GALIMEDIX Therapeutics

Fighting the Major Causes of Blindness:

Presentation to BIO CEO Feb 12, 2019

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CEO & Chairman

Introducing Galimedix – Preserving Vision by Protecting Neurons

- **Phase 2 US/Israel Pharma:** Experienced Pharma management team backed by world leading experts.
- **First-in-class small molecule GAL-101**: unique neuroprotective eyedrops aiming to slow/stop the progression of glaucoma, and in dry AMD, where there **is no approved treatment**.
- **Potential breakthrough treatment** addressing major unmet needs, **markets >$30B.**
- **Excellent animal efficacy, successful Phase 1 completed in 70 patients,** full Pharma Industry Phase 2-ready package, > €30MM invested

- **Raising funds for two Phase 2 studies:** dry AMD and Glaucoma, to start Q4 2019
- **Top line results within 12-15 months of major funding:** potential inflection

Major Unmet Need – Slow or Stop the Loss of Vision

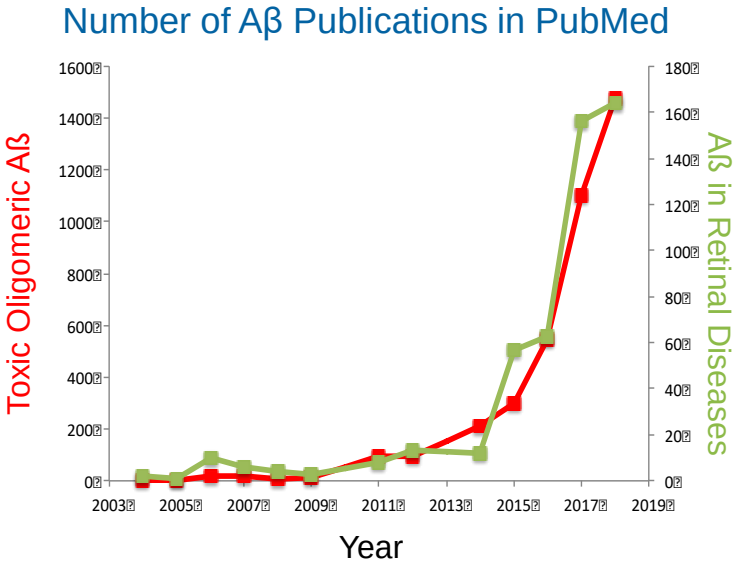
Poor Vision and Blindness have Tremendous Impact on Quality of Life

Normal Vision	AMD Vision	Glaucoma Vision
		

- Studies show: Blindness and cancer are what people fear most
- Glaucoma and dry AMD are the 2 leading causes of blindness - prevalence increasing
- Both diseases are different forms of a neurodegeneration of the retina
- Major unmet need for effective treatments, particularly in dry AMD – no approved treatment available

Amyloid Beta Oligomers:
Emerging importance in Glaucoma and dry AMD

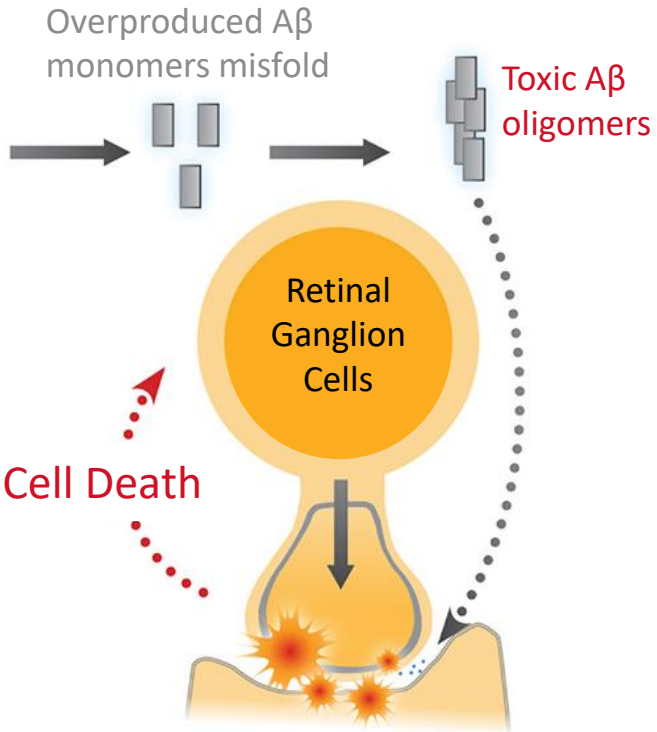
- PubMed publications on toxic amyloid beta in glaucoma and dry AMD
- Interest in both topics is increasing markedly since 2015



Search term (abeta OR ß-amyloid OR beta-amyloid OR aß) AND (oligomer OR oligomers OR aggregated OR protofibrils) AND 2018[Date]
Values for 2018 were extrapolated to predict those for the whole year - analysis made on 30/07/2018. Values for 2010 and 2013 were omitted from this graph due to an apparent anomaly

Amyloid Beta: Part of normal Function, Overproduction causes Misfolding, Toxicity in the CNS and Retina

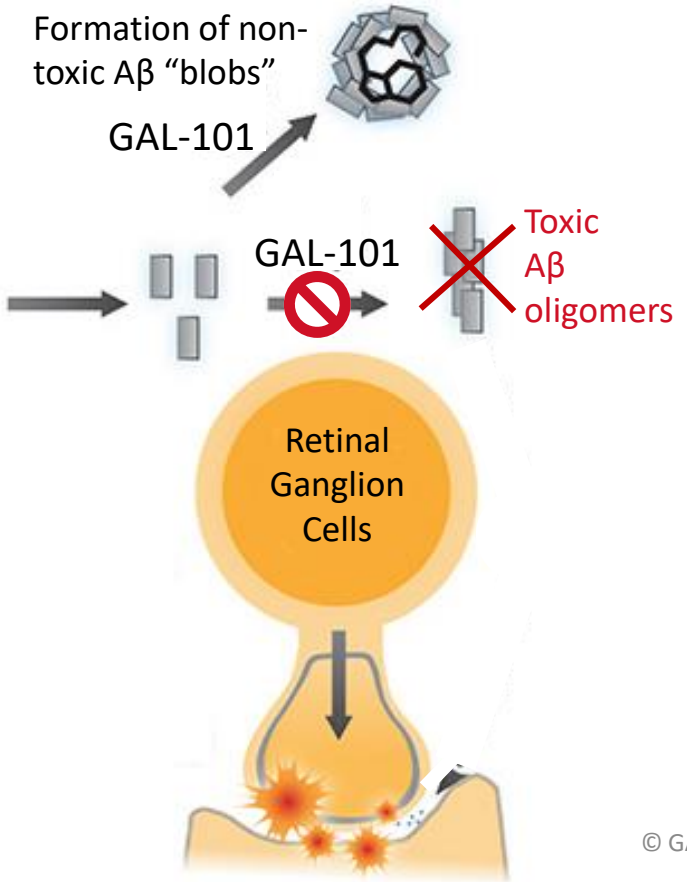
- Amyloid β (Aβ) monomers are required for normal synaptic function in the eye and brain
- Overproduction of Aβ monomers leads to misfolded monomers
- These aggregate spontaneously to form Aβ oligomers, which are highly toxic to neuronal cells



Parsons et al. (2018) Neuropharmacology 92: 158-169

GAL-101 Blocks all Toxic Forms of Aβ

- GAL-101 gathers misfolded Aβ monomers into amorphous Aβ assemblies (“blobs”), rather than form toxic Aβ oligomer
- In the eye, GAL-101 eliminates toxic Aβ oligomers in the retina
- 20 min enough to detoxify a toxic Aβ solution
- “Blobs” continue to gather misfolded Aβ monomers, block toxicity for extended period
- Peak-activated, sustained effect for weeks – not standard drug AUC



Parsons et al. (2018) Neuropharmacology 92: 158-169

Galimedix' Top Clinical Advisors: Global leaders

GLAUCOMA

Prof. Jeffrey Liebmann – Vice-Chair of Ophthalmology and Director Glaucoma Service, Columbia University,

Prof. Leonard Levin – Chair of Ophthalmology and Visual Sciences, McGill University, Montreal

Prof. David S. Greenfield, Douglas R. Anderson Distinguished Professor and Vice-Chair of Ophthalmology, Co-Director Glaucoma Service, Bascom Palmer Eye Institute, Miami, FL

Prof. Jeffrey Goldberg – Chair of Ophthalmology, Byers Eye Institute, Stanford University

Prof. Robert N. Weinreb – Chair of Ophthalmology, University of California – San Diego

Dry AMD

Prof. Jeffrey Heier – Co-President & Medical Director
Director of Retina Service, Retinal Research
Ophthalmic Consultants of Boston

Prof. Baruch Kuppermann – Chair of Ophthalmology, University of California – Irvine

Prof. David Boyer – Sr. Partner, Retina-Vitreous Associates Medical Group, Clin. Prof. Ophthalmology, USC/Keck School of Medicine, Los Angeles, CA

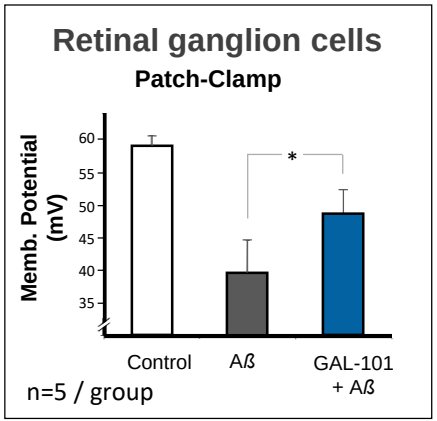
Prof. Frank Holz – Chairman, Department of Ophthalmology, University of Bonn, Germany

Prof Steffen Schmitz-Valckenberg - Department of Ophthalmology), University of Bonn, Germany

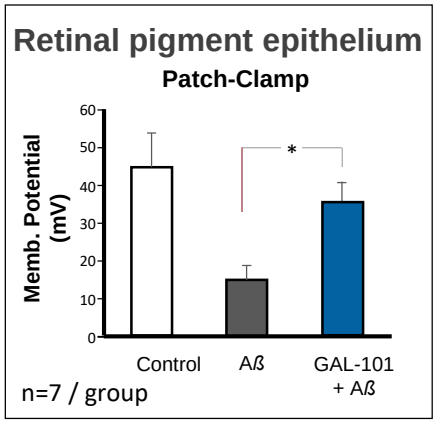
Assoc. Prof. Eleonora Lad – Assoc. Prof. Ophthalmology, Director of Grading, Duke Reading Center, Duke University

GAL-101: Blocking Aβ toxicity in-vitro

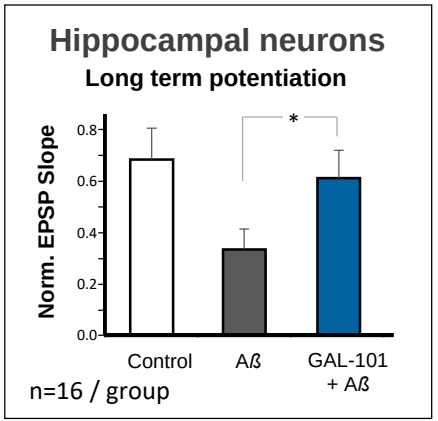
- Toxic Aβ oligomers added to cultured retinal and brain cells drops their membrane potential, reducing their level of function (toxic effect)
- Addition of GAL-101 blunts the effect



Glaucoma



Dry AMD



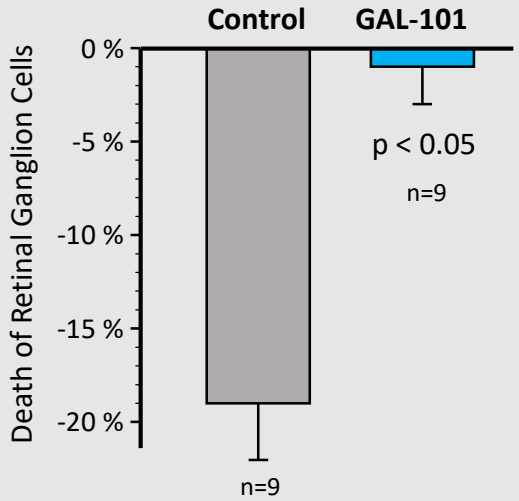
Alzheimer's

Rammes et al. (2015) Neuropharmacology 92: 170-182. Rammes et al. (2011) Soc Neurosci Abs. 36: #47.15. Rammes et al. (2016) Soc. Neurosci. Abs. 42: #785.13

GAL-101: Neuroprotection In Glaucoma Animal Models

- Morrison Rat Model: Increased Intraocular Pressure (IOP) in rats over 6 weeks
- 19% loss of Retinal Ganglion Cells (RGCs) with control drops
- 1% loss of RGCs with GAL-101 drops 3x daily
- **> 90% Neuroprotection shown**
  - Confirmed several times in independent labs
  - Sustained effect from single treatment: >6 wks

Loss of Retinal Ganglion Cells

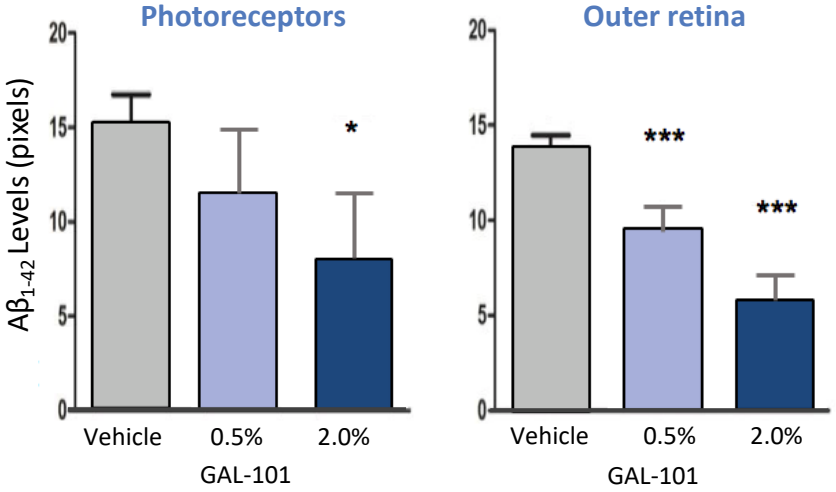


Salt et al. (2014) Neurotox Res 26(4): 440-446, Gravius et al (2013) Invest Ophthalmol Vis Sci. 54: 2625

GAL-101: Reduces Toxic Retinal Aβ and also Complement C3b Response in AMD mice models

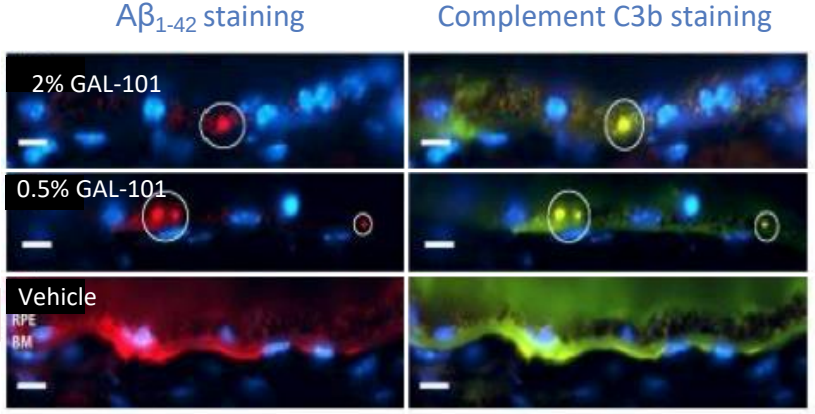
GAL-101 reducing retinal toxic Aβ deposits:

5-6 mo old CFH$^{-/-}$ mice treated 3x daily for 3 mo.



GAL-101: reducing $A\beta_{1-42}$ and Complement C3b

24 months old C57BL/6 mice treated 3x daily for 1 mo.



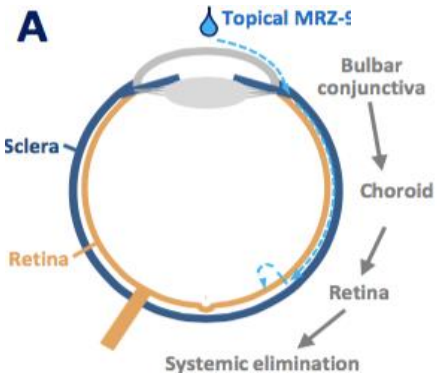
GAL-101 clears toxic Aβ, reducing Complement activation

* p<0.05 *** p<0.001 n=10/group (unpublished data)

Johnson et al. (2002) PNAS 99(18): 11830–11835

GAL-101: Eye Drops Deliver to the Retina – no Injections

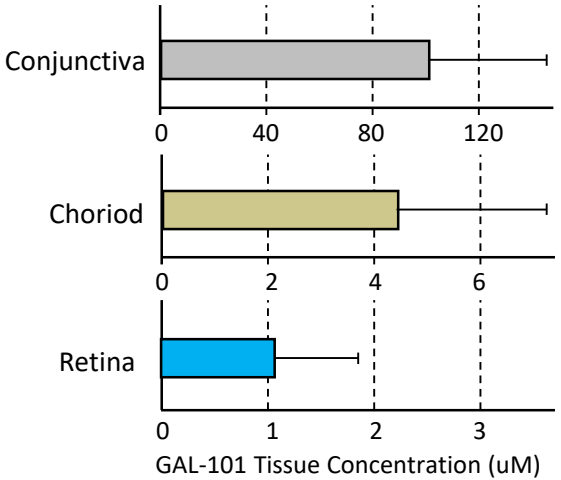
Topical GAL-101



PK studies with GAL-101 eye drops in multiple cynomolgus monkeys

GAL-101 retinal concentration at 5 min: >30x therapeutic threshold, lasted hours

GAL-101 levels 5 min after application

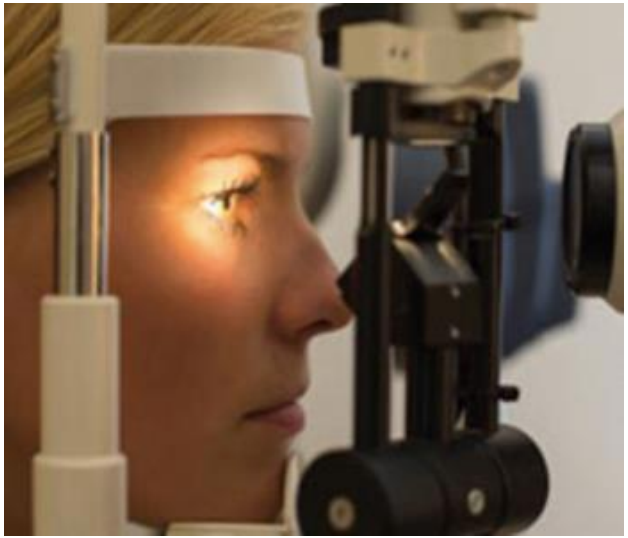


Eye Drops potentially offer:

- Less painful, more patient friendly treatment
- Improved Compliance and Safety vs Intra-ocular Injections

GAL-101: Eye Drops Completed Phase 1 Successfully

- Phase 1 FDA study protocol: 40 healthy subjects and 30 glaucoma patients, up to 3x 3 drops daily
- 16 days exposure (double-blind, placebo-controlled)
- Excellent tolerability and no toxicity

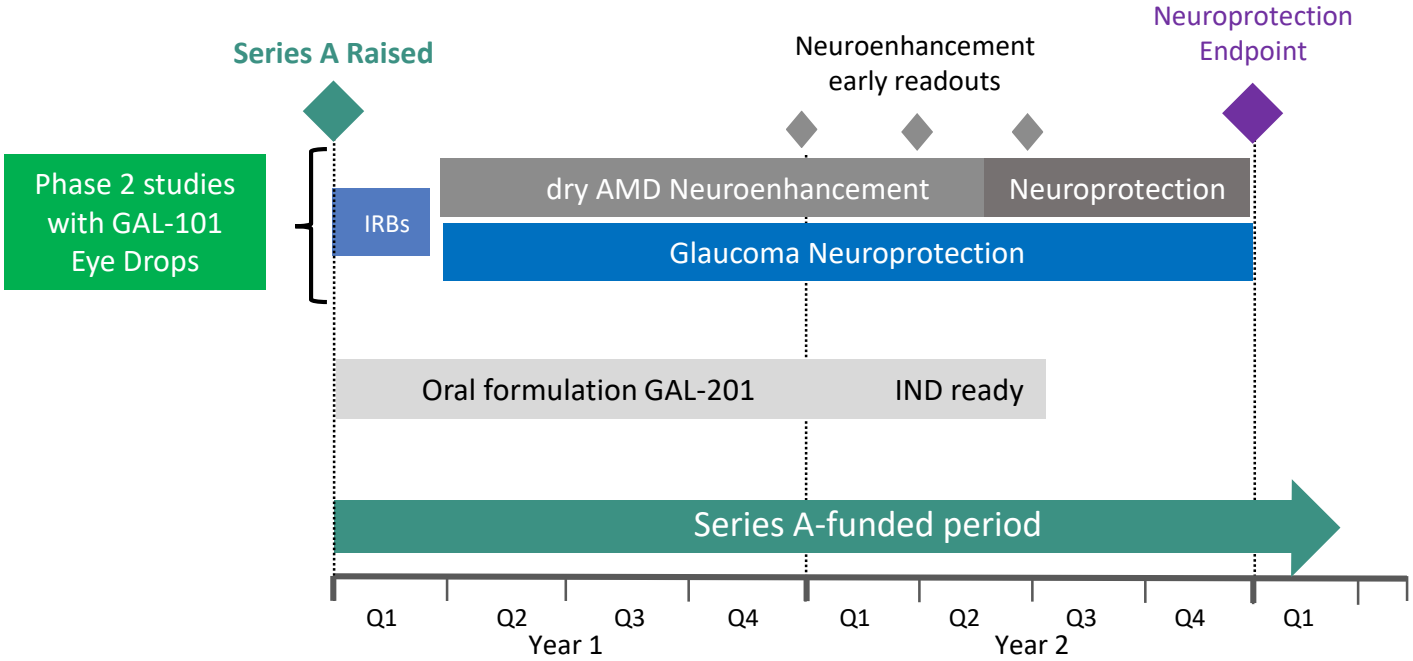


GAL-101 eye drops ready for Phase 2

GAL-101: Phase 2 – aiming for Q4 launch

- Parallel studies in glaucoma and dry AMD
- Established endpoints, well targeted populations
- Optimized design – confirmed by SAB – to demonstrate:
  - **Neuro-Protection:** Statistically significant reduction in disease progression
  - **Neuro-enhancement:** improved visual function readouts
- Treatment period: 12 months per patient, early readouts at 3 and 6 months
  - 100-160 patients per study
- **Multiple readouts, 2 indications = Multiple "Shots on Goal"**

Development Plan – to be Funded by Series A



Goal: Proof of Concept in one or both indications

Galimedix: Wrap Up

- Full, experienced Pharma team, backed by leading experts in glaucoma and dry AMD
- Novel eye drops, excellent retinal delivery in repeated monkey experiments
- >90% neuroprotection, peak-activated sustained effect in multiple animal studies
- Potential to slow progression & improve visual function in glaucoma and dry AMD
  - Potentially prevent advancing to wet AMD and loss of vision
- FDA Phase 1 clinical studies completed - safe, no toxicity;
- More than 7 years and > €30MM invested - Raising funding to launch two Phase 2 studies in Q4/2019: Glaucoma and dry AMD

“Multiple shots on goal” from 12 mo post-funds, potential for early value inflection