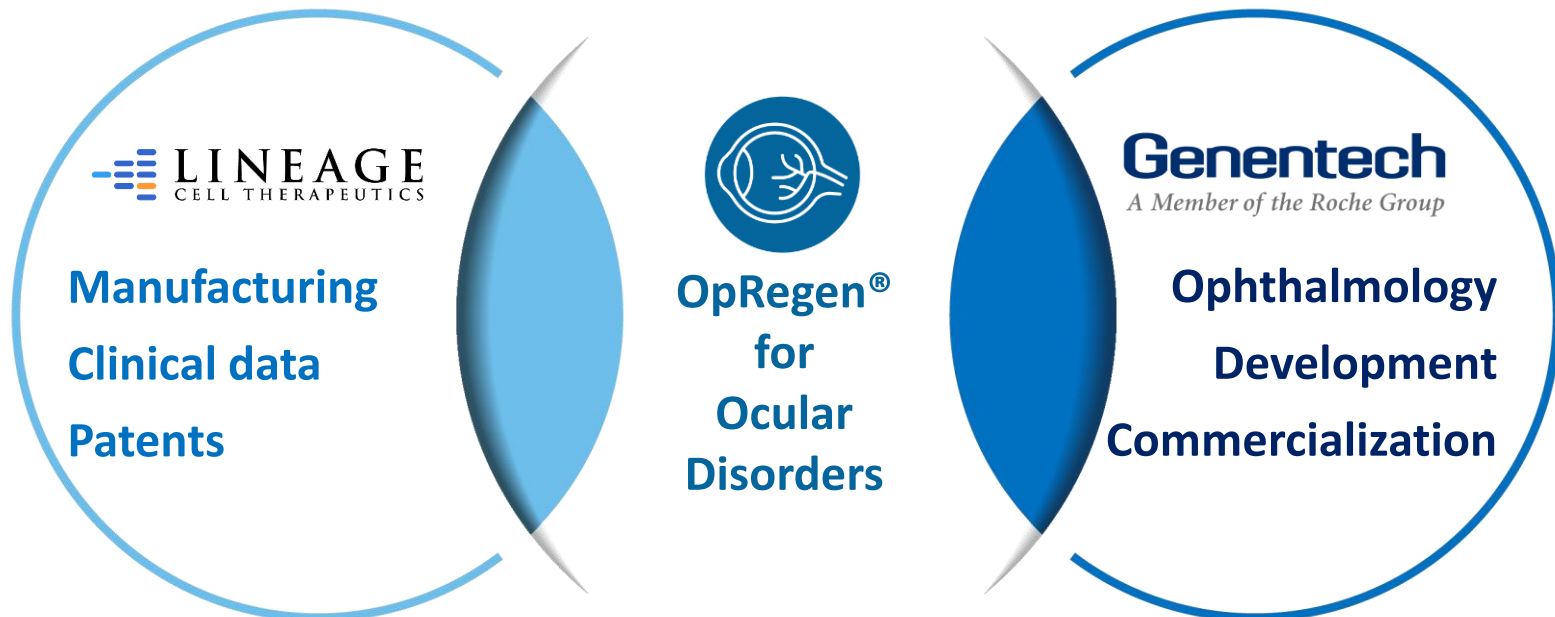
AMD is the **leading cause** of
irreversible vision loss in the US

Source: aao.org

OpRegen[®] : RPE Cell Transplants to Treat Dry AMD

Exclusive collaboration for the development and commercialization of OpRegen for the treatment of ocular disorders

- \$50 million up front; double-digit tiered royalties; \$620 million of potential payments
- Lineage to complete ongoing study and continue certain manufacturing activities
- Genentech responsible for clinical development and commercialization

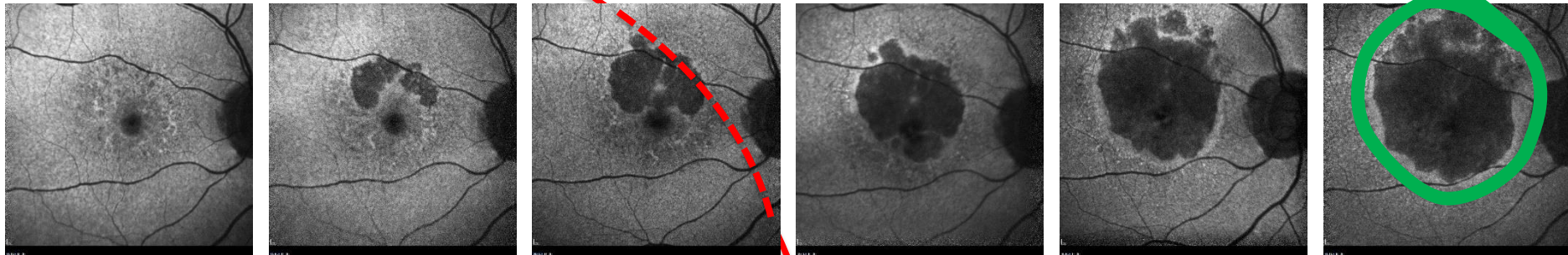


Dry AMD Can Lead Rapidly to Blindness

Visual acuity over time...

20/20
(normal)

The area of geographic atrophy or “GA” grows larger as retinal cells die



2012

2013

2014

2015

2017

2019

Dry AMD involves the progressive loss of retina cells, which can lead rapidly to blindness

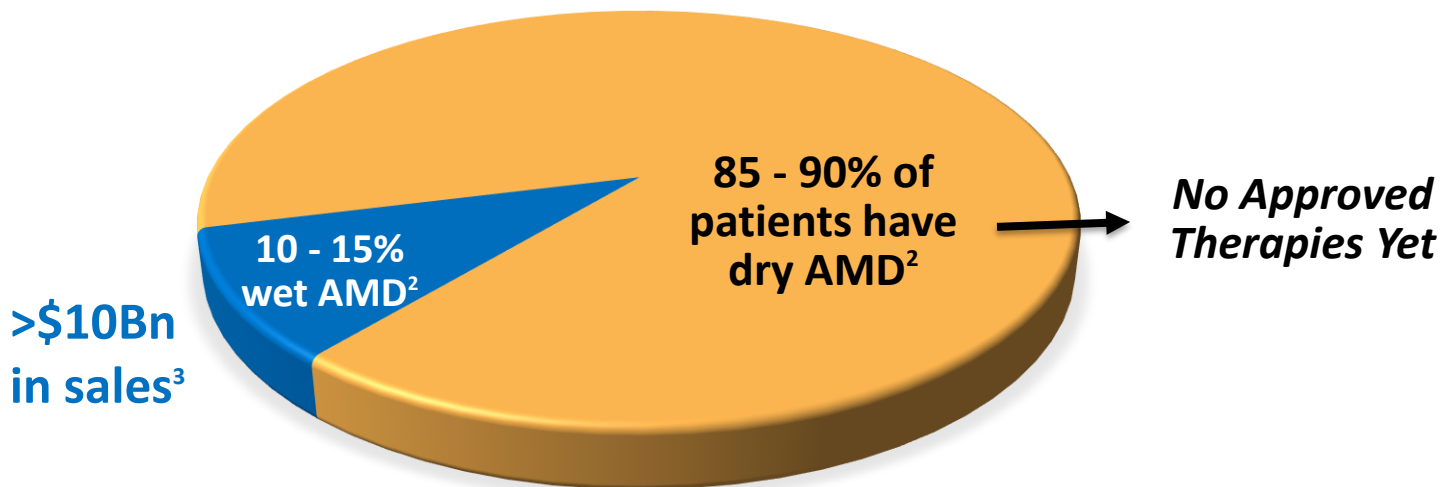
20/200
(legally blind in 3 years)

20/640

Multi-Billion Dollar Market Opportunity in the U.S.

**Age-related Macular Degeneration (AMD) in all forms afflicts
~11 million people in the United States**

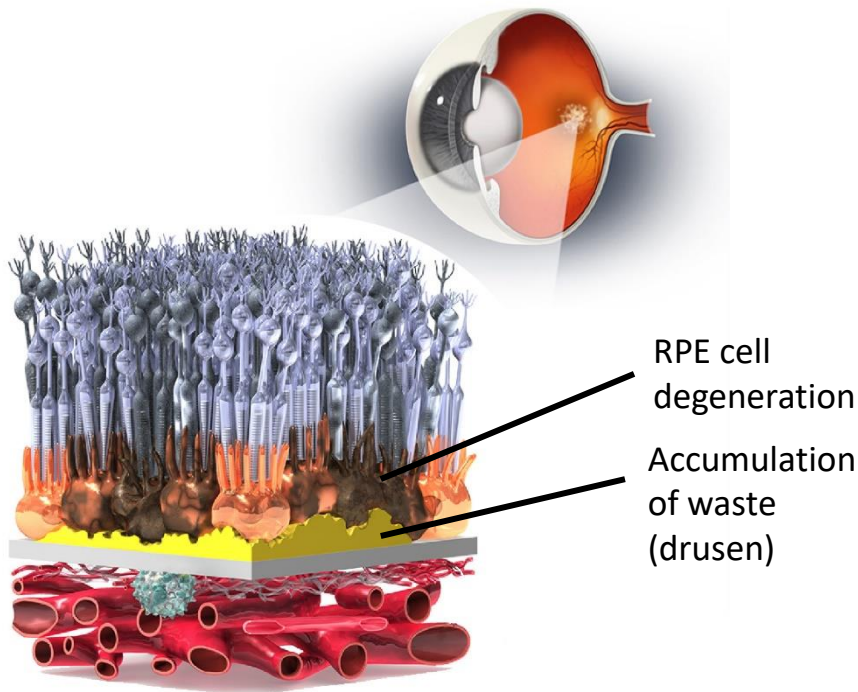
Type of AMD	% of AMD Cases	FDA Approved Therapies
Wet AMD	10 – 15%	Lucentis & Eylea (\$10 Billion in annual sales)
Dry AMD	85 – 90%	None



Sources: (1) Bright Focus Foundation. Macular Degeneration Facts & Statistics: Bright Focus Foundation. <http://www.brightfocus.org/macular/about/understanding/facts.html>; (2) JM Seddon, Epidemiology of age-related macular degeneration. (AP Schachar, S Ryan eds.) Retina, 3rd ed. St. Louis, MO: Mosby; 2001;1039-50; (3) 2018 product sales summary based on publicly reported revenue figures for Lucentis and Eylea.

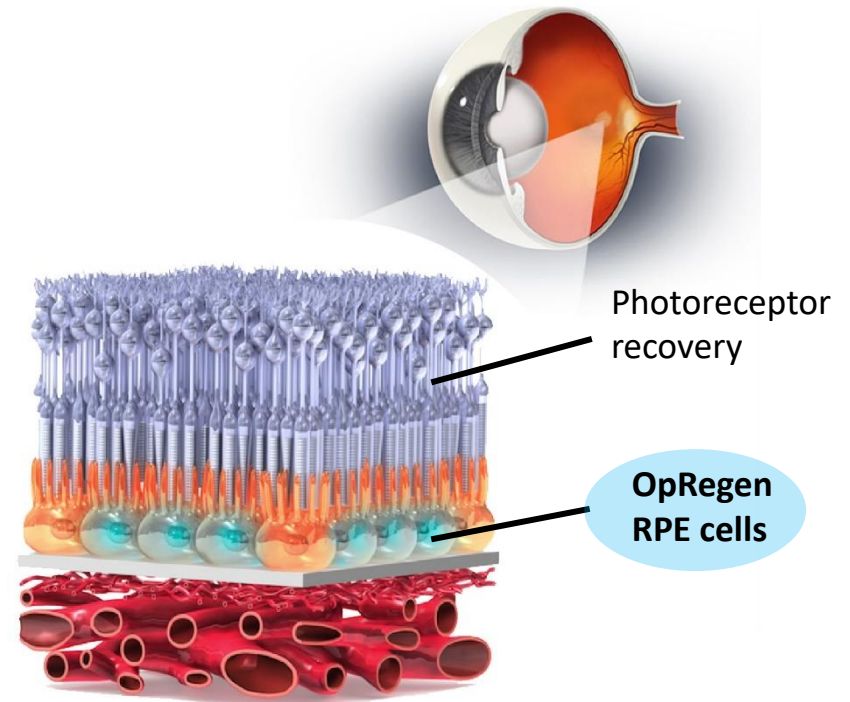
Lineage Approach – OpRegen, an RPE Cell Transplant

Pre-Transplant



Dry (atrophic) AMD involves the loss of retina cells, creating an area of geographic atrophy (GA), which causes impaired vision and blindness

Post-Transplant



OpRegen is an injection of RPE cells beneath the retina, to replace lost retinal cells and preserve or improve vision

Commercially-Suitable Manufacturing Process

- **OpRegen consists of pure RPE cells >99%**
 - Starts from an NIH-approved cell line established >20 years ago
 - Extensive functional and identity characterization is employed for product release
 - No genetic modifications are made to the cells
 - No residual pluripotent cells detectable in clinical material
- **Clinic-ready, immediate-use “thaw and inject” formulation**
 - No dose preparation required
 - From frozen cells to delivery device in 5 minutes
- **Current production scale is 5 billion RPE cells per 3-liter bioreactor**
 - Equal to 2,500 clinical doses/batch
 - Further scale-up can be performed in larger or parallel reactors



Dry AMD Competitive Landscape

Cell Therapy

OpRegen (Ph1/2)

CPCB-RPE1 (Ph1/2, Regenerative Patch Tech.)

ASP7317 (Ph1, Astellas) (**Enrollment Paused**)

jCell (Preclinical, jCyte)

Toxic by-product reduction

Prevent Amyloid A β oligomer assembly:

GAL-101 (Ph1, Galimedix)

ALZ-801 (Preclinical, Alzheon)

Reduce DHA peroxidation:

RT011 (Preclinical, Retrope)

FAILED

Glatiramer acetate (Teva)

RN6G (Pfizer)

GSK933776 (GSK)

Neuroprotection

Repair mitochondrial dysfunction/oxidative stress:

elamipretide (Ph2, Stealth)

risuteganib (Ph2, Allegro)

photobiomodulation (Ph N/A, LumiThera)

brimonidine tartrate (Ph2, Allergan)

FAILED

NT-501 (Neurotech)

tandospirone (Alcon)

OT-551 (Othera)

Visual cycle modulation

ALK-001 (Ph. 3, Alkermes)

FAILED

fenretinide (Sytera)

emixustat (Acucela)

OT-551 (Othera)

Anti-inflammatory

Complement inhibition location and molecule:

ANX007 (Ph2, Annexon)

APL-2 (Ph3, Apellis)

CB2782 (Preclinical, Catalyst)

Zimura (Ph3, Iveric bio)

ALXN1720 (Ph1, Alexion)

HMR59 (Ph2, Hemera)

danicopan (Ph1, AstraZeneca RD)

Ionis-FB-LRX (Ph2, Ionis)

NGM621 (Ph2, NGM Bio)

FAILED

eculizumab (Alexion)

tesidolumab (Novartis)

lampalizumab (Genentech/Roche)

CLG561 (Novartis)

Gene Therapy

Gyroscope (Ph1/2)

Hemera/Janssen (Ph1)

Novartis (Preclinical)

Other approaches

Inflammasome Inhibition:

kamuvudine (Ph1, Inflammasome Therapeutics)


Xiflam (Preclinical, OcuNexus)

Matrix Modulation:


doxycycline (Ph2/3, Oracea)

HtrA1 inhibitor:

FHTR2163 (Ph2, Genentech/Roche)



OpRegen Phase 1/2a Clinical Trial Interim Results



Replace and Restore

Phase 1/2a Clinical Trial - Promising Interim Results Continue (N=24)

STRUCTURE:

- **4 patients have shown evidence of retinal tissue restoration**
 - All four cases of restoration have shown evidence of smaller or unchanged areas of atrophy at 12 months post-treatment; all four had improved BCVA at 12 months
 - 4/4 (100%) of patients with fultome coverage across the area of atrophy showed restoration

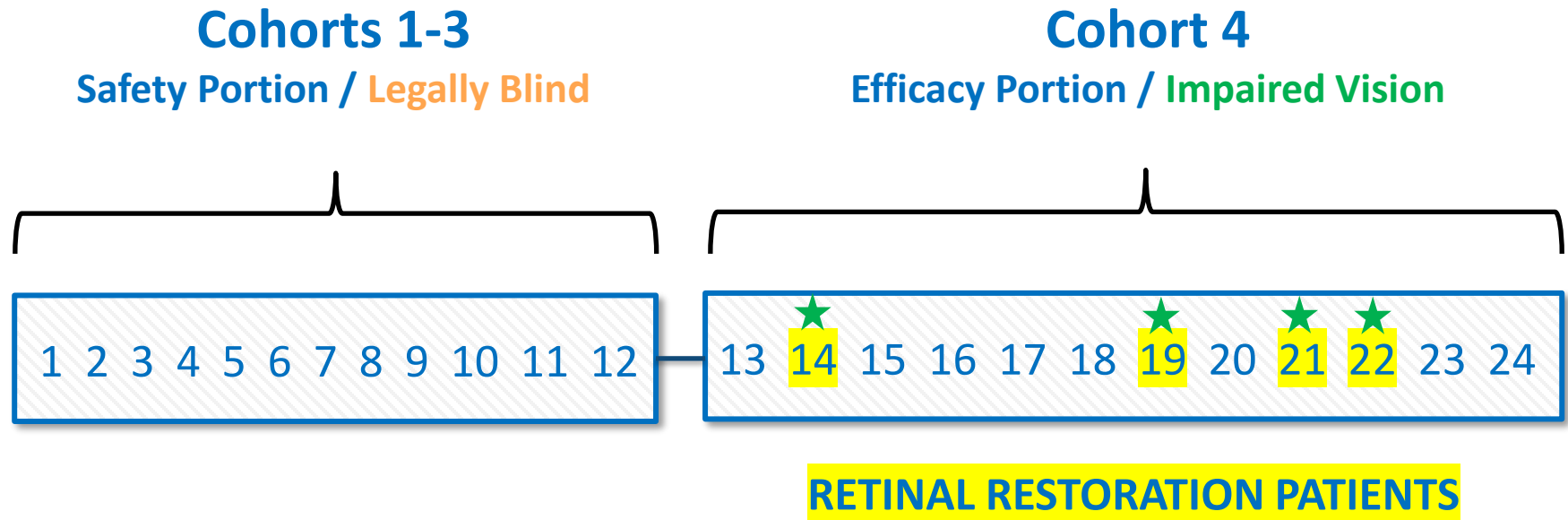
FUNCTION:

- **58% of all 12 Cohort 4 patients' treated eyes were at or above baseline visual acuity**
 - 15M, or last time point available, up to >3y post-treatment
 - Visual acuity continued to decline in the majority (67%) of untreated eyes
- **Statistically significant differences in visual acuity continue to be observed in Cohort 4 patients between OpRegen treated and fellow untreated eyes (n=12)**

SAFETY, TOLERABILITY, DURABILITY:

- **OpRegen transplants have been well tolerated with no unexpected AEs or SAEs**
- **Earliest grafts have persisted for more than 5 years**
- **Zero cases of rejection (N=24)**

Phase 1/2a Clinical Trial of OpRegen – Enrollment Complete



Purpose:

To evaluate the safety and efficacy of transplanted RPE cells in patients with dry AMD with geographic atrophy

Design:

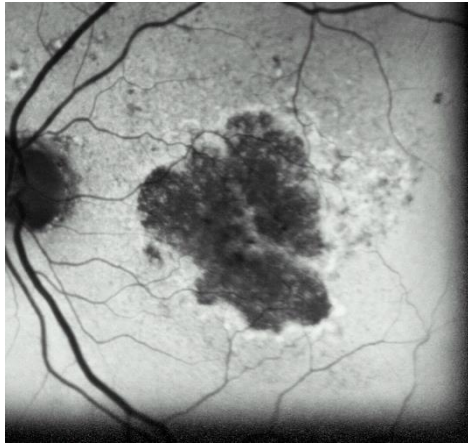
Open label, single arm, international, multi-center

Dose and Administration:

One 50-100 ul dose of cells injected into the subretinal space

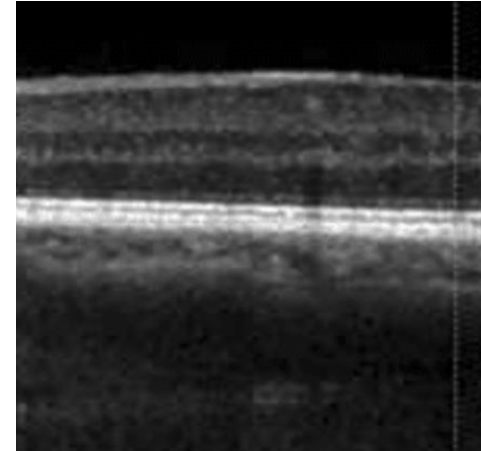
Imaging the Retina - Fundus Autofluorescence (FAF) and Optical Coherence Tomography (OCT)

FAF



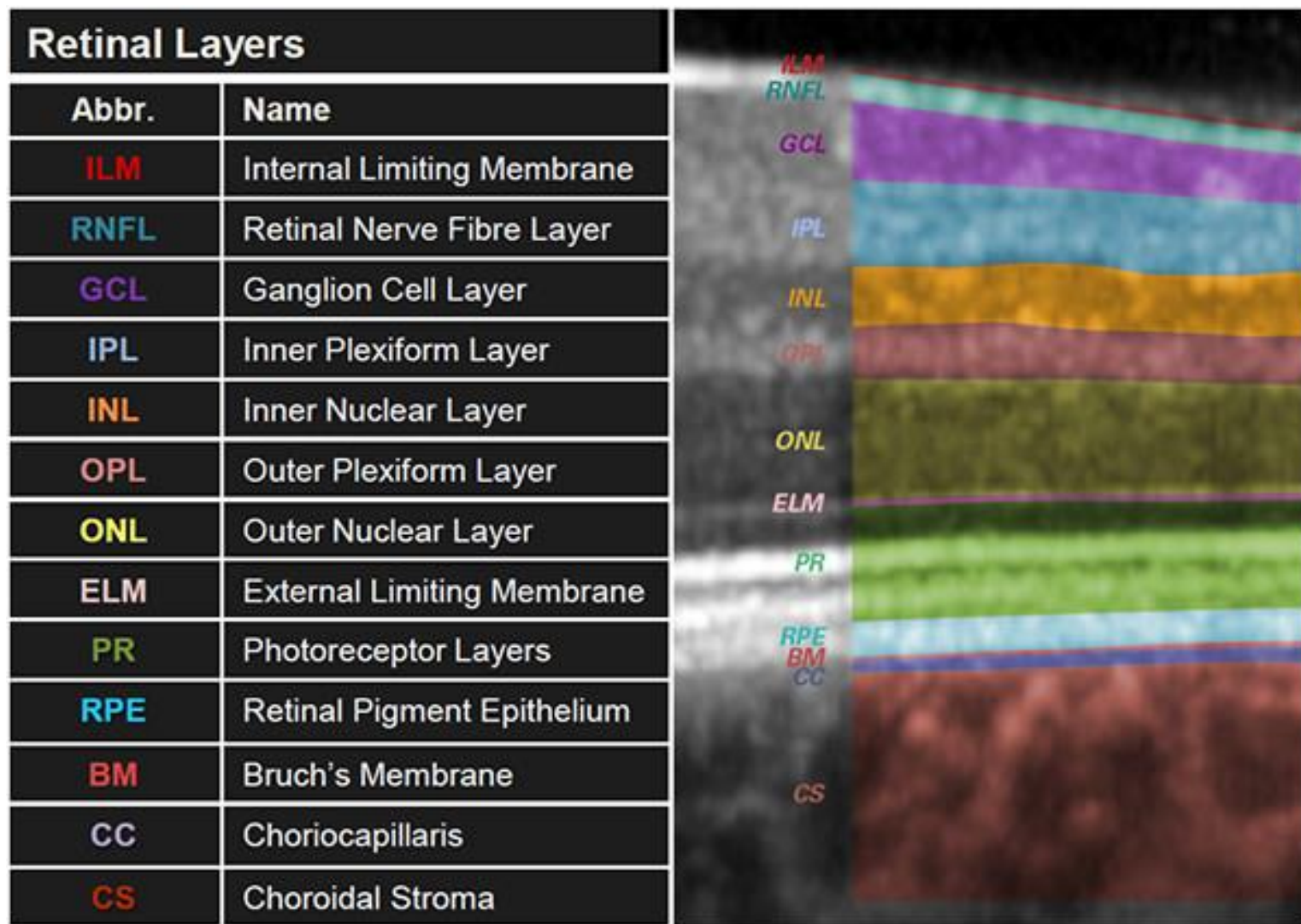
- A flash of light causes cells to fluoresce, which is recorded in a single plane and with minimal structural resolution
- OpRegen cells lack lipofuscin, the material which fluoresces, so OpRegen cells appear as atrophic areas

OCT



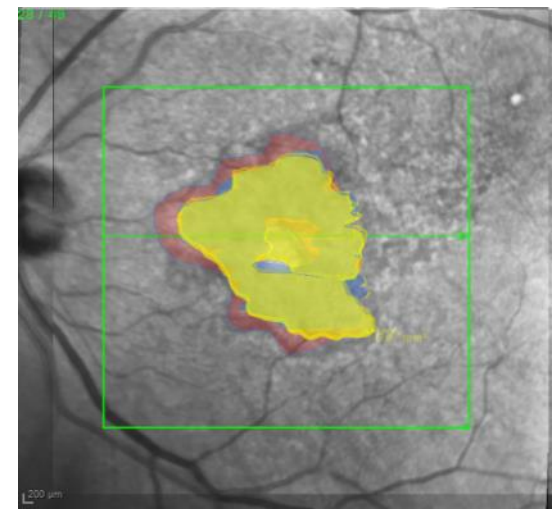
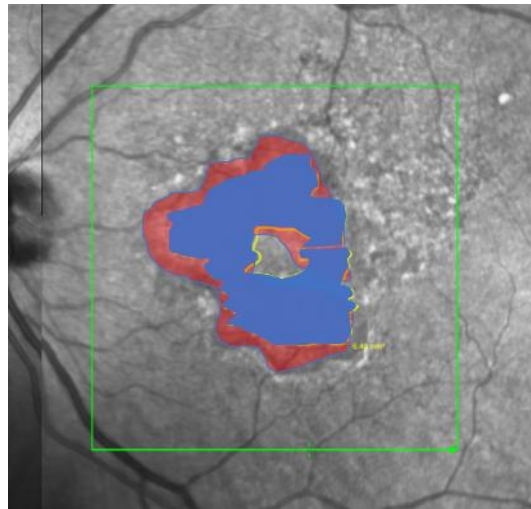
- Differences in light returned to a detector creates a 3D images of all retinal layers
- The AAO considers OCT the “gold standard” for imaging the retina
- Offers much greater detail of anatomical structures

High Resolution OCT Provides Resolution Close to Histology

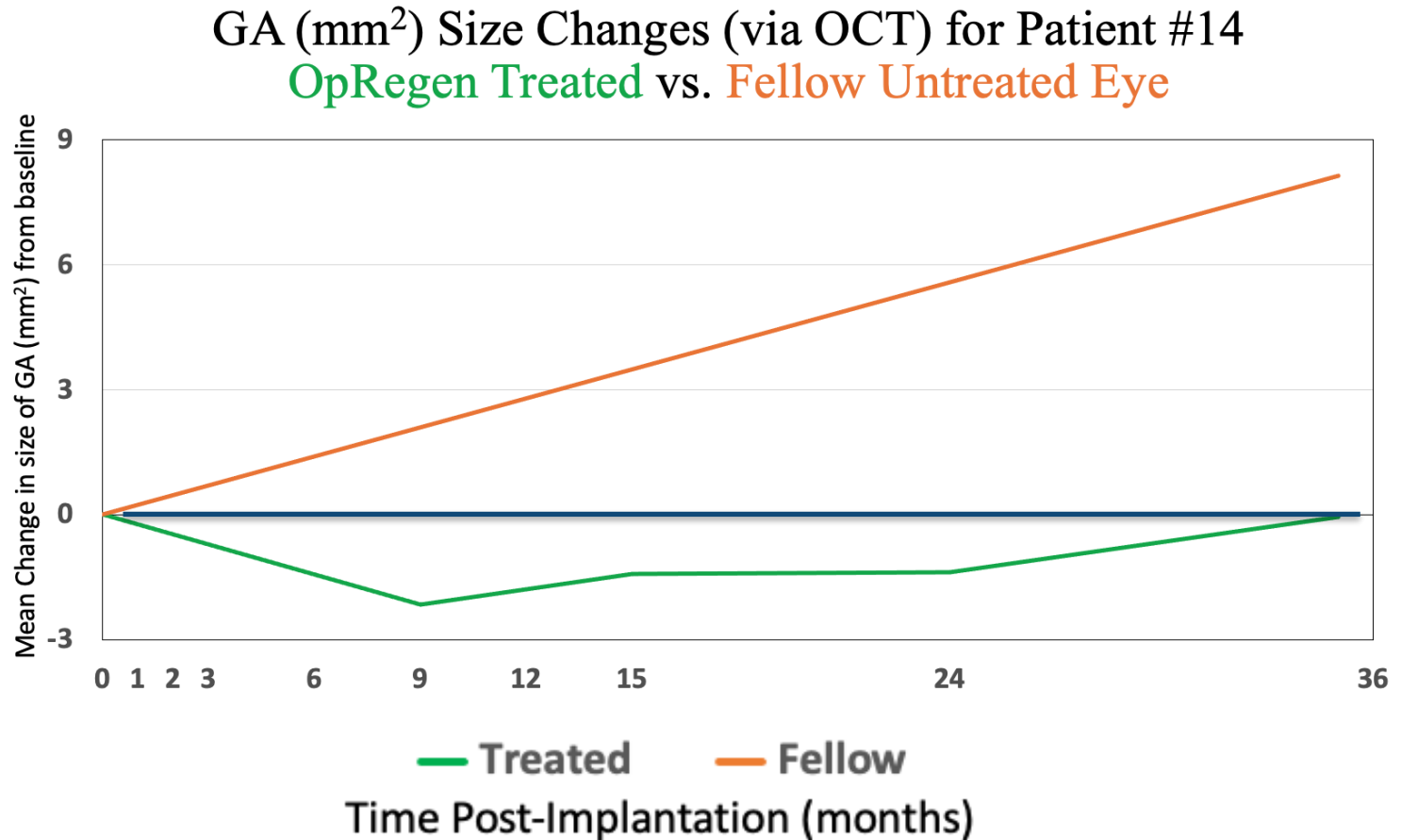


First Case of Retinal Restoration – *Smaller Area of GA, Maintained for ~3 Years*

Date	Time in Study	Colored area on Figure below	Area mm ² (SQRT)	Changes in rate of progression from previous	Changes in rate of progression from baseline
May 2017	Minus 1 year	Orange	4.21 mm ² (2.05)	N/A	N/A
July 2018	Baseline	Red	7.90 mm ² (2.8)	+ 0.64 mm sqrt/yr	N/A
April 2019	Month +9	Blue	5.74 mm ² (2.39)	- 0.61 mm sqrt/yr	- 0.61 mm sqrt/yr
October 2019	Month +15	Green	6.48 mm ² (2.54)	+ 0.30 mm sqrt/yr	- 0.20 mm sqrt/yr
June 2020	Month +23	Yellow	6.52 mm ² (2.55)	+ 0.015 mm sqrt/yr	- 0.13 mm sqrt/yr



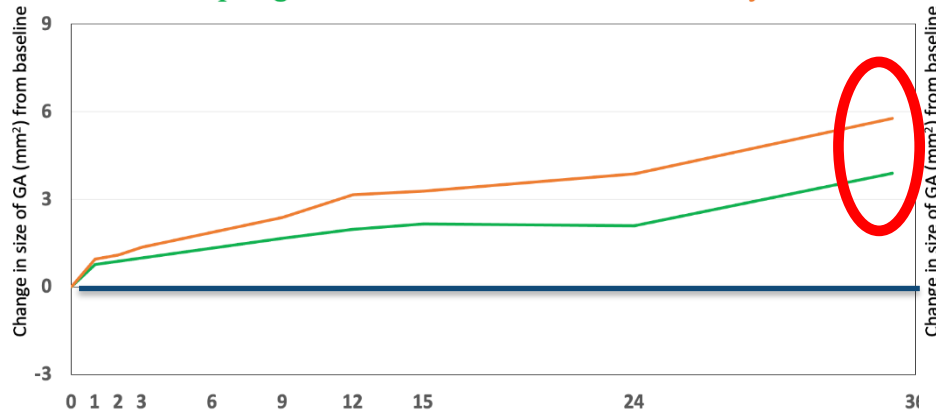
First Reported Case of Retinal Restoration – GA Measurements



First Case of Retinal Restoration - Utilizing OCT to Collect GA Measurements

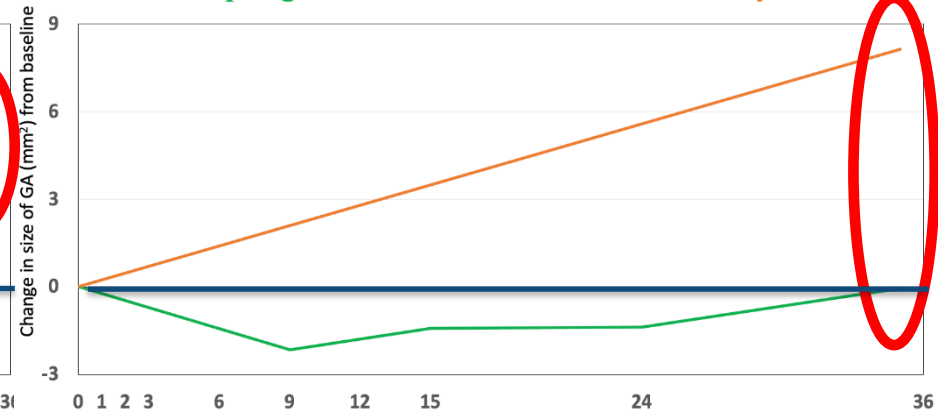
FAF

GA (mm²) Size Changes (via FAF) for Patient #14
OpRegen Treated vs. Fellow Untreated Eye



OCT

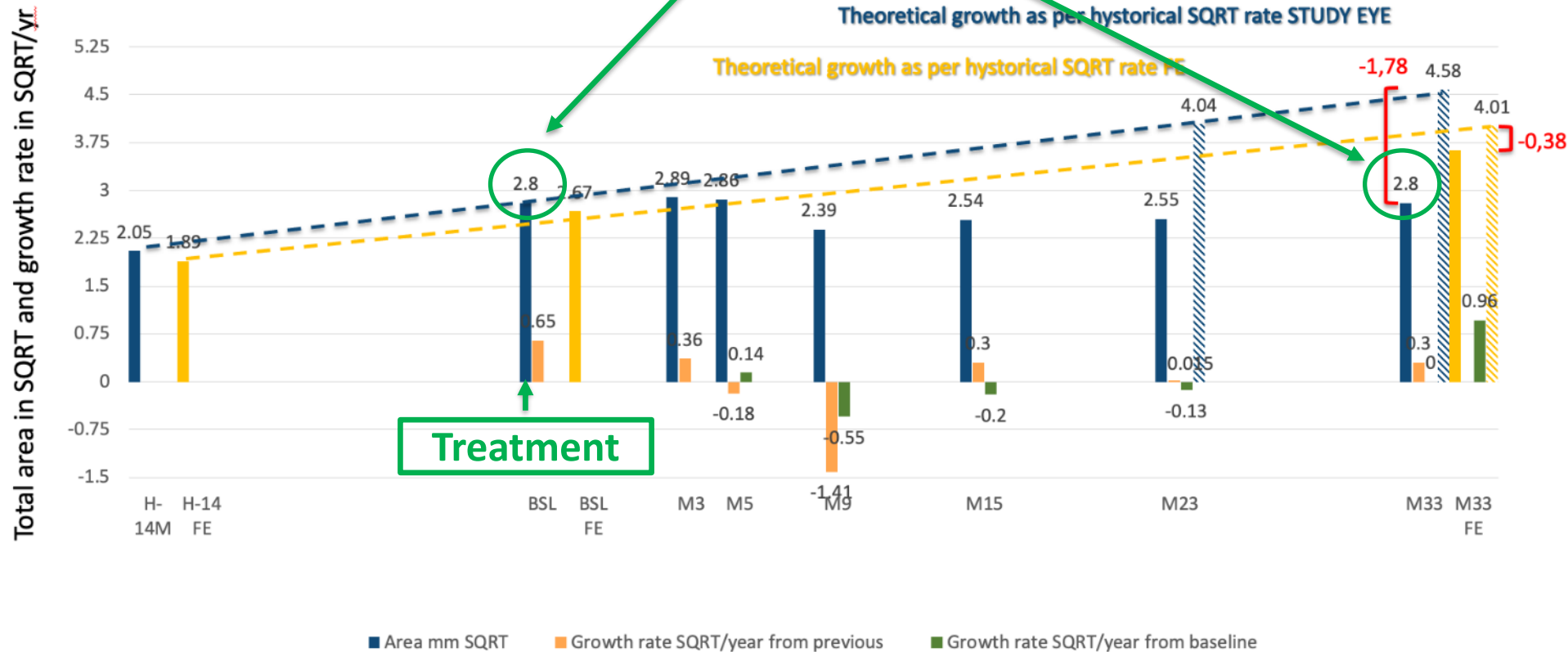
GA (mm²) Size Changes (via OCT) for Patient #14
OpRegen Treated vs. Fellow Untreated Eye



— Treated — Fellow
Time Post-Implantation (months)

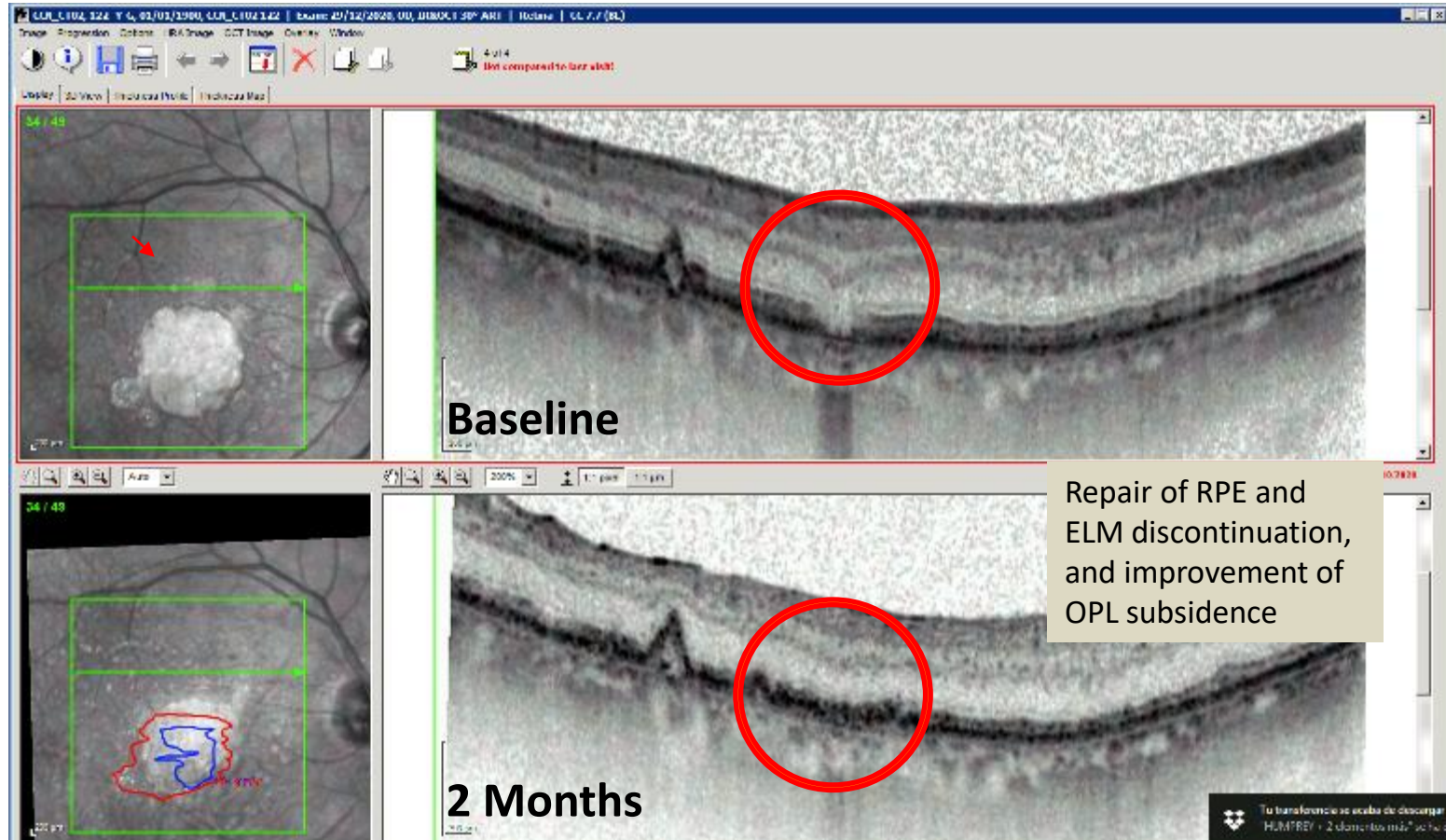
First Case of Retinal Restoration – Assessing GA Progression Using FAF Alone or OCT and Multimodality Imaging

Zero change in area of atrophy (GA) after 33 months



Second Case of Retinal Restoration – Evident at 2 Months

Evidence of outer retinal regeneration and *complete resolution* of iRORA lesion



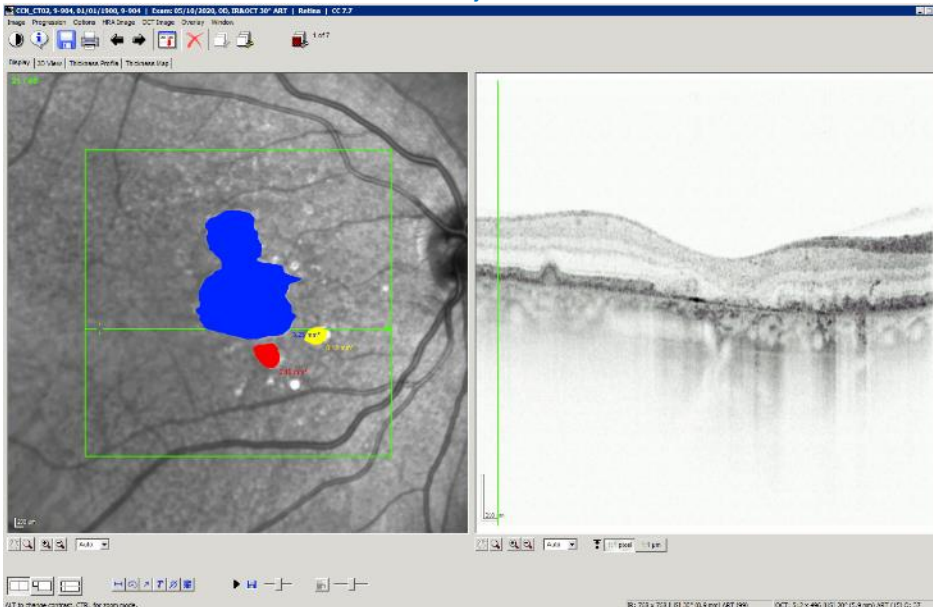
iRORA = Incomplete Retinal Pigment Epithelial and Outer Retinal Atrophy

Third Case of Retinal Restoration – Evident at 3 Months

ELM-based Area of Atrophy (Baseline to 3 Months)

OCT 5, 2020

JAN 21, 2021



TOTAL AREA: 3.56 mm²

TOTAL AREA: 2.69 mm²

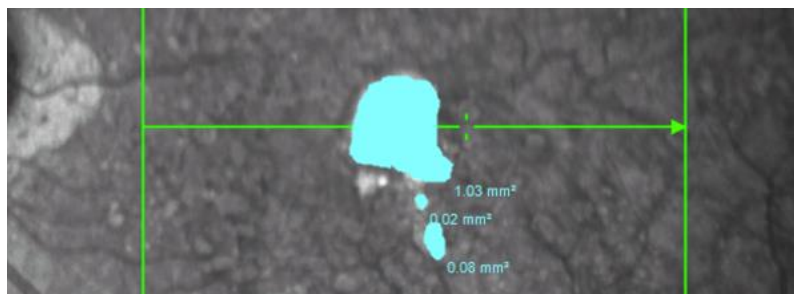
Total area
3M GROWTH RATE:

SQRT transformation
3M GROWTH RATE:

– 0.87 mm² **(ANNUAL RATE – 3.48 mm²)**

– 0.23 mm **(ANNUAL RATE – 0.92 mm)**

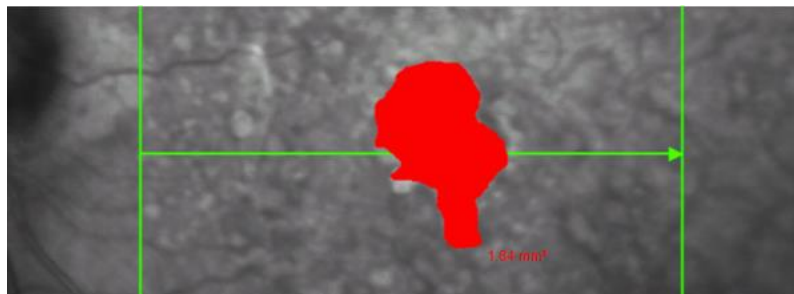
Fourth Case of Retinal Restoration – No GA progression after >1 year



1.06 mm SQRT (1.13 mm²)

Historical Image

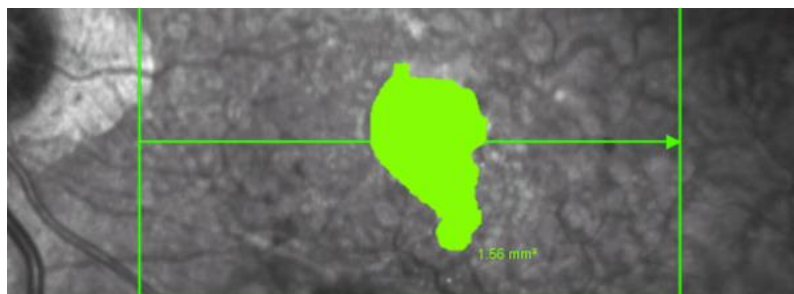
Obtained 16 Months before Baseline Visit



1.28 mm SQRT (1.64 mm²)

Baseline Image

Rate of Growth from Historical Image = +0.165 mm/yr

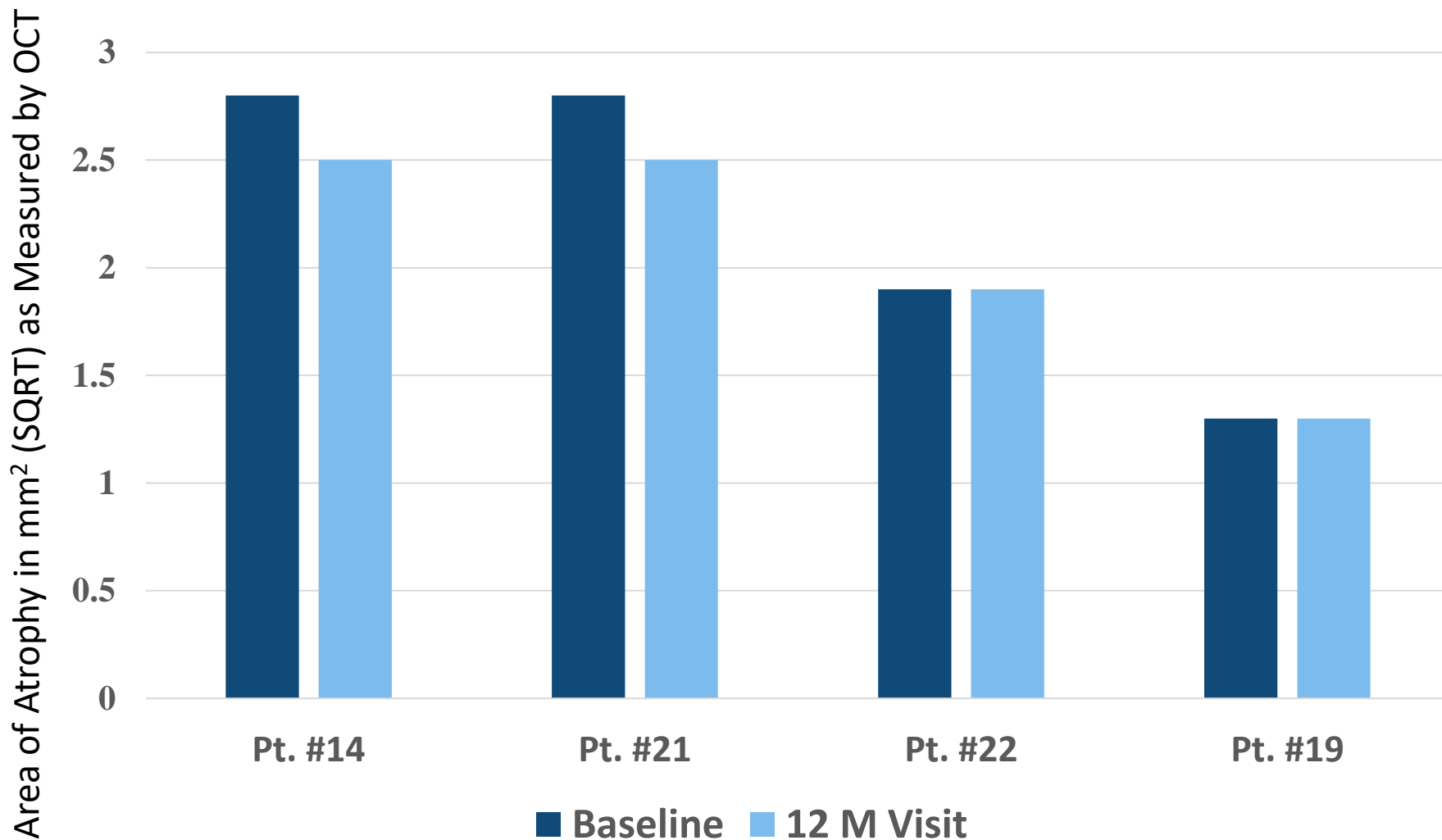


1.25 mm SQRT (1.56 mm²)

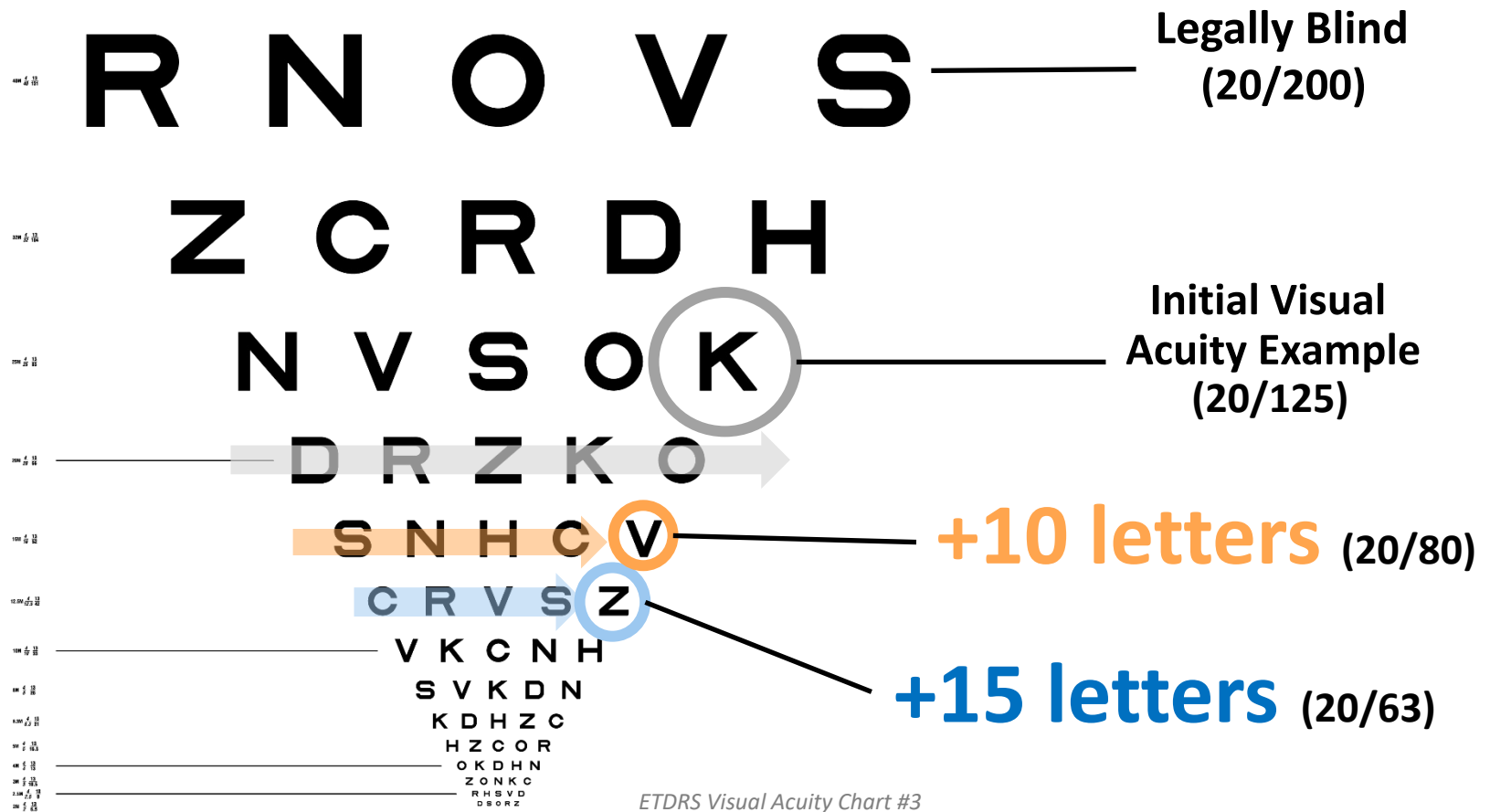
13.5 Months post-OpRegen

Rate of Growth from Baseline Image = - 0.026 mm/yr

Four Cases of Retinal Restoration – No GA progression after 1 year

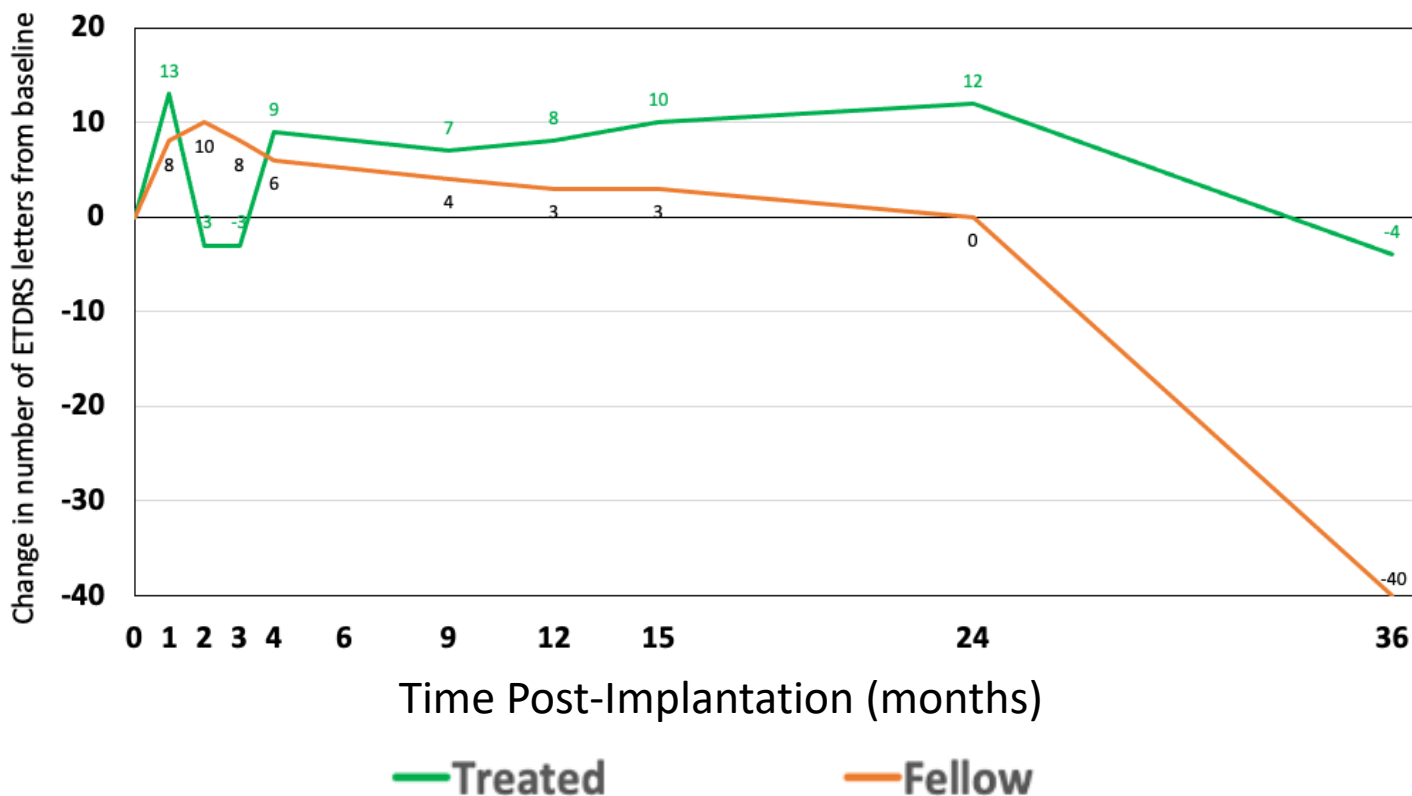


Real-World “Letters of Improvement”



First Case of Retinal Restoration - Durable Improvements

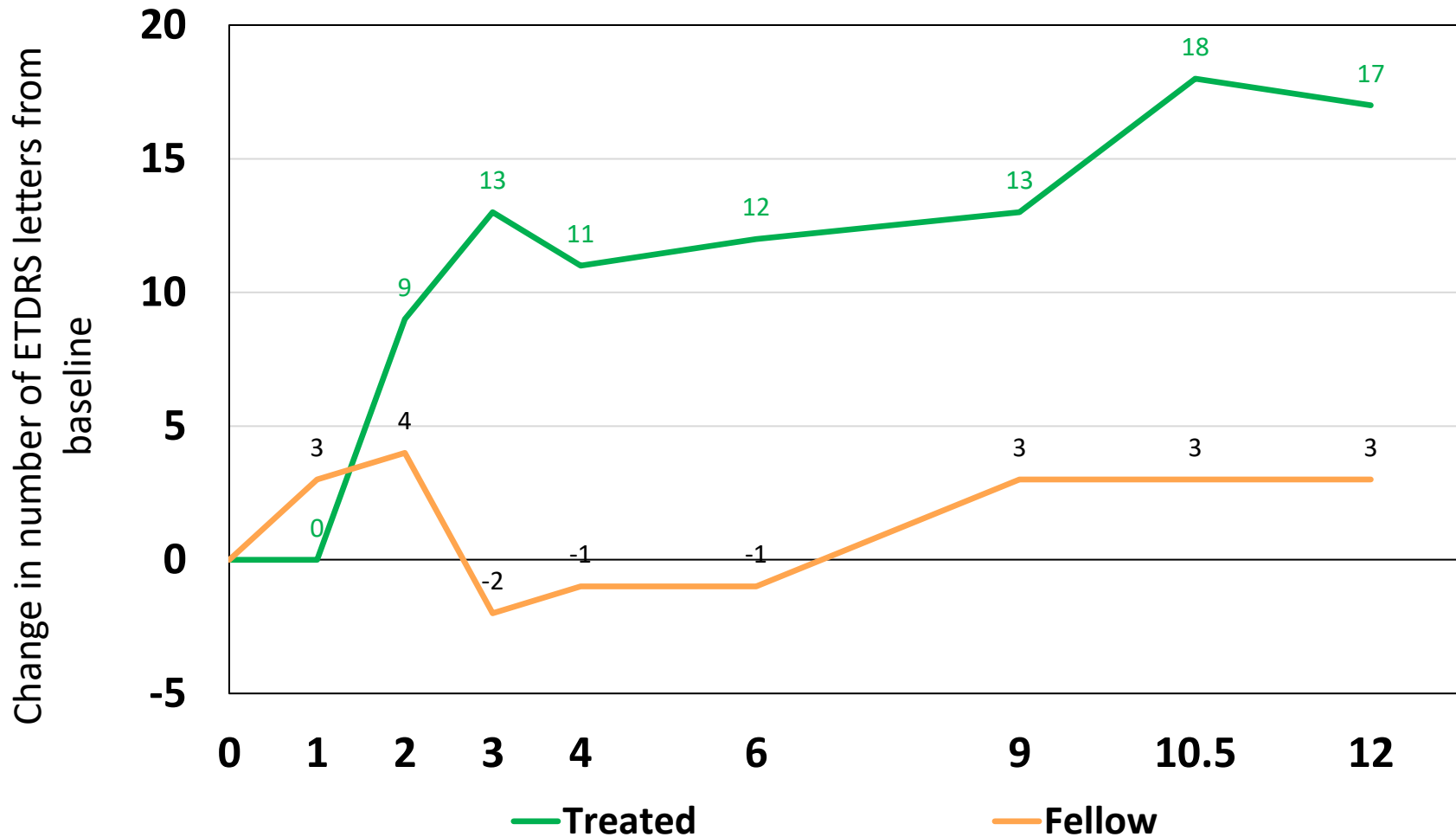
BCVA Changes for Patient #14 – Treated vs. Fellow Eye



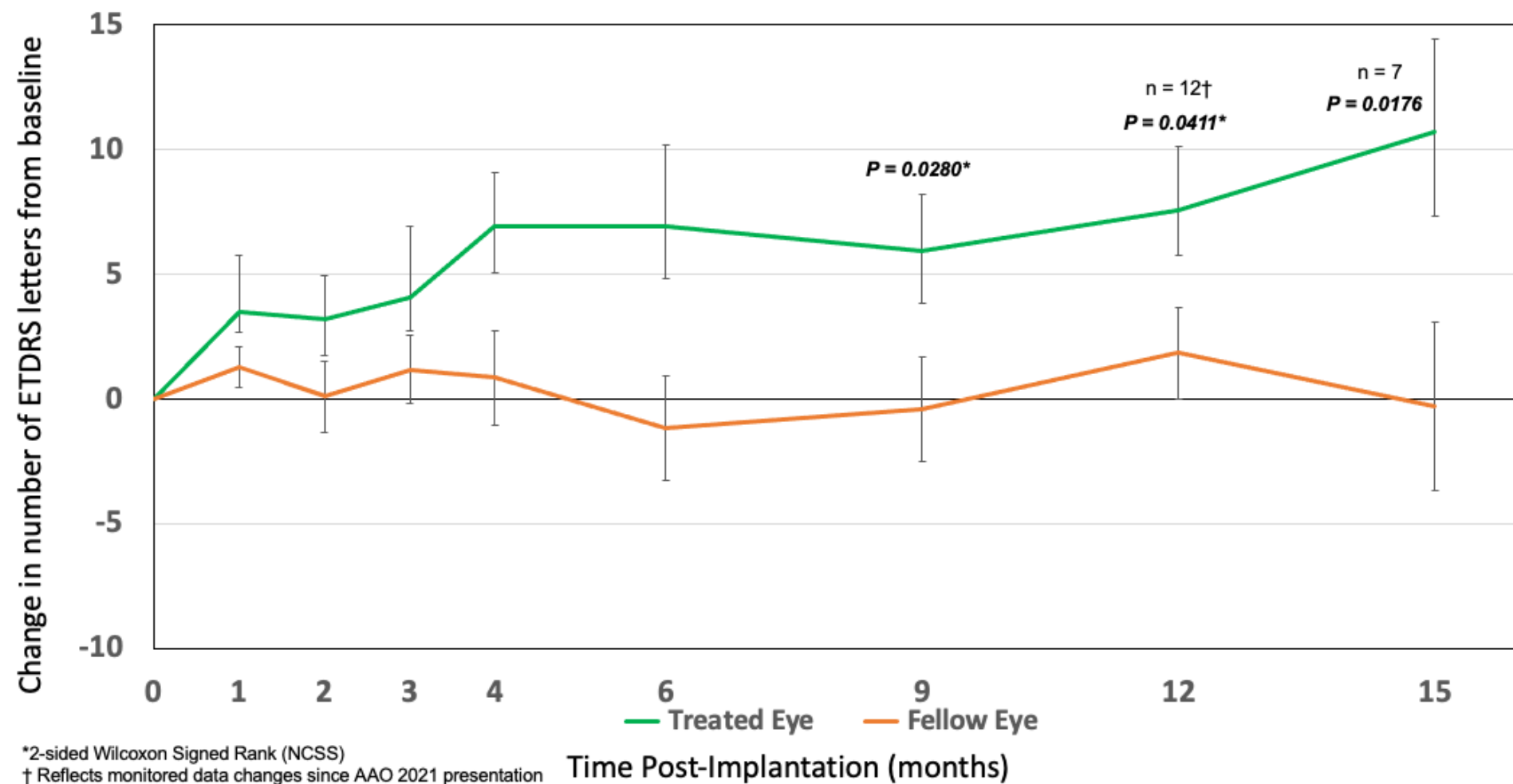
Time point	Fellow (OD)	Treated (OS)
Baseline	61 letters read (20/63)	54 letters read (20/80)
3 years post-op	21 letters read (20/400)	50 letters read (20/100)

Third Case of Retinal Restoration - Vision in Treated Eye Dramatically Improved

BCVA Changes Treated vs. Fellow Eye



Mean Change (SEM) in Cohort 4 BCVA – Treated and Fellow Eye



Positive Patient-Reported Outcomes (Quality of Life Questionnaire)

- **National Eye Institute (NEI) Visual Function Questionnaire (VFQ-25)**
 - 25 vision-related questions reported across 11 constructs
- **Improvement occurred in 10 of 11 categories and remained unchanged in one category in Cohort 4 patients**

Category	n (%) Change from Screening to 1 Year post-Treatment (n = 11 available to date)
General Vision	8/11 (73%) of patients reported improvement
Ocular Pain	1/11 (9%) of patients reported improvement
Near Activities	8/11 (73%) of patients reported improvement
Distance Activities	4/11 (36%) of patients reported improvement
Vision Specific: Social Functioning	5/11 (45%) of patients reported improvement
Vision Specific: Mental Health	7/11 (64%) of patients reported improvement
Vision Specific: Role Difficulties	4/11 (36%) of patients reported improvement
Vision Specific: Dependency	4/11 (36%) of patients reported improvement
Driving	0/11 (0%) of patients reported improvement (most patients were not driving at screening)
Color Vision	1/11 (9%) of patients reported improvement (most patients reported highest possible score, so no improvement was possible)
Peripheral Vision	2/11 (18%) of patients reported improvement

A Multi Billion-Dollar Commercial Opportunity

- **Four cases of retinal restoration reported (only known clinical cases)**
- **Market opportunity is not limited by monogenic deficiencies (e.g. gene therapy)**
- **Treatment has been well-tolerated; meaningful improvements in clinically-relevant metrics such as visual acuity, GA growth, and reading speed**
- **Potential application in other retinal diseases (example: Stargardt's Disease)**
- **Issued patents cover aspects of production, characterization, and formulation**
- **Fast Track designation from FDA**
- **Validating development partnership with global ophthalmology leader, Genentech**

Key Takeaway for the Lineage Approach:

- **Transplanting RPE cells may provide transformational benefits beyond the reach of traditional approaches**



Lifetime care for an SCI
patient can cost nearly
\$5 million

Source: christopherreeve.org

OPC1: Cell Therapy for Spinal Cord Injuries

Why Spinal Cord Injury (SCI) Matters

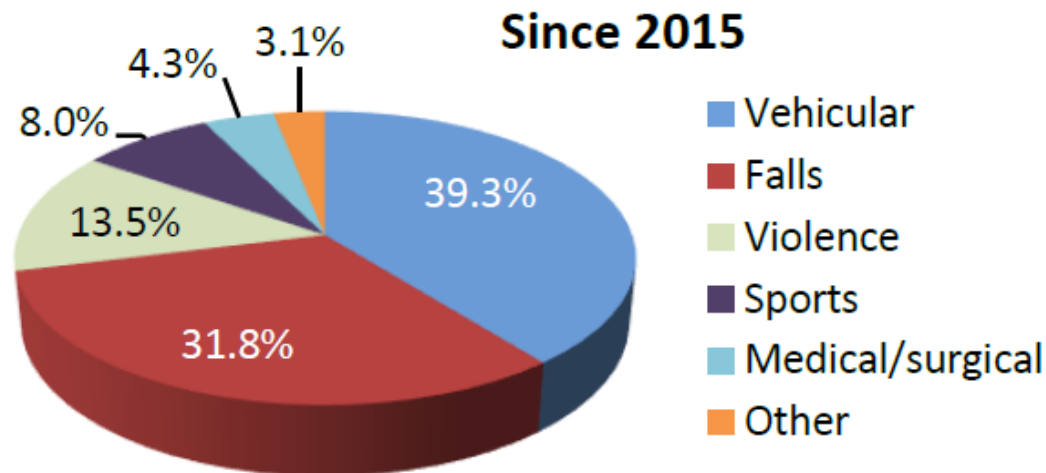


Lucas Linder, an OPC1 clinical trial participant, was paralyzed from the neck down. The next year, he threw out the first pitch at a Major League Baseball game.

Spinal Cord Injury (SCI) Overview

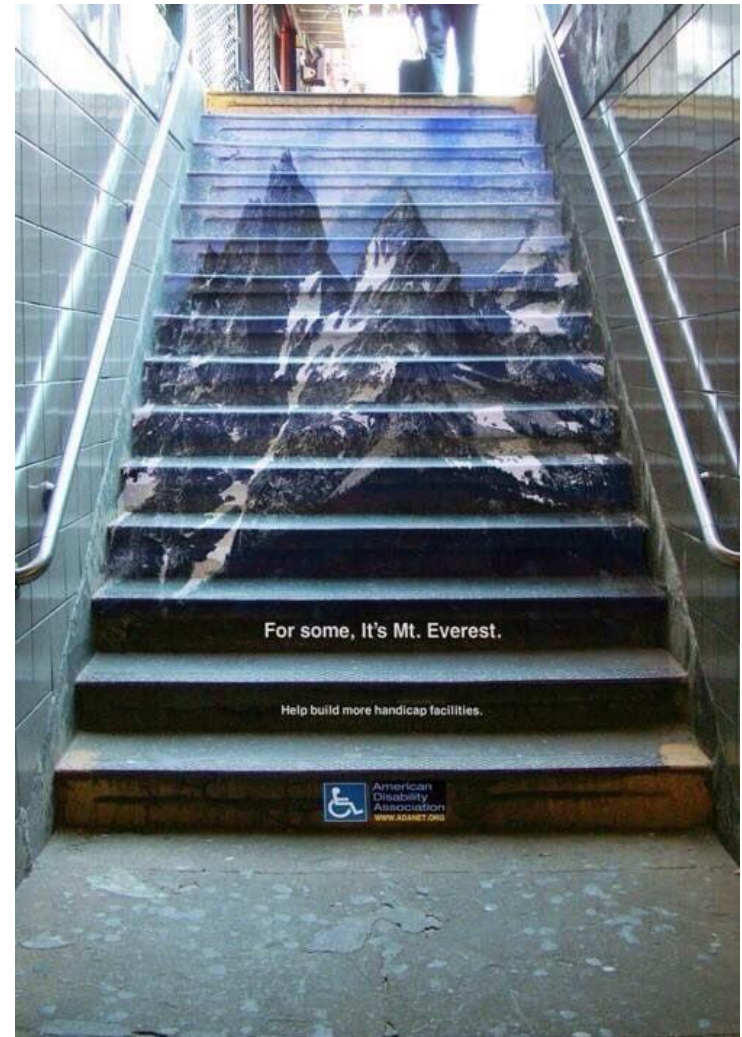
Lifetime care for an SCI patient can cost nearly \$5 million

- **Incidence**
 - Approximately 18,000 new cases in the U.S. each year
- **Prevalence**
 - Between 249,000 and 363,000 people in the US
- **Causes**



SCI Burden and Unmet Needs

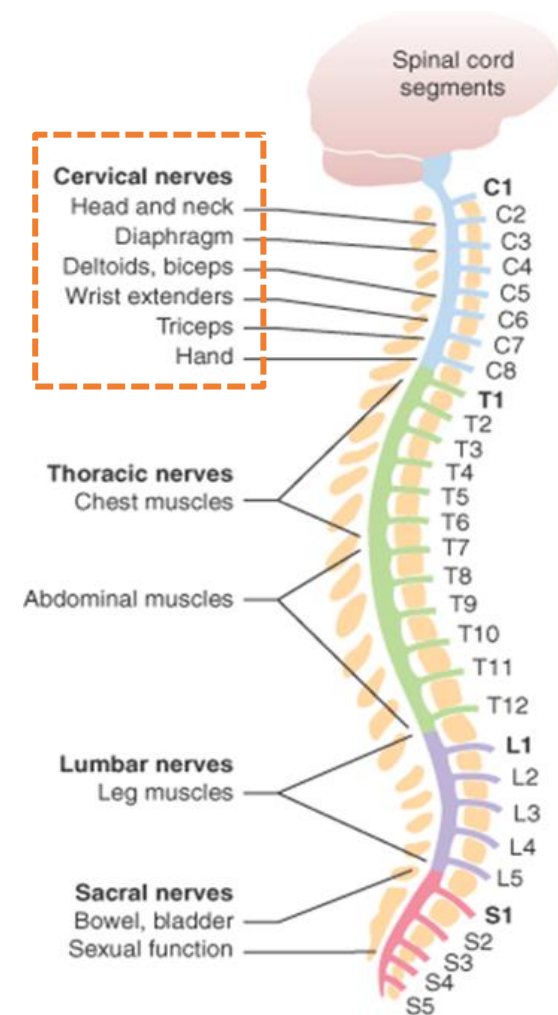
- **A significant burden for patients and caregivers***
 - 67% of patients are unemployed 10 years post-injury
 - Lifetime healthcare costs can reach \$5M for one patient
- **Potential lifelong impairments**
 - Mobility (wheelchair)
 - Pain
 - Re-hospitalizations
 - Infections
 - Ventilator dependency
 - Depression
 - Shortened life expectancy



SCI Treatment Objectives

Loss of movement is the primary feature of a spinal cord injury

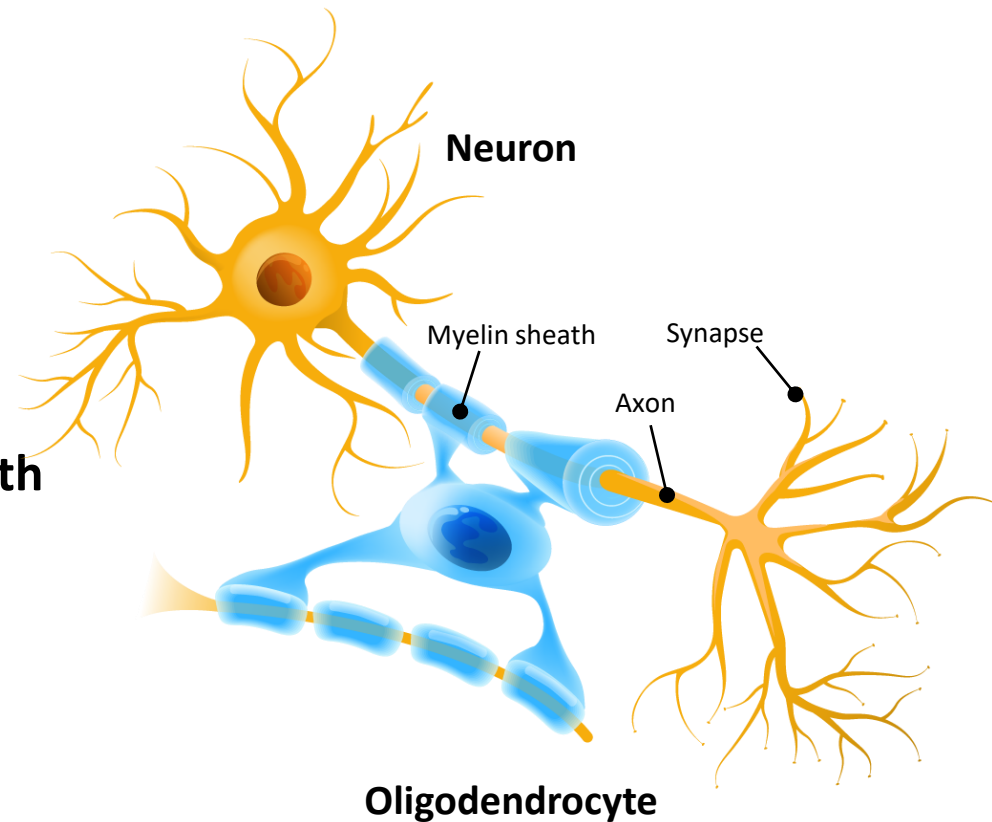
- **Higher-level injuries result in more extensive impairments**
- **Gains in motor function, particularly in the upper extremities, can provide significant benefits in self-care and lower costs of care**
- **The goal of Lineage's cell therapy is to provide additional arm, hand, and finger function, increasing independence and quality of life**



OPC1 cells for Spinal Cord Injury

Transplanting oligodendrocytes may provide additional upper extremities function (arms and fingers) and improve quality of life

- **OPC1 is comprised of OPCs (oligodendrocyte progenitor cells)**
- **OPCs are precursors to Oligodendrocytes, the myelinating cells of the central nervous system which provide insulation to nerve axons in the form of a myelin sheath**
- **Myelin is essential for proper function of neurons**
- **OPC1 cells are implanted into the spinal cord at the injury site**



OPC1 Asset Overview

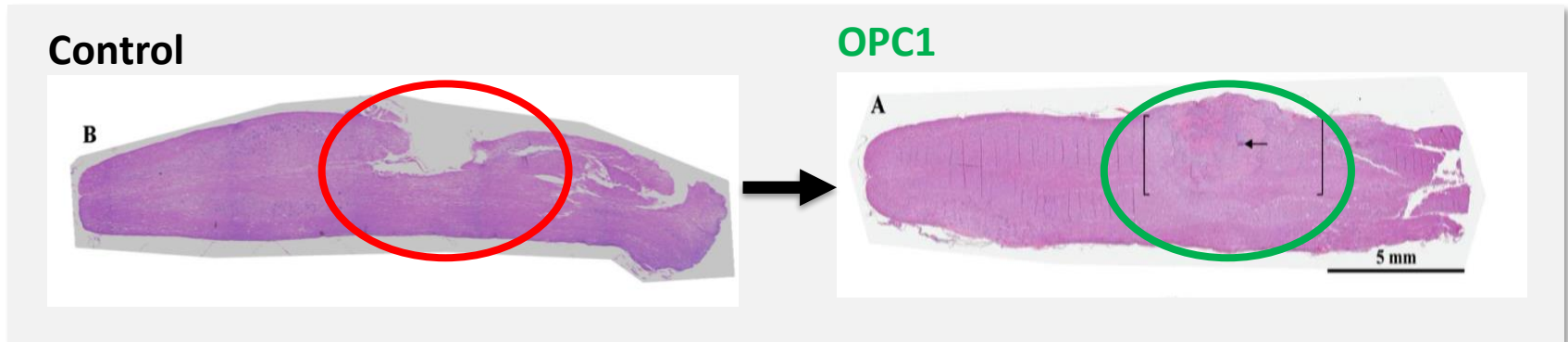
- **OPC1 utilizes targeted cell replacement (similar approach as OpRegen)**
- **OPC1 is covered by multiple issued patents**
- **OPC1 has RMAT Designation**
- **OPC1 has Orphan Drug Designation**
- **OPC1 has received >\$14M in support from CIRM (California Institute for Regenerative Medicine)**
- **OPC1 has application to other demyelinating conditions**



OPC1 Transplant Procedure

OPC1 Mechanisms of Action

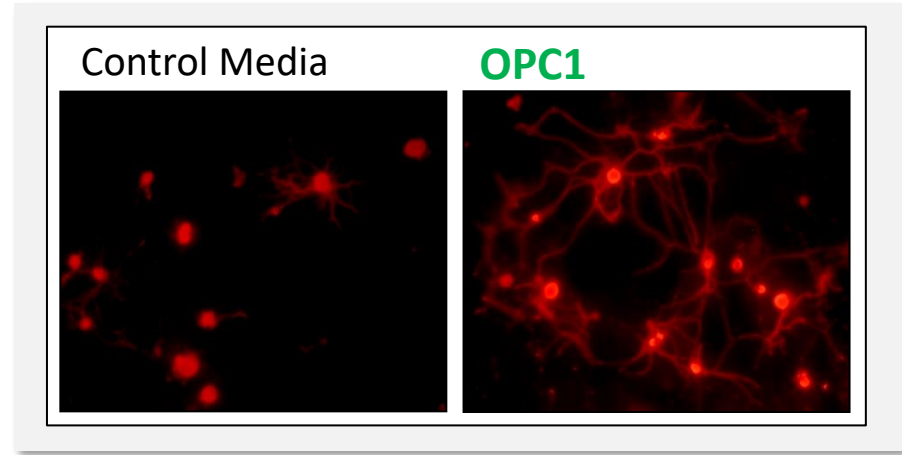
Suppression of Cavitation



Myelination of axons

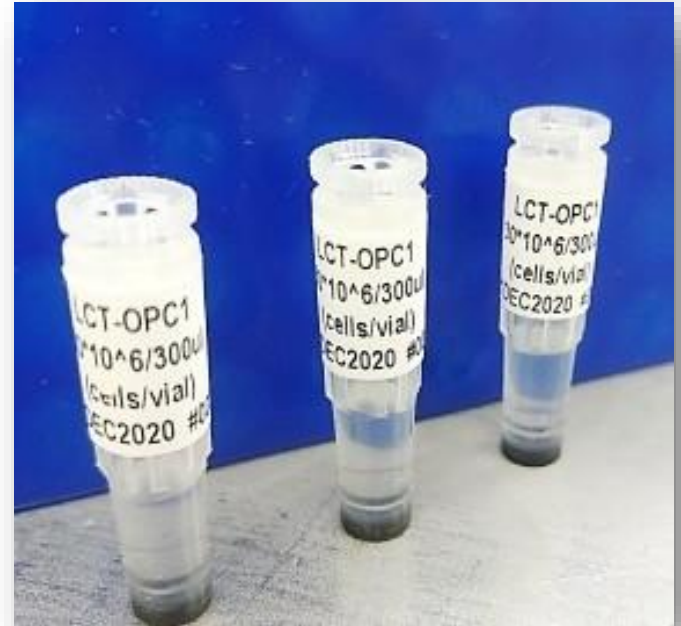


Secretion of neurotrophic factors

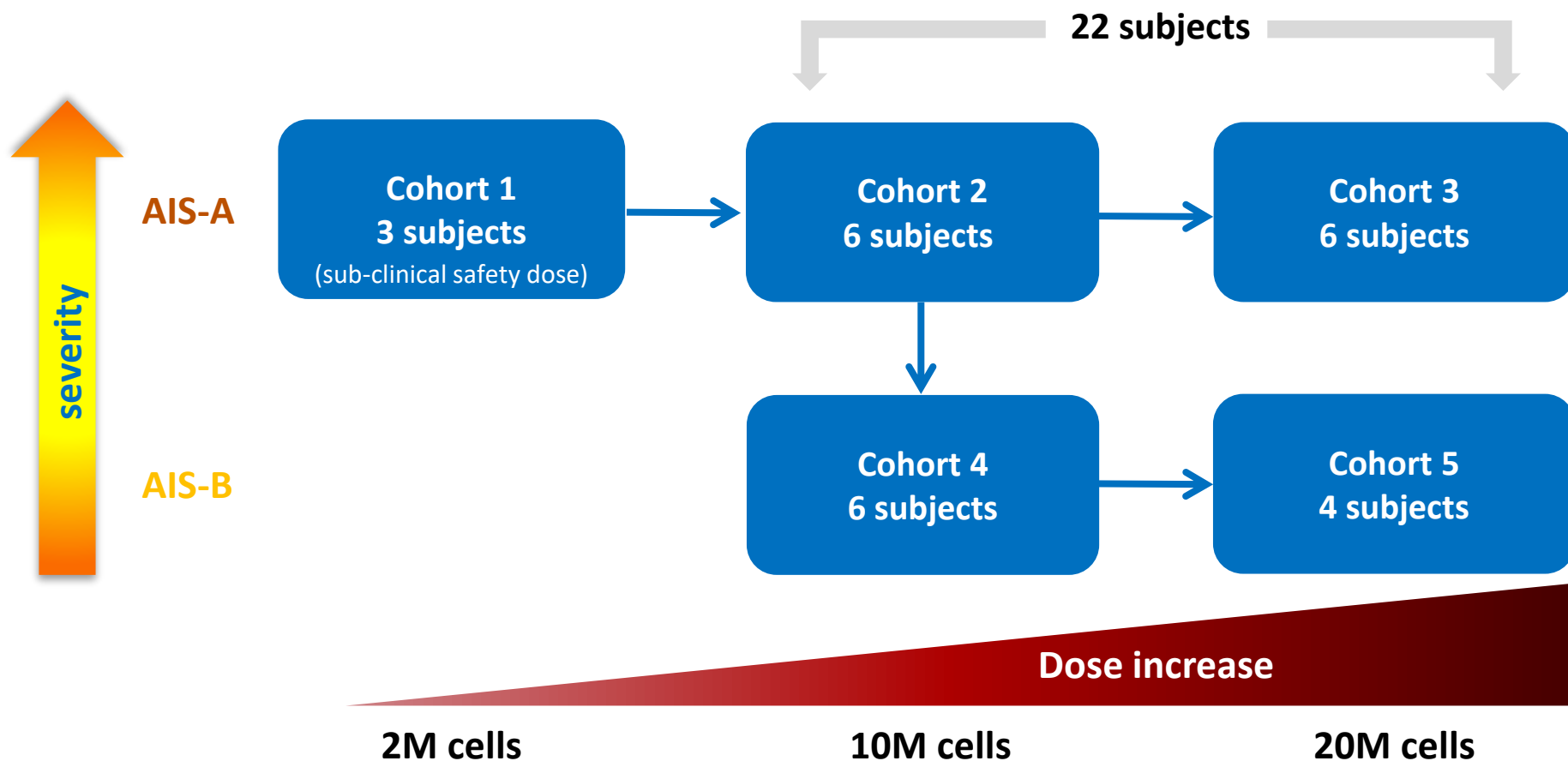


OPC1 for Spinal Cord Injury

- Lineage's OPCs are derived from an NIH-registered cell line
- The OPCs are allogeneic ("off the shelf"), and not taken from the patient
- Treatment of SCI occurs 3-6 weeks post-injury and includes short-course (60-day) immunosuppression
- The OPCs are "ready to use" in a cryopreserved thaw-and-inject formulation



SCiStar Clinical Trial Study Design



SCiStar Clinical Trial - Summary of Adverse Events

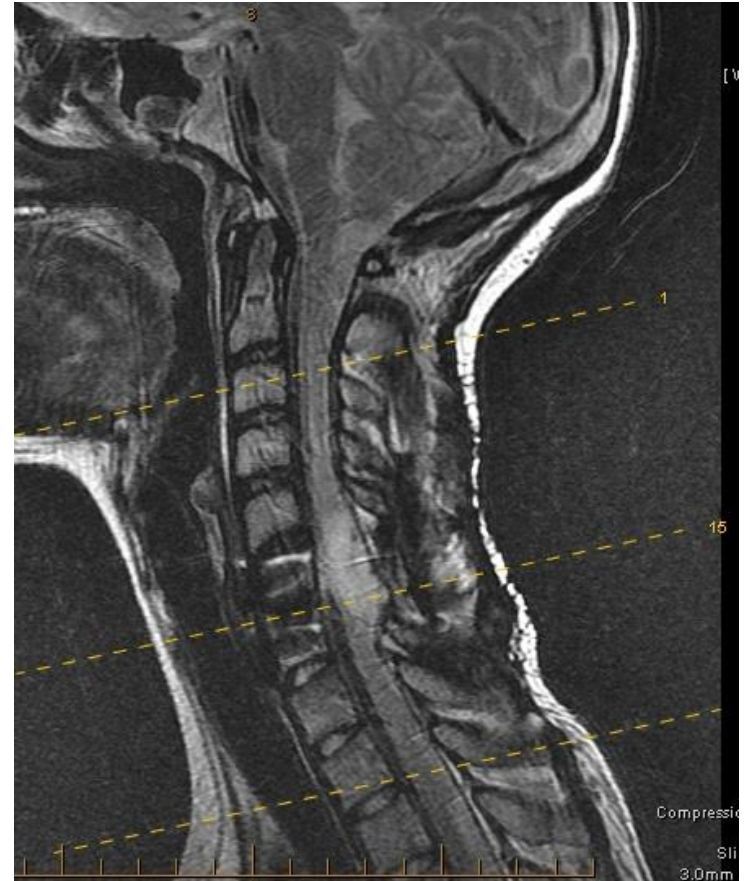
Majority of adverse events were mild to moderate in severity

All Treated Subjects (n=25)	AEs	SAEs
Total	534	29
Related to OPC1	1*	0
Related to Injection Procedure	20	1
Related to Tacrolimus	11	1

To date, there have been no serious adverse events related to the OPC1 cells
Safety data is available for 2 to 5 years on all 25 patients

12- and 24-Month MRI Scans Indicate Durable Engraftment

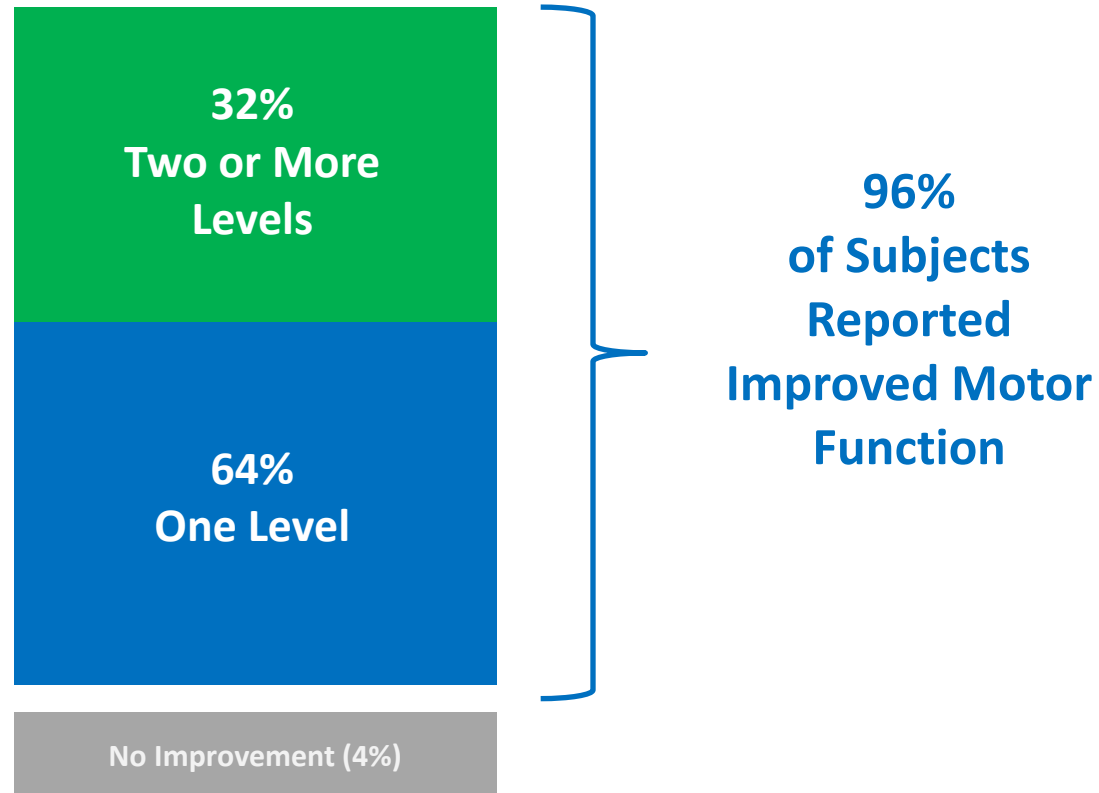
- Cystic cavitation (syringomyelia) occurs in ~80% of SCI cases
- MRI results suggest formation of a tissue matrix at the injury site, indicating that OPC1 cells have durably engrafted and helped prevent syringomyelia
- 96% (24/25) of OPC1 patients had serial MRI scans that indicated no sign of a lesion cavity at 12 months (or 24 months for 22 scans available)



Weighted sagittal MRI

SCiStar Clinical Trial - Motor Function Gains

22 Patients at 12 months



RIGHT

MOTOR KEY MUSCLES

SENSORY KEY SENSORY POINTS Light Touch (LT) Pin Prick (PP)

C2		
C3		
C4		
C5		
C6		
C7		
C8		
T1		
T2		
T3		
T4		
T5		
T6		
T7		
T8		
T9		
T10		
T11		
T12		
L1		
L2		
L3		
L4		
L5		
S1		
S2		
S3		
S4-5		
RIGHT TOTALS		
(MAXIMUM)	(50)	(56)

UER
(Upper Extremity Right)

Elbow flexors C5
Wrist extensors C6
Elbow extensors C7
Finger flexors C8
Finger abductors (little finger) T1

Comments (Non-key Muscle? Reason for NT? Pain?):

LER
(Lower Extremity Right)

Hip flexors L2
Knee extensors L3
Ankle dorsiflexors L4
Long toe extensors L5
Ankle plantar flexors S1

(VAC) Voluntary anal contraction
(Yes/No) ☐

RIGHT TOTALS
(MAXIMUM)

MOTOR SUBSCORES

UER ☐ + UEL ☐ = UEMS TOTAL ☐
MAX (25) (25) (50)

LER ☐ + LEL ☐ = LEMS TOTAL ☐
MAX (25) (25) (50)

3. NEUROLOGICAL
LEVEL OF INJURY
(NLI) ☐

NEUROLOGICAL
LEVELS
Steps 1-5 for classification
as on reverse

1. SENSORY ☐ R ☐ L
2. MOTOR ☐ R ☐ L

4. COMPLETE OR INCOMPLETE?
Incomplete = Any sensory or motor function in S4-5

5. ASIA IMPAIRMENT SCALE (AIS) ☐

(In complete injuries only)
ZONE OF PARTIAL
PRESERVATION
Most caudal level with any innervation

SENSORY ☐ R ☐ L
MOTOR ☐ R ☐ L

LEFT

MOTOR KEY MUSCLES

SENSORY KEY SENSORY POINTS Light Touch (LT) Pin Prick (PP)

C2		
C3		
C4		
C5		
C6		
C7		
C8		
T1		
T2		
T3		
T4		
T5		
T6		
T7		
T8		
T9		
T10		
T11		
T12		
L1		
L2		
L3		
L4		
L5		
S1		
S2		
S3		
S4-5		
LEFT TOTALS		
(MAXIMUM)	(50)	(56)

UEL
(Upper Extremity Left)

Elbow flexors C5
Wrist extensors C6
Elbow extensors C7
Finger flexors C8
Finger abductors (little finger) T1

MOTOR (SCORING ON REVERSE SIDE)

0 = total paralysis
1 = palpable or visible contraction
2 = active movement, gravity eliminated
3 = active movement, against gravity
4 = active movement, against some resistance
5 = active movement, against full resistance
5+ = normal corrected for pain/disuse
NT = not testable

SENSORY (SCORING ON REVERSE SIDE)

0 = absent 2 = normal
1 = altered NT = not testable

LEL
(Lower Extremity Left)

Hip flexors L2
Knee extensors L3
Ankle dorsiflexors L4
Long toe extensors L5
Ankle plantar flexors S1

(DAP) Deep anal pressure
(Yes/No) ☐

LEFT TOTALS
(MAXIMUM)

SENSORY SUBSCORES

RLT ☐ + LLT ☐ = LT TOTAL ☐
MAX (56) (56) (112)


RPP ☐ + LPP ☐ = PP TOTAL ☐
MAX (56) (56) (112)

Real-World Benefit from a 2 Motor Level Improvement


Motor level gains translate into clinically meaningful improvements in self-care and reductions in cost of care

32% had +2 Level Improvement


Function	Cervical Injury Level				
	C1-C3	C4	C5	C6	C7-C8
Bowel					
Bladder					
Bed Mobility					
Transfers					
Pressure Relief					
Eating					
Dressing					
Grooming					
Bathing					
Wheelchair					
Car transport					
Daily Home Care	24 hr attendant	18-24 hr attendant	6-12 hr assistance	4 hr housework	1 hr housework



Total Assist



Partial Assist



Independent

SCiStar Clinical Trial - Analysis of Patients with Least UEMS Recovery

C4 or cord compressions occurred in 5 of the 7 worst patient outcomes and both issues can be addressed in the next trial

Subject	UEMS Change at 12 mo.	Cord Compression After OPC1 Injection?	NLI Baseline	Baseline AIS	Cohort	Dose	Age	Injection Days Post Injury
2207	7	N	C4	B	5	20 M	62	37
2203	6	N	C6	A	3	20 M	45	31
2105	6	N	C4	A	3	10 M	19	20
2004	5	N	C6	B	4	10 M	21	25
2007	4	N	C4	B	4	10 M	55	38
2307	4	Y	C5	B	5	10 M	19	38
2303	3	Y	C6	B	4	10 M	22	35

- Two patients had cord compression after OPC1 injection (2303 and 2307 at Day 30 and Day 7)
- Patients 2105, 2207, 2007 had a C4 (highest/most severe) injury level at baseline
- Patient 2105 also had a hematoma in the spinal cord at baseline & a failed graft

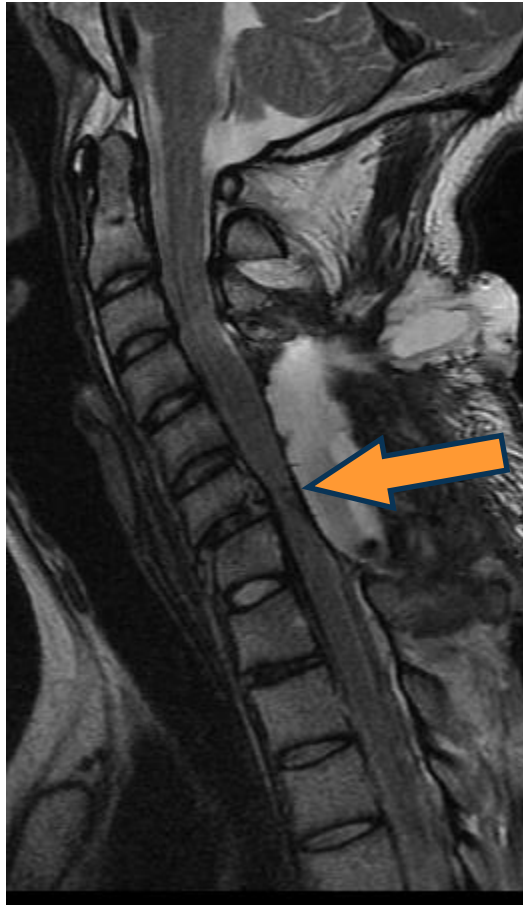
SCiStar Clinical Trial – Cord Compression

Subject 2303 (Cohort 4): Cord Compression at Day 30

Baseline



Day 30



Day 365



SCiStar Clinical Trial – Takeaways

- **Excellent overall safety profile**
- **96% durable engraftment confirmed via MRI**
- **MRI scans through 24 months show no evidence of adverse changes**
- **No subjects had a decline in motor function from Year 1 to Year 2**
- **95% of patients exhibited motor recovery in the upper extremities at 12 months (requires at least 1 motor level gain on at least 1 side)**
- **Significant motor improvements achieved in five of six Cohort 2 subjects**
- **The two worst performing subjects had spinal cord compression (can be addressed in next trial)**

New Spinal Cord Delivery System – Clinical Testing in 2022

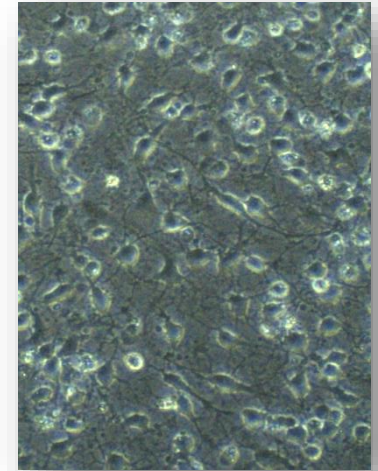
- **Better stability and control**
 - Eliminates motion between platform/XYZ manipulator/needle
- **Enhanced usability and safety: no cessation of ventilation**
 - Attaches directly to the patient, compatible with breathing motion
- **Improved user experience**
 - Smaller and fewer components
 - Single hand operation
- **Animal testing ongoing**
- **Device trial in sub-acute and chronic patients expected to begin 1H 2022**



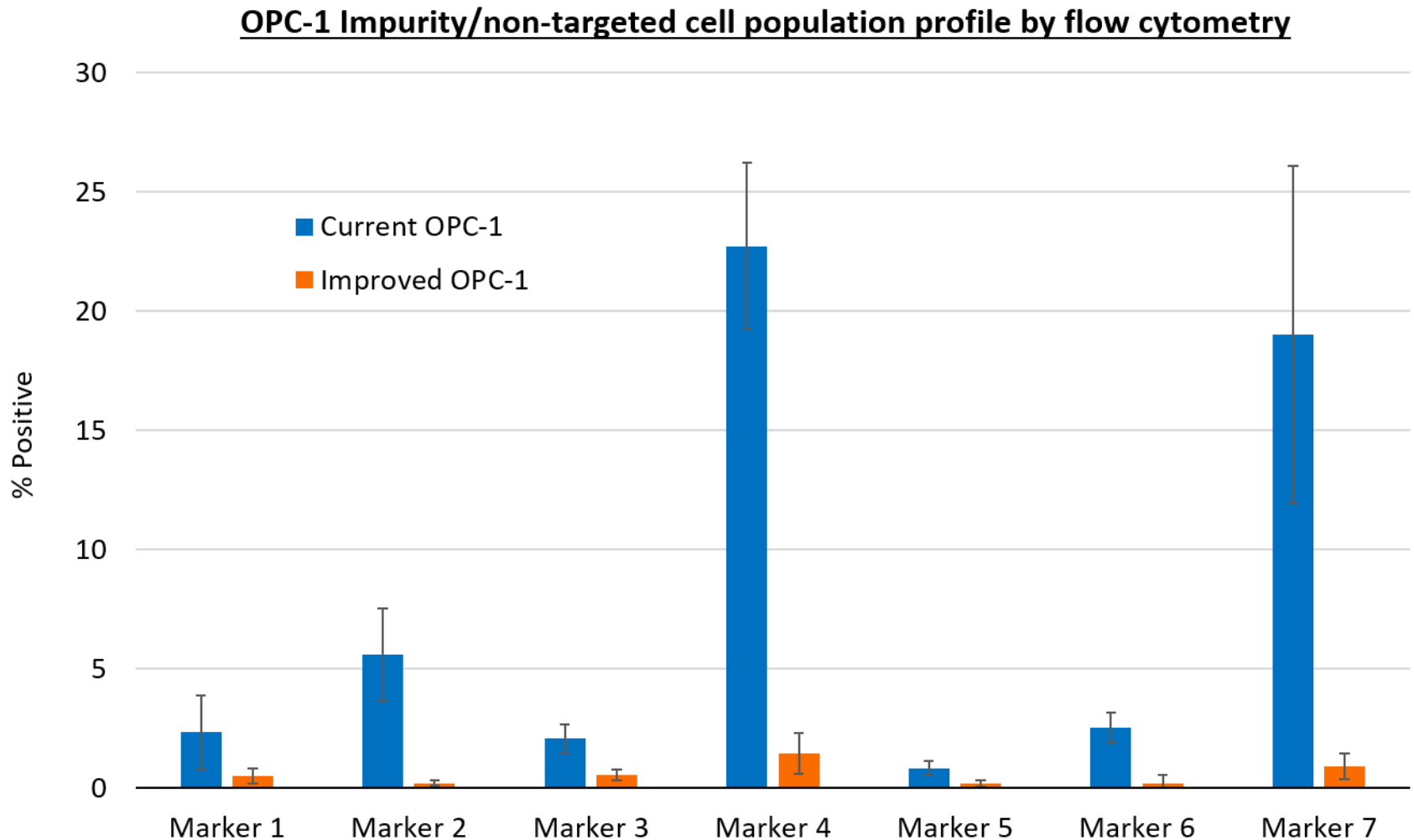
OPC1 Manufacturing Improvements Following FIM Study

Lineage has made major improvements in production and quality of OPC1

- A new ready-to-inject formulation was developed
- Elimination of dose preparation achieved
- 10- to 20-fold increase in production scale
- Significant reduction in impurities
- No reduction in functional activity
- 12 new analytical and functional methods developed
- Elimination of all animal-based production reagents
- Patent applications on the process and product, if allowed, will have expiration dates of 2039 and 2040



OPC1 Manufacturing Improvements: Lower Impurities



OPC1 Program – Key Takeaways

- **95% of patients exhibited UE motor recovery at 12 months (at least 1 motor level on 1 side)**
- **Syringomyelia events reduced to 4% (~80% expected)**
- **96% durable engraftment**
- **Excellent overall safety profile (5 years and continues)**
- **Can enrich for better-performing population in next trial**
- **Greatly improved purity and production scale of clinical material**
- **Superior delivery device entering clinical testing (safety trial can include chronic patients)**
- **Planning underway for a randomized, controlled clinical trial**



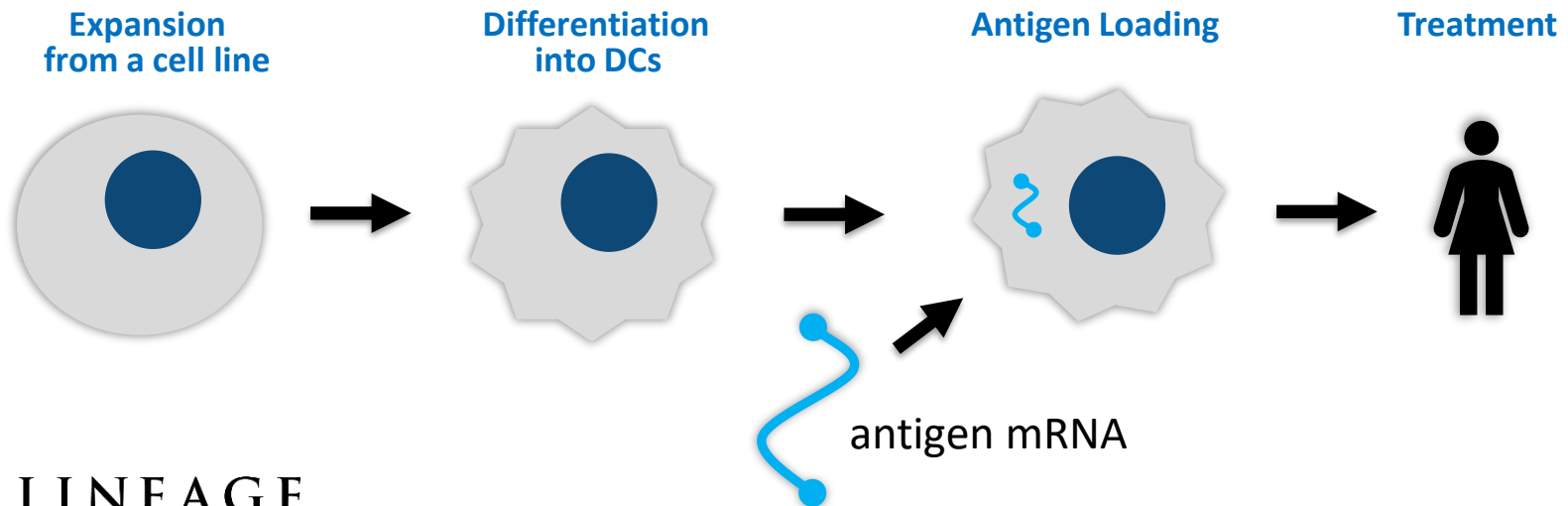
Immunotherapy is "poised to
revolutionize treatment for all
types of cancer"

Source: cancerresearch.org

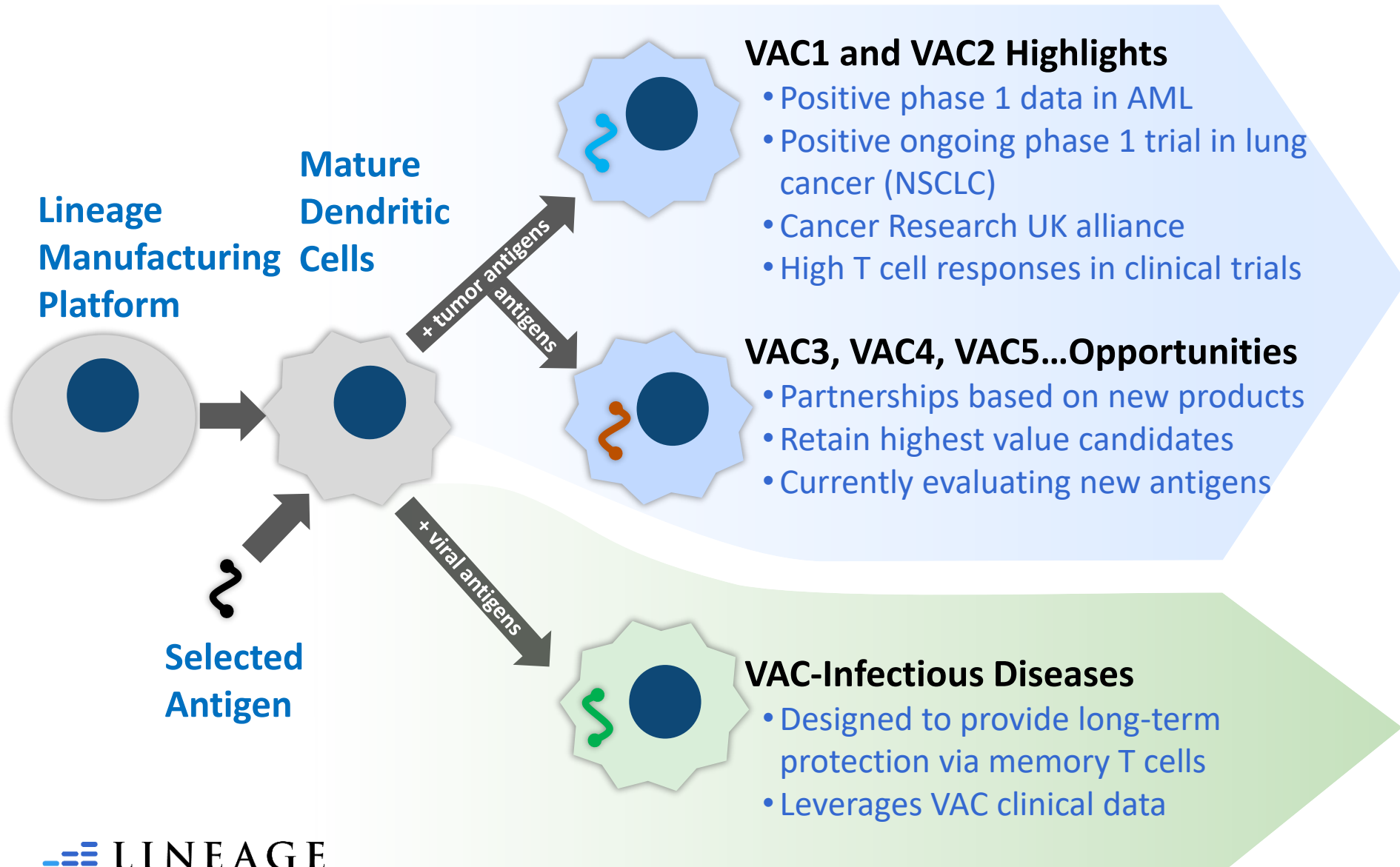
VAC: A Cell Therapy Platform for Cancer and Infectious Diseases

The VAC Platform: On demand cell therapy for cancer

- The VAC platform consists of large-scale, allogeneic (“off the shelf”) production of mature dendritic cells (DCs). No production delay between diagnosis and treatment, as with autologous or patient-specific therapies.
- DCs are manufactured and loaded with either a **tumor antigen** (to treat cancer) or a **viral antigen** (as a vaccine for infectious diseases)
- Antigen presentation to the patient’s T cells creates a *targeted* and robust immune response (up to 3%), aiding tumor cell destruction or pathogen clearance



VAC Development – A Platform for Multiple Product Candidates



VAC2 - Phase 1 Clinical Trial

Study is Ongoing, Being Conducted by Cancer Research UK

- **Enrollment ongoing in NSCLC (7 patients treated to date)**
- **VAC2 has been well tolerated in all patients; no treatment delays due to adverse events attributable to VAC2**
- **Encouraging Phase 1 data**
 - Induction of durable, antigen-specific linked T cell help
 - T cell induction 40-400 times higher than with DNA/RNA vaccines
 - Well-tolerated: Injection site reactions, flu-like symptoms (all grade 1 or 2)
 - Adverse events suggest induction of an adaptive immune response
- **Safety and mechanistic (immunogenicity) data from CRUK-led trial supports advancing VAC2 internally**
 - Planning to submit IND for next trial upon completion of ongoing CRUK study

VAC Platform Next Steps

Upcoming Events and Key Considerations:

- **Complete dosing in ongoing clinical trial (1 patient remaining)**
- **Introduce improvements to the manufacturing process**
- **Design new products (i.e. VAC3, 4, 5, 6...) with newly discovered antigens**
- **Identify potential partnership and grant opportunities for more rapid expansion of the VAC platform**
 - First strategic alliance (with Immunomic Therapeutics) announced April 2021

Our Goal is to Provide Life-Changing Cell Therapies to Patients

Lineage Cell Therapeutics: Bringing the Promises of Cell Therapy into Clinical Reality



Clinical-stage programs with billion-dollar potential and partnership opportunities



World class in-house process development and GMP manufacturing



One of the largest patent portfolios in cell therapy



Multiple validating corporate partnerships



Leader in the field of regenerative medicine

The Patients Are Our Inspiration.

View their stories at lineagecell.com/media/#patients

OPC1 SCiStar Study Participants

CIRM
CALIFORNIA / STEM CELL AGENCY



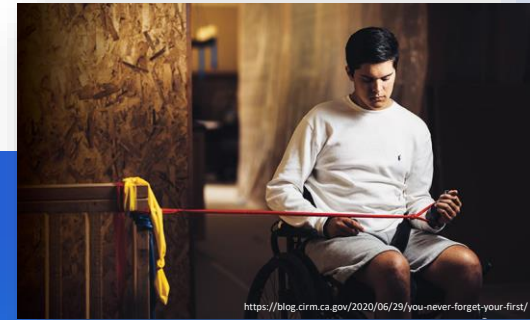
Lucas Lindner

“There’s no reason to not look forward in the same way now that I had before all of this happened. I’m looking forward to driving again... it’s a bright future.”



Kris Boesen

“I couldn’t drink, couldn’t feed myself, couldn’t text or pretty much do anything, I was basically just existing. I wasn’t living my life, I was existing.”



Jake Javier

“Even though it’s a completely different perspective, I can still lead that way. I can just try to be the best I can and to persevere the best I can.”

Diablo Magazine, Feb. 16, 2017

The Millions Worldwide Suffering from Dry AMD Vision Loss

“Macular degeneration is a very frustrating condition which can greatly affect your day-to-day life.”

- Macular Society



Courtesy of CIRM, American Macular Degeneration Foundation, and Macular Society