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): **October 6, 2022**

CYCLERION THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Massachusetts	**001-38787**	**83-1895370**
(State or other jurisdiction of incorporation)	(Commission File Number)	(IRS Employer Identification Number)

245 First Street, 18th Floor
Cambridge, Massachusetts 02142
(Address of principal executive offices, including Zip Code)

Registrant's telephone number, including area code: **(857) 327-8778**

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:

☐ 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, no par value	CYCN	The Nasdaq Stock Market LLC (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 2.05 Costs Associated with Exit or Disposal Activities.

On October 6, 2022, the Board of Directors of Cyclerion Therapeutics, Inc. (the "Company") implemented a reduction of approximately 45% of the Company's workforce, or approximately thirteen (13) full-time employees, to align its resources with the mitochondrial disease-focused strategy as described in Item 7.01 below. The Company expects that this workforce reduction will take place during the fourth quarter of 2022.

The Company estimates that it will incur aggregate charges in connection with the workforce reduction of approximately $1.9 million for one-time employee severance and benefit costs primarily in the fourth quarter of 2022, nearly all of which are expected to result in cash expenditures. As a results of the workforce reduction, the Company expects to realize annual cash savings of approximately $4.1 million. The Company may also incur other charges or cash expenditures not currently contemplated due to events that may occur as a result of, or associated with, the workforce reduction.

Item 7.01 Regulation FD Disclosure.

On October 6, 2022, the Company issued a press release announcing its mitochondrial disease-focused corporate strategic plan. A copy of the press release is being furnished as Exhibit 99.1 to this Current Report on Form 8-K.

The information contained in Item 7.01 of this Current Report on Form 8-K, Exhibit 99.1 attached hereto is intended to be furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 (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.

Item 9.01 Financial Statements and Exhibits.

(d)

Exhibit No.	Description
99.1	Press Release of Cyclerion Therapeutics, Inc. dated October 6, 2022
104	Cover Page Interactive Data File

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.

Cyclerion Therapeutics, Inc.

Dated: October 6, 2022

By: /s/ Anjeza Gjino
Name: Anjeza Gjino
Title: Chief Financial Officer

Cyclerion Announces Mitochondrial Disease-Focused Corporate Strategy

Recent positive MELAS clinical study data drive urgency to deliver potential first-ever therapy for patients with rare, genetic mitochondrial diseases

Development programs prioritized and organization structured to align with mitochondrial disease-focused strategy

Plans to meet with FDA in Q4 2022 to discuss MELAS development program

CAMBRIDGE, Mass., Oct. 6, 2022 — Cyclerion Therapeutics, Inc. (Nasdaq: CYCN) today announced its mitochondrial disease-focused corporate strategic plan. Propelled by the positive data from the recently completed CY6463 Mitochondrial Encephalomyopathy, Lactic Acidosis and Stroke-like episodes (MELAS) clinical study, the Company believes it has a unique opportunity to deliver the first-ever approved medicine for patients suffering from rare mitochondrial diseases, a family of debilitating, progressive, and ultimately fatal genetic diseases.

“We are inspired by the recently reported clinical data generated in our MELAS study; there is a clear drug signal seen in objective measures of disease-relevant domains and the CY6463 safety profile has been favorable across all clinical studies to date. Motivated by these compelling data and by a patient population in desperate need of therapies, we are adapting our strategic mission, reprioritizing our development programs and focusing our people, resources, and capabilities to deliver this potential therapy to individuals living with mitochondrial diseases.” said Peter Hecht, Ph.D., Chief Executive Officer of Cyclerion. “We look forward to discussions with regulators later this year, and then sharing more detailed development plans early in the new year.”

Pipeline, organization, and corporate development

The company has been exploring the pharmacology of sGC stimulation with once-daily CY6463 in signal-seeking studies in three patient populations: MELAS, Cognitive Impairment Associated with Schizophrenia (CIAS), and Alzheimer's Disease with Vascular Pathology (ADv). Going forward, Cyclerion will focus future development of CY6463 on genetic mitochondrial diseases, concentrating first on development in MELAS, a rare disease where the company believes it has the capabilities to advance the program independently.

MELAS: In an open-label, 29-day study in patients with MELAS, CY6463 treatment was associated with improvements in multiple disease-relevant biomarkers: mitochondrial function, inflammation, cerebral blood flow, functional brain connectivity, and visually evoked brain activation. These data coupled with data from preclinical studies in cells from mitochondrial disease patients and in zebrafish disease models support a focus on MELAS/mitochondrial diseases for CY6463. The Company is currently preparing to meet with FDA to discuss the CY6463 development program, including the next study and paths to registration in MELAS.

CIAS: The company has presented encouraging CIAS exploratory study data, highlighted by the strong effect on cognitive performance after only 14 days. Cyclerion believes its next-generation development candidate, CY3018, has attributes that make it especially well suited for treating CIAS and other neuropsychiatric indications. Cyclerion is completing pre-IND activities for CY3018 and is looking to secure a partnership or other funding mechanism to develop the program in the future.

ADv: Cyclerion recently capped enrollment of its ongoing ADv clinical study. This will further enable the Company to channel its resources to its most urgent priorities in MELAS. Data from the ADv study are expected in the first half of 2023. Learnings from this and previous CY6463 studies can be leveraged to optimize future potential Alzheimer's Disease/Vascular Dementia studies.

Organization: The Company's workforce is being tailored to the mitochondrial disease-focused strategy, leading to a reduction of approximately 45%, to 16 full-time employees. The Company expects to take an aggregate charge for one-time employee-related costs of approximately $1.9 million that is expected to be incurred primarily in Q4 2022 and realize annual cash savings of approximately $4.1 million.

Corporate Development: To support the Company's mitochondrial disease-focused strategy, Cyclerion intends to leverage its other assets through out-licensing and partnerships, including CY3018 and two additional, oral, clinical-phase, peripherally targeted compounds, olinciguat and praliciguat, for which the Company has an extensive IP portfolio with long-duration exclusivity. Praliciguat has been licensed to Akebia for development in renal diseases and, if successful, will provide Cyclerion with development, regulatory, and commercial milestones as well as royalties. The Company will similarly seek an external partner to advance CY3018 in neuropsychiatric diseases and olinciguat in serious systemic diseases in return for a mix of upfront, milestone, and royalty payments as a source of non-dilutive capital.

About MELAS
MELAS is a complex orphan disease affecting multiple organ systems, including the CNS, with different degrees of severity, and no approved therapies. MELAS, one of the most common primary mitochondrial diseases (PMDs), is caused by mitochondrial DNA mutations resulting in large clusters of familial cases. It is estimated that about 1 in 4,300 individuals has a mitochondrial disease, and ~80% of individuals with mitochondrial disease have CNS symptoms. The unmet need in MELAS is immense, symptoms can affect virtually any organ and cause intense fatigue, muscle weakness, and pain in addition to neurological manifestations, including stroke-like episodes, encephalomyopathy, seizures, and headaches. Life expectancy is estimated at ~17 years from onset of CNS symptoms. The disease impedes the individual's ability to live independently and leads to social isolation and overall reduced quality of life.

About CY6463
CY6463 is the first CNS-penetrant sGC stimulator to be developed as a symptomatic and potentially disease-modifying therapy for serious diseases that involve the CNS. The nitric oxide (NO)-soluble guanylate cyclase (sGC)-cyclic guanosine monophosphate (cGMP) signaling pathway is a fundamental mechanism that precisely controls key aspects of physiology throughout the body. In the CNS, the NO-sGC-cGMP pathway regulates diverse and critical biological functions including mitochondrial function, neuronal function, inflammation, and vascular dynamics. Although it has been successfully targeted with several drugs in the periphery, this mechanism has yet to be fully leveraged therapeutically in the CNS, where impaired NO-sGC-cGMP signaling is believed to play an important role in the pathogenesis of many neurodegenerative and neuropsychiatric diseases. As an sGC stimulator, CY6463 acts as a positive allosteric modulator to sensitize the sGC enzyme to NO, increase the production of cGMP, and thereby amplify endogenous NO signaling. By compensating for deficient NO-sGC-cGMP signaling,

CY6463 may have broad therapeutic potential as a treatment to improve cognition and function in people with serious diseases that involve the CNS.

About Cyclerion Therapeutics
Cyclerion Therapeutics is a clinical-stage biopharmaceutical company on a mission to develop treatments for mitochondrial diseases, including MELAS. Cyclerion's lead molecule is CY6463, a novel, first-in-class, CNS-penetrant sGC stimulator that modulates a key node in a fundamental signaling network. The multidimensional pharmacology elicited by the stimulation of sGC has the potential to impact a broad range of diseases that involve the CNS. CY6463 is currently in clinical development for MELAS where it has shown rapid improvement in multiple disease-relevant biomarkers. For more information about Cyclerion, please visit https://www.cyclerion.com/ and follow us on Twitter (@Cyclerion) and LinkedIn (www.linkedin.com/company/cyclerion).

Forward Looking Statement
Certain matters discussed in this press release are "forward-looking statements". We may, in some cases, use terms such as "predicts," "believes," "potential," "continue," "estimates," "anticipates," "expects," "plans," "intends," "may," "could," "might," "will," "should", "positive" or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. In particular, the Company's statements regarding the potential for CY6463 in the treatment of CNS diseases, including MELAS and other mitochondrial diseases, the potential for any successful development of CY6463, the sufficiency of our resources and other abilities to pursue the development of CY6463, and other trends and potential future results are examples of such forward-looking statements. The forward-looking statements include risks and uncertainties, including, but not limited to, our ability to continue with sufficient liquidity and capital resources to pursue our business plan regarding CY6463 or any other product (including without limitation our ability to fund additional clinical trials); our ability to successfully demonstrate the efficacy, safety and therapeutic effectiveness of CY6463; the success, timing and cost of our ongoing or future clinical trials and anticipated clinical trials for our current product candidates which are not necessarily indicative of or supported by the final results of our ongoing or subsequent clinical trials; any results of clinical studies not necessarily being indicative of or supported by the final results of our ongoing or subsequent clinical trials; the timing of and our ability to pursue, obtain and maintain U.S. Food and Drug Administration ("FDA") or other regulatory authority approval of, or other action with respect to, our product candidates; the Company's ability to successfully defend its intellectual property or obtain necessary licenses at a cost acceptable to the Company, if at all; the successful implementation of the Company's research and development programs and collaborations; the success of the Company's existing license agreement with Akebia and the ability to obtain any other license agreements; the acceptance by the market of the Company's product candidates, if approved; and other factors, including general economic conditions and regulatory developments, not within the Company's control. The factors discussed herein could cause actual results and developments to be materially different from those expressed in or implied by such statements. The forward-looking statements are made only as of the date of this press release and the Company undertakes no obligation to publicly update such forward-looking statements to reflect subsequent events or circumstance.

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