



UNIMORE
UNIVERSITÀ DEGLI STUDI DI
MODENA E REGGIO EMILIA

PhD Program in Molecular
and Regenerative Medicine

Molecular and Regenerative Medicine Seminar Series (MRMss)

Engineering Complex Human Organoids for Disease Modeling and Therapy

Dr. Patrizia Tornabene, PhD

Tuesday, 26th May 2026, 4:00 PM <https://teams.microsoft.com/meet/313667308619309?p=NjANJXav7p0FwS23FI>

Patrizia Tornabene, PhD is an Associate Staff Scientist at Cincinnati Children's Hospital Medical Center with expertise in gene therapy, genome editing, stem cell biology, and human organoid technologies. After completing her PhD in Human Genetics and Systems Medicine at the University of Milan, she trained at Telethon Institute of Genetics and Medicine under the mentorship of Alberto Auricchio, where she contributed to the development of innovative AAV-based strategies for the delivery of large genes in inherited retinal diseases. Her work led to seminal publications in high-impact journals including Science Translational Medicine, Nature Communications, and Molecular Therapy.

Her research pioneered intein-mediated AAV trans-splicing and CRISPR/Cas9-based homology-independent targeted integration (HITI) approaches for dominant retinal disorders, significantly expanding the therapeutic potential of in vivo genome editing. She is also co-inventor of an international patent related to intein-based technologies for large gene delivery. Since joining the laboratory of James Wells at Cincinnati Children's Hospital Medical Center, Dr. Tornabene has focused on the development of advanced human pluripotent stem cell-derived organoid systems. Her current work centers on engineering multicellular pancreatic organoids to model diseases such as Cystic Fibrosis and pancreatitis, with the goal of accelerating translational therapeutic development. She has received multiple awards for her scientific contributions, including fellowships and travel awards from the European Society of Gene and Cell Therapy, American Society of Gene and Cell Therapy, and EMBO.

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