

Publications Dr S. Mouillet-Richard

The cellular prion protein controls the mesenchymal-like molecular subtype and predicts disease outcome in colorectal cancer. Le Corre D, Ghazi A, Balogoun R, Pilati C, Aparicio T, Martin-Lannerée S, Marisa L, Djouadi F, Poindessous V, Crozet C, Emile JF, Mulot C, Le Malicot K, Boige V, Blons H, de Reynies A, Taieb J, Ghiringhelli F, Bennouna J, Launay JM, Laurent-Puig P, Mouillet-Richard S. EBioMedicine. 2019 Aug;46:94-104. doi: 10.1016/j.ebiom.2019.07.036. Epub 2019 Jul 31.

A new AMPK activator, GSK773, corrects fatty acid oxidation and differentiation defect in CPT2-deficient myotubes. Boufroura FZ, Le Bachelier C, Tomkiewicz-Raulet C, Schlemmer D, Benoist JF, Grondin P, Lamotte Y, Mirguet O, Mouillet-Richard S, Bastin J, Djouadi F. Hum Mol Genet. 2018 Oct 1;27(19):3417-3433. doi: 10.1093/hmg/ddy254.

Epigenetic Control of the Notch and Eph Signaling Pathways by the Prion Protein: Implications for Prion Diseases. Hirsch TZ, Martin-Lannerée S, Reine F, Hernandez-Rapp J, Herzog L, Dron M, Privat N, Passet B, Halliez S, Villa-Diaz A, Lacroux C, Klein V, Haïk S, Andréoletti O, Torres JM, Vilotte JL, Béringue V, Mouillet-Richard S. Mol Neurobiol. 2019 Mar;56(3):2159-2173. doi: 10.1007/s12035-018-1193-7. Epub 2018 Jul 11.

Functions of the Prion Protein. Hirsch TZ, Martin-Lannerée S, Mouillet-Richard S. Prog Mol Biol Transl Sci. 2017;150:1-34. doi: 10.1016/bs.pmbts.2017.06.001. Epub 2017 Jul 23. Review.

The Cellular Prion Protein Controls Notch Signaling in Neural Stem/Progenitor Cells. Martin-Lannerée S, Halliez S, Hirsch TZ, Hernandez-Rapp J, Passet B, Tomkiewicz C, Villa-Diaz A, Torres JM, Launay JM, Béringue V, Vilotte JL, Mouillet-Richard S. Stem Cells. 2017 Mar;35(3):754-765. doi: 10.1002/stem.2501. Epub 2016 Oct 3.

Prion protein localizes at the ciliary base during neural and cardiovascular development, and its depletion affects -tubulin post-translational modifications. Halliez S, Martin-Lannerée S, Passet B, Hernandez-Rapp J, Castille J, Urien C, Chat S, Laude H, Vilotte JL, Mouillet-Richard S, Béringue V. Sci Rep. 2015 Dec 18;5:17146. doi: 10.1038/srep17146.

The Cellular Prion Protein: A Player in Immunological Quiescence. Bakkebo MK, Mouillet-Richard S, Espenes A, Goldmann W, Tatzelt J, Tranulis MA. Front Immunol. 2015 Sep 2;6:450. doi: 10.3389/fimmu.2015.00450. eCollection 2015. Review.

Promiscuous functions of the prion protein family. Mouillet-Richard S, Vilotte JL. Front Cell Dev Biol. 2015 Feb 10;3:7. doi: 10.3389/fcell.2015.00007. eCollection 2015. No abstract available.

To develop with or without the prion protein. Halliez S, Passet B, Martin-Lannerée S, Hernandez-Rapp J, Laude H, Mouillet-Richard S, Vilotte JL, Béringue V. Front Cell Dev Biol. 2014 Oct 13;2:58. doi: 10.3389/fcell.2014.00058. eCollection 2014. Review.

PrP(C) from stem cells to cancer. Martin-Lannerée S, Hirsch TZ, Hernandez-Rapp J, Halliez S, Vilotte JL, Launay JM, Mouillet-Richard S. Front Cell Dev Biol. 2014 Sep 29;2:55. doi: 10.3389/fcell.2014.00055. eCollection 2014. Review.

The prion protein family: a view from the placenta. Makzhami S, Passet B, Halliez S, Castille J, Moazami-Goudarzi K, Duchesne A, Vilotte M, Laude H, Mouillet-Richard S, Béringue V, Vaiman D, Vilotte JL. Front Cell Dev Biol. 2014 Aug 8;2:35. doi: 10.3389/fcell.2014.00035. eCollection 2014. Review.

PrP(C) signalling in neurons: from basics to clinical challenges. Hirsch TZ, Hernandez-Rapp J, Martin-Lannerée S, Launay JM,

Mouillet-Richard S. *Biochimie*. 2014 Sep;104:2-11. doi: 10.1016/j.biochi.2014.06.009. Epub 2014 Jun 18. Review.

A PrP(C)-caveolin-Lyn complex negatively controls neuronal GSK3 and serotonin 1B receptor. Hernandez-Rapp J, Martin-Lannerée S, Hirsch TZ, Pradines E, Alleaume-Butaux A, Schneider B, Baudry A, Launay JM, Mouillet-Richard S. *Sci Rep*. 2014 May 8;4:4881. doi: 10.1038/srep04881.

Hijacking PrP(c)-dependent signal transduction: when prions impair A clearance. Hernandez-Rapp J, Martin-Lannerée S, Hirsch TZ, Launay JM, Mouillet-Richard S. *Front Aging Neurosci*. 2014 Feb 28;6:25. doi: 10.3389/fnagi.2014.00025. eCollection 2014. Review.

PDK1 decreases TACE-mediated -secretase activity and promotes disease progression in prion and Alzheimer's diseases. Pietri M, Dakowski C, Hannaoui S, Alleaume-Butaux A, Hernandez-Rapp J, Ragagnin A, Mouillet-Richard S, Haik S, Bailly Y, Peyrin JM, Launay JM, Kellermann O, Schneider B. *Nat Med*. 2013 Sep;19(9):1124-31. doi: 10.1038/nm.3302. Epub 2013 Aug 18.

MicroRNAs and depression. Mouillet-Richard S, Baudry A, Launay JM, Kellermann O. *Neurobiol Dis*. 2012 May;46(2):272-8. doi: 10.1016/j.nbd.2011.12.035. Epub 2011 Dec 28. Review.

Neuritogenesis: the prion protein controls 1 integrin signaling activity. Loubet D, Dakowski C, Pietri M, Pradines E, Bernard S, Callebert J, Ardila-Orsorio H, Mouillet-Richard S, Launay JM, Kellermann O, Schneider B. *FASEB J*. 2012 Feb;26(2):678-90. doi: 10.1096/fj.11-185579. Epub 2011 Oct 28.

New views on antidepressant action. Baudry A, Mouillet-Richard S, Launay JM, Kellermann O. *Curr Opin Neurobiol*. 2011 Dec;21(6):858-65. doi: 10.1016/j.conb.2011.03.005. Epub 2011 Apr 27. Review.

[miR-16 - a key for adaptive responses of neurons to fluoxetine]. Baudry A, Mouillet-Richard S, Schneider B, Launay JM, Kellermann O. *Med Sci (Paris)*. 2011 Feb;27(2):128-31. doi: 10.1051/medsci/2011272128. Epub 2011 Mar 8. French.

Understanding the neurospecificity of Prion protein signaling. Schneider B, Pietri M, Pradines E, Loubet D, Launay JM, Kellermann O, Mouillet-Richard S. *Front Biosci (Landmark Ed)*. 2011 Jan 1;16:169-86. Review.

miR-16 targets the serotonin transporter: a new facet for adaptive responses to antidepressants. Baudry A, Mouillet-Richard S, Schneider B, Launay JM, Kellermann O. *Science*. 2010 Sep 17;329(5998):1537-41. doi: 10.1126/science.1193692.

Serotonergic 5-HT(2B) receptor controls tissue-nonspecific alkaline phosphatase activity in osteoblasts via eicosanoids and phosphatidylinositol-specific phospholipase C. Baudry A, Bitard J, Mouillet-Richard S, Locker M, Poliard A, Launay JM, Kellermann O. *J Biol Chem*. 2010 Aug 20;285(34):26066-73. doi: 10.1074/jbc.M109.073791. Epub 2010 Jun 23.

The cellular prion protein interacts with the tissue non-specific alkaline phosphatase in membrane microdomains of bioaminergic neuronal cells. Ermonval M, Baudry A, Baychelier F, Pradines E, Pietri M, Oda K, Schneider B, Mouillet-Richard S, Launay JM, Kellermann O. *PLoS One*. 2009 Aug 4;4(8):e6497. doi: 10.1371/journal.pone.0006497.

Cellular prion protein coupling to TACE-dependent TNF-alpha shedding controls neurotransmitter catabolism in neuronal cells. Pradines E, Loubet D, Mouillet-Richard S, Manivet P, Launay JM, Kellermann O, Schneider B. *J Neurochem*. 2009 Aug;110(3):912-23. doi: 10.1111/j.1471-4159.2009.06176.x. Epub 2009 May 18.

CREB-dependent gene regulation by prion protein: impact on MMP-9 and beta-dystroglycan. Pradines E, Loubet D, Schneider B, Launay JM, Kellermann O, Mouillet-Richard S. *Cell Signal*. 2008 Nov;20(11):2050-8. doi: 10.1016/j.cellsig.2008.07.016. Epub 2008 Jul 30.

Prions impair bioaminergic functions through serotonin- or catecholamine-derived neurotoxins in neuronal cells. Mouillet-Richard S, Nishida N, Pradines E, Laude H, Schneider B, Féraudet C, Grassi J, Launay JM, Lehmann S, Kellermann O. *J Biol Chem*. 2008 Aug 29;283(35):23782-90. doi: 10.1074/jbc.M802433200. Epub 2008 Jul 9.

Cellular prion protein signaling in serotonergic neuronal cells. Mouillet-Richard S, Schneider B, Pradines E, Pietri M, Ermonval M, Grassi J, Richards JG, Mutel V, Launay JM, Kellermann O. *Ann N Y Acad Sci*. 2007 Jan;1096:106-19. Review.

Control of bioamine metabolism by 5-HT_{2B} and α 1D autoreceptors through reactive oxygen species and tumor necrosis factor- α signaling in neuronal cells. Schneider B, Pietri M, Mouillet-Richard S, Ermonval M, Mutel V, Launay JM, Kellermann O. *Ann N Y Acad Sci*. 2006 Dec;1091:123-41.

Overstimulation of PrPC signaling pathways by prion peptide 106-126 causes oxidative injury of bioaminergic neuronal cells. Pietri M, Caprini A, Mouillet-Richard S, Pradines E, Ermonval M, Grassi J, Kellermann O, Schneider B. *J Biol Chem*. 2006 Sep 22;281(38):28470-9. Epub 2006 Jul 24.

Reactive oxygen species-dependent TNF- α converting enzyme activation through stimulation of 5-HT_{2B} and α 1D autoreceptors in neuronal cells. Pietri M, Schneider B, Mouillet-Richard S, Ermonval M, Mutel V, Launay JM, Kellermann O. *FASEB J*. 2005 Jul;19(9):1078-87.

Biological and biochemical characteristics of prion strains conserved in persistently infected cell cultures. Arima K, Nishida N, Sakaguchi S, Shigematsu K, Atarashi R, Yamaguchi N, Yoshikawa D, Yoon J, Watanabe K, Kobayashi N, Mouillet-Richard S, Lehmann S, Katamine S. *J Virol*. 2005 Jun;79(11):7104-12.

Modulation of serotonergic receptor signaling and cross-talk by prion protein. Mouillet-Richard S, Pietri M, Schneider B, Vidal C, Mutel V, Launay JM, Kellermann O. *J Biol Chem*. 2005 Feb 11;280(6):4592-601. Epub 2004 Dec 8.

[Control of cellular redox balance: an ubiquitous function of the cellular prion protein?]. Schneider B, Pietri M, Ermonval M, Mouillet-Richard S, Kellermann O. *Med Sci (Paris)*. 2004 Jan;20(1):21-3. French. No abstract available.

NADPH oxidase and extracellular regulated kinases 1/2 are targets of prion protein signaling in neuronal and nonneuronal cells. Schneider B, Mutel V, Pietri M, Ermonval M, Mouillet-Richard S, Kellermann O. *Proc Natl Acad Sci U S A*. 2003 Nov 11;100(23):13326-31. Epub 2003 Nov 3.

From stem cells to prion signalling. Kellermann O, Lafay-Chebassier C, Ermonval M, Lehmann S, Mouillet-Richard S. *C R Biol*. 2002 Jan;325(1):9-15. Review.