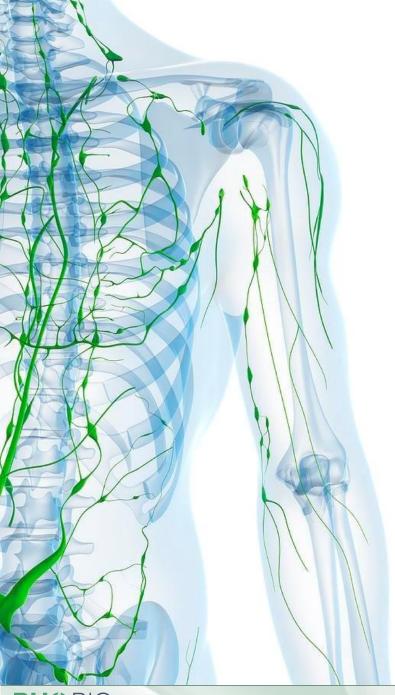


Harnessing the Body's Natural Drain to Cure Disease



# **Lymphatic System: Vast but Underappreciated**

Manage fluid balance

Clears cellular waste

Key player in immunity

## Lymphatic Dysfunction Can Impact Every Organ System



Glaucoma, Uveitis, Retinopathy



Dementia, Alzheimer's Parkinson's



Primary lymphedema, vascular abnormalities



Lupus, MS, Sjogren's



IBD, Celiac, Diabetes



Heart Failure, Hypertension

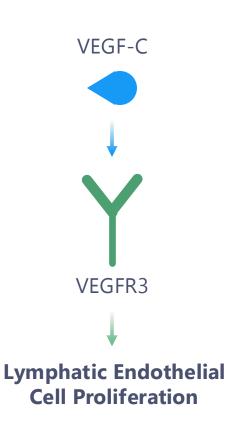
**No FDA Approved Therapies That Improve Lymphatic Function** 

# **Master Regulator of the Lymphatic System**

**VEGF-C** activates VEGFR3

**VEGFR3:** Master regulator of lymphatic system

**Absence** of either one results in **lymphatic dysfunction** and underdeveloped vessels

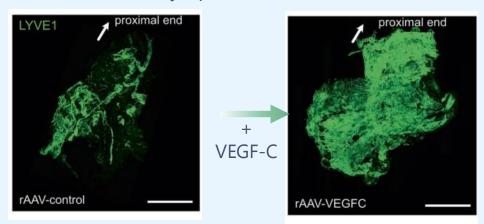


### What does lymphatic activation mean?

#### Increased Lymphatic Pumping



#### New Lymphatic Vessel Growth

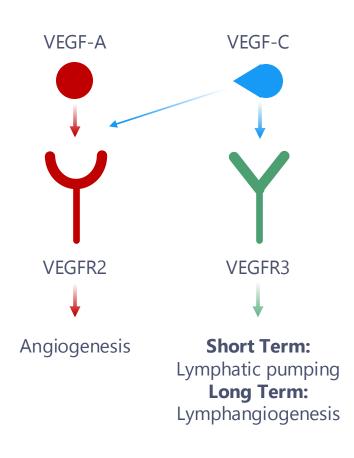


## **VEGF-C** also activates **VEGFR2**

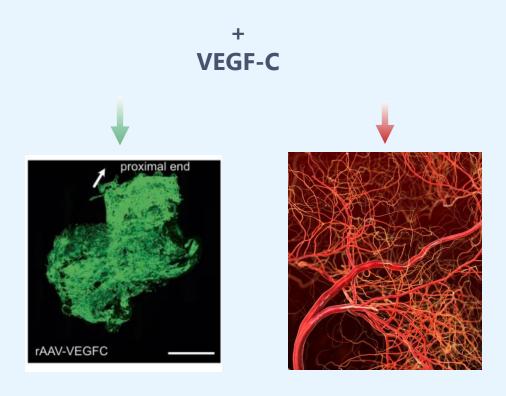
**VEGF-C** also activates VEGFR2

 VEGFR2 is responsible for vasodilation and angiogenesis

When the body upregulates lymphangiogenesis it also upregulates angiogenesis

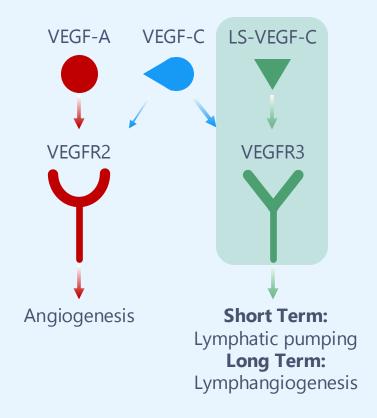


### **Challenge: Coupled with angiogenesis**

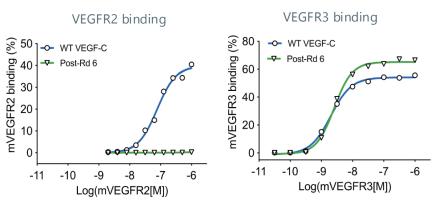


#### **Rho Bio's Solution**

Lymphatic activation without angiogenesis

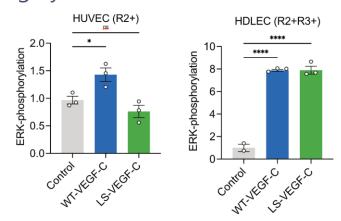


### Highly Specific VEGFR3 Binding



LS-VEGF-C has comparable binding to VEGFR3 as WT VEGF-C

### Highly Potent VEGFR3 Activation



LS-VEGF-C just as potently activates VEGFR3 as WT-VEGF-C



### **Strong IP**

Covering mutations at a dozen positions



#### **Advanced Product**

Ready to enter cell line development

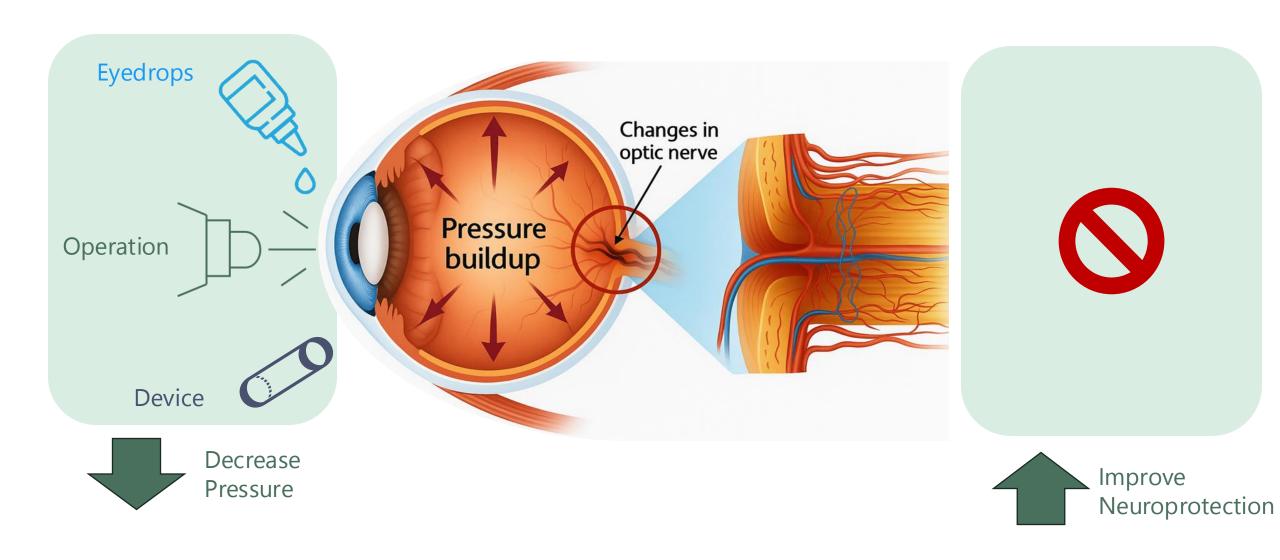


#### **Extensive animal work**

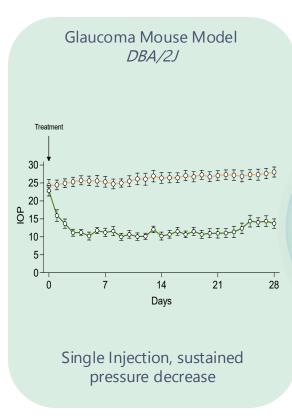
Treated numerous species (mice, rabbits, minipigs, NHPs). Up to 28 days. No toxicity observed.



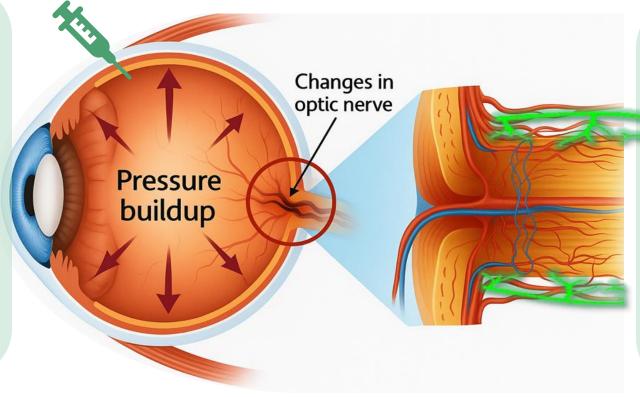
## Glaucoma: Back of the eye disease with only front of the eye treatments

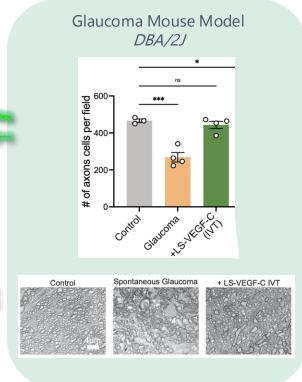


## Activating lymphatics to protect the optic nerve





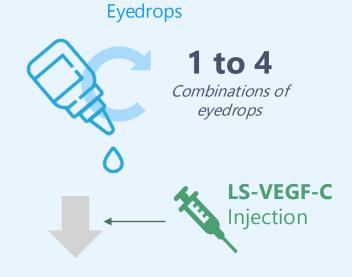


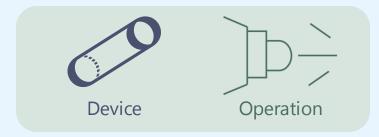




#### **Glaucoma Treatment Paradigm**

# A new solution for an expanded glaucoma population

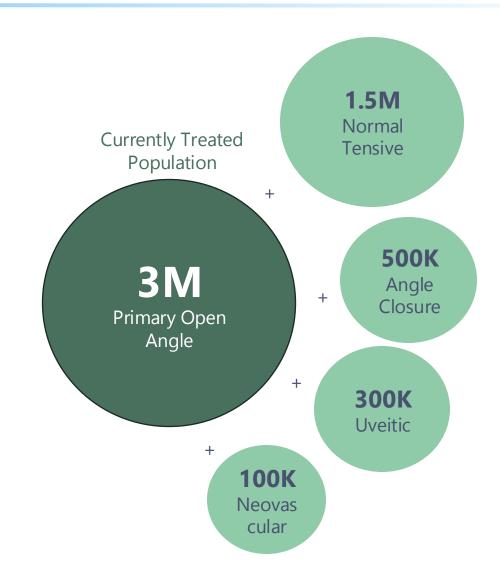




220K

Glaucoma Procedures per Year

US Claims Data 2021



## Team built to drive ophthalmology to the clinic with foundations in lymphatic biology



**Jennifer Beecham** President, COO







Michael Ehrlich, MD Strategic Advisor

ALEXION

Exec. Dir. Clinical Development Ophthalmology and Neurology



**Craig Hackett, PhD** CMC Advisor





**Gary Novack, PhD** Regulatory and Non-Clinical Advisor





Namrata Saroj, OD Clinical Advisor



**Scientific Founders** 



**Eric Song, MD, PhD** Discovered Optic Nerve Lymphatics



Aaron Ring, MD, PhD Serial Entrepreneur, Protein Engineer

Fred Hutch



Jony Kipnis, PhD Discovered Meningeal Lymphatics





Akiko Iwasaki, PhD Immunobiologist, BoD Roche and Genentech

Yale



Yale

### **Advanced Preclinical Program**

(\$300K Non-Dilutive Funding through Yale)



- DME
- Induced Glaucoma
- Genetic Glaucoma
- Lymphedema
- Alzheimer's (Ongoing)



- Normal Tensive Glaucoma
- Toxicity (Ocular and Systemic)



- Normal Tensive Glaucoma
- Toxicity (Ocular and Systemic)



- Generated human protein library
- Selected best binder/activator
- Improved stability
- Filed IP

## **Rho Bio Development Plan**







2H 2024

1H 2025

2H 2025

1H 2026

2H 2026

1H 2027

2H 2027



Established in BioLabs New Haven



DC Selection



**GMP** Manufacturing





GLP Tox



Ex-US IIT



Clinical Trial Preparation



Phase 1 Clinical Trial

Current Seed Raise: \$2M Still Seeking: \$750K

\$35M Series A (36 Month Runway)