



Sania Therapeutics launches to advance novel medicines for neural circuit dysfunction

Sania emerges from stealth mode and presents key proof-of-concept data at ASGCT 2023

Launching core technology platforms which enable the precision delivery of proteins for neuromodulation

Team combines world-leading scientific pioneers with industry drug development expertise

LONDON, UK & NEW YORK, USA – 17 May 2023, Sania Therapeutics (the “Company”), focused on developing genetic medicines for neural circuit dysfunction, launches today by unveiling its suite of proprietary patented platforms at the American Society of Gene & Cell Therapy (ASGCT) conference.

Sania’s human-centric approach combines the evolution of adeno-associated viruses (AAV) in human neural circuits, the fundamental components of the nervous system, with tuneable conditionally-activated ion channels. This permits breakthrough efficacy by correcting dysfunctional neural excitation, thereby unlocking a broad range of diseases both within and beyond neurology.

The Company’s foundational technology platforms were first developed at University College London by Sania’s Co-Founders. Today’s launch follows the closing of an oversubscribed Series Seed financing, proceeds of which have been applied to platform development, advancing a lead program in motor disorders, as well as initiating additional undisclosed programs which leverage platform capabilities.

“We formed Sania with a simple yet powerful vision: to be the first in developing medicines that treat disorders of neural circuits selectively. Today we are excited to demonstrate proof-of-principle data and unveil our platforms,” **said Andy Murray, Ph.D, CEO & Co-Founder of Sania Therapeutics.**

“I’m very excited to be working with the team at Sania and believe their novel approach to neural modulation could lead to real benefits for patients,” **added Advisory Board member, Dr. Jane Hughes.**

Sania’s approach: human-centric precision delivery of tuneable genetic neuromodulation

Sania is unveiling its core patented technology platforms and proof-of-principle data at ASGCT in presentations on 17 and 18 May. These platforms enable the precision delivery of proteins for neuromodulation to selected individual neural circuits.

Human-centric precision delivery is enabled by Sania’s R-Scan platform, which leverages the combination of microfluidics with a diverse population of human induced pluripotent stem cells to recreate human neural circuits in a dish, enabling the directed evolution of human-centric AAVs. The proof-of-concept data being presented at for R-Scan is generated in fully functional human motor neuron-muscle circuits. R-Scan is complemented by a second platform, Gre-Scan, a novel and proprietary technology for the high throughput screening of gene regulatory elements.

These platforms are combined with Neu-Scan, which facilitates tuneable genetic neuromodulation through the testing and validation of the overexpression of conditionally-activated ion channels. The presented proof-of-concept data demonstrate that the platform has identified ion channels, deliverable by AAV, that enable the treatment of dysfunctional neural excitation.

About the leadership team



Dr. Andy Murray, Co-Founder & Chief Executive Officer. Formerly Group Leader, Sainsbury Wellcome Centre for Neural Circuits and Behaviour (SWC), University College London (UCL). Dr. Murray has pioneered viral vector development. He is published in leading scientific journals, such as *Nature*, *Cell*, *Neuron*, *Nature Neuroscience* and *PNAS*.

Professor Robert Brownstone, FCAHS, FMedSci, Co-Founder. Chair of Neurosurgery, UCL. Professor Brownstone is a world-leading clinician-scientist in neurophysiology. He is published in leading journals such as *Science*, *Neuron*, *PNAS* and *Science Translational Medicine*.

Dr. Raj S Dattani, Co-Founder. Dr Dattani is a qualified physician who joined the biopharma industry early in his career. He also serves as a Senior Drug Development Clinician at Weatherden where he has a dual focus across clinical development as well as corporate strategy.

Scientific and industry advisors

Sania's Advisory Board consists of experts across vector engineering, neuroscience and drug discovery and development, including two Brain Prize recipients and leading drug developers who have a track-record of success across both pharma and biotech businesses:

- Dr. Barry Ticho, Chief Medical Officer, Stoke Therapeutics. Co-Founder & former Board Member - Verve Therapeutics. Dr. Ticho formerly served in various positions at Moderna, Pfizer & Biogen.
- Dr. Jane Hughes, Formerly Chief Scientific Officer, Gyroscope Therapeutics (acq. Novartis). Dr Hughes formerly served in various positions at GlaxoSmithKline and AstraZeneca.
- Professor Ole Kiehn, Karolinska Institute & University of Copenhagen. Recipient of The Brain Prize (2022).
- Professor Tom Otis, Chief Scientific Officer, SWC, (UCL). Formerly Section Head, Synapses and Circuits, Roche.
- Dr. Kimberly Ritola, Director – UNC Neuroscience Center/BRAIN NeuroTools, University of North Carolina, Chapel Hill.
- Professor Martyn Goulding, Salk Institute for Biological Studies. Recipient of the Brain Prize (2022).
- Dr. Anna Dreismann, Senior Director of Biology, AGTC. Formerly Group Lead, Gyroscope Therapeutics.

Details of Presentations at the American Society of Cell and Gene Therapy Annual Meeting:

Wednesday 17 May: *“Engineering Ligand-Gated Ion Channels for Chemogenetic Modulation of Hyperexcitable Circuits in Neurological Disorders”* – Smith et al. Abstract No: 2023-A-2070-ASCGT.

Thursday 18 May: *“A Human-Centric AAV Capsid Engineering Platform for the Targeting of Dysfunctional Neural Circuits”* – Guijarro Belmar et al. Abstract No: 2023-A-2013-ASCGT



Thursday 18 May: *"A High-Throughput AAV-Based Screening Platform for the Engineering of Cell-Type Specific Gene Regulatory Elements"* – Privolizzi et al. Abstract No: 2023-A-1961-ASGCT.

About Sania Therapeutics

Sania Therapeutics is a ground-breaking biotechnology company pioneering new approaches for the treatment of neural circuit dysfunction. Sania's approach combines precision delivery of genetic medicines with neuromodulation using a human-centric approach to therapeutic development. Sania is based in London, UK. For more information visit www.saniarx.com.

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