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 October 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): ☐

This report on Form 6-K is incorporated by reference into the registrant's registration statement on Form F-3 (File No. 333-271901).

Other Events

On September 30, 2025, Carlo Russo, MD, notified Genenta Science S.p.A. (the "Company") of his resignation as Chief Medical Officer and Head of Development. Any required notice periods relating to his resignation as provided for in Dr. Russo's employment agreement with the Company was waived by the Company, and the resignation was effective immediately. The resignation of Dr. Russo was for personal reasons and does not result from a disagreement with the Company.

Appointment of Dr. Francesco Galimi as acting Chief Medical Officer and Head of Development

On September 30, 2025, Dr. Francesco Galimi has been appointed to serve as the acting Chief Medical Officer and Head of Development, effective immediately.

Dr. Galimi, age 58, has been serving on the Board of Directors of Genenta Science SpA since April 2025. Dr. Galimi is a physician-executive with over 30 years of experience in healthcare R&D, including leadership roles in private and public biotechs as well as large pharma companies. Most recently, he was Senior Vice President and Chief Medical Officer at Adicet Bio, a company focused on allogeneic cell therapy technologies in hemato-oncology and autoimmune disorders. Previously, he served as Global Program General Manager at Amgen, where he led a portfolio of oncology programs, from pre-IND to late-stage. Prior to Amgen, Dr. Galimi was Head of Clinical Development at Onyx Pharmaceuticals and Executive Medical Leader at GNF/Novartis. Dr. Galimi holds an M.D. from the University of Torino Medical School with a specialty certification in Medical Oncology, and a Ph.D. in Oncology from the University of Torino Medical School. He conducted his post-doctoral research, focused on gene transfer models in hematology, at the Salk Institute in La Jolla, California.

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: October 3, 2025