

PERSONAL INFORMATION

NAME: Dotti, Carlos G.

RESEARCHER UNIQUE IDENTIFIER:

Orcid Identifier: 0000-0003-4052-1719. <https://orcid.org/0000-0003-4052-1719>

Nationality: Argentinean-Italian (double citizenship)

URL for web site: <https://www.cbm.uam.es/cdotti>

EDUCATION:

M.D. 1979. National University of Córdoba (Argentina). Faculty of Medical Sciences.

Ph.D.1984. National University of Córdoba (Argentina). Faculty of Medical Sciences.

CURRENT POSITION:

2009-present. Full Professor. National Research Council of Spain (CSIC).

2017-2022: Chair. Physiological and Pathological Processes Programme. Centro de Biología Molecular Severo Ochoa (CBMSO).

<https://www.cbm.uam.es/en/research/programs/physiological-and-pathological-processes>

PREVIOUS POSITIONS:

06/1985-06/1988	Postdoc. Albany Medical College, Albany, New York, USA
06/1988-09/1991	Postdoc, Cell Biology Program, EMBL, Heidelberg, Germany
09/1991-12/1993:	Staff Scientist, Cell Biology Program, EMBL, Heidelberg, Germany.
01/1994-08/2000:	Group Leader, Cell Biology Program, EMBL, Heidelberg, Germany.
09/2000-12/2005:	Scientific Director, Ottolenghi Scientific Institute, Univ.Torino, Italy.
10/2005-4/2009:	Full Professor, Center for Human Genetics, University of Leuven Medical School, Leuven, Belgium.

FELLOWSHIPS AND AWARDS

1985	Fogarty International Fellow, NIH, Bethesda, USA
1988	Alexander von Humboldt Stiftung Fellow, Bonn, Germany

GENERAL INDICATORS OF SCIENTIFIC PRODUCTIVITY

Doctoral thesis supervised: 14

Number of publications in impact journals: 168

Total number of citations: 12827

Average number of citations in the last 5 years (2012-2016): 617 citations/year

H Index: 62 (<https://www.scopus.com/freelookup/form/author.uri>)

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

PhD students

Frank Bradke	1996-2000	Enrique Gabandé	2009-2015
Eugenia Piddini	1997-2001	Antonio Laranjeira	2009-2015
J. Santos da Silva	2000-2004	Ernest Palomer	2012-2016
Giulia Pollarolo	2005-2010	Adrián Martín	2013-2018
Laura Trovó	2006-2011	Isabel Salas	2013-2018
Simona Perga	2002-2007	Silvia de Vidania	2014-2020
Iva Nestic	2003-2007	Alvaro Casadomé	2017-2022
Francesca Iannilli	2007-2013	Raquel García	2021-present

Postdoctoral fellows

Meltsje de Hoop	1995-1998	Bart De Strooper	1996-1997
Angel Cid-Arregui	1994-1997	Michael Kiebler	1997-1999
Niovi Santama	1998-2000	Maria D. Ledesma	1997-2000
Claudia Bagni,	1997-1998	J. Abad-Rodriguez	1998-2000
Federica Chiara	2003-2005	Stefano Benvegnù	2012-2018
Sven Gensler	2002-2005	Pietro Fazzari	2016-2018 (RyC GL)
Froylan Calderón	2001-2005	Isabela Alonso	2011-present
Joachim Schulz	2008-2012	Francesc Guix	2017-present
Alejandro Sodero	2007-2011	Inés Berenguer	2018-present
Annette Gaertner,	2006-2011	Marta Carus	2019-present
Anna Brachet	2011-2016		
Mauricio Martín	2007-2015		

ORGANISATION OF SCIENTIFIC MEETINGS

- 2015 Co-Organiser: Workshop. Memory Formation and Memory loss. October 11-13, Madrid.
2019 Co-Organiser: Symposium. Brain-Body Connection. May 13-15 2019, Madrid.

INSTITUTIONAL RESPONSIBILITIES

2000-2005: *Scientific Coordinator.* Cavalieri Ottolenghi Institute of Neuroscience. Univ. Torino.
2017-2022: *Program Director.* Physiological and Pathological Processes Programme.
<https://www.cbm.uam.es/en/research/programs/physiological-and-pathological-processes>
Centro de Biología Molecular Severo Ochoa (CBMSO).

REVIEWING ACTIVITIES (last 5 years)

2012. Advisory Board Member. London Research Institute (Cancer Research UK), London, UK
2016. Advisory Board Member. Millennium Institute of Neuroscience. Valparaíso. Chile
2017. Advisory Board Member. Institute of Psychiatry and Neurosciences of Paris. Paris. France
2016-present International Assessor. Irish Research Council. Dublin, Ireland

MAJOR COLLABORATIONS

José Antonio Esteban, Department of Molecular Neurobiology CBMSO, Madrid, Spain.
Angel Nebreda, Signalling and Cell Cycle Unit, IRB/ICREA Barcelona, Spain.
Miguel A. Morcillo, CIEMAT/Biomedical Applications of Radioisotopes, Madrid, Spain.
Jesús Martínez de la Fuente, Institute of Nanoscience of Aragon, Zaragoza, Spain.
Mauricio Martín, CONICET Instituto de Inv. Médicas. Córdoba, Argentina.
María Dolores Ledesma, CSIC, Centro de Biología Molecular Severo Ochoa, Madrid, Spain.

Main publications last 10 years (corresponding author):

Pollarolo, G., Schulz, J., Munck, S. and **Dotti C.G.** (2011). Cytokinesis remnants determine neuronal polarity in vivo.

NATURE NEUROSCIENCE, 14, 1525-1533. doi: 10.1038/nn.2976.

Sodero, A., Sassoe-Pognetto, M., Stegner, D., Nieswandt, R. and **Dotti, C.G.** (2012). Cholesterol loss during glutamate-mediated excitotoxicity.

EMBO JOURNAL, 31(7), 1764-1773. doi: 10.1038/emboj.2012.31

Gaertner, A., Fornasiero, E.F., Munck, S., Vennekens, K., Seuntjens, E., Huttner, W.B., Valtorta, F. and **Dotti, C.G.** (2012). N-cadherin specifies first asymmetry in developing neurons.

EMBO JOURNAL. 31, 1893-2003. doi: 10.1038/emboj.2012.41.

Trovò. L., Ahmed, T., Buzzi, A., Callaerts-Vegh, Z., Bagni, C., Chua, M. VandenDriessche, T., D'Hooge, R., Balschun, D. and **Dotti, C.G.** (2013). Low hippocampal PI(4,5)P2 contributes to reduced cognition in old mice due to loss of MARCKs.

NATURE NEUROSCIENCE, 16(4):449-55. doi: 10.1038/nn.3342

Martin MG, Ahmed T, Korovaichuk A, Venero C, Menchón SA, Salas I, Munck S, Herreras O, Balschun D, **Dotti CG.** (2014). Constitutive hippocampal cholesterol loss underlies poor cognition in old rodents.

EMBO MOLECULAR MEDICINE, 6, 902-917. doi: 10.15252/emmm.201303711.

Brachet A, Norwoords S, Brouwers JF, Palomer E, Helms JB, **Dotti C.G***, Esteban JA. (2015) LTP-triggered cholesterol redistribution activates Cdc42 and drives AMPA receptor synaptic delivery.

JOURNAL OF CELL BIOLOGY, 16;208(6):791-806 doi: 10.1083/jcb.201407122.

(*co-corresponding, with JA Esteban)

Palomer E, Carretero J, Benvegnu S, **Dotti C.G.*** & Martin MG. (2016) Neuronal activity controls Bdnf expression via Plycomb de-repression and CREB/CBP/JMJD3 activation in mature neurons.

NATURE COMMUNICATIONS 7, 11081-1186. doi: 10.1038/ncomms11081.

(*co-corresponding: MGM is postdoc)

Palomer, E, Martín-Segura, A, Baliyan, S, Ahmed, T, Balschun, D, Venero, C, Martin, MG and **Dotti, CG.** (2016). Aging triggers a repressive chromatin state at BDNF promoters in hippocampal neurons.

CELL REPORTS, 16(11):2889-2900. doi: 10.1016/j.celrep.2016.08.028.

Benvegnù, S., Mateo, M. I., Palomer, E., Jurado-Arjona, J., and **Dotti, C. G.** (2017). Aging Triggers Cytoplasmic Depletion and Nuclear Translocation of the E3 Ligase Mahogunin: A Function for Ubiquitin in Neuronal Survival.

MOLECULAR CELL, 66(3), 358-372. doi: 10.1016/j.molcel.2017.04.005.

Martín-Segura, A., Ahmed, T., Casadomé-Perales, A., Palomares-perez, I., Palomer, E., Kerstens, A., Munck, S., Balschun, D., and **Dotti, C.G.**(2019). Age-associated cholesterol reduction triggers brain insulin resistance by facilitating ligand-independent receptor activation and pathway desensitization.

AGING CELL, 18(3)12932. doi: 10.1111/acer.12932

Guix, FX., Marrero-Capitán, A., Casadomé-Perales, A., Palomares-Pérez, I., López del Castillo, I., Miguel, V., Goedeke, L., Martín, M.G., Lamas, S., Peinado, H., Fernández-Hernando, C. and **Dotti, CG.** (2021). Increased exosome secretion in aging neurons by NPC1-mediated endosomal cholesterol build-up.

LIFE SCI. ALLIANCE. 4 (8) e202101055

Carús-Cadavieco M, Berenguer López I, Montoro Canelo A, Serrano-Lope MA, González-de la Fuente S, Aguado B, Fernández-Rodrigo A, Saido TC, Frank García A, Venero C, Esteban JA, Guix F, **Dotti CG.** (2023). Cognitive decline in diabetic mice predisposed to Alzheimer's disease is greater than in wild type.

LIFE SCI ALLIANCE. 6(6):e202201789. doi: 10.26508/lsa.202201789

BY APPOINTMENT: MEMBER OF SCIENTIFIC SOCIETIES

2000. EMBO Member

2013. Argentine National Academy of Science Member

INSTITUTIONAL RESPONSIBILITIES

Since 2017: Program Coordinator. Physiological and Pathological Processes Program.

<https://www.cbm.uam.es/en/research/programs/physiological-and-pathological-processes>

Centro de Biología Molecular Severo Ochoa (CBMSO).

CONTRIBUTION TO THE CAREER OF RESEARCHERS

Frank Bradke: PI. DZNI, Bonn, Germany

Eugenia Piddini: PI. Cambridge Cancer Centre, UK

Claudia Bagni: Chair. Department of Fundamental Neuroscience. U. Lausanne.

Niovi Santama: PI. MBB, U. Cyprus

Bart De Strooper: PI KULeuven and Scientific Director. Dementia Research Institute UK.

Michael Kiebler: PI. Dept. Cell Biol. Medicine. U. Munich.

Maria D. Ledesma: PI. CSIC, CBMSO Madrid, Spain

Federica Chiara: PI. Dept. Environmental Medicine, University of Padova.

Jose Abad-Rodríguez: PI. Membrane Biology Unit. Hospital Nacional Paraplégicos. Toledo, Spain

Froylan Calderón de Anda: PI. University Medical Center Hamburg-Eppendorf (UKE)

Mauricio Martin: PI. Argentine National Research Council, Argentina.

Alejandro Soderó: PI. Argentine National Research Council, Argentina

Laura Trovò: R&D Neurobiology Specialist. Nestlé Institute of Health Sciences, Vaud, Switzerland.

Annette Gärtner: R&D Integrated Drug Discovery Specialist. Evotec, Hamburg, Germany

Stefano Benvegnù: Research Fellow, Alzheimer's Research UK. UCL Drug Discovery Institute · London.

Ernest Palomer: Ramón y Cajal Research Fellow. Centro de Biología Molecular Severo Ochoa.