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

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of December 2021.

Commission File Number: 001-40627

SOPHiA GENETICS SA

(Exact name of registrant as specified in its charter)

Rue du Centre 172
CH-1025 Saint-Sulpice
Switzerland
(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F:

Form 20-F ☒ Form 40-F ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): ☐

SOPHiA GENETICS Announces Launch of DEEP-Lung-IV Multimodal Clinical Study

Study to leverage deep learning-enabled analysis of the aggregation of real-world multimodal data to validate predictive signatures associated with response to immunotherapy and prognosis of patients with stage IV non-small cell lung cancer

Large-scale, multicentric real-world study aims to enroll 4,000 patients from approximately 30 sites across North America, Europe, and Latin America

BOSTON and LAUSANNE, Switzerland, December 1, 2021 — SOPHiA GENETICS SA (Nasdaq: SOPH), the creator of a global data pooling and knowledge sharing platform that advances data-driven medicine, announced today the launch of their DEEP-Lung-IV clinical study (NCT04994795). The study leverages deep learning-enabled analysis of the aggregation of multimodal clinical, biological, genomic and radiomics data to identify and validate predictive signatures associated with response to immunotherapy and prognosis of patients with metastatic non-small cell lung cancer (NSCLC).

Over the last decade, immunotherapy has revolutionized the treatment landscape for patients diagnosed with stage IV NSCLC and has become the standard of care in the frontline setting for patients without oncogene-activating mutations. Despite the clinical promise of immunotherapy, significant challenges remain as the majority of NSCLC patients fail to respond to immune checkpoint inhibitors. Today, PD-L1 is the only standard predictive biomarker for immune checkpoint inhibitor efficacy. However, it remains a very suboptimal biomarker with several well-characterized issues limiting its clinical utility. Thus, an urgent need exists to discover new predictive biomarkers of response to immunotherapy.

SOPHiA GENETICS' DEEP-Lung-IV clinical study aims to predict immunotherapy treatment response at first evaluation at the individual patient level using data across multiple modalities including genomics, radiomics, clinical and biological data. The study also aims to validate an algorithm that will allow the prediction of outcomes at the individual patient such as progression-free survival (PFS) and overall survival (OS). This predictive model will help identify patients that are likely to benefit from immunotherapy versus those that are not, as well as stratify patients according to risk, helping clinicians make more informed therapeutic decisions for their patients and supporting biopharma to ensure the right patients are selected for clinical trials.

"We are very excited about the opportunity to validate multimodal predictive models through such an innovative large-scale, multicentric, real-world clinical study. We aim to generate entirely novel actionable insights to improve clinical outcomes for patients with stage IV NSCLC treated with immunotherapy and develop next-generation patient stratification strategies to support the selection of the right patients for clinical trials" said Dr. Philippe Menu, Chief Medical Officer at SOPHiA GENETICS. "The analytical power of the multimodal SOPHiA GENETICS platform applied to this important clinical question illustrates the potential benefit for patients in embracing a future of Data-Driven Medicine."

To learn more about the DEEP-Lung-IV clinical study, please visit https://clinicaltrials.gov/ct2/show/NCT04994795.

About SOPHiA GENETICS:

SOPHiA GENETICS is a healthcare technology company dedicated to establishing the practice of data-driven medicine as the standard of care and for life sciences research. It is the creator of the SOPHiA DDM™ Platform, a cloud-based SaaS platform capable of analyzing data and generating insights from complex multimodal data sets and different diagnostic modalities. The SOPHiA DDM™ Platform and related solutions, products and services are currently used by more than 780 hospital, laboratory, and biopharma institutions globally.

More info: SOPHiAGENETICS.COM; follow @SOPHiAGENETICS on Twitter.

SOPHiA GENETICS products are for Research Use Only and not for use in diagnostic procedures, unless specified otherwise. The information included in this press release is about products that may or may not be available in different countries and, if applicable, may or may not have received approval or market clearance by a governmental regulatory body for different indications for use. Please contact support@sophiagenertics.com to obtain the appropriate product information for your country of residence.

SOPHiA GENETICS Forward-Looking Statements:

This press release contains statements that constitute forward-looking statements. All statements other than statements of historical facts contained in this press release, including statements regarding our future results of operations and financial position, business strategy, products and technology, as well as plans and objectives of management for future operations, are forward-looking statements. Forward-looking statements are based on our management's beliefs and assumptions and on information currently available to our management. Such statements are subject to risks and uncertainties, and actual results may differ materially from those expressed or implied in the forward-looking statements due to various factors, including those described in our filings with the U.S. Securities and Exchange Commission. No assurance can be given that such future results will be achieved. Such forward-looking statements contained in this document speak only as of the date of this press release. We expressly disclaim any obligation or undertaking to update these forward-looking statements contained in this press release to reflect any change in our expectations or any change in events, conditions, or circumstances on which such statements are based, unless required to do so by applicable law. No representations or warranties (expressed or implied) are made about the accuracy of any such forward-looking statements.

Media Contact:
Eliza Bamonti

ebamonti@sophiagenetics.com

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, thereunto duly authorized.

SOPHiA GENETICS SA

Date: December 01, 2021

By: /s/ Daan van Well
Name: Daan van Well
Title: Chief Legal Officer