

## LIST OF PUBLICATIONS

### THESES

#### Doctorat en Médecine

Etude de la liaison spécifique du  $^3\text{H}$ -spiroperidol dans la fraction membranaire de la rétine de mammifère: son intérêt pour l'évaluation de l'affinité dopaminergique des substances psychotropes.

Thèse N° 3765, *Faculté de Médecine de l'Université de Genève*, Juillet 1979

#### Doctor of Philosophy Degree in Biology

Vasoactive Intestinal Polypeptide: a regulator of cellular homeostasis in cerebral cortex.

Ph.D. Thesis, Department of Biology, *University of California at San Diego, USA*, September 1982

#### Thèse d'Habilitation au Titre de Privat-Docent

Biochemical approaches to the study of peptide actions in the central nervous system. *Faculté de Médecine de l'Université de Genève*. Août 1986.

### BOOKS

- Agid Y, Magistretti PJ, **L'homme glial : Une révolution dans les sciences du cerveau**, *Odile Jacob, Paris*, 2018
- Ansermet F, Magistretti PJ, **Les énigmes du plaisir**. *Odile Jacob, Paris*, 2010

#### **Translations in :**

- |         |  |
|---------|--|
| Spanish | <b>Los enigmas del placer.</b> <i>Katz Editores, Buenos Aires</i> , 2011 |
| Italian | <b>Gli enigmi del piacere.</b> <i>Bollati Boringhieri, Torino</i> , 2012 |

- Ansermet F, Magistretti PJ, **A chacun son cerveau : plasticité neuronale et inconscient**. *Odile Jacob, Paris*, 2004

#### **Translations in:**

- |         |   |
|---------|---|
| Italian | <b>A ognuno il suo cervello: plasticità neuronale e inconscio.</b> <i>Bollati Boringhieri, Torino</i> , 2008  |
| Spanish | <b>A cada cual su cerebro: plasticidad neuronal e inconsciente.</b> <i>Katz Editores, Buenos Aires</i> , 2006 |

English	<b>Biology of freedom: Neural Plasticity, Experience, and the Unconscious.</b> USA: Other Press, New York, 2007 UK: Karnac, London, 2007
Japanese	<b>脳と無意識：ニューロンと可塑性.</b> Seido-sha, Tokyo, 2006
German	<b>Die Individualität des Gehirns : Neurobiologie und Psychoanalyse.</b> Suhrkamp, Frankfurt am Main, 2005

**ORIGINAL ARTICLES**

- 260- Buscemi L, Blochet C, **Magistretti PJ** and Hirt L Hydroxycarboxylic acid Receptor 1 and Neuroprotection in a Mouse Model of cerebral Ischemia-Reperfusion , **Front Physiol.** 2021; 12: 689239. doi: 10.3389/fphys.2021.689239
- 259- Finsterwald C, Dias S, **Magistretti PJ** and Lengacher S Ganglioside GM1 Targets Astrocytes to Stimulate Cerebral Energy Metabolism **Front Pharmacol.** 2021; 12: 653842. Published online 2021 Apr 28. doi: 10.3389/fphar.2021.653842
- 258 - Carrard A, Cassé F, Carron C, Burlet-Godinot S, Toni N, **Magistretti PJ\*** and Martin JL\* Role of adult hippocampal neurogenesis in the antidepressant actions of lactate **Molecular Psychiatry**, 2021, <https://doi.org/10.1038/s41380-021-01122-0> \*Co-c
- 257 - Coggan JS, Keller D, Markram H, Schürmann F, **Magistretti PJ**. *Excitation states of metabolic networks predict dose-response fingerprinting and ligand pulse phase signalling.* **J Theor Biol.** 2020 Feb 21;487:110123. doi: 10.1016/j.jtbi.2019.110123. Epub 2019 Dec 19
- 256 - Vezzoli E, Calì C, De Roo M, Ponzoni L, Sogne E, Gagnon N, Francolini M, Braida D, Sala M, Muller D, Falqui A, **Magistretti PJ**. *Ultrastructural Evidence for a Role of Astrocytes and Glycogen-Derived Lactate in Learning-Dependent Synaptic Stabilization.* **Cereb Cortex.** 2019 Dec 6. pii: bhz226. doi: 10.1093/cercor/bhz226. [Epub ahead of print]
- 255 - Calì C, Agus M, Kare K, Boges DJ, Lehväläaho H, Hadwiger M, **Magistretti PJ**. *3D cellular reconstruction of cortical glia and parenchymal morphometric analysis from Serial Block-Face Electron Microscopy of juvenile rat.* **Prog Neurobiol.** 2019 Dec;183:101696. doi: 10.1016/j.pneurobio.2019.101696. Epub 2019 Sep 21
- 254 - Dehghani M, Do KQ, **Magistretti P**, Xin L. *Lactate measurement by neurochemical profiling in the dorsolateral prefrontal cortex at 7T: accuracy, precision, and relaxation times.* **Magn Reson Med.** 2019 Nov 14. doi: 10.1002/mrm.28066. [Epub ahead of print]
- 253 - Calì C, Kare K, Agus M, Veloz Castillo MF, Boges D, Hadwiger M, **Magistretti P**. *A Method for 3D Reconstruction and Virtual Reality Analysis of Glial and Neuronal Cells.* **J Vis Exp.** 2019 Sep 28;(151). doi: 10.3791/59444
- 252 - Watson HJ, Yilmaz Z, Thornton LM, Hübel C, Coleman JRI, Gaspar HA, Bryois J, Hinney A, Leppä VM, Mattheisen M, Medland SE, Ripke S, Yao S, Giusti-Rodríguez P; Anorexia Nervosa Genetics Initiative, Hanscombe KB, Purves KL; Eating Disorders Working Group of the Psychiatric Genomics

Consortium, Adan RAH, Alfredsson L, Ando T, Andreassen OA, Baker JH, Berrettini WH, Boehm I, Boni C, Perica VB, Buehren K, Burghardt R, Cassina M, Cichon S, Clementi M, Cone RD, Courtet P, Crow S, Crowley JJ, Danner UN, Davis OSP, de Zwaan M, Dedoussis G, Degortes D, DeSocio JE, Dick DM, Dikeos D, Dina C, Dmitrzak-Weglacz M, Docampo E, Duncan LE, Egberts K, Ehrlich S, Escaramís G, Esko T, Estivill X, Farmer A, Favaro A, Fernández-Aranda F, Fichter MM, Fischer K, Föcker M, Foretova L, Forstner AJ, Forzan M, Franklin CS, Gallinger S, Giegling I, Giuranna J, Gonidakis F, Gorwood P, Mayora MG, Guillaume S, Guo Y, Hakonarson H, Hatzikotoulas K, Hauser J, Hebebrand J, Helder SG, Herms S, Herpertz-Dahlmann B, Herzog W, Huckins LM, Hudson JI, Imgart H, Inoko H, Janout V, Jiménez-Murcia S, Julià A, Kalsi G, Kaminská D, Kaprio J, Karhunen L, Karwautz A, Kas MJH, Kennedy JL, Keski-Rahkonen A, Kiezebrink K, Kim YR, Klarekog L, Klump KL, Knudsen GPS, La Via MC, Le Hellard S, Levitan RD, Li D, Lilienfeld L, Lin BD, Lissowska J, Luykx J, **Magistretti PJ**, Maj M, Mannik K, Marsal S, Marshall CR, Mattingdal M, McDevitt S, McGuffin P, Metspalu A, Meulenbelt I, Micali N, Mitchell K, Monteleone AM, Monteleone P, Munn-Chernoff MA, Nacmias B, Navratilova M, Ntalla I, O'Toole JK, Ophoff RA, Padyukov L, Palotie A, Pantel J, Papezova H, Pinto D, Rabionet R, Raevuori A, Ramoz N, Reichborn-Kjennerud T, Ricca V, Ripatti S, Ritschel F, Roberts M, Rotondo A, Rujescu D, Rybakowski F, Santonastaso P, Scherag A, Scherer SW, Schmidt U, Schork NJ, Schosser A, Seitz J, Slachtova L, Slagboom PE, Slof-Op 't Landt MCT, Slopien A, Sorbi S, Świątkowska B, Szatkiewicz JP, Tachmazidou I, Tenconi E, Tortorella A, Tozzi F, Treasure J, Tsitsika A, Tyszkiewicz-Nwafor M, Tziouvas K, van Elburg AA, van Furth EF, Wagner G, Walton E, Widen E, Zeggini E, Zerwas S, Zipfel S, Bergen AW, Boden JM, Brandt H, Crawford S, Halmi KA, Horwood LJ, Johnson C, Kaplan AS, Kaye WH, Mitchell JE, Olsen CM, Pearson JF, Pedersen NL, Strober M, Werge T, Whiteman DC, Woodside DB, Stuber GD, Gordon S, Grove J, Henders AK, Juréus A, Kirk KM, Larsen JT, Parker R, Petersen L, Jordan J, Kennedy M, Montgomery GW, Wade TD, Birgegård A, Lichtenstein P, Norring C, Landén M, Martin NG, Mortensen PB, Sullivan PF, Breen G, Bulik CM. *Genome-wide association study identifies eight risk loci and implicates metabo-psychiatric origins for anorexia nervosa.* **Nat Genet.** 2019 Aug;51(8):1207-1214. doi: 10.1038/s41588-019-0439-2. Epub 2019 Jul 15

- 251 - Yao S, Kuja-Halkola R, Martin J, Lu Y, Lichtenstein P, Norring C, Birgegård A, Yilmaz Z, Hübel C, Watson H, Baker J, Almqvist C; Eating Disorders Working Group of the Psychiatric Genomics Consortium, Thornton LM, Magnusson PK, Bulik CM, Larsson H. *Associations between attention-deficit/hyperactivity disorder and various eating disorders: A Swedish nationwide population study using multiple genetically informative approaches.* **Biol Psychiatry.** 2019 Oct 15;86(8):577-586. doi: 10.1016/j.biopsych.2019.04.036. Epub 2019 May 15
- 250 - Tauffenberger A, Fiumelli H, Almustafa S, **Magistretti PJ**. *Lactate and pyruvate promote oxidative stress resistance through hormetic ROS signaling.* **Cell Death Dis.** 2019 Sep 10;10(9):653. doi: 10.1038/s41419-019-1877-6
- 249 - Suzuki K, Yamamoto M, Hernandez-Benitez R, Li Z, Wei C, Soligalla RD, Aizawa E, Hatanaka F, Kurita M, Reddy P, Ocampo A, Hishida T, Sakurai M, Nemeth AN, Nuñez Delicado E, Campistol JM, **Magistretti P**, Guillen P, Rodriguez Esteban C, Gong J, Yuan Y, Gu Y, Liu GH, López-Otín C, Wu J, Zhang K, Izpisua Belmonte JC. *Precise in vivo genome editing via single homology arm donor mediated intron-targeting gene integration for genetic disease correction.* **Cell Res.** 2019 Oct;29(10):804-819. doi: 10.1038/s41422-019-0213-0. Epub 2019 Aug 23
- 248 - **Magistretti PJ**, Geisler FH, Schneider JS, Li PA, Fiumelli H, Sipione S. *Gangliosides: Treatment Avenues in Neurodegenerative Disease.* **Front Neurol.** 2019 Aug 6;10:859. doi: 10.3389/fneur.2019.00859. eCollection 2019
- 247 - Calì C, Tauffenberger A, **Magistretti P**. *The Strategic Location of Glycogen and Lactate: From Body Energy*

*Reserve to Brain Plasticity.* **Front Cell Neurosci.** 2019 Mar 6;13:82. doi: 10.3389/fncel.2019.00082. eCollection 2019

- 246 - Duffy ME, Rogers ML, Joiner TE, Bergen AW, Berrettini W, Bulik CM, Brandt H, Crawford S, Crow S, Fichter M, Halmi K, Kaplan AS, Klump KL, Lilienfeld L, **Magistretti PJ**, Mitchell J, Schork NJ, Strober M, Thornton LM, Treasure J, Woodside B, Kaye WH, Keel PK. *An investigation of indirect effects of personality features on anorexia nervosa severity through interoceptive dysfunction in individuals with lifetime anorexia nervosa diagnoses.* **Int J Eat Disord.** 2019 Feb;52(2):200-205. doi: 10.1002/eat.23008. Epub 2019 Jan 12.
- 245 - Duffy ME, Rogers ML, Joiner TE, Bergen AW, Berrettini W, Bulik CM, Brandt H, Crawford S, Crow S, Fichter M, Halmi K, Kaplan AS, Klump KL, Lilienfeld L, **Magistretti PJ**, Mitchell J, Schork NJ, Strober M, Thornton LM, Treasure J, Woodside B, Kaye WH, Keel PK. *An investigation of indirect effects of personality features on anorexia nervosa severity through interoceptive dysfunction in individuals with lifetime anorexia nervosa diagnoses.* **Int J Eat Disord.** 2019 Feb;52(2):200-205. doi: 10.1002/eat.23008. Epub 2019 Jan 12.
- 244 - Didier MEP, Tarun OB, Jourdain P, **Magistretti P**, Roke S. *Membrane water for probing neuronal membrane potentials and ionic fluxes at the single cell level.* **Nat Commun.** 2018 Dec 11;9(1):5287. doi: 10.1038/s41467-018-07713-w
- 243 - Dyar KA, Lutter D, Artati A, Ceglia NJ, Liu Y, Armenta D, Jastroch M, Schneider S, de Mateo S, Cervantes M, Abbondante S, Tognini P, Orozco-Solis R, Kinouchi K, Wang C, Swerdloff R, Nadeef S, Masri S, Magistretti P, Orlando V, Borrelli E, Uhlenhaut NH, Baldi P, Adamski J, Tschöp MH, Eckel-Mahan K, Sassone-Corsi P.  
Atlas of Circadian Metabolism Reveals System-wide Coordination and Communication between Clocks. **Cell.** 2018 Sep 6;174(6):1571-1585.e11. doi: 10.1016/j.cell.2018.08.042.
- 242 - Kurita M, Araoka T, Hishida T, O'Keefe DD, Takahashi Y, Sakamoto A, Sakurai M, Suzuki K, Wu J, Yamamoto M, Hernandez-Benitez R, Ocampo A, Reddy P, Shokhirev MN, **Magistretti P**, Núñez Delicado E, Eto H, Harii K, Izpisua Belmonte JC. *In vivo reprogramming of wound-resident cells generates skin epithelial tissue.* **Nature.** 2018 Sep;561(7722):243-247. doi: 10.1038/s41586-018-0477-4
- 241 - Margineanu MB, Mahmood H, Fiumelli H, **Magistretti PJ**. *L-Lactate Regulates the Expression of Synaptic Plasticity and Neuroprotection Genes in Cortical Neurons: A Transcriptome Analysis.* **Front Mol Neurosci.** 2018 Oct 10;11:375. doi: 10.3389/fnmol.2018.00375. eCollection 2018. PMID: 30364173
- 240 - Coggan JS, Calì C, Keller D, Agus M, Boges D, Abdellah M, Kare K, Lehväslaiho H, Eilemann S, Jolivet RB, Hadwiger M, Markram H, Schürmann F, **Magistretti PJ**. *A Process for Digitizing and Simulating Biologically Realistic Oligocellular Networks Demonstrated for the Neuro-Glio-Vascular Ensemble.* **Front Neurosci.** 2018 Sep 25;12:664. doi: 10.3389/fnins.2018.00664. eCollection 2018. PMID: 30319342
- 239 - Tran The J, **Magistretti P**, Ansermet F. *The Epistemological Foundations of Freud's Energetics Model.* **Front Psychol.** 2018 Oct 11;9:1861. doi: 10.3389/fpsyg.2018.01861. eCollection 2018. Review
- 238 - Jourdain P, Rothenfusser K, Ben-Adiba C, Allaman I, Marquet P, **Magistretti PJ**. *Dual action of L-Lactate on the activity of NR2B-containing NMDA receptors: from potentiation to neuroprotection.* **Sci Rep.** 2018 Sep 7;8(1):13472

- 237 - Coggan JS, Keller D, Cali C, Lehväslaiho H, Markram H, Schürmann F, **Magistretti PJ**. *Norepinephrine stimulates glycogenolysis in astrocytes to fuel neurons with lactate*. **PLoS Comput Biol.** 2018 Aug 30;14(8):e1006392. doi: 10.1371/journal.pcbi.1006392. eCollection 2018
- 236 - Carteron L, Solari D, Patet C, Quintard H, Miroz JP, Bloch J, Daniel RT, Hirt L, Eckert P, **Magistretti PJ**, Oddo M. *Hypertonic Lactate to Improve Cerebral Perfusion and Glucose Availability After Acute Brain Injury*. **Crit Care Med.** 2018 Jun 19. doi: 10.1097/CCM.0000000000003274. [Epub ahead of print] PMID: 29923931
- 235 - Peachey NS, Yu M, Han JYS, Lengacher S, **Magistretti PJ**, Pellerin L, Philp NJ. *Impact of MCT1 Haploinsufficiency on the Mouse Retina*. **Adv Exp Med Biol.** 2018;1074:375-380. doi: 10.1007/978-3-319-75402-4\_46
- 234 - Steiner N, Rossetti C, Sakurai T, Yanagisawa M, de Lecea L, **Magistretti PJ**, Halfon O, Boutrel B. *Hypocretin/orexin deficiency decreases cocaine abuse liability*. **Neuropharmacology**. 2018 May 1;133:395-403. doi: 10.1016/j.neuropharm.2018.02.010. Epub 2018 Feb PMID: 29454841
- 233 - Kilic K, Karatas H, Donmez-Demir B, Eren-Kocak E, Gursoy-Ozdemir Y, Can A, Petit JM, **Magistretti PJ**, Dalkara T. *Inadequate Brain Glycogen or Sleep Increases Spreading Depression Susceptibility*. **Ann Neurol.** 2017 Dec 15. doi: 10.1002/ana.25122. [Epub ahead of print]
- 232 - Rossetti C, Sciarra D, Petit JM, Eap CB, Halfon O, **Magistretti PJ**, Boutrel B, Cardinaux JR. *Gender-specific alteration of energy balance and circadian locomotor activity in the Crtc1 knockout mouse model of depression*. **Transl Psychiatry.** 2017 Dec 8;7(12):1269. doi: 10.1038/s41398-017-0023-4
- 231 - Huckins LM, Hatzikotoulas K, Southam L, Thornton LM, Steinberg J, Aguilera-McKay F, Treasure J, Schmidt U, Gunasinghe C, Romero A, Curtis C, Rhodes D, Moens J, Kalsi G, Dempster D, Leung R, Keohane A, Burghardt R, Ehrlich S, Hebebrand J, Hinney A, Ludolph A, Walton E, Deloukas P, Hofman A, Palotie A, Palta P, van Rooij FJA, Stirrups K, Adan R, Boni C, Cone R, Dedoussis G, van Furth E, Gonidakis F, Gorwood P, Hudson J, Kaprio J, Kas M, Keski-Rahonen A, Kiezebrink K, Knudsen GP, Slof-Op 't Landt MCT, Maj M, Monteleone AM, Monteleone P, Raevuori AH, Reichborn-Kjennerud T, Tozzi F, Tsitsika A, van Elburg A; Eating Disorder Working Group of the Psychiatric Genomics Consortium, Collier DA, Sullivan PF, Breen G, Bulik CM, Zeggini E. *Investigation of common, low-frequency and rare genome-wide variation in anorexia nervosa*. **Mol Psychiatry.** 2017 Jul 25. doi: 10.1038/mp.2017.88. [Epub ahead of print]
- 230 - Mohammed H, Al-Awami AK, Beyer J, Cali C, **Magistretti P**, Pfister H, Hadwiger M. *Abstractocyte: A Visual Tool for Exploring Nanoscale Astroglial Cells*. **IEEE Trans Vis Comput Graph.** 2018 Jan;24(1):853-861. doi: 10.1109/TVCG.2017.2744278. Epub 2017 Aug 29
- 229 - Jadhav KS, **Magistretti PJ**, Halfon O, Augsburger M, Boutrel B. *A preclinical model for identifying rats at risk of alcohol use disorder*. **Sci Rep.** 2017 Aug 25;7(1):9454. doi: 10.1038/s41598-017-09801-1
- 228 - Escobar C, Ansermet F, **Magistretti PJ**. *A Historical Review of Diachrony and Semantic Dimensions of Trace in Neurosciences and Lacanian Psychoanalysis*. **Front Psychol.** 2017 Jun 23;8:734. doi: 10.3389/fpsyg.2017.00734. eCollection 2017
- 227 - Li D, Chang X, Connolly JJ, Tian L, Liu Y, Bhoj EJ, Robinson N, Abrams D, Li YR, Bradfield JP, Kim CE, Li J, Wang F, Snyder J, Lemma M, Hou C, Wei Z, Guo Y, Qiu H, Mentch FD, Thomas KA, Chiavacci

- RM, Cone R, Li B, Sleiman PA; Eating Disorders Working Group of the Psychiatric Genomics Consortium; Price Foundation Collaborative Group, Hakonarson H. *A genome-wide association study of anorexia nervosa suggests a risk locus implicated in dysregulated leptin signaling.* **Sci Rep.** 2017 Jun 19;7(1):3847. doi: 10.1038/s41598-017-01674-8. Erratum in: **Sci Rep.** 2017 Aug 21;7(1):8379
- 226 - Duncan L, Yilmaz Z, Gaspar H, Walters R, Goldstein J, Anttila V, Bulik-Sullivan B, Ripke S; Eating Disorders Working Group of the Psychiatric Genomics Consortium, Thornton L, Hinney A, Daly M, Sullivan PF, Zeggini E, Breen G, Bulik CM. *Significant Locus and Metabolic Genetic Correlations Revealed in Genome-Wide Association Study of Anorexia Nervosa.* **Am J Psychiatry.** 2017 Sep 1;174(9):850-858. doi: 10.1176/appi.ajp.2017.16121402. Epub 2017 May 12
- 225 - Chatel B, Bendahan D, Hourdé C, Pellerin L, Lengacher S, **Magistretti PJ**, Le Fur Y, Vilmen C, Bernard M, Messonnier LA. *Role of MCT1 and CAII in skeletal muscle pH homeostasis, energetics, and function: in vivo insights from MCT1 haploinsufficient mice.* **FASEB J.** 2017 Mar 2. pii: fj.201601259R. doi: 10.1096/fj.201601259R. [Epub ahead of print]
- 224 - Carrard A, Elsayed M, Margineanu M, Boury-Jamot B, Fragnière L, Meylan EM, Petit JM, Fiumelli H, **Magistretti PJ\***, Martin JL\*. *Peripheral administration of lactate produces antidepressant-like effects.* **Mol Psychiatry.** 2016 Dec 6. doi: 10.1038/mp.2016.237. \*Co-last authors
- 223 - Suzuki K, Tsunekawa Y, Hernandez-Benitez R, Wu J, Zhu J, Kim EJ, Hatanaka F, Yamamoto M, Araoka T, Li Z, Kurita M, Hishida T, Li M, Aizawa E, Guo S, Chen S, Goebel A, Soligalla RD, Qu J, Jiang T, Fu X, Jafari M, Esteban CR, Berggren WT, LaJara J, Nuñez-Delicado E, Guillen P, Campistol JM, Matsuzaki F, Liu GH, **Magistretti P**, Zhang K, Callaway EM, Zhang K, Belmonte JC. *In vivo genome editing via CRISPR/Cas9 mediated homology-independent targeted integration.* **Nature.** 2016 Dec 1;540(7631):144-149. doi: 10.1038/nature20565
- 222 - Preissmann D, Charbonnier C, Chagué S, Antonietti JP, Llobera J, Ansermet F, **Magistretti PJ**. *A Motion Capture Study to Measure the Feeling of Synchrony in Romantic Couples and in Professional Musicians.* **Front Psychol.** 2016 Oct 27;7:1673
- 221 - Gao V, Suzuki A, **Magistretti PJ**, Lengacher S, Pollonini G, Steinman MQ, Alberini CM. *Astrocyte  $\beta$ 2-adrenergic receptors mediate hippocampal long-term memory consolidation.* **Proc Natl Acad Sci U S A.** 2016 Jul 26;113(30):8526-31. doi: 10.1073/pnas.1605063113
- 220 - Lavoie S, Steullet P, Kulak A, Preitner F, Do KQ, **Magistretti PJ**. *Glutamate Cysteine Ligase-Modulatory Subunit Knockout Mouse Shows Normal Insulin Sensitivity but Reduced Liver Glycogen Storage.* **Front Physiol.** 2016 Apr 21;7:142. doi: 10.3389/fphys.2016.00142.
- 219 - Baud MO, Parafita J, Nguyen A, **Magistretti PJ**, Petit JM. *Sleep fragmentation alters brain energy metabolism without modifying hippocampal electrophysiological response to novelty exposure.* **J Sleep Res.** 2016 Oct;25(5):583-590. doi: 10.1111/jsr.12419
- 218 - Meylan EM, Halfon O, **Magistretti PJ**, Cardinaux JR. *The HDAC inhibitor SAHA improves depressive-like behavior of CRTC1-deficient mice: Possible relevance for treatment-resistant depression.* **Neuropharmacology.** 2016 Aug;107:111-21. doi: 10.1016/j.neuropharm.2016.03.012
- 217 - Jourdain P, Allaman I, Rothenfusser K, Fiumelli H, Marquet P, **Magistretti PJ**. *L-Lactate protects neurons against excitotoxicity: implication of an ATP-mediated signaling cascade.* **Sci Rep.** 2016

Feb 19;6:21250. doi: 10.1038/srep21250.

- 216 - Llobera J, Charbonnier C, Chagué S, Preissmann D, Antonietti JP, Ansermet F, **Magistretti PJ**. *The Subjective Sensation of Synchrony: An Experimental Study*. **PLoS One**. 2016 Feb 12;11(2):e0147008. doi: 10.1371/journal.pone.0147008
- 215 - Mächler P, Wyss MT, Elsayed M, Stobart J, Gutierrez R, von Faber-Castell A, Kaelin V, Zuend M, San Martín A, Romero-Gómez I, Baeza-Lehnert F, Lengacher S, Schneider BL, Aebsicher P, **Magistretti PJ**, Barros LF, Weber B. *In Vivo Evidence for a Lactate Gradient from Astrocytes to Neurons*. **Cell Metab**. 2016 Jan 12;23(1):94-102
- 214 - Calì C, Baghabra J, Boges DJ, Holst GR, Kreshuk A, Hamprecht FA, Srinivasan M, Lehväsliho H, **Magistretti PJ**. *Three-dimensional immersive virtual reality for studying cellular compartments in 3D models from EM preparations of neural tissues*. **J Comp Neurol**. 2016 Jan 1;524(1):23-38
- 213 - Quintard H, Patet C, Zerlauth JB, Suys T, Bouzat P, Pellerin L, Meuli R, **Magistretti PJ**, Oddo M. *Improvement of Neuroenergetics by Hypertonic Lactate Therapy in Patients with Traumatic Brain Injury Is Dependent on Baseline Cerebral Lactate/Pyruvate Ratio*. **J Neurotrauma**. 2015 Dec 15. [Epub ahead of print] PMID: 26421
- 212 - Tadi M, Allaman I, Lengacher S, Grenningloh G, **Magistretti PJ**. *Learning-Induced Gene Expression in the Hippocampus Reveals a Role of Neuron – Astrocyte Metabolic Coupling in Long Term Memory*. **PLoS One**. 2015 Oct 29;10(10):e0141568
- 211 - Boury-Jamot B, Carrard A, Martin JL, Halfon O, **Magistretti PJ\***, Boutrel B.\* *Disrupting astrocyte-neuron lactate transfer persistently reduces conditioned responses to cocaine*. **Mol Psychiatry**. 2015 Oct 27. doi: 10.1038/mp.2015.157. [Epub ahead of print] \*Co-last authors
- 210 - Delacrétaz A, Preisig M, Vandenberghe F, Saigi Morgui N, Quteineh L, Choong E, Gholam-Rezaee M, Katalik Z, **Magistretti P**, Aubry JM, von Gunten A, Castelao E, Vollenweider P, Waeber G, Conus P, Eap CB. *Influence of MCHR2 and MCHR2-AS1 Genetic Polymorphisms on Body Mass Index in Psychiatric Patients and In Population-Based Subjects with Present or Past Atypical Depression*. **PLoS One**. 2015 Oct 13;10(10):e0139155
- 209 - Saigi-Morgui N, Vandenberghe F, Delacrétaz A, Quteineh L, Choong E, Gholamrezaee M, **Magistretti P**, Aubry JM, von Gunten A, Preisig M, Castelao E, Vollenweider P, Waeber G, Katalik Z, Conus P, Eap CB, *Association of PCK1 with Body Mass Index and Other Metabolic Features in Patients With Psychotropic Treatments*. **J Clin Psychopharmacol**. 2015 Oct;35(5):544-52
- 208 - Kovács KA, Steinmann M, Halfon O, **Magistretti PJ**, Cardinaux JR, *Complex regulation of CREB-binding protein by homeodomain-interacting protein kinase 2*. **Cell Signal**. 2015 Aug 4. pii: S0898-6568(15)00222-3
- 207 - Arminjon M, Preissmann D, Chmetz F, Duraku A, Ansermet F, **Magistretti PJ**. *Embodied memory: unconscious smiling modulates emotional evaluation of episodic memories*. **Front Psychol**. 2015 May 26;6:650. doi: 10.3389/fpsyg.2015.00650. eCollection 2015
- 206 - Zeis T, Allaman I, Gentner M, Schroder K, Tschoop J, **Magistretti PJ**, Schaeren-Wiemers N, *Metabolic gene expression changes in astrocytes in Multiple Sclerosis cerebral cortex are indicative of immune-mediated signaling*. **Brain Behav Immun**. 2015 Aug;48:313-25. doi: 10.1016/j.bbi.2015.04.013. Epub 2015

- 205 - Shih PB, Yang J, Morisseau C, German JB, Zeeland AA, Armando AM, Quehenberger O, Bergen AW, **Magistretti P**, Berrettini W, Halmi KA, Schork N, Hammock BD, Kaye W. *Dysregulation of soluble epoxide hydrolase and lipidomic profiles in anorexia nervosa*. **Mol Psychiatry**. 2015 Mar 31. doi: 10.1038/mp.2015.26. [Epub ahead of print]
- 204 - Patet C, Quintard H, Suys T, Bloch J, Daniel R, Pellerin L, **Magistretti P**, Oddo M. *Neuroenergetic response to prolonged cerebral glucose depletion after severe brain injury and the role of lactate*. **J Neurotrauma**. 2015 Mar 19. [Epub ahead of print]
- 203 - Sotelo-Hitschfeld T, Niemeyer MI, Mächler P, Ruminot I, Lerchundi R, Wyss MT, Stobart J, Fernández-Moncada I, Valdebenito R, Garrido-Gerter P, Contreras-Baeza Y, Schneider BL, Aebischer P, Lengacher S, San Martín A, Le Douce J, Bonvento G, **Magistretti PJ**, Sepúlveda FV, Weber B, Barros LF. *Channel-mediated lactate release by K<sup>+</sup>-stimulated astrocytes*. **J Neurosci**. 2015 Mar 11;35(10):4168-78. doi: 10.1523/JNEUROSCI.5036-14.2015
- 202 - Quteineh L, Vandenbergh F, Saigi Morgui N, Delacrétaz A, Choong E, Gholam-Rezaee M, **Magistretti P**, Bondolfi G, Von Gunten A, Preisig M, Castelao E, Vollenweider P, Waeber G, Bochud M, Kutalik Z, Conus P, Eap CB. *Impact of HSD11B1 polymorphisms on BMI and components of the metabolic syndrome in patients receiving psychotropic treatments*. **Pharmacogenet Genomics**. 2015 May;25(5):246-58
- 201 - Jolivet R, Coggan JS, Allaman I, **Magistretti PJ**. Multi-timescale Modeling of Activity-Dependent Metabolic Coupling in the Neuron-Glia-Vasculature Ensemble. **PLoS Comput Biol**. 2015 Feb 26;11(2):e1004036. doi: 10.1371/journal.pcbi.1004036. eCollection 2015 Feb.
- 200 - Macias-Romero C, Didier ME, Jourdain P, Marquet P, **Magistretti P**, Tarun OB, Zubkovs V, Radenovic A, Roke S. *High throughput second harmonic imaging for label-free biological applications*. **Opt Express**. 2014 Dec 15;22(25):31102-12
- 199 - Morrison BM, Tsingalia A, Vidensky S, Lee Y, Jin L, Farah MH, Lengacher S, **Magistretti PJ**, Pellerin L, Rothstein JD. *Deficiency in monocarboxylate transporter 1 (MCT1) in mice delays regeneration of peripheral nerves following sciatic nerve crush*. **Exp Neurol**. 2015 Jan;263:325-38.
- 198 - Baud MO, **Magistretti PJ**, Petit JM. *Sustained Sleep Fragmentation Induces Sleep Homeostasis in Mice*. **Sleep**. 2014 Oct 17. pii: sp-00289-14. [Epub ahead of print]
- 197 - Bouzat P, **Magistretti PJ**, Oddo M. *Hypertonic lactate and the injured brain: facts and the potential for positive clinical implications*. **Intensive Care Med**. 2014 Jun;40(6):920-1
- 196 - Perreten Lambert H, Zenger M, Azarias G, Chatton JY, **Magistretti PJ**, Lengacher S. *Control of Mitochondrial pH by Uncoupling Protein 4 in Astrocytes Promotes Neuronal Survival*. **J Biol Chem**. 2014 Nov 7;289(45):31014-28
- 195 - Yang J, Ruchti E, Petit JM, Jourdain P, Grenningloh G, Allaman I, **Magistretti PJ**. *Lactate promotes plasticity gene expression by potentiating NMDA signaling in neurons*. **Proc Natl Acad Sci USA**. Aug 19;111(33):12228-33
- 194 - Vianin P, Urben S, **Magistretti P**, Marquet P, Fornari E, Jaugey L. *Increased activation in Broca's area after cognitive remediation in schizophrenia*. **Psychiatry Res**. 2014 Mar 30;221(3):204-9.

- 193 - Bouzat P, Sala N, Suys T, Zerlauth JB, Marques-Vidal P, Feihl F, Bloch J, Messerer M, Levivier M, Meuli R, **Magistretti PJ**, Oddo M. *Cerebral metabolic effects of exogenous lactate supplementation on the injured human brain.* **Intensive Care Med.** 2014 Jan;30
- 192 - Lengacher S, Nehiri-Sitayeb T, Steiner N, Carneiro L, Favrod C, Preitner F, Thorens B, Stehle JC, Dix L, Pralong F, **Magistretti PJ**, Pellerin L. *Resistance to diet-induced obesity and associated metabolic perturbations in haploinsufficient monocarboxylate transporter 1 mice.* **PLoS One.** 2013 Dec;8(12):e82505.
- 191 - Jourdain P, Becq F, Lengacher S, Boinot C, **Magistretti PJ**, Marquet P. *The human CFTR protein expressed in CHO cells activates aquaporin-3 in a cAMP-dependent pathway: study by digital holographic microscopy.* **J Cell Sci.** 2014 Feb;127(Pt 3):546-56
- 190 - Petit JM, Gyger J, Burlet-Godinot S, Fiumelli H, Martin JL, **Magistretti PJ**. *Genes involved in the astrocyte-neuron lactate shuttle (ANLS) are specifically regulated in cortical astrocytes following sleep deprivation in mice.* **Sleep.** 2013 Oct;36(10):1445-58
- 189 - Scott-Van Zeeland AA, Bloss CS, Tewhey R, Bansal V, Torkamani A, Libiger O, Duvvuri V, Wineinger N, Galvez L, Darst BF, Smith EN, Carson A, Pham P, Phillips T, Villarasa N, Tisch R, Zhang G, Levy S, Murray S, Chen W, Srinivasan S, Berenson G, Brandt H, Crawford S, Crow S, Fichter MM, Halmi KA, Johnson C, Kaplan AS, La Via M, Mitchell JE, Strober M, Rotondo A, Treasure J, Woodside DB, Bulik CM, Keel P, Klump KL, Lilienfeld L, Plotnicov K, Topol EJ, Shih PB, **Magistretti P**, Bergen AW, Berrettini W, Kaye W, Schork NJ. *Evidence for the role of EPHX2 gene variants in anorexia nervosa.* **Mol Psychiatry.** 2013 Sep;3
- 188 - Sala N, Suys T, Zerlauth JB, Bouzat P, Messerer M, Bloch J, Levivier M, **Magistretti PJ**, Meuli R, Oddo M. *Cerebral extracellular lactate increase is predominantly nonischemic in patients with severe traumatic brain injury.* **J Cereb Blood Flow Metab.** 2013 Nov;33(11):1815-22
- 187 - Choong E, Quteineh L, Cardinaux JR, Gholam-Rezaee M, Vandenbergh F, Dobrinis M, Bondolfi G, Etter M, Holzer L, **Magistretti P**, von Gunten A, Preisig M, Vollenweider P, Beckmann JS, Pralong FP, Waeber G, Katalik Z, Conus P, Bochud M, Eap CB, *Influence of CRTC1 polymorphisms on body mass index and fat mass in psychiatric patients and the general adult population.* **JAMA Psychiatry.** 2013 Oct;70(10):1011-9
- 186 - Kunze A, Lengacher S, Dirren E, Aebsicher P, **Magistretti PJ**, Renaud P, *Astrocyte-neuron co-culture on microchips based on the model of SOD mutation to mimic ALS.* **Integr Biol (Camb).** 2013 Jul;24(7):964-75
- 185 - Liu X, Petit JM, Ezan P, Gyger J, **Magistretti P**, Giaume C. *The psychostimulant modafinil enhances gap junctional communication in cortical astrocytes.* **Neuropharmacology.** 2013 Dec;75:533-8
- 184 - Boss D, Kühn J, Jourdain P, Depeursinge C, **Magistretti PJ**, Marquet P. *Measurement of absolute cell volume, osmotic membrane water permeability, and refractive index of transmembrane water and solute flux by digital holographic microscopy.* **J Biomed Opt.** 2013 Mar;18(3):036007
- 183 - Márquez C, Poirier GL, Cordero MI, Larsen MH, Groner A, Marquis J, **Magistretti PJ**, Trono D, Sandi C. *Peripuberty stress leads to abnormal aggression, altered amygdala and orbitofrontal reactivity and increased prefrontal MAOA gene expression.* **Transl Psychiatry.** 2013 Jan;3:e216
- 182 - Jourdain P, Boss D, Rappaz B, Moratal C, Hernandez MC, Depeursinge C, **Magistretti PJ**, Marquet P. *Simultaneous optical recording in multiple cells by digital holographic microscopy of chloride*

- current associated to activation of the ligand-gated chloride channel GABA(A) receptor. **PLoS One.** 2012;7(12):e51041
- 181 - Berthet C, Castillo X, **Magistretti PJ**, Hirt L. New evidence of neuroprotection by lactate after transient focal cerebral ischaemia: extended benefit after intracerebroventricular injection and efficacy of intravenous administration. **Cerebrovasc Dis.** 2012;34(5-6):329-35
- 180 - Kühn J, Shaffer E, Mena J, Breton B, Parent J, Rappaz B, Chambon M, Emery Y, **Magistretti P**, Depeursinge C, Marquet P, Turcatti G. Label-free cytotoxicity screening assay by digital holographic microscopy. **Assay Drug Dev Technol.** 2013 Mar;11(2):101-7
- 179 - Boss D, Hoffmann A, Rappaz B, Depeursinge C, **Magistretti PJ**, Van de Ville D, Marquet P Spatially-resolved eigenmode decomposition of red blood cells membrane fluctuations questions the role of ATP in flickering. **PLoS One.** 2012;7(8):e40667. Epub 2012 Aug 10
- 178 - Baud MO, **Magistretti PJ**, Petit JM. *Sustained sleep fragmentation affects brain temperature, food intake and glucose tolerance in mice.* **J Sleep Res.** 2012 Jun 26. doi: 10.1111/j.1365-2869.2012.01029.x. [Epub ahead of print]
- \*177- Morrison BM, Lee Y, Li Y, Lengacher S, Farah MH, Liu Y, Tsingalia A, Jin L, Zhang PW, Griffin JW, Pellerin L, **Magistretti PJ**, Rothstein JD Oligodendroglia have a fundamental role in metabolic support of axons and contribute to neurodegeneration **Nature** 2012 Jul 26;487(7408):443-8
- 176 - Breuillaud L, Rossetti C, Meylan EM, Mérinat C, Halfon O, **Magistretti PJ**, Cardinaux, JR. *Deletion of CREB-Regulated Transcription Coactivator 1 Induces Pathological Aggression, Depression- Related Behaviors, and Neuroplasticity Genes Dysregulation in Mice.* **Biol Psychiatry.** 2012 May 14. [Epub ahead of print]
- 175 - Oddo M, Levine JM, Frangos S, Maloney-Wilensky E, Carrera E, Daniel RT, Levivier M, **Magistretti PJ**, and LeRoux PD, *Brain lactate metabolism in humans with subarachnoid haemorrhage.* **Stroke** 2012 16; 111.648568.
- 174 - Pavillon N, Kühn J, Moratal C, Jourdain P, Depeursinge C, **Magistretti PJ**, Marquet P., *Early cell death detection with digital holographic microscopy.* **PLoS One.** 2012;7(1):e30912.
- \*173 - Bélanger M, Yang J, Petit JM, Laroche T, **Magistretti PJ\***, Allaman I.\* *Role of the glyoxalase system in astrocyte-mediated neuroprotection.* **J Neurosci.** 2011 Dec 14;31(50):18338-52. \* Co-last authors
- \*172 - Jourdain P, Pavillon N, Moratal C, Boss D, Rappaz B, Depeursinge C, Marquet P, **Magistretti PJ**, *Determination of Transmembrane Water Fluxes in Neurons Elicited by Glutamate Ionotropic Receptors and by the Cotransporters KCC2 and NKCC1: A Digital Holographic Microscopy Study.* **J Neurosci.** 2011 Aug 17;31(33):11846-54
- 171 - Lavoie S, Allaman I, Petit JM, Do KQ, **Magistretti PJ**, *Altered glycogen metabolism in cultured astrocytes from mice with chronic glutathione deficit; relevance for neuroenergetics in schizophrenia.* **PLoS One.** 2011;6(7):e22875
- 170 - Root TL, Szatkiewicz JP, Jonassaint CR, Thornton LM, Pinheiro AP, Strober M, Bloss C, Berrettini W, Schork NJ, Kaye WH, Bergen AW, **Magistretti P**, Brandt H, Crawford S, Crow S, Fichter MM, Goldman D, Halmi KA, Johnson C, Kaplan AS, Keel PK, Klump KL, La Via M, Mitchell JE, Rotondo A, Treasure J, Woodside DB, Bulik CM, *Association of Candidate Genes with Phenotypic Traits Relevant to Anorexia Nervosa.* **Eur Eat Disord Rev.** 2011 Jul 21. doi: 10.1002/erv.1138

- 169 - Bloss CS, Berrettini W, Bergen A.W, **Magistretti P**, Duvvuri V, Strober M, Brandt H, Crawford S, Crow S, Fichter M.M, Halmi K.A, Johnson C, Kaplan A.S, Keel P, Klump K.L, Mitchell J, Treasure J, Woodside D.B, Marzola E, Schork NJ, Kaye WH, *Genetic Association of Recovery from Eating Disorders: The Role of GABA Receptor SNPs*. **Neuropsychopharmacology**. 2011 Jul 13. doi: 10.1038/npp.2011.108
- 168 - Wyss MT, **Magistretti PJ**, Buck A, Weber B, *Labeled acetate as a marker of astrocytic metabolism*. **J Cereb Blood Flow Metab**. 2011 Jun 8. doi: 10.1038/jcbfm.2011.84
- 167 - Wyss MT, Jolivet R, Buck A, **Magistretti PJ**, Weber B, *In vivo evidence for lactate as a neuronal energy source*. **J Neurosci**. 2011 May 18;31(20):7477-85
- 166 - Jonassaint CR, Szatkiewicz JP, Bulik CM, Thornton LM, Bloss C, Berrettini WH, Kaye WH, Bergen AW, **Magistretti P**, Strober M, Keel PK, Brandt H, Crawford S, Crow S, Fichter MM, Goldman D, Halmi KA, Johnson C, Kaplan AS, Klump KL, La Via M, Mitchell JE, Rotondo A, Treasure J, Woodside DB, *Absence of association between specific common variants of the obesity-related FTO gene and psychological and behavioral eating disorder phenotypes*. **Am J Med Genet B Neuropsychiatr Genet**. 2011 Jun;156B(4):454-61
- 165 - Azarias G, Perreten H, Lengenhacher S, Poburko D, Demaurex N, **Magistretti PJ**, Chatton JY, *Glutamate Transport Decreases Mitochondrial pH and Modulates Oxidative Metabolism in Astrocytes*. **J Neurosci**. 2011 March 9; 31(10):3550 –3559
- \*164 - Suzuki A, Stern SA, Bozdagi O, Huntley GW, Walker RH, **Magistretti PJ**, Alberini CM, *Astrocyte-neuron lactate transport is required for long-term memory formation*. **Cell**. 2011 Mar 4;144(5):810-23
- 163 - Allaman I, Fiumelli H, **Magistretti PJ**, Martin JL, *Fluoxetine regulates the expression of neurotrophic/growth factors and glucose metabolism in astrocytes*. **Psychopharmacology (Berl)**. 2011 Jul;216(1):75-84
- 162 - Shaffer E, Moratal C, **Magistretti PJ**, Marquet P, Depeursinge C, *Label-free second-harmonic phase imaging of biological specimen by digital holographic microscopy*. **Opt Lett**. 2010 Dec 15;35(24):4102-4
- 161 - Singh A, Joliver R, **Magistretti PJ**, Weber B, *Sodium entry efficiency during action potentials: novel single-parameter family of Hodgkin-Huxley models*. **Advances in Neural Information Processing Systems 23: 2173 – 2180, 2010**
- 160 - Wang K, Zhang H, Bloss CS, Duvvuri V, Kaye W, Schork NJ, Berrettini W, Hakonarson H, the Price Foundation Collaborative Group, *A genome-wide association study on common SNPs and rare CNVs in anorexia nervosa*. **Mol Psychiatry**. 2011 Sep;16(9):949-59
- 159 - Bélanger M, Allaman I, **Magistretti PJ**, *Differential effects of pro- and anti-inflammatory cytokines alone or in combinations on the metabolic profile of astrocytes*. **J Neurochem**. 2011 Feb;116(4):564-76
- 158 - Jan A, Adolfsson O, Allaman I, Varisco A, **Magistretti PJ**, Muhs A, Pfiefer A, Lashuel HA,  *$\text{A}\beta$ 42 neurotoxicity is mediated by an ongoing a nucleated polymerization process rather than by a discrete  $\text{A}\beta$ 42 species*. **J Biol Chem**. 2011 Mar 11;286(10):8585-96
- 157 - Ribes D, Parafita J, Charrier R, Magara F, **Magistretti PJ**, Thiran JP, *JULIDE: A Software Tool for 3D Reconstruction and Statistical Analysis of Autoradiographic Mouse Brain Sections*. **PLoS One**. 2010 Nov 23;5(11):e14094

- 156 - Pinheiro AP, Bulik CM, Thornton LM, Sullivan PF, Root TL, Bloss CS, Berrettini WH, Schork NJ, Kaye WH, Bergen AW, **Magistretti PJ**, Brandt H, Crawford S, Crow S, Fichter MM, Goldman D, Halmi KA, Johnson C, Kaplan AS, Keel PK, Klump KL, La Via M, Mitchell JE, Strober M, Rotondo A, Treasure J, Woodside DB, *Association study of 182 candidate genes in anorexia nervosa*. **Am J Med Genet B Neuropsychiatr Genet.** 2010 Jul; 153B (5):1070-80
- 155 - Pavillon N, Benke A, Boss D, Moratal C, Kühn J, Jourdain P, Depeursinge C, **Magistretti PJ**, Marquet P, *Cell morphology and intracellular ionic homeostasis explored with a multimodal approach combining epifluorescence and digital holographic microscopy*. **J Biophotonics.** 2010 Jul;3(7):432-6
- 154 - Petit JM, Tobler I, Kopp C, Morgenthaler F, Borbély AA, **Magistretti PJ**, *Metabolic Response of the Cerebral Cortex Following Gentle Sleep Deprivation and Modafinil Administration*. **Sleep** 2010, 3(7):901-8
- 153 - Allaman I, Gavillet M, Bélanger M, Laroche T, Viertl T, Lashuel HA, **Magistretti PJ**, *Amyloid beta-aggregates cause alterations of astrocytic metabolic phenotype: Impact on neuronal viability*. **J Neurosci.** 2010 Mar 3;30(9):3326-38
- 152 - Brunet JF, Allaman I, **Magistretti PJ**, Pellerin L, *Glycogen metabolism as a marker of astrocyte differentiation*. **J Cereb Blood Flow Metab.** 2010 Jan;30(1):51-5
- 151 - Berthet C, Lei H, Thevenet J, Gruetter R, **Magistretti PJ**, Hirt L, *Neuroprotective role of lactate after cerebral ischemia*. **J Cereb Blood Flow Metab.** 2009 Nov;29(11):1780-9
- 150 - Jolivet R, **Magistretti PJ**, Weber B, *Deciphering neuron-glia compartmentalization in cortical energy metabolism*. **Front Neuroenergetics.** 2009;1:4
- 149 - Rappaz B, Cano E, Colomb T, Kühn J, Depeursinge C, Simaris V, Magistretti PJ, Marquet P, *Noninvasive characterization of the fission yeast cell cycle by monitoring dry mass with digital holographic microscopy*. **J Biomed Opt.** 2009 May-Jun;14(3):034049
- 148 - Morgenthaler FD, Lanz BR, Petit JM, Frenkel H, **Magistretti PJ**, Gruetter R, *Alteration of brain glycogen turnover in the conscious rat after 5h of prolonged wakefulness*. **Neurochem Int.** 2009 Jul-Aug;55(1-3):45-51
- 147 - Breuillaud L, Halfon O, **Magistretti PJ**, Pralong FP, Cardinaux JR, *Mouse fertility is not dependent on the coactivator Crtc1*. **Nat Med.** 2009 Sep;15(9):989-90
- 146 - Wyss MT, Weber B, Treyer V, Heer S, Pellerin L, Magistretti PJ, Buck A, *Stimulation-induced increases of astrocytic oxidative metabolism in rats and humans investigated with 1-11C-acetate*. **J Cereb Blood Flow Metab.** 2009 Jan;29(1):44-56
- 145 - Allaman I, Papp M, Kraftsik R, Fiumelli H, **Magistretti PJ**, Martin JL, *Expression of brain-derived neurotrophic factor is not modulated by chronic mild stress in the rat hippocampus and amygdala*. **Pharmacol Rep.** 2008 Nov-Dec;60(6):1001-7
- 144 - Rappaz B, Barbul A, Emery Y, Korenstein R, Depeursinge C, **Magistretti PJ**, Marquet P, *Comparative study of human erythrocytes by digital holographic microscopy, confocal microscopy, and impedance volume analyzer*. **Cytometry A.** 2008 Oct;73(10):895-903

- 143 - Chiry O, Fishbein WN, Merezhinskaya N, Clarke S, Galuske R, **Magistretti PJ**, Pellerin L, *Distribution of the monocarboxylate transporter MCT2 in human cerebral cortex: An immunohistochemical study.* **Brain Res.** 2008 Aug 21;1226:61-9
- 142 - Badaut J, Brunet JF, Petit JM, Guérin CF, **Magistretti PJ**, Regli L, *Induction of brain aquaporin 9 (AQP9) in catecholaminergic neurons in diabetic rats.* **Brain Res.** 2008 Jan 10;1188:17-24
- 141 - Rappaz B, Charrière F, Depeursinge C, **Magistretti PJ**, Marquet P, *Simultaneous cell morphometry and refractive index measurement with dual-wavelength digital holographic microscopy and dye-enhanced dispersion of perfusion medium.* **Opt Lett.** 2008 Apr 1;33(7):744-6
- 140 - Gavillet M, Allaman I, **Magistretti PJ**, *Modulation of astrocytic metabolic phenotype by proinflammatory cytokines.* **Glia.** 2008 Jul;56(9):975-89
- 139 - Granziera C, D'Arceuil H, Zai L, **Magistretti PJ**, Sorensen AG, De Crespigny AJ, *Long-term monitoring of post-stroke plasticity after transient cerebral ischemia in mice using in vivo and ex vivo diffusion tensor MRI.* **Open Neuroimag J.** 2007; 1:10-7
- 138 - Pellerin L, Bouzier-Sore AK, Aubert A, Serres S, Merle M, Costalat R, **Magistretti PJ**, *Activity-dependent regulation of energy metabolism by astrocytes: an update.* **Glia** 2007 Sep; 55(12):1251-62
- 137 - Granziera C, Thevenet J, Price M, Wiegler K, **Magistretti PJ**, Badaut J, Hirt L, *Thrombin-induced ischemic tolerance is prevented by inhibiting c-jun N-terminal kinase.* **Brain Res.** 2007 May 7;1148:217-25
- 136 - Badaut J, Brunet JF, Petit JM, Guérin C.F, **Magistretti PJ**, Regli L, *Induction of brain aquaporin 9 (AQP9) in catecholaminergic neurons in diabetic rats.* **Brain Res.** 2008 Jan 10;1188:17-24
- 135 - Kovacs KA, Steullet P, Steinmann M, Do KQ, **Magistretti PJ**, Halfon O, Cardinaux JR, *TORC1 is a calcium - and cAMP - sensitive coincidence detector involved in hippocampal long-term synaptic plasticity.* **Proc Natl Acad Sci U S A.** 2007 Mar 13;104(11):4700-5
- 134 - Granziera C, Thevenet J, Price M, Wiegler K, **Magistretti PJ**, Badaut J, Hirt L, *Thrombin-induced ischemic tolerance is prevented by inhibiting c-jun N-terminal kinase.* **Brain Res.** 2007 May 7;1148:217-25
- 133 - Laughton JD, Bittar P, Charnay Y, Pellerin L, Kovari E, **Magistretti PJ**, Bouras C, *Metabolic compartmentalization in the human cortex and hippocampus: evidence for a cell- and region-specific localization of lactate dehydrogenase 5 and pyruvate dehydrogenase.* **BMC Neurosci.** 2007 May 23; 8:35
- 132 - Aubert A, Pellerin L, **Magistretti PJ**, Costalat R, *A coherent neurobiological framework for functional neuroimaging provided by a model integrating compartmentalized energy metabolism.* **Proc Natl Acad Sci U S A.** 2007 Mar 6;104(10):4188-93
- 131 - Morgenthaler FD, Kraftsik R, Catsicas S, **Magistretti PJ**, Chatton JY, *Glucose and lactate are equally effective in energizing activity-dependent synaptic vesicle turnover in purified cortical neurons.* **Neuroscience.** 2006 Aug 11;141(1):157-65
- 130 - Kovacs KA, Steinmann M, **Magistretti PJ**, Halfon O, Cardinaux JR, *C/EBPbeta couples dopamine signalling to substance P precursor gene expression in striatal neurones.* **J Neurochem.** 2006 Sep;98(5): 1390-9

- 129 - Chiry O, Pellerin L, Monnet-Tschudi F, Fishbein WN, Merezinskaya N, **Magistretti PJ**, Clarke S, *Expression of the monocarboxylate transporter MCT1 in the adult human brain cortex*. **Brain Res.** 2006 Jan 27;1070(1):65-70
- 128 - Badaut J, Hirt L, Price M, De Castro Ribeiro M, **Magistretti PJ**, Regli L, *Hypoxia/hypoglycemia preconditioning prevents the loss of functional electrical activity in organotypic slice cultures*. **Brain Res.** 2005 Jul 27;1051(1-2):117-22
- 127 - Aubert A, Costalat R, **Magistretti PJ**, Pellerin L, *Brain lactate kinetics: modeling evidence for neuronal lactate uptake upon activation*. **Proc Natl Acad Sci U S A.** 2005 Nov 8;102(45):16448-53
- 126 - Ros J, Pellerin L, Magara F, Dauguet J, Schenk F, **Magistretti PJ**, *Metabolic activation pattern of distinct hippocampal subregions during spatial learning and memory retrieval*. **J Cereb Blood Flow Metab.** 2006 Apr; 26(4):468-77
- 125 - Rappaz B, Marquet P, Cuche E, Emery Y, Depeursinge C, **Magistretti PJ**, *Measurement of the integral refractive index and dynamic cell morphometry of living cells with digital holographic microscopy*. **Opt Express.** 2005 Nov 14;13(23):9361-73
- 124 - Moulin-Sallanon M, Millet P, Rousset C, Zimmer L, Debilly G, Petit JM, Cespuglio R, **Magistretti PJ**, Ibanez V, *Chloramphenicol decreases brain glucose utilization and modifies the sleep-wake cycle architecture in rats*. **J Neurochem.** 2005 Jun;93(6):1623-32
- 123 - **Magistretti PJ**, Chatton JY, *Relationship between L-glutamate-regulated intracellular (Na<sup>+</sup>) dynamics and ATP hydrolysis in astrocytes*. **J Neural Transm.** 2005 Jan;112(1):77-85
- 122 - Pellerin L, **Magistretti PJ**, Ampakine CX546 bolsters energetic response of astrocytes: a novel target for cognitive-enhancing drugs acting as alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA) receptor modulators. **J Neurochem.** 2005 Feb;92(3):668-77
- 121 - Marquet P, Rappaz B, **Magistretti PJ**, Cuche E, Emery Y, Colomb T, Depeursinge C, *Digital holographic microscopy: a noninvasive contrast imaging technique allowing quantitative visualization of living cells with subwavelength axial accuracy*. **Opt Lett.** 2005 Mar 1;30(5):468-70
- 120 - Bergersen LH, **Magistretti PJ**, Pellerin L, *Selective postsynaptic co-localization of MCT2 with AMPA receptor GluR2/3 subunits at excitatory synapses exhibiting AMPA receptor trafficking*. **Cereb Cortex.** 2005 Apr;15(4):361-70
- 119 - Bernardinelli Y, **Magistretti PJ**, Chatton JY, *Astrocytes generate Na<sup>+</sup>-mediated metabolic waves*. **Proc Natl Acad Sci U S A.** 2004 Oct 12;101(41):14937-42
- 118 - Millet P, Moulin Sallanon M, Petit JM, Charnay Y, Vallet P, Morel C, Cespuglio R, **Magistretti PJ**, Ibanez V, *In vivo measurement of glucose utilization in rats using a beta-microprobe: direct comparison with autoradiography*. **J Cereb Blood Flow Metab.** 2004 Sep;24(9):1015-24
- 117 - Lengacher S, **Magistretti PJ**, Pellerin L, *Quantitative RT-PCR analysis of uncoupling protein isoforms in mouse brain cortex: methodological optimization and comparison of expression with brown adipose tissue and skeletal muscle*. **J Cereb Blood Flow Metab.** 2004 Jul;24(7):780-8
- 116 - Bliss TM, Ip M, Cheng E, Minami M, Pellerin L, **Magistretti PJ**, Sapolsky RM, *Dual-gene, dual-cell type therapy against an excitotoxic insult by bolstering neuroenergetics*. **J Neurosci.** 2004 Jul 7;24(27):6202-8

- 115 - Fayol L, Baud O, Monier A, Pellerin L, **Magistretti PJ**, Evrard P, Verney C, *Immunocytochemical expression of monocarboxylate transporters in the human visual cortex at midgestation*. **Brain Res Dev Brain Res.** 2004 Jan 31;148(1):69-76
- 114 - Brunet JF, Grollimund L, Chatton JY, Lengacher S, **Magistretti PJ**, Villemure JG, Pellerin L, *Early acquisition of typical metabolic features upon differentiation of mouse neural stem cells into astrocytes*. **Glia.** 2004 Apr 1;46(1):8-17
- 113 - Allaman I, Pellerin L, **Magistretti PJ**, *Glucocorticoids modulate neurotransmitter-induced glycogen metabolism in cultured cortical astrocytes*. **J Neurochem.** 2004 Feb;88(4):900-8
- 112 - Kovacs K.A, Steinmann M, **Magistretti PJ**, Halfon O, Cardinaux JR, *CCAAT/Enhancer-binding protein family members recruit the coactivator CREB-binding protein and trigger its phosphorylation*. **J Biol Chem.** 2003 Sep 19;278(38):36959-65
- 111 - Bouzier-Sore AK, Voisin P, Canioni P, **Magistretti PJ**, Pellerin L, *Lactate is a preferential oxidative energy substrate over glucose for neurons in culture*. **J Cereb Blood Flow Metab.** 2003 Nov;23(11):1298-306
- 110 - Brunet JF, Pellerin L, **Magistretti PJ**, Villemure JG, *Cryopreservation of human brain tissue allowing timely production of viable adult human brain cells for autologous transplantation*. **Cryobiology.** 2003 Oct;47(2):179-83
- 109 - Baud O, Fayol L, Gressens P, Pellerin L, **Magistretti PJ**, Evrard P, Verney C, *Perinatal and early postnatal changes in the expression of monocarboxylate transporters MCT1 and MCT2 in the rat forebrain*. **J Comp Neurol.** 2003 Oct 20;465(3):445-54
- 108 - Boussouar F, Mauduit C, Tabone E, Pellerin L, **Magistretti PJ**, Benahmed M, *Developmental and hormonal regulation of the monocarboxylate transporter 2 (MCT2) expression in the mouse germ cells*. **Biol Reprod.** 2003 Sep;69(3):1069-78
- 107 - Pierre K, Debernardi R, **Magistretti PJ**, Pellerin L, *Noradrenaline enhances MCT2 expression in cultured mouse cortical neurons via a translational regulation*. **J Neurochem.** 2003 Sep;86(6):1468-76
- 106 - Debernardi R, Pierre K, Lengacher S, **Magistretti PJ**, Pellerin L, *Cell-specific expression pattern of monocarboxylate transporters in astrocytes and neurons observed in different mouse brain cortical cell cultures*. **J Neurosci Res.** 2003 Jul 15;73(2):141-55
- 105 - Chatton JY, Pellerin L, **Magistretti PJ**, *GABA uptake into astrocytes is not associated with significant metabolic cost: implications for brain imaging of inhibitory transmission*. **Proc Natl Acad Sci U S A.** 2003 Oct 14;100(21):12456-61
- 104 - Allaman I, Lengacher S, **Magistretti PJ**, Pellerin L, *A2B receptor activation promotes glycogen synthesis in astrocytes through modulation of gene expression*. **Am J Physiol Cell Physiol.** 2003 Mar;284(3):C696-704
- 103 - Chiry O, Tardif E, **Magistretti PJ**, Clarke S, *Patterns of calcium-binding proteins support parallel and hierarchical organization of human auditory areas*. **Eur J Neurosci.** 2003 Jan;17(2):397-410

- 102 - Voutsinos-Porche B, Bonvento G, Tanaka K, Steiner P, Welker E, Chatton JA, **Magistretti PJ**, Pellerin L, *Glial glutamate transporters mediate a functional metabolic crosstalk between neurons and astrocytes in the mouse developing cortex*. **Neuron**. 2003 Jan 23;37(2):275-86
- 101 - Bouzier-Sore AK, Merle M, **Magistretti PJ**, Pellerin L, *Feeding active neurons: (re)emergence of a nursing role for astrocytes*. **J Physiol Paris**. 2002 Apr-Jun;96(3-4):273-82
- 100 - Petit JM, Tobler I, Allaman I, Borbély AA, **Magistretti PJ**, *Sleep deprivation modulates brain mRNAs encoding genes of glycogen metabolism*. **Eur J Neurosci**. 2002 Sep;16(6):1163-7
- 99 - Kopp C, Petit JM, **Magistretti PJ**, Borbély AA, Tobler I, *Comparison of the effects of modafinil and sleep deprivation on sleep and cortical EEG spectra in mice*. **Neuropharmacology**. 2002 Jul;43(1):110-8
- 98 - Pralong E, **Magistretti PJ**, Stoop R, *Cellular perspectives on the glutamate-monoamine interactions in limbic lobe structures and their relevance for some psychiatric disorders*. **Prog Neurobiol**. 2002 Jun;67(3):173-202
- 97 - Brunet JF, Pellerin L, Arsenijevic Y, **Magistretti PJ**, Villemure JG, *A novel method for in vitro production of human glial-like cells from neurosurgical resection tissue*. **Lab Invest**. 2002 Jun;82(6):809-12
- 96 - Véga C, Pellerin L, Dantzer R, **Magistretti PJ**, *Long-term modulation of glucose utilization by IL-1 alpha and TNF- alpha in astrocytes: Na<sup>+</sup> PUMP activity as a potential target via distinct signaling mechanisms*. **Glia**. 2002 Jul;39(1):10-8
- 95 - Cholet N, Pellerin L, **Magistretti PJ**, Hamel E, *Similar perisynaptic glial localization for the Na<sup>+</sup>,K<sup>+</sup>-ATPase alpha 2 subunit and the glutamate transporters GLAST and GLT-1 in the rat somatosensory cortex*. **Cereb Cortex**. 2002 May;12(5):515-25
- 94 - Pierre K, **Magistretti PJ**, Pellerin L, *MCT2 is a major neuronal monocarboxylate transporter in the adult mouse brain*. **J Cereb Blood Flow Metab**. 2002 May;22(5):586-95
- 93 - Badaut J, Lasbennes F, **Magistretti PJ**, Regli L, *Aquaporins in brain: distribution, physiology and pathophysiology*. **J Cereb Blood Flow Metab**. 2002 Apr;22(4):367-78
- 92 - Grice DE, Halmi KA, Fichter MM, Strober M, Woodside DB, Treasure JT, Kaplan AS, **Magistretti PJ**, Goldman D, Bulik C.M, Kaye WH, Berrettini WH, *Evidence for a susceptibility gene for anorexia nervosa on chromosome 1*. **Am J Hum Genet**. 2002 Mar;70(3):787-92
- 91 - Chatton JY, Idle JR, Vågbø CB, **Magistretti PJ**, *Insights into the mechanisms of ifosfamide encephalopathy: drug metabolites have agonistic effects on AMPA/kainate receptors and induce cellular acidification in mouse cortical neurons*. **J Pharmacol Exp Ther**. 2001 Dec;299(3):1161-8
- 90 - Hirt L, Maréchal C, Ghika JA, **Magistretti PJ**, Bogousslavsky J, *Ocular mitochondrial myopathy evolving late in life into a disabling proximal myopathy associated with the mitochondrial DNA 3243 A to G mutation*. **J Neurol**. 2001 Apr;248(4):332-3
- 89 - Badaut J, Hirt L, Granziera C, Bogousslavsky J, **Magistretti PJ**, Regli L, *The astrocyte-specific expression of aquaporin 9 in mouse brain is increased following transient focal cerebral ischemia*. **J Cereb Blood Flow Metab**. 2001 May;21(5):477-82

- 88 - Cholet N, Pellerin L, Welker E, Lacombe P, Seylaz J, **Magistretti PJ**, Bonvento G, *Local injection of antisense oligonucleotides targeted to the glial glutamate transporter glast decreases the metabolic response to somatosensory activation.* **J Cereb Blood Flow Metab.** 2001 May; 21(4):404-12
- 87 - Zerarka S, Pellerin L, Slosman D, **Magistretti PJ**, *Astrocytes as a predominant cellular site of 99mTc-HMPAO retention.* **J Cereb Blood Flow Metab.** 2001 Apr;21(4):456-68
- 86 - Chatton JY, Shimamoto K, **Magistretti PJ**, *Effects of glial glutamate transporter inhibitors on intracellular na<sup>+</sup> in mouse astrocytes.* **Brain Res.** 2001 Mar 2;893(1-2):46-52
- 85 - Barakat-Walter I, Kraftsik R, Kuntzer T, Bogousslavsky J, **Magistretti PJ**, *Differential effect of thyroid hormone deficiency on the growth of calretinin-expressing neurons in rat spinal cord and dorsal root ganglia.* **J Comp Neurol.** 2000 Oct 30;426(4):519-33
- 84 - Chatton JY, Marquet P, **Magistretti PJ**, *A quantitative analysis of L-glutamate-regulated Na<sup>+</sup> dynamics in mouse cortical astrocytes: implications for cellular bioenergetics.* **Eur J Neurosci.** 2000 Nov;12(11):3843-53
- 83 - Pierre K, Pellerin L, Debernardi R, Riederer BM, **Magistretti PJ**, *Cell-specific localization of monocarboxylate transporters, MCT1 and MCT2 in the adult mouse brain revealed by double immunohistochemical labeling and confocal microscopy.* **Neuroscience.** 2000;100(3):617-27
- 82 - Allaman I, Pellerin L, **Magistretti PJ**, *Protein Targeting to Glycogen (PTG) mRNA expression is stimulated by noradrenaline in mouse cortical astrocytes.* **Glia.** 2000 Jun;30(4):382-91
- 81 - Laughton J, Charnay Y, Belloir L, Pellerin L, **Magistretti PJ**, Bouras C, *Differential mRNA distribution for lactate dehydrogenase LDH-1 and LDH-5 isoforms in the rat brain.* **Neuroscience.** 2000;96(3):619-25
- 80 - Fiumelli H, Kiraly M, Ambrus A, **Magistretti PJ**, Martin JL, *Opposite regulation of calbindin and calretinin expression by BDNF in cortical neurons.* **J Neurochem.** 2000 May;74(5):1870-7
- 79 - Cardinaux JR, Allaman I, **Magistretti PJ**, *Pro-inflammatory cytokines induce the transcription factors C/EBP beta and C/EBP delta in primary astrocytes.* **Glia.** 2000 Jan 1;29(1):91-7
- 78 - De Bernardi R, **Magistretti PJ**, Pellerin L, *Trans-inhibition of glutamate transport prevents excitatory amino acid-induced glycolysis in astrocytes.* **Brain Res.** 1999 Dec 11;850(1-2):39-46
- 77 - Bissonnette B, Pellerin L, Ravussin P, Daven VB, **Magistretti, PJ**, *Deep hypothermia and rewarming alters glutamate levels and glycogen content in cultured astrocytes.* **Anesthesiology.** 1999 Dec;91(6):1763-9
- 76 - Schluep M, Van Melle G, Henry H, Städler C, Roth-Wicky B, **Magistretti PJ**, *Assessing multiple sclerosis activity: is the in vitro production of tumor necrosis factor-alpha, interleukins 2,6,4 and 10, and immunoglobulin G of value?* **J Neurol.** 1999 Nov;246(11):1041-50
- 75 - Fiumelli H, Jabauidon D, **Magistretti PJ**, Martin JL, *BDNF stimulates expression, activity and release of tissue-type plasminogen activator in cortical neurons.* **Eur J Neurosci.** 1999 May;11(5):1639-46
- 74 - Schluep M, Van Melle G, Henry H, Städler C, Roth-Wicky B, **Magistretti PJ**, *In vitro cytokine profiles as indicators of relapse activity and clinical course in multiple sclerosis.* **Mult Scler.** 1998 Jun;4(3):198-202

- 73 - Pellerin L, Pellegrini G, Bittar PG, Bouras C, Martin JL, Stella N, **Magistretti PJ**, Evidence supporting the existence of an activity-dependent astrocyte-neuron lactate shuttle. **Dev Neurosci.** 1998;20(4-5):291-9
- 72 - Yu N, Zhang X, **Magistretti PJ**, Bloom FE, IL-1-alpha and TNF-alpha differentially regulate CD4 and Mac-1 expression in mouse microglia. **Neuroimmunomodulation.** 1998 Jan-Apr;5(1-2):42-52
- 71 - Pellerin L, Pellegrini G, Martin JL, **Magistretti PJ**, Expression of monocarboxylate transporter mRNAs in mouse brain: support for a distinct role of lactate as an energy substrate for the neonatal vs. adult brain. **Proc Natl Acad Sci U S A.** 1998 Mar 31;95(7):3990-5
- 70 - Ferry B, **Magistretti PJ**, Pralong E, High potency of the orally-active NMDA-receptor antagonist CGP 40 116 in inhibiting excitatory postsynaptic potentials of rat basolateral amygdala neurones in vitro. **Neuropharmacology.** 1997 Nov-Dec;36(11-12):1555-9
- 69 - Pellegrini G, **Magistretti PJ**, Martin JL, VIP and PACAP potentiate the action of glutamate on BDNF expression in mouse cortical neurons. **Eur J Neurosci.** 1998 Jan;10(1):272-80
- 68 - Bröer S, Rahman B, Pellegrini G, Pellerin L, Martin JL, Verleysdonk S, Hamprecht B, **Magistretti PJ**, Comparison of lactate transport in astroglial cells and monocarboxylate transporter 1 (MCT1) expressing *Xenopus laevis* oocytes. **J Biol Chem.** 1997 Nov 28;272(48):30096-102
- 67 - Cardinaux JR, **Magistretti PJ**, Martin JL, Brain-derived neurotrophic factor stimulates phosphorylation of stathmin in cortical neurons. **Brain Res Mol Brain Res.** 1997 Nov;51(1-2):220-8
- 66 - Pellerin L, **Magistretti PJ**, Glutamate uptake stimulates Na+/K+-ATPase activity in astrocytes via activation of a distinct subunit highly sensitive to ouabain. **J Neurochem.** 1997 Nov;69(5):2132-7
- 65 - Do KD, Benz B, Sorg O, Pellerin L, **Magistretti PJ**, beta-Adrenergic stimulation promotes homocysteic acid release from astrocyte cultures: evidence for a role of astrocytes in the modulation of synaptic transmission. **J Neurochem.** 1997 Jun;68(6):2386-94
- 64 - Ferry B, **Magistretti PJ**, Pralong E, Noradrenaline modulates glutamate-mediated neurotransmission in the rat basolateral amygdala in vitro. **Eur J Neurosci.** 1997 Jul;9(7):1356-64
- 63 - Robert A, **Magistretti PJ**, AMPA/kainate receptor activation blocks K+ currents via internal Na+ increase in mouse cultured stellate astrocytes. **Glia.** 1997 May;20(1):38-50
- 62 - Hirt L, Boulat O, Borruat FX, Bogousslavsky J, **Magistretti PJ**, Large deletion (7.2 kb) of mitochondrial DNA with novel boundaries in a case of progressive external ophthalmoplegia. **J Neurol Neurosurg Psychiatry.** 1996 Oct;61(4):422-3
- 61 - Pellerin L, **Magistretti PJ**, Excitatory amino acids stimulate aerobic glycolysis in astrocytes via an activation of the Na+/K+ ATPase. **Dev Neurosci.** 1996;18(5-6):336-42
- 60 - Bittar PG, Charnay Y, Pellerin L, Bouras C, **Magistretti PJ**, Selective distribution of lactate dehydrogenase isoenzymes in neurons and astrocytes of the human brain. **J Cereb Blood Flow Metab.** 1996 Nov;16(6):1079-89
- 59 - Stella N, **Magistretti PJ**, Vasoactive intestinal peptide (VIP) and pituitary adenylate cyclase-activating polypeptide (PACAP) potentiate the glutamate-evoked release of arachidonic acid from mouse cortical neurons. Evidence for a cAMP-independent mechanism. **J Biol Chem.** 1996 Sep 27;271(39):23705-10

- 58 - Pellegrini G, Rossier C, **Magistretti PJ**, Martin JL, *Cloning, localization and induction of mouse brain glycogen synthase*. **Brain Res Mol Brain Res.** 1996 Jun;38(2):191-9
- 57 - Cardinaux JR, **Magistretti PJ**, *Vasoactive intestinal peptide, pituitary adenylate cyclase-activating peptide, and noradrenaline induce the transcription factors CCAAT/enhancer binding protein (C/EBP)-beta and C/EBP delta in mouse cortical astrocytes: involvement in cAMP-regulated glycogen metabolism*. **J Neurosci.** 1996 Feb 1;16(3):919-29
- 56 - Pralong E, **Magistretti PJ**, *Noradrenaline increases K-conductance and reduces glutamatergic transmission in the mouse entorhinal cortex by activation of alpha 2-adrenoreceptors*. **Eur J Neurosci.** 1995 Dec 1;7(12): 2370-8
- 55 - Yu N, Maciejewski-Lenoir D, Bloom FE, **Magistretti PJ**, *Tumor necrosis factor-alpha and interleukin-1 alpha enhance glucose utilization by astrocytes: involvement of phospholipase A2*. **Mol Pharmacol.** 1995 Sep;48(3):550-8
- 54 - Canciglia P, Martin JL, Bolis CL, Randall D, **Magistretti PJ**, *Regional distribution of VIP immunoreactivity in the brain of salmon, trout and carp*. **Biol Signals.** 1995 Mar-Apr;4(2):86-93
- 53 - Sorg O, Pellerin L, Stoltz M, Beggah S, **Magistretti PJ**, *Adenosine triphosphate and arachidonic acid stimulate glycogenolysis in primary cultures of mouse cerebral cortical astrocytes*. **Neurosci Lett.** 1995 Mar 24;188(2):109-12
- 52 - Martin JL, Gasser D, **Magistretti PJ**, *Vasoactive intestinal peptide and pituitary adenylate cyclase-activating polypeptide potentiate c-fos expression induced by glutamate in cultured cortical neurons*. **J Neurochem.** 1995 Jul;65(1):1-9
- 51 - Stella N, Pellerin L, **Magistretti PJ**, *Modulation of the glutamate-evoked release of arachidonic acid from mouse cortical neurons: Involvement of a pH-sensitive membrane phospholipase A2*. **J Neurosci.** 1995 May;15(5 Pt 1):3307-17
- 50 - Pellerin L, **Magistretti PJ**, *Glutamate uptake into astrocytes stimulates aerobic glycolysis: A mechanism coupling neuronal activity to glucose utilization*. **Proc Natl Acad Sci U S A.** 1994 Oct 25;91(22):10625-9
- 49 - Pralong E, **Magistretti PJ**, *Noradrenaline reduces synaptic responses in normal and tottering mouse entorhinal cortex via alpha- 2 receptors*. **Neurosci Lett.** 1994 Sep 26;179(1-2):145-8
- 48 - **Magistretti PJ**, Sorg O, Yu N, Martin JL, Pellerin L, *Neurotransmitters regulate energy metabolism in astrocytes: implications for the metabolic trafficking between neural cells*. **Dev Neurosci.** 1993;15(3-5):306-12
- 47 - Yu N, Martin JL, Stella N, **Magistretti PJ**, *Arachidonic acid stimulates glucose uptake in cerebral cortical astrocytes*. **Proc Natl Acad Sci U S A.** 1993 May 1;90(9):4042-6
- 46 - Pellerin L, **Magistretti PJ**, *Enzymatic determination of glycogen in brain slices*. **Neuroscience Protocols** 93/020/01
- 45 - Sorg O, **Magistretti PJ**, *Vasoactive intestinal peptide and noradrenaline exert long-term control on glycogen levels in astrocytes: blockade by protein synthesis inhibition*. **J Neurosci.** 1992 Dec;12(12):4923-31

- 44 - Martin JL, Feinstein DL, Yu N, Sorg O, Rossier C, **Magistretti PJ**, VIP receptor subtypes in mouse cerebral cortex: evidence for a differential localization in astrocytes, microvessels and synaptosomal membranes. **Brain Res.** 1992 Jul 31;587(1):1-12
- 43 - Sorg O, **Magistretti PJ**, Characterization of the glycogenolysis elicited by vasoactive intestinal peptide, noradrenaline and adenosine in primary cultures of mouse cerebral cortical astrocytes. **Brain Res.** 1991 Nov 1;563(1-2):227-33
- 42 - Hof PR, Dietl MM, Charnay Y, Martin JL, Bouras C, Palacios JM, **Magistretti PJ**, Vasoactive intestinal peptide binding sites and fibers in the brain of the pigeon *Columba livia*: An autoradiographic and immunohistochemical study. **J Comp Neurol.** 1991 Mar 15;305(3):393-411
- 41 - Dietl MM, Hof PR, Martin JL, **Magistretti PJ**, Palacios JM, Autoradiographic analysis of the distribution of vasoactive intestinal peptide binding sites in the vertebrate central nervous system: a phylogenetic study. **Brain Res.** 1990 Jun 18;520(1-2):14-26
- 40 - Schaad NC, Schorderet M, **Magistretti PJ**, Modulation of VIP-stimulated cAMP formation by excitatory amino acids in mouse cerebral cortex. **Eur J Neurosci.** 1990;2(6):525-533
- 39 - Schaad NC, Schorderet M, **Magistretti PJ**, Accumulation of cyclic AMP elicited by vasoactive intestinal peptide is potentiated by noradrenaline, histamine, adenosine, baclofen, phorbol esters, and ouabain in mouse cerebral cortical slices: studies on the role of arachidonic acid metabolites and protein kinase C. **J Neurochem.** 1989 Dec;53(6):1941-51
- 38 - Martin JL, **Magistretti PJ**, Pharmacological studies of voltage-sensitive Ca<sup>2+</sup>-channels involved in the release of Vasoactive Intestinal Peptide evoked by K<sup>+</sup> in mouse cerebral cortical slices. **Neuroscience.** 1989;30(2): 423-31
- 37 - Martin JL, **Magistretti PJ**, Release of Vasoactive Intestinal Peptide in mouse cerebral cortex: Evidence for a role of arachidonic acid metabolites. **J Neurosci.** 1989 Jul;9(7):2536-42
- 36 - Schaad NC, **Magistretti PJ**, Schorderet M, Effects of ethanol on VIP- and/or noradrenaline-stimulated cAMP formation in mouse brain. **Alcohol.** 1988 Nov-Dec;5(6):445-9
- 35 - Hof PR, Celio MR, **Magistretti PJ**, Age-dependent supersensitivity to the glycogenolytic effect of K<sup>+</sup> in the cerebral cortex of the spontaneously epileptic quaking mouse mutant. **Brain Res Dev Brain Res.** 1989 Mar 1;46(1):107-13
- 34 - **Magistretti PJ**, Hof PR, Martin JL, Dietl M, Palacios JM, High and low affinity binding sites for Vasoactive Intestinal Peptide (VIP) in the rat kidney revealed by light microscopic autoradiography. **Regul Pept.** 1988 Nov;23(2):145-52
- 33 - Iselin CE, Martin JL, **Magistretti PJ**, Ferrero J, Stimulation by nicotine of enteric inhibitory nerves and release of vasoactive intestinal peptide in the taenia of the guinea pig caecum. **Eur J Pharmacol.** 1988 Mar 29;148(2):179-86
- 32 - Hof PR, Pascale E, **Magistretti PJ**, K<sup>+</sup> at concentrations reached in the extracellular space during neuronal activity promotes a Ca<sup>++</sup>-dependent glycogenolysis. **J Neurosci.** 1988 Jun;8(6):1922-8

- 31 - Martin JL, Dietl MM, Hof PR, Palacios JM, **Magistretti PJ**, Autoradiographic mapping of [mono (125I) iodo-Tyr10, MetO17]-vasoactive intestinal peptide binding sites in the rat brain. **Neuroscience**. 1987 Nov;23(2):539-65
- 30 - Bouras C, **Magistretti PJ**, Morrison JH, Constantinidis J, An immunohistochemical study of pro-somatostatin-derived peptides in the human brain. **Neuroscience**. 1987 Sep;22(3):781-800
- 29 - Schaad N, Schorderet M, **Magistretti PJ**, Synergism between VIP and noradrenaline in increasing cAMP in the cerebral cortex: role of prostaglandins. **Nature** 328, 637-640
- 28 - **Magistretti PJ**, Hof PR, Celio MR, Noradrenergic sub-sensitivity in the cerebral cortex of the tottering mouse, a spontaneously epileptic mutant. **Brain Res.** 1987 Feb 10;403(1):181-5
- 27 - Bouras C, **Magistretti PJ**, Morrison JH, An immunohistochemical study of six biologically active peptides in the human brain. **Hum Neurobiol.** 1986;5(4):213-26
- 26 - **Magistretti PJ**, Hof P, Martin JL, Adenosine stimulates glycogenolysis in mouse cerebral cortex: a possible coupling mechanism between neuronal activity and energy metabolism. **J Neurosci.** 1986 Sep;6(9):2558-62
- 25 - Ofori S, **Magistretti PJ**, Schorderet M, Investigation of dopamine content, synthesis and release in the rabbit retina in vitro. Part II: Effects of high potassium, adenylate cyclase activators and 3-PPP. **J Neurochem.** 1986 Oct;47(4):1207-13
- 24 - **Magistretti PJ**, Schönenberg P, Kehrer P, Martin JL, Gaillard RC, Actions of VIP, hGRF, PHI and secretin: Comparative studies in cerebral cortex and adenohypophysis. **Peptides.** 1986;7 Suppl 1:175-80
- 23 - Martin JL, Rose K, Hughes GH, **Magistretti PJ**, [mono [125I] iodo-Tyr10, MetO17]-Vasoactive Intestinal Polypeptide: Preparation, characterization and use for radioimmunoassay and receptor binding. **J Biol Chem.** 1986 Apr 25;261(12):5320-7
- 22 - **Magistretti PJ**, Schorderet M, Norepineprine and histamine increases in cAMP elicited by vasoactive Intestinal Polypeptide in mouse cerebral cortical slices: mediation by alpha 1-adrenergic and H1-histaminergic receptors. Norepinephrine and histamine potentiate the increases in cyclic adenosine 3':5'-monophosphate elicited by vasoactive intestinal polypeptide in mouse cerebral cortical slices: mediation by alpha 1-adrenergic and H1-histaminergic receptors. **J Neurosci.** 1985 Feb;5(2):362-8
- 21 - **Magistretti PJ**, Hof P, Schorderet M, The increase in cyclic-AMP levels elicited by Vasoactive Intestinal Peptide (VIP) in mouse cerebral cortical slices is potentiated by ergot alkaloids. **Neurochem Int.** 1984;6(6): 751-3
- 20 - Schorderet M, Hof P, **Magistretti PJ**, The effects of VIP on cyclic AMP and glycogen levels in vertebrate retina. **Peptides.** 1984 Mar-Apr;5(2):295-8
- 19 - **Magistretti PJ**, Morrison JH, Shoemaker WJ, Bloom FE, Morphological and functional correlates of VIP neurons in cerebral cortex. **Peptides.** 1984 Mar-Apr;5(2):213-8
- 18 - **Magistretti PJ**, Schorderet M, VIP and noradrenaline act synergistically to increase cyclic AMP in cerebral cortex. **Nature.** 1984 Mar 15-21;308(5956):280-2
- 17 - Morrison JH, **Magistretti PJ**, Benoît R, Bloom FE, The distribution and morphological characteristics of the intracortical VIP-positive cell: an immunohistochemical analysis. **Brain Res.** 1984 Feb 6;292(2):269-82

- 16 - **Magistretti PJ**, Manthorpe M, Bloom FE, Varon S, *Functional receptors for vasoactive intestinal peptide in cultured astroglia from neonatal rat brain*. **Regul Pept.** 1983 Apr;6(1):71-80
- 15 - Morrison JH, Benoît R, **Magistretti PJ**, Bloom FE, *Immunohistochemical distribution of prosomatostatin-related peptides in cerebral cortex*. **Brain Res.** 1983, 262, 344-351
- 14 - **Magistretti PJ**, Morrison JH, Shoemaker WJ, Bloom FE, *Effect of 6-hydroxydopamine lesions on norepinephrine-induced 3H-glycogen hydrolysis in mouse cortical slices*. **Brain Res.** 1983 Feb 14;261(1): 159-62
- 13 - Morrison JH, Benoît R, **Magistretti PJ**, Ling N, Bloom FE, *Immunohistochemical distribution of prosomatostatin-related peptides in hippocampus*. **Neurosci. Lett.** 1983, 34, 137-142
- 12 - Staunton DA, **Magistretti PJ**, Koob GF, Shoemaker WJ, Bloom FE, *Dopaminergic supersensitivity induced by denervation and chronic receptor blockade is additive*. **Nature.** 1982 Sep 2;299(5878):72-4
- 11 - Adler R, **Magistretti PJ**, Hyndman A, Shoemaker WJ, *Purification and cytochemical identification of neural and non-neural cells in mixed and purified chick embryo retina cultures*. **Develop. Neurosci.** 1982, 5, 27-39
- 10 - Staunton DA, **Magistretti PJ**, Shoemaker WJ, Deyo SN, Bloom FE, *Effects of chronic lithium treatment on dopamine receptors in the rat corpus striatum. II. No effect on denervation or neuroleptic induced supersensitivity*. **Brain Res.** 1982 Jan 28;232(2):401-12
- 9 - Staunton DA, **Magistretti PJ**, Shoemaker WJ, Bloom FE, *Effects of chronic lithium treatment on dopamine receptors in the rat corpus striatum. I. Locomotor activity and behavioral supersensitivity*. **Brain Res.** 1982 Jan 28;232(2):391-400
- 8 - Schorderet M, Sovilla JY, **Magistretti PJ**, *VIP- and glucagon-induced formation of c-AMP in intact retinae in vitro*. **Eur J Pharmacol.** 1981 Apr 24;71(1):131-3
- 7 - **Magistretti PJ**, Morrison JH, Shoemaker WJ, Sapin V, Bloom FE, *Vasoactive intestinal polypeptide induced glycogenolysis in mouse cortical slices: a possible regulatory mechanism for the local control of energy metabolism*. **Proc Natl Acad Sci U S A.** 1981 Oct;78(10):6535-9
- 6 - Forster A, **Magistretti PJ**, Schorderet M, *Effects of dobutamine on c-AMP accumulation induced by the stimulation of dopamine receptors in rabbit retina in vitro*. **Experientia.** 1980 Sep 15;36(9):1108-10
- 5 - Sovilla JY, **Magistretti PJ**, Schorderet M, *Potentiation of apomorphine-induced climbing behavior in mice by d-LSD*. **Prog Neuropsychopharmacol.** 1979;3(5-6):503-11
- 4 - Schorderet M, **Magistretti PJ**, *The isolated retina of mammals: a useful preparation for enzymatic (adenylcyclase) or binding studies of dopamine receptors*. **Neurochem. Int.** 1979, 1, 337-353
- 3 - **Magistretti PJ**, Schorderet M, *Dopamine receptors in bovine retina: characterization of 3H-spiroperidol binding and its use for screening dopamine receptor affinity of drugs*. **Life Sci.** 1979 Nov 5;25(19):1675-86

- 2 - Schorderet M, Mc Dermed J, **Magistretti PJ**, *Dopamine receptors in rabbit retina: a pharmacological and stereochemical analysis using semi-rigid analogs of dopamine (aminotetralins) and thioxanthenes isomers.* **J Physiol (Paris).** 1978;74(5):509-13
- 1 - **Magistretti PJ**, Schorderet M, *Differential effects of benzamides and thioxanthenes on dopamine-elicited accumulation of c-AMP in isolated rabbit retina.* **Naunyn Schmiedebergs Arch Pharmacol.** 1978 Jun;303(2):189-91

#### REFEREED REVIEW ARTICLES

- 51 - Tauffenberger A and Magistretti PJ. *Reactive Oxygen Species : Beyond Their Reactive Behavior.* **Neurochem Res** Jan;46(1):77-87. doi: 10.1007/s11064-020-03208-7.
- 50 - Tran The J, Magistretti P, Ansermet F. *The Epistemological Foundations of Freud's Energetics Model.* **Front Psychol.** 2018 Oct 11;9:1861. doi: 10.3389/fpsyg.2018.01861. eCollection 2018. Review
- 49 - Calì C, Tauffenberger A, Magistretti P. *The Strategic Location of Glycogen and Lactate: From Body Energy Reserve to Brain Plasticity.* **Front Cell Neurosci.** 2019 Mar 6;13:82. doi: 10.3389/fncel.2019.00082. eCollection 2019
- 48 - Lorusso L, Piccolino M, Motta S, Gasparello A, Barbara JG, Bossi-Régnier L, Shepherd GM, Swanson L, Magistretti P, Everitt B, Molnár Z, Brown R. *Neuroscience without borders: Preserving the history of neuroscience.* **Eur J Neurosci.** 2018 Aug 12. doi: 10.1111/ejn.14101. [Epub ahead of print] Review
- 47 - Hernandez-Benitez R, Martinez-Martinez ML, Lajara J, Magistretti P, Montserrat N, Izpisua Belmonte J.C. *At the Heart of Genome Editing and Cardiovascular Diseases.* **Circ Res.** 2018 Jul 6;123(2):221-223
- 46 - Magistretti PJ, Allaman I. *Lactate in the brain: from metabolic end-product to signalling molecule.* **Nat Rev Neurosci.** 2018 Apr;19(4):235-249. doi: 10.1038/nrn.2018.19
- 45 - Boury-Jamot B, Halfon O, Magistretti PJ, Boutrel B. *Lactate release from astrocytes to neurons contributes to cocaine memory formation.* **Bioessays.** 2016 Oct 4. doi: 10.1002/bies.201600118. [Epub ahead of print]
- 44 - Boutrel B, Magistretti PJ. *A Role for Lactate in the Consolidation of Drug-Related Associative Memories.* **Biol Psychiatry.** 2016 Jun 1;79(11):875-7. doi: 10.1016/j.biopsych.2016.04.010.
- 43 - Chatton JY, Magistretti PJ, Barros LF. *Sodium signaling and astrocyte energy metabolism.* **Glia.** 2016 Oct;64(10):1667-76. doi: 10.1002/glia.22971
- 42 - Magistretti, PJ and Allaman, A A cellular perspective on brain energy metabolism and functional imaging, **Neuron** 2015; 86(4):883-901
- 41 - Petit JM, Magistretti PJ, *Regulation of neuron-astrocyte metabolic coupling across the sleep-wake cycle.* **Neuroscience.** 2015 Dec 17. pii: S0306-4522(15)01090-8
- 40 - Elsayed M, Magistretti PJ, *A New Outlook on Mental Illnesses: Glial Involvement Beyond the Glue.* **Front Cell Neurosci.** 2015 Dec 16;9:468

- 39 - Marquet P, Depeursinge C, Magistretti PJ, *Review of quantitative phase-digital holographic microscopy: promising novel imaging technique to resolve neuronal network activity and identify cellular biomarkers of psychiatric disorders.* **Neurophotonics.** 2014 Oct;1(2):020901
- 38 - Allison DB, Bassaganya-Riera J, Burlingame B, Brown AW, le Coutre J, Dickson SL, van Eden W, Garssen J, Hontecillas R, Khoo CS, Knorr D, Kussmann M, Magistretti PJ, Mehta T, Meule A, Rychlik M, Vögele C, *Goals in Nutrition Science 2015-2020.* **Front Nutr.** 2015 Sep 8;2:26
- 37 - Finsterwald C, Magistretti PJ, Lengacher S, *Astrocytes: New Targets for the Treatment of Neurodegenerative Diseases.* **Curr Pharm Des.** 2015;21(25):3570-81
- 35 - Demetrius LA, Magistretti PJ, Pellerin L, *Alzheimer's disease: the amyloid hypothesis and the Inverse Warburg effect.* **Front Physiol.** 2015 Jan 14;5:522
- 34 - Petit JM, Burlet-Godinot S, Magistretti PJ, Allaman I, *Glycogen metabolism and the homeostatic regulation of sleep.* **Metab Brain Dis.** 2014 Nov 16. [Epub ahead of print]
- 33 - Marquet P, Depeursinge C, Magistretti PJ. *Exploring neural cell dynamics with digital holographic microscopy.* **Annu Rev Biomed Eng.** 2013;15:407-31
- 32 - Devor A, Bandettini PA, Boas DA, Bower JM, Buxton RB, Cohen LB, Dale AM, Einevoll GT, Fox PT, Franceschini MA, Friston KJ, Fujimoto JG, Geyer MA, Greenberg JH, Halgren E, Hämäläinen MS, Helmchen F, Hyman BT, Jasanoff A, Jernigan TL, Judd LL, Kim SG, Kleinfeld D, Kopell NJ, Kutas M, Kwong KK, Larkum ME, Lo EH, Magistretti PJ, Mandeville JB, Masliah E, Mitra PP, Mobley WC, Moskowitz MA, Nimmerjahn A, Reynolds JH, Rosen BR, Salzberg BM, Schaffer CB, Silva GA, So PT, Spitzer NC, Tootell RB, Van Essen DC, Vanduffel W, Vinogradov SA, Wald LL, Wang LV, Weber B, Yodh AG, *The challenge of connecting the dots in the B.R.A.I.N.* **Neuron.** 2013 Oct 16;80(2):270-4
- 31 - Martin JL, Magistretti PJ, Allaman I, *Regulation of neurotrophic factors and energy metabolism by antidepressants in astrocytes.* **Curr Drug Targets.** 2013 Oct;14(11):1308-21
- 30 - Pellerin L, Magistretti PJ, *Sweet sixteen for ANLS.* **J Cereb Blood Flow Metab.** 2012 ;32(7):1152-66
- 29 - Bélanger M, Allaman I, Magistretti PJ, *[Brain energy metabolism: focus on astrocyte-neuron metabolic cooperation.](#)* **Cell Metab.** 2011, 14(6):724-38
- 28 - Allaman I, Bélanger M, Magistretti PJ, *Astrocyte-neuron metabolic relationships: for better and for worst.* **Trends Neurosci.** 2011 Feb;34(2):76-87
- 27 - Arminjon M, Ansermet F, Magistretti PJ, *Emergence of the cerebral self, from Theodor Meynert to Antonio Damasio.* **Psychiatr. Sci. Hum. Neurosci.** (2011) 9:153-161
- 26 - Magistretti PJ, *Neuron-glia metabolic coupling and plasticity.* **Exp Physiol.** 2011 Apr;96(4):407-10
- 25 - Arminjon M, Ansermet F, Magistretti PJ, *The homeostatic psyche: Freudian theory and somatic markers.* **J Physiol Paris.** 2010 Nov;104(5):272-8

- 24 - Jolivet R, Allaman I, Pellerin L, Magistretti PJ, Weber B, *Comment on recent modelling studies of astrocyte-neuron metabolic interactions.* **J Cereb Blood Flow Metab.** 2010 Dec;30(12):1982-6
- 23 - Bélanger M, Magistretti PJ, *The role of astroglia in neuroprotection.* **Dialogues Clin Neurosci.** 2009;11(3):281-95
- 22 - Magistretti PJ, *Role of glutamate in neuron-glia metabolic coupling.* **Am J Clin Nutr.** 2009 Sep;90(3):875S-880S
- 21 - Pellerin L, Bouzier-Sore AK, Aubert A, Serres S, Merle M, Costalat R, Magistretti PJ, *Activity-dependent regulation of energy metabolism by astrocytes: An update.* **Glia.** 2007 Sep;55(12):1251-62
- 20 - Magistretti PJ, *Neuron-glia metabolic coupling and plasticity.* **J Exp Biol.** 2006 Jun;209(Pt 12):2304-11
- 19 - Illes J, Blakemore C, Hanson MG, Hensch TK, Leshner A, Maestre G, Magistretti PJ, Quirion R, Strata P, *International perspective in engaging the public in neuroethics.* **Nat Rev Neurosci.** 2005 Dec;6(12):977-82
- 18 - Pellerin L, Magistretti PJ, *Empiricism and rationalism: two paths toward the same goal.* **J Cereb Blood Flow Metab.** 2004 Nov;24(11):1240-1
- 17 - Pellerin L, Magistretti PJ, *Neuroenergetics: calling upon astrocytes to satisfy hungry neurons.* **Neuroscientist.** 2004 Feb;10(1):53-62
- 16 - Pellerin L, Magistretti PJ, *Food for thought: challenging the dogmas.* **J Cereb Blood Flow Metab.** 2003 Nov;23(11):1282-6
- 15 - Slosman DO, Ludwig C, Zerarka S, Pellerin L, Chicherio C, De Ribaupierre A, Annoni JM, Bouras C, Herrmann F, Michel JP, Giacobini E, Magistretti PJ, *Brain energy metabolism in Alzheimer's disease:  $^{99m}\text{Tc-HMPAO}$  SPECT imaging during verbal fluency and role of astrocytes in the cellular mechanism of  $^{99m}\text{Tc-HMPAO}$  retention.* **Brain Res Brain Res Rev.** 2001 Oct;36(2-3):230-40
- 14 - Magistretti PJ, *Cellular bases of functional brain imaging: insights from neuron-glia metabolic coupling.* **Brain Res.** 2000 Dec 15;886(1-2):108-112
- 13 - Magistretti PJ, Pellerin L, *The astrocyte-mediated coupling between synaptic activity and energy metabolism operates through volume transmission.* **Prog Brain Res.** 2000;125:229-40
- 12 - Magistretti PJ, Pellerin L, *Cellular mechanisms of brain energy metabolism and their relevance to functional brain imaging.* **Philos Trans R Soc Lond B Biol Sci.** 1999 Jul 29;354(1387):1155-63
- 11 - Magistretti PJ, Pellerin L, Rothman DL, Shulman RG, *Energy on demand.* **Science** 22 January 1999: Vol. 283 no. 5401 pp. 496-497
- 10 - Magistretti PJ, Pellerin L, *Mécanismes cellulaires du métabolisme énergétique cérébral: implications pour l'imagerie fonctionnelle.* **MS. Médecine sciences, vol. 15, num. 4, p. 451-456, 1999**
- 9 - Magistretti PJ, Pellerin L, *The cellular bases of functional brain imaging: Evidence for astrocyte-neuron metabolic coupling.* **Neuroscientist November 1997 vol. 3 no. 6 361-365**
- 8 - Pellerin L, Stolz M, Sorg O, Martin JL, Deschépfer CF, Magistretti PJ, *Regulation of energy metabolism by neurotransmitters in astrocytes in primary culture and in an immortalized cell line.* **Glia.** 1997 Sep;21(1):

**74-83**

- 7 - Magistretti PJ, Pellerin L, *The contribution of astrocytes to the 18F-2-deoxyglucose signal in PET activation studies.* **Mol Psychiatry.** 1996 Dec;1(6):445-52
- 6 - Magistretti PJ, Pellerin L, *Cellular bases of brain energy metabolism and their relevance to functional brain imaging: Evidence for a prominent role of astrocytes.* **Cereb Cortex.** 1996 Jan-Feb;6(1):50-61
- 5 - Tsacopoulos M, Magistretti PJ, *Metabolic coupling between glia and neurons.* **J Neurosci.** 1996 Feb 1;16(3):877-85
- 4 - Magistretti PJ, *VIP neurons in the cerebral cortex.* **Trends in Pharmacological Sciences, Volume 11, Issue 6, June 1990, Pages 250-254**
- 3 - Magistretti PJ, Morrison JH, *Noradrenaline- and vasoactive intestinal peptide-containing neuronal systems in neocortex: functional convergence with contrasting morphology.* **Neuroscience.** 1988 Feb;24(2):367-78
- 2 - Magistretti PJ, Morrison JH, *VIP neurons in the neocortex.* **Trends in Neurosciences, Volume 8, 1985, Pages 7-8**
- 1 - Morrison JH, Magistretti PJ, *Monoamines and peptides in cerebral cortex.* **Trends in Neurosciences, Volume 6, 1983, Pages 146-151**

**COMMENTARIES**

- 8 - Magistretti PJ [How lactate links cannabis to social behaviour.](#) **Nature.** 2020 Jul; 583(7817):526-527 doi: 10.1038/d41586-020-01975-5
- 7 - Li M, Borrelli E, Magistretti PJ, Izpisua Belmonte JC, Sassone-Corsi P, Orlando V. Gathering by the Red Sea highlights links between environment and epigenetics. **Nat Struct Mol Biol.** 2017 Jun 6;24(6):491-493. doi: 10.1038/nsmb.3422. No abstract available.
- 6 - Magistretti PJ. *Imaging brain aerobic glycolysis as a marker of synaptic plasticity.* **Proc Natl Acad Sci U S A.** 2016 Jun 28;113(26):7015-6. doi: 10.1073/pnas.1607423113
- 5 - Magistretti PJ. *Synaptic plasticity and the Warburg effect.* **Cell Metab.** 2014 Jan 7;19(1):4-5
- 4 - Magistretti PJ, *Low-cost travel in neurons.* **Science.** 2009 Sep 11;325(5946):1349-51
- 3 - Magistretti PJ, Allaman I, *Glycogen: a Trojan horse for neurons.* **Nat Neurosci.** 2007 Nov;10(11):1341-2
- 2 - Pellerin L, Magistretti PJ, *Let there be (NADH) light.* **Science.** 2004 Jul 2;305(5680):50-2

- 1 - Pellerin L, Magistretti PJ, *How to balance the brain energy budget while spending glucose differently?* **J Physiol.** 2003 Jan 15;546(Pt 2):325

#### CHAPTERS IN TEXTBOOKS

- 13 - Alberini, C.M., Ansermet, F., and Magistretti, P. (2013). Memory Reconsolidation, Trace Reassociation and the Freudian Unconscious. (Amsterdam: Elsevier), pp. 293–312.
- 12 - Magistretti PJ, (2008) *Brain Energy Metabolism*. In: **Fundamental Neuroscience, 3rd Edition**. Squire L, Berg D, Bloom FE, Du Lac S, Ghosh A, Spitzer N, **Academic Press**, 271-293
- 11 - Magistretti PJ (2004) *Brain Energy Metabolism*. In: **From Molecules to Networks**. Byrne JH, Roberts JL, **Elsevier Academic Press**, 67-90
- 10 - Magistretti PJ, Ranson B (2002) *Astrocytes*. In: **Psychopharmacology, the 5th Generation of Progress**. Davis KL, Charney D, Coyle JT, Nemeroff C, eds, **Lippincott Williams & Wilkins**, 135-145
- 9 - Magistretti PJ, Pellerin L, Bonvento G (2002) *Neurotransmitters: metabolic and vascular effects*. In: **Cerebral Blood Flow and Metabolism**. Edvinsson L, Krause DN, **Lippincott Williams & Wilkins**, 162-171
- 8 - Magistretti PJ, Pellerin L (1999) *Regulation of cerebral energy metabolism*. In: **Medical Radiology - Diagnostic Imaging and Radiation Oncology. Volume Functional MRI**. Moonen C, Bandettini PA, **Springer-Verlag**, 25-34
- 7 - Magistretti PJ (1999) *Brain Energy Metabolism* In **Fundamental Neuroscience**. Zigmond M, Bloom FE, Landis S, Roberts J, Squire L, **Academic Press**, 389 - 413
- 6 - Magistretti PJ (1997) *Coupling of Cerebral Blood Flow and Metabolism*. In: **Primer on Cerebrovascular Diseases**. Welch KMA, Caplan L, Reis DJ, Siesjö B, Weir B, **Academic Press**, 70 - 75
- 5 - Magistretti PJ, Pellerin L, Martin JL (1995) *Brain Energy Metabolism: An Integrated Cellular Perspective*. In: **Psychopharmacology: The Fourth Generation of Progress**. Bloom FE, Kupfer DJ, **Raven Press**, 657 - 670
- 4 - Schorderet M, Magistretti PJ (1992) *Anti-parkinsoniens et médicaments de divers troubles moteurs*. In : **Pharmacologie : des concepts fondamentaux aux applications thérapeutiques**. Schorderet M, **Frison-Roche et Slatkine**, pp. 389 - 401
- 3 - Magistretti PJ (1992) *Opianalgésiques et peptides endogènes*. In : **Pharmacologie: des concepts fondamentaux aux applications thérapeutiques**. Schorderet M, **Frison-Roche et Slatkine**, pp. 321-336
- 2 - Schorderet M, Magistretti PJ (1988) *Anti-parkinsoniens et médicaments de divers troubles moteurs*. In : **Pharmacologie : des concepts fondamentaux aux applications thérapeutiques**. Schorderet M, **Frison-Roche et Slatkine** pp. 385-397
- 1 - Magistretti PJ (1988) *Opianalgésiques et peptides endogènes*. In: **Pharmacologie: des concepts fondamentaux aux applications thérapeutiques**. Schorderet M, **Frison-Roche et Slatkine** pp. 321-336

BOOK CHAPTERS

- 11 - Magistretti P, Chatton JY, Pellerin L (2002) *The role of astrocytes in coupling synaptic activity to glucose utilization.* In : **The Tripartite Synapse Glia in Synaptic Transmission.** Volterra A, Magistretti PJ, Haydon P.G, Oxford University Press, 75-83
- 10 - Magistretti PJ, Joray S, Pellerin L (2001) *Brain energy metabolism: cellular aspects and relevance to functional brain imaging.* In: **Functional Neurobiology of Aging.** Hof PR, Mobbs CV, Academic Press, San Diego, 203 – 209
- 9 - Magistretti PJ, Journot L, Bockaert J, Martin JL (2000) *Brain PACAP/VIP receptors: regional distribution, functional properties and physiological relevance.* In: **Handbook of Chemical Neuroanatomy, Vol. 13, Neuropeptide Receptors.** Hökfelt T, Björklund A, Quirion, R, Elsevier. 45 – 77
- 8 - Magistretti PJ, Pellerin L, Bittar PG (1997) *Role of neuron-glia interactions in coupling neuronal activity to energy metabolism: Implications for functional brain imaging.* In: **Neurochemistry,** Teelken A, Korf J, Plenum Press, 555 - 560
- 7 - Slosman DO, Magistretti PJ (1997) *Biological basis of cerebral perfusion SPECT.* In : **SPECT in Neurology and Psychiatry.** De Deyn RA, Dierckx RA, Pickut BA, John Libbey & Company, 513 - 519
- 6 - Magistretti PJ, Pellerin L (1997) *Cellular bases of functional brain imagin,* In: **Localization to astrocytes of the 2-deoxyglucose signal in PET activation studies. Advances in Experimental Medicine and Biology,** 413: 161 - 163
- 5 - Magistretti PJ (1994) *Vasoactive Intestinal peptide and Noradrenaline regulate energy metabolism in astrocytes: A physiological function for the control of local homeostasis within the CNS.* In: **Progress in Brain Research.** Bloom FE, Elsevier 100 : 87 - 93
- 4 - Magistretti PJ, Sorg O, Martin JL (1993) *Regulation of glycogen metabolism in astrocytes: Physiological, pharmacological and pathological aspects.* In: **Pharmacology of Astrocytes.** Murphy S, Academic Press, 243- 265
- 3 - Magistretti PJ, Martin JL, Hof PR, Palacios JM (1992) *Vasoactive intestinal peptide (VIP) receptors.* In: **Handbook of Chemical Neuroanatomy, vol. 11.** Hökfelt T, Björklund A, Kuhar M, Elsevier, 347-395
- 2 - Magistretti PJ (1987) *Biochemical approaches to the study of peptide actions.* In: **Neuromethods.** Boulton AA, Baker GB, Pittman QJ, Humana Press, pp. 245-297
- 1 - Schorderet M, Magistretti PJ (1983) *Comparative aspects of the adenylyl cyclase system in retina.* In : **Progress in Non-Mammalian Brain Research, vol. II.** Bolis L, Nistico G, CRC Press, pp. 185-211

OTHER REVIEW ARTICLES

- 13 - Ghika-Schmid F, Ansermet F, Magistretti PJ (2001) *Stress et mémoire.* Ann. Méd. Psychol. 159, 632-638

- 12 - Badaut J, Hirt L, Regli L, Villemure JG, Bogousslavsky J, Magistretti PJ (2000) *Régénération cellulaire neuronale post-ischémique: potentiel thérapeutique.* **Med. Hyg.** **2318**, 2032-2037
- 11 - Magistretti PJ, Pellerin L (1999) *The role of astrocytes in coupling synaptic activity to glucose utilization in the brain.* **NIPS**, **14**, 177 – 182
- 10 - Martin JL, Magistretti PJ (1998) *Regulation of gene expression by neurotransmitters in the central nervous system.* **Eur. Neurol.** **39**, 129-134
- 9 - Magistretti PJ, Pellerin L (1997) *Metabolic coupling during activation. A cellular view.* **Exp. Med. Biol.** **413**, 161-166
- 8 - Schaad PJ, Magistretti PJ, Schorderet M (1991) *Prostanoids and their role in cell-interactions in the central nervous system.* **Neurochem. Int.** **Vol 18, Issue 3, 1991**, 303-322
- 7 - Magistretti PJ (1990) *A la recherche du langage des neurotransmetteurs.* **Med. Hyg.** **1844**, 1778-1789
- 6 - Magistretti PJ (1988) *Regulation of glycogenolysis by neurotransmitters in the Central Nervous System.* **Diabète Metab** **14**, 237-246
- 5 - Magistretti PJ (1987) *Les neuropeptides, ou les rencontres du 3ème type dans le cerveau.* **Cahiers de la Faculté de Médecine, No 15, 49-72, Université de Genève**
- 4 - Magistretti PJ (1987) *Peptides et système nerveux central.* **Med. Hyg.** **45**, 1250-1257
- 3 - Magistretti PJ (1986) *Intercellular communication mediated by VIP in the cerebral cortex.* **Peptides, Vol 7, Suppl 1, 1986**, 169-173
- 2 - Pentreath VW, Seal LN, Morrison JN, Magistretti PJ (1986) *Transmitter mediated regulation of energy metabolism in nervous tissue at the cellular level.* **Neurochemistry International**, **Vol 9, Issue 1, 1986**, 1-10
- 1 - Magistretti PJ (1986) *Régulation du métabolisme énergétique dans le cortex cérébral par les neurones à VIP (Vasoactive Intestinal Peptide): un exemple de neurotransmission peptidergique.* **Neurochirurgie** **32**, 324-331

#### ARTICLES IN PROCEEDINGS OF SYMPOSIA

- 22 - Magistretti PJ, Cardinaux JR, Martin JL (1998) *VIP and PACAP in the CNS: regulators of glial energy metabolism and modulators of glutamatergic signaling.* **Ann. N.Y. Acad. Sci.** **865**, 213-225
- 21 - Slosman DO, Magistretti PJ (1996) *Cerebral SPECT imaging: advances in radiopharmaceuticals and quantitative analysis.* In **Alzheimer Disease: From molecular biology to therapy.** Becker R, Giacobini E, Robert P, Birkhäuser, **Boston**, 445 – 450
- 20 - Magistretti PJ, Bittar P, Pellerin L (1996) *Role of neuron-glia interactions in brain energy metabolism: implications for neurodegenerative disorders.* In **Alzheimer Disease: From molecular biology to therapy.** Becker R, Giacobini E, Robert P, Birkhäuser, **Boston**, 113 – 119
- 19 - Magistretti PJ, Pellerin L (1996) *Cellular mechanisms of brain energy metabolism: Relevance to functional brain imaging and to neurodegenerative disorders.* **Ann. N.Y. Acad. Sci., Vol 777**, 380 - 387

- 18 - Magistretti PJ, Sorg O, Yu N, Pellerin L, De Rham S, Martin JL (1994) *Regulation of astrocyte energy metabolism by neurotransmitters*. **Renal Physiol. and Biochem.**, **17**: 168 - 171
- 17 - Magistretti PJ, Sorg O, Yu N, Martin JL (1994) *VIP neurons in the cerebral cortex: Promiscuous cells with homeostatic functions*. In: **VIP, PACAP and related peptides**. Rosselin et al. **World Scientific**, 239 - 252
- 16 - Magistretti PJ (1991) *Preface*, **Epilepsy Res.** **10**, 1-2
- 15 - Magistretti PJ (1991) *Actions of neurotransmitters on non-neuronal cells as evidence for the existence of intrinsic neuronal circuits controlling local energy metabolism and cellular homeostasis within the central nervous system*. **Alfred Benzon Symposium 31**, Ingvar, DH. et al. (eds), **Munksgaard, Copenhagen**, pp. 94-107
- 14 - Magistretti PJ (1991) *Les bases biologiques de la pensée : le langage des neurotransmetteurs*. **Dolentium Hominum** **16**, 37-41 (Cité du Vatican)
- 13 - Magistretti PJ, Martin JL, Hof PR (1990) *Modulation of energy metabolism by Vasoactive Intestinal Peptide, adenosine and K<sup>+</sup> in the cerebral cortex: focus on the cellular level*. In: **Neuropsychopharmacology, Proceedings of the 16th CINP Congress**. Bunney WE, Hippius H, Laakmann G, Schmauss M, pp. 474-487
- 12 - Martin JL, Magistretti PJ (1990) *Release of vasoactive intestinal peptide (VIP) in mouse neocortex: Ca<sup>2+</sup>-channels subtypes and involvement of arachidonic acid metabolites*. In: **Control of membrane function**. Ritchie JM, Magistretti PJ, Bolis CL, **Prog. Cell Res.** **1**, Elsevier, pp. 49-60
- 11 - Magistretti PJ, Hof PR (1989) *Abnormal regulation of glycogen metabolism by neurotransmitters and potassium in the neocortex of the spontaneously epileptic mouse mutants quaking and tottering*. In: **Reflex seizures and reflex epilepsies**. Beaumanoir A, Gastaut H, Naquet R, **Médecine et Hygiène, Genève**, pp. 25-30
- 10 - Magistretti PJ, Hof PR, Martin JL, Stoyanov T (1989) *Neurotransmitters and their involvement in the regulation of energy metabolism in the nervous system*. In: **Peripheral Neuropathies 1988, what is significantly new?** Assal, JPh, Liniger C, **Fidia Res. Series**, **21**, Liviana Press, Padova, pp. 29-44
- 9 - Magistretti PJ, Dietl MM, Hof PR, Martin JL, Palacios JM, Schaad N, Schorderet M (1988) *VIP as a mediator of intercellular communication in the cerebral cortex: release, receptor, actions and interactions with norepinephrine*. **Ann. N.Y. Acad. Sci.** **527**, 110-129
- 8 - Magistretti PJ, Schorderet M, Hof PR, Schaad N (1987) *Interactions between VIP and norepinephrine, ergot alkaloids and prostanoids in mouse cerebral cortex*. In: **Receptor-Receptor Interactions**. Fuxe K, Agnati L, **Wenner Gren Symposium Series, Mac Millan**, pp. 272-283
- 7 - Magistretti PJ (1986) *VIP-containing neurons in the cerebral cortex: Cellular actions and interactions with the noradrenergic system*. In: **Neurology and Neurobiology, Volume 20, Ion Channels in Neural Membranes**. Ritchie JM, Bolis CL, Keynes RD, **Alan R Liss, Inc.**, pp. 323-331
- 6 - Magistretti PJ (1985) *Metabolic actions of Vasoactive Intestinal Polypeptide and monoamines in the cerebral cortex*. In: **Discussions in Neuroscience, vol. II**. Feindel W, Frackowiak RSJ, Gadian D, Magistretti PJ, Zalutsky MR, **Brain metabolism and imaging : a report of the 1984 FESN Study Group on 'Brain metabolism and Imaging'**, p. 37-39

- 5 - Schorderet M, Magistretti PJ (1984) *Neuropeptides in retina: morphological and biochemical aspects*. In: **Comparative Physiology of Sensory Mechanisms**. Bolis L, Keynes RD, Maddrel S, **Cambridge Press**, pp. 421-439
- 4 - Bloom FE, Baetge G, Deyo S, Ettenberg A, Koda L, Magistretti PJ, Shoemaker WJ, Staunton DA (1983) *Chemical and physiological aspects of the actions of lithium and antidepressant drugs*. **Neuropharmacol.** **22**, 359-365
- 3 - Siggins GR, McGinty JF, Morrison JH, Pittman QJ, Zieglsberger W, Magistretti PJ, Gruol DL (1982) *The role of neuropeptides in the hippocampal formation*. **Adv. Biochem. Psychopharmacol.** **33**, 413-422
- 2 - Bloom FE, Magistretti PJ, Shoemaker WJ, Siggins GR, Staunton DA (1980) *Pharmacological bases of psychoneuroendocrinology: preclinical assessment of clinical facts*. In: **Progress in Psychoneuroendocrinology**. Brambilla F, Racagni G, De Wied D, **Elsevier/North Holland**, pp. 127-134
- 1 - Magistretti PJ, Schorderet M (1980) *Attempts to develop super- or sub-sensitivity of retinal dopamine receptors after various treatments with antagonists or agonists*. **Adv. Bio Biochem. Psychopharmacol.** **24**, 181-184A