

The Glenn I. Hatton Memorial Fund commemorates Professor Hatton's contribution to neuroscience, neuroendocrinology, and in particular, studies of the magnocellular neurosecretory system. Since 2009, at least two awards have been made at each World Congress on Neurohypophysial Hormones (WCNH) to meritorious students or postdocs. The fund also provides for the Glenn Hatton Memorial Lecture at the International Congress for Neuroendocrinology.

2009 WCNH Awardees

Ara Schorscher-Petcu, MSc.

Ara is a Ph.D. student working with Drs. Jeffrey Mogil and Rémi Quirion at the Douglas Mental Health University Institute, McGill University, Montreal, Canada. She received a Masters degree in Biology from the University of Geneva, Switzerland, where she studied central oxytocin and vasopressin receptor distribution with Dr. Eliane Tribollet. Her Ph.D. thesis, and the subject of her WCNH abstract, concerns the mechanisms of oxytocin-induced analgesia in mice; she has determined that the central analgesic effects of oxytocin are actually mediated by vasopressin V1A receptors. As a student she has 4 publications, including two as first author, and has a promising career in neurohypophysial hormone research.

Hirofumi Hashimoto, M.D., Ph.D.

Hirofumi is a postdoctoral fellow working with Dr. Mike Ludwig at the University of Edinburgh, Scotland. Hirofumi received his Ph.D. with Dr. Yoichi Ueta studying, among other things, the neuromodulation of vasopressin and oxytocin neurons by adrenomedullin. In his current research, as reported in his WCNH abstract, he demonstrates novel effects of vasopressin on olfactory bulb processing using electrophysiological techniques. In his short but productive career, Dr. Hashimoto has published over 20 papers, including 7 as first author.

2011 WCNH Awardees

Gina L. C. Yosten, Ph.D.

Gina is a postdoctoral fellow at St. Louis University with Dr. Willis Sampson, with whom she also received her Ph.D. in Pharmacology, 2010. As reported in her 2011 WCNH abstract, Gina has found that the ability of the neuropeptide nesfatin-1 to inhibit food intake and increase mean arterial pressure works both through a central melanocortin receptor and the oxytocin receptor, whereas neuronostatin exerts anorexigenic and hypertensive activities that are dependent on melanocortin, but not oxytocin receptor, activation. Dr. Yosten has published 7 papers as a student and postdocs, including 4 as first author.

Krishna Naskar, MSc.

Krishna is a Ph.D. student working with Dr. Javier Stern at the Georgia Health Sciences University. In her 2011 WCNH abstract, Krishna reported a unique modulation of voltage gated potassium currents by extrasynaptic NMDA receptor activation; receptors which are under the

control of glutamate released by astrocytes. Krishna has published 1 paper in her early career and was invited for an oral presentation at the International Conference on Endothelin in Sept. of 2009.

2013 WCNH Awardees

Michael Bowen

Michael is a Ph.D. candidate working in the Psychopharmacology Laboratory of Iain McGregor at the University of Sydney, Australia. In his 2013 WCNH abstract, Michael reported that central oxytocin mitigates the effects of ethanol on muscle relaxation and movement. The basis for this effect may be oxytocin's ability to impair ethanol's ability to enhance GABAergic activity, which appears related specifically to ethanol's actions at the δ GABAA receptor subunit. Still just a student, Michael has already published more than 11 articles.

Yannis Paloyelis, Ph.D.

Yannis is doing postdoctoral work with Dr. Fotopoulou in the Department of Neuroimaging, Institute of Psychiatry, in King's College London. His 2013 WCNH abstract related work using continuous arterial spin labeling to document the effects of intra-nasally administered oxytocin in humans, finding that oxytocin increased cerebral blood flow in limbic regions known to be involved in affiliative behavior. Yannis has published over 10 articles on various aspects of human brain imaging.

2015 WCNH Awardees

Joon Kim

Joon is a student doing doctoral work with Greg Anderson in the Department of Anatomy and the Centre for Neuroendocrinology at the University of Otago, New Zealand. In Joon's WCNH abstract, he relates work showing that specific antagonist and agonists of neuropeptide FF receptors have anti-opioid actions in vivo, reducing morphine tolerance in vasopressin neurons. Joon has published four articles.

Adam Smith, Ph.D.

Adam did his postdoctoral work for this award with Scott Young at the NIMH in Bethesda, Maryland. Adam's abstract describes new information about the ability of vasopressin to specifically enhance social memory through a novel circuit from the paraventricular nucleus to the hippocampus. Furthermore, the little studied vasopressin type 1b receptor, which is enriched in the CA2 region of the hippocampus, appears to mediate this action of vasopressin. Adam has published several papers.

2017 WCNH Awardees

Hatton Merit Fellows

Matt Kirchner

Matt is a student doing doctoral work with William Armstrong in the Neuroscience Institute and Department of Anatomy and Neurobiology, at the University of Tennessee Health Science Center, Memphis, TN. In Matt's abstract, he relayed his investigations into the role of PIP2 in the regulation of calcium-dependent afterhyperpolarizations (AHPs) in oxytocin and vasopressin neurons. Matt's work shows a clear dependence of PIP2 in oxytocin neurons via modulation of calcium influx through calcium channels. Matt has published two peer-reviewed papers.

Christina Reppucci, Ph.D.

Christina is a postdoctoral researcher in the laboratory of Dr. Alexa Veenema in the Department of Psychology and Neuroscience Program at Michigan State University, East Lansing, MI. In Christina's abstract, she reported on the recruitment of vasopressin and oxytocin neurons in the supraoptic nucleus during social play behavior, and also reported sex differences in this regard. Christina has published four peer-reviewed papers.

Hatton Travel Fellows (this year an additional 2 lesser travel fellowships were funded)

Ferdinand Althammer

Ferdinand is a student doing doctoral work with Valery Grinevich in the German Cancer Research Center, University of Heidelberg, Heidelberg, Germany. In Ferdinand's abstract, he reported a significant reorganization of the central oxytocin system that modulates fear conditioning through connections from the paraventricular nucleus to the central nucleus of the amygdala. Ferdinand has published a peer-reviewed paper and chapter.

Rohit Menon, MS

Rohit is a student doing doctoral work with Inga Neumann in the Department of Molecular and Behavioral Neurobiology at the University of Regensburg, Regensburg, Germany. In Rohit's abstract, he reported that the state of lactation strongly prevents social trauma in mice due to high brain oxytocin activity and anatomical and functional adaptations within the lateral septum. Rohit has published two peer-reviewed papers.

2018 Glenn Hatton Memorial Lecture

Masha Prager-Khoutorsky, Ph.D.

Dr. Prager-Khoutorsky was a plenary “Young Investigator” speaker at the Internal Congress for Neuroendocrinology under this, and spoke about the dynamic reorganization of the cytoskeleton of osmosensitive neurons in the supraoptic nucleus under osmotic stress. Masha has published 24 peer reviewed papers on this and related subjects, and is an Assistant Professor in the Department of Physiology, McGill University.

2019 WCNH Awardees

Constantina Theofanopoulou, Ph.D.

Constantina received her doctorate in 2019 from the University of Barcelona working with Cedric Boeckx, studying the relationship between the oxytocin gene and language evolution. In her abstract, after studying the genome of 33 species, she proposed a new, universal nomenclature for oxytocin and related peptides and their receptors. She continued postdoctoral research with Erich Jarvis at Rockefeller University. Dr. Theofanopoulou has published 9 peer reviewed papers on this and related topics.

Zsuzsanna Barad, Ph.D.

Zsuzsanna received her doctorate from University of Otago, New Zealand, working with Drs. Dave Grattan and Colin Brown, before joining Dr. Masha Prager-Khoutorsky’s lab at McGill University as a postdoctoral fellow. In her abstract, Zsuzsanna describes research showing that high dietary salt intake increases the density of action and microtubules in osmosensory vasopressin neurons of the supraoptic and paraventricular nucleus, likely through the activation of mDia1, a downstream effector of RhoA. Zsuzsanna has published 12 peer reviewed papers.

Carl-Philipp Meinung

Carl is a Ph.D. student studying with Inga Neumann and Regensburg University, Germany. In his abstract, Carl reported the rapid effects of oxytocin on astrocytes, finding it produced an increase in the number and length of astrocyte processes in the paraventricular nucleus *in vivo* and *in vitro* via the small GTPase Gem signaling pathway. Carl has published a peer reviewed paper on the anxiolytic effects of oxytocin.

Damien Kerspern

Damien is a student in Alexandre Charlet’s lab at the University of Strasbourg, France. In his abstract, Damien reported that oxytocin applied to astrocytes in the central nucleus of the

amygdala produced oscillatory calcium transients and the release of D-Serine, and the activation of NMDA receptors. Damien has published 2 peer reviewed papers on the effects of oxytocin on pain and fear memory, respectively.