

BRIEF CURRICULUM VITAE

ANDREJ A. ROMANOVSKY

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The laboratory is located at the Neuroscience Research Center, Barrow Neurological Institute

EDUCATION AND PRINCIPAL ACADEMIC APPOINTMENTS

- 2001- Adjunct Professor, School of Life Sciences, Arizona State University, Tempe, AZ
1999- Senior Staff Scientist and Director, Systemic Inflammation Laboratory, St. Joseph's Hospital, Phoenix, AZ
1994-2000 Associate Scientist and Director, Thermoregulation Laboratory, Legacy Health System, Portland, OR
1991-1994 Postdoctoral Fellow to Research Associate to Instructor, Department of Physiology and Biophysics, University of Tennessee, Memphis, TN
1989-1991 Assistant Scientist to Scientist to Senior Scientist, Institute of Physiology, National Academy of Sciences, Minsk, Belarus
1989 Ph.D. in Physiology
1986-1989 Postgraduate Student, Institute of Physiology, National Academy of Sciences, Minsk, Belarus
1984-1986 Clinical Resident Fellow to Research Associate, Department of Pathophysiology, Pavlov Institute of Experimental Medicine, Russian Academy of Medical Sciences, St. Petersburg, Russia
1984 M.D. with Distinction in Internal Medicine
1978-1984 Medical Student, Ivan Pavlov First Medical School, St. Petersburg, Russia

HONORS AND AWARDS (selected)

- 2004- Member, Thermal Physiology Section, International Union of Physiological Sciences
1994 John F. Perkins Fellowship, American Physiological Society
1994 Fellow, Japan Society for the Promotion of Science
1978 USSR National Scholastic Gold Medal

GUEST EDITOR

- 2005-2007 *American Journal of Physiology: Regulatory, Integrative and Comparative Physiology*, vols. 288-292, call for papers on Physiology and Pharmacology of Temperature Regulation
2006 *Journal of Thermal Biology*, vol. 31, special issue on Physiology and Pharmacology of Temperature Regulation
2003-2005 *Frontiers in Bioscience*, issue on Fever and Hypothermia in Systemic Inflammation
2000 *Autonomic Neuroscience: Basic and Clinical*, vol. 85, special issue on Fever: The Role of the Vagus Nerve
1998 *Medical Hypotheses*, vol. 50, proceedings of the mini-symposium on Clinical Thermophysiology: New Hypotheses and Emerging Concepts

BOARD MEMBER (dates vary)

- *American Journal of Physiology: Regulatory, Integrative and Comparative Physiology* • *Acta Physiologica Hungarica* (International Board) • *International Journal of Clinical and Experimental Medicine* • *International Journal of Pharmacology* (Regional Editor) • *The Open Drug Discovery Journal* • *The Open Biology Journal* • *The Open Sports Medicine Journal*

GRANT REVIEW (dates vary)

- NIH (ZRG1 IFCN-H-03 special panel) • NSF • Medical Research Council, UK • Canadian Institutes of Health Research • Dutch Research Council • National Research Foundation, South Africa • Health, Welfare and Food Bureau, Hong Kong, China • National Sleep Research Society, USA • US-Israel

Binational Science Foundation, Israel • Michael Smith Foundation for Health Research, Canada
• Memorial University of Newfoundland, Canada

RECENT INVITED TALKS AT INTERNATIONAL MEETINGS (selected)

- 2010 Experimental Biology Meeting, Anaheim, CA (to be held)
- 2009 International Union of Physiological Sciences Congress, Kyoto, Japan
- 2009 3rd Physiology and Pharmacology of Temperature Regulation, Matsue, Japan
- 2008 Western Canadian Conference on Environmental Physiology, Vancouver, BC, Canada
- 2007 Federation of the Societies of Experimental Biology Meeting, Águas de Lindóia, SP, Brazil
- 2006 Associated Professional Sleep Societies, Salt Lake City, UT
- 2006 2nd Physiology and Pharmacology of Temperature Regulation, Phoenix, AZ
- 2005 International Union of Physiological Sciences Congress, San Diego, CA
- 2005 Neuroendocrine Immune Basis of the Rheumatic Disease, Genova, Italy
- 2004 1st Physiology and Pharmacology of Temperature Regulation, Rhodes, Greece
- 2004 Nobel Conference #44 on The Inflammatory Reflex, Stockholm, Sweden

RESEARCH SUPPORT (major grants)

- 2007-12 2R01NS041233, NIH/NINDS, Blood-Brain Signaling in Inflammation: Lipid Mediators of Fever and Hypothermia, PI
- 2004-08 Study agreements 200423556, 2006193651, Amgen, Inc., TRP channels and thermoregulation, PI
- 2003-06 Category II grant #8016, Arizona Biomedical Research Commission, Vagal anti-inflammatory system, PI
- 2000-03 NS041233, NIH/NINDS, Blood-Brain Signaling in Inflammation: Role of Albumin, PI, extended through 2005

RECENT PUBLICATIONS (selected)

- Garami A, Shimansky YP, Pakai E, Oliveira DL, Gavva NR, **Romanovsky AA**. Contributions of different modes of TRPV1 activation to TRPV1 antagonist-induced hyperthermia. *J Neurosci* 30: 1435-1440, 2010.
- Romanovsky AA**, Almeida MC, Garami A, Steiner AA, Norman MH, Morrison SF, Nakamura K, Burmeister JJ, Nucci TB. The transient receptor potential vanilloid-1 channel: a thermosensor it is not. *Pharmacol Rev* 61: 228-261, 2009.
- Steiner AA, Hunter JC, Phipps SM, Nucci TB, Oliveira DL, Roberts JL, Scheck AC, Simmons DL, **Romanovsky AA**. Cyclooxygenase-1 or -2 — which one mediates lipopolysaccharide-induced hypothermia? *Am J Physiol* 297: R485-R494, 2009.
- Steiner AA, Oliveira DL, Roberts JL, Petersen SR, **Romanovsky AA**. Nicotine administration and withdrawal affect survival in systemic inflammation models. *J Appl Physiol* 105:1028-1034, 2008.
- Gavva NR, Treanor JJS, Garami A, Fang L, Surapaneni S, Akrami A, Alvarez F, Bak A, Darling M, Gore A, Jang GR, Kessler JP, Ni L, Norman MH, Palluconi G, Rose MJ, Salfi M, Tan E, **Romanovsky AA**, Banfield C, Davar G. Pharmacological blockade of the vanilloid receptor TRPV1 elicits marked and persistent hyperthermia in humans. *Pain* 136: 202-210, 2008
- Ootsuka Y, Blessing WW, Steiner AA, **Romanovsky AA**. Fever response to intravenous prostaglandin E₂ is mediated by brain but does not require afferent vagal signaling. *Am J Physiol* 294: R1294-R1303, 2008.
- Steiner AA, Turek VF, Almeida MC, Burmeister JJ, Oliveira DL, Roberts JL, Bannon AW, Norman MH, Louis J-C, Treanor JJS, Gavva NR, **Romanovsky AA**. Non-thermal activation of transient receptor potential vanilloid-1 channels in abdominal viscera tonically inhibits autonomic cold-defense effectors. *J Neurosci* 27: 7459-7468, 2007.
- Steiner AA, **Romanovsky AA**. Leptin: At the crossroads of energy balance and systemic inflammation. *Prog Lipid Res* 46: 89-107, 2007.
- Romanovsky AA**. Thermoregulation: some concepts have changed. Functional architecture of the thermoregulatory system. *Am J Physiol* 292: R37-R46, 2007.
- Romanovsky AA**. Temperature regulation. Chapter 23. In: *Lecture Notes on Human Physiology*, 5th edition, ed. by Petersen O. Oxford, UK: Blackwell, 2007, p. 603-615.
- Aronoff DM, **Romanovsky AA**. Eicosanoids in non-febrile thermoregulation. *Prog Brain Res* 162: 15-25, 2007.

- Steiner AA, Ivanov AI, Serrats J, Hosokawa H, Phayre AN, Robbins JR, Roberts JL, Kobayashi S, Matsumura K, Sawchenko PE, **Romanovsky AA**. Cellular and molecular bases of the initiation of fever. *PLoS Biol* 4: e284, 2006.
- Almeida MC, Steiner AA, Branco LGS, **Romanovsky AA**. Neural substrate of cold-seeking behavior in endotoxin shock. *PLoS ONE* 1: e1, 2006.
- Steiner AA, Chakravarty S, Rudaya AY, Herkenham M, **Romanovsky AA**. Bacterial lipopolysaccharide fever is initiated via Toll-like receptor 4 on hematopoietic cells. *Blood* 107: 4000-4002, 2006.
- Ivanov AI, **Romanovsky AA**. Putative dual role of ephrin-Eph receptor interactions in inflammation. *IUBMB Life* 58: 389-394, 2006.
- Almeida MC, Steiner AA, Branco LGS, **Romanovsky AA**. What is the “natural” thermoregulatory response of rats to bacterial lipopolysaccharide, fever or hypothermia? *Eur J Neurosci* 23: 3359-3367, 2006.
- Romanovsky AA**, Steiner AA, Matsumura K. Cells that trigger fever. *Cell Cycle* 5: 2195-2197, 2006.
- Ivanov AI, Steiner AA, Patel S, Rudaya AY, **Romanovsky AA**. Albumin is not an irreplaceable carrier for amphipathic mediators of thermoregulatory responses to lipopolysaccharide: compensatory role of α_1 -acid glycoprotein. *Am J Physiol* 288: R872-R878, 2005.
- Steiner AA, Chakravarty S, Robbins JR, Dragic AS, Pan J, Herkenham M, **Romanovsky AA**. All thermoregulatory responses to conventional preparations of lipopolysaccharide are triggered by lipopolysaccharide *per se* and not by lipoprotein contaminants. *Am J Physiol* 289: R348-R352, 2005.
- Rudaya AY, Steiner AA, Robbins JR, Dragic AS, **Romanovsky AA**. Thermoregulatory responses to lipopolysaccharide in the mouse: dependence on the dose and ambient temperature. *Am J Physiol* 289: R1244-R1252, 2005.
- Steiner AA, Rudaya AY, Robbins JR, Dragic AS, Langenbach R, **Romanovsky AA**. Expanding the febrigenic role of cyclooxygenase-2 to the previously overlooked responses. *Am J Physiol* 289: R1253-R1257, 2005.
- Ivanov AI, Steiner AA, Scheck AC, **Romanovsky AA**. Expression of Eph receptors and their ligands, ephrins, during lipopolysaccharide fever in rats. *Physiol Genomics* 21: 152-160, 2005.
- Romanovsky AA**. Vioxx, Celebrex, Bextra... Do we have new targets for anti-inflammatory and antipyretic therapy (Editorial)? *Am J Physiol* 288: R1098-R1099, 2005.
- Steiner AA, Rudaya AY, Ivanov AI, **Romanovsky AA**. Febrigenic signaling to the brain does not involve nitric oxide. *Br J Pharmacol*, 141, 1204-1213, 2004.
- Romanovsky AA**. Do fever and anapyrexia exist? Analysis of set point-based definitions. *Am J Physiol* 287: R992-995, 2004.
- Steiner AA, Dogan MD, Ivanov AI, Patel S, Rudaya AY, Jennings DH, Orchinik M, Pace TWW, O'Connor KA, Watkins LR, **Romanovsky AA**. A new function of the leptin receptor: mediation of the recovery from lipopolysaccharide-induced hypothermia. *FASEB J* 18: 1949-1951, 2004.
- Dogan MD, Patel S, Rudaya AY, Steiner AA, Székely M, **Romanovsky AA**. Lipopolysaccharide fever is initiated via a capsaicin-sensitive mechanism independent of the subtype-1 vanilloid receptor. *Br J Pharmacol* 143: 1023-1032, 2004.
- Romanovsky AA**. Anorexia: the toll for lipopolysaccharide recognition (Editorial). *Am J Physiol* 287: R274-R275, 2004.
- Ivanov AI, Scheck AC, **Romanovsky AA**. Expression of genes controlling transport and catabolism of prostaglandin E₂ in lipopolysaccharide fever. *Am J Physiol* 284: R698-R706, 2003.
- Dogan MD, Kulchitsky VA, Patel S, Pétervári E, Székely M, **Romanovsky AA**. Bilateral splanchnicotomy does not affect lipopolysaccharide-induced fever in rats. *Brain Res* 993: 227-229, 2003.
- Romanovsky AA**, Sugimoto N, Simons CT, Hunter WS. The *organum vasculosum laminae terminalis* (OVLT) in immune-to-brain febrigenic signaling: a reappraisal of lesion experiments. *Am J Physiol* 285: R420-R428, 2003.
- Ivanov AI, Kulchitsky VA, **Romanovsky AA**. Role for the cholecystokinin-A receptor in fever: a study of a mutant rat strain and pharmacological analysis. *J Physiol* 547: 941-949, 2003.
- Ivanov AI, Patel S, Kulchitsky VA, **Romanovsky AA**. Platelet-activating factor: a previously unrecognized mediator of fever. *J Physiol* 531: 221-228, 2003.
- Romanovsky AA**, Petersen SR. The spleen: another mystery about its function (Editorial). *Am J Physiol* 284: R1378-R1379, 2003.