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 March 2025

Commission File Number: 001-41115

GENENTA SCIENCE S.P.A.

(Translation of registrant's name into English)

Via Olgettina No. 58
20132 Milan, Italy
(Address of Principal Executive Offices)

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): ☐

Other Events

On March 19, 2025, Genenta Science S.p.A. announced up to €20 million in financing through the issuance of a mandatory convertible bond to ENEA Tech and Biomedical (ETB). ETB is a leading private foundation, supervised by the Italian Ministry of Enterprises and Made in Italy. Additional information relating to this transaction will be filed in a separate Form 6-K filing on or about March 19, 2025.

Exhibits

Exhibit No.	Description
99.1	Genenta Announces €20 million ($20.9M) Mandatory Convertible Bond Financing to Expand Temferon™ Cell Therapy Development.

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.

GENENTA SCIENCE S.P.A.

By: */s/ Richard B. Slansky*
Name: Richard B. Slansky
Title: Chief Financial Officer

Dated: March 19, 2025

Exhibit 99.1

Genenta Announces €20 million ($20.9M) Financing to Expand Pipeline As Brain Tumor Trial Is Showing Promising Survival Rates

Milan, Italy and New York, USA – March 19, 2025 – Genenta Science (Nasdaq: GNTA), a pioneer in immuno-oncology and a leader in cell-based therapeutics, today announced a **€20 million ($20.9 million)** financing through the issuance of a Mandatory Convertible Bond to ENEA Tech and Biomedical (ETB) to support the expansion of its pipeline by advancing Temferon in metastatic Renal Cell Cancer (mRCC). ETB is a leading private foundation, supervised by the Italian Ministry of Enterprises and Made in Italy, managing over €1.7 billion in assets under management through two funds. With deep expertise in the biomedical sector, ETB is an established authority in identifying and supporting high-potential biotech companies.

"*ETB conducted a deep and thorough scientific and legal due diligence before committing to this investment. We spent several months in negotiations,*" said **Pierluigi Paracchi**, CEO of Genenta. "*We believe the mandatory convertible bond terms are indicative of the potential long-term value of Genenta's shares.* ***The bond will not result in immediate dilution to Genenta's shareholders and is expected to provide the necessary capital to achieve key milestones in the Company's new mRCC trial. Conversion to equity is set for March 2028, followed by a two-year lock-up period. Naturally, the process will be accelerated in the event of a change of control of our Company.*** *ETB is a trusted partner with strong financial backing, which will help ensure the financial stability required to advance the validation of the Temferon platform and our ability to pursue strategic collaborations*."

The February data cutoff from the Phase 1/2a **Glioblastoma Multiforme** (GBM) **uMGMT** trial shows an increase in the percentage of patients surviving at two years, now reaching 29%, compared to 25% in October. Additionally, there is a marginal improvement in median overall survival, which now stands at 17 months. Historically reported data showed the overall survival of uMGMT patients undergoing standard of care to be approximately 14% at two years with a median overall survival of 13–15 months.

Notably, the Phase 1/2a trial in **metastatic Renal Cell Carcinoma** has recently begun enrolling patients, further strengthening the Company's clinical pipeline for Temferon.

Prof. **Luigi Naldini**, Co-founder of Genenta, added: "*We are continuing to demonstrate at pre-clinical and clinical levels Temferon's* ***ability to reprogram the tumor microenvironment****, which in turn* ***induces cell-mediated immune responses****, as suggested by Genenta's ongoing GBM trial and which will be under testing in the Company's mRCC trial.*"

ETB Mandatory Convertible Bond Investment Terms:

- Total Bond: €20 million ($20.9M), subscribed by ETB;
- Maturity: three years, with mandatory conversion at maturity (March 2028);
- Lock-up: two years following conversion (March 2030);
- Funding Structure:
    - First Tranche: €7.5 million ($7.84M), which is expected to provide sufficient funding to assess safety in the ongoing Phase 1/2a trial for mRCC;
    - Second Tranche: €12.5 million ($13.06M), conditional upon achieving safety and tolerability in the ongoing Phase 1/2a trial for mRCC, among other conditions;

- ETB equity in Genenta will be capped at 29%; and,

- The maximum conversion price is $17.64 per share based on an Independent Evaluation conducted by ETB's Advisor on Genenta.

Note: The information provided herein regarding the Mandatory Convertible Bond is a summary and does not purport to be comprehensive. The full terms and conditions of the Mandatory Convertible Bond are set forth in the official subscription agreement by and between Genenta and ETB and relevant bond regulations, which are detailed and govern the issuance of the Mandatory Convertible Bond. Investors are encouraged to refer to the full documentation. The complete documentation with respect to the Mandatory Convertible Bond is available in the Company's Form 6-K filing with the SEC filed concurrently with this press release and on the Company's website at www.genenta.com.

About Genenta

Genenta (Nasdaq: GNTA) is a clinical stage immuno-oncology company developing a proprietary hematopoietic stem cells therapy for the treatment of a variety of solid tumor cancers. Genenta first in class product candidate is Temferon™, which is designed to allow the expression of immune-therapeutic payloads within the tumor microenvironment by bone marrow derived myeloid cells and enable a durable and targeted response. Genenta has completed the Phase 1 trial for newly diagnosed Glioblastoma Multiforme patients with an unmethylated MGMT gene promoter, which suggests the potential reprogramming of the tumor microenvironment and inhibiting of myeloid induced tolerance, while allowing the induction of T cell responses, potentially breaking immune tolerance. Genenta has initiated in Q4 2024 a Phase 1/2a metastatic Renal Cell Carcinoma study that will also include a combination with immune checkpoint inhibitors. Genenta's treatments are designed as one-time monotherapies, but with the additional potential, when used in combination, to significantly enhance the efficacy of other approved therapeutics.

Forward-Looking Statements

Statements in this press release contain "forward-looking statements," within the meaning of the U.S. Private Securities Litigation Reform Act of 1995, that are subject to substantial risks and uncertainties. All statements, other than statements of historical fact, contained in this press release are forward-looking statements. Forward-looking statements contained in this press release may be identified by the use of words such as "anticipate," "believe," "contemplate," "could," "estimate," "expect," "intend," "seek," "may," "might," "plan," "potential," "predict," "project," "suggest," "target," "aim," "should," "will," "would," or the negative of these words or other similar expressions, although not all forward-looking statements contain these words. Forward-looking statements are based on Genenta's current expectations and are subject to inherent uncertainties, risks and assumptions that are difficult to predict, including risks related to the funding to be provided by the Mandatory Convertible Bond, the completion and timing of Genenta's ongoing clinical trial for newly diagnosed GBM patients with uMGMT-GBM, its clinical trial for metastatic RCC or any related studies, as well as Genenta's ability to fund its research and development plans. Further, certain forward-looking statements are based on assumptions as to future events that may not prove to be accurate. These and other risks and uncertainties are described more fully in the section titled "Risk Factors" in Genenta's Annual Report on Form 20-F for the year ended December 31, 2023 filed with the Securities and Exchange Commission. Forward-looking statements contained in this announcement are made as of the date of this announcement, and Genenta undertakes no duty to update such information except as required under applicable law. This press release discusses product candidates that are under preclinical or clinical evaluation and that have not yet been approved for marketing by the U.S. Food and Drug Administration or any other regulatory authority. Until finalized in a clinical study report, clinical trial data presented herein remain subject to adjustment as a result of clinical site audits and other review processes. No representation is made as to the safety or effectiveness of these product candidates or the use for which such product candidates are being studied.Temferon™ is an investigational product candidate for which the effectiveness and safety have not been established. In addition, Temferon™ is not approved for use in any jurisdiction.

Genenta Media
Tiziana Pollio, Mobile: +39 348 23 15 143
Email: tiziana.pollio@genenta.com