

Speaker: **Prof. Fabiana Quaglia**, Univ. Naples, Italy

Title: **Italian National Center for Gene Therapy**

Funded by the European Union National Recovery and Resilience Plan (NRRP Mission 4 – Education and Research), the National Center for Gene Therapy and Drugs based on RNA Technology unites 46 organizations from universities, public bodies, and private companies towards the same goal: bringing results to the marketplace with RNA-based pharmaceutical products.

Structured along a Hub and Spoke model, the National Center Foundation acts as the central Hub that manages and coordinates 36-month research program activities developed in 10 Spokes.

Led by the University of Napoli Federico II, Spoke 8 is designed to reshape the delivery strategies for nucleic acid therapeutics with specific emphasis on nanocarriers and their rational development. This includes exploring innovative functional materials, developing engineered nanoparticles for precise delivery into the body, creating human-relevant models for assessing delivery efficiency, and developing novel manufacturing technologies considering regulatory compliance.

After a brief overview of the Center's organization and mission, the research program of Spoke 8 and the outcome after 18 months will be illustrated.