

NYBCe RESEARCHER PROFILE



FRANCESCA VINCHI, PhD

Head, Laboratory of Iron Research

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BACKGROUND

Doctoral Training

- University of Turin, Italy - PhD, Biomedical Science and Human Oncology

Postdoctoral Training

- Molecular Medicine Partnership Unit, University of Heidelberg & European Molecular Biology Laboratory (EMBL), Germany

AREAS OF RESEARCH

- Mechanisms and toxicities of iron overload and iron deficiency
- Impact of heme and iron in hematologic diseases, including sickle cell disease (SCD), thalassemias, and myelodysplastic syndromes (MDS)
- Role of heme and iron in macrophage polarization and cardiovascular dysfunction

KEY PUBLICATIONS



CONTACT

To contact the lab, email Dr. Vinchi at FVinchi@nybc.org or the Office of Sponsored Programs at researchadmin@nybc.org.

To learn more about NYBCe patents and licensing, visit our webpage: <https://www.nybce.org/our-research/nybce-technology-discoveries/>.

NYBCe LAB DESCRIPTION

Millions of patients worldwide are affected by iron overload or deficiency. The Laboratory of Iron Research investigates the impact of heme and iron excess or deficiency on the pathogenesis of hematologic diseases, including SCD, b-thalassemia, MDS and iron-deficiency anemia (IDA). The lab's research focuses on the molecular mechanisms of heme/iron-driven dysfunction of the immune and cardiovascular systems and their detrimental consequences. Our main scientific interest is to explore the pathophysiologic relevance of these mechanisms for disease conditions and address the importance of scavenging and detoxification systems for the prevention of iron overload and related toxicities as well as iron supplementation for the correction of IDA. The main lab's mission is to develop novel therapeutic interventions that modulate body iron status and explore their beneficial effects for hematologic and iron-related diseases.

INDUSTRY & ACADEMIC PARTNER COLLABORATIONS

- Assistant Professor of Pathology and Laboratory Medicine, Weill Cornell Medical College
- Scientific Editor: HemaSphere, the Journal of the European Hematology Association (EHA)
- Associate Editor: Frontiers in Oncology, Section Hematologic Malignancies; Journal of Basic and Clinical Physiology and Pharmacology
- Vice-Chair, Scientific Committee on Heme and Iron of the American Society of Hematology (ASH)
- BiolIron, International Society for the Study of Iron Biology and Medicine: Director
- Research collaborations with biotech and pharmaceutical companies for the preclinical development of iron-related therapeutics

COLLABORATIONS OF INTEREST

- Companies & academics investigating iron biology
- Development of therapeutics that target heme and iron or the mechanisms that control their homeostasis

