

Curriculum Vitae

Name: Lenkei

Surname: Zsolt

Birth: 11th February 1967, Budapest, Hungary

Citizenship: Hungarian

• Education

1991 MD, Semmelweis University Medical School, Budapest

1998 PhD in Neurosciences, Université Pierre et Marie Curie (Paris VI), Paris

2009 HDR, spécialité Neurosciences, Université Pierre et Marie Curie (Paris VI), Paris

• Actual position

INSERM Research Director (DR2), currently at the Laboratoire de Plasticité du Cerveau, ESPCI-CNRS UMR 8249, ESPCI Paris

Selected as a senior team leader (starting in 2017) of the new Centre de Psychiatrie et Neurosciences, Paris

• Past Positions

1993-1998 PhD student INSERM U 36, Collège de France, Paris

1998 Postdoctoral researcher at Pr Alain Beaudet, University McGill, Montréal, Canada

1998-2000 Tenured INSERM Researcher, INSERM U 36, Collège de France, Paris

2000- Tenured INSERM Researcher, ESPCI-CNRS UMR 7637 then UMR8249, ESPCI Paris

• **Teaching 2001-2008:** Preceptorat in Biology, ESPCI-ParisTech, Paris, level M, 16h/year

2010-2017: Preceptorat in Physiology, ESPCI-ParisTech, Paris, level M, 16h/year

2015-2017: Professor of Biology, PSL Research University, L2 level, 48h/year

• Affiliated PhD School

Cerveau-Cognition-Comportement (ED3C, ED n°158)

• Memberships

Société des Neurosciences

American Neuroscience Society

• **Scientific prizes and distinctions 1996** Young Investigator Award de la Société de Neuroendocrinologie-Servier

2008 Jancso Plenary Lecture, IBRO International Workshop on Complex Neural Networks, Debrecen, Hungary

2014 Prix Jean Langlois

2015 Elected co-president for the 2017 'Gordon Research Conference on Cannabinoid Function in the CNS', New Hampshire, USA

• Languages

French, English, German, Hungarian

• Invited speaker at international venues

- Gordon Conference on Cannabinoid Function in the CNS, 2005, Lewiston, ME - 7th. Melbourne

GPCR Forum, 2005, Howard Florey Institute, Melbourne, Australia - ASCEPT Annual Scientific

Meeting (Australasian Society of Clinical and Experimental Pharmacologists and Toxicologists, 2005,

Melbourne, Australia - Gordon Conference on Cannabinoid Function in the CNS, 2007 Les Diablerets,

Suisse) - Jancso Plenary Lecture at the IBRO International Workshop on Complex Neuronal Networks, 2007, Debrecen, Hungary - Meeting of the Federation of European Neuroscience Societies (FENS), 2008, Geneva, Switzerland - 3rd Course on Cytoskeleton, 2011, Curie Institut, Paris, France
 - Workshop "Physique des Ondes pour la Médecine", 2014, Crète, Grèce,
 - Congrès du GDR-3545 (groupe de Recherche CNRS sur les GPCR), 2014, Montpellier
 - Mainz University, 2014; Mainz, Germany,
 - Gordon Conference on Cannabinoid Function in the CNS, 2015, Lucca (Barga), Italy
 - Cannabinoid Conférence 2015, Sestri-Levante, Italy
 - Instructor at the IBRO-Kemali Workshop, 2015, Naples, Italy
 - Institut of Experimental Medecine, Hungarian Academy of Sciences, 2015, Budapest, Hungary
 - Munich-TUM mini-symposium, Technical University of Munich, 2015, Munich, Germany
 - Selected talk at the Conférence Jacques Monod "Optical imaging of brain connectivity" 2016, Roscoff (Brittany), France
 - 8th Course on Cytoskeleton, 2016, Curie Institut, Paris, France
 - Course "Principles and Applications of Fluorescence Microscopy", 2017, Pasteur Institut, Paris, France

- □ **Recent Grants**

2010-2012: ANR-09-MNPS-004-01, 480 000€

Coordinator Zsolt Lenkei, collaborators: INSERM U894, Centre Psychiatrie et Neurosciences (Therese Jay), Institut Langevin ESPCI-ParisTech (Ralph Sinkus, Mickael Tanter)

2013-2014 : Défi Innovations Thérapeutiques pour les Maladies Mentales (ITMM), 30k€

Coordinator Laurence Lafarechene, Institut Albert Bonniot, CRI INSERM/UJF U823, Grenoble

2015-2017: PSL Research University, project MyoSynapse, 3 teams, coordinator Z Lenkei, 150k€ (83k€ for the team)

2016-2018: FUSIMICE, FLAG-ERA Joint Transnational Call 2015, Human Brain Project, 4 teams, coordinator Z Lenkei, 780 k€ (233k€ for the team)

2016-2018: PSL Research University, project NanoPaint, 2 teams, coordinator Diana Zala (team Z Lenkei) 69k€

- □ **Current team**

Zsolt Lenkei,	Principal Investigator, INSERM Research Director
Diana Zala	INSERM Researcher
Boris Emerit	INSERM Researcher
Renata Santos	CNRS Researcher
Jeremy Ferrier	Post-doc
Sergio Leite	Post-doc
Maureen McFadden	PhD student

- □ **Selected publications:**

2016-1 Várkuti BH, Képiró M, Horváth IA, Végner L, Ráti S, Zsigmond Á, Hegyi G, Lenkei Z, Varga M, Málnási-Csizmadia A. A highly soluble, non-phototoxic, non-fluorescent blebbistatin derivative. *Sci Rep*. 2016 May 31;6:26141. doi: 10.1038/srep26141.

2016-2 Renard J, Vitalis T, Rame M, Krebs MO, Lenkei Z, Le Pen G, Jay TM. Chronic cannabinoid exposure during adolescence leads to long-term structural and functional changes in the prefrontal cortex. *Eur Neuropsychopharmacol*. 2016 Jan;26(1):55-64.

2016-3 Chatelin S, Humbert-Claude M, Garteiser P, Ricobaraza A, Vilgrain V, Van Beers BE, Sinkus R,

- Lenkei Z. Cannabinoid receptor activation in the juvenile rat brain results in rapid biomechanical alterations: Neurovascular mechanism as a putative confounding factor. *J Cereb Blood Flow Metab.* 2016 May;36(5):954-64.
- 2015-1 Errico C, Pierre J, Pezet S, Desailly Y, Lenkei Z, Couture O* and Tanter M*, Ultrafast ultrasound localization microscopy for deep in vivo superresolution vascular imaging down to the capillary scale. *Nature*, 2015, 2015 Nov 26;527(7579):499-502.
- 2015-2 Errico C, Osmanski BF, Pezet S, Couture O, Lenkei Z*, Tanter M*. Transcranial functional ultrasound imaging of the brain using microbubble-enhanced ultrasensitive Doppler. *Neuroimage*. 2015 Sep 28;124(Pt A):752-761. doi: 10.1016/j.neuroimage.2015.09.037, *: co-senior authors
- 2015-3 Tasso M, Giovanelli E, Zala D, Bouccara S, Fragola A, Hanafi M, Lenkei Z, Pons T, Lequeux N. Sulfobetaine-Vinylimidazole Block Copolymers: A Robust Quantum Dot Surface Chemistry Expanding Bioimaging's Horizons. *ACS Nano*. 2015 Oct 27.
- 2015-4 Ladarre D, Roland BA, Biedzinski S, Ricobaraza A, Lenkei Z. Polarized cellular patterns of endocannabinoid production and detection shape cannabinoid signaling in neurons. *Frontiers in Cellular Neuroscience*, 2015 Jan 6;8:426. doi: 10.3389/fncel.2014.00426
- 2014-1 Roland BA, Ricobaraza A, Carrel D, Jordan MB, Rico F, Simon A, Humbert-Claude M, Ferrier J, McFadden HM, Scheuring S, Lenkei Z. Cannabinoid-induced actomyosin contractility shapes neuronal morphology and growth, *eLife*, 2014, Sep 15;3.
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- 2013-1 Simon AC, Loverdo C, Gaffuri AL, Urbanski M, Ladarre D, Carrel D, Rivals I, Leterrier C, Benichou O, Dournaud P, Szabo B, Voituriez R, Lenkei Z. Activation-dependent plasticity of polarized GPCR distribution on the neuronal surface. *J Mol Cell Biol*. 2013 Aug;5(4):250-65.
- 2012-1 Thibault K, Carrel D, Bonnard D, Gallatz K, Simon A, Biard M, Pezet S, Palkovits M, Lenkei Z (2012) Activation-Dependent Subcellular Distribution Patterns of CB1 Cannabinoid Receptors in the Rat Forebrain. *Cerebral Cortex*. 2012 2013 Nov: 23 (11): 2581-2591
- 2011-1 Carrel D, Simon A, Emerit MB, Rivals I, Leterrier C, Biard M, Hamon M, Darmon M, Lenkei Z. Axonal targeting of the 5-HT1B serotonin receptor relies on structure-specific constitutive activation. *Traffic*. 2011 Nov;12(11):1501-20.
- 2010-1 Muro E, Pons T, Lequeux N, Fragola A, Sanson N, Lenkei Z, Dubertret B. Small and stable sulfobetaine zwitterionic quantum dots for functional live-cell imaging. *J Am Chem Soc*. 2010 Apr 7;132(13):4556-7.
- 2006-1 Leterrier C, Laine J, Darmon M, Boudin H, Rossier J, Lenkei Z. Constitutive activation drives compartment-selective endocytosis and axonal targeting of type 1 cannabinoid receptors. *J Neurosci*. 2006 Mar 22;26(12):3141-53.
- 2004-1 Leterrier, C., D. Bonnard, D. Carrel, J. Rossier and Z. Lenkei . Constitutive endocytic cycle of the CB1 cannabinoid receptor. *J. Biol. Chem.*, 2004 Aug 20;279(34):36013-21