Graybug Vision

Cantor Global Healthcare Conference 2021

September 28, 2021

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Extensive experience in ophthalmology and healthcare

Fred Guerard
PharmD, CEO

- ✓ **Novartis**
  Worldwide Head Ophthalmology
- ✓ **Alcon**
  Global Franchise Head Pharmaceuticals
- ✓ Led extension of Novartis ophthalmology pipeline: Encore Vision, Lubricin®, Luxturna®, Xiidra®

Robert Breuil
CFO

- ✓ **Corium**
  CFO, IPO through PE sale
- ✓ **Codexis**
  CFO, Private to IPO
- ✓ **Aerogen**
  CFO, Public through Public Sale

Parisa Zamiri
MD, PhD, CMO

- ✓ **Novartis**
  VP and Global Head, Clinical Development and Therapeutic Area Head, Ophthalmology
- ✓ Ophthalmologist from Moorfield's Eye Hospital, UK
- ✓ Ocular immunologist from Schepens Eye Research Institute, a Harvard affiliated institute

Bettina Maunz
Chief People Officer

- ✓ **Novartis**
  Global Head Enterprise Communications
- ✓ **Alcon**
  VP and Global Head Communications, President Alcon Foundation
- ✓ Led teams and culture change as part of significant business transformations across Pharma, Biotech and Medical Device industry

Ming Yang
PhD, SVP R&D

- ✓ **Genentech**
  Ocular drug delivery
- ✓ **Wilmer Eye Institute at Johns Hopkins**
  PhD Biomedical Engineering
- ✓ Developed technologies that led to two FDA-approved ophthalmic drugs

Our Scientific Advisory Board

Dr. David Boyer

- ✓ Retina-Vitreous Associates Medical Group, California
- ✓ USC/Keck School of Medicine

Dr. Rick Ferris

- ✓ Ophthalmic Research Consultants
- ✓ National Eye Institute (retired)

Dr. Jeff Heier

- ✓ Ophthalmic Consultants of Boston

Dr. Arshad Khanani

- ✓ Sierra Eye Associates
- ✓ University of Nevada, Reno School of Medicine

Dr. Carl Regillo

- ✓ Retina Service Wills Eye Hospital
- ✓ Thomas Jefferson University School of Medicine

Dr. Rishi Singh

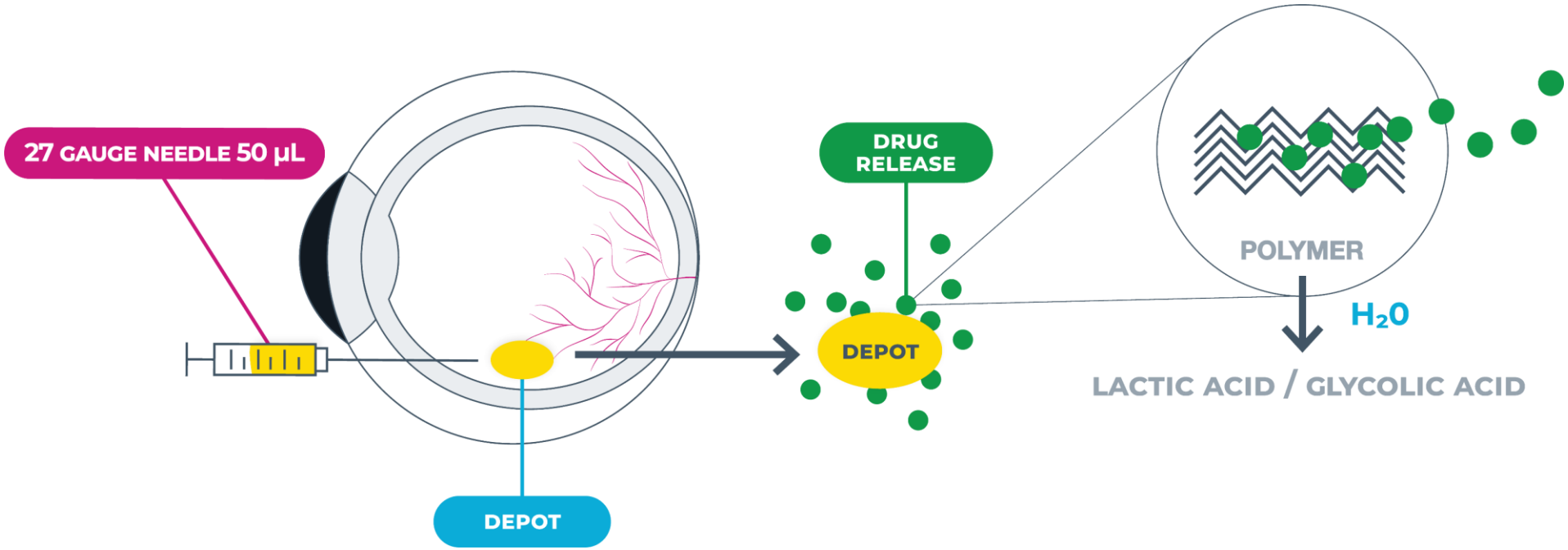
- ✓ Cole Eye Institute, Cleveland Clinic
- ✓ Lerner College of Medicine

Graybug Investment Highlights

- ✓ **Potentially transformative, long-acting treatments for vision-threatening diseases**
  - Lead retina program GB-102 has demonstrated 12-month+ duration in 18-month Phase 2b trial
- ✓ **Differentiated clinical-stage candidates targeting $15B+ markets**
  - GB-102 for wet age-related macular degeneration (wet AMD)
  - GB-401 for primary open-angle glaucoma (POAG)
- ✓ **Patent protection: GB-102 through 2039, GB-401 through 2041**
- ✓ **Pursuing expansion of pipeline with focus on novel therapeutics addressing unmet needs**
- ✓ **Cash and investments ($78.2M at June 30, 2021) support planned operations into 2023**
  - GB-102 partnering discussions active to support next clinical trial
  - GB-401 ready for first-in-human clinical trial in 2H 2022

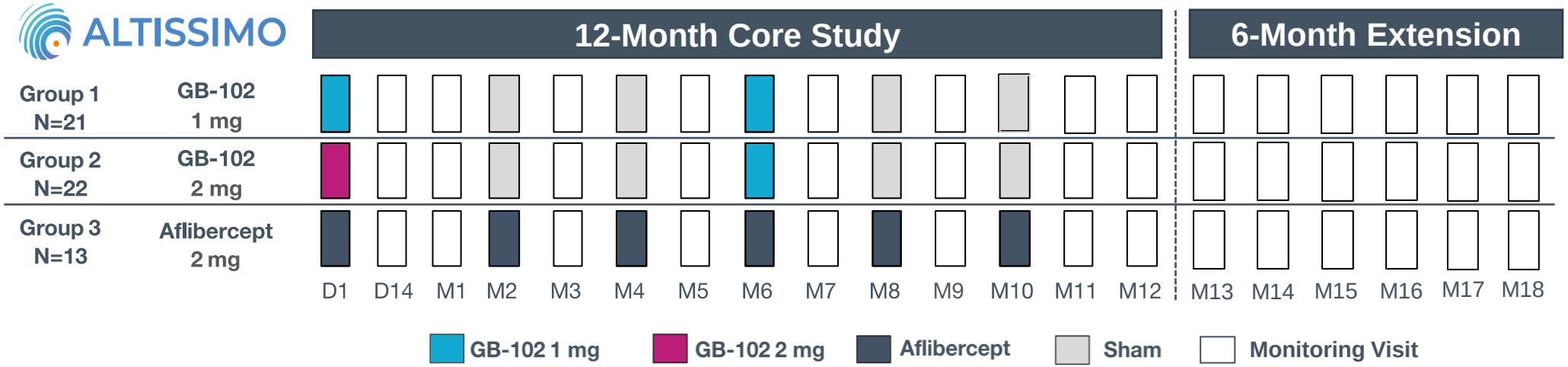
Our Technology

Proprietary ocular technologies promote controlled, sustained drug delivery



- ✓ Differentiated mechanisms of action
- ✓ Extended durability & sustained drug delivery
- ✓ Versatile proprietary technologies
- ✓ Designed with safety in mind

18-month data of GB-102 Phase 2b Trial in wet AMD now available



Population Criteria

- Diagnosed wAMD within 18 months
- At least 3 prior anti-VEGF injections
- Anti-VEGF treatment within last 21 days
- Demonstrated response to prior anti-VEGF treatments
- BCVA of 35-88 letters

Trial Endpoints

Primary:
- Time to first rescue

Secondary:
- Change from baseline BCVA
- Change from baseline CST (OCT)
- Safety and tolerability

Extension Eligibility

- 50 out of 56 patients completed 12-month treatment phase[1]
- 58% of patients who completed Month 12 visit were eligible[2] and agreed to continue clinical monitoring in **six-month trial extension**

Extension Study provides information on GB-102 1 mg beyond Month 12

[1] 6 patients withdrew for reasons unrelated to their treatment.
[2] Extension study eligibility criteria: patients who completed all study visits through Month 12 and did not require/receive supportive therapy treatment at the Month 12 final study visit.

ALTISSIMO 12-Month Core Study Summary

Overall, GB-102 1 mg was well tolerated and demonstrated best-in-class duration

- **First IVT injection to demonstrate 6-month duration for half of patients in a randomized, controlled trial**
  - ✓GB-102 reduced annualized injection burden by 58% compared to pre-enrollment period
- **Efficacy of GB-102 demonstrated by anatomical control (CST) similar to aflibercept**
- **GB-102 demonstrated favorable safety during the 12-month Core Study**
  - ✓No drug-related serious adverse events
  - ✓No Treatment Emergent Adverse Events leading to drug discontinuation
  - ✓No adverse event requiring surgical intervention
  - ✓Medication was detected in the anterior chamber (AC) in 3 out of 37 injections (8.1%)
  - ✓No vision-threatening inflammation or increase in intraocular pressure
  - ✓Majority of drug-related adverse events were mild to moderate

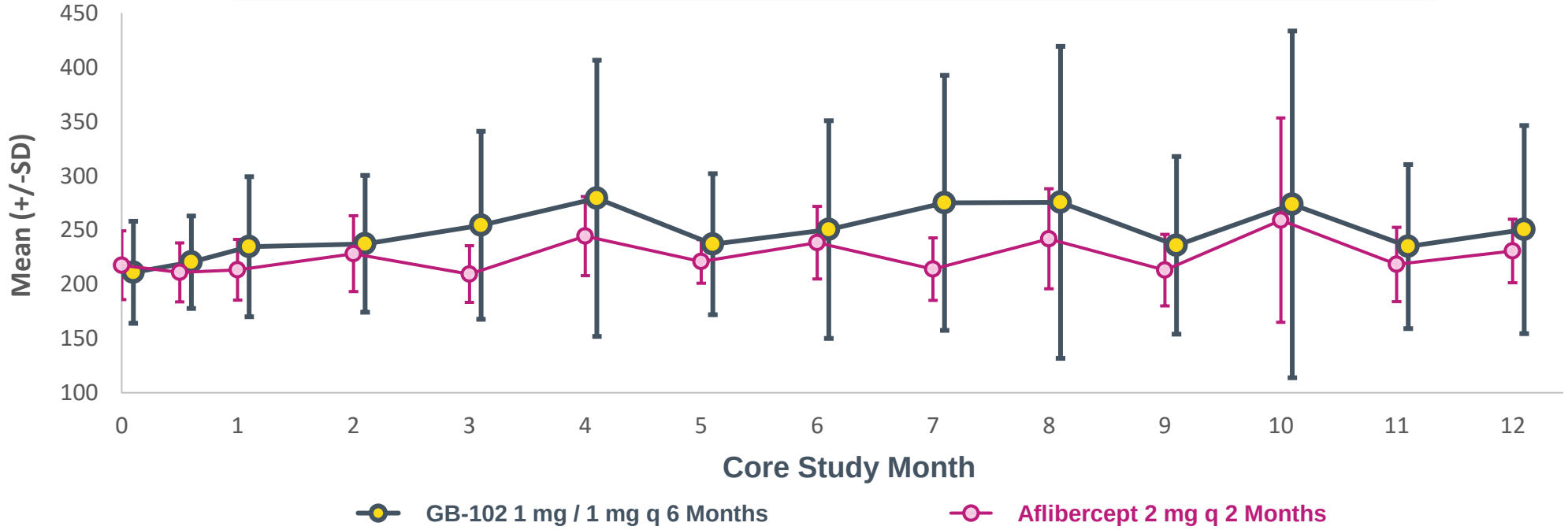
Median Time to First Rescue for GB-102 1 mg was 5 months (Core Study)

61% of rescues either met no criteria or were not due to an increase in CST

Best On-study Duration GB-102 1 mg				
≥3M	**≥4M**	**≥5M**	**≥6M**	**≥8M**
81%	62%	52%	48%	29%

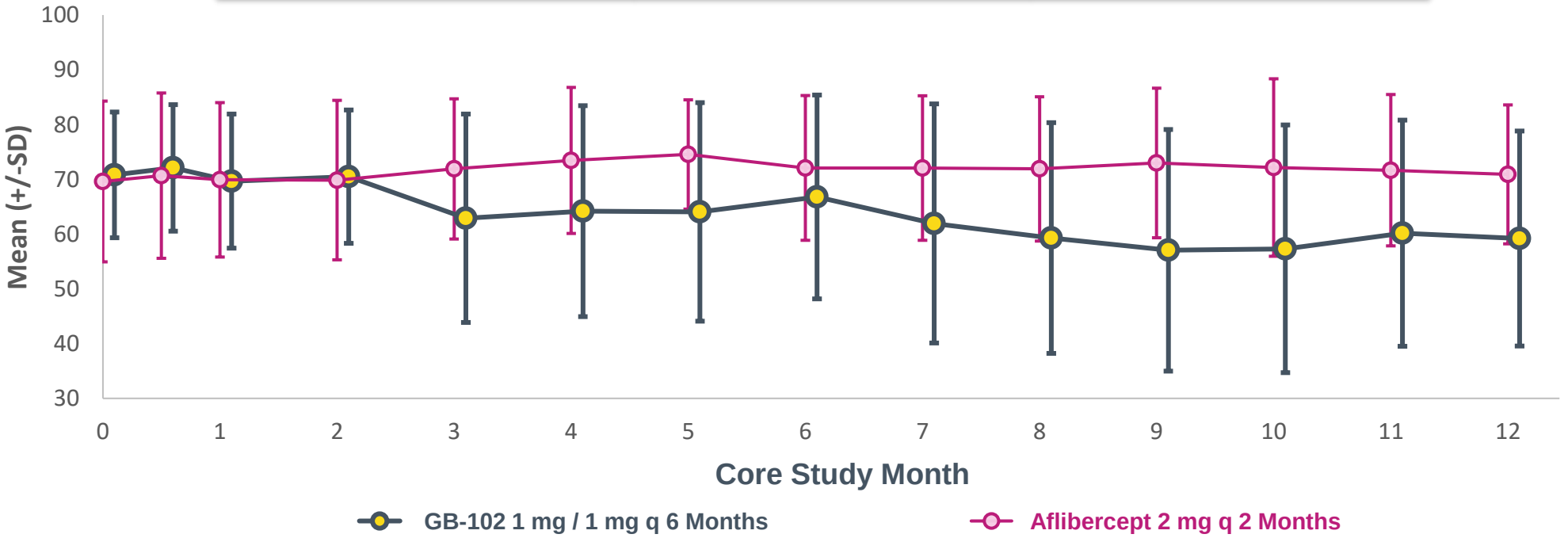
Control of CST with GB-102 1 mg given every 6 months was similar to that of bi-monthly aflibercept

Time Frame	GB-102 1 mg/1 mg Mean (SD)	aflibercept Mean (SD)
Change from Baseline at M6	44.3 (82.2)	19.3 (22.5)
Change from Baseline at M12	44.2 (79.6)	11.7 (21.1)



BCVA trended lower in GB-102 1 mg given every 6 months as compared with bi-monthly aflibercept — high standard deviation driven by 6 patients

Time Frame	GB-102 1 mg/1 mg Mean (SD)	aflibercept Mean (SD)
Change from Baseline at M6	-5.7 (14.7)	2.3 (5.1)
Change from Baseline at M12	-11.5 (15.2)	1.1 (7.8)



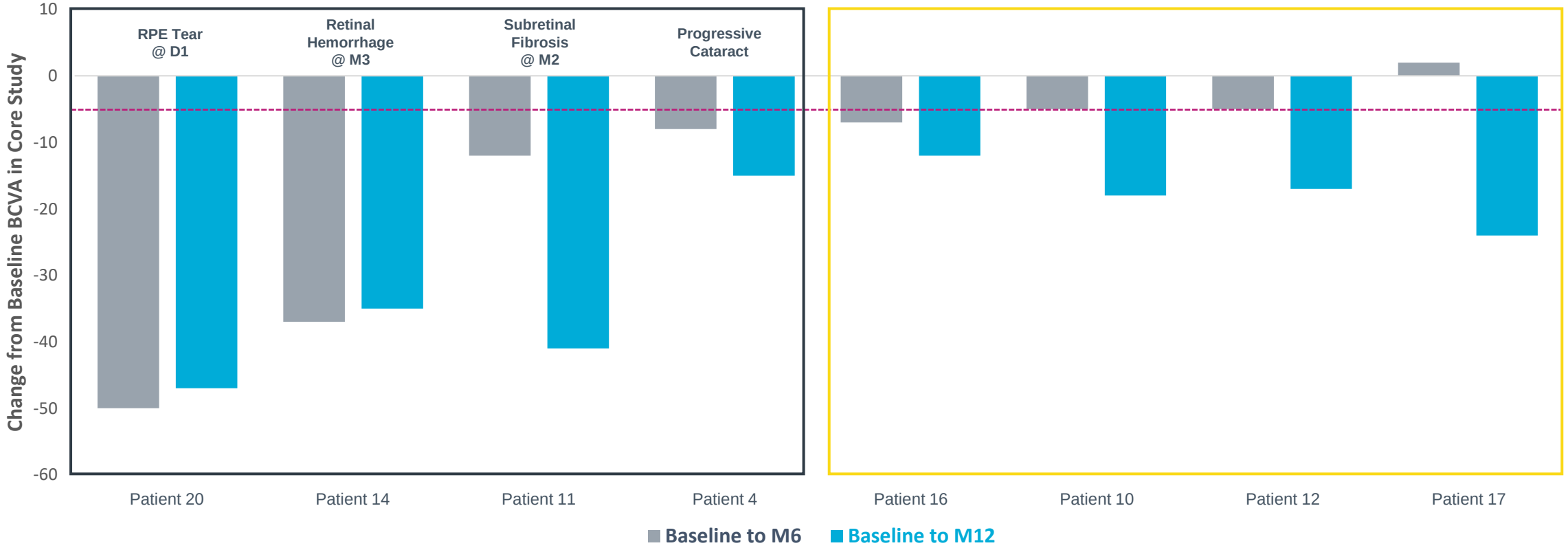
Opportunity to optimize clinical trial design and enhance formulation to deliver BCVA results similar to aflibercept

Treatment-unrelated AEs & Hard-to-treat Patients

Larger trial will distribute patients evenly across arms

Particle Dispersion

New formulation to reduce interference with vision



ALTISSIMO Extension Study Summary

6M extension period validates duration of effect and control of disease with GB-102 1 mg

Duration

- GB-102 demonstrated a ***median duration of 12 months*** after the last treatment
- 55% of patients achieved at least 12-months of duration

Treatment Burden

- GB-102 reduced annualized injection burden by 73% compared to pre-enrollment period

Safety

- GB-102 continued to be well-tolerated and maintained a favorable safety profile up to 18 months

Efficacy

- Efficacy of GB-102 validated by anatomical control (CST) similar to aflibercept over 18 months

Median Duration for GB-102 1 mg was 12 months (Extension Study)

Extension Period Duration from Last Dose* (N=11)	
GB-102 1 mg	**Duration in Months**
Mean (SD)	9.6 (5.3)
Median	12

*GB-102 or additional supportive therapy

Clear Roadmap to Success

Capitalize on good anatomical control and extended duration observed in ALTISSIMO

- 18-month ALTISSIMO data confirms:
  - ✓ Improved and long-term **safety profile**
  - ✓ **Unprecedented duration** for an IVT injection
  - ✓ **Pharmacological effect on CST** similar to aflibercept
- **Reduction in BCVA primarily driven by subgroup of patients**
  - Hard-to-treat patients, treatment-unrelated AEs, and events of particle dispersion
- Next steps include further **optimization of formulation**, **entry criteria**, and **rescue criteria**

Optimization	Safety	Duration	BCVA
Formulation	↑		↑
Entry criteria		↑	↑
Rescue criteria		↑	

Active partnership discussions ongoing to support next clinical trial

New GB-102 formulation designed to reduce interference with vision

Aggregation Shear Stress Test (37ºC)

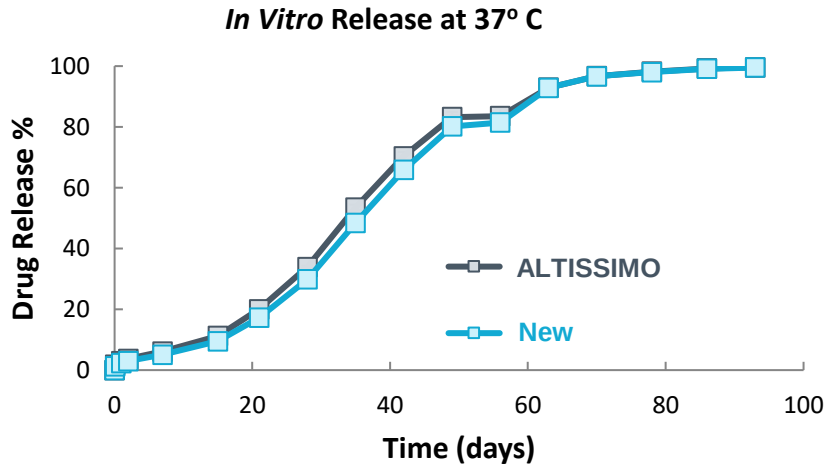
ALTISSIMO Formulation → **New Formulation**

Dispersed Depot

Intact Depot

Benefits of new GB-102 formulation:

- ✓ Instant aggregation upon injection
- ✓ Aggregation is resistant to shear stress
- ✓ Improved reconstitution reduces variability
- ✓ Demonstrated safety in a GLP tox study
- ✓ Same drug release profile



Graybug Programs in Active Development

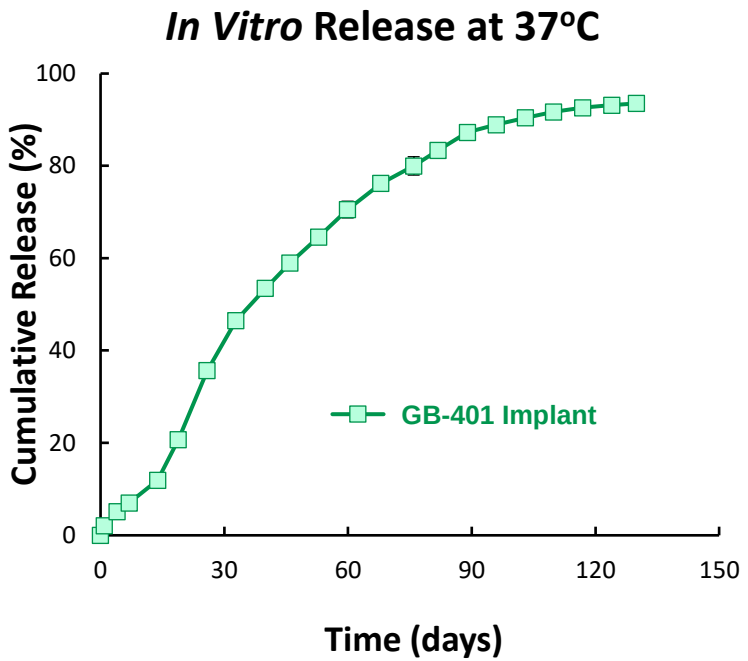
Program	Indication	Phase of Development				
		Preclinical	Phase 1	Phase 2a	Phase 2b	Phase 3
GB-102 *6-month dosing*	Wet Age-Related Macular Degeneration (wet AMD)	**Formulation optimization on-going; seeking partner**				
GB-401 *6-month dosing*	Primary Open-Angle Glaucoma (POAG)	**IND 2H22**				

Pursuing expansion of pipeline with focus on novel therapeutics addressing unmet needs

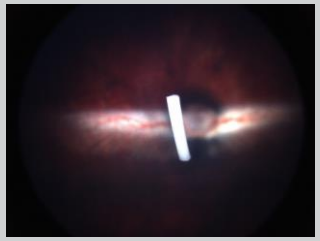
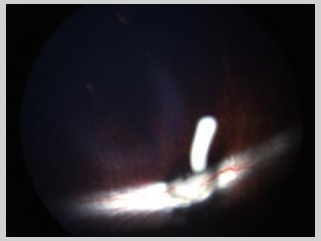
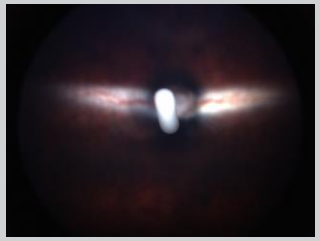
GB-401 implant development is underway toward clinical trial in 2H 2022

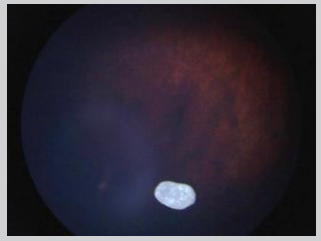
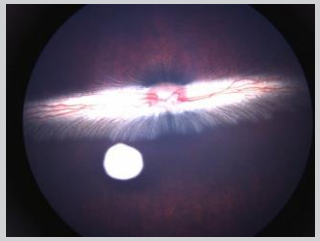
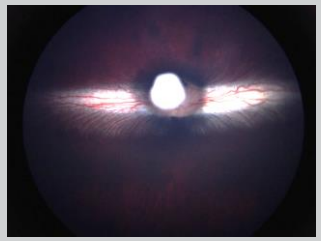
- **GB-401 development updates:**
  - ✓Lead GB-401 implant formulation has been identified
  - ✓Lead formulation lasts >4M *in vitro*
    - ***Duration of 6M+ expected in humans***
  - ✓IND-enabling repeat-dose GLP tox study scheduled for Q4 2021
  - ✓Scale-up manufacturing process has been developed
  - ✓In-house GMP manufacturing capability has been established

GB-401 IND planned in 2H 2022



GB-401 implant demonstrating durability in rabbit eyes

Baseline	Day 3	Day 7	Day 14
			

Day 28	Day 56	Day 84
		

GB-401 implants are well tolerated in rabbit eyes

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