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): March 10, 2022

Stoke Therapeutics, Inc.
(Exact Name of Registrant as Specified in its Charter)

Delaware	**001-38938**	**47-1144582**
(State or other jurisdiction of incorporation or organization)	**(Commission File Number)**	**(I.R.S. Employer Identification No.)**

45 Wiggins Ave **Bedford, Massachusetts**	**01730**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (781) 430-8200

Not Applicable
(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:

☐ 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, $0.0001 par value per share	**STOK**	**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 March 10, 2022 Stoke Therapeutics, Inc. issued a press release announcing its financial results for the quarter and full year ended December 31, 2021. A copy of the press release is attached as Exhibit 99.1 to this report.

The information in this Item 2.02, including Exhibit 99.1 to this report, shall not be deemed to be "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 or Sections 11 and 12(a)(2) of the Securities Act of 1933, as amended (the "Securities Act"). The information contained in this Item 2.02 and in the accompanying Exhibit 99.1 shall not be incorporated by reference into any other filing under the Exchange Act or under the Securities Act, except as shall be expressly set forth by specific reference in such filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit Number	Description
99.1	Press release issued by Stoke Therapeutics, Inc. regarding its full year 2021 financial results, dated March 10, 2022
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURE

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.

STOKE THERAPEUTICS, INC.

Date: March 10, 2022

By: /s/ Stephen J. Tulipano
Stephen J. Tulipano
Chief Financial Officer

Exhibit 99.1

Stoke Therapeutics Reports Fourth Quarter and Full Year 2021 Financial Results and Provides Business Updates

– Enrollment and dosing ongoing in the Phase 1/2a MONARCH and ADMIRAL studies of STK-001 in children and adolescents with Dravet syndrome –

– Company remains on track to provide additional clinical data in 2H 2022 from patients treated with multiple ascending doses of STK-001 at 30mg –

– Preclinical toxicology studies underway for STK-002, the first potential disease-modifying approach for the treatment of Autosomal Dominant Optic Atrophy (ADOA) –

– As of December 31, 2021, Company had $220.4 million in cash, cash equivalents, marketable securities, and restricted cash –

BEDFORD, Mass., March 10, 2022 – Stoke Therapeutics, Inc. (Nasdaq: STOK), a biotechnology company dedicated to addressing the underlying cause of severe diseases by upregulating protein expression with RNA-based medicines, today reported financial results for the full year ended December 31, 2021 and provided business updates.

"During the past year, the Stoke team made significant progress with STK-001 in the clinic and advanced our pipeline of potential medicines for diseases of the central nervous system and the eye," said Edward M. Kaye, M.D., Chief Executive Officer of Stoke Therapeutics. "In December 2021, we shared positive interim data for STK-001 in children and adolescents with Dravet syndrome and today we are announcing continued clinical momentum with dosing of patients at 45mg in our MONARCH and ADMIRAL studies. Our ADOA program is progressing nicely with the nomination of STK-002 as a clinical candidate and the recent start of preclinical toxicology studies to support potential future clinical trials. Our recent collaboration with Acadia Pharmaceuticals unlocks three pipeline targets focused on severe and rare neurodevelopmental diseases and brings additional resources to help us expand the potential of TANGO to additional patient populations. With the fundamentals in place, including a strong financial position, we believe we are well-positioned to continue to execute on our goals for 2022."

Fourth Quarter 2021 Business Highlights and Recent Developments

- Today, the Company announced continued clinical progress in the Phase 1/2a studies. The first patients have been dosed with STK-001 at 45mg in the single ascending dose portion of the MONARCH study. The first patients have also been dosed with STK-001 at 45mg in the ADMIRAL study, which is a multiple ascending dose study.
- In January 2022, the Company initiated preclinical toxicology studies to support future clinical trials for STK-002.
- In January 2022, the Company announced a collaboration with Acadia Pharmaceuticals to pursue multiple RNA-based treatments for severe and rare neurodevelopmental diseases

of the central nervous system (CNS). The collaboration includes SYNGAP1 syndrome, Rett syndrome (*MECP2*), and an undisclosed neurodevelopmental target of mutual interest.

- In December 2021, the Company presented five posters related to its work in Dravet syndrome at the American Epilepsy Society (AES) 2021 Annual Meeting. Highlights from these presentations include the first presentation of clinical data for STK-001, which demonstrated no safety concerns related to study drug, pharmacokinetic (PK) and cerebrospinal fluid (CSF) exposure data from a planned interim analysis of the multi-center, open-label Phase 1/2a MONARCH study of STK-001 in children and adolescents with Dravet syndrome. The data also showed an early trend toward a reduction in seizure frequency among patients treated with STK-001.
- In November 2021, the Company announced the nomination of STK-002 as the clinical candidate for the treatment of autosomal dominant optic atrophy (ADOA), the most common inherited optic nerve disorder.

Upcoming Anticipated Milestones

- The Company expects to share preliminary clinical data on multiple 30mg doses from the MONARCH and ADMIRAL studies of STK-001 in the second half of 2022.
- The Company plans to present preclinical data supporting the development of STK-002 for the treatment of ADOA at The Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting in May 2022.

Year End 2021 Financial Results

- Net loss for the year ended December 31, 2021 was $85.8 million, or $2.34 per share compared to $52.2 million or $1.56 per share for 2020.
- Research and development expenses for the year ended December 31, 2021 were $54.2 million, compared to $32.2 million for 2020.
- General and administrative expenses for the year ended December 31, 2021 were $31.9 million, compared to $20.8 million for 2020.
- The increase in expenses for the 2021 periods over the same periods in 2020 primarily relate to increases in costs associated with personnel, third party contracts, consulting, facilities and others associated with development activities for STK-001 and STK-002, research on additional therapeutics and growing a public corporation.
- As of December 31, 2021, Stoke had $220.4 million in cash, cash equivalents, marketable securities, and restricted cash. Stoke expects that these resources, together with the $60 million upfront payment from Acadia and the proceeds since December 31, 2021 from its Controlled Equity Offering Sales Agreement of $7.5 million, will be sufficient to fund its operations into the second half of 2024.

Fourth Quarter 2021 Financial Results

- Net loss for the three months ended December 31, 2021 was $24.4 million, or $0.66 per share, compared to $14.6 million, or $0.42 per share, for the same period in 2020.
- Research and development expenses for the three months ended December 31, 2021 were $15.8 million, compared to $8.9 million for the same period in 2020.

- General and administrative expenses for the three months ended December 31, 2021 were $8.7 million, compared to $5.7 million for the same period in 2020.
- The increase in expenses for the three month period in 2021 over the same period in 2020 primarily relate to increases in costs associated with personnel, third party contracts, consulting, facilities and others associated with development activities for STK-001 and STK-002, research on additional therapeutics and growing a public corporation.

About TANGO
TANGO (Targeted Augmentation of Nuclear Gene Output) is Stoke's proprietary research platform. Stoke's initial application for this technology are diseases in which one copy of a gene functions normally and the other is mutated, also called haploinsufficiencies. In these cases, the mutated gene does not produce its share of protein, resulting in disease. Using the TANGO approach and a deep understanding of RNA science, Stoke researchers design antisense oligonucleotides (ASOs) that bind to pre-mRNA and help the functional (or wild-type) genes produce more protein. TANGO aims to restore missing proteins by increasing – or stoking – protein output from healthy genes, thus compensating for the mutant copy of the gene.

About Dravet Syndrome
Dravet syndrome is a severe and progressive genetic epilepsy characterized by frequent, prolonged and refractory seizures, beginning within the first year of life. Dravet syndrome is difficult to treat and has a poor long-term prognosis. Complications of the disease often contribute to a poor quality of life for patients and their caregivers. The effects of the disease go beyond seizures and often include intellectual disability, developmental delays, movement and balance issues, language and speech disturbances, growth defects, sleep abnormalities, disruptions of the autonomic nervous system and mood disorders. The disease is classified as a developmental and epileptic encephalopathy due to the developmental delays and cognitive impairment associated with the disease. Compared with the general epilepsy population, people living with Dravet syndrome have a higher risk of sudden unexpected death in epilepsy, or SUDEP. There are no approved disease-modifying therapies for people living with Dravet syndrome. One out of 16,000 babies are born with Dravet syndrome, which is not concentrated in a particular geographic area or ethnic group.

About STK-001
STK-001 is an investigational new medicine for the treatment of Dravet syndrome currently being evaluated in ongoing clinical trials. Stoke believes that STK-001, a proprietary antisense oligonucleotide (ASO), has the potential to be the first disease-modifying therapy to address the genetic cause of Dravet syndrome. STK-001 is designed to upregulate $Na_V1.1$ protein expression by leveraging the non-mutant (wild-type) copy of the *SCN1A* gene to restore physiological $Na_V1.1$ levels, thereby reducing both occurrence of seizures and significant non-seizure comorbidities. Stoke has generated preclinical data demonstrating proof-of-mechanism and proof-of-concept for STK-001. STK-001 has been granted orphan drug designation by the FDA as a potential new treatment for Dravet syndrome.

About Phase 1/2a MONARCH Study (United States)
The MONARCH study is a Phase 1/2a open-label study of children and adolescents ages 2 to 18 who have an established diagnosis of Dravet syndrome and have evidence of a genetic mutation in the *SCN1A* gene. The primary objectives for the study are to assess the safety and tolerability of STK-001, as well as to determine the pharmacokinetics in plasma and exposure in cerebrospinal fluid. A secondary objective is to assess the efficacy as an adjunctive antiepileptic treatment with respect to the percentage change from baseline in convulsive seizure frequency over a 12-week treatment period. Stoke also intends to measure non-seizure aspects of the disease, such as quality of life, as secondary endpoints. Stoke plans to enroll approximately 90 patients in the study across 20 sites in the United States. Additional information about the MONARCH study can be found at https://www.monarchstudy.com/.

Patients who participated in the MONARCH study and meet study entry criteria are eligible to continue treatment in SWALLOWTAIL, an open label extension (OLE) study designed to evaluate the long-term safety and tolerability of repeat doses of STK-001. We expect that SWALLOWTAIL will also provide valuable information on the preliminary effects of STK-001 on seizures along with non-seizure aspects of the disease, such as quality of life and cognition.
Enrollment and dosing in SWALLOWTAIL are underway.

About Phase 1/2a ADMIRAL Study (United Kingdom)
The ADMIRAL study is a Phase 1/2a open-label study of children and adolescents ages 2 to <18 who have an established diagnosis of Dravet syndrome and have evidence of a genetic mutation in the *SCN1A* gene. The primary objectives for the study are to assess the safety and tolerability of multiple doses of STK-001, as well as to determine the pharmacokinetics in plasma and exposure in cerebrospinal fluid. A secondary objective is to assess the effect of multiple doses of STK-001 as an adjunctive antiepileptic treatment with respect to the percentage change from baseline in convulsive seizure frequency over a 24-week treatment period. Stoke also intends to measure non-seizure aspects of the disease, such as overall clinical status and quality of life, as secondary endpoints. Stoke plans to enroll up to 60 patients in the study across multiple sites in the United Kingdom. Additional information about the ADMIRAL study can be found at https://www.admiralstudy.com.

About Autosomal Dominant Optic Atrophy (ADOA)
Autosomal dominant optic atrophy (ADOA) is the most common inherited optic nerve disorder. It is a rare disease that causes progressive and irreversible vision loss in both eyes starting in the first decade of life. Severity can vary and the rate of vision loss can be difficult to predict. Roughly half of people with ADOA fail driving standards and up to 46% are registered as legally blind. ADOA is considered a haploinsufficiency disease, as most people living with ADOA have genetic mutations in the *OPA1* gene that result in only half the necessary OPA1 protein being produced. More than 400 *OPA1* mutations have been reported in people diagnosed with ADOA. Currently there is no approved treatment for people living with ADOA. ADOA affects approximately one in 30,000 people globally with a higher incidence in Denmark of one in 10,000 due to a founder effect. An estimated 65% to 90% of cases are caused by mutations in the *OPA1* gene, most of

which lead to a haploinsufficiency resulting in 50% OPA1 protein expression and disease manifestation.

About STK-002
STK-002 is a proprietary antisense oligonucleotide (ASO) in preclinical development for the treatment of Autosomal Dominant Optic Atrophy (ADOA). Stoke believes that STK-002 has the potential to be the first disease-modifying therapy for people living with ADOA. STK-002 is designed to upregulate OPA1 protein expression by leveraging the non-mutant (wild-type) copy of the *OPA1* gene to restore OPA1 protein expression with the aim to stop or slow vision loss in patients with ADOA. Stoke has generated preclinical data demonstrating proof-of-mechanism and proof-of-concept for STK-002.

About Stoke Therapeutics
Stoke Therapeutics (Nasdaq: STOK), is a biotechnology company dedicated to addressing the underlying cause of severe diseases by upregulating protein expression with RNA-based medicines. Using Stoke's proprietary TANGO (Targeted Augmentation of Nuclear Gene Output) approach, Stoke is developing antisense oligonucleotides (ASOs) to selectively restore protein levels. Stoke's first compound, STK-001, is in clinical testing for the treatment of Dravet syndrome, a severe and progressive genetic epilepsy. Dravet syndrome is one of many diseases caused by a haploinsufficiency, in which a loss of ~50% of normal protein levels leads to disease. Stoke is pursuing the development of STK-002 for the treatment of autosomal dominant optic atrophy (ADOA), the most common inherited optic nerve disorder. Stoke's initial focus is haploinsufficiencies and diseases of the central nervous system and the eye, although proof of concept has been demonstrated in other organs, tissues, and systems, supporting its belief in the broad potential for its proprietary approach. Stoke is headquartered in Bedford, Massachusetts with offices in Cambridge, Massachusetts. For more information, visit https://www.stoketherapeutics.com/ or follow Stoke on Twitter at @StokeTx.

Cautionary Note Regarding Forward-Looking Statements
This press release contains forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, including, but not limited to: our year-end results and cash runway; our future operating results, financial position and liquidity; the ability of STK-001 to treat the underlying causes of Dravet syndrome and reduce seizures; the ability of STK-002 to treat the underlying causes of ADOA; the timing and expected progress of clinical trials, data readouts and presentations; the timing or receipt of regulatory approvals; the ability of TANGO to design medicines to increase protein production and the expected benefits thereof. Statements including words such as "plan," "will," "continue," "expect," or "ongoing" and statements in the future tense are forward-looking statements. These forward-looking statements involve risks and uncertainties, as well as assumptions, which, if they prove incorrect or do not fully materialize, could cause our results to differ materially from those expressed or implied by such forward-looking statements. Forward-looking statements are subject to risks and uncertainties that may cause the Company's actual activities or results to differ significantly from those expressed in any forward-looking statement, including risks and uncertainties related to the Company's ability to advance its product candidates, obtain

regulatory approval of and ultimately commercialize its product candidates, the timing and results of preclinical and clinical trials, the risk that positive results in a clinical trial may not be replicated in subsequent trials or successes in early state clinical trials may not be predictive of results in later stage trials, the Company's ability to fund development activities and achieve development goals, the Company's ability to protect intellectual property, the risks associated with the direct and indirect impacts of the ongoing COVID-19 pandemic and its variants on our business, and other risks and uncertainties described under the heading "Risk Factors" in the Company's Annual Report on Form 10-K and other documents the Company files from time to time with the Securities and Exchange Commission. These forward-looking statements speak only as of the date of this press release, and the Company undertakes no obligation to revise or update any forward-looking statements to reflect events or circumstances after the date hereof.

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Financial Tables Follow

Stoke Therapeutics, Inc.
Condensed consolidated balance sheets
(in thousands, except share and per share amounts)
(unaudited)

	December 31, 2021	December 31, 2020
Assets		
Current assets:		
Cash and cash equivalents	$ 144,895	$ 287,308
Marketable securities	74,915	—
Prepaid expenses and other current assets	9,159	6,435
Deferred financing costs	117	181
Interest receivable	132	6
Total current assets	$ 229,218	$ 293,930
Restricted cash	569	205
Operating lease right-of-use assets	4,939	1,115
Property and equipment, net	4,139	2,675
Total assets	$ 238,865	$ 297,925
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 2,385	$ 1,495
Accrued and other current liabilities	14,754	9,930
Total current liabilities	$ 17,139	$ 11,425
Long term liabilities	3,949	422
Total liabilities	$ 21,088	$ 11,847
Commitments and contingencies		
Stockholders' equity		
Common stock, par value of $0.0001 per share; 300,000,000 shares authorized, 36,902,499 and 36,577,149 shares issued and outstanding as of December 31, 2021 and 2020, respectively	4	4
Additional paid-in capital	414,024	396,352
Accumulated other comprehensive loss	(168)	—
Accumulated deficit	(196,083)	(110,278)
Total stockholders' equity	$ 217,777	$ 286,078
Total liabilities and stockholders' equity	$ 238,865	$ 297,925

Stoke Therapeutics, Inc.
Condensed consolidated statements of operations and comprehensive loss
(in thousands, except share and per share amounts)
(unaudited)

	Three Months Ended December 31,		Year ended December 31,	
	2021	2020	2021	2020
Revenue	$ —	$ —	$ —	$ —
Operating expenses:				
Research and development	15,802	8,904	54,168	32,197
General and administrative	8,724	5,682	31,897	20,847
Total operating expenses	24,526	14,586	86,065	53,044
Loss from operations	(24,526)	(14,586)	(86,065)	(53,044)
Other income:				
Interest income (expense), net	36	(3)	120	700
Other income (expense), net	42	28	140	101
Total other income	78	25	260	801
Net loss	$ (24,448)	$ (14,561)	$ (85,805)	$ (52,243)
Net loss per share, basic and diluted	$ (0.66)	$ (0.42)	$ (2.34)	$ (1.56)
Weighted-average common shares outstanding, basic and diluted	36,836,072	35,078,040	36,739,269	33,488,456
Comprehensive loss:				
Net loss	$ (24,448)	$ (14,561)	$ (85,805)	$ (52,243)
Other comprehensive loss:				
Unrealized gain (loss) on marketable securities	(145)	—	(168)	—
Total other comprehensive loss	$ (145)	$ —	$ (168)	$ —
Comprehensive loss	$ (24,593)	$ (14,561)	$ (85,973)	$ (52,243)