

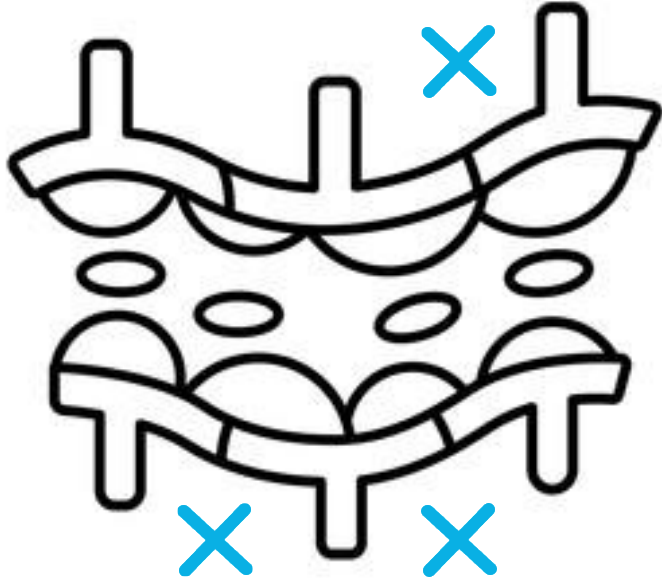


Noninvasive Drug Delivery into the Brain

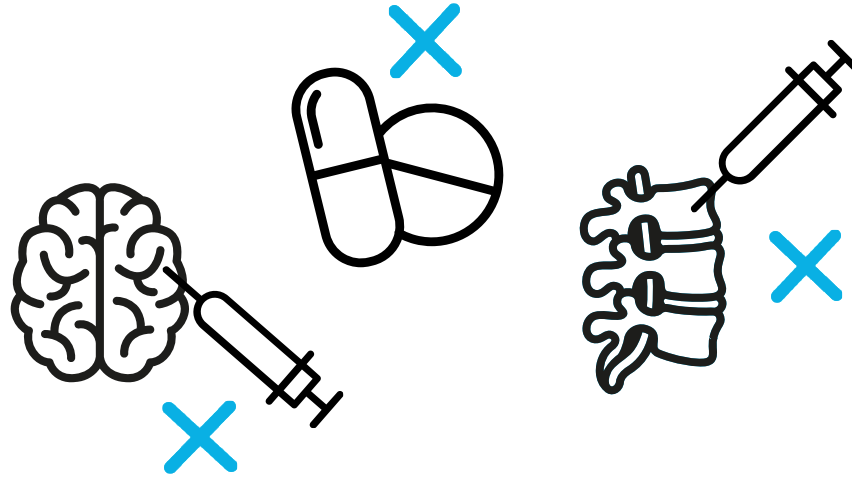
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The blood-brain barrier (BBB) prevents therapies from reaching the right spots



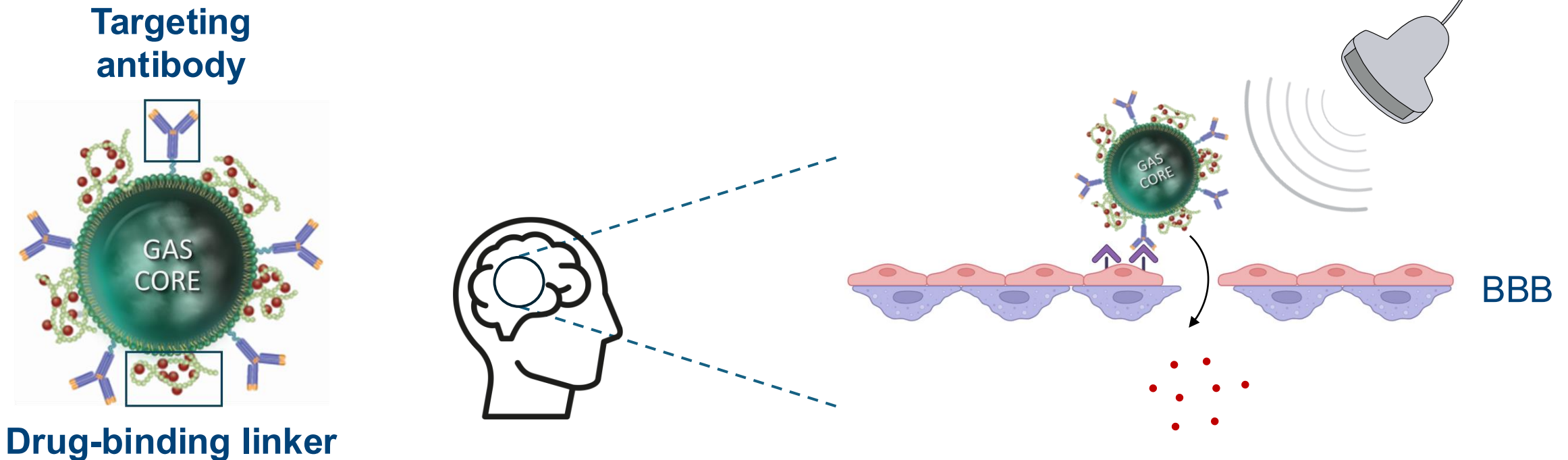
Blood vessels block
drug entry



Treatments in development
are not enough

- too invasive
- not site-specific
- harmful side effects

MusiQ Bio's MsQ microbubbles open barriers and deliver drugs with "Two-Factor Authentication"



1 IV-injected MsQ binds to brain's blood vessels

2 Ultrasound triggers MsQ to open BBB and release drugs

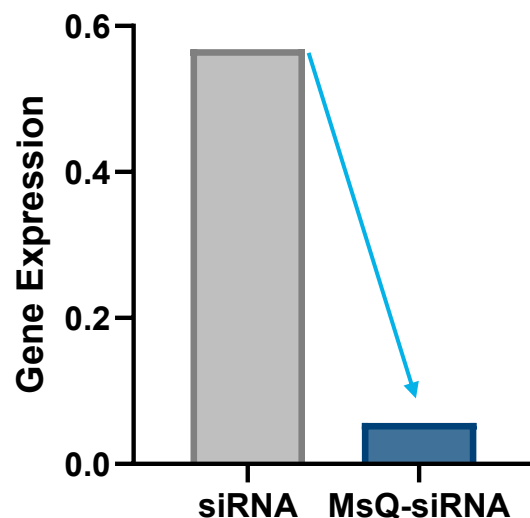
The right drug, in the right place, at the right time.

- **Non-invasive**
- **Non-surgical**
- **Direct to the site**
- **Delivered in minutes**

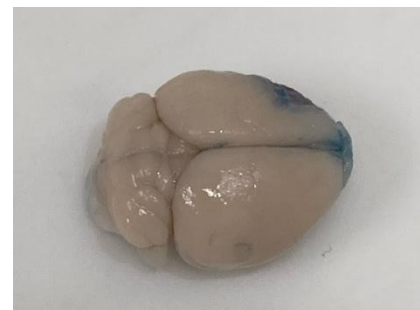


Proof-of-concept in gene therapy

10x greater gene silencing in mice

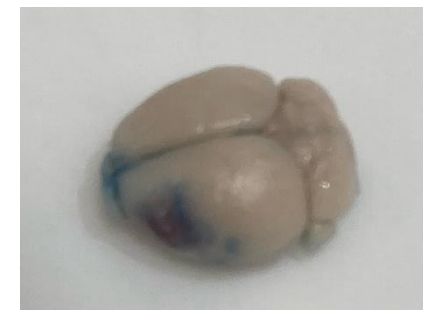


Successful delivery only to the brain region with neuroinflammation following systemic MsQ injection*



Healthy hemisphere

Pulsed with ultrasound
No Delivery

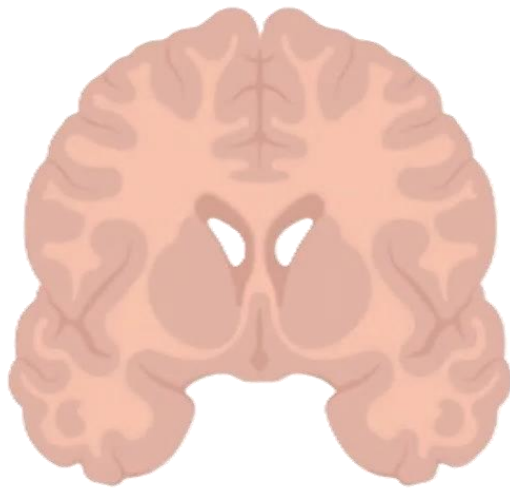


Inflamed hemisphere

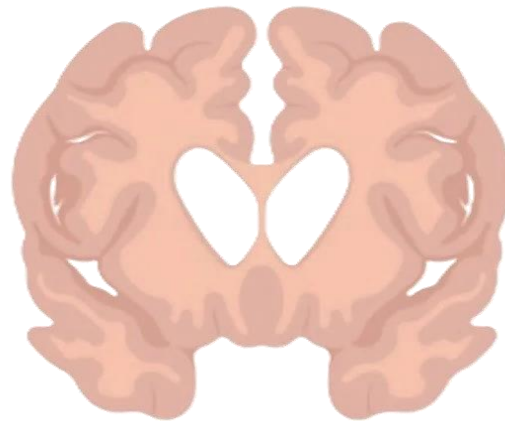
Pulsed with ultrasound
Successful Delivery

MsQ can deliver therapies that STOP HD disease progression

Primary Indication: Huntington's Disease is a death sentence



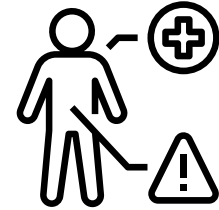
NORMAL
BRAIN



HUNTINGTON'S DISEASE
BRAIN

250k in U.S. carry the gene
40k show symptoms

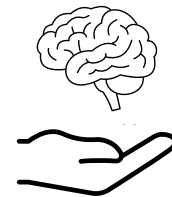
Symptom
management



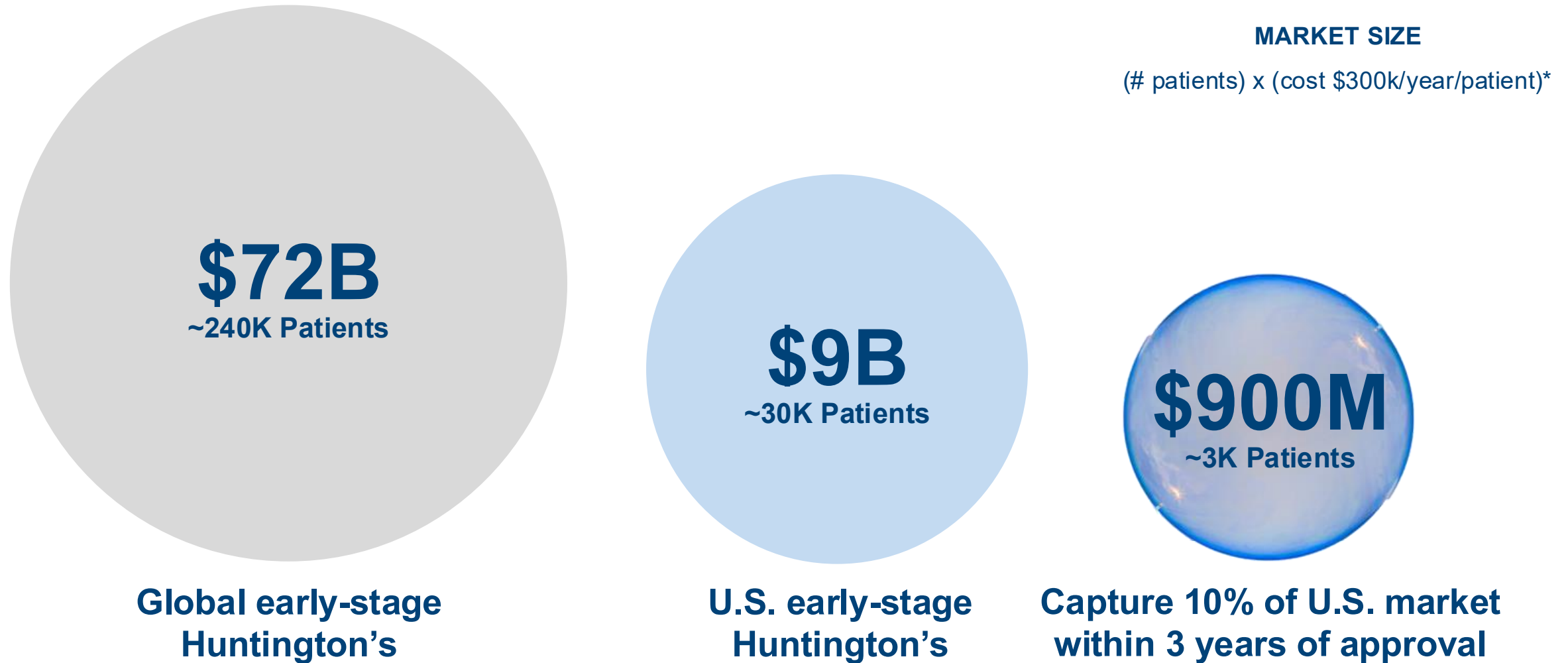
Estate planning



Brain donation



Huntington's Disease in U.S. as entry point for MsQ



Every breakthrough therapy needs a way into the brain

ASOs

siRNA

Gene
Therapies

Small
Molecules



Genentech
A Member of the Roche Group

Lilly

abbvie

WAVE[®]
LIFE SCIENCES

IONIS[®]

 arrowhead
pharmaceuticals

 Alnylam[®]
PHARMACEUTICALS


SKYHAWK
THERAPEUTICS

PTC
THERAPEUTICS[™]



Multiple therapies.

Multiple brain diseases.

Multiple partners.

Multi-billion-dollar opportunity.

One MsQ platform.

Pipeline-in-a-platform provides avenues for faster clinical validation and partnership revenue

PRIMARY INDICATION

Huntington's



Accelerated FDA pathway
Less time. Less patients.
Less resources needed.

FUTURE INDICATIONS

Parkinson's



Ataxia

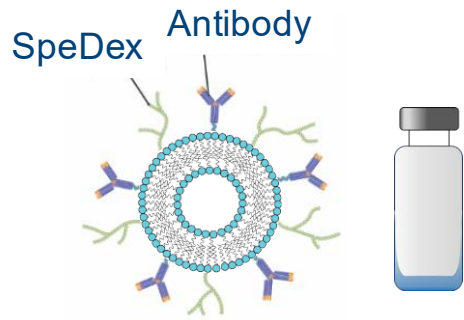


Alzheimer's /
Dementia



MsQ PLATFORM
DIFFERENT DRUGS + DIFFERENT PULSE SITES

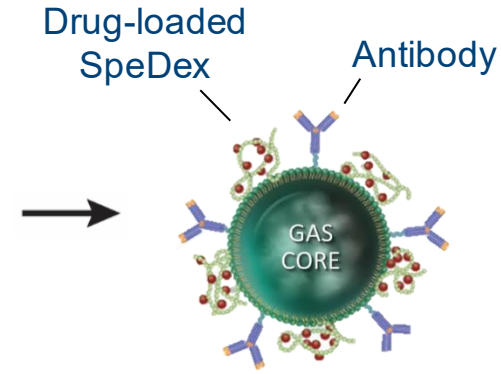
MsQ leverages existing manufacturing & clinical workflows



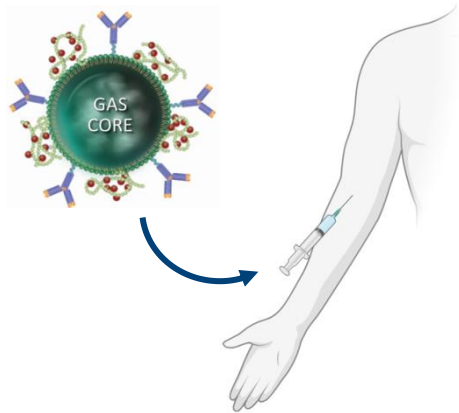
① Manufactured & stored in vials under gas headspace



② Rehydrate with drug solution and shake to activate microbubbles



③ Activated MsQ MBs ready for injection



④ Systemic injection of MsQ MBs



⑤ Pulse brain with ultrasound for 2-5 minutes per targeted site with MRI-guided coordinates



⑥ Confirm opening with MRI and post-op monitoring for up to 2 hours

MsQ's advantage over other delivery modalities

Modality	MsQ	Unmodified Microbubbles	AAVs	ASOs / siRNA	Small Molecules	BBB Shuttles
Example Companies	MusiQ Bio	Vesselon SonoThera	uniQure	Roche Alnylam Wave	Skyhawk Novartis/PTC	Denali Aliada Manifold
Administration route	Intravenous	Intravenous	Intracerebral (direct brain)	Intrathecal (direct spinal cord)	Oral	Intravenous
Site-specific	✓	X	✓	X	X	≈
Modular payload	✓	✓	✓	X	X	✓
Controlled delivery	✓	≈	X	X	X	X
Re-dosable & non-immunogenic	✓	✓	X	✓	✓	✓

Scientifically validated platform with operational momentum

Multiple publications
validating platform and
brain delivery using US

nature
nanotechnology
nature communications

Publications on platform expansion
and using US for deep-brain delivery

**ADVANCED
SCIENCE**
BIOENGINEERING &
TRANSLATIONAL MEDICINE



\$50k at UT Dallas
Draper Pitch Competition

\$2.6M CPRIT SEED grant award
(80% towards platform development,
20% towards cancer application)



CANCER PREVENTION & RESEARCH
INSTITUTE OF TEXAS

Actively raising **\$2M**

Pre-2025

2025 – Present

UT Southwestern
Medical Center

Exclusive license
of UTSW patents



Joined Capital
Factory portfolio



Arben Ventures
Secured **\$50k**
in investment

Secured **\$35k** grant for *in vivo*
systemic biodistribution experiments



National Institutes
of Health

Gulf Coast Consortia
REACH

Research Evaluation and Commercialization Hub



**American
Cancer
Society®**

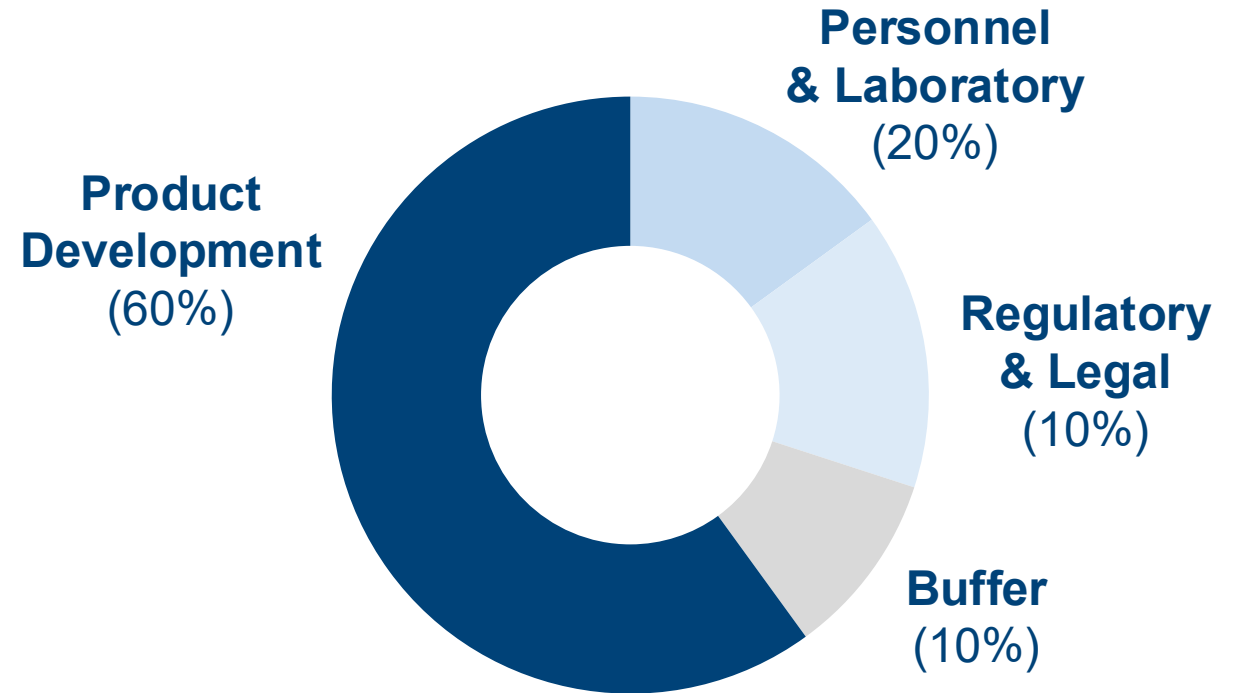
\$75k grant for
humanized mice studies

Funding to advance MsQ as a brain delivery platform

THE ASK:

\$2M (\$1M committed)
Supplemented with a \$2.6M CPRIT grant

Goal: Advance to IND-enabling studies
and unlock pharma partnerships



YEAR 1 (FROM FUNDING)

Q1	Q2	Q3	Q4	YEAR 2
Lab establishment & FDA INTERACT	Validation studies in animals	Manufacturing scale-up	Efficacy & safety in diseased mice	FDA pre-IND meeting & large-animal studies

Milestones verified with potential pharma partners and later-stage VC

The Orchestra behind the MusiQ



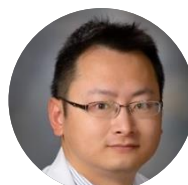
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HIFU
iMGIT
Image Guided Therapy
HISTOSONICS



Bob Smith
Drug Development Advisor



Lucas Rodriguez, PhD
Business Advisor



Evan Turek
Manufacturing Advisor



Investor Capital and Non-Dilutive Awards



Clinical, Manufacturing, Organizational & Community Support

