Stoke Therapeutics Announces Presentations from the Company's Dravet Syndrome Program at the American Epilepsy Society 2021 Annual Meeting

November 19, 2021

– Data from the positive interim analysis of the Phase 1/2a MONARCH study of STK-001 in children and adolescents with Dravet syndrome will be presented –

BEDFORD, Mass.--(BUSINESS WIRE)--Nov. 19, 2021-- 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 announced that five abstracts related to the Company's work in Dravet syndrome will be presented at the American Epilepsy Society (AES) 2021 Annual Meeting, taking place December 3 – 7, 2021 in Chicago.

"At Stoke, our goal is to develop the first medicine to target the underlying cause of Dravet syndrome, a severe and progressive genetic epilepsy," said Barry Ticho, M.D., Ph.D., Chief Medical Officer of Stoke Therapeutics. "In addition to our progress in the clinic with STK-001, we continue to build a strong foundational understanding of the non-seizure aspects of the disease with data from our BUTTERFLY Observational study to help evaluate the potential of disease-modifying medicines. We look forward to sharing updates on our progress at this year's AES annual meeting."

Details for the Company's presentations at AES are as follows:

- **Title:** Interim Safety, PK, and CSF Exposure Data from the Phase 1/2a MONARCH Study of STK-001, an Antisense Oligonucleotide (ASO), in Children and Adolescents with Dravet Syndrome (DS)
  Session Date & Time: Sunday, December 5 at12:00 p.m. CT
  Presenter: Linda Laux, M.D., Associate Professor of Pediatrics (Neurology and Epilepsy) atNorthwestern University Feinberg School of Medicine and Attending Physician at Ann & Robert H. Lurie Children's Hospital of Chicago
  Poster Number: 2.405

- **Title:** SWALLOWTAIL: An Open-Label Extension (OLE) Study for Patients with Dravet Syndrome (DS) who Previously Participated in Studies of STK-001
  Session Date & Time: Sunday, December 5 at12:00 p.m. CT
  Presenter: Colin Roberts, M.D., Director of the Doernbecher Childhood Epilepsy Program atOregon Health & Science University
  Poster Number: 2.220

- **Title:** ADMIRAL: A UK Open-Label Study to Investigate the Safety and Pharmacokinetics (PK) of Multiple Ascending Doses of Antisense Oligonucleotide (ASO) STK-001 in Children and Adolescents with Dravet Syndrome
  Session Date & Time: Sunday, December 5 at 12:00 p.m. CT
  Presenter: Helen Cross, MB ChB, Ph.D., Professor, The Prince of Wales's Chair of Childhood Epilepsy and Head of the Developmental Neuroscience Programme at University College London Great Ormond Street Institute of Child Health, Honorary Consultant in Paediatric Neurology, President of the International League Against Epilepsy
  Poster Number: 2.219

- **Title:** BUTTERFLY, An Observational Study to Investigate Cognition and Other Non-seizure Comorbidities in Children and Adolescents with Dravet Syndrome
  Session Date & Time: Monday, December 6 at12:00 p.m. CT
  Presenter: Elaine Wirrell, M.D., Director of Pediatric Epilepsy atMayo Clinic, Director of the Child and Adolescent Neurology Residency Training Program at Mayo Clinic
  Poster Number: 3.278

- **Title:** A Pharmacokinetic (PK) Model for STK-001, an Antisense Oligonucleotide (ASO), Based on Data from Non-human Primates (NHP) Enables Dose Selection in Patients with Dravet Syndrome (DS)
  Session Date & Time: Monday, December 6 at12:00 p.m. CT
  Presenter: Meena, Ph.D., Vice President of Bioanalytical, DMPK and Biomarker Development at Stoke Therapeutics
  Poster Number: 3.264

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 pathogenic 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 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. 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 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 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 the Company's proprietary TANGO (Targeted Augmentation of Nuclear Gene Output) approach, Stoke is developing antisense oligonucleotides (ASOs) to selectively restore protein levels. The Company'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. The Company is pursuing treatment for a second haploinsufficient disease, 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 the Company's 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 the Company 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: Stoke's ability to use study data to advance the development of STK-001, the ability of STK-001 to treat the underlying causes of Dravet syndrome and reduce seizures, and the ability of TANGO to design medicines to increase protein production and the expected benefits thereof. Statements including words such as "plan," "potential," "will," "continue," "expect," or similar words 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 do not fully materialize or prove incorrect, 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 success in early stage 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 on our business, and other risks and uncertainties described under the heading “Risk Factors” in 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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