MÁTÉ MANCZINGER

Hungarian immunology researcher

Results for the Talentum Prize 2023 nomination:
Investigation of generalist HLA molecules in the antitumor immune response

Title of his presentation: Quantity over quality - generalist HLA molecules and antitumor immunity

Date of presentation: 28 March 2023, 10:00

CAREER

Máté Manczinger was born in Szeged in 1985. He graduated from the Radnóti Miklós Experimental High School in Szeged, and then obtained a general medical degree from the Faculty of Medical School of the University of Szeged in 2010.

At the Clinic of Dermatology and Allergology of the University of Szeged, he worked as a PhD student and then as an individual PhD student under the supervision of Prof. Lajos Kemény and Dr. Lóránt Lakatos. During his work, he studied vaginal Candida infections and psoriasis using experimental and bioinformatics methods. He also worked as a dermatology resident and qualified as a dermatologist in 2016.

Since 2016, he focuses on adaptive immune recognition. He examines the role of HLA molecules in infections and cancer. Additionally, he looks for general laws in immune recognition using systems biology approaches. Currently, he is the head of the Systems Immunology Research Group at the Biological Research Centre (Szeged).

PROFESSIONAL ACHIEVEMENTS

2019 Máté Manczinger has developed a drug repurposing algorithm which was applied for patenting in the United States. Under his leadership, his research team has detailed the previously neglected concept of HLA promiscuity (Manczinger et al., PloS Biology, 2019) and discovered the role of HLA function in anti-tumour immunity (Manczinger et al., Nature Cancer, 2021). HLA promiscuity has been proved to be an accurate biomarker and the team has signed a contract with a US company to work together on its application in healthcare.

2021 The group published the results of another project on a provocative topic (Koncz et al., PNAS, 2021). The hypothesis of the research was that T-cell positive selection results in a defective T-cell repertoire. Consequently, overly dissimilar peptides to our own proteins are unlikely to be recognized by the immune system.