

BIOGRAPHICAL SKETCH

NAME PROCHIANTZ, Alain	POSITION TITLE Emeritus Professor at College de France Chief Scientific Officer BrainEver SAS
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Education/Training

INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Ecole normale supérieure 1969-1972 Faculty of sciences Paris VII, France and MIT Cambridge, USA	Pre-doc PhD	1969-1971 1971-1976	Biochemistry Biochemistry
Collège de France, Paris	Post- doc	1976-1980	Neurobiology

A. Personal Statement

Following a PhD thesis on the primary and secondary structure of plant messenger RNAs prepared in the laboratories of François Chapeville (University Paris VII) and Uttam.L. RajBhandary (MIT Cambridge, USA), A. Prochiantz joined the laboratory of Pr. J. Glowinski at the College de France (Paris) where he started a cell biology project on neural development. With his junior group (as of 1981) he studied the processes of axonal elongation and target cell recognition. During these studies, he observed that the interactions between specific sub-populations of neurons and astrocytes modulate the development of neuronal polarity, thus establishing that astrocytes are heterogeneous within the central nervous system. After a year (1985) spent in the laboratory of Pr. M. Shelanski (NYU School of Medicine, New-York) A. Prochiantz returned to College de France for 3 years and then moved to the Ecole Normale Supérieure as head of a CNRS Research Unit "*Development and Evolution of the Nervous System*". In this new environment, he started to study the role of homeoprotein transcription factors in the definition of neuronal shape/polarity and in the exchange of positional information between cells. He discovered a novel signaling mechanism based on homeoprotein intercellular transfer and mapped the regions responsible for their internalization and secretion, allowing for the development of the peptide cell transduction scientific field. This novel signaling pathway has received experimental confirmation in several models, including early morphogenesis, the establishment of the retino-tectal maps and the regulation/reopening of critical periods of plasticity in the developing and adult cerebral cortex. He was elected at Collège in 2007 (*Chair of Morphogenetic processes*) and chaired the Biology Department before being elected Dean in 2015. In addition to its fundamental aspects his work has led to several translational developments including the development of vector peptides and the use of homeoproteins as therapeutic proteins. The latter translational aspects have been at the origin of the Biotech Company BrainEver in which he serves as Chief Scientific Officer. BrainEver is at preclinical stage for the development of novel therapeutic agents for Parkinson disease and Amyotrophic Lateral Sclerosis.

B. Positions and Honours**Positions and employment**

1981-1984 Research Director at CNRS (Group leader INSERM U114, Collège de France)
1985-1986 Sabbatical, NYU School of Medicine, (Pr. Michael Shelanski)
1986-1989 Research Director at CNRS (Group leader INSERM U114, Collège de France)
1984-1987 Professor at Ecole Polytechnique, Paris
1990-2001 Research Director at CNRS, Head of CNRS Unit 8542: Development and Evolution of the Nervous System at Ecole Normale Supérieure

1996- 2004 Director of doctoral studies in Neuropharmacology
 1991-1994 Member of the Human Frontier Science Program Committee, Brain committee
 2001-2005 Member of Italian Telethon scientific committee
 2002-2005 Chairman of Department of Biology at Ecole normale supérieure
 2002-2005 Research Director at CNRS, Deputy-Head of CNRS Unit 8542: Development and Evolution of the Nervous System at Ecole Normale Supérieure
 2006-2009 Head of CNRS Unit 8542: Development and Evolution of the Nervous System at Ecole Normale Supérieure and College de France
 2007- Professor at College de France
 2010-2011 Head of CNRS Unit 7233 at Collège de France and ENS
 2010-2013 Adjunct Professor. KAIST University, South Korea.
 2011-2018 Head of Center for Interdisciplinary Research in Biology, UMR CNRS 7241 / INSERM U1050 at Collège de France
 2015-2019 Dean of the College de France
 2019- Emeritus Professor at College de France, Group leader Center for Interdisciplinary Research in Biology, UMR CNRS 7241 / INSERM U1050 at Collège de France, CSO BrainEver SAS.

Honors

years

2001 Athena award from the Academy of Sciences
 2003 Elected at the French Academy of Sciences
 2011 Grand prix de l'INSERM
 2012 Lecture Alfred Fessard de la Société Française des Neurosciences
 2019 Francqui Chair International Professor
 2019 Distinguished Guest Professor, Institute of Neurosciences, Shanghai

C. Selected 30 Peer-Reviewed Publications in Neurosciences (selected from 242 peer-reviewed publications)

(Web of Science >19,000 citations, H factor 65)

* co-corresponding authors

1. A. Prochiantz, U. di Porzio, A. Kato, B. Berger & J. Glowinski. (1979) *In vitro* maturation of mesencephalic dopaminergic neurons from the mouse embryo is enhanced in the presence of their striatal target cells. *Proc. Natl. Acad. Sci. USA*, **76**, 5387-5391.
2. U. di Porzio, M.-C. Daguët, J. Glowinski & A. Prochiantz. (1980) Effect of striatal target cells on *in vitro* maturation of mesencephalic dopaminergic neurons grown in serum-free conditions. *Nature*, **288**, 370-373.
3. A. Prochiantz, M.-C. Daguët, A. Herbet & J. Glowinski. (1981) Specific stimulation of *in vitro* maturation of dopaminergic neurons by striatal membranes. *Nature*, **293**, 570-572.
4. S. Denis-Donini, J. Glowinski & A. Prochiantz. (1984) Glial heterogeneity may define the three-dimensional shape of mesencephalic dopaminergic neurons. *Nature*, **307**, 641-643.
5. L. Nowak, P. Bregestovski, P. Ascher, A. Herbet & A. Prochiantz. (1984) Magnesium gates glutamate-activated channels in mouse central neurones. *Nature*, **307**, 462-465.
6. J. Ayala, N. Touchot, A. Zahraoui, A. Tavitian and A. Prochiantz. (1990) The product of *rab2p*, a small GTP-binding protein, increases neuronal adhesion and neurite growth *in vitro*. *Neuron*, **4**, 797-805.
7. A. Joliot, C. Pernelle, H. Deagostini-Bazin and A. Prochiantz. (1991) Antennapedia homeobox peptide regulates neural morphogenesis. *Proc. Natl. Acad. Sci. USA*, **88**, 1864-1868.
8. I. Le Roux, A.H. Joliot, E. Bloch-Gallego, A. Prochiantz and M. Volovitch. (1993). Neurotrophic activity of the Antennapedia homeodomain depends on its specific DNA-binding properties. *Proc Natl. Acad. Sci. USA*, **90**, 9120-9124.
9. D. Derossi, A.H. Joliot, G. Chassaing and A. Prochiantz (1994). The third helix of the Antennapedia homeodomain translocates through biological membranes. *J. Biol. Chem.*, **269**, 10444-10455.

10. D. Derossi, S. Calvet, A. Trembleau, A. Brunissen, G. Chassaing and A. Prochiantz. (1996). Cell internalization of the third helix of the Antennapedia homeoprotein is receptor-independent. *J. Biol. Chem.*, **271**, 18188-18193.
11. A. Joliot, A. Maizel, D. Rosenberg, A. Trembleau, M. Volovitch and A. Prochiantz. (1998). Identification of a signal sequence necessary for the unconventional secretion of Engrailed Homeoprotein. *Curr. Biol.*, **8**, 856-863.
12. G. Mainguy, M. L. Montesinos, B. Lesaffre, B. Zevnik, M. Karasawa, R. Kothary, W. Wurst*, A. Prochiantz* and M. Volovitch. (2000). An induction gene trap for identifying a homeoprotein regulated locus. *Nature Biotech.*, **18**, 746-749.
13. S. Nédélec, I. Foucher, I. Brunet, C. Bouillot, A. Prochiantz & A. Trembleau. (2004). Emx2 homeodomain transcription factor interacts with the translation initiation factor eIF4E in the axons of olfactory sensory neurons. *PNAS*, **101**, 10815-10820.
14. I. Brunet, C. Weinl, M. Piper, A. Trembleau, M. Volovitch, B. Harris, A. Prochiantz*, & C. Holt*. (2005). Engrailed-2 guides retinal axons. *Nature*, **438**, 94-98.
15. L. Sonnier, G. Le Pen, A. Hartman, J.-C. Bizot, F. Trovero, M.-O. Krebs & A. Prochiantz (2007). Progressive loss of dopaminergic neurons in the ventral midbrain of adult mice heterozygote for Engrailed1: a new genetic model for neurological and psychiatric disorders. *J. Neurosci.*, **27**, 1063-1071.
16. S. Sugiyama, A. Di Nardo, S. Aizawa, I. Matsuo, M. Volovitch, A. Prochiantz* & TK Hensch*. (2008). Experience-dependent transport of Otx2 homeoprotein in the visual pathway activates postnatal cortical plasticity. *Cell*, **134**, 508-520.
17. A. Wizenmann, I. Brunet, J. Lam, L. Sonnier, M. Beurdeley, K. Zarbalis, D. Weisenhorn-Vogt, C. Weinl, A. Dwivedy, A. Joliot, W. Wurst, C. Holt* & A. Prochiantz*. (2009). Extracellular Engrailed participates in the topographic guidance of retinal axons in vivo. *Neuron*, **64**, 355-366.
18. S. Layalle, M. Volovitch, B. Mugat, N. Bonneaud, M.-L. Parmentier, A. Prochiantz, A. Joliot* & F. Maschat* (2011). Engrailed homeoprotein acts as a signaling molecule in the developing fly. *Development*, **138**, 2315-2323.
19. D. Alvarez-Fisher (co-first), J. Fuchs (co-first), F. Castagner, O. Stettler, O. Massiani-Beaudoin, K.L. Moya, C. Bouillot, W.H. Oertel, A. Lombès, W. Faigle, R.L. Joshi*, A. Hartmann* & A. Prochiantz* (2011). Engrailed proteins protect mouse midbrain dopaminergic neurons against mitochondrial complex I insults and regulate their physiology. *Nature Neurosci.*, **14**, 1260-1266.
20. M. Beurdeley (co-first), J. Spatazza (co-first), H.H.C. Lee (co-first), S. Sugiyama, C. Bernard, A.A. Di Nardo, T.K. Hensch* & A. Prochiantz* (2012). Otx2 binding to perineuronal nets persistently regulates plasticity in the mature visual cortex. *J. Neurosci.* **32**, 9429-9437.
21. J. Spatazza (co-first), H.H.C. Lee (co-first), A.A. Di Nardo, L. Tibaldi, A. Joliot, T. Hensch* & A. Prochiantz* (2013). Choroid plexus-derived Otx2 homeoprotein constrains adult cortical plasticity. *Cell reports*, **3**, 1815-1823.
22. H. Rekaik (co-first), F.-X. Blaudin de Thé (co-first), J. Fuchs, O. Massiani-Beaudoin, A. Prochiantz* & R. Joshi (2015). Engrailed homeoprotein protects mesencephalic dopaminergic neurons from oxidative stress. *Cell Reports*, **13**, 1-9
23. C. Bernard (co-first), C. Vincent (co-first), D. Testa (co-first), E. Bertini, J. Ribot, A.A. Di Nardo, M. Volovitch & A. Prochiantz (2016). A mouse model for conditional secretion of specific single-chain antibodies provides genetic evidence for regulation of cortical plasticity by a non-cell autonomous homeoprotein transcription factor. *PLOS Genetics*, DOI:10.1371.
24. H.H.C. Lee (co-first), C. Bernard (co-first), Z.Y. MA, D. Acampora, A. Simeone, A. Prochiantz, A.A. Di Nardo* & T.K. Hensch* (2017). Genetic Otx2 mis-localization delays critical period plasticity across brain regions. *Mol. Psy.*, **22**, 680-688, 2017.
25. F.-X. Blaudin de Thé (co-first), H. Rekaik (co-first), E. Peze-Heidsieck (co-first), O. Massiani-Beaudoin, R.L. Joshi, J. Fuchs* & A. Prochiantz, 2018. LINE-1 repression attenuates degeneration in adult dopaminergic neurons. *EMBO J*, DOI: 10.15252/embj.201797374.

26. J. Apulei (co-first), N. Kim (co-first), D. Testa (co-first), J. Ribot, C. Bernard, A.A. Di Nardo* & A. Prochiantz. Non-cell autonomous Otx2 homeoprotein regulates visual cortex plasticity through GADD45b. *Cerebral Cortex*, 29 (6): 2384-2395, 2019. DOI: 10.1093/cercor/bhy108.
27. N. Thomasson, E. Pioli, C. Friedel, A. Monseur, J. Lavour, K. L. Moya, E. Bezar, A. Bousseau & Prochiantz. Engrailed-1 induces long-lasting behavior benefit in an experimental Parkinson primate model. *Movement Disorders*, DOI: 10.1002/mds.27714. 2019.
28. H. Kaddour, E. Coppola, A. A. Di Nardo, A. Wizenmann, M. Volovitch, A. Prochiantz* & A. Pierani*. Extracellular Pax6 regulates tangential Cajal-Retzius cell migration in the developing mouse neocortex. *Cerebral Cortex*, 2020 **30**(2), 465-475. DOI: 10.1093/cercor/bhz098.
29. C. Vincent, J. Gilabert-Juan, D. Alvarez-Fischer, M.O. Krebs, G. Le Pen, A. Prochiantz* & AA. Di Nardo*. Non-cell autonomous OTX2 transcription factor regulates anxiety-related behaviors in the mouse. *Molecular Psychiatry* 2021. DOI: 10.1038/s41380-021-01132-y
30. S.E. Vargas Abonce (co-first), M. Lebœuf (co-first), K.L. Moya* & A. Prochiantz*. Homeoprotein ENGRAILED-1 promotes motoneuron survival and motor functions. bioRxiv 734020; doi: <https://doi.org/10.1101/734020>.

E. Reviews and Commentaries 2000-2022

1. M. Lindgren, E. Bråkenhielm, M. Hällbrink, A. Prochiantz and U. Langel. (2000). Cell penetrating peptides, *Trends in Pharmacological Sciences*, **21**, 99-103.
2. A. Prochiantz (2000). Messenger proteins: homeoproteins, TAT and others. *Curr. Opin. Cell Biol.*, **12**, 400-406.
3. A. Prochiantz and A. Joliot (2003). Can transcription factors function as cell-cell signaling molecules? *Nature reviews, Molecular Cell Biology*, **4**, 814-818.
4. A. Joliot & A. Prochiantz (2004). Transduction peptides, from technology to physiology. *Nature Cell Biology*, **6**, 189-196
5. I. Brunet, A. Di Nardo, L. Sonnier, M. Beurdeley & A. Prochiantz. Shaping neural pathways with messenger homeoproteins (2007). *Trends in Neurosciences*, **30**, 260-267.
6. Agid, Y. et al. (2007). How can drug discovery for psychiatric disorders be improved? *Nature Reviews Drug Discovery*, **6**, 189-201.
7. A. Prochiantz. (2007). For protein transduction, chemistry can win over biology. *Nat. Methods*, **4**, 119-120.
8. J. Spatazza, E. Di Lillo, A. Joliot, E. Dupont, K.L. Moya & A. Prochiantz (2013). Homeoprotein signaling in development health and disease: a shaking of dogmas offers challenges and promises from bench to bed. *Pharmacological Rev.* **65**, 90-104, 2103.
9. A. Prochiantz (2013). Signaling with homeoprotein transcription factors in development and throughout adulthood. *Current Genomics*, **14**, 361-370.
10. A. Prochiantz & A.A. Di Nardo (2015). Homeoprotein signaling in the developing and adult nervous system. *Neuron*, **85**, 911-925.
11. A. Prochiantz. (2018). How to navigate counter dogmatic research findings. *EMBO J* DOI 10.15252/embj.201898945.
12. A. Di Nardo, J. Fuchs, R.L. Joshi, K.L. Moya & A. Prochiantz. The physiology of homeoprotein transduction. *Physiological Reviews*, **98**:1943-1982, 2018.
23. D. Testa, A. Prochiantz & A.A. Di Nardo. Perineuronal nets in brain physiology and disease. *Seminars in Cell and Developmental Biology*, **89**: 125-135, 2019.
14. A.A. Di Nardo, A. Joliot & A. Prochiantz. Homeoprotein transduction in neurodevelopment and physiopathology. *Science Advances*, **6** (44): eabc6374. Doi: 10.1126/sciadv.abc6374, 2020.

F. Lay public books

- A. Prochiantz. Les stratégies de l'embryon, PUF, 1987.
- A. Prochiantz. La construction du cerveau, Hachette, 1989.
- A. Prochiantz. Claude Bernard : la révolution physiologique. PUF.,1990.

- A. Prochiantz. La biologie dans le boudoir. Editions Odile Jacob, Paris, 1995.
 A. Prochiantz. Les anatomies de la pensée. Editions Odile Jacob, Paris, 1997.
 A. Prochiantz. Machine-esprit. Editions Odile Jacob, Paris 2001.
 J.-F. Peyret et A. Prochiantz. La Génisse et le Pythagoricien. Editions Odile Jacob, Paris 2002.
 J.-F. Peyret et A. Prochiantz. Les Variations Darwin. Editions Odile Jacob, Paris 2005.
 A. Prochiantz. Géométries du vivant. Collège de France/Fayard, Paris 2007.
 A. Prochiantz. Qu'est-ce que le vivant ? Le Seuil, Paris 2012.
 A. Prochiantz. Singe toi-même. Editions Odile Jacob 2019.

G. 10 Patents 2000-2020 (out of 17)

1. Homeoproteins for use in the treatment of neurodegenerative disorders

Publication number: 20210379144

Type: Application

Filed: June 16, 2021

Publication date: December 9, 2021

Inventor: Alain Prochiantz

2. Ligand controlling interaction between GAGs with their effector molecules ad use thereof

Publication number: 20210252101

Type: Application

Filed: June 17, 2019

Publication date: August 19, 2021

Inventors: Jean-Maurice MALLET, Solange LAVIELLE, Rodrigue MARQUANT, Alain PROCHIANTZ, Ariel DI NARDO, Damien TESTA

3. Methods of delivering a polypeptide molecule to Otx2 target cells using an Otx2 targeting peptide

Patent number: 10842852

Type: Grant

Filed: September 29, 2016

Date of Patent: November 24, 2020

Inventors: Alain Prochiantz, Ariel Di Nardo, Marine Beurdeley, Takao Hensch

4. Methods of reducing excitotoxicity-induced retinal ganglion neurons degeneration by an orthodenticle Homolog1 (OTX2) homeoprotein

Patent number: 10722554

Type: Grant

Filed: January 9, 2009

Date of Patent: July 28, 2020

Inventors: Alain Prochiantz, Kenneth Lee Moya

5. Homeoproteins for use in the treatment of neurodegenerative disorders

Publication number: 20190247461

Type: Application

Filed: September 23, 2016

Publication date: August 15, 2019

Inventor: Alain Prochiantz

6. Use of Engrailed proteins for increasing dopamine synthesis by dopaminergic neurons

Patent number: 10342851

Type: Grant

Filed: March 16, 2018

Date of Patent: July 9, 2019

Inventors: Alain Prochiantz, Kenneth Moya, Rajiv Joshi

7. Use of the Engrailed homeodomain protein as anxiolytic

Patent number: 8575105

Type: Grant

Filed: February 28, 2007

Date of Patent: November 5, 2013

Inventors: Alain Prochiantz, Michel Volovitch

8. Carrier vectors through an epithelium with tight junctions

Patent number: 8242088

Type: Grant

Filed: November 20, 2001

Date of Patent: August 14, 2012

Inventors: Alain Joliot, Edmond Dupont, Alain Prochiantz

9. Applications of peptides derived from the cytoplasmic domain of amyloid precursor protein (APP)

Patent number: 7115380

Type: Grant

Filed: May 2, 2005

Date of Patent: October 3, 2006

Assignee: Centre National de la Recherche Scientifique

Inventors: Bernadette Allinquant, Alain Prochiantz

10. Use of a reverse-transcriptase inhibitor in the prevention and treatment of degenerative diseases

Patent number: 10100307

Type: Grant

Filed: October 30, 2015

Date of Patent: October 16, 2018

Inventors: Alain Prochiantz, Julia Fuchs, Rajiv Joshi, François Xavier Blaudin De The, Hocine Rekaik, Olivia Massiani-Beaudoin

G. Invited Speaker (international meetings,) a selection 2000-2020

1. "Neurodegenerative diseases: loss of function through gain of function". IPSEN, France, February 28th, 2000.
2. EMBO Workshop: "The Homeobox Genes in Development and Evolution". Ascona, CH, March 26-31, 2000.
3. Forum of European Neurosciences, Brighton, UK, June 24-28, 2000.
4. International Society for Developmental Neurosciences. Heidelberg, Germany, July 28th - August 1st, 2000.
5. "The developing Brain". Guy's Hospital, London, UK, September 4-8, 2001.
6. "Generating cell diversity in the CNS". Capri, Italy, October 20-23, 2001
7. Telethon Convention. Riva del Garda, Italy, November 18-20, 2001.
8. "Neurogeneration: future of the brain". Abano Terme, Italy, May 9-11, 2002
9. "Translational Control of Developmental and neuronal Function". Majorca, Spain, May 23-26, 2002.
10. "Stem Cells in the Nervous stem". Fondation IPSEN. Paris, France, January 20th, 2003.
11. "Construction of the Brain: Development and Evolutionary Principles". Kristineberg, Sweden, June 11-17, 2003. Keynote lecture.
12. "Cellular Drug Transport Mechanism", Gothenburg, Sweden, November 13-14, 2003.
13. International Symposium on nano-biotechnology, Okayama, Japan, February 18-20, 2004. Keynote lecture.
14. "Advanced in Molecular Biomedicine", Bad Godesberg, Germany, September 6-8, 2004.
15. Wenner-Gren Symposium. "Cell-penetrating peptides and Applications". Stockholm, Sweden, May 18-21, 2005.
16. Human Frontier, Fifth awardees meeting, Bethesda, USA, June 5-8, 2005.
17. "Development and regeneration of neural connections", Fondation Les Treilles, France, June 28^{-July 3rd}, 2005.
18. 8th World Congress of Biological Psychiatry, Vienna, Austria, July 3rd 2005

19. EMBO workshop on upstream and downstream of HOX genes. Hyderabad, India, December 14-17, 2005.
20. Membrane-permeable peptides: Chemistry, biology and therapeutic applications. The physiological side of protein transduction. Kyoto; November 9th-14th, 2006. Keynote lecture.
88. Complex System in Biology. Comment faire un bord avec des morphogènes cérébraux. Lyon December 11-12, 2006.
21. BNA-Christmas Symposium Royal Society-London-December 14th 2006.
22. 7th meeting of the German Neuroscience Society. Göttingen, Germany, March 29th-April 1st 2007.
23. Molecular mechanisms in neural patterning and differentiation. Napoli April 20th-22nd 2007.
24. Designing the Body Plan: Developmental mechanisms. June 4th-8th, Leiden Lorentz center, 2007.
25. 6th international Symposium Neuronal mechanisms of Vision. Ruhr Universtät Bochum October 11th-13th, 2007.
26. Brain Diseases and Molecular machines. March 25-28, 2008, Paris, France. Keynote lecture.
27. Visual System Development Gordon Conference; August 10-15 2008, Newport Rhode Island, USA
28. The Cell-Penetrating Peptides (CPP) Satellite Meeting. 30-31 August 2008. Helsinki. Keynote lecture.
29. Chemistry and Biology Symposium of the Japan Society of Bioscience, Biotechnology and Agrochemistry. Nagoya September 27th 2008. Keynote lecture.
30. International Conference on Innovative Research in Autism. April 15-17, 2009. Tours, France. Keynote lecture.
31. 3th Intracellular Delivery of Therapeutic Molecules, from Bench to Bedside. August 31th - September 2nd 2009, Montpellier, France. Keynote lecture.
32. ARVO International Society for Ocular Cell Biology, September 9-12 2009, Ericeira, Portugal. Keynote lecture.
33. How to build the Dopamine System. December 2nd 2009, Utrecht, NL.
34. The 1st Symposium for the Global Research Laboratory (GRL) Program of Korea. February 23rd 2010, Seoul, South-Korea.
35. Imaging Brain Plasticity. April 1-2, 2010, Paris, France.
36. WE-Heraeus Seminar on Biophysics of Membrane-Active Peptides. April 11-14, 2010, Bad Honneff, Germany, Keynote lecture.
37. Peptide Vectors and Delivery of Therapeutics. May 19-21, 2011, Tallinn, Lituania.
38. Systems Biology of Dopaminergic Neurons. April 28-20, 2011, Freiburg, DE.
39. The Plastic Brain. June 8-9, 2011, Basle, CH, Keynote lecture.
40. 36th FEBS Congress. Biochemistry for Tomorrow's Medicine, Turin, Italy.
41. Chemistry and Biology of Peptides. July 27, Oxford, UK. Keynote lecture.
42. HOX and TALEs Transcription Factors in Development and Diseases. September 28th-October 1st, 2011, Carry Le Rouet, France, Keynote lecture.
43. Brain Plasticity: itself a plastic concept? May 7-8, 2012, New-York, USA.
44. DOPAMINET 2012. July 19-20, 2012, Trieste, Italy
45. The 4th Symposium for the Global Research Laboratory Program. February 5th, 2013, Seoul, Korea.
61. From Brain Compartments to Functional Circuits and Behaviour. May 9-10, 2013, King's College, London, UK
46. Dopamine 2013 meeting, May 24-28, Alghero, Sardinia, Italy
47. The Future of Axon Guidance. May 27th-June 1st, 2013, Les Treilles, France.
48. European Human Genetics Conference. June 8-11, 2013, Paris, France. Opening lecture.
49. Building Beauty, The 3rd International COS Symposium, June 20-22, 2013, Heidelberg, DE. Key note lecture.
50. Translational Control of Brain Function in Health and Disease. Wellcome Trust, May 7-9, 2014, London UK
51. Brain extracellular matrix targeting in regeneration and rehabilitation. COST meeting, July 2-4, 2014, Volterra, Italy.
52. Learning and Memory: Cellular and Systemic Views. February 23-26, 2015, Magdeburg, DE.

53. EMBO Conference on Neural Development. December 4-7, 2015, Taipei, TW.
54. 20th International Congress of Parkinson's Disease and Movement Disorders. June 19-23, 2016, Berlin, DE.
55. Child and Brain Development Program Meeting: Brain Plasticity, CIFAR Meeting. September 25-27, 2017, Paris, FR.
56. EMBO Conference on Neural Development. March 1-6, 2018, Taipei, Taiwan.
57. Windows on Brain Plasticity. May 7th, 2018, Bruxelles, BE. Keynote lecture.
58. Visual System Development Gordon Conference. May 20-25, 2018, Barga, IT.
59. LMB-IGBMC Graduate Life Sciences Symposium. July 11-13, 2018, Cambridge, UK
60. Controlling Neuronal Plasticity: Developmental Disorder and Repair. December 6-7 2018, Prague, CZ.
61. Development of the Dopaminergic System: From Stem Cells to Circuits. CamBioSci conference. May 12th-15th 2019, Heraklion, GR.
62. Critical Periods of Enhanced Activity-Induced Neuroplasticity to Establish Brain Networks Early in Life. June 6-7, 2019. Antwerpen, BE.
63. New frontiers in the brain: unexpected roles of the choroid plexus-cerebrospinal fluid system in health and disease. 14-17 July 2019, Wiston House, UK.
64. ALS Webminar: Mechanistic insights into the physiopathology of ALS. May 26-28, 2021, UK dementia Research Institute, UK
65. The Neuroscience Summit. September 6-8, 2021, Crans-Montana, CH.