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DEGREES:

Diploma in Biology; Biology Department, Lomonosov Moscow State University; Moscow, Russia
Ph.D. in Biology; Russian Academy of Sciences; Moscow, Russia

RESEARCH EXPERIENCE:

1996-1999 Postdoctoral fellow, Max-Planck-Institut for Biochemistry; Martinsried/Munich, Germany
2002-2007 Postdoctoral fellow, Harvard Medical School, Beth Israel Deaconess Medical Center;
Boston, USA
2008-present Assistant Professor, McGill University; Montreal, Canada

EXPERTISE KEYWORDS:

Neuroscience; Hypothalamus; Neuroendocrinology; Obesity; Diabetes; Diet induced obesity; Metabolic syndrome; Energy homeostasis; Mouse models; Adult neurogenesis; Neural plasticity; NG2-glia.

CURRENTLY HELD RESEARCH GRANTS:

Maia Kokoeva (**PI**): *Canadian Institutes of Health Research (CIHR)*; Adult neurogenesis and the central control of energy homeostasis

Maia Kokoeva (**PI**): *Canada Foundation for Innovation (CFI) Leaders Opportunity Fund*; Establishment of a neuroendocrinology unit to investigate the role of adult neurogenesis in energy balance regulation

Maia Kokoeva (**participant**): *Canada Foundation for Innovation (CFI) Leading Edge 2009 Fund*; (PI: Dr. Marc Prentki, University of Montreal) Linking basic, clinical & population health research to prevent & treat diabetes, metabolic syndrome & complications

AWARDS:

2008-2011 The Thelma L. Adams Fellowship Research award
2010-2013 FRSQ Chercheur Boursier Junior 2

PUBLICATIONS

(my trainees are underlined):

Robins SC, Trudel E, Rotondia O, Liu X, Djogo T, Kryzskaya D, Bourque CW, & Kokoeva MV
“Evidence for NG2-glia derived, adult-born functional neurons in the hypothalamus “ *PLoS ONE*,
8:e78236. (2013)

Robins SC, Villemain A, Liu X, Djogo T, Kryzskaya D, Storch K-F, & Kokoeva MV “Extensive regenerative plasticity among adult NG2-glia populations is exclusively based on self-renewal” *Glia*, 10:1735-47. (2013)

Robins SC, Stewart I, McNay D, Taylor V, Götz M, Ninkovic J, Briancon N, Maratos-Flier E, Flier JS, Kokoeva MV, & Placzek M. “Alpha-tanocytes of the hypothalamic third ventricle include distinct populations of FGF-responsive neural progenitors” *Nat. Comm.* 27;4:2049 (2013)

McNay DE, Briancon N, Kokoeva MV, Maratos-Flier E and Flier JS. Diet-induced obesity inhibits remodelling of the arcuate nucleus energy balance circuit in the mouse. *J. Clin. Invest.* 122:142-52 (2012)

This paper was the subject of a ‘Commentary’ article:

- Lee EB, Ahima RS. Alteration of hypothalamic cellular dynamics in obesity. *J Clin Invest.* 122: 22-5 (2012)

Kokoeva MV, Yin H, Flier JS. Evidence for constitutive neural cell proliferation in the adult murine hypothalamus. *J. Comp. Neurol.* 505: 209-220 (2007)

Shi H, Kokoeva MV, Inouye K, Tzameli I, Yin H, Flier JS. Toll like receptor 4: A link between innate immunity and fatty acid-induced insulin resistance. *J. Clin. Invest.* 116: 3015-25 (2006).

This paper was the subject of ‘News and Views’ / ‘Preview’ articles:

- Tschop M and Thomas M. Fat fuels insulin resistance through Toll-like receptors. *Nat. Med.* 12: 1359-1361 (2006).
- Kim JK. Fat uses a TOLL-road to connect inflammation and diabetes. *Cell. Metab.* 4: 417-419 (2006)

Kokoeva MV, Yin H, Flier JS. Neurogenesis in the hypothalamus of adult mice: potential role in energy balance. *Science* 310: 679-83 (2005).

This paper was the subject of a ‘News and Views’ article:

- Seeley RJ. More neurons, less weight. *Nat. Med.* 11: 1276-1278 (2005).

Kokoeva MV*, Storch KF*, Klein C, Oesterhelt D. A novel mode of sensory transduction in archaea: binding protein-mediated chemotaxis towards osmoprotectants and amino acids. *EMBO J.* 21: 2312-22 (2002). *equal contributors.

Kokoeva MV and Oesterhelt D. BasT, a membrane-bound transducer protein for amino acid detection in *Halobacterium salinarum*. *Mol. Microbiol.* 35: 647-656 (2000).

Kokoeva MV and Plakunov VK. On the mechanism of the osmostabilization of halobacterial cells by "acidic shock". *Microbiology (in Russian)* 65: 499-500 (1996).

Plakunov VK and Kokoeva MV. Osmostabilization of the cells of halobacteria and preparation of their dry biomass free of salts. *Microbiology (in Russian)* 63: 338-340 (1994).

Kokoeva MV and Plakunov VK. The effect of acidic shock on viability of cells and activity of tyrosine transport-systems in *Halobacterium salinarum*. *Microbiology (in Russian)*, 63: 341-343 (1994).

Lobyreva LB, Kokoeva MV, Plakunov VK. Physiological role of tyrosine transport-systems in *Halobacterium salinarum*. *Archives of Microbiology* 162: 126-130 (1994).

Kokoeva MV and Plakunov VK. Modification of osmosensitivity in extremely halophilic archaeobacteria. *Microbiology (in Russian)* 62: 494-499 (1993).