

## Maximiliano Jose Nigro

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Date of birth: 01 March 1979      Nationality: Italian

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**Current Position:**    Group leader

Kavli Institute for Systems Neuroscience, NTNU, Trondheim, Norway.

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<b>Education:</b>	<b>Ph.D. in Physiology Neuroscience</b> <i>University of Pavia, Italy.</i>	2010
	<b>Master of Science in Neurobiology</b> <i>University of Pavia, Pavia, Italy.</i> Concentration in neurophysiology	2006
	<b>Bachelor of Science in Biological Sciences</b> <i>University of Pavia, Pavia, Italy.</i> Concentration in cell biology	2004

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### **Bibliography**

#### **- Publications:**

- Nigro MJ, Kirikae H, Kjelsberg K, Nair Raveendran R, Witter MP. (2021) Not all that is gold glitters: PV-IRES-Cre mouse line shows low efficiency of labelling of parvalbumin interneurons in the perirhinal cortex. *Front Neural Circuits* 15:781928 doi:10.3389/fncir.2021.781928
- Quattrocolo G, Dunville K, Nigro MJ. (2021) Resurgent sodium current in neurons of the cerebral cortex. *Front. Cell. Neurosci.* 15:760610. Doi: 10.3389/fncel.2021.760610
- Ohara S, Blankvoort S, Nair RR, Nigro MJ, Nilssen ES, Kentros C, Witter MP. (2021) Local projections of layer Vb-to-Va are more prominent in lateral than in medial entorhinal cortex. *eLife* 2021;10:e67262 DOI: 10.7554/eLife.67262
- Jara JH, Sheets PL, **Nigro MJ**, Peric M, Brooks C, Heller DB, Martina M, Andjus PR, Ozdinler H. (2020) The electrophysiological determinants of corticospinal motor neuron vulnerability in ALS. *Front Mol Neurosci* 13:73.
- **Nigro MJ**. (2019) Sense and action across the layers of the rat posterior parietal cortex. *J Neurosci* 40:1606-1607.
- Nilssen ES, Doan TP, **Nigro MJ**, Ohara S, Witter MP. (2019) Neurons and networks in the entorhinal cortex: A reappraisal of the medial and lateral subdivisions mediating parallel cortical pathways. *Hippocampus* 29:1238-1254.

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**-Publications:**

- Wamsley B, Jaglin XH, Favuzzi E, Quattrocchio G, **Nigro MJ**, Yusuf N, Khodaddadi-Jamayran A, Rudy B, Fishell G. (2018) Alternative splicing is essential for cell-type-specific cortical interneuron connectivity. *Neuron* 100:846-859.
- **Nigro MJ**, Hashikawa Y, Rudy B. (2018) Diversity and connectivity of somatostatin interneurons in layer V of the mouse barrel cortex. *J Neurosci* 38:1622-1633.
- Hönigsperger C\*, **Nigro MJ\***, Storm JF. (2017) Physiological roles of Kv2 channels in entorhinal cortex layer II stellate cells revealed by Guangxitoxin-1E. *J Physiol.* 595:739-757.
- He M, Tucciarone J, Lee S, **Nigro MJ**, Kim Y, Levine JM, Kelly SM, Kruglikov I, Wu P, Chen Y, Gong L, Hou Y, Rudy B, Osten O, Huang J. (2016) Strategies and tools for combinatorial targeting of GABAergic neurons in mouse neocortex. *Neuron.* 91:1228-43.
- **Nigro MJ**, Mateos-Aparicio P, Storm JF. (2014) Expression and functional roles of Kv7/KCNQ/M-channels in rat medial entorhinal cortex layer II stellate cells. *J Neurosci.* 34:6807-12.
- Sekerkova G, Kim JA, **Nigro MJ**, Becker EB, Hartmann J, Birnbaumer L, Mugnaini E, Martina M. (2013) Early onset of ataxia in moonwalker mice is accompanied by complete ablation of type II unipolar brush cells and Purkinje cell dysfunction. *J Neurosci.* 33:19689-94.
- **Nigro MJ**, Quattrocchio G, Magistretti J. (2012) Distinct developmental patterns in the expression of transient, persistent and resurgent Na<sup>+</sup> currents in entorhinal cortex layer-II neurons. *Brain Res.* 1463:30-41.
- **Nigro MJ**, Perin P, Magistretti J. (2011) Differential effects of Zn<sup>2+</sup> on activation, deactivation and inactivation kinetics in neuronal voltage-gated Na<sup>+</sup> channels. *Pflüger Archiv* 462:331-47.
- Castelli L, **Nigro MJ**, Magistretti J. (2007) Analysis of resurgent sodium-current expression in rat parahippocampal cortices and hippocampal formation. *Brain Res.* 1163:44-55.

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**Research Experience:**

- May 2017-2020: Postdoctoral fellow, Dr. Menno Witter, Kavli Institute, NTNU, Trondheim, Norway.
- July 2014-April 2017: Postdoctoral fellow, Dr. Bernardo Rudy, Department of Neuroscience, NYU, New York City, USA.
- February 2013-June 2014: Research Associate, Dr. Marco Martina. Department of Physiology, Northwestern University, Chicago, USA.
- February 2010-December 2012: Postdoctoral fellow, Dr. Johan Storm, Department of Physiology, University of Oslo, Norway.
- October 2006-November 2009: Graduate student, Dr. Jacopo Magistretti, Department of Physiology, University of Pavia, Italy.

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<b>Teaching experience:</b>	<ul style="list-style-type: none"> <li>• 2021: Two lectures at the Master in Neuroscience at NTNU <ul style="list-style-type: none"> <li>○ Methods in neurophysiology</li> <li>○ Microcircuit organization</li> </ul> </li> <li>• 2020: Lecture “Methods in neurophysiology” for the Master in Neuroscience, NTNU, Norway</li> <li>• 2019: Lecture “Methods in neurophysiology” for the Master in Neuroscience, NTNU, Norway</li> <li>• August 2014: teaching assistant for Electrophysiological methods course at NYU</li> </ul>
<b>Editorial activity</b>	<ul style="list-style-type: none"> <li>• Guest Associate Editor for Frontiers in Neural Circuits: Research Topic “Biogeography of the cortex: cell-type diversity across cortical regions and its functional implications”</li> <li>• Reviewer for Frontiers in Neural Circuits and for Behavioral and Brain Functions</li> </ul>
<b>Invited Presentations:</b>	<ul style="list-style-type: none"> <li>• Bristol Neuroscience, University of Bristol, December 2020</li> <li>• Nencki Institute of Experimental Biology, June 2020</li> <li>• Kavli NDI-X Speakers Series, December 2019</li> <li>• Department of Physiology, University of Oslo, Oslo, Norway. August 20, 2019</li> <li>• Instituto de Neurociencias, Alicante, Spain. Christmas Meeting, 19-20 December 2018</li> <li>• University of Pavia, Italy. “Career Day” for the Neurobiology Master. December 19, 2017</li> <li>• University of Pavia, Italy. December 22, 2011</li> </ul>
<b>Awards:</b>	<ul style="list-style-type: none"> <li>• 2020: Marie Skłodowska-Curie Individual Fellowship</li> <li>• 2018: Seal of Excellence of the European Commission;</li> <li>• 2018: FENS-IBRO/PERC Travel grant;</li> <li>• 2017: Seal of Excellence of the European Commission;</li> <li>• 2006-2009: Ph.D. Studentship at the University of Pavia;</li> <li>• 2005: University of Pavia studentship for Neurobiology</li> </ul>
<b>Organization of scientific meetings:</b>	<ul style="list-style-type: none"> <li>• April 2022- JANUBET Symposium for Young Researchers in the exchange program Norway-Japan</li> <li>• December 2017 “Career Day” for the Neurobiology Master, University of Pavia, Italy, co-organizer</li> </ul>
<b>Participation in institutional activities:</b>	<ul style="list-style-type: none"> <li>• Since 2021: Co-organizer of the Kavli Institute Seminar Series</li> <li>• 2019-2020 Secretary of the YROCK (Young Researcher Organization of the Neural Computation and the Kavli Institute for Systems Neuroscience)</li> <li>• 2020: Co-organizer of the departmental Journal Club at the Kavli Institute for Systems Neuroscience, NTNU, Norway</li> <li>• 2018-2020: Organizer of the Witter Lab Meeting, NTNU, Norway</li> </ul>

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**Memberships:**

- Italian Society for Neuroscience;
  - Norwegian Neuroscience Society
  - Federation of European Neuroscience Societies;
  - Society for Neuroscience (USA);
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