Diego De Stefani - Curriculum vitae

Personal information

First name: Diego
Family name: De Stefani
Place and date of birth: Rovigo, 09/07/1980
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Education

2005: Master's degree in Medical Chemistry (Chimica e Tecnologia Farmaceutiche), University of Ferrara, Italy, summa cum laude

2009: PhD in Pharmacology and Molecular Oncology, University of Ferrara, Italy

Current position

2024 – present: Full Professor of Biochemistry, Dept. of Biomedical Sciences, University of Padova, Italy

Awards

2015: Young Bioenergeticist Award, "Bioenergetics, Mitochondria, and Metabolism" subgroup of Biophysical Society

2023: Outstanding Investigator Award, International Society for Heart Research (ISHR)

Bibliometry

I published 60 articles on international peer-reviewed journals. According to Google scholar: >14500 citations (240 citations/pub), H-index 41. According to Scopus: >10000 citations (170 citations/pub), H-index 38. Total IF > 670.

Main scientific contributions:

My work has been always focused on mitochondria, in particular on the identification and characterization of organellar ion transporters. During my PhD, I contributed to the discovery of the first described macromolecular complex located at the interface between ER and mitochondria, where the IP_3R (the ER Ca^{2+}-releasing channel) is coupled to VDAC (the Ca^{2+}-channel of the OMM) through the chaperone GRP75 (Szabadkai G et al, J Cell Biol. 2006). I also demonstrated that this complex is dynamically tuned to transfer specific signals (e.g. Ca^{2+}-dependent apoptotic stimuli) from one organelle to the other (De Stefani D et al, Cell Death Differ. 2012). During my postdoc, I identified the long sought Mitochondrial Calcium Uniporter (MCU), i.e. the channel of the IMM responsible for the electrophoretic accumulation of Ca^{2+} inside organelle matrix (De Stefani D et al, Nature. 2011), along with its endogenous dominant-negative isoform of MCU, named MCUb (Raffaello A et al, EMBO J. 2013). As faculty, I characterized other subunits of the MCU complex that

are critical determinants of the gating of MCU, e.g. MICU2 (Patron M et al, Mol Cell. 2014), and MICU3 (Patron M et al, Cell Death Differ. 2019). I also discovered the molecular identity of the mitochondrial ATP-sensitive potassium channels (mitoK$_{ATP}$) (Paggio A et al, Nature, 2019). Currently, I'm working on the characterization of the molecular determinants of mitochondrial Ca^{2+} extrusion (Vetralla et al, bioRxiv 2023).

Full list of publications:

https://pubmed.ncbi.nlm.nih.gov/?term=de+stefani+d%5BAuthor%5D&sort=date

https://www.scopus.com/authid/detail.uri?authorId=23472903200

https://scholar.google.it/citations?user=YcpsjP8AAAAJ&hl=it

Preprints

https://www.biorxiv.org/search/author1%3ADiego%2BDe%2BStefani%2B