

ALESSANDRO VANNINI

Head of Structural Biology Research Centre



Prof. Alessandro Vannini is the Head of the Center for Structural Biology at Human Technopole.

Born in London in 1975, he graduated in Biological Sciences from the University of Roma Tre in 2000. In 2006, he received a PhD in Biochemistry and Molecular Biology from the Faculty of Medicine, Tor Vergata University of Rome. From 2006 to 2012, he followed a postdoctoral program at the Gene Center of the Ludwig-Maximilians-Universität (LMU) in Munich.

In 2012, he began his research activities at the Institute of Cancer Research (ICR) in London, first as a Team Leader and then as deputy head of the Division of Structural Biology, starting in 2017, and was awarded the title of Professor of Integrative Structural Biology.

Throughout his career, he received numerous awards and honors: European Molecular Biology Organization (EMBO) Young Investigator (2016), Wellcome Trust Investigator (2016), CR-UK Program Foundation Award (2016), New Investigator Award Biotechnology and Biological Sciences Research Council (2013), Römer-Prize Ludwig-Maximilians-Universität (LMU), (2010), Marie Curie Intra-European fellowship (2007) and European Molecular Biology Organization (EMBO) long-term fellowship (2006).

For his research activities, he has obtained major international funding including grants from the Wellcome Trust London (2017-2022), Cancer Research UK (2016-2022 and Medical Research Council (2019-2023).

He is a member of the editorial board of The Biochemical Journal and Open Biology and has authored more than 30 publications and participated in numerous conferences and seminars around the world as an invited speaker

RESEARCH ACTIVITIES

In the Structural Biology Research Centre at Human Technopole, Vannini studies the structure of macromolecules and macromolecular complexes, which is essential to understand how they function. This research activity will be key to understanding the mechanisms underlying the formation of diseases that originate in the human body and may find application in the development of new drugs.

Specifically, within the Center, the research group led by Alessandro Vannini employs an Integrative Structural Biology approach, combining cutting-edge cryo-EM analysis, x-ray diffraction data, cross-linking and native mass-spectrometry. His research integrates the structural data with molecular and cellular biology techniques in order to obtain a comprehensive view of fundamental cellular processes happening in the nucleus and how their mis-regulation leads to cancer and neurodegenerative diseases