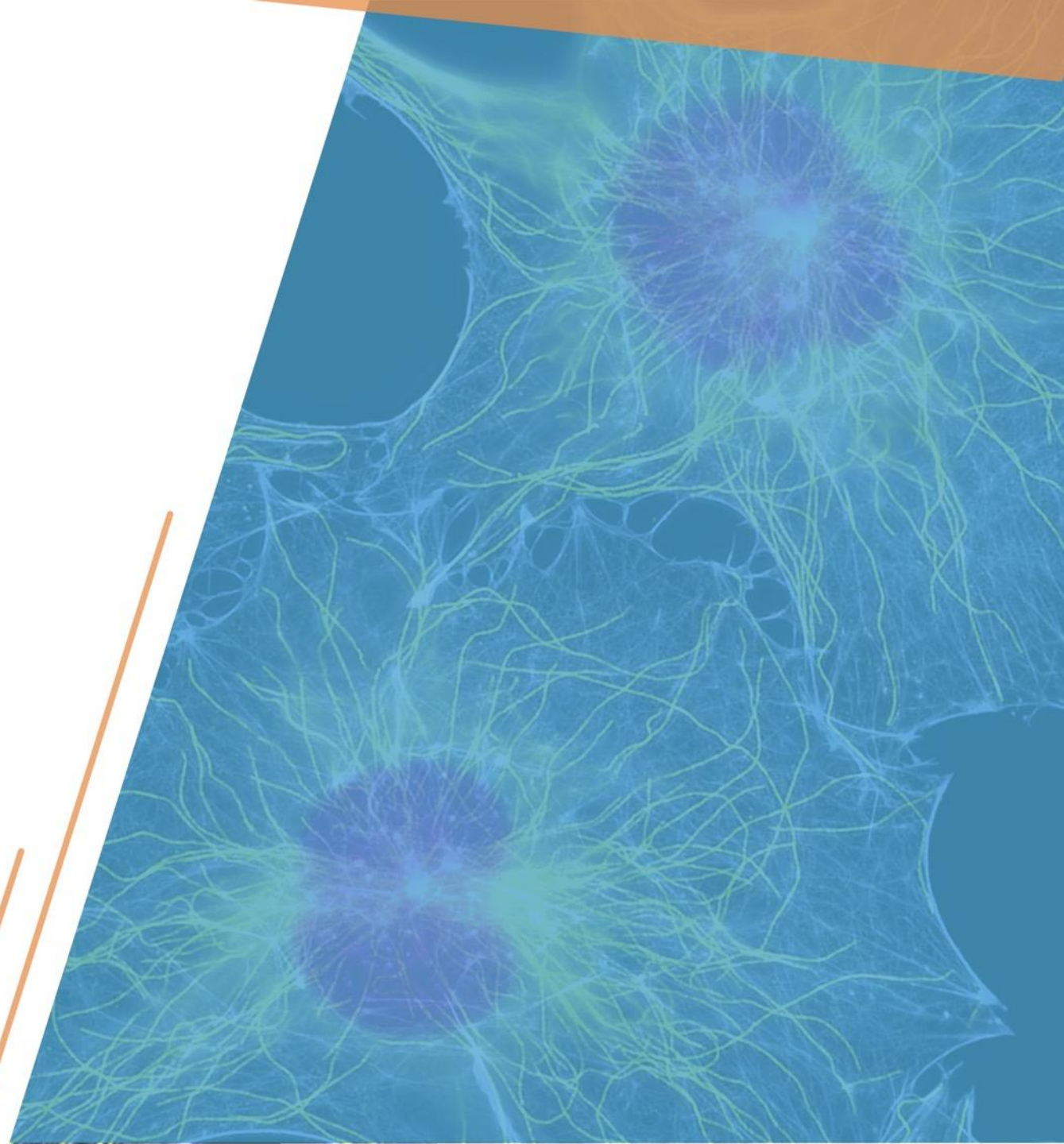
FibroBiologics
NDR 2025

Pete O'Heeron
Founder/CEO

Hamid Khoja, Ph.D.
Chief Scientific Officer

Robert Hoffman
Chief Financial Officer



Forward-Looking Statements

This presentation contains “forward-looking statements” under applicable securities laws. Forward-looking statements include, but are not limited to, information concerning (i) plans for, and the anticipated timing of the initiation of and results from, FibroBiologics, Inc.’s (“FBLG”) current and future preclinical studies, clinical trials and research and development programs; (ii) potential clinical benefits of fibroblasts and fibroblast-derived materials; (iii) potential indications for FBLG’s programs; (iv) estimates of market size; and (v) plans for, and the timing of, regulatory filings, and expectations regarding the timing of regulatory approvals. Forward-looking statements are provided to allow individuals the opportunity to understand management’s beliefs and opinions in respect of the future so that they may use such beliefs and opinions as one factor in evaluating an investment.

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Company Leadership

Pete O'Heeron, MSHA

(Founder, Chairman/CEO)

FibroGenesis · NeoSurg · CHRISTUS Health

- Leads an operational investment group which identifies early-stage opportunities in the medical field with strong intellectual property positions.
- One of the leading Biotech Inventors of his generation with 350+ patents.
- 20+ years of medical product development experience.
- Completed the sale of NeoSurg Technologies to CooperSurgical in 2005.
- Graduated from Texas State University with a BS in Healthcare Administration and a minor in Business Administration.
- Received an MS in Healthcare Administration from the University of Houston and has completed Executive Management Certification in Mergers and Acquisition from University of Chicago.

Hamid Khoja, Ph.D.

(CSO)

Covaris · Lilly · CHIRON

- 20+ years of clinical and product development.
- Research positions held at Chiron, Novartis Vaccines, and Eli Lilly.
- Finalized sequencing of the S. pneumoniae genome using sequencing strategies.
- Developed screening method identification of novel G-protein Coupled Seven Transmembrane Receptors.
- Awarded 6+ patents.
- Authored 28+ peer reviewed papers.
- Stanford University, University of Southern California (USC), Boston University.
- USC - BS Molecular Biology.
- Boston University – Ph.D. Molecular Biology.

Robert Hoffman

(CFO - Interim)

KINTARA Therapeutics · ASLAN Pharmaceuticals · antibe Therapeutics

- 20+ years of corporate finance, M&A, and capital market transactions.
- Board of Directors TuHURA Biosciences, ASLAN Pharmaceuticals and FibroBiologics.
- Served as a Director and President of the San Diego Chapter of Financial Executives International.
- Advisor to Financial Accounting Standard BOARD (FASB).
- B.B.A from St. Bonaventure University.

Board of Directors

Pete O'Heeron, MSHA (Chairman/CEO)

FibroGenesis · NeoSurg · CHRISTUS Health

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NuVasive · DePuy Synthes

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Takeda · Harvard Medical School · Keck School of Medicine of USC

Richard C. Cilento, Jr., MBA

GlycosBio · FUELQUEST

Robert E. Hoffman

KINTARA Therapeutics · ASLAN Pharmaceuticals · antibe Therapeutics

Stacy Coen, MBA

immunogen · editas medicine · Sanofi Genzyme

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Bernard Sanberg Memorial Award for Brain Repair
Director *of Adelson Program in Neural Repair and Rehabilitation*

UCLA Broad Stem Cell Research Center

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Professor, *Department of Stem Cell Transplantation and Cellular Therapy, Division of Cancer Medicine*

The University of Texas MD Anderson Cancer Center

Kate Rubins, Ph.D.

Astronaut with 300 Hours on International Space Station
First Person to Sequence DNA in Space
Stanford University
Microbiologist
Whitehead Institute
Salk Institute

NASA

FibroBiologics' Highlights

Clinical Stage Pipeline – Plan to initiate a Phase 1/2 clinical trial in 2025 in diabetic foot ulcers and have Phase 1/2-IND ready asset for Multiple Sclerosis (CYMS101) and Phase 1-ready asset for Degenerative Disc Disease (CybroCell™), all utilizing the Company's fibroblast technology platform

Strong IP Platform – Fibroblast platform technology with 240+ issued/pending patents with potential to address multiple therapeutic areas

Experienced Management Team – 60+ years of collective management expertise

Near-Term Outcomes – Company expects to have drug product for clinical trials early 2025, and to initiate a twelve-week Phase 1/2 clinical trial in Australia for treatment of diabetic foot ulcers in 2025.

Current Market Dynamic

No chemical compound has cured[1] a chronic disease[2].

We believe cures will come from cell therapy, gene therapy, and immunotherapy.

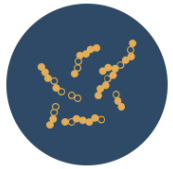
We believe it will take a positive biologic process to cure a biologic defect.

While 30+ companies share some form of ownership for stem cells, FibroBiologics has an **extensive patent portfolio (240+ issued/pending)** that covers a wide range of clinical applications of **fibroblasts in chronic disease treatment.**

[1] https://my.clevelandclinic.org/health/articles/24434-cure.
[2] "Chronic diseases are defined broadly as conditions that last 1 year or more and require ongoing medical attention or limit activities of daily living or both," www.cdc.gov/chronicdisease/about/index.htm.

Fibroblast: A Practical and Economical Alternative to MSCs for Chronic Diseases

Very similar to MSCs, but easier to source, culture and manufacture



Differentiation into various cell types including mesenchymal stem cells (MSCs).

Potent anti-inflammatory immune modulator by secretion of cytokines including IL-1, IL-6, IL-8, MCP-1, CCL-2 and prostaglandins.

Stem cell recruitment and maintaining stem cell niches in the heart, lung, liver, kidney, skin, intestines.

More prevalent. Outnumber stem cells 5,000-10,000 : 1

Universal donor. No adverse events from allogeneic fibroblasts reported in our human trials.

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Why Fibroblasts?

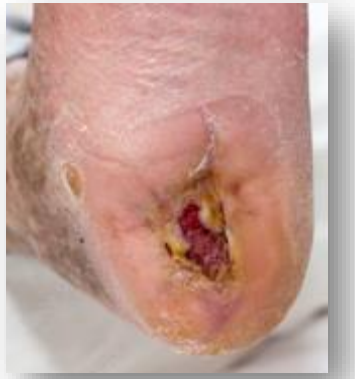
Stem Cells vs. Fibroblasts

Characteristics	Stem Cells	Fibroblasts
Pluripotency or multipotency	✓	✓
Non-Invasive or minimally invasive source	✗	✓
Immune modulation capability	✓	✓
Prevalence in body	✗	✓
Immune privilege	✓	✓
Ease of cell culturing and maintenance	✗	✓
Ease of manufacturing as a cell therapy product	✗	✓
Low cost of manufacturing	✗	✓

Platform Technology: Candidate Pipeline and Early-Stage Research

Product Candidate Pipeline

Diabetic Foot Ulcer

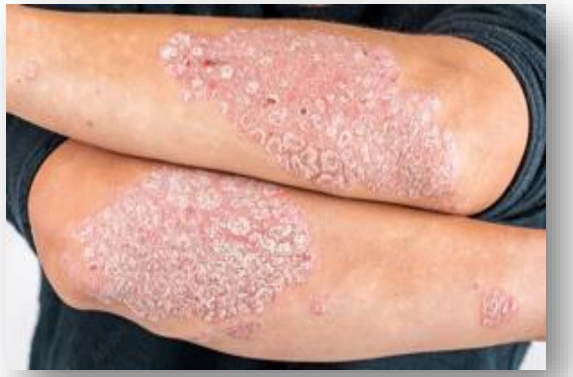


$17B Global Market Size

Multiple Sclerosis

$24B Global Market Size

Psoriasis



$29B Global Market Size

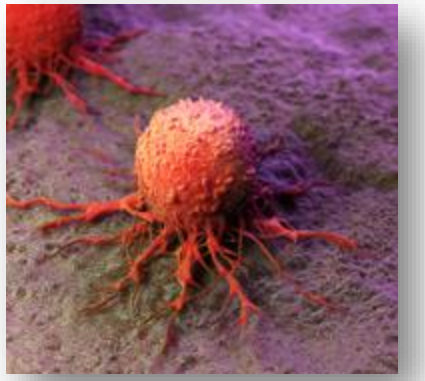
Degenerative Disc Disease

$26B Global Market Size

Early-Stage Research

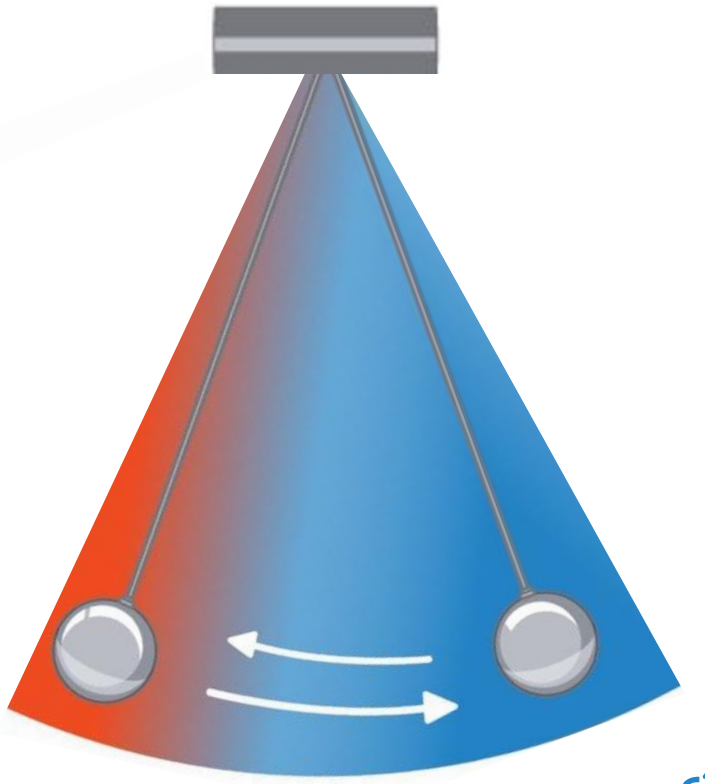
Thymus Regeneration

Cancer



Pancreatic Organoid

Healthy Immune Systems Status



Inflammation

Chronic Inflammation

Autoimmune, Cardiovascular, Hepatic, GI & Renal Diseases

Homeostasis (Normal, Healthy)

Chronic Inflammation and Chronic Diseases Go Hand-in-Hand

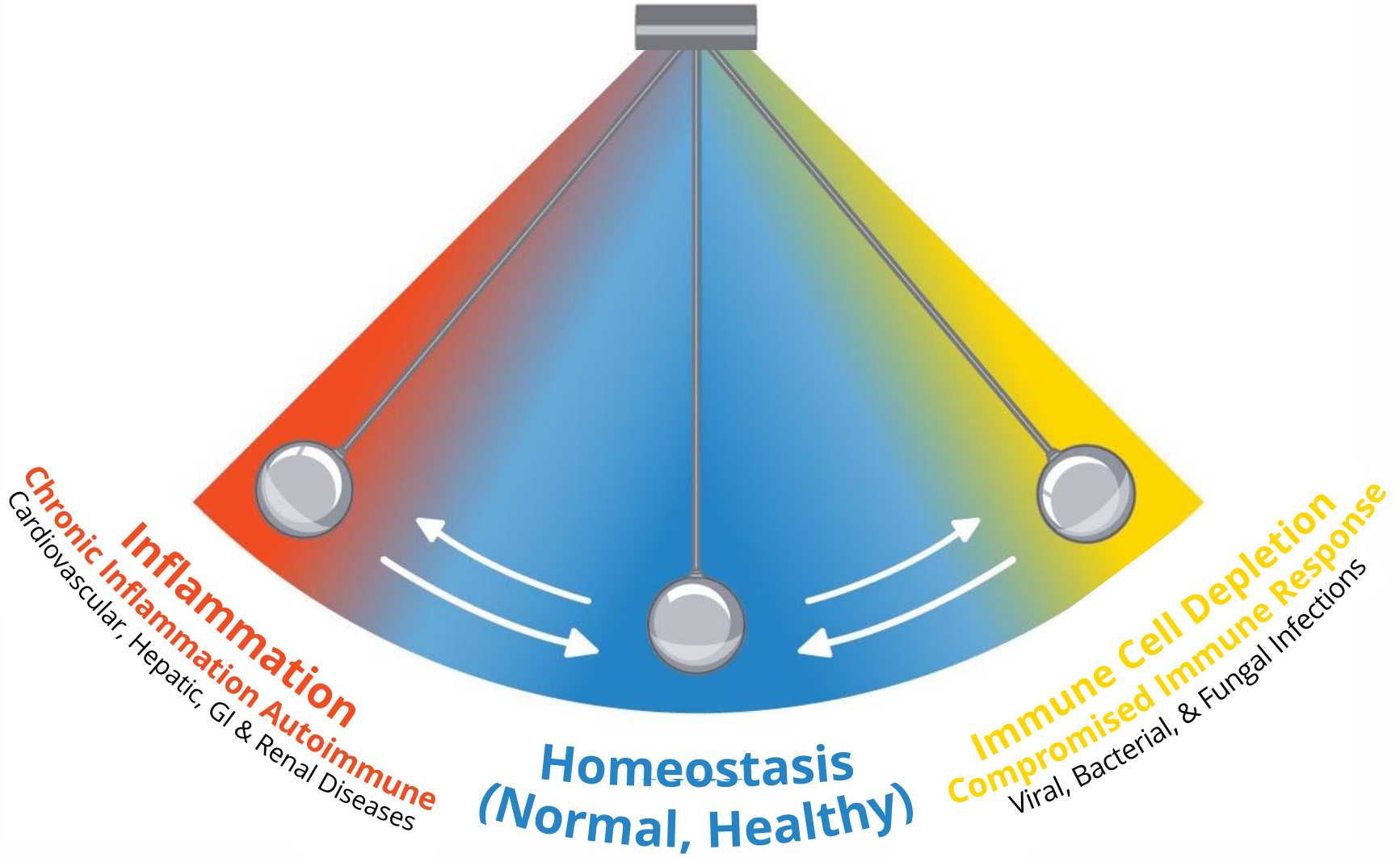
Immune System Stalled in the Inflammatory State

- In 2021 74% of all deaths (43 million) were attributed to chronic inflammatory diseases.
- Globally, one in three adults suffer from multiple chronic inflammatory diseases.
- 129 million people (35%) in the US have at least one chronic disease, and 42% two or more.
- More than 35% of people in Europe reported chronic conditions in 2023
- The estimated cost of chronic disease is expected to reach $47 trillion worldwide by 2030

- Global Burden of Disease Collaborative Network, Global Burden of Disease Study 2021
- Benavidez GA, et al., Chronic Disease Prevalence in the US: Sociodemographic and Geographic Variations by Zip Code Tabulation Area. Prev Chronic Dis 2024
- Furman, D., Campisi, J., Verdin, E. *et al.* Chronic inflammation in the etiology of disease across the life span. *Nat Med* 25
- Key figures on European living conditions – 2023 edition https://ec.europa.eu/eurostat/web/products-eurostat-news/w/wdn-20231020-1

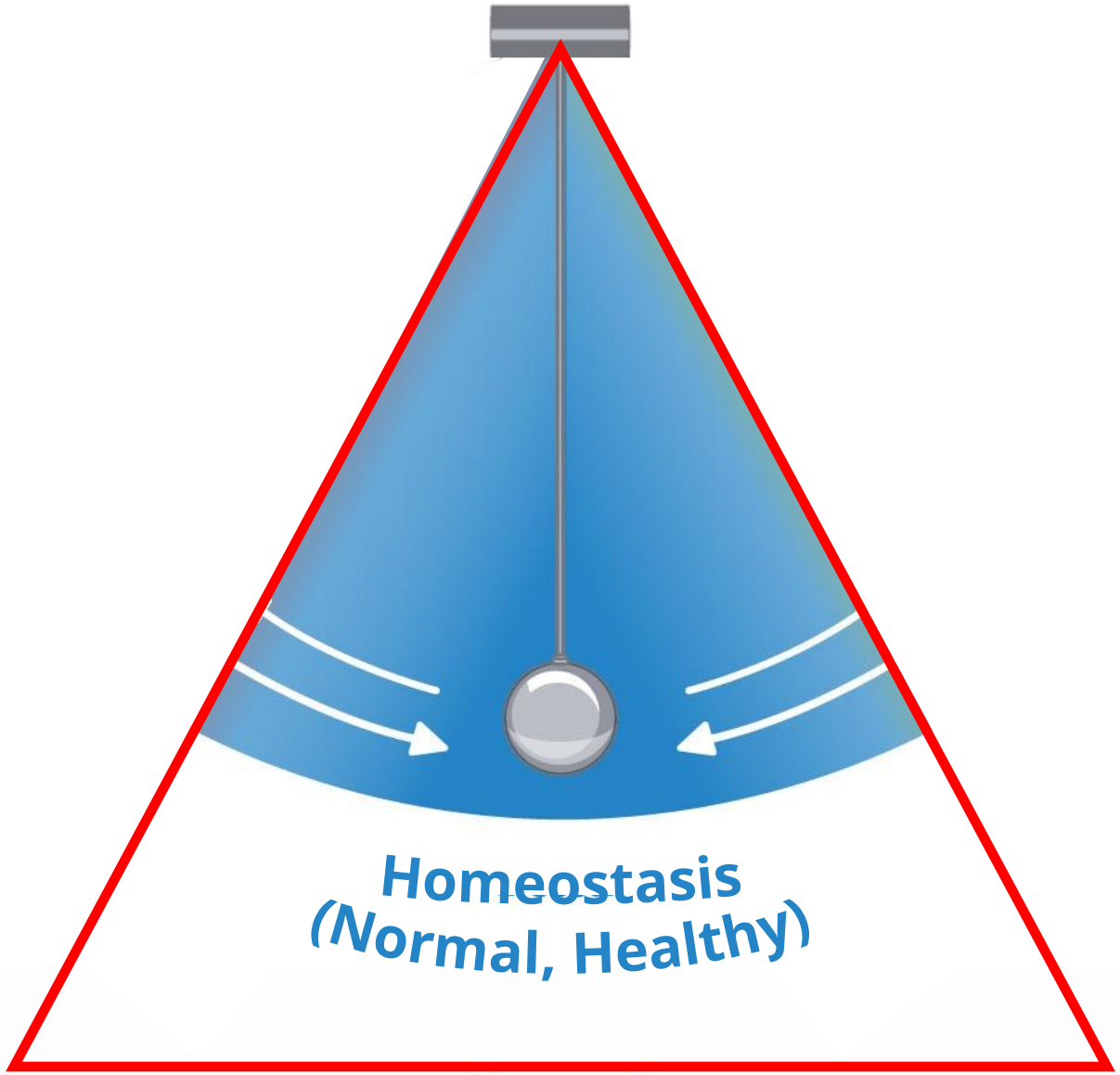
With the exception of the GLP-1 receptor agonists, all the rest are potent immune modulators

Current Therapeutics Dilemma: Over-Stimulate, or Suppress Immune System



Aim of FibroBiologics Therapeutic Candidates

Aim of FibroBiologics Candidates : Achieve and maintain Immune Homeostasis



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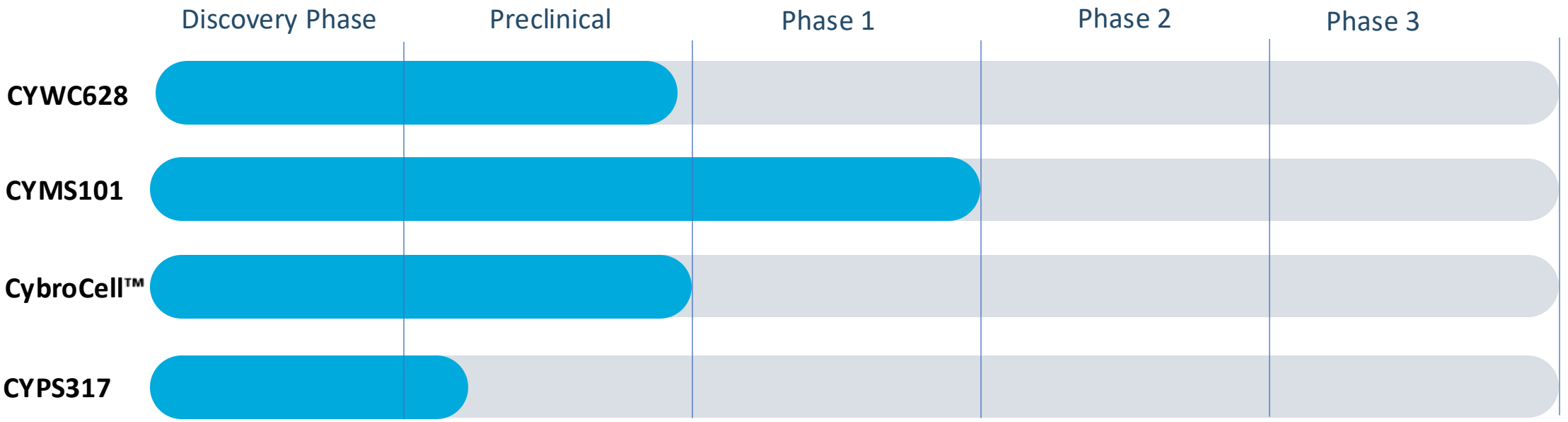
Fibroblast-based Product Candidate for the Potential Treatment of Three Chronic Diseases

Our Product Candidate Pipeline



CYWC628

Wound Healing

- Accelerate wound healing
- Recruit stem cells for tissue remodeling
- Potential use in DFUs, VLUs, burn, etc.

CYMS101

Multiple Sclerosis

- Stimulates Remyelination
- Stimulates Endogenous Neural Stem Cells

CybroCell™

Degenerative Disc Disease

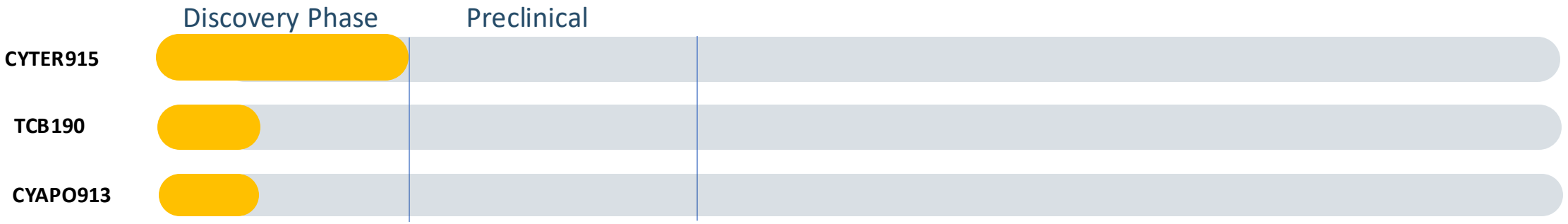
- FDA IND Clearance

CYPS317

Psoriasis

- Reduction of clinical score
- Immune modulation to reduce inflammation

Discovery Phase Projects



CYTER915

Thymic Involution Reversal

- Restore thymus function
- Suppress impact of aging on the immune system

TBC190

Cancer Immunotherapy

- T cell Expansion
- Stressed Fibroblasts for Dendritic Cell maturation

CYAPO317

Diabetes

- Insulin producing artificial pancreatic organoid
- Immune resistance

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Product Candidate CYWC628

Wound Healing for Diabetic Foot Ulcers

(wounds stuck in the inflammation phase)

Diabetic Foot Ulcer (DFU) Epidemiology

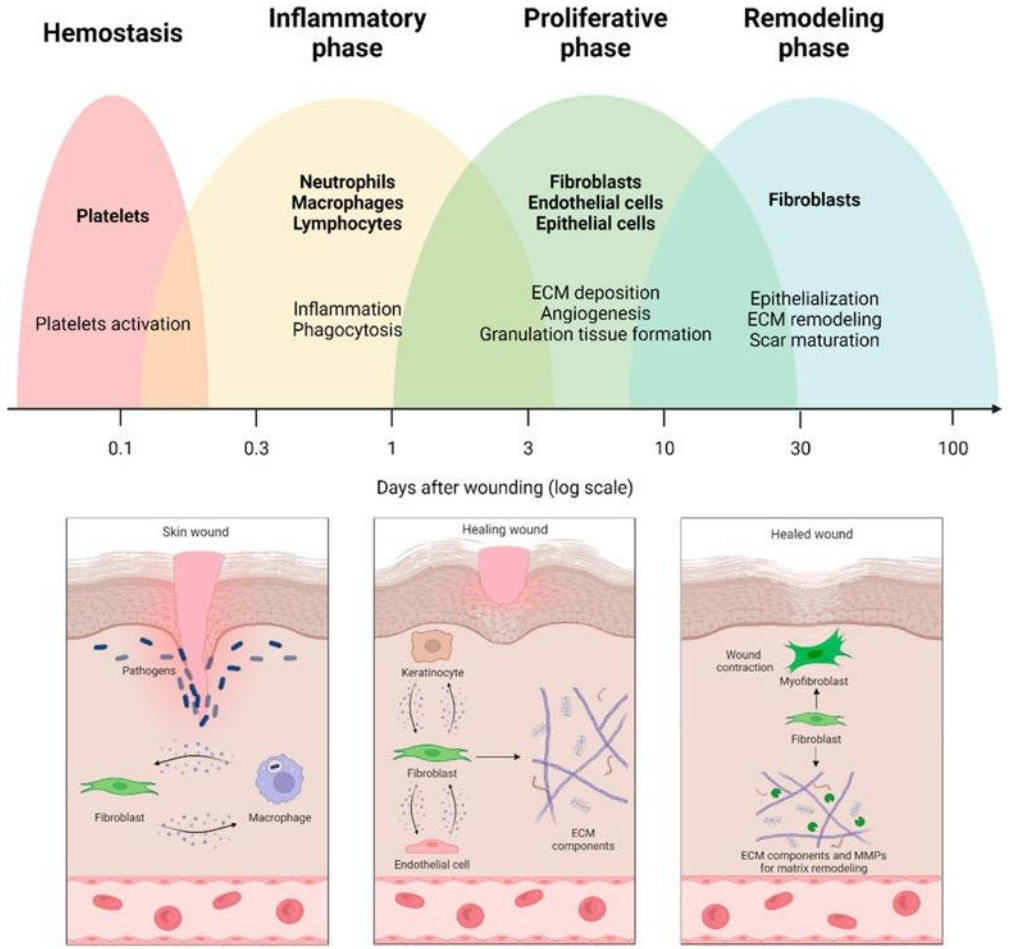
- 6.3% of Adults with diabetes (33 million) will develop DFU:
  - 20% will require lower extremity amputation.
  - 10% will die within the first year of their first DFU.
  - 40% recurrence rate within the first year.
  - 70% recurrence rate within 3 years.
- ~60% infection rate
- Increase risk of mortality by 50-68%
- **Wounds stuck in the inflammation phase of wound healing**

McDermott K, Fang M, Boulton AJM, Selvin E, Hicks CW. Etiology, Epidemiology, and Disparities in the Burden of Diabetic Foot Ulcers. Diabetes Care. 2023
Jiang et al. Current status and progress in research on dressing management for diabetic foot ulcer. Front Endocrinol (Lausanne). 2023

Role of Fibroblasts in Wound Healing

Fibroblasts play critical roles in every stage of wound healing

- Hemostasis
  - Injury induced platelet degranulation cytokine release
  - recruitment and activation of fibroblasts due to increased level of IL-1, IL-6, IL-12, TNF-α, and iONS
- Inflammation
  - Recruitment of immune cells through excretion of IL-6, IL-12, TNF-α, IFN-γ, CXCL1, CX3CL1, and CCL2
- Proliferation
  - Contribute to angiogenesis and tissue granulation by secreting VEGF, FGF, angiopoetin 1, and thrombospondin.
  - Produce MMPs to breakdown fibrin.
  - Create new extracellular matrix and collagen matrix
  - Enable migration of other cells associated with wound healing for angiogenesis, and epithelialization
- Remodeling
  - contracting the wound by differentiation into myofibroblasts
  - Excrete more complex ECM proteins
  - Control scarring

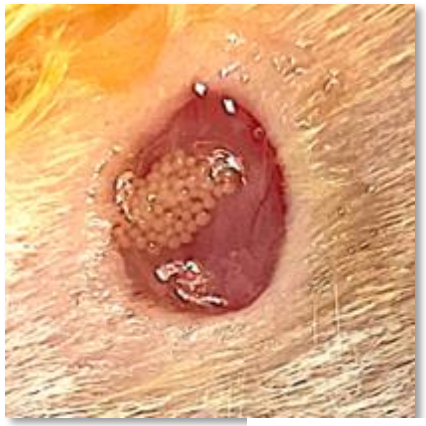


Cialdai, Francesca et al. "Role of fibroblasts in wound healing and tissue remodeling on Earth and in space." *Frontiers in bioengineering and biotechnology* vol. 10 958381. 4 Oct. 2022

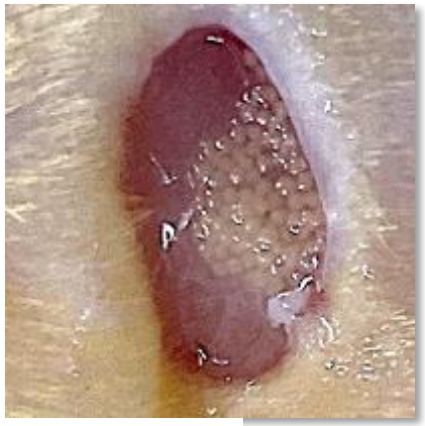
Spheroids Implantation and Migration on Wounds

Fibroblast Spheroids Implantation, Migration, and Proliferation On Wound Surface

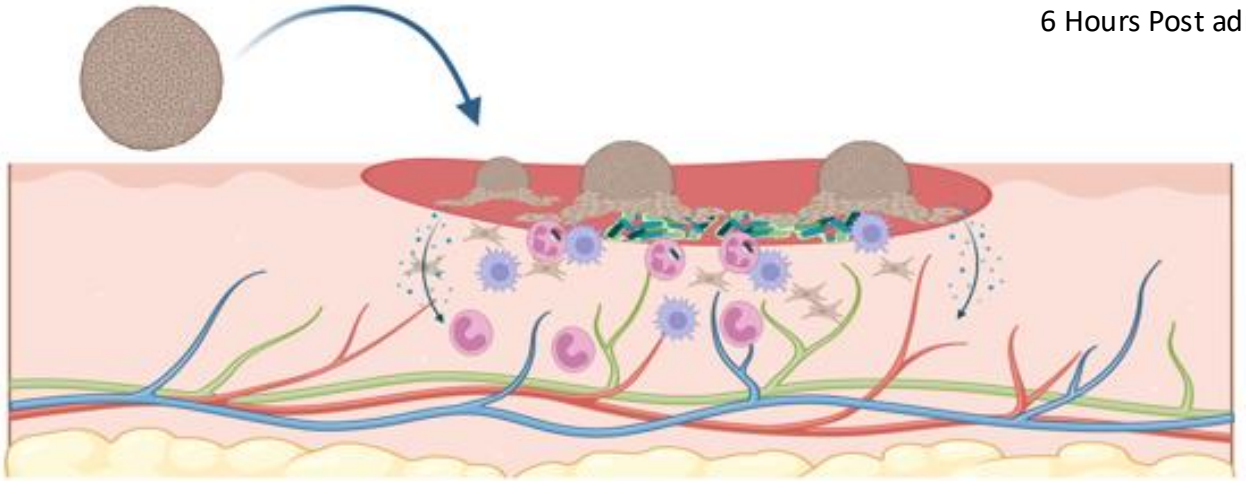
Implantation of spheroids on wound surface



Migration on cells on wound surface

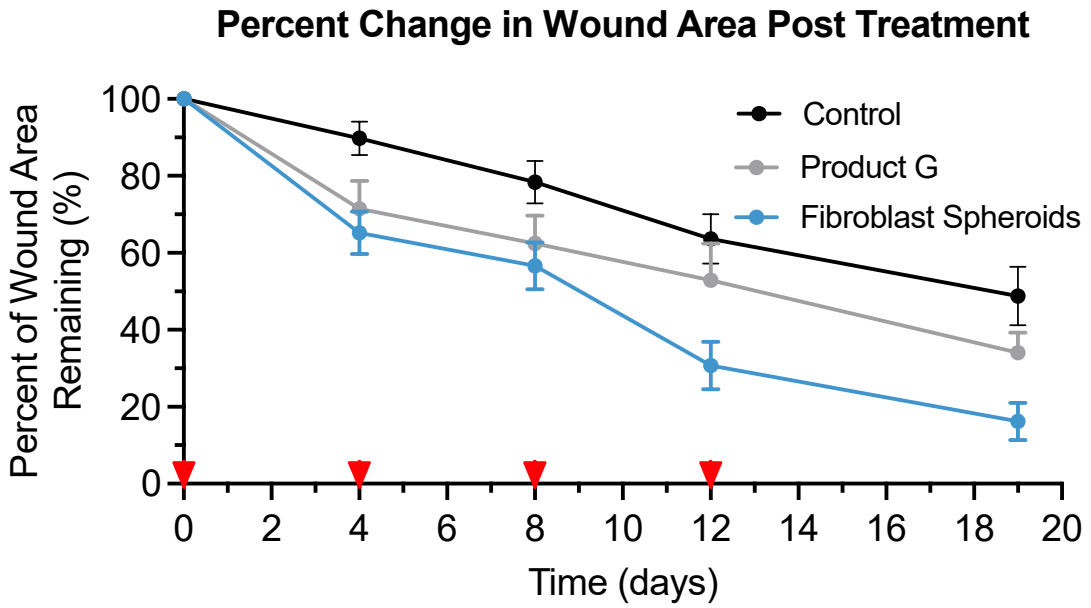


6 Hours Post administration



CYWC628 Significantly Improved Wound Closure Rate

Multiple Administration Comparison to FDA approved Grafix ™ and Control



Multiple administration of Grafix ™ and CYWC628

	1st dose	2nd dose	3rd dose	4th dose
Product G vs. Control	ns	ns	ns	ns
Fibroblast spheroids vs. Control	*	**	**	**
Fibroblast spheroids vs. Product G	ns	ns	*	*

n=10 for each cohort

At day 19: **83.8% average wound closure for fibroblast spheroids** compared with 66.0% for Grafix™ and 51.2% for Control

Note: * indicates level of statistical significance with a p value of ≤ 0.05
** indicates level of statistical significance with a p value of ≤ 0.01

Healed Wound Quality is Just as Important as Accelerating Wound Healing

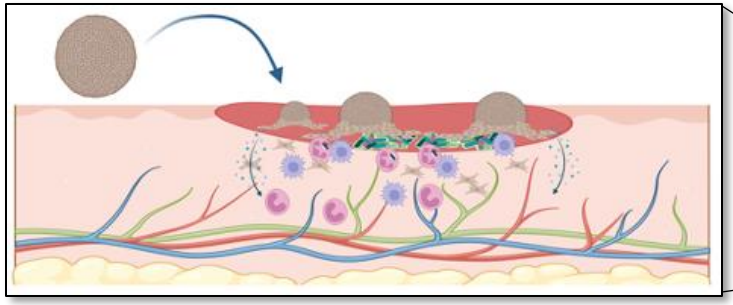
Multiple biomarker assessment of healed-wound quality by IHC

- CYCW628 fibroblast spheroids perform statistically significantly better than FDA approved Grafix™ in 7 out of 7 quality metrics.
  1. Re-epithelialization
  2. Granulation
  3. Cell proliferation
  4. Neo—vascularization
  5. Fibroblast recruitment and proliferation
  6. Keratinocyte Migration
  7. Epithelial-Mesenchymal Transition

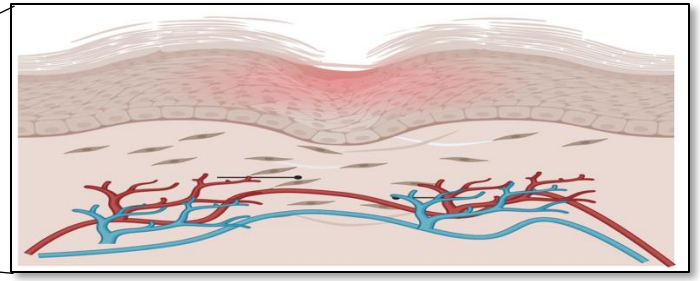
Diabetic Foot Ulcer Treatment Using Fibroblast Spheroids

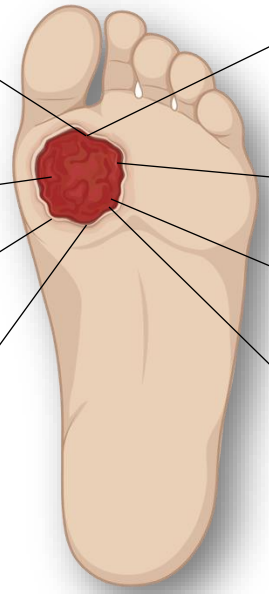
Platform technology with potential therapeutic for burn and surgical wounds

Spheroid attachment and migration on wound surface

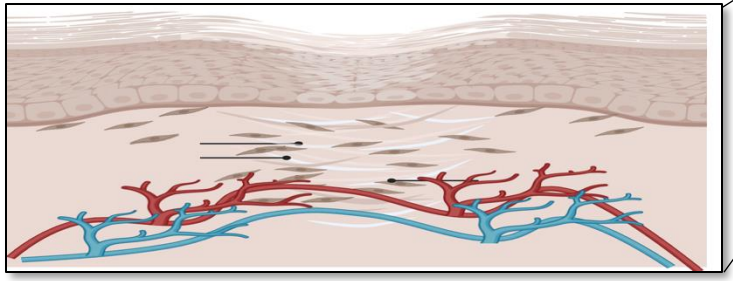


Initiate cell proliferation and vascularization





Re-epithelization and keratinocyte migration



- **58.5% reduction in wound size within 4 days of treatment** with fibroblast spheroids.
- **83.8% average wound closure for fibroblast spheroids** compared with 66.0% for Grafix™ and 51.2% for Control.
- **Higher quality wound healing** as compared to for Grafix™ using 7 different metrics.

Summary of IND-Enabling Study Results

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CYMS101 Product Candidate

Multiple Sclerosis

Multiple Sclerosis (MS) Epidemiology

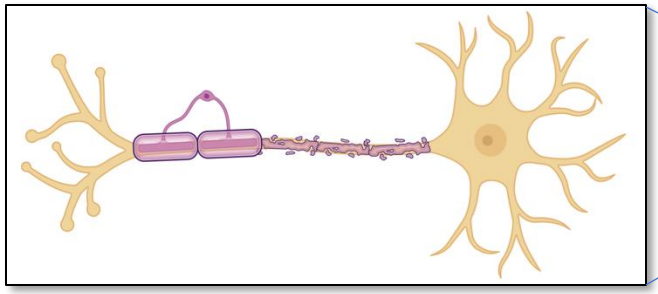
- 2.8 million worldwide prevalence
- ~1 million diagnosed with MS in the US
- Prevalence of 375 per 100,000 in the US
- **Autoimmune-mediated chronic inflammation**
- MS prevalence has increased worldwide since 2013

Hittle M, Culpepper WJ, Langer-Gould A, et al. Population-Based Estimates for the Prevalence of Multiple Sclerosis in the United States by Race, Ethnicity, Age, Sex, and Geographic Region. *JAMA Neurol.* 2023
Walton C, King R, Rechtman L, Kaye W, Leray E, Marrie RA, Robertson N, La Rocca N, Uitdehaag B, van der Mei I, Wallin M, Helme A, Angood Napier C, Rijke N, Baneke P. Rising prevalence of multiple sclerosis worldwide: Insights from the Atlas of MS, third edition. Mult Scler. 2020

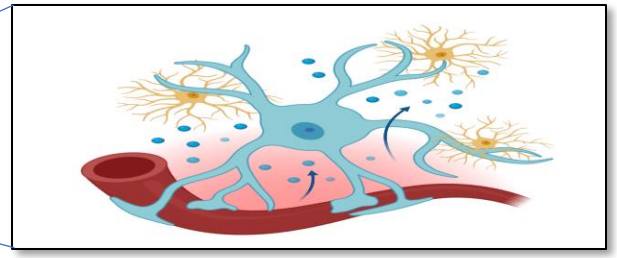
CYMS101 Fibroblast Spheroids for the Treatment of MS

Significant remyelination and reduction in local and systemic inflammation

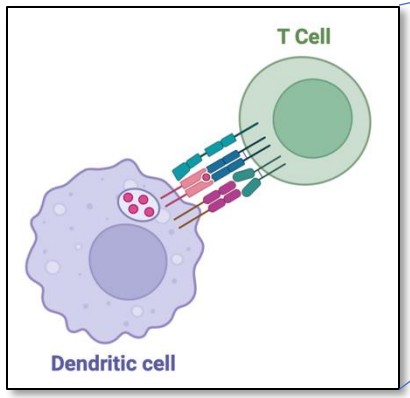
Remyelination of Neurons



Suppressions of microglia activation



Inhibition of dendritic cell maturation



- **Significant suppression of reactive TH17** cell and IL-17.
- **Significant expansion of T-regulatory cells**.
- **Potent upregulation of anti-inflammatory** cytokines.
- **Downregulation of inflammatory** cell surface markers.

Summary of IND-Enabling Study Results

CYMS101 Multiple Sclerosis

Summary of Results of Phase 0/1 Clinical Trial[1]

Safety

- No adverse effects were noted during intravenous injection of the tolerogenic Fibroblasts.
- No short or long-term impact noted in complete blood count test results during the 16-week monitoring period.
- No short or long-term impact noted in electrocardiogram results during the 16-week monitoring period.

Efficacy

- General improvement of Paced Auditory Serial Addition Test score for all patients during the 16-week monitoring period.
- General improvement of Nine-Hole Peg Test completion time for all patients during the 16-week testing period.
- No general improvement or deterioration was noted with the timed 25-foot Walk Test.
- No general improvement or deterioration was noted with the Expanded Disability Status Scale test.
- No patient exhibited further deterioration during the study trial.

[1] https://clinicaltrials.gov/ct2/show/NCT05080270?term=FibroBiologics&draw=2&rank=1

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CYPS317 Product Candidate

Psoriasis

Psoriasis Background & Epidemiology

- 123 million worldwide.
- 7.5 million in the United States.
- Significant lifestyle and psychological impact on patients.
- An autoimmune skin disease characterized by:
  - Hyperproliferation of the epidermal keratinocytes.
  - Coalescing raised cutaneous plaques.
  - Consistent scaling and variable erythema.

- Mediated by cells and molecules of both the innate and adaptive immune systems.

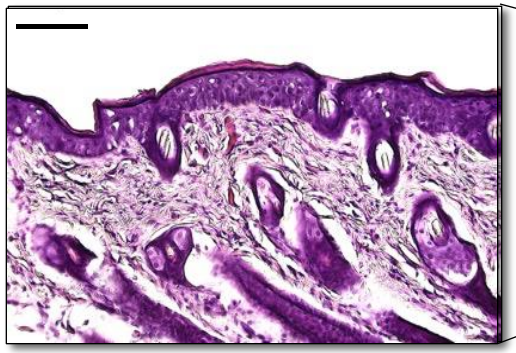
- The pathogenesis of psoriasis consists of an initiation phase possibly triggered by trauma, stress, or pathogens and a maintenance phase characterized by a chronic clinical progression

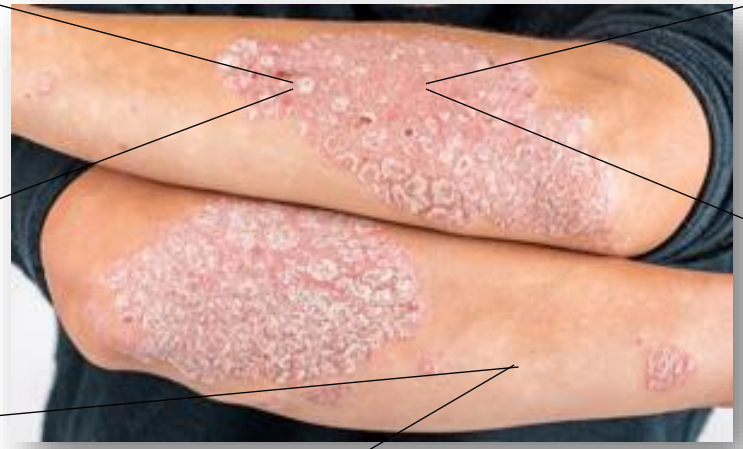
Armstrong AW, Mehta MD, Schupp CW, Gondo GC, Bell SJ, Griffiths CEM. Psoriasis Prevalence in Adults in the United States. JAMA Dermatol. 2021

CYPS317 Fibroblast Spheroids for the Treatment of Psoriasis

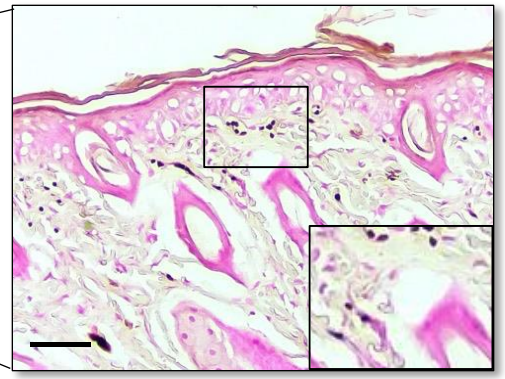
Significant reduction in psoriasis area and severity index (PASI)

Significantly reduced epidermal thickening

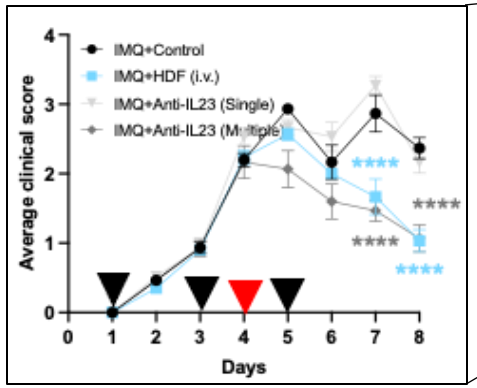




Significantly reduced immune cell infiltration



Significantly improved response compared to anti IL-23 mAb



- **Significant improvement of moderate and severe psoriasis.**
- **Single administration of fibroblast spheroids just as effective as multiple administrations of anti IL-23 mAb.**
- **No Adverse side effects noted to date.**

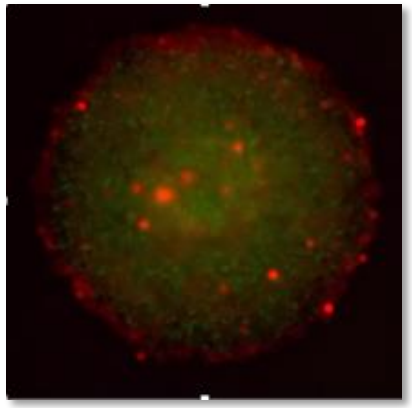
Summary of IND-Enabling Study Results

Human Longevity: Developing an Artificial Thymus Organoid (ATO) for Maintaining Immune System Homeostasis

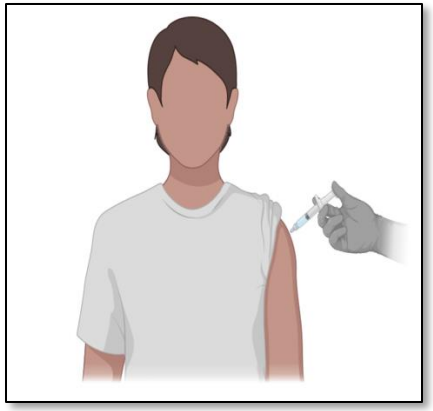
Fibroblast-based Artificial Thymus Organoid for Human Longevity

Developed for maintaining immune homeostasis as we age

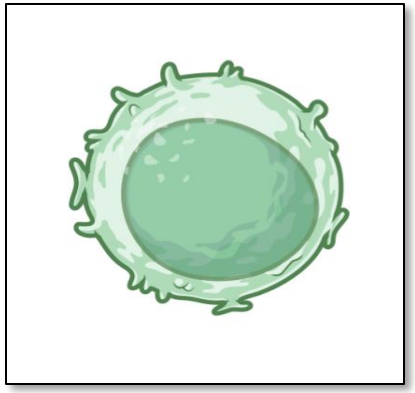
Fibroblast-based Artificial Thymus Organoid (ATO)



Subcutaneously administered ATO



Give rise to CD4/CD8, T regulatory, and γδ T cells



- **Transplantation ready with 3 days of culturing.**
- **Tested durability of 60+ days in mice.**
- **Scalable manufacturing.**
- **Long-term cryopreservation viability.**

Summary of Proof-of-Concept Study Results

Summary

- Thymus organoids can give rise to mature T cells, regulatory T cells and gamma-delta T cells
- The T cells generated from the ATO have a diverse TCR profile, hence can target a broad array of pathogens/antigens
- The product can be injected subcutaneously or intraperitoneally. Subcutaneous has obvious advantages.
- Injected subcutaneous organoids persist weeks following injection.
- In addition, the organoid can be frozen with greater than 94% viability after thaw.
- It only takes 3 days of culture for the organoids to be ready for transplantation or frozen down. This is a huge advancement from other approaches.

Financial Overview

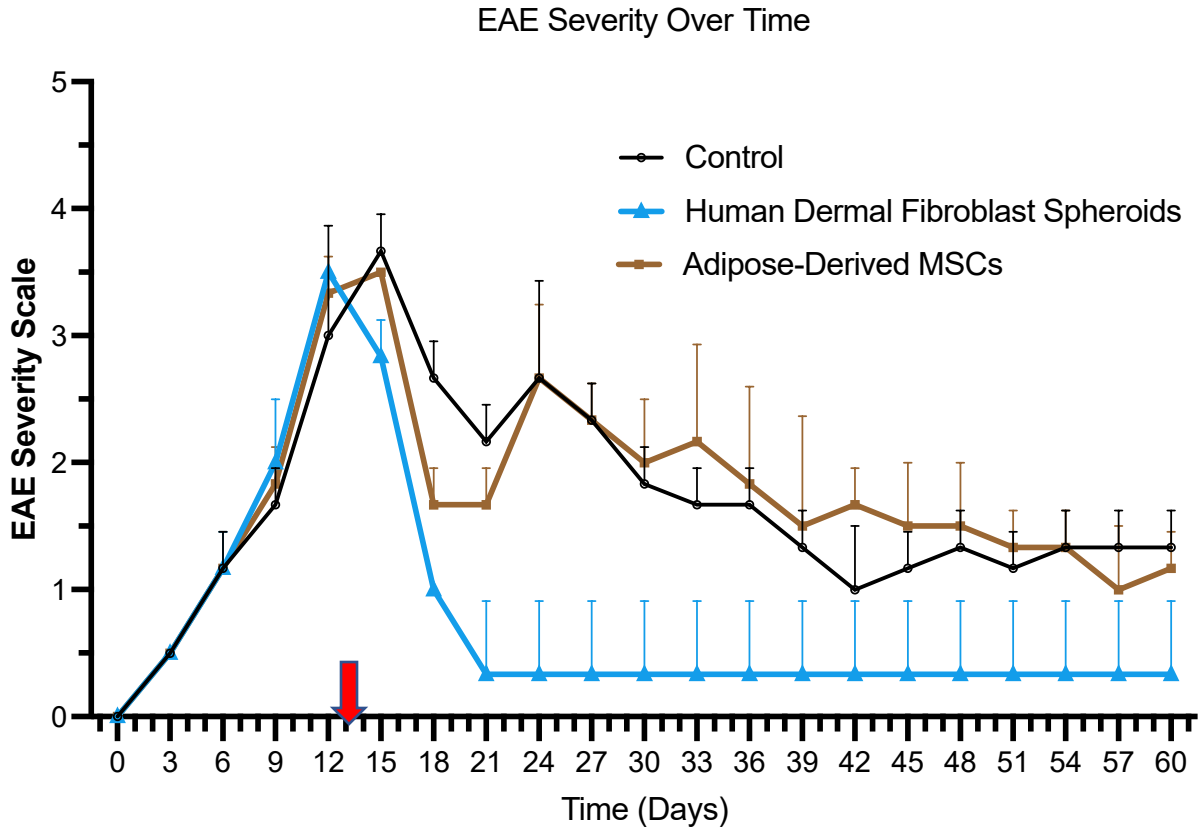
Financial Metrics

- Direct listing on Nasdaq completed on January 31, 2024.
- Completed $25M financing December 2024.
- Market capitalization at April 22, 2025 was $50 million.
- Institutional ownership growing. Largest institutional holders:
- Blackrock – 1.8M shares (12/31/2024).
- Vanguard Group – 771k shares (12/31/2024).
- Geode Capital – 600k shares (12/31/2024).
- State Street – 476k shares (12/31/2024).
- Cascade Financial – 282k shares (12/31/2024).

Supplemental Data

EAE Induction of Rats and EAE Severity Over Time

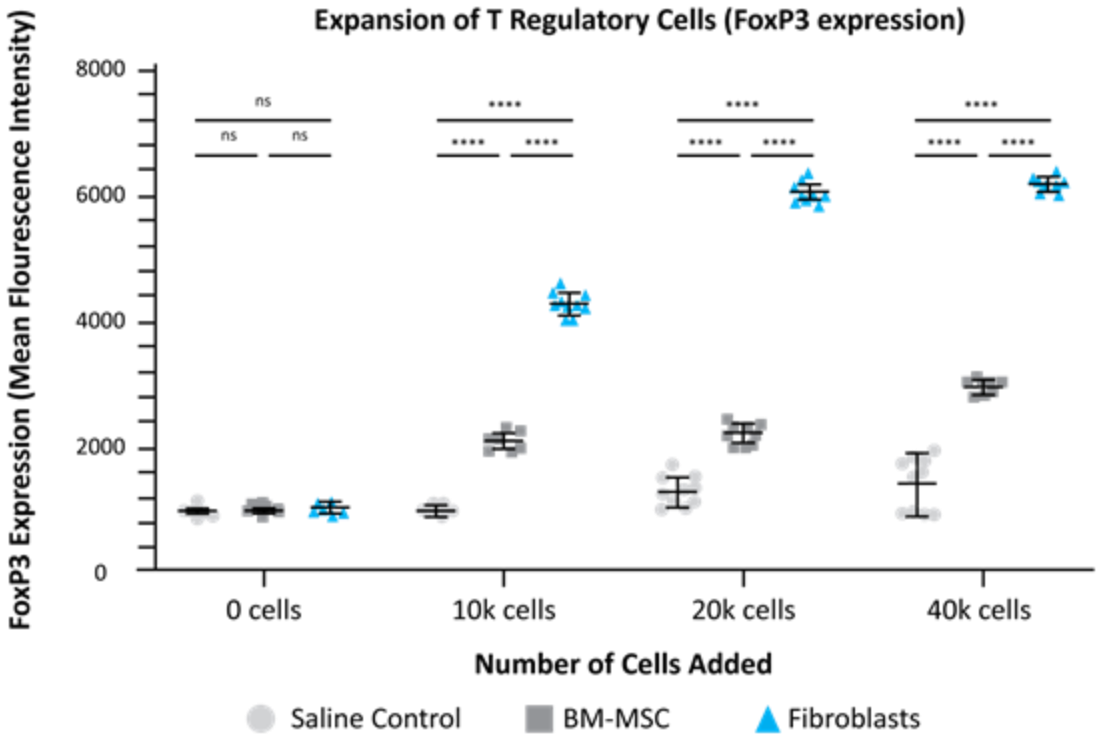
Long term Induction follow-up after single treatment administration

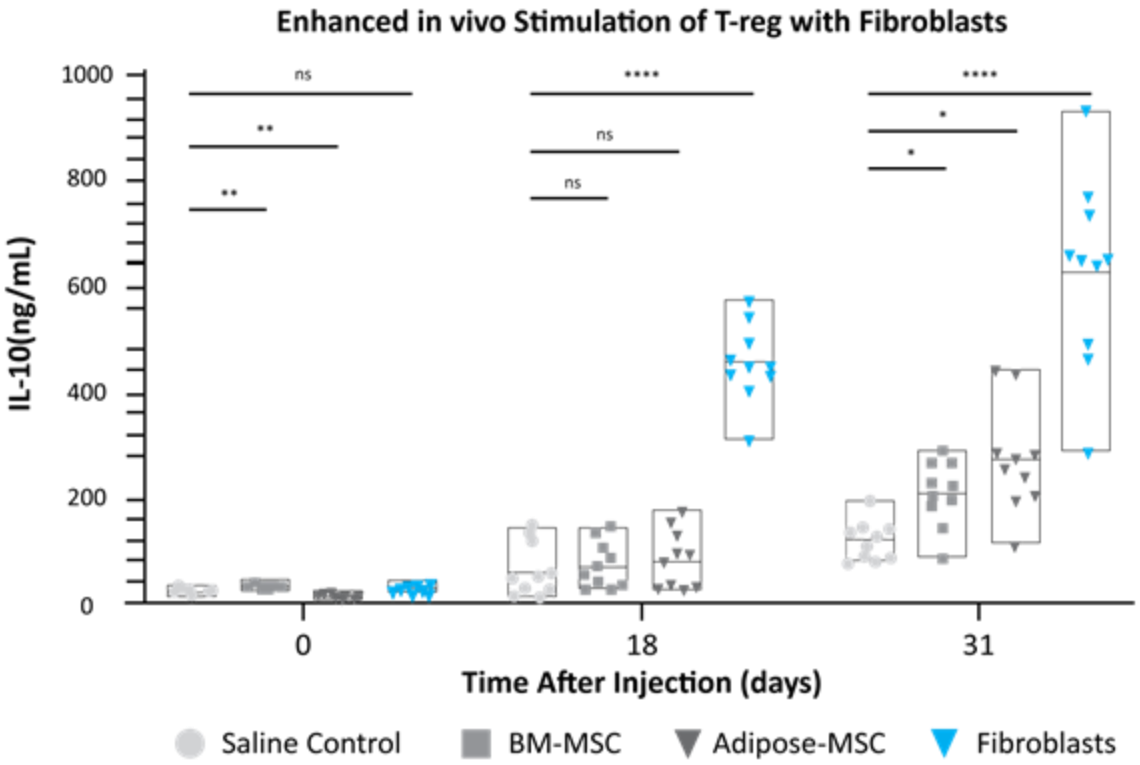


- administration of ~300 150um spheroids (1M cells) on day 13 after EAE induction
- Injection of fibroblast spheroids without any adverse events.
- Almost complete reversion of EAE symptoms within 7 days.
- No relapse noted with HDF treatment

Fibroblasts Stimulate Expansion of T Regulatory Cells in vitro and in vivo

Significantly Improved Response as Compared to Mesenchymal Stem Cells

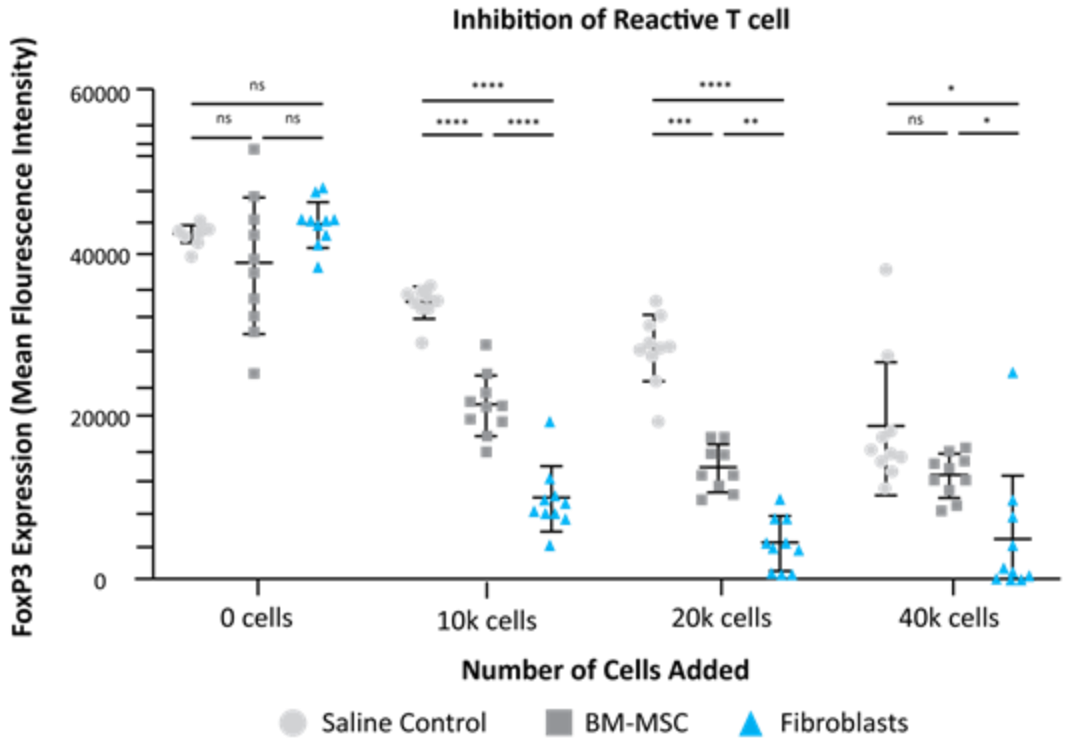


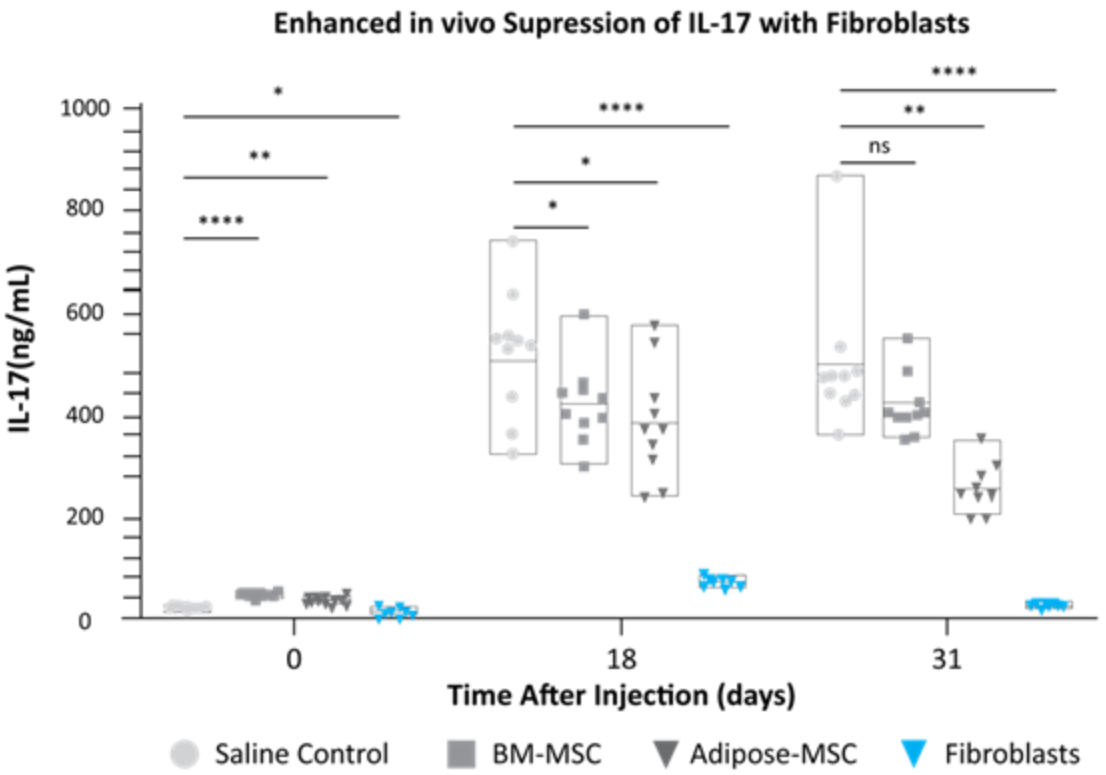


Manuscript for publication in progress

Fibroblasts Suppress Reactive T Cells in vivo and in vitro

Superior Suppression of the Inflammatory Cytokine IL-17 as Compared to Mesenchymal Stem Cells

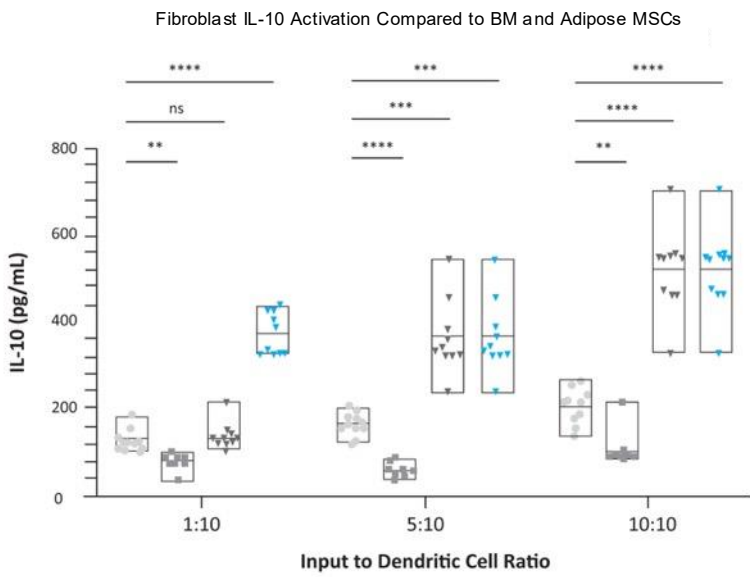


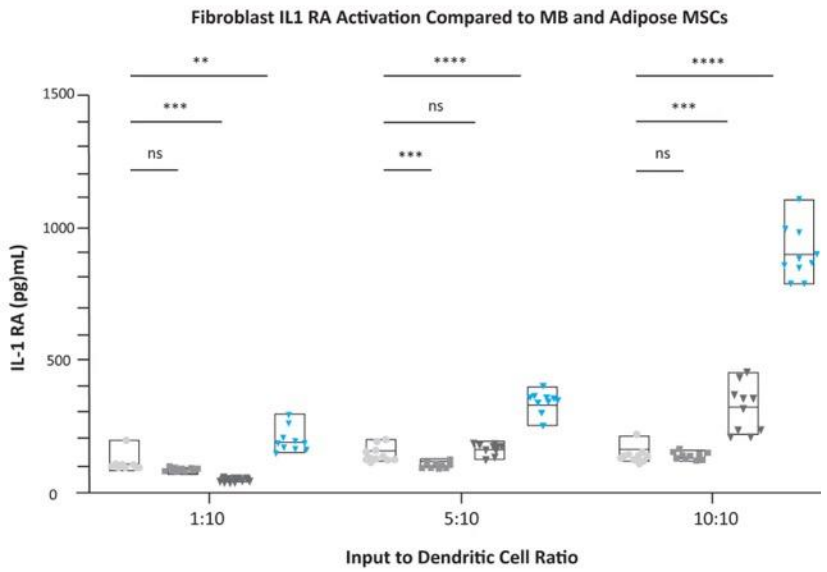


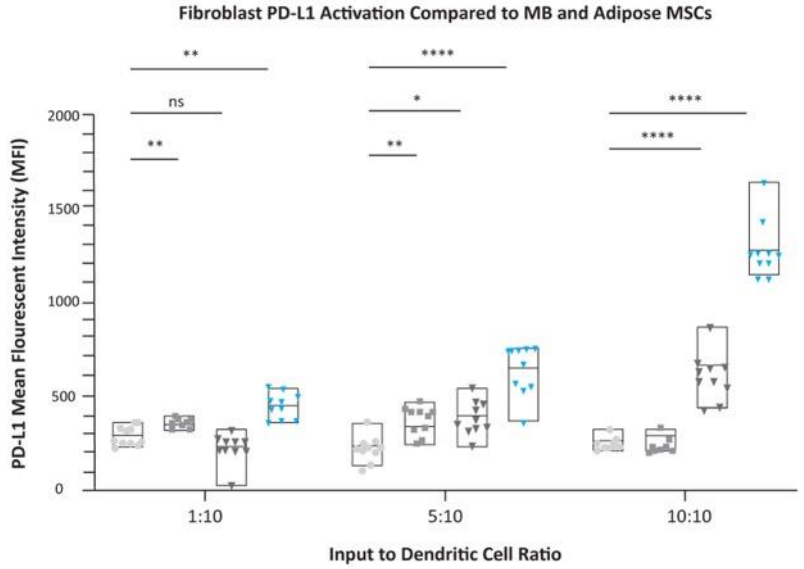
Manuscript for publication in progress

Fibroblasts: More Potent Upregulation of Anti-Inflammatory Cytokines

Upregulation of Anti-inflammatory Cytokines and Programmed Death Ligand





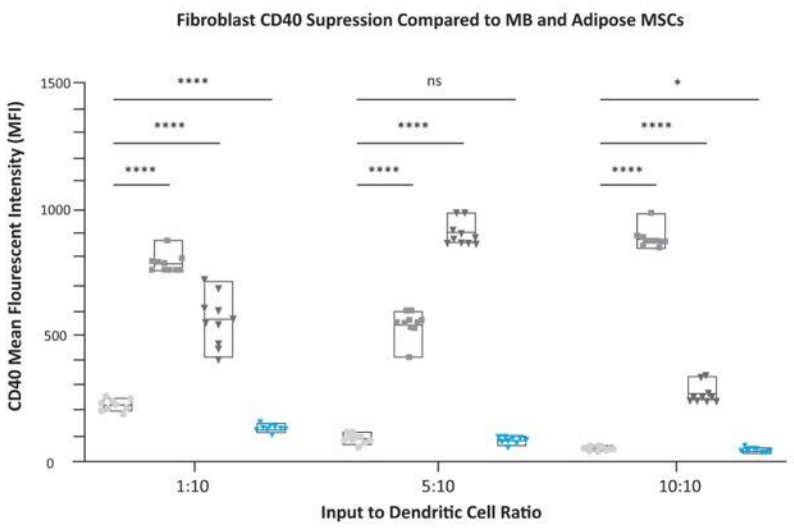


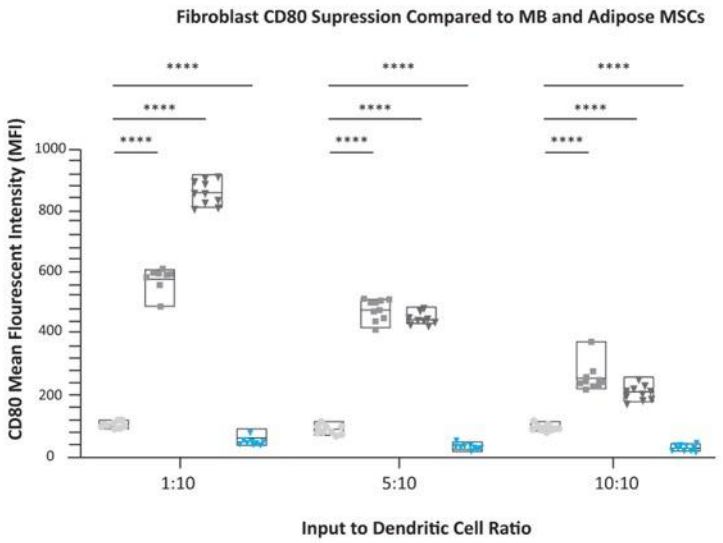
Saline Control BM-MSC Adipose-MSC Fibroblasts

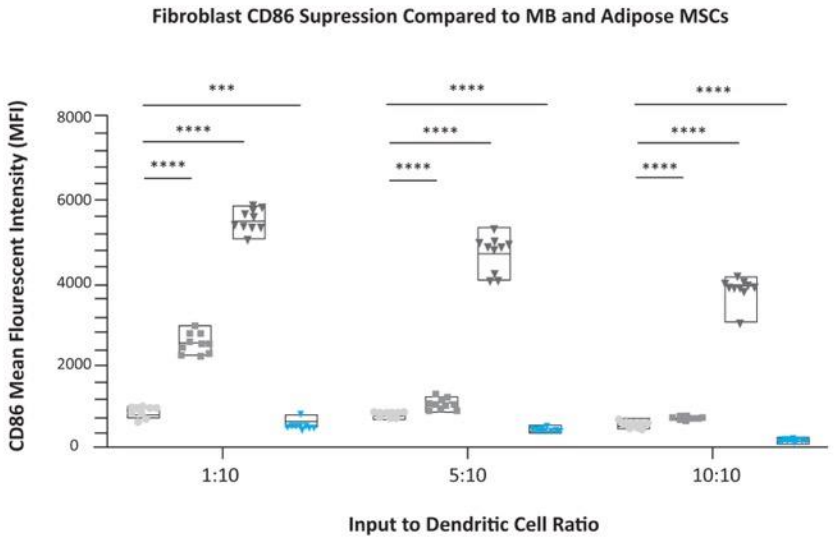
Manuscript for publication in progress

Down Regulation of Key Cell Surface Markers Responsible for Inflammation

Potent Inhibitor of Dendritic Cell Maturation than MSCs





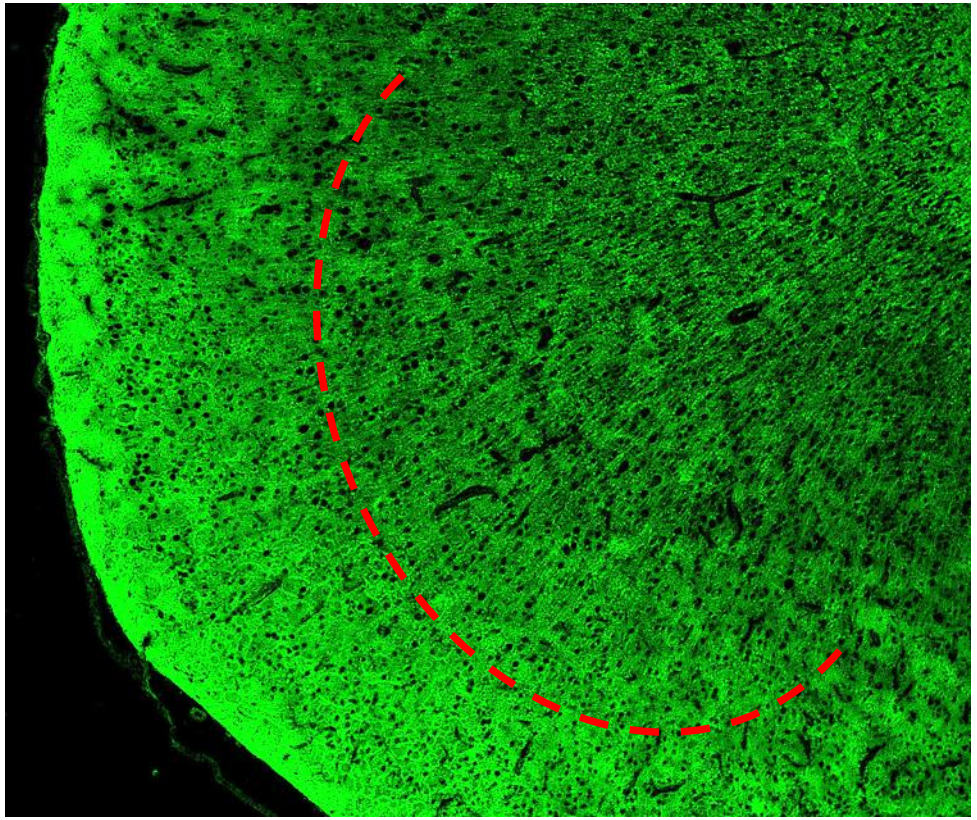


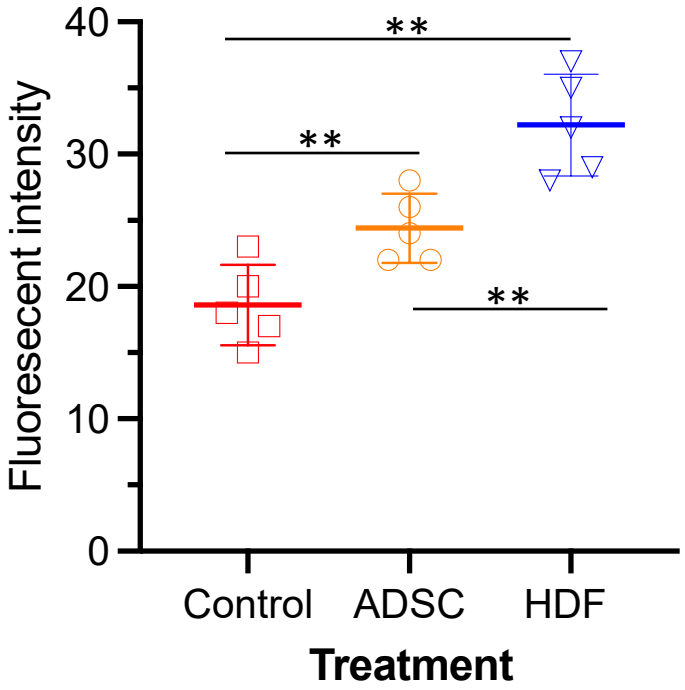
Saline Control BM-MSC Adipose-MSC Fibroblasts

Manuscript for publication in progress

Increased Myelin detection in the cerebral cortex of EAE rats

Quantitative measurement of myelin in the cerebral cortex of EAE rats

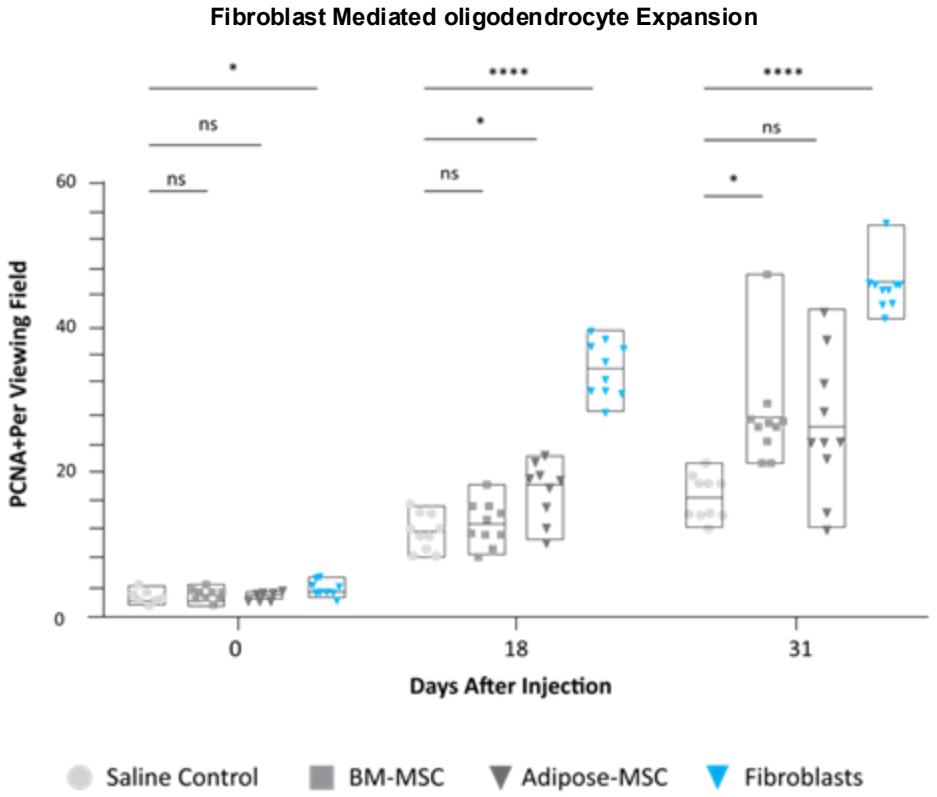


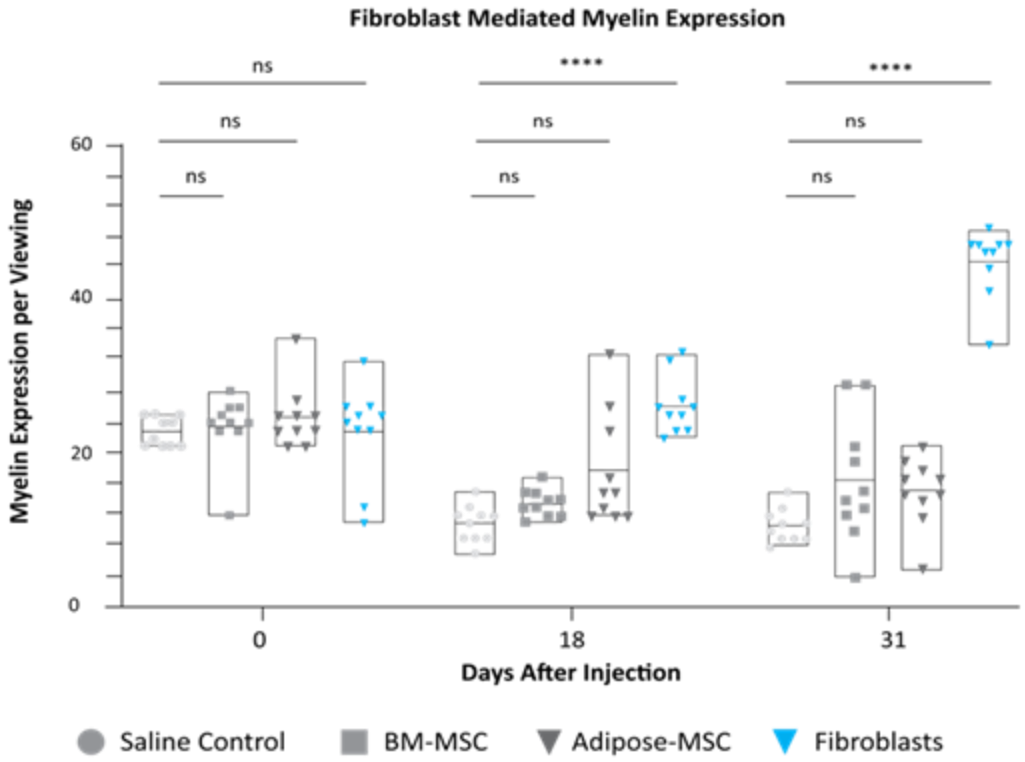


Significantly higher myelin presence in fibroblast treated Rats

Significant Oligodendrocyte Regeneration and Myelin Expression

Quantitative Measurements of Actively Dividing Oligodendrocytes

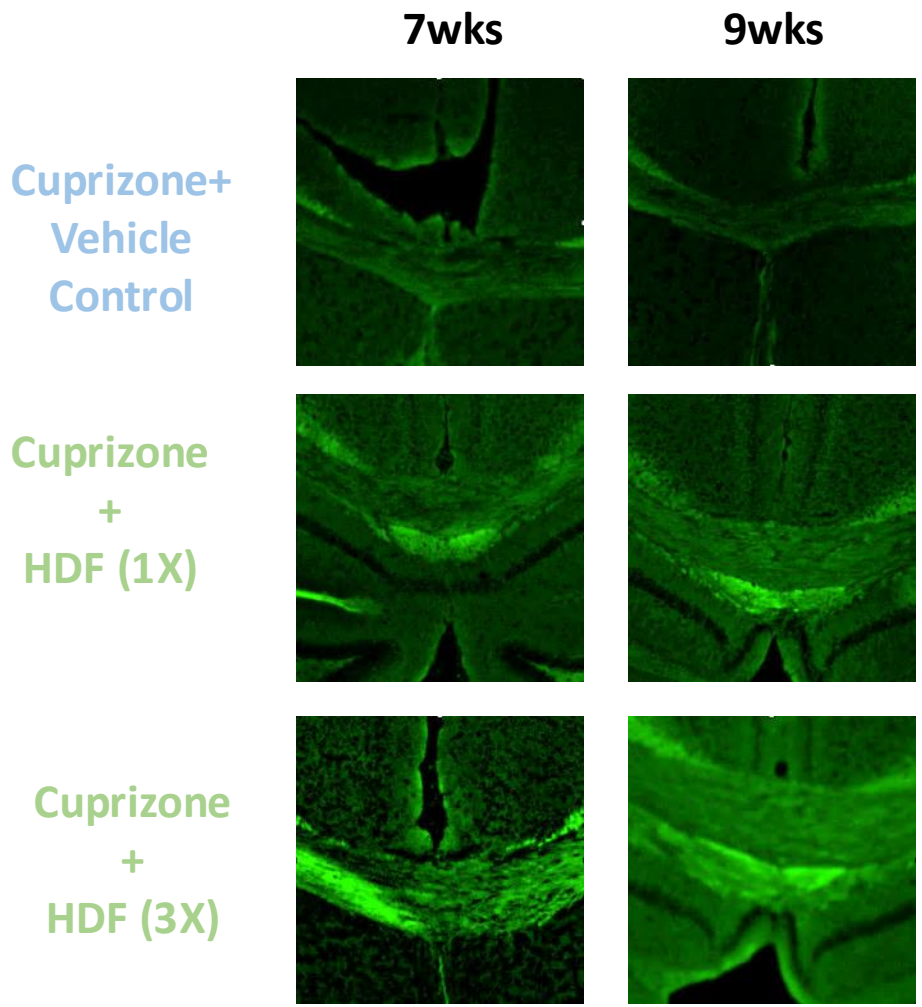




Oligodendrocytes form the protective myelin sheath around neurons.

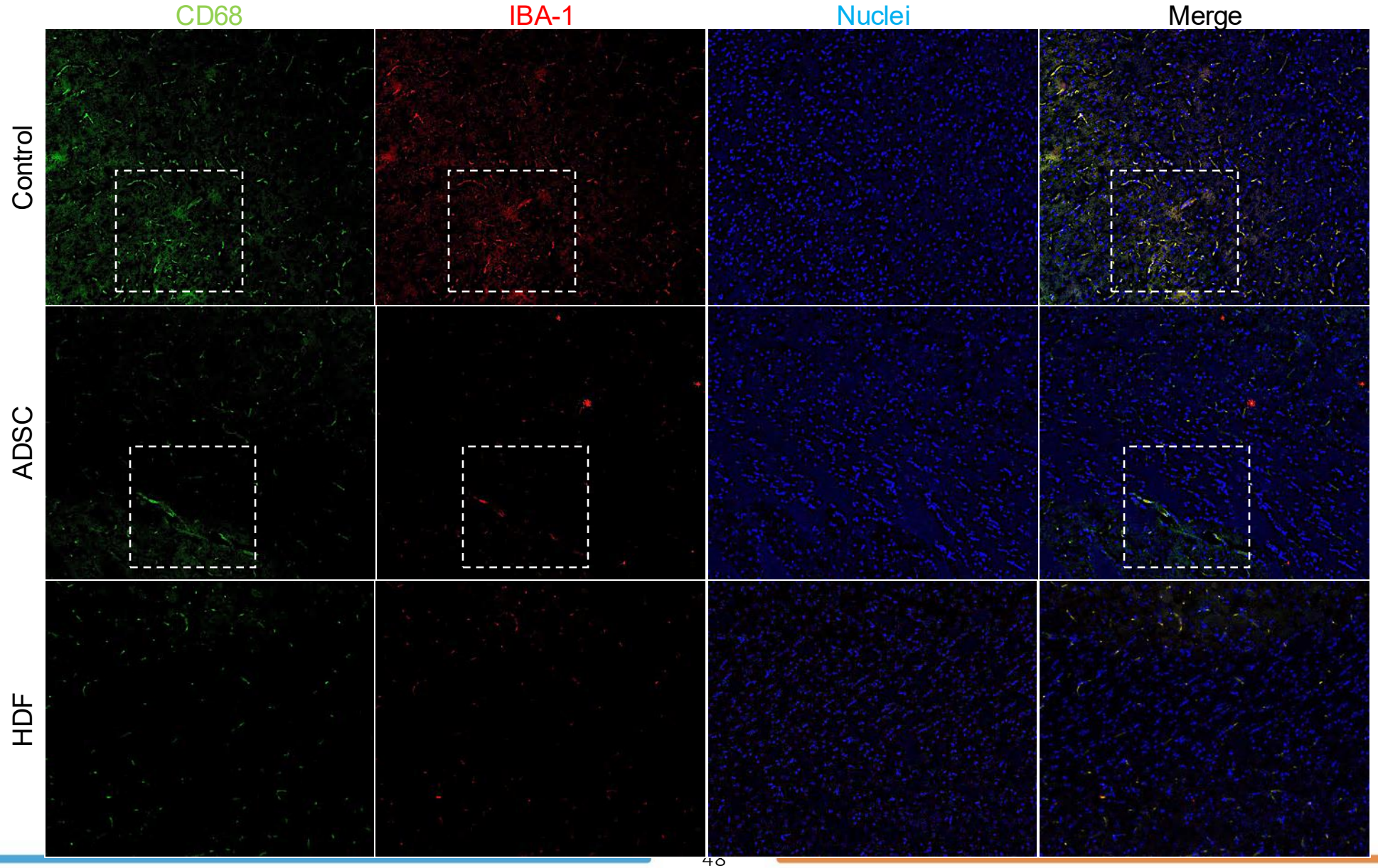
Manuscript for publication in progress

MS: Cuprizone Model Confirmation of Remyelination



Secondary confirmation of strong remyelination with HDF treatment

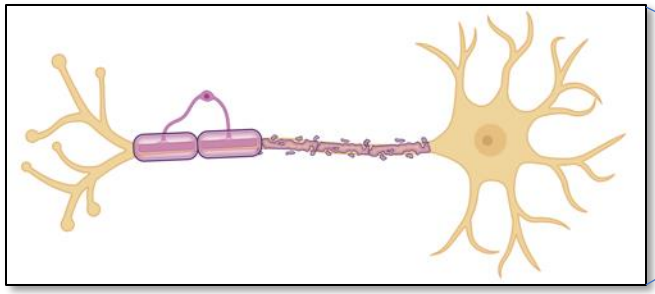
Significant Reduction in Microglia Expansion in Fibroblast Treated EAE Rat Brain



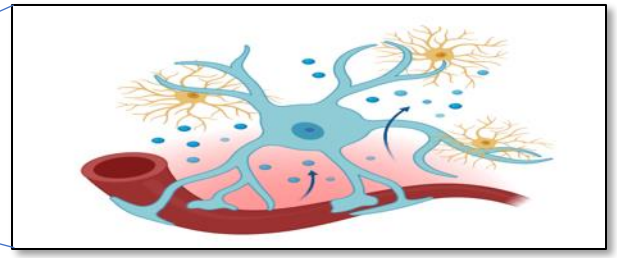
CYMS101 Fibroblast Spheroids for the Treatment of MS

Significant remyelination and reduction in local and systemic inflammation

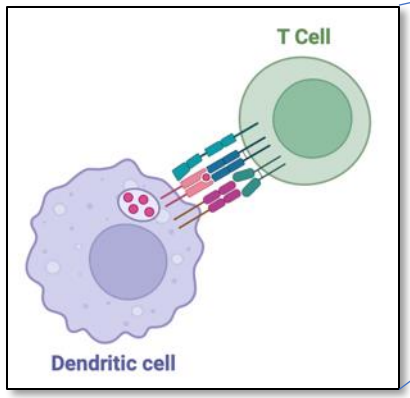
Remyelination of Neurons



Suppressions of microglia activation



Inhibition of dendritic cell maturation



- **Significant suppression of reactive TH17** cell and IL-17.
- **Significant expansion of T-regulatory cells**.
- **Potent upregulation of anti-inflammatory** cytokines.
- **Downregulation of inflammatory** cell surface markers.

Immune homeostasis and remyelination

fibrobiologics

CYPS317 Product Candidate

Psoriasis

Psoriasis Background & Epidemiology

- 123 million worldwide.
- 7.5 million in the United States.
- Significant lifestyle and psychological impact on patients.
- An autoimmune skin disease characterized by:
  - Chronic inflammation.
  - Hyperproliferation of the epidermal keratinocytes.
  - Coalescing raised cutaneous plaques.
  - Consistent scaling and variable erythema.
  - **Significant systemic and local autoimmune-mediated inflammation.**

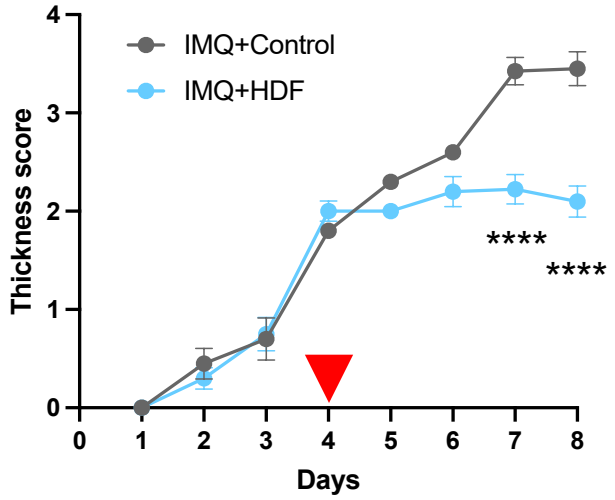
- Mediated by cells and molecules of both the innate and adaptive immune systems.

Armstrong AW, Mehta MD, Schupp CW, Gondo GC, Bell SJ, Griffiths CEM. Psoriasis Prevalence in Adults in the United States. JAMA Dermatol. 2021

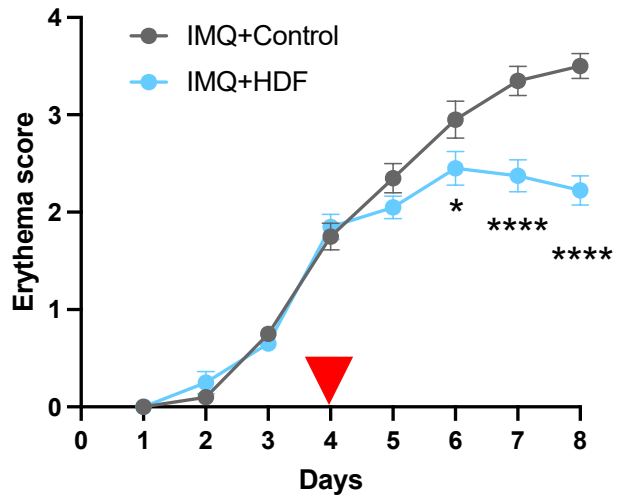
Significant Improvement of Moderate Psoriasis (PASI=2)

Single-dose administration characterization of psoriatic lesions using PASI

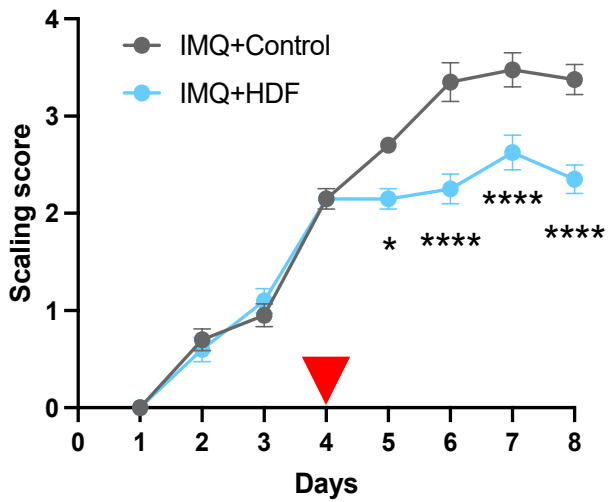
Thickness



Erythema

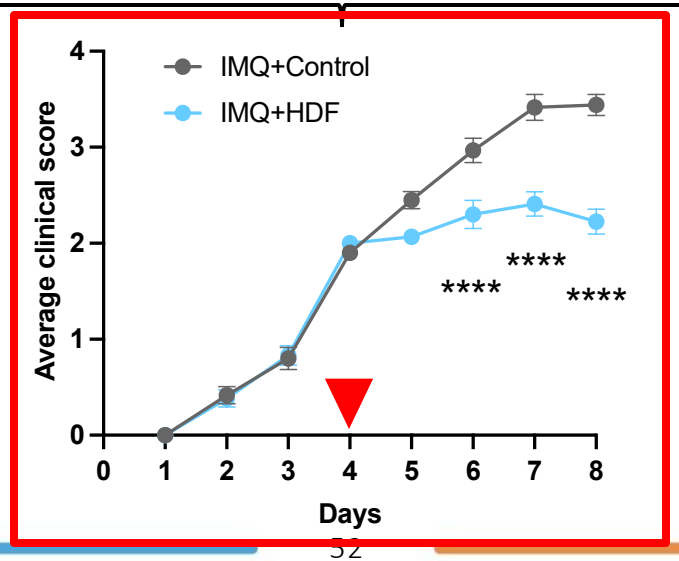


Scaling



PASI grading

- 0: no incidence
- 1: slight
- 2: moderate
- 3: marked
- 4: severe

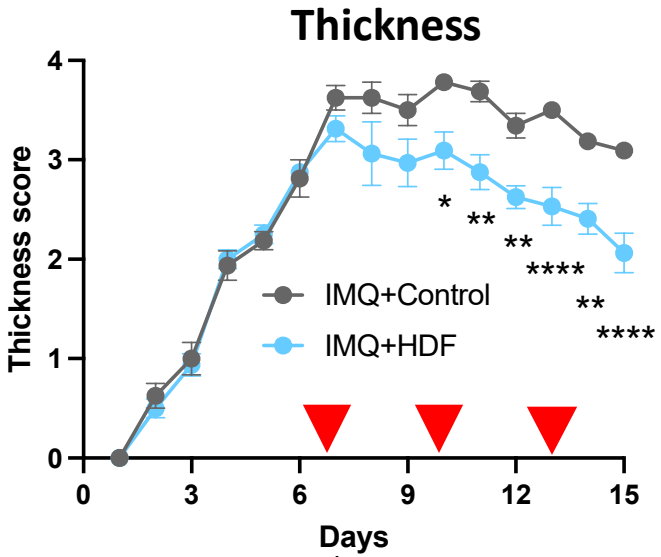


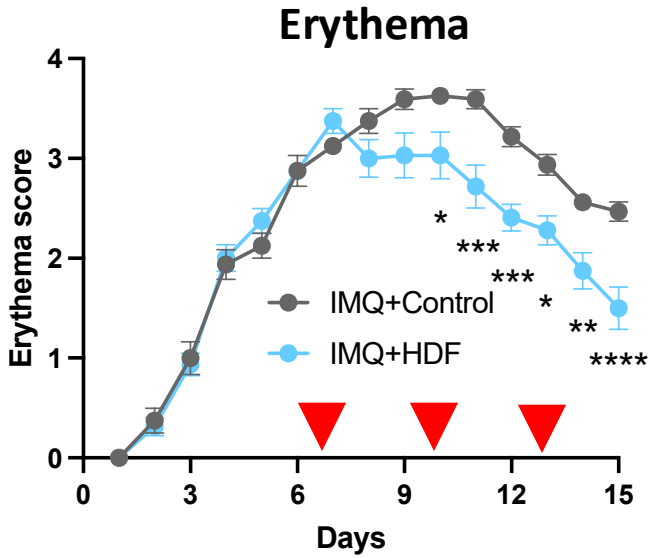
Average

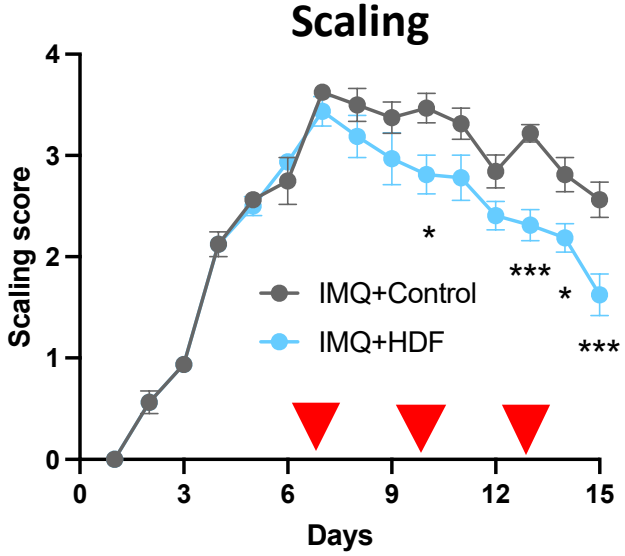
▼ Red triangle indicates i.v. injection

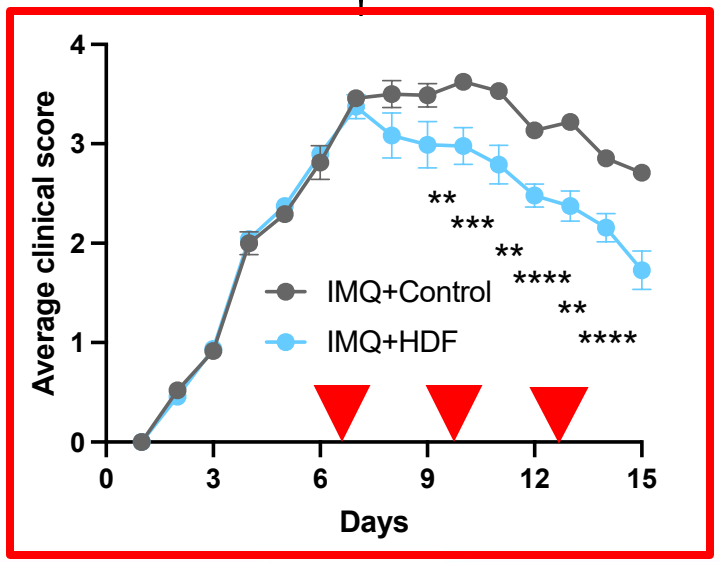
Significant Improvement of Severe Psoriasis (PASI=4)

Multiple dose characterization of psoriatic lesions using PASI









Average

PASI grading

- 0: no incidence
- 1: slight
- 2: moderate
- 3: marked
- 4: severe

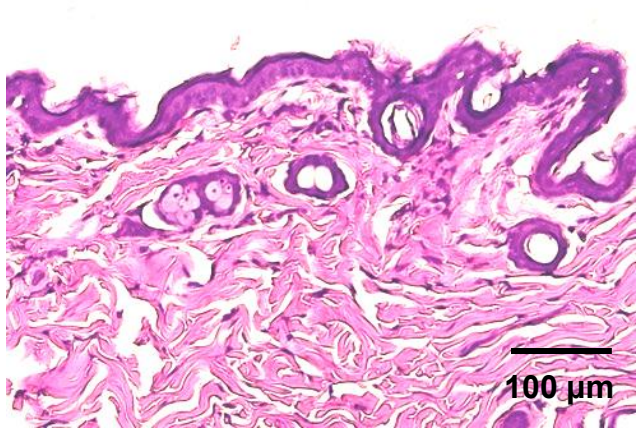
▼ Red triangle indicates i.v. injection (D7, D10, and D13)

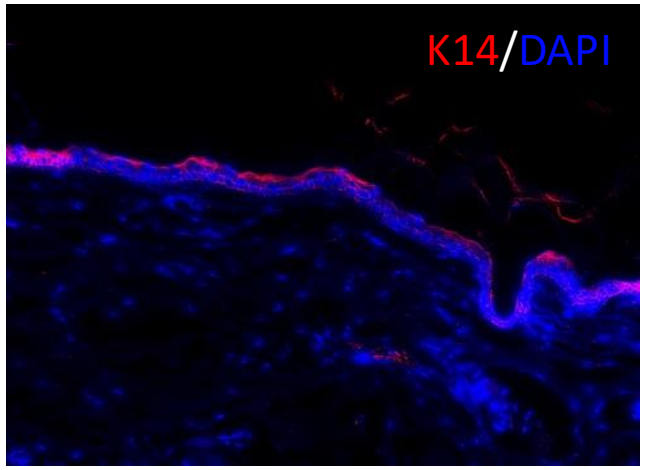
Decreased epidermal thickening and keratinocyte proliferation

fibrobiologics

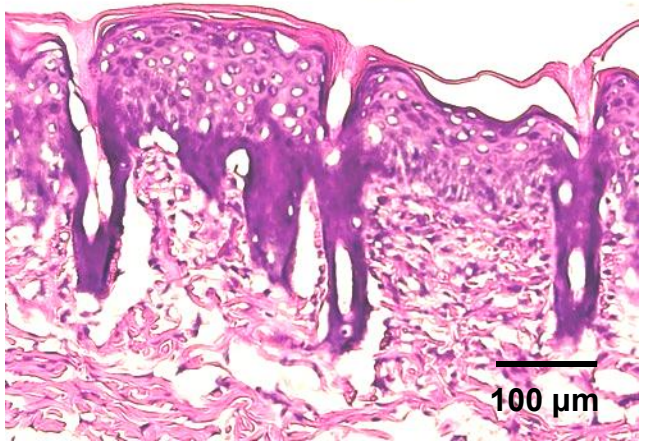
H&E and IHC staining for Keratin 14 (keratinocytes)

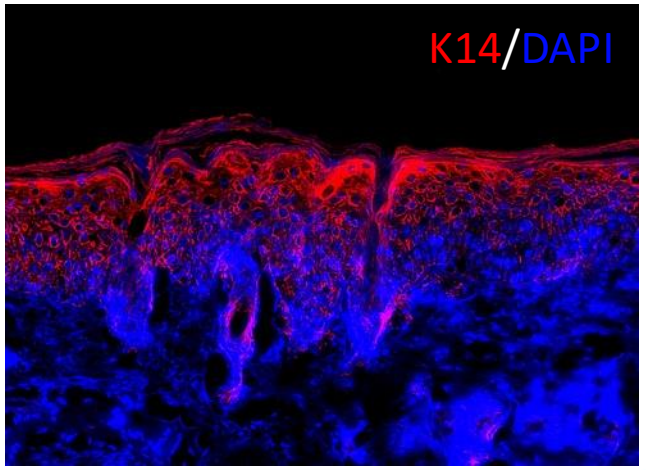
Healthy control



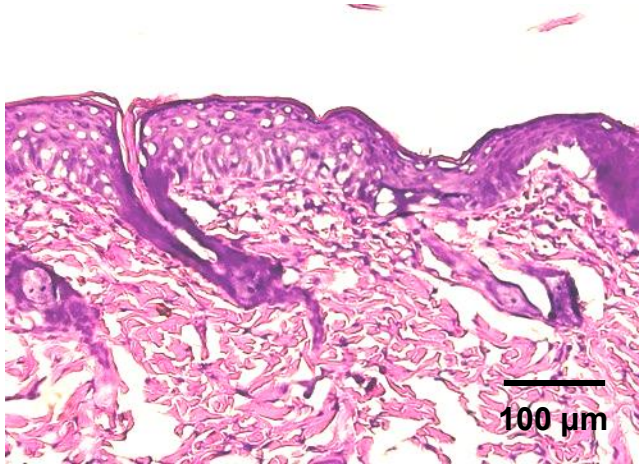


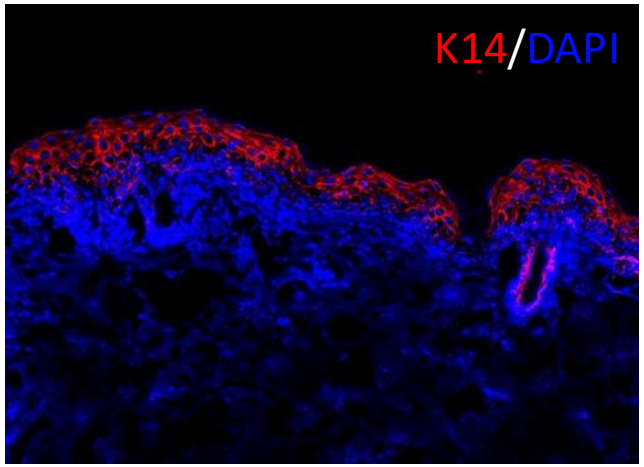
IMQ + Control

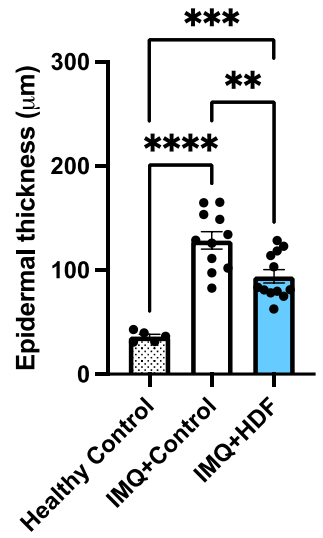


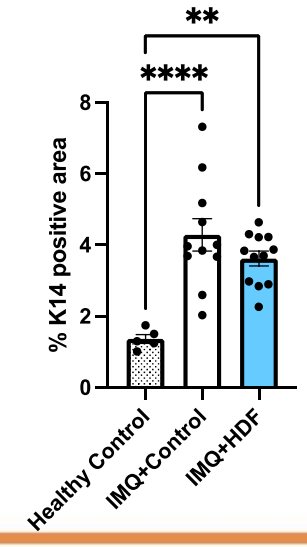


IMQ + HDF



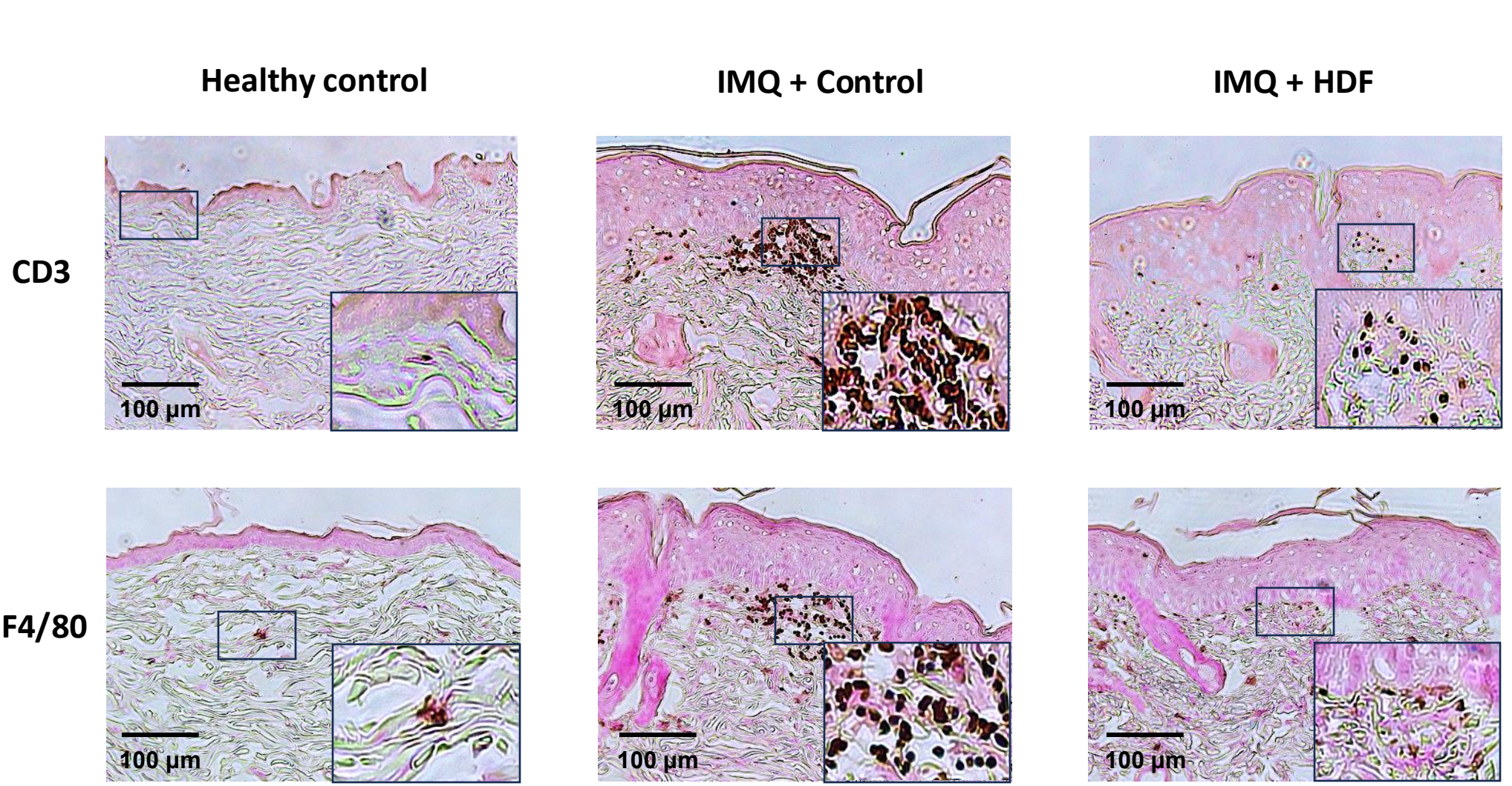


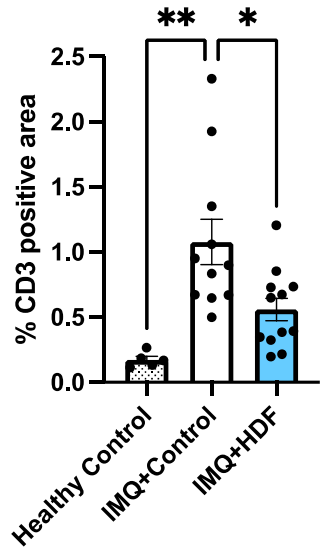


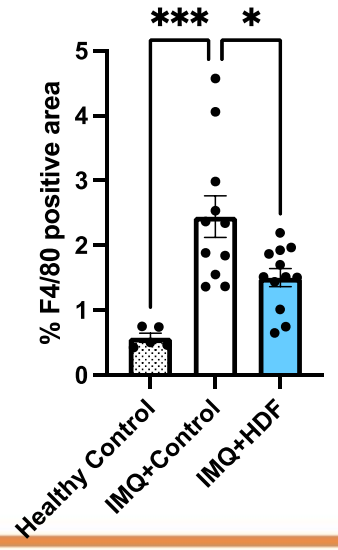


Decreased Immune Cell Infiltration into the Skin Lesions

IHC staining for CD3 (T cells) and F4/80 (macrophages)



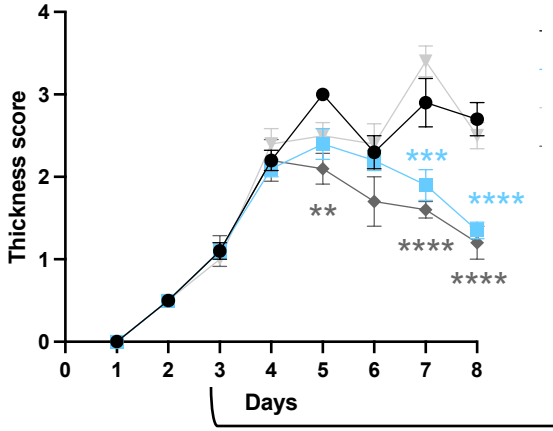




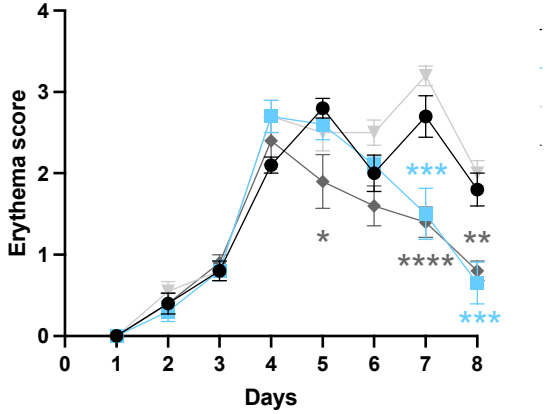
Significant Improvement Over anti-IL-23 mAb Treatment

characterization of psoriatic lesions using PASI

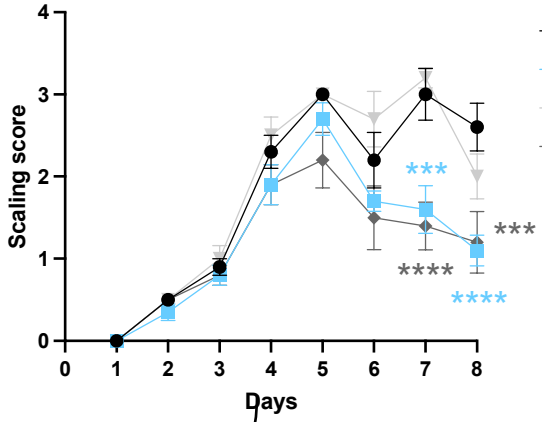
Thickness



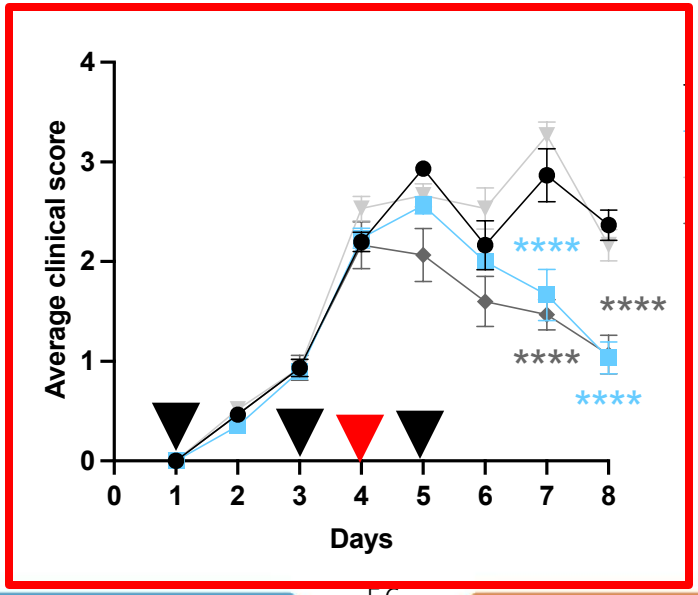
Erythema

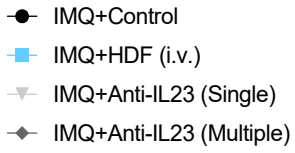


Scaling



Average





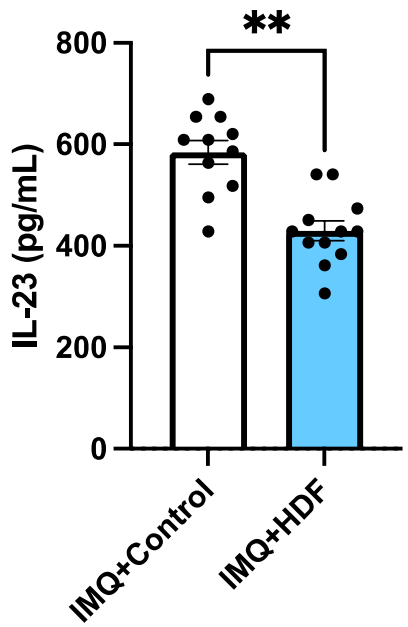
Comparisons	PASI scores on D8	% reduction in PASI	Significance
HDF (i.v.) vs. Control	1.0 vs. 2.4	58%	****
Anti-IL23 (single) vs. Control	2.2 vs. 2.4	8%	ns
Anti-IL23 (multi) vs. Control	1.1 vs. 2.4	54%	****
HDF (i.v.) vs. Anti-IL23 (single)	1.0 vs. 2.2	55%	****

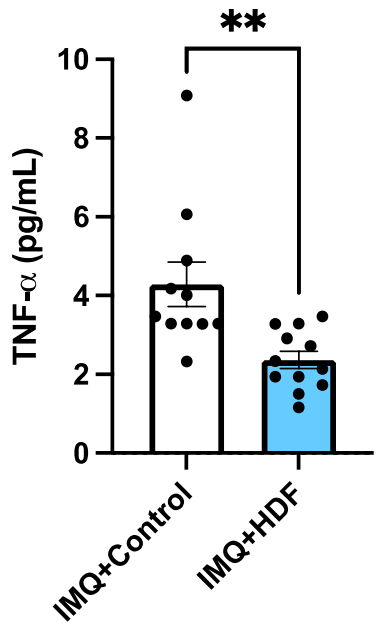
▼ Red triangle indicates HDF administration at day 4

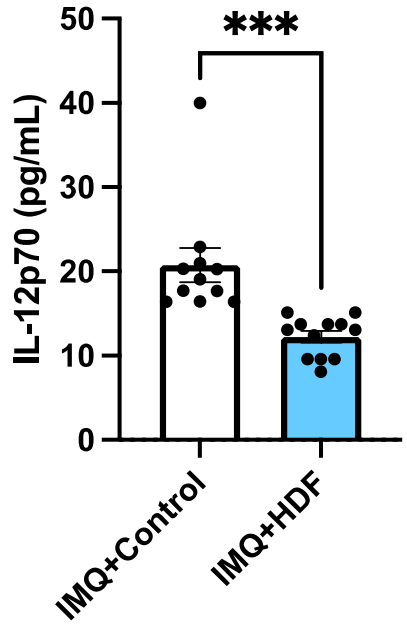
▼ Black Triangle indicates anti-IL-23 mAb administration

Significant Reduction of Pro-Inflammatory Cytokines in Skin Lesions

Psoriasis IND-Enabling Animal Model Studies





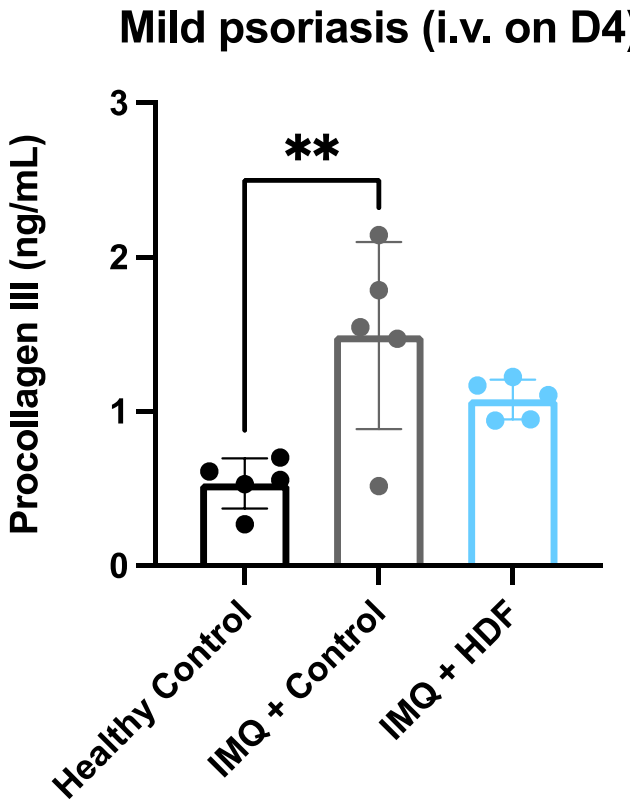


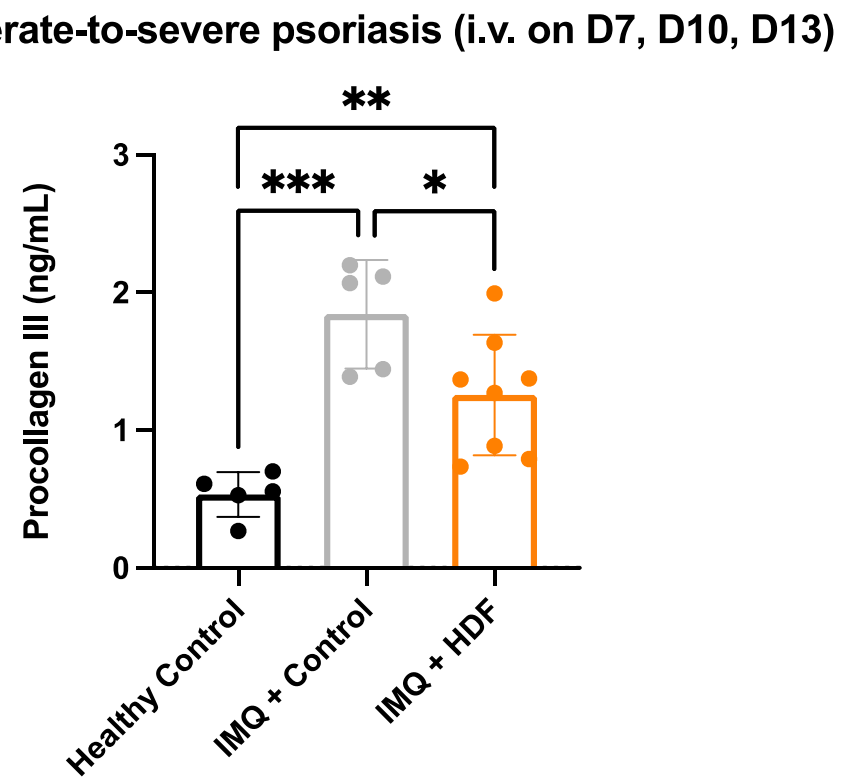
These are the same three Cytokines targeted by monoclonal antibodies currently approved

- **IL-17**. Cosentyx (Novartis), Bimzelx (UCB Pharma),
- **IL-23**. Tremfya (Jannsen), Skyrizi (AbbVie),
- **TNF-alpha**. Humira (AbbVie), Remicade (Johnson & Johnson),

Systemic Reduction in Inflammation-Mediated Fibrotic Response

Procollagen III N-terminal Propeptide Fibrosis Biomarker ELISA



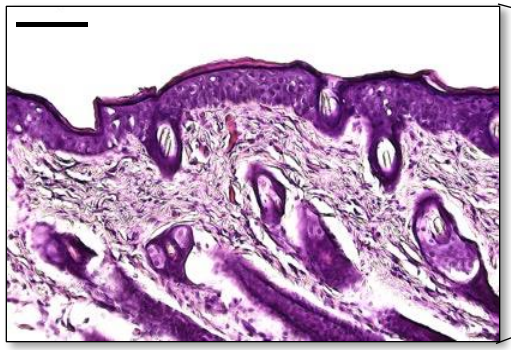


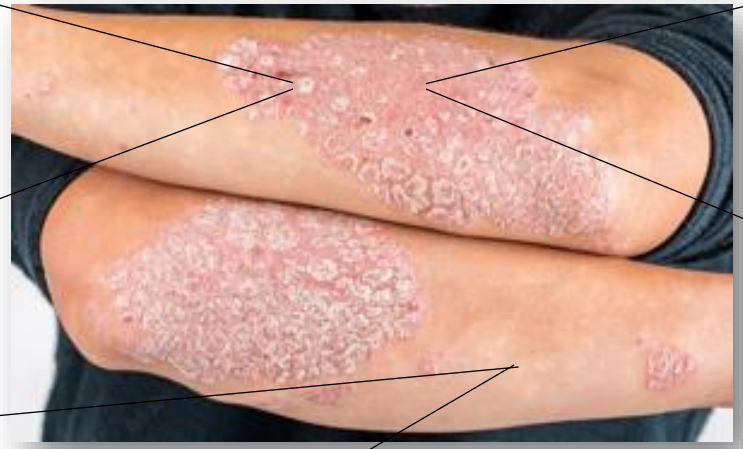
- IMQ shows significant increase in PRO-CO3 production indicating a strong fibrotic response
- Intravenous administered HDF spheroids reduces PRO-CO3 in IMQ treated mice

CYPS317 Fibroblast Spheroids for the Treatment of Psoriasis

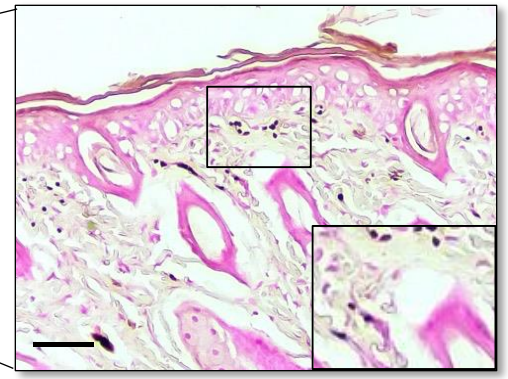
Significant reduction in psoriasis area and severity index (PASI)

Significantly reduced epidermal thickening

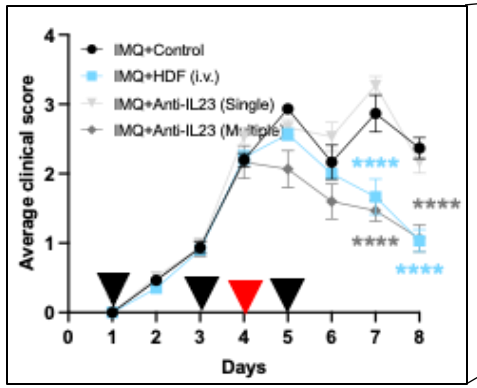




Significantly reduced immune cell infiltration



Significantly improved response compared to anti IL-23 mAb



- **Significant improvement of moderate and severe psoriasis.**
- **Single administration of fibroblast spheroids just as effective as multiple administrations of anti IL-23 mAb.**
- **No Adverse side effects noted to date.**

Local and systemic immune homeostasis

Summary

Clinical stage pipeline with platform candidates ready to proceed in clinical trials.

Strong IP platform technology with 220+ patents issued/pending with potential in multiple therapeutic areas.

Open to academic and industry collaborations.

Near-term outcomes include drug product and completion of a Phase 1/2 trial in diabetic foot ulcers in 2025.

fibrobiologics

Thank You!