UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): February 13, 2023

FREQUENCY THERAPEUTICS, INC.
(Exact name of Registrant as Specified in Its Charter)

Delaware	001-39062	47-2324450
(State or Other Jurisdiction of Incorporation)	(Commission File Number)	(IRS Employer Identification No.)

75 Hayden Avenue, Suite 300
Lexington, MA 02421
(Address of principal executive offices) (Zip Code)

(781) 315-4600
(Registrant's telephone number, include area code)

N/A
(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instructions A.2 below):

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, par value $0.001 per share	FREQ	The Nasdaq Stock Market LLC (The Nasdaq Global Select Market)

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 2.02. Results of Operations and Financial Condition.

On February 13, 2023, Frequency Therapeutics, Inc. (the "Company") announced that, as of December 31, 2022, its cash, cash equivalents and marketable securities were $83.1 million (excluding restricted cash), or $68.9 million net of debt.

The cash, cash equivalents and marketable securities information above is based on preliminary unaudited information and management estimates for the year ended December 31, 2022, is not a comprehensive statement of the Company's financial results as of and for the fiscal year ended December 31, 2022, and is subject to completion of its financial closing procedures. The Company's independent registered public accounting firm has not conducted an audit or review of, and does not express an opinion or any other form of assurance with respect to, this preliminary estimate.

The information contained in this Item 2.02 of this Current Report on Form 8-K (the "Current Report") shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, regardless of any general incorporation language in such filing and except as expressly provided by specific reference in such filing.

Item 2.05. Costs associated with Exit or Disposal Activities

Also on February 13, 2023, the Company announced a reduction in force (the "Reduction") of approximately 55% of its workforce. The purpose of the Reduction, which was approved by the Board of Directors of the Company on February 11, 2023, is to better align the Company's workforce with the needs of its business and focus more of its capital resources on its pre-clinical program for remyelination in Multiple Sclerosis (the "MS Program"). These changes will preserve capital, ensuring that the Company is appropriately resourced to complete a first clinical trial of its MS Program.

The Reduction will take place in phases and be completed by April 30, 2023. The total costs related to the Reduction are estimated to be approximately $4 million in future cash outlays primarily related to severance costs and related expenses.

Item 5.02. Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

Chief Executive Officer Appointment

On February 11, 2023, the Company's Board of Directors appointed Christopher Loose, Ph.D., as Interim Chief Executive Officer while David Lucchino, the Company's President and Chief Executive Officer, is on a temporary medical leave of absence after being hospitalized with bacterial meningitis. Mr. Lucchino is expected to make a full recovery. Dr. Loose will also continue to serve as the Company's Chief Scientific Officer. The Company expects Mr. Lucchino will resume his position in full as Chief Executive Officer upon his return.

Dr. Loose, age 42, co-founded the Company and has served as its Chief Scientific Officer since January 2016. Prior to founding the Company, Dr. Loose co-founded Semprus with Mr. Lucchino and Dr. Robert Langer and served as its Chief Technology Officer from June 2007 until its acquisition by Teleflex in June 2012. At Semprus, he led the technology team in the development through regulatory clearance of medical products designed to reduce infection and clotting. Prior to Semprus, Dr. Loose worked as a chemical engineer at Merck Research Labs. In 2011, Dr. Loose was awarded the inaugural Peter Strauss Entrepreneurial Award from the Hertz Foundation. From 2014 to 2021, Dr. Loose served as an Associate Professor Adjunct of Urology at the Yale School of Medicine and Executive Director of Yale University's Center for Biomedical Innovation and Technology, and he continues to serve as a Lecturer in Yale School of Management. Dr. Loose holds a Ph.D. in Chemical Engineering from MIT and a BSE in Chemical Engineering summa cum laude from Princeton University.

Chief Development Officer Departure

As part of the Reduction, Carl P. LeBel, Ph.D. will be stepping down as the Company's Chief Development Officer, effective March 31, 2023.

Item 7.01. Regulation FD Disclosure.

On February 13, 2023, the Company posted an updated corporate slide presentation in the "Investors & Media" portion of its website at www.frequencytx.com. A copy of the slide presentation is attached as Exhibit 99.1 to this Current Report.

The information in Item 7.01 of this Current Report, including Exhibit 99.1 attached hereto, is intended to be furnished and shall not be deemed "filed" for purposes of Section 18 of the Exchange Act, or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in such filing. The Company undertakes no obligation to update, supplement or amend the materials attached hereto as Exhibit 99.1.

Forward-Looking Statements

This Current Report contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements contained in this Current Report that do not relate to matters of historical fact should be considered forward-looking statements, including without limitation statements regarding the timing of the Company's MS Program, Mr. Lucchino's return to his position as chief executive officer, and the sufficiency of the Company's capital resources, including to complete a first clinical trial of the Company's MS Program.

These forward-looking statements are based on management's current expectations. These statements are neither promises nor guarantees, but involve known and unknown risks, uncertainties and other important factors that may cause actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements, including, but not limited to, the following: the impact of COVID-19 on the Company's ongoing and planned clinical trials, research and development and manufacturing activities, the Company's business and financial markets; the Company has incurred and will continue to incur significant losses and is not and may never be profitable; the Company's need for additional funding to complete development and commercialization of any product candidate; the unproven approach of the PCA platform and the inability to identify additional potential product candidates; the lengthy, expensive and uncertain process of clinical drug development and regulatory approval; the Company's limited experience successfully obtaining marketing approval for and commercializing product candidates; the results of pre-clinical studies not being indicative of the results from clinical trials; adverse events or undesirable side effects; disruptions at the FDA and other regulatory agencies; failure to identify additional product candidates; new or changed legislation; costly and damaging litigation, including related to product liability or intellectual property or brought by stockholders; misconduct by employees or independent contractors; reliance on third parties, including to conduct clinical trials and manufacture product candidates; compliance with changing laws and regulations, including healthcare and environmental, health, data privacy and safety laws and regulations; failure to obtain, maintain and enforce protection of patents and other intellectual property rights covering product candidates; security breaches or failure to protect private personal information; attracting and retaining key personnel; and the Company's ability to manage growth.

These and other important factors discussed under the caption "Risk factors" in the Company's Form 10-Q filed with the Securities and Exchange Commission ("SEC") on November 8, 2022 and its other reports filed with the SEC could cause actual results to differ materially from those indicated by the forward-looking statements made in this Current Report. Any such forward-looking statements represent management's estimates as of the date of this Current Report. While the Company may elect to update such forward-looking statements at some point in the future, it disclaims any obligation to do so, even if subsequent events cause its views to change. These forward-looking statements should not be relied upon as representing the Company's views as of any date subsequent to the date of this Current Report.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

The following exhibits relate to Items 7.01, and shall be deemed to be furnished, and not filed:

Exhibit No.	Description
99.1	Frequency Therapeutics, Inc. Corporate Slide Presentation as of February 13, 2023
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

FREQUENCY THERAPEUTICS, INC.

Date: February 13, 2023

By: /s/ Richard Mitrano
Name: Richard Mitrano
Title: Vice President of Finance and Operations

Exhibit 99.1

Pioneering a New Category in Regenerative Medicine

Frequency Therapeutics Corporate Presentation

February 2023

FREQUENCY THERAPEUTICS

Forward-Looking Statements and Other Disclaimers

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements contained in this presentation that do not relate to matters of historical fact should be considered forward-looking statements, including the treatment potential and timing of Frequency Therapeutics' (the "Company") remyelination program in multiple sclerosis ("MS Program"), including the timing of entering the clinic, the ability of our progenitor cell activation ("PCA") platform to provide patient benefit, the potential application of the PCA platform to other diseases, and the sufficiency of the Company's cash and cash equivalents.

These forward-looking statements are based on management's current expectations. These statements are neither promises nor guarantees, but involve known and unknown risks, uncertainties and other important factors that may cause actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements, including, but not limited to, the following: the impact of COVID-19 on the Company's planned clinical trials, research and development and manufacturing activities, the Company's business and financial markets; the Company has incurred and will continue to incur significant losses and is not and may never be profitable; need for additional funding to complete development and commercialization of any product candidate; the Company's development and commercialization of any product candidate; the unproven approach of the PCA platform; the lengthy, expensive and uncertain process of clinical drug development and regulatory approval; limited experience successfully obtaining marketing approval for and commercializing product candidates; the results of pre-clinical studies not being indicative of the results from clinical trials; adverse events or undesirable side effects; disruptions at the FDA and other regulatory agencies; failure to identify additional product candidates; new or changed legislation; costly and damaging litigation, including related to product liability, intellectual property or brought by stockholders; misconduct by employees or independent contractors; reliance on third parties, including to conduct clinical trials and manufacture product candidates; compliance with laws and regulations, including healthcare and environmental, health, and safety laws and regulations; failure to obtain, maintain and enforce protection of patents and other intellectual property; security breaches or failure to protect private personal information; attracting and retaining key personnel; and ability to manage growth.

These and other important factors discussed under the caption "Risk factors" in the Company's Form 10-Q filed with the Securities and Exchange Commission (SEC) on November 8, 2022 and its other reports filed with the SEC could cause actual results to differ materially from those indicated by the forward-looking statements made in this presentation. Any such forward-looking statements represent management's estimates as of the date of this presentation. While the Company may elect to update such forward-looking statements at some point in the future, it disclaims any obligation to do so, even if subsequent events cause its views to change. These forward-looking statements should not be relied upon as representing the Company's views as of any date subsequent to the date of this presentation.

FREQUENCY THERAPEUTICS

Vision

A new approach to regenerative medicine

- Using small molecules to activate the body's innate regenerative potential
- Potentially applicable to many degenerative diseases

Opportunity

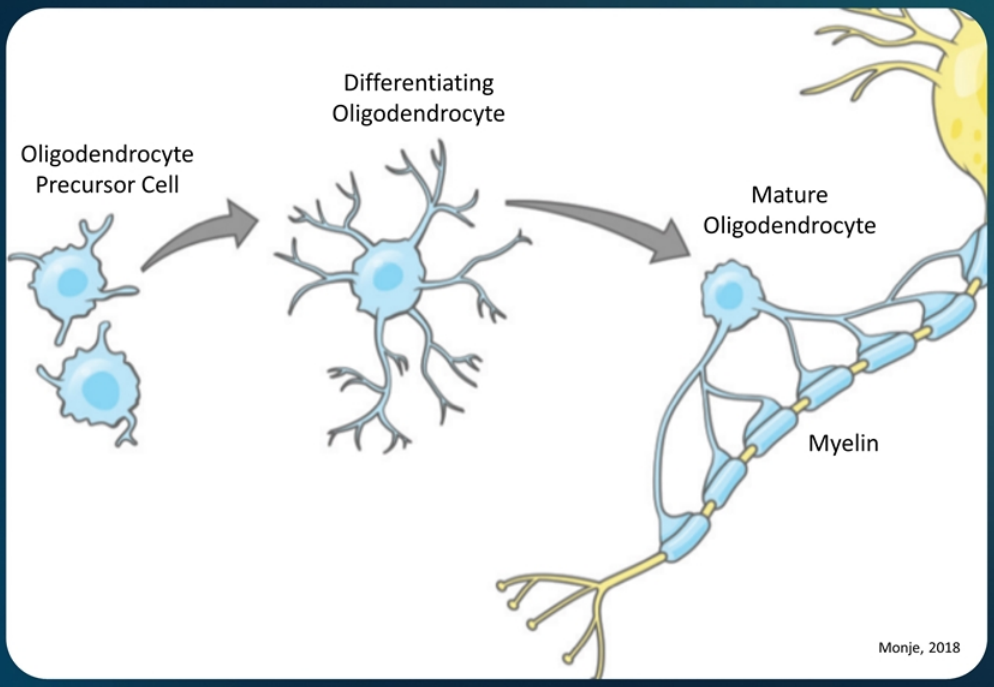
Advancing a potential first in class remyelination therapeutic for Multiple Sclerosis

- Potential to transform treatment
- Plan to enter the clinic in H1 2024

Revised Corporate Strategy Post Phase 2b Hearing Readout

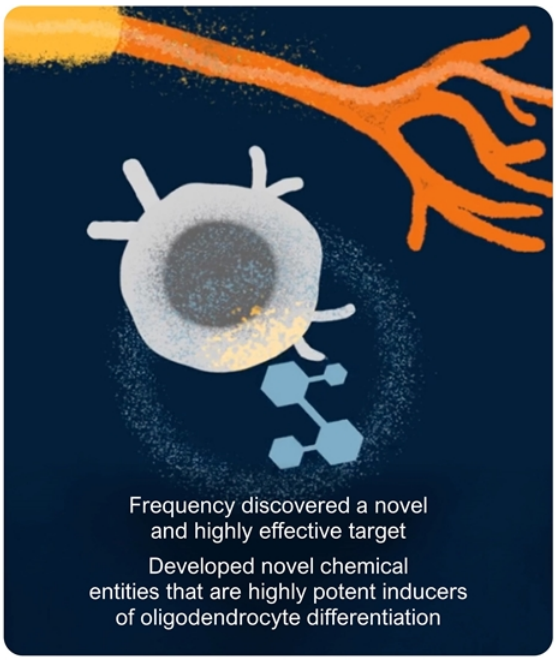
- **Company to discontinue hearing programs, continue focus on remyelination and early research**
  - FX-322, FX-345 programs for cochlear regeneration discontinued following FX-322-208 readout
    - In 208 study FX-322 was equivalent to placebo
    - Untreated ears did not improve, though improvements were seen in ears injected with placebo
- **Advancing remyelination program to address the top unmet need in multiple sclerosis**
  - Novel target and NCEs identified at Frequency
  - Preclinical head-to-head data show new Frequency compounds outperform multiple, well studied comparator compounds
  - Aim to enter the clinic in 1H 2024
- **Balance sheet sufficient to reach key pipeline inflection points**
  - $83.1 mm cash and cash equivalents as of December 31, 2022
  - Runway into 2025
  - Reduced headcount and expenses

Frequency's Progenitor Cell Activation (PCA) Platform



Frequency is developing small molecules that activate endogenous Oligodendrocyte Progenitor Cells to generate new oligodendrocytes and remyelinate the brain

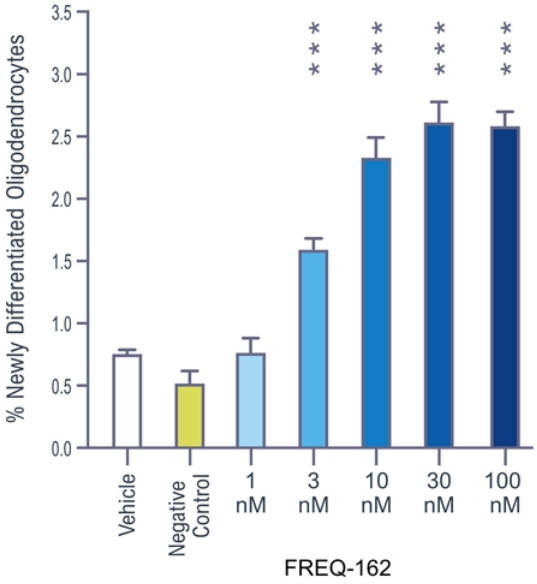
Novel Frequency Small Molecule Inhibitors Drive Oligodendrocyte Differentiation



Frequency discovered a novel and highly effective target

Developed novel chemical entities that are highly potent inducers of oligodendrocyte differentiation

Lead Optimization generated FREQ-162

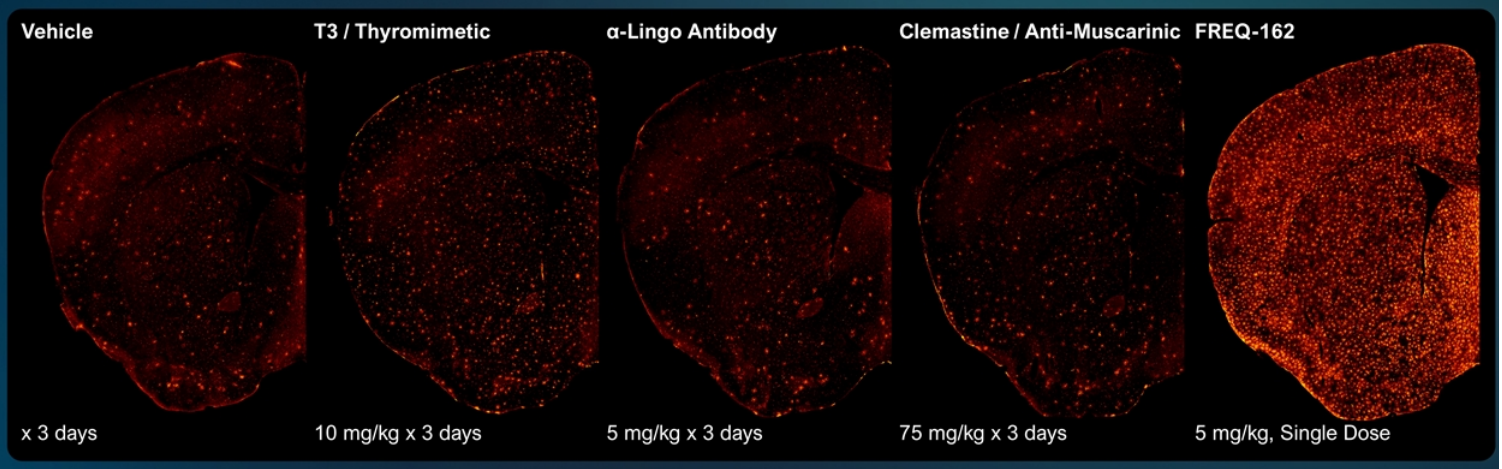


- Highly potent
- Highly efficacious
- Orally bioavailable
- Brain penetrant
- Novel chemical entity
- Patent application filed

FREQ-162 Outperforms Literature Compounds *In Vivo*

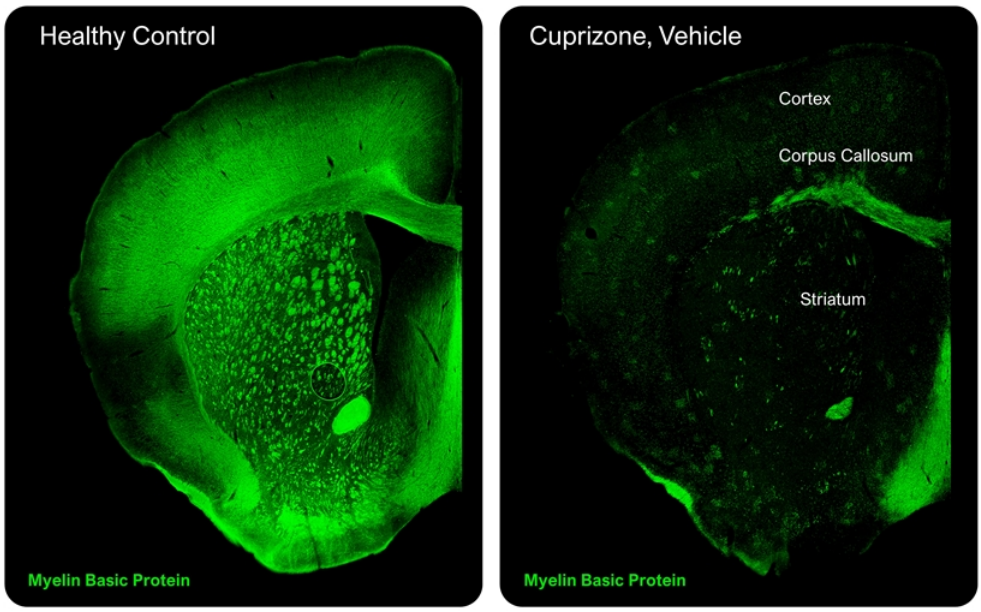
FREQUENCY THERAPEUTICS

Adult mice received 3 doses of comparator compounds or a single dose of FREQ-162
Brains were stained for a marker of newly generated oligodendrocytes
Single dose FREQ-162 induces more OPCs to differentiate than comparator compounds



	Thyroid Hormone: Thyromimetic Class	α-Lingo antibody: Blocking antibody	Clemastine: Anti-Muscarinic Class	FREQ-162 induces formation of newly differentiated oligodendrocytes in both white and gray matter

The Cuprizone Model of Chronic Demyelination



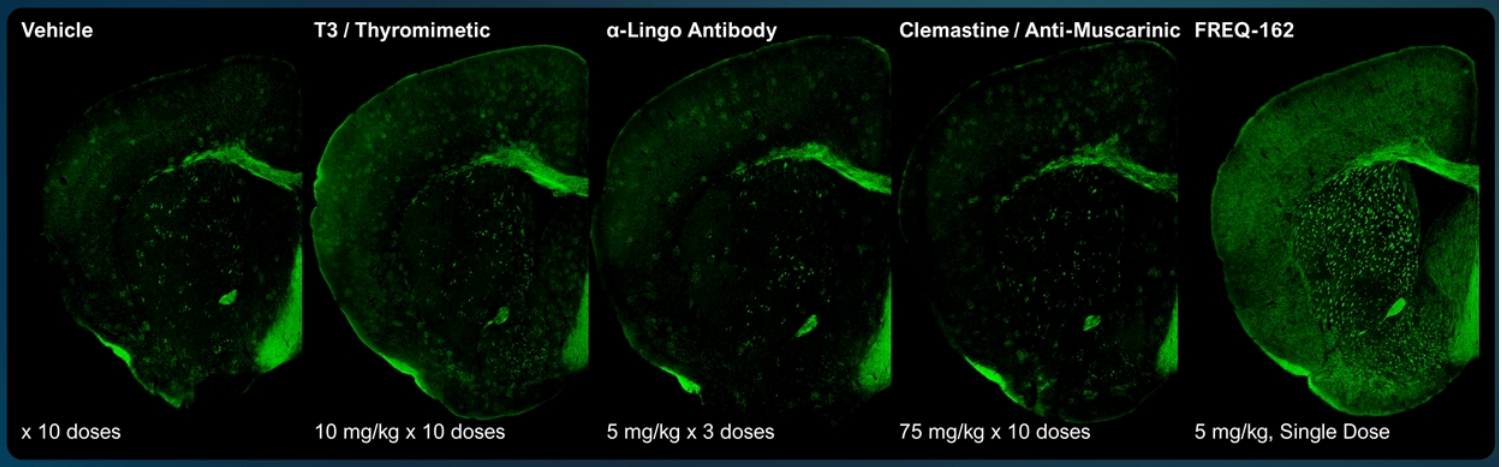
Adult mice were demyelinated via 17 months of cuprizone administration

- Elderly mice with long term demyelination

FREQ-162 Outperforms Published Compounds *In Vivo*

FREQUENCY THERAPEUTICS

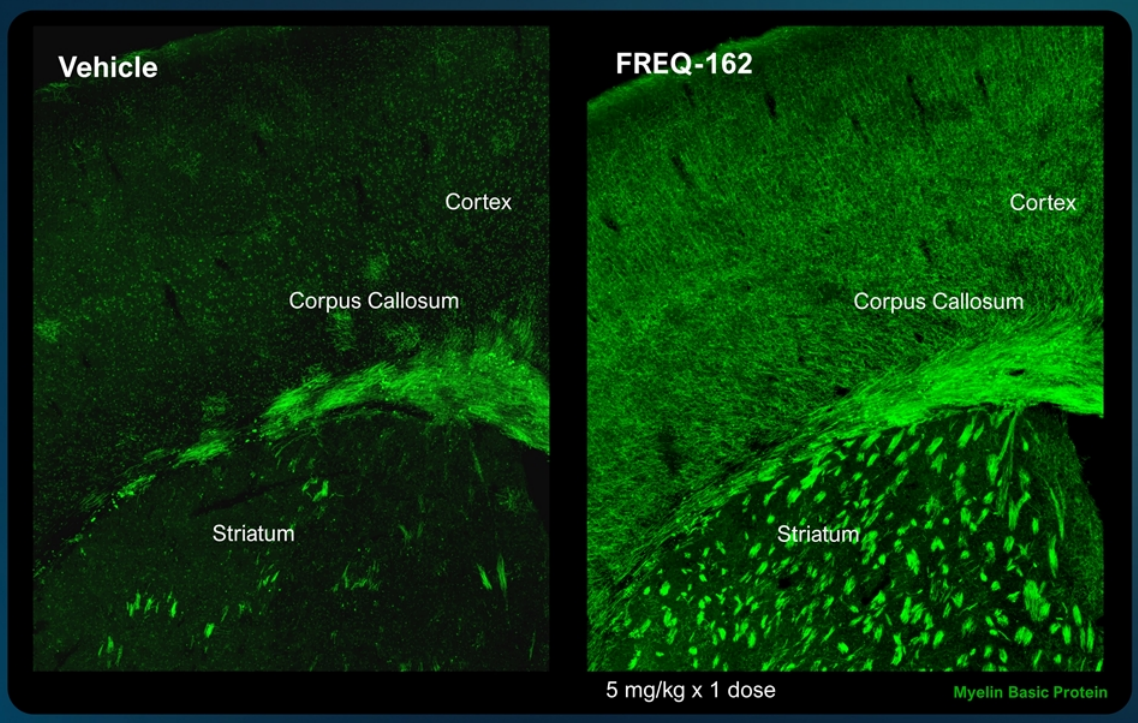
Adult mice received up to 10 daily doses of comparators or a single dose of FREQ-162
Brains were stained for Myelin Basic Protein (green)
Single dose FREQ-162 induces more remyelination than comparator compounds



	Thyroid Hormone: Thyromimetic Class	α-Lingo antibody: Lingo inhibitor	Clemastine: Anti-Muscarinic Class	FREQ-162 induces formation of new myelin in white and gray matter

Animals demyelinated for 17 months via cuprizone treatment

Frequency NCEs Outperform Competitors: High Magnification



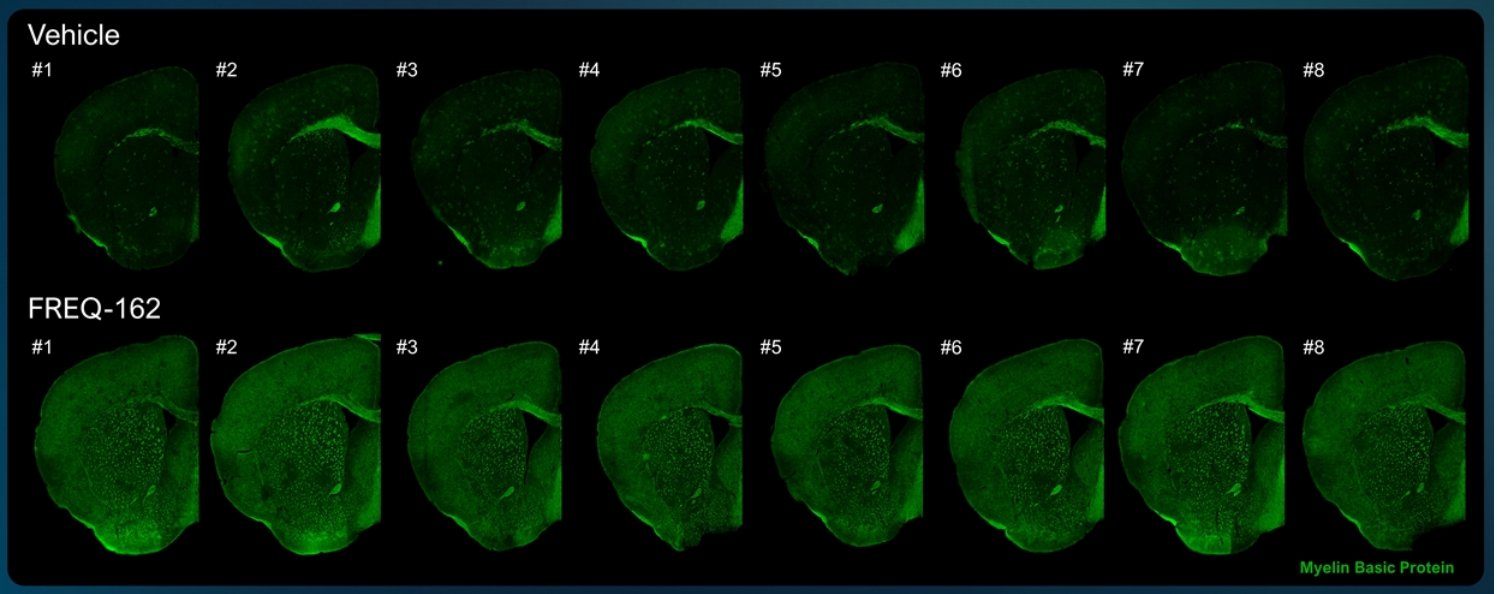
High magnification view reveals that FREQ-162 yields myelination

- In both white and gray matter
- In the appropriate orientation and location

FREQ-162: Highly Reproducible Increases in Myelination

FREQUENCY THERAPEUTICS

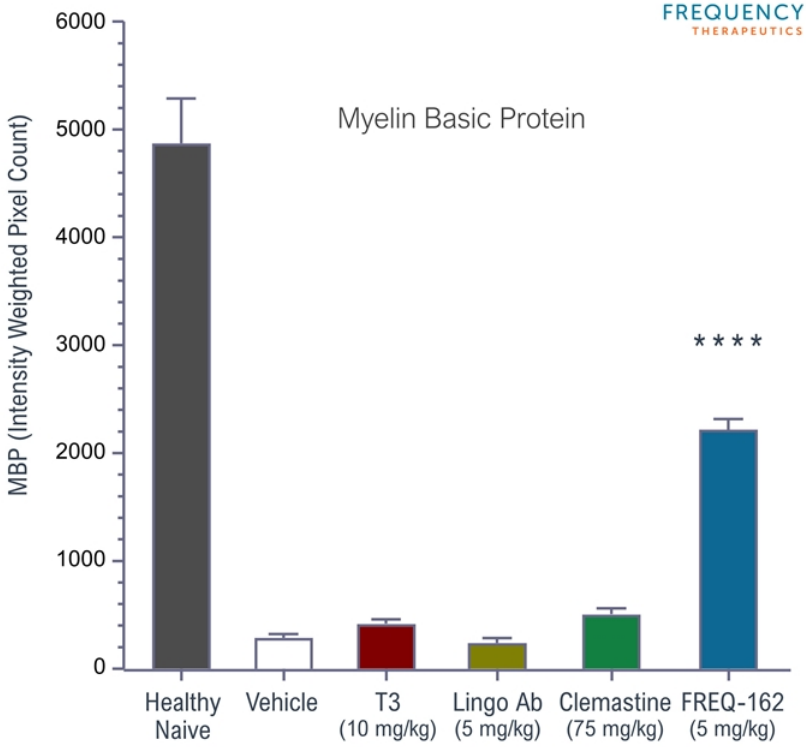
All 8 out of 8 mice treated with FREQ-162 showed robust increases in myelination in both white and gray matter tracts



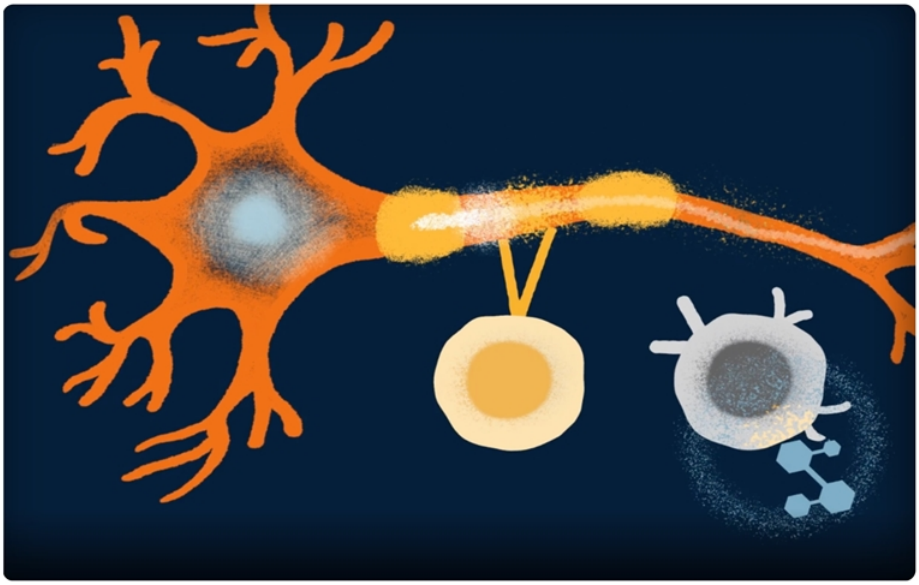
Freq-162 Induces Robust Increases in Myelination

- Forebrain myelin basic protein levels quantitated
- A single dose of a Frequency compound induces robust remyelination

Compound	Dose (mg/kg)	# of doses	Fold change	P=
α-Lingo antibody	5	3	0.9 x	0.99
Clemastine	75	10	1.7 x	0.70
Thyroid Hormone (T3)	10	10	1.4 x	0.95
FREQ-162	5	1	7.7 x	<0.0001



Remyelination: Advancing Toward the Clinic



Discovered novel target

Induced high levels of oligodendrocyte differentiation and remyelination *in vivo*

Candidate to enter IND-enabling studies

FREQUENCY THERAPEUTICS

Appendix

Proven Leadership Team

FREQUENCY THERAPEUTICS

David Lucchino
President, CEO & Co-Founder

Former CEO of Entrega Bio (PureTech). Co-founder / CEO of Semprus BioSciences (acquired), Polaris Partners. MIT Sloan Fellow.

Chris Loose, Ph.D.
Chief Scientific Officer & Co-Founder

Co-founder/CTO of Semprus BioSciences through FDA / CE clearance and acquisition. Princeton, MIT, Hertz Fellow and Yale Faculty.

Carl Lebel, Ph.D.
Chief Development Officer

Chief Scientific Officer of Otonomy (2009 to 2016). Executive Director, Amgen. Scientific fellow of the American Academy of Otolaryngology.

Dana Hilt, M.D.
Chief Medical Officer (acting)

Neurologist and neuroscientist with two decades in biopharma and CNS drug development. Amgen, Lysosomal, Forum Pharma.

Sue Stewart, J.D., LLM
Chief Regulatory Officer

CRO at numerous biopharma companies including Kaleido Biosciences, Candel Therapeutics, and regulatory leadership roles at Tokai Pharma, Transmolar and Genzyme Corp.

Wendy Arnold
Chief People Officer

HR leader with extensive life science experience including senior leadership roles at Kaleido Biosciences, Moderna, Celgene Avilomics Research, and Inotek Pharmaceuticals

Quentin McCubbin, Ph.D.
Chief Manufacturing Officer

Led pharmaceutical sciences and process chemistry at Takeda / Millennium and headed technical operations Cerevel Therapeutics.

Remyelination Advisory Board

Laura J Balcer,
M.D, M.S.C.E.

Neurologist and Epidemiologist,
NYU School of Medicine

Alasdair Coles,
Ph.D.

Professor of Neuroimmunology,
University of Cambridge

Steven Galetta,
M.D.

Professor of Neurology and
Ophthalmology, NYU
Grossman School of Medicine

Richard Rudick,
M.D.

Independent Consultant. Former Chief
Clinical Research Officer and Vice Chairman
for Research and Development in the
Neurological Institute, Cleveland Clinic

PCA Regenerative Medicine Advisory Board

Jeff Karp, Ph.D.

Associate Professor at Brigham and Women's Hospital, Harvard Medical School

John LaMattina, Ph.D.

Senior Partner at PureTech Health

Robert Langer, SC.D.

David H. Koch Institute Professor at the Massachusetts Institute of Technology

Sheng Ding, Ph.D.

Senior Investigator, Gladstone Institute of Cardiovascular Disease

Jeffrey Holt, Ph.D.

Professor of Otolaryngology and Neurology, Harvard Medical School

Sean J. Morrison, Ph.D.

Director of the Children's Medical Center Research Institute, UT Southwestern

Siddhartha Mukherjee, M.D., D.Phil.

Assistant Professor of Medicine, Columbia University Medical Center

Amy Wagers, Ph.D.

Forst Family Professor of Stem Cell and Regenerative Biology, Harvard University

Ken Anderson, M.D.

Dana-Farber Cancer Institute
Kraft Family Professor of Medicine, Harvard Medical School

Xiaolei Yin, Ph.D.

Instructor in Medicine, Harvard Medical School

James Rothman, Ph.D.

Sterling Professor of Cell Biology, Yale University

Steve Haggarty, Ph.D.

Associate Professor of Neurology, Harvard Medical School

Ralph Mazitschek, Ph.D.

Assistant Professor, Harvard Medical School

Peter Schultz, Ph.D.

Chief Executive Officer of the Scripps Research Institute

Pioneering a New Category in Regenerative Medicine

Frequency Therapeutics Corporate Presentation

February 2023

FREQUENCY THERAPEUTICS