**Curriculum Vitae**

Istvan J Merchenthaler, MD, PhD, DSc

Professor, Department of Epidemiology & Public Health

Professor, Department of Anatomy & Neurobiology

University of Maryland School of Medicine

**Date:** 9-27-2016

# Contact Information

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Foreign Languages: Hungarian (native), Latin and Russian (working knowledge)

# Education:

1962-1967: Grammar (High) School: III. Bela Gimnazium, Baja, Hungary

1968-1974: Medical School, University of Pecs, Hungary

## **Post Graduate Education and Training:**

1986: Doctor of Philosophy (PhD), in Neuroendocrinology, Hungarian Academy of Sciences, Budapest, Hungary;

1992: Doctor of Sciences (DSc): Neuroendocrinology Hungarian Academy of Sciences

1997: Doctor Habil: Albert Szent-Gyorgyi Medical School, Szeged, Hungary

# Employment History:

1974-1981 Assistant Professor, Department of Anatomy, University Medical School, Pecs,

 Hungary

1981-1983 Visiting Scientist, Department of Cell Biology and Anatomy, University of North Carolina, Chapel Hill, NC

1984 Visiting Scientist, US-Japan Biomedical Research Center, Tulane University, Belle Chasse, LA

1984-1988 Associate Professor, Department of Anatomy, University Medical School, Pecs,

 Hungary

1988-1994 Visiting Scientist, Section Head, Laboratory of Molecular and Integrative

Neuroscience, National Institute of Environmental Health Sciences, National Institutes of Health, Research Triangle Park, NC

1994-2003 Director, Women’s Health Research Institute, Wyeth Research, Radnor, PA

2003-2004 Distinguished Research Scientist, Women’s Health and Bone, Wyeth Research,

 Collegeville, PA

2004 Chief Medical Officer, Phylogeny Inc. Columbus, OH

2004-present Professor, Epidemiology & Public Health, University of Maryland School of

Medicine

2004-present Professor, Department of Anatomy and Neurobiology, University of Maryland

 School of Medicine

# Professional Society Membership:

 1981-1984 American Associations of Anatomists

 1981-1984 US-Japan Histochemical Society

 1981- The Endocrine Society

 1988- Society for Neuroscience

 1984- International Brain Research Organization

 2009- The American Menopause Society

# Honors and Awards:

1984 Lenhossek Award; Hungarian Academy of Sciences/Hungarian Associations of

 Anatomists

1984 Awarded Endocrine Society Travel Grant for Int. Congress of Endocrinology,

 Quebec, Canada

1986 Distinguished Young Scientist Award; Hungarian Academy of Sciences

1988 Awarded Endocrine Society Travel Grant for Int. Congress of Endocrinology,

 Kyoto, Japan

# Administrative Service:

 1984-1988 Anatomy, University Medical School, Pecs, Hungary. Supervisor/coordinator: Human Gross Anatomy Course; Department of Anatomy

**Institutional Service:**

 Departmental

2005-present Member, Appointment, Tenure & Promotion (APT) Committee, Epidemiology & Public Health (formerly DEPM)University of Maryland School of Medicine

2005-2008 Member, Seminar Committee, Epidemiology & Public Health University of Maryland

2005-2008 Member, Institutioal Research Committee, Department of Epidemiology & Preventive Medicine, University of Maryland

2006-2007 Member, School of Medicine Council

2005-present Judge, Graduate Progam Research Day

2005-present Judge, Medical Students Research Day

Campus-wide:

2010 Organizer of Minisymposium; New directions for treating menopausal symptoms, UMB

**National Service:**

1998 Co-Organizer of Symposium; Hormone-Brain Interaction, Breckenridge, CO

**International Service:**

2000 Organizer, International Symposium on Estrogen Receptors in Health and Disease, Pecs, Hungary

2002 Organizer, International Symposium on Hot Flushes, Collegeville, PA

**Editorial Board:**

1994-1998 Endocrinology

2008-2012 Endocrinology

2013-present American Journal of Neuroscience

2013-present Journal of Clinical and Tanslational Endocrinology

2013-present Frontiers

**Reviewer Activity:**

2000- *Ad hoc* Reviewer, NIMH and NIA/NIH

1996- *Ad hoc* Reviewer, NSF

1996- *Ad hoc* Reviewer, Alzheimer’s Society

2004- *Ad hoc* Reviewer, NHMRC, Canada

**Reviewer (Journals):**

 *American J. Physiology*

*American Journal of Neuroscience*

 *Brain Research*

 *Biology of Reproduction*

 *Cellular and Molecular Life Sciences*

 *Cellular and Molecular Neuroendocrinology*

 *Endocrinology*

 *Endocrine Reviews*

 *European Journal of Endocrinology*

 *Eoropean Journal of Neuroscience*

 *European Journal of Physiology*

 *European Journal of Endocrinology*

 *Experimental Neurology*

*Frontiers*

 *Journal of Biological Chemistry*

 *Journal of Clinical Endocrinology and Metabolism*

*Journal of Clinical and Tanslational Endocrinology*

 *Journal of Comparative Neurology*

 *Journal of Chemical Neuroanatomy*

 *Journal of Endocrinology*

 *Journal of Clinical Investigations*

 *Journal of Molecular Endocrinology*

 *Journal of Neurochemistry*

 *Journal of Neuroscience*

 *Journal of Neuroendocrinology*

 *Journal of Neuroscience Methods*

 *Life Sciences*

 *Maturitas*

 *Menopause*

 *Metabolism*

 *Neuroendocrinology*

 *Neuroscience*

 *Neuroscience Letters*

 *Peptides*

 *Pharmacological Reports*

*PLoSOne*

 *Proceedings of the National Academy of Sciences, USA*

 *Synapse*

 *Thyroid*

 *Trends in Endocrinology and Metabolism*

# Teaching Service:

Prior to my UMB appointment

*Medical students, Lectures and laboratory*

1972-1974 Teacher Assistant, Department of Anatomy, University Medical School, Pecs,

Hungary. Taught Human Gross Anatomy (including neuroscience), Histology and

Embryology. Two classes, size of 25. 6 hrs/week, 28 weeks/year.

1974-1981 Assistant Professor; Department of Anatomy, University Medical School, Pecs,

Hungary. Taught Human Gross Anatomy (including neuroscience), Histology and

Embryology. Two classes, size of 25. 12 hrs/week, 28 weeks/year.

1984-1988 Associate Professor; Department of Anatomy, University Medical School, Pecs,

Hungary. Taught Human Gross Anatomy (including neuroscience), Histology and

Embryology to medical students. Two classes, size of 55 (Hungarian) and one class, size

of 25 (English). 18 hrs/week, 28 weeks/year.

1984-1988 Supervisor/coordinator: Human Gross Anatomy Course; Department of Anatomy,

 University Medical School, Pecs, Hungary, 1984-1988

2001-2002 Department of Cell Biology and Anatomy, University of North Carolina, Chapel Hill,

NC. As a Volunteer, taught Human Gross Anatomy for medical students. One class, size

of 24; 4 hrs/week, 10 weeks/year.

*Undergraduate Students*

1998-2003 Invited Lecturer, Department of Pharmacology, University of Pennsylvania,

Philadelphia, PA. One lecture yearly on Steroid Hormone Receptors. Class size: 20.

At UMB

*Medical student, Lectures (Gross Anatomy, Embryologgy & Histology)*

2004-present Department of Anatomy & Neurobiology, Univesity of Maryland School of Medicine.

 12 lectures/year. Class size: 165.

*Medical student, Laboratory (Gross Anatomy & Histology)*

2004-present Department of Anatomy & Neurobiology, University of Maryland School of Medicine. Teaches Human Gross Anatomy and Histology. 10 hrs/week, 10 weeks/year, 100 hrs total.Class size: 165.

*Medical student, Lectures (Neurosciecne)*

2004-present Department of Anatomy & Neurobiology, University of Maryland School of Medicine. Teaches macroscopic brain anatomy, 2 hours/block. Class size: 165

*Medicall student, Laboratory (Neuroscience)*

2004-presentDepartment of Anatomy & Neurobiology, University of Maryland School of Medicine.

 Teaches macroscopic brain anatomy, 4 hour /block. Class size: 165

*Dental student, Lectures*

2012-present Department of Neuroscience & Pain, Univesity of Maryland School of Dentistry.

 4 lectures/year on Human Gross Anatomy and Embryology. Class size: 130.

*Dental student, Laboratory (Gross Anatomy)*

2012-present Department of Neuroscience & Pain, University of Maryland School of Dentistry. Teaches Human Gross Anatomy and Histology. 7 hrs/week, 12 weeks/year, 84 hours total. Class size: 130.

*Graduate Students*

2005-2014 Course Master, GPILS-613, Neuroendocrinology

 2 hours/course, 10 weeks/alternate years, Class size: 10

2012-present Course master, GPILS-711, Gerontology: Biology of Aging

 4 hours/course, 10 weeks/alternate years, Class size: 18

2006-2007 Graduate Program, GPILS-623, Molecular Toxicology One lecture/year. Class size: 8

2005-2008 Graduate Program-CIPP 907, Research Ethics. One hour/year

2010-present Graduate Program, GPILS-645, Cell and System Physiology.Two hours/year

2009-present Graduate Program, GPILS-641, Neuroscience, Two hours/year

*School of Nursing lectures*

2005-present NPHY614/BSCI614: Physiology of Aging, One hour/year. Class size: 25-40

*PhD Thesis Committee*

2005 Anna Baron, Sir James McCusker Alzheimer’s Disease Research Unit, Western

 Australia

2005-2009 Chris Wright (GPILS)

2008-2011 Amanda Nelson (GPILS)

2011 Zsombor Koszegi, University of Otago, New Zeeland

2008-2011 Tracy Hermanstyne (GPILS)

2008-2012 Bridget Nugget (GPILS)

2009-2012 Jamila Asgar (GPILS)

2010-present Danielle Gusmano (GPILS)

2007-2013 Girish Kulkarni (GPILS)

2013-present Kathrina Williams (GPILS)

2013-present Richard Burke

2013-present Spencer Todd

*Master Thesis (mentor):*

2015-2016 Thadeus Nnaube

**Mentoring:**

Prior to my UMB appointment

1990- 2003 Trained postdoctoral fellows (Drs. Graziano Ceresini and Antonella Favit from Italy; and Philippa Charlton from the University of North Carolina) while at NIEHS/NIH, Research Triangle Park, NC

At UMB

2005-2007 Mentor, BIRCWH Scholar (Dr. Leo Tonelli)

2006-present Director, BIRCWH, University of Maryland

2008-2010 Mentor, BIRCWH Scholar (Drs. Jian-Min Zhang and Peixin Yang

2008-present Mentor, BIRCWH Scholar (Drs. Julie Markham and Jessica Brown)

# Grant Support:

**Active:**

R21AG050900-02 Merchenthaler/Urbanszki (MPI) 04/15/2016-03/31/2018 1.2 calendar

Establishment of a primate model for menopausal hot flushes

This project will establish a non-human primate model to measure hot flushes with the non-invasive infrared technology.

Role: PI (MPI)

5 K12 HD43489-5 Tracy (PI) 01/09/2012-08/31/2017 1.2 calendar

NIH/NICHD

Maryland’s Organized Research Effort in Women’s Health (MORE-WH)

This project will provide interdisciplinary mentored training in women’s health research to junior faculty scholars in an effort to foster the expansion of women’s health research across a variety of disciplines.

Role: Research Director

HD 1U01 HD066435 Hoffman (PI) 01/08/2016-31/07/2-17 1.5 calendar

Kisspeptin Regulation and GPR54 Signaling in Reproduction

This project will explore the connectivity of the neuronal system regulating the activity of kisspeptin which

plays a critical role in the central regulation of reproduction. My role is to perform stereotaxic surgeries,

retrograde and anterograde labeling and train postdocs for these technologies

Role: Co-investigator

NIH, SBIR Ngyuen (PI) 01.08/2016-07/31/2017 1.0 calendar

A novel remedy of hot flushes for breast cancer patients undergoing aromatase inhibitor therapy

Direct costs: $45,150 Indirect Costs: $24,155

Role: PI of subcontract

**Completed Research Support**

5P50NH103222-02 Schwarz (PI) 07/01/2015-06/30/2016 2.4 calendar

NIMH Silvio O. Conte Centers for Basic or Translational Mental Health Research (P50)

Kynurenine acid and cognitive abnormalities in schizophrenia

The purpose of these studies is to study the role of kynurenic acid and metabolites of tryptophan in the pathogenesis of schizophrenia in humans and rodent models. My role is to study the expression of the genes associated with the kynurenine pathway with in situ hybridization histochemistry.

Role: Co-investigator

R21HD078077-01 Wallen/Prokai/Merchenthaler (MPI) 08/05-2013-05/31/2016 1.2 calendar

Effects of brain-selective estradiol on gene expression and female sex behavior.

The purpose of this application is to collect preliminary data on the role of a CNS-selective estrogen on the female sex behavior of rhesus monkeys.

Role: PI (MPI)

5R21AG033864-02 Merchenthaler (PI) 04/01/2011-06/31/2014 1.2 calendar

NIH/NIA

Hot flushes and SNPs of the norepinephrine and serotonin transporter genes

To study the effect of these SNPs on the efficacy of SSRIs in alleviating hot flushes.

Role: PI

5 K12 HD43489-5 Langenberg (PI) 01/09/2007-08/31/2012 1.2 calendar

NIH/NICHD

Maryland’s Organized Research Effort in Women’s Health (MORE-WH)

This project will provide interdisciplinary mentored training in women’s health research to junior faculty scholars in an effort to foster the expansion of women’s health research across a variety of disciplines.

Role: Program Director

1R01AG031535-01A2 Merchenthaler (PI) 03/01/2009-02/28/2014 3.0 calendar

NIH/NIA

Novel treatment of menopausal hot flushes with para-quinol of estrogen.

To study if para-quinol of estreogen prevents hot flushes in animal models.

Role: PI (MPI)

3R01AG031535-01A2S1 Merchenthaler (PI) 03/01/2009-02/28/2011 1.5 calendar

NIH/NIA

Novel treatment of menopausal hot flushes with para-quinol of estrogen.

To study if para-quinol of estrogen prevents depression/anxiety and sleep disturbances in animal models.

Role: PI

Maryland Industrial Merchenthaler (PI) 08/01/10-07/31/11 0.12 calendar

Partnership (MIPS) #4614

Fertamax to prevent egg infertility

To study the effect elevated gonadotropin levels on chromosome structure and function

U54 HD36207 Albrecht (PI) 04/01/2004-03/31/2009 1.2 calendar

NIH

Studies of Female Fertility

The aims of this project are to study the effect of hormonal environment on the development of the

reproductive system.

Role: Co-I

R01 NS06-004 Albuquerque (PI) 01/91/2006-12/31/2007 1.2 calendar

NIH

Age and Sex Effects on Nerve Agent Damage to the Brain and Antidotal Therapies

This project will study the neuroprotective effect of galantamine on nerve agent-induced brain damage.

Role: Co-I

No number Merchenthaler (PI) 01/21/2004-05/15/2006

OTRD Faculty Research, UMB (intramural grant)

Smoke Prevents Estrogen’s Beneficial Effects in Hot Flashes and Stroke: the Effect of Nicotine and BaP/DMBA in Animal Models of Hot Flash and Cerebral Ischemia.

Role: PI

No number Merchenthaler (PI) 01/01/2006-12/31/2006

Baltimore Veteran Affairs Medical Center Research Enhancement Award Program Grant:

Expression of Estrogen and Progesterone Receptors (neuron vs glia) in the Penumbra and their Role in Neurogenesis in the Rat Cortex following Focal Ischemia.

To study the effect of estrogen and progesterone on (a) the expression of their corresponding receptors

Role: PI

No number Merchenthaler (PI) 05/01/2006-11/01/2007

Wyeth Pharmaceuticals

Hot Flashes and Obesity in Midlife Women

The purpose of the project is to study if polymorphism of enzymes synthesizing and degrading steroid hormones are associated with obesity and hot flashes.

**Pending – Principal Investigator:**

R01, NIH Merchenthaler/Prokai (MPI)

Brain-Selective Therapy to Alleviate Hot Flushes of Prostate Cancer Patients

The goal of the prpposed studies is to evaluate the utility of our brain-selective estrogen therapy in patients treated wityh aromatase inhibitors and as a result, suffer from menopausal symptoms.

Role: PI

Effort: 15%

R01, NIH Albuquerque/Gullapalli/Merchenthaler/Pereira (MPI)

Targeting M1/M3 Muscarinic Receptors to Treat Gestational Pesticide Poisoning

Role: Co-investigator

Effort: 20%

R21AN3908177 Merchenthaler (PI)

Prevention of chemotherapy-induced female infertility with PACAP in a mouse model

Role; PI

Effort: 10%

R21AN 3908547 Merchenthaler/Yarowsky (MPI)

Effect of PACAP on onset and progression of Parkinson’s disease in chronic models

Role PI (contact PI)

Effort; 10%

R21AN39008622 Merchenthaler/Farah (MPI)

Prevention/treatment of diabetic peripheral neuropathy with PACAP analogs

Role: PI (contact PI)

Effort: 10%

**Completed prior to my UMB appointment:**

1986-1989 Co-investigator (P. Petrusz, PI); Hypothalamic Control of the Anterior Pituitary; US- Hungary, Cooperative Science Project, National Science Foundation

1986-1990 Co-Investigator (P. Petrusz, PI); Hypothalamic Control of the Anterior Pituitary, Hungarian Academy of Sciences, Budapest, Hungary

1988-1994 Co-investigator (A. Negro-Vilar, PI), Hypothalamic Control of the Anterior Pituitary, NIH Intramural Program Fund

**Other Sources:**

2005-2006 Phylogeny, Inc.

 Total Direct Costs: $1,461

2006-2007 Transition Therapeutics

 Total Direct Costs: $17,845

2006-2007 Radius, Inc.

 Total Direct Costs: $17,845

2006-2008 Nuvius, Inc.

 Total Direct Costs: $10,823

2007-2008 Ausio Pharmaceuticals

 Total Direct Costs: $16,211

2007-2008 Ausio Pharmaceuticals

 Total Direct Costs: $22,985

2007-2009 Ausio Pharmaceuticals

Total Direct Costs: $37,613

2008-2009 Emory University

 Total Direct Costs: $18.556

**Patents, Inventions and Copyrights:**

AM101118 - Agonism of the 5HT2A Receptor for Treatment of Thermoregulatory Dysfunction.

Published Application No. 2004-0063721A1

 AM101156 - Use of Norepinephrine Reuptake Modulators for Preventing and Treating

Vasomotor Symptoms. Published Application No. 2004-0143008A1 & 2004-0152710A1

AM101222 - A Novel Method of Treating Vasomotor Symptoms. Filed and in prosecution.

**Refereed publications: Impact Factor: 650; h-index: 58; Number of citations: 11,249**

1. Rozsos, I., **Merchenthaler, I.,** and Horváth, S.: Terminális vékonybélingerlés hatása a gyommor‑sósav kiválasztásra patkányban. *Kisérletes Orvostudomány 25: 279‑283, 1973*
2. Rozsos, I., Horváth S., and **Merchenthaler, I.**: Adat a terminális vékonybél és a gyomor közti reflex‑kapcsolatok idegi jellegéhez. *Kisérletes Orvostudomány 25: 373‑377, 1973.*
3. Rozsos, I., **Merchenthaler, I.,** and Horváth, S.: Ganglion coeliacum‑ban záruló reflex‑iv lehetôsége. *Kisérletes Orvostudomány 25: 397‑399, 1973.*
4. Rozsos, I., Horváth, S., and **Merchenthaler, I.**: A terminális vékonybél és a gyomor közti reflex‑iv afferens szára. *Kisérletes Orvostudomány 26: 80‑82, 1974.*
5. Rozsos, I., **Merchenthaler, I.,** and Horváth, S.: A terminális vékonybél és a gyomor közti reflex‑kapcsolat sympathicus idegi jellege. K*isérletes Orvostudomány 26: 550‑552, 1974.*
6. Rozsos, I., **Merchenthaler, I.,** and Horváth, S.: Nervus splanchnicus és ganglion coeliacum kiirtás hatása a gyomorsav kiválasztásra. *Kisérletes Orvostudomány 27: 595‑598, 1975.*
7. Kovács, M., **Merchenthaler, I.,** and Flerkó, B.: Oestradiol uptake by intact and sympathectomized genital tract of the female rabbit. *Acta. Biol. Acad. Sci. Hung. 27: 321‑324,*
8. Rozsos, I., Kovács, M., and **Merchenthaler, I.**: Ganglion coeliacum kiirtás hatasa az immobilizációs fekély kialakulására. *Kisérletes Orvostudomány 31: 186‑191, 1979.*
9. **Merchenthaler, I.,** Sétáló, G., Horváth, J., and Flerkó, B.: Regenerative efforts of the transected LH‑RH axons in the brain of the rat. *Acta. Biol. Acad. Sci. Hung. 31: 201‑205, 1980.*
10. **Merchenthaler, I.,** Lengvári, I., Horváth, J., and Sétáló, G.: Immunocytochemical study of the LH‑RH‑synthesizing neuron system of the aged female rats. *Cell Tissue Res. 209: 499‑503, 1980.*
11. **Merchenthaler, I.,** Kovács, G., Lovász, G., and Sétáló, G.: The preoptico‑infundibular LH‑RH‑tract of the rat. *Brain Res. 198: 63‑74, 1980.*
12. Flerkó, B., Sétáló, G., Vigh, S. and **Merchenthaler, I.**: Recent immunohistochemical findings on the LHRH neuron system of the rat. *Materia Medica Polona 12:119-123, 1980.*
13. **Merchenthaler, I.,** Lengvári, I., Rostás, B., and Sétáló, G.: Pituitary‑adrenal function after isolated removal of the median eminence of the rat. *Endocrinologie 77: 185‑191, 1981.*
14. Réthelyi, M., Vigh, S., Sétáló, G., **Merchenthaler, I.,** Flerkó, B., and Petrusz, P.: The luteinizing hormone-releasing hormone‑containing pathways and their co‑termination with tanycyte processes in and around the median eminence and pituitary stalk of the rat. *Acta. Morph. Acad. Sci. Hung. 29: 259‑283, 1981.*
15. **Merchenthaler, I.,** Görcs, T., and Sétáló, G.: Neurons containing luteinizing hormone‑releasing hormone in the induseum griseum of the rat. *Acta. Morph. Acad. Sci. Hung. 30: 151‑156, 1982.*
16. Gallyas, F., Görcs, T., and **Merchenthaler, I.**: High grade intensification of the endproduct of the diaminobenzidine reaction demonstrating peroxidase activity. *J. Histochem. Cytochem. 30: 183‑185, 1982.*
17. Vigh, S., **Merchenthaler, I.,** Torres‑Aleman I., Sueiras‑Diaz, J., Coy, D.H., Carter, W.H., Petrusz, P., and Schally, A.V.: Corticotropin-releasing factor (CRF): Immunocytochemical localization and radioimmunoassay (RIA). *Life Sci. 31: 22441‑2448, 1982.*
18. **Merchenthaler, I.,** Vigh, S., Petrusz, P., and Schally, A.V.: Immunocytochemical localization of corticotropin-releasing factor (CRF) in the rat brain. *Am. J. Anat. 165: 385‑396, 1982.*
19. **Merchenthaler, I.,** Görcs, T., and Petrusz, P.: Silver intensification of diaminobenzidine reaction product for peroxidase immunocytochemistry. *J. Histochem. Cytochem. 30: 607, 1982.*
20. Fitzpatrick, D., Cheema, S., **Merchenthaler, I.,** and Rustioni, A.: Improved visualization of neurons labeled with horseradish peroxidase: silver intensification of the pyrocathecol ß‑phenylendiamine reaction product. *J. Neurosci. Methods 8: 161‑169, 1983.*
21. **Merchenthaler, I.,** Vigh, S., Petrusz, P., and Schally, A.V.: The paraventriculo‑infundibular corticotropin-releasing factor (CFR)‑pathway as revealed by immunochemistry in long‑term hypophysectomized or adrenalectomized rats. *Regul. Pept. 5: 295‑305, 1983.*
22. **Merchenthaler, I.,** Hynes, M.A., Vigh, S., Schally, A.V., and Petrusz, P.: Immunocytochemical localization of corticotropin-releasing factor (CRF) in the rat spinal cord. *Brain Res. 275: 373‑377, 1983.*
23. Petrusz, P., **Merchenthaler, I.,** Maderdrut, J.L., Vigh, S., and Schally, A.V.: Corticotropin-releasing factor (CRF)‑like immunoreactivity in the vertebrate endocrine pancreas. *Proc. Natl. Acad. Sci. USA, 80: 1721‑1725, 1983.*
24. **Merchenthaler, I.**: Corticotropin-releasing factor (CRF)‑like immunoreactivity in the rat central nervous system. Extrahypothalamic distribution. *Peptides 5(Suppl. 1): 53‑69, 1984.*
25. **Merchenthaler, I.,** Hynes, M.A., Vigh, S., Schally, AV, and Petrusz, P.: Corticotropin-releasing factor (CRF): Origin and course of afferent pathways to the median eminence (ME) of the rat hypothalamus. *Neuroendocrinology 39: 296‑306, 1984.*
26. **Merchenthaler, I.,** Vigh, S., Arimura, A., and Stumpf, W.E.: CRF‑immunoreactive structures in the rat thalamus. *Brain Res. 323:119‑122, 1984.*
27. **Merchenthaler, I.,** Vigh, S., Schally, A.V., and Petrusz, P.: Immunocytochemical localization of growth hormone-releasing factor (GHRF) in the rat hypothalamus. *Endocrinology 114:1082‑1085, 1984.*
28. **Merchenthaler, I.,** Görcs, T., Sétáló, G., Petrusz, P., and Flerkó, B.: Gonadotropin-releasing hormone (GnRH) neurons and pathways in the rat brain. *Cell Tissue Res. 237: 15‑29, 1984.*
29. **Merchenthaler, I.,** Thomas, C.R., Arimura, A.: Immunocytochemical localization of growth hormone-releasing factor (GHRF)‑containing structures in the rat brain using anti‑rat GHRF serum. *Peptides 5:1071‑1076, 1984.*
30. Petrusz, P., **Merchenthaler, I.,** Ordronneau, P., Maderdrut, J.L., Vigh, S., and Schally, A.V.: Corticotropin-releasing factor (CRF)‑like immunoreactivity in the gastro‑entero‑pancreatic endocrine system. *Peptides 5(Suppl. 1): 71‑78, 1984.*
31. **Merchenthaler, I.** and Arimura, A.: Effect of hypophysectomy on immunocytochemically demonstrated growth hormone-releasing factor (GHRF) in the rat brain. *Peptides 6: 865‑867, 1985.*
32. Petrusz, P., **Merchenthaler, I.,** Maderdrut, J.L., and Heitz, P.U.: Central and peripheral distribution of corticotropin-releasing factor. *Fed. Proc. 44: 229‑235, 1985.*
33. **Merchenthaler, I.,** Maderdrut, J.L, Altshuler, R.A., and Petrusz, P.: Immunocytochemical localization of proenkephalin‑derived peptides in the central nervous system of the rat. *Neuroscience 17: 325‑348, 1986.*
34. **Merchenthaler, I.,** Csontos, C., Kalló, I., and Arimura, A.: The hypothalamo‑infundibular growth hormone-releasing system of the rat. *Brain Res. 378: 297‑302, 1986.*
35. Maderdrut, J.L., **Merchenthaler, I.,** Sundberg, D.K., Okado, N., and Oppenheim, R.W.: Distribution and development of proenkephalin‑like immunoreactivity in the lumbar spinal cord of the chicken. *Brain Res. 377: 29‑40, 1986.*
36. Jirikowski, G.F., **Merchenthaler, I.,** Rieger, G.E., and Stumpf, W.E.: Estradiol target sites immunoreactive for beta‑endorphin in the arcuate nucleus of rat and mouse hypothalamus. *Neuorsci. Lett. 65: 121‑126, 1986.*
37. **Merchenthaler, I.,** Maderdrut, J.L., Lázár, G., Gulyás, J., and Petrusz, P.: Immunocytochemical localization of proenkephalin‑derived peptides in the amphibian hypothalamus and optic tectum. *Brain Res. 416: 219‑277, 1987.*
38. Józsa R., Korf, M.W., and **Merchenthaler, I.**: Growth hormone-releasing factor (GHRF)‑like immunoreactivity in sensory ganglia of the rat. *Cell Tissue Res. 247: 441‑444, 1987.*
39. **Merchenthaler, I.,** Culler, M.D., Petrusz, P., and Negro‑Vilar, A.: Immunocytochemical localization of inhibin in rat and human reproductive tissues. *Mol. Cell. Endocrinol. 54: 239‑243, 1987.*
40. Iwasaki, K., Fujii, A., **Merchenthaler, I**., Groot, K., Arimura, A.: The stimulation of somatostatin release by hpGRF44 from rat hypothalamic cells and fragments in vitro. *Tokai J. Exp. & Clin. Med. 12:117-124, 1987.* Gallyas, F., and **Merchenthaler, I.**: Copper‑H2O2 oxidation strikingly improves silver intensification of the nickel‑diaminobenzidine (Ni‑DAB) end‑product of the peroxidase reaction. *J. Histochem. Cytochem. 36: 807‑810, 1988.*
41. **Merchenthaler, I.,** Maderdrut, J.L., Weber, E., and Petrusz, P.: Characterization of metorphamide‑like immunoreactivity in the zona incerta and lateral‑hypothalamus: colocalization with a‑melanocyte stimulating hormone‑like immunoreactivity. *Brain Res. 452: 87‑96, 1988.*
42. **Merchenthaler, I.,** Csernus, V., Csontos, C., Petrusz, P., and Mess, B.: New data on the immunocytochemical localization of thyrotropin-releasing hormone (TRH) in the rat central nervous system. *Amer. J. Anat. 181: 359‑376, 1988.*
43. Liposits, Zs., **Merchenthaler, I.,** Paull, W.K., and Flerkó, B.: Synaptic communication between somatostatinergic axons and growth hormone‑releasing factor (GRF) synthesizing neurons in the arcuate nucleus of the rat. *Histochemistry 89: 247‑252, 1988.*
44. **Merchenthaler, I.,** Culler, M.D., Negro‑Vilar, A., Petrusz, P., and Flerkó, B.: The Pro‑LHRH system of the rat brain. Effect of changes in the endocrine background. *Brain Res. Bulletin 20: 713‑720, 1988.*
45. Culler, M.D., Valenca, M.M., **Merchenthaler, I.,** Flerkó, B., and Negro‑Vilar, A.: Orchidectomy induces temporal and regional changes in the processing of the LHRH prohormone in the rat brain. *Endocrinology 122: 1968‑1976, 1988.*
46. **Merchenthaler, I.,** Culler, M.D., Petrusz, P., Flerkó, B., and Negro‑Vilar, A.: Immunocytochemical localization of the gonadotropin‑releasing hormone‑associated peptide portion of the LHRH precursor in the hypothalamus and extrahypothalamic regions of the rat central nervous system. *Cell Tissue Res. 255: 5‑14, 1989.*
47. **Merchenthaler, I.,** Lázár, G., and Maderdrut, J.L.: Distribution of proenkephalin‑derived peptides in the brain of Rana Esculenta. *J. Comp. Neurol. 281: 23‑39, 1989.*
48. **Merchenthaler, I.,** Meeker, M., Petrusz, P., and Kizer, J.S.: Identification and immunocytochemical localization of a new TRH precursor in rat brain. *Endocrinology 124: 1888‑1897, 1989.*
49. **Merchenthaler, I.,** Stankovics, J. and Gallyas, F.: A highly sensitive one step method for the silver‑intensification of the nickel‑diaminobenzidine end‑product of peroxidase reaction. *J. Histochem. Cytochem. 37: 1563-1565, 1989.*
50. **Merchenthaler, I.,** Sétáló, G., Csontos, C., Petrusz, P., Flerkó, B. and Negro-Vilar, A.: Combined retrograde tracing and immunocytochemical identification of luteinizing hormone-releasing hormone-and somatostatin-containing neurons projecting to the median eminence of the rat. *Endocrinology 125: 2812-2821, 1989.*
51. **Merchenthaler, I.,** Sétáló, G., Petrusz, P., Negro‑Vilar, A., and Flerkó, B: Identification of hypophysiotropic luteinizing hormone releasing hormone (LHRH) neurons by combined retrograde labeling and immunocytochemistry. *Exp. Clin. Endocrinol. 94:133-140, 1989.*
52. **Merchenthaler, I.,** López, F.J. and Negro-Vilar, A.: Colocalization of galanin and luteinizing hormone-releasing hormone in a subset of preoptic hypothalamic neurons: Anatomical and functional correlates. *Proc. Natl. Acad. Sci. USA 87:6326-6330, 1990.*
53. Lázár, G., Maderdrut, J.L. and **Merchenthaler, I.**: Some enkephalinergic pathways in the brain of Rana Esculenta: an experimental analysis. *Brain Res. 521: 238-246, 1990.*
54. Sétáló, G. and **Merchenthaler, I.**: Translingual approach of the basal surface of the diencephalon of the rat and retrograde labeling from the median eminence. J. *Neurosci. Methods 35:169-173, 1990.*
55. **Merchenthaler, I.**: Retrograde labeling of hypophysiotropic neurons from the median eminence by local injection of wheat germ agglutinin (WGA) or peripheral administration of Fluoro-Gold. *Mol. Cell. Neurosci. 1:93-106, 1990.*
56. **Merchenthaler, I.**: Co‑localization of enkephalin and TRH in perifornical neurons of the rat hypothalamus that project to the lateral septum. *Brain Res. 544:177-180, 1991.*
57. **Merchenthaler, I.,** Culler, M.D., Petrusz, P., Negro‑Vilar, A.: Immunocytochemical localization of the alpha inhibin subunit in the rat adrenal cortex. *J. Neuroendocrinol. 3:425-428, 1991.*
58. López, F.J., **Merchenthaler, I.,** Ching, M., Wisniewski, M. and Negro-Vilar,A.: A galanin neuronal system subserves multiple neuromodulatory and hypophysiotropic roles on gonadal regulation. *Proc. Natl. Acad. Sci. USA. 88:4508-4512, 1991.*
59. Liposits, Zs., **Merchenthaler, I.,** Wetsel, W.C., Reid, J.A., Mellon, P.L., Weiner, R.I., Negro-Vilar, A.: Morphological characterization of immortalized hypothalamic neurons synthesizing luteinizing hormone-releasing hormone. *Endocrinology 129:1575-1583, 1991.*
60. Lázár, Gy., Liposits, Zs., Tóth, P., Trasti, S.L., Maderdrut, J.L. and **Merchenthaler, I.**: Distribution of galanin-like immunoreactivity in the brain of Rana esculenta and Xenopus laevis. *J. Comp. Neurol. 310:45-67, 1991.*
61. **Merchenthaler, I**.: The hypopysiotropic galanin-containing neuronal system of the rat brain. *Neuroscience 44:643-654, 1991.*
62. **Merchenthaler, I.**: Neurons with access to fenestrated capillaries in the central nervous system of the rat. *Neuroscience 44:655-662, 1991.*
63. **Merchenthaler, I.**: Current status of brain hypophysiotropic factors: morphological aspects. *Trends in Endocrinology and Metabolism 2:219-226, 1991.*
64. **Merchenthaler, I.**, López, F.J., Lennard, D.E. and Negro‑Vilar, A.: Sexual differences in the distribution of neurons containing both galanin and luteinizing hormone-releasing hormone in the rat brain. *Endocrinology 129:1977-1986, 1991.*
65. **Merchenthaler, I.,** and Lennard, D.E.: The hypophysiotropic neurotensin neuronal system of the rat brain. *Endocrinology 129:2875-2880, 1991.*
66. López, FJ., Liposits, Zs., **Merchenthaler, I.:** Evidence for a negative ultrashort-loop feedback regulating galanin release from the arcuate nucleus-median eminence functional unit. *Endocrinology 130:1499-1507, 1991.*
67. Wetsel, W., Valenca, M.M., **Merchenthaler, I.,** Liposits, Zs., López, F.J., Weiner, R.I., Mellon, P.L., Negro-Vilar, A.: Intrinsic pulsatule secretory activity of immortalized LHRH-secreting neurons. *Proc. Natl. Acad. Cit: 241 USA. 89:4149-4153, 1992.*
68. Wetsel, W., Khan, W., **Merchentheler, I.,** Rivera, H., Negro-Vilar, A. and Hannun, Y.A.: Tissue and cellular distribution of Protein Kinase C isoenzymes. *J. Cell Biol. 117:121-133, 1992.*
69. **Merchenthaler, I.,** Maderdrut, J.L., O'Harte, F., Conlon, M.J.: Localization of neurokinin B in the central nervous system of the rat. *Peptides 13:815-829, 1992.*
70. **Merchenthaler, I.** Enkephalin-immunoreactive neurons in the paraventricular nucleus project to the external zone of the median eminence. *J. Comp. Neurol. 326:112-120, 1992.*
71. Zhang, W.Q., Pennypacker, K.R., Ye, H., **Merchenthaler, I.,** Grimes, L., Iadarola, M.J., Hong, J.S.: A 35 KDa Fos-related antigen is co-localized with substance P and dynorphin in striatal neurons. *Brain Res. 577:312-317, 1992.*
72. Lengvari, I., Csoknya, M., **Merchenthaler, I**., Hamori, J.: Immunohistochemical study of the nervous system in earthworm (*Lumbricus terrestris L*.). *Acta Biologica Hungarica 43:253-258, 1992.*
73. **Merchenthaler, I.:** Induction of enkephalin in tuberoinfundibular dopaminergic neurons during lactation. *Endocrinology 133:2645-2651, 1993.*
74. Làzàr, Gy. Maderdrut, J.L., Trasti, S.L., Liposits, Zs., Toth, P., Kozicz, T., **Merchenthaler, I.:** Distribution of proneuropeptide Y-derived peptides in the brain of Rana esculenta and Xenopus laevis. *J. Comp. Neurol. 327:551-571, 1993.*
75. Lennard, E.D., Eckert W.A., **Merchenthaler, I.**: Corticotropin-releasing hormone (CRH) neurons in the paraventricular nucleus project to the external zone of the median eminence: a study combining retrograde labeling with immunocytochemistry. *J. Neuroendocrinol. 5:175-181, 1993.*
76. Liposits, Zs., **Merchenthaler, I.,** Reid, J.J., Negro-Vilar, A.: Galanin-immunoreactive axons innervate somatostatin-synthesizing neurons in the anterior periventricular nucleus of the rat. *Endocrinology 132:917-923, 1993.*
77. **Merchenthaler, I.,** Liposits, Zs., Ried, J.-A., Wetsel, W.: Light and electron microscopic immunocytochemical localization of PKC∂-immunoreactivity in the rat central nervous system. *J. Comp. Neurol. 336:378-399, 1993.*
78. **Merchenthaler, I.,** Lennard, D., Negro-Vilar, A.: Neonatal imprinting predetermines the sexually-dimorphic estrogen-dependent expression of galanin in LHRH neurons. *Proc. Natl. Acad. Sci. USA 90:10479-10483, 1993.*
79. **Merchenthaler, I.**, López, F.J., Negro-Vilar, A.: Anatomy and physiology of central galanin-containing pathways. *Progress in Neurobiology 40:711-769, 1983.*
80. Ceresini, G., Merchenthaler, A., Negro-Vilar, A., **Merchenthaler, I.:** Aging impairs galanin expression in LHRH neurons; modulation by ovarian steroids. *Endocrinology 134:324-330, 1994.*
81. **Merchenthaler, I.:** The coexpression of enkephalin and dopamine in tuberoinfundibular dopaminergic (TIDA) neurons is primarily prolactin-dependent. *Neuroendocrinology 60:185-193, 1994.*
82. **Merchenthaler, I.** and Liposits, Zs.: Mapping of thyrotropin-releasing hormone (TRH) neuronal systems of the rat forebrain projecting to the median eminence and the OVLT. Immunocytochemistry combined with retrograde labeling at the light and electron microscopic levels. *Acta Biologica Hungarica 45:361-374, 1994.*
83. Liposits, Zs., Reid, J.J., **Merchenthaler, I.,** Negro-Vilar, A,: Sexual dimorphism in the co-packaging of luteinizing hormone-releasing hormone and galanin into neurosecretory vesicles of hypophysiotropic neurons: estrogen dependency. *Endocrinology, 136:1987-1992, 1995.*
84. **Merchenthaler, I.,** Lennard, E.D., Cienchetta, P., Merchenthaler, A., Bronstein, D.: Induction of proenkephalin in tuberoinfundibular dopaminergic neurons by hyperprolactinemia; modulation by sexual steroids. *Endocrinology, 136:2442-2450, 1995.*
85. Lopez, F.J., **Merchenthaler, I**., Liposits, Zs., Negro-Vilar, A.: Steroid imprinting and modulation of sexual dimorphism in the luteinizing hormone-releasing hormone neuronal system*. Cellular and Molecular Neurobiology 16:129-141, 1996.*
86. Lazar, Gy., Maderdrut, J.L., Kozicz, T., **Merchenthaler, I.**: Distribution of neuromedin U-like immunoreactivity in the central nervous system of Rana esculenta. *J. Comp. Neurol. 369:438-450, 1996.*
87. Shughrue, P.J., Lane, M.V., **Merchenthaler, I.**: In situ hybridization analysis of the distribution of neurokinin-3 mRNA in the rat central nervous system. *J. Comp. Neurol.*  *372:395-414, 1996.*
88. Shughrue, P.J., Lane, M.V., **Merchenthaler, I.**: Glucagon-like peptide-1 receptor (GLP1-R) mRNA in the rat hypothalamus. *Endocrinology 137:5159-5162, 1996.*
89. Shughrue, P.J., Komm, B., **Merchenthaler, I.**: The distribution of estrogen receptor- mRNA in the rat hypothalamus. *Steroids*, *61:678-681, 1996.*
90. López, F.J., Moretto, M., **Merchenthaler, I.,** Negro-Vilar, A.: Nitric oxide participates in the intrinzic luteinizing hormone-releasing hormone (LHRH) pulse generator present in immortalized LHRH neurons. *J. Neuroendocrinol. 9:647-654, 1996.*
91. **Merchenthaler., I**., Maderdrut, J.L., Cianchetta, P., Shughrue, P., Bronstein D.: *In* *situ* hybridization histochemical localization of prodynorphin messenger RNA in the central nervous system of the rat. *J. Comp. Neurol. 384:211-232, 1997.*
92. Shughrue, P.J., Lane, M.V., **Merchenthaler, I**.: Comparative distribution of estrogen receptor-alpha (ER-a) and ER-beta (ER-b) mRNAs in the rat central nervous system. *J. Comp. Neurol*. *388:507-525, 1997.*
93. Shughrue, P.J., Lane, M.V., Lubahn, D., Negro-Vilar, A., Korach, K**., Merchenthaler, I.:** Estrogen responses in the brain of estrogen receptor-disrupted mice. *Proc. Natl. Acad. Sci. USA 94:11008-11112, 1997.*
94. Shughrue, P.J., Scrimo, P.J., Lane, M.V., Askew, R. and **Merchenthaler, I**.: The distribution of estrogen receptor-β mRNA in the forebrain regions of estrogen receptor-α knockout (ERKO) mice. *Endocrinology 138:5649-5652, 1997.*
95. Shughrue, P.J., Lane, M.V., **Merchenthaler, I**.: Regulation of progesterone receptor mRNA in the rat medial preoptic nucleus by estrogenic and antiestrogenic compounds: an *in situ* hybridization study. *Endocrinology, 138:5476-5484, 1997.*
96. Ceresini, G., Freddi, M., Paccotti, P., Valenti, G., **Merchenthaler, I**.: Effects of ovine orticotropin-releasing hormone injection and desmopressin coadministration on galanin and adrenocorticotropin plasma levels in normal women. *J. Clin. Endocr. and Metab. 82:607-610, 1997.*
97. Lopez, F.J., **Merchenthaler, I**., Moretto, M., Negro-Vilar, A.: Modulating mechanism of neuroendocrine cell acvtivity: The LHRH pulse generator. *Cellular and Molecular Neurobiology 18:125-146, 1998.*
98. Hrabowsky, E., Kallo, I., Hajszan, T., Shughrue, P.J., **Merchenthaler, I**., Liposits,Z.: Expression of estrogen receptor-b mRNA in oxytocin and vasopressin neurons of the supraoptic and paraventricular nuclei. *Endocrinology, 139:2600-2604, 1998.*
99. **Merchenthaler. I**., Funkhouser, J.M., Carver, J.M., Lundeen, S.G., Winneker, R.C.: The effect of estrogens and antiestrogens in a rat model for hot flush. *Maturitas, 30:307-316, 1998.*
100. Shughrue, P.J., Lane M.V., **Merchenthaler, I** :Comparative distribution of estrogen receptor- (ER-a) and ER- mRNA in the pituitary, gonads and reproductive tract. *Steroids, 63:498-504, 1998.*
101. Kuiper, G.G.J.M., Shughrue, P.J., Pelto-Huikko, M., **Merchenthaler, I**., Gustafsson, J-A.: The estrogen receptor b subtype: a novel mediator of estrogen action in neuroendocrine systems. *Frontiers in Neuroendocrinology, 19:253-286, 1998.*
102. Fitzpatrick, S.L., Sindoni, D.M., Shughrue, P.J., **Merchenthaler, I**., Frail, D.E.: Expression of growth differentiation factor-9 messenger ribonucleic acid in ovarian and non-ovarian rodent and human tissues. *Endocrinology, 139:2571-2578, 1998*.
103. Shughrue, P.J., Scrimo, P.J. and **Merchenthaler, I**.: Evidence for the colocalization of estrogen receptor-β mRNA and estrogen receptor-α in neurons of the rat forebrain. *Endocrinology, 139:5267-5270, 1998.*
104. **Merchenthaler, I**.: LHRH and sexual dimorphism. In: Galanin: Basic Research and Therapeutic Indications. T. Hökfelt, T. Bartfai and J.N. Crawley (eds). *Ann. Acad. Sci. N.Y. 863:175-187, 1998.*
105. **Merchenthaler, I.,** Shughrue, P.J. and Lane, M.V. : The distribution of GLP-1 and GLP-1 receptor mRNA in the rat central nervous system. *J. Comp. Neurol. 402: 261-280, 1999.*
106. Thomas, A., Shughrue, P.J., **Merchenthaler, I**., Amico, J.A.: The effects of progesterone upon hypothalamic oxytocin mRNA levels in the paraventricular nucleus of the rat are mediated by gamma aminobutyric acid and progesterone receptor. *J. Neuroendocrinology, 11:137-144, 1999.*
107. Shughrue, P.J., Lane, M.V. and **Merchenthaler, I**.: Biologically active estrogen receptor-β: evidence from in vivo autoradiographic studies with estrogen receptor-α knockout mice. *Endocrinology, 140:2613-2620, 1999.*
108. Fitzpatrick, S.L., Funkhouser, J.M., Sindoni, D.M., Stevis, P.E., Deecher, D.C., Bapat, A.R., **Merchenthaler, I.,** Frail, D.E.: Expression of estrogen receptor-β protein in rodent ovary. *Endocrinology, 140:2581-2591, 1999.*
109. **Merchenthaler. I**., Funkhouser, J.M., Carver, J.M., Lundeen, S.G., Winneker, R.C.: The effect of estrogens and antiestrogens in a rat hot flush model. *Menopause Digest :9-12, 1999.*
110. Dubal, D.B., Shughrue, P.J., Wilson, M.E., **Merchenthaler, I**., Wise, P.M. Estradiol modulates *bcl-2* in cerebral ischemia: a potential for estrogen receptors. *J. Neuroscience 19:6385-6393, 1999.*
111. Shen, E.S., Hardenburg, J.L., Meade, E.H., Arey, B.J., **Merchenthaler, I**., Lopez, F.J. Estradiol induces galanin gene expression in the pituitary of the mouse in an estrogen receptor alpha-dependent manner. *Endocrinology 140:2628-2631, 1999.*
112. Fekete, Cs., Strutton, P.H., Cagampang, F.R., Hrabowsky, E., Kallo, I., Shughrue, P.J., Dobo, E., Mihaly, E., Baranyi, L., Akada, H., Panula, P., **Merchenthaler, I**., Coen, C.W., Liposits, Zs. Estrogen receptor immunoreactivity is present in the majority of central histaminergic neurons: evidence for a new neuroendocrine pathway associated with luteinizing hormone-releasing hormone-synthesizing neurons in rats and humans. *Endocrinology 140:4335-4341, 1999.*
113. **Merchenthaler, I**., Shughrue, P.J. Estrogen receptor-beta: a novel mediator of estrogen action in brain and reproductive tissues. Morphological considerations. *J. Endocr. Invest. 22:10-12-1999.*
114. Horvath, T.L., Diano, S., Sakamoto, H., Shughrue, P.J., **Merchenthaler, I**.: Estrogen receptor β and progesterone receptor mRNA in the ventral lateral geniculate nucleus and intergeniculate leaflet of the female rat. *Brain Res. 844:196-200, 1999.*
115. Shughrue, P.J., Scrimo, P.J., **Merchenthaler, I**.: Estrogen binding and estrogen receptor characterization (ER-α or ER-β) in the cholinergic neurons of the rat basal forebrain. *Neuroscience, 96:41-49, 2000.*
116. Dudas, B., **Merchenthaler, I**., Mihaly, A.: Topography and connections of luteinizing hormone-releasing hormone and neuropeptide-Y-immunoreactive neuronal system in the human hypothalamus. *J. Comp. Neurol. 427:593-603, 2000.*
117. Shughrue, P.J., **Merchenthaler, I**.: Estrogen is more than just a “sex hormone”: novel sites for estrogen action in the hippocampus and cerebral cortex. *Front. Neuroendocrinol. 21:95-101, 2000.*
118. Shughrue, P.J., **Merchenthaler, I**. Evidence for novel estrogen binding sites in the rat hippocampus. *Neuroscience 99:605-612, 2000.*
119. Hrabowszky E., Shughrue, P.J., **Merchenthaler,** I., Hajszan, T., Carpenter, C.D., Liposits, Zs., Petersen, S.L. Detection of estrogen receptor-beta messenger ribonucleic acid and 125I-estrogen binding sites in luteinizing hormone-releasing hormone neurons of the rat brain. *Endocrinology 141:3506-3509, 2000.*
120. Wagner , C.K., Pfau, J.L., De Vries, G.J., **Merchenthaler, I**.: Sex differences in progesterone receptor immunoreactivity in neonatal brain are dependent on estrogen receptor expression. *J. Neurobiol. 47(3):176-182, 2001.*
121. Dubal, D.B., Zhu, J., Rau, S.W., Shughrue, P.J., **Merchenthaler, I**., Kindy M.S., Wise, P.M.: Estrogen receptors alpha, not beta, is a critical link is estradiol-mediated protection against brain injury. *Proc. Natl., Acad. Sci. USA 98:1952-1957, 2001.*
122. Shughrue, P.J., **Merchenthaler, I**.: Distribution of estrogen receptor-beta immunoreactivity in the rat central nervous system. *J. Comp. Neurol. 436:64-81, 2001*.
123. Papka, R.E., Storey-Workley, M., Shughrue, P.J., **Merchenthaler, I**., Collins, J.J., Usip, S., Saunders, P.T.K., Shupnik, M. Estrogen receptor-α and -β immunoreactivity and mRNA in neurons of sensory and autonomic ganglia and spinal cord. *Cell Tissue Res. 304:193-214, 2001.*
124. Dudas, B and **Merchenthaler, I**.: Catecholaminergic axons innervate LH-releasing hormone immunoreactive neurons of the human diencephalon. *J. Clin. Endo. Metab. 86(11):5620-5626, 2001*
125. Lazar, G., Maderdrut, J.L., **Merchenthaler, I**.: Distribution of melanin-concentrating hormone-like immunoreactivity in the central nervous system of *Rana Esculenta*. *Brain Research Bulletin, 57:401-407, 2002.*
126. Wilson, M.E., Rosewell, K.L., Kashon, M.L., Shughrue, P.J., **Merchenthaler, I**., Wise, P.M.: Age differentially influences estrogen receptor-α (ERα) and estrogen receptor-β (ERβ) gene expression in specific regions of the rat brain. *Mechanisms of Aging and Development 123:593-601, 2002.*
127. Shughrue, P.J., Askew, G.R., Dellovade, T.L., **Merchenthaler, I**.: Estrogen binding sites and their functional capacity in estrogen receptor double knockout mice. *Endocrinology, 143:1643-1650, 2002.*
128. Dudas, B and **Merchenthaler, I**.: Close juxtapositions between luteinizing hormone-releasing hormone synthesizing neurons and substance P immunoreactive axons in the human diencephalon. *J. Clin. Endo. Metab. 87:2946-2953, 2002.*
129. Dudas, B and **Merchenthaler, I**.: Close juxtapositions between luteinizing hormone-releasing hormone synthesizing neurons and corticotropin-releasing factor-immunoreactive axons in the human diencephalon. *J. Clin. Endo. Metab. 87:5778-5784, 2002.*
130. Shughrue PJ. Dellovade TL. **Merchenthaler** I. Estrogen modulates oxytocin gene expression in regions of the rat supraoptic and paraventricular nuclei that contain estrogen receptor-beta. *Progress in Brain Research. 139:15-29, 2002.*
131. Shughrue, P.J. and **Merchenthaler, I.**: Estrogen prevents the loss of CA1 hippocampal neurons in gerbils after ischemic injury. *Neuroscience, 116:851-861, 2003.*
132. **Merchenthaler, I.,** Dellovade T.L. Shughrue, P.J.: Neuroprotection by estrogen in animal models of focal and global ischemia. *Ann. New York Acad. Sci. 1007:89-100, 2003.*
133. Dudas, B and **Merchenthaler, I**.: Topography and associations of leu-enkephalin and luteinizing hormone-releasing hormone neurons in the human diencephalon. *J. Clin. Endo. Metab.88:1842-1848, 2003.*
134. Dudas, B and **Merchenthaler, I.**: Close anatomical associations between β-endorphin and luteinizing hormone-releasing hormone neurons in the human diencephalon. *Neuroscience, 124:221-229, 2004.*

# Dellovade, T. L. and Merchenthaler, I.: Estrogen regulation of Neurokinin B gene expression in the mouse arcuate nucleus is mediated by estrogen receptor-α. *Endocrinology, 145:736-742, 2004.*

1. **Merchenthaler, I.,** Lane, M.V., Numan, S., Dellovade, T.L.: The distribution of estrogen receptor α and β in the mouse central nervous system: an in vivo autoradiographic and immunocytochemical analysis. *J. Comp. Neurol., 473:270-291, 2004.*
2. Dudas, B. and **Merchenthaler, I**.: Bi-directional, close anatomical associations between galanin-immunoreactive (GAL-IR) and luteinizing hormone-releasing hormone-IR (LHRH-IR) axons and GAL-IR and LHRH-IR perikarya in the human diencephalon. *Neuroscience, 127:695-707, 2004.*
3. Razandi, M., Pedran, A., **Merchenthaler, I.,** Greene, G.J., Levin, E.R.: Plasma membrane estrogen receptor exist and function as dimers. *Mol. Endocrinology, 18(12):2854-2865, 2004.*
4. Hrabowszky, E., Kallo, I., Steinhauser, A., **Merchenthaler, I**., Coen, C.W., Petersen, S.L., Liposits, Z.: Estrogen receptor-β in oxytocin and vasopressin neurons of the rat and human hypothalamus. Immunocytochemical and *in situ* hybridization studies. *J. Comp. Neurol. 473:315-333, 2004.*
5. **Merchenthaler, I**.: Optimizing in situ hybridization research. Tutorial: The challenges and rewards of ISH. *Genetic Engineering News 24(18):32-36, 2004*.
6. **Merchenthaler, I**.: Estrogen stimulates galanin expression within luteinizing hormone-releasing hormone-immunoreactive (LHRH-i) via ER-β in the female rat brain. *Neuropeptides, 39(3):341-344, 2005.*
7. **Merchenthaler, I**., Hoffman G.E, Lane, M.V.: Estrogen and estrogen rceptor-beta (ERβ) ligands stimulate galanin gene expression in luteinizing hormone-releasing hormone-immunoreactive (LHRH-i) neurons in the female rat brain. *Endocrinology. 146(6):2760-2765, 2005.*
8. Dudas, B. and **Merchenthaler, I**.: Three dimensuional representation of the neurotransmitter systems of the human hypothalamus: Inputs of the gonadotropin-releasing hormone neuronal system. *J. Neuroendocrinology, 18:79-95, 2006*
9. Hoffman, G.E., **Merchenthaler, I**., Zupp, S.: Neuroprotection by ovarian hormones in animal models of neurological diseases. *Endocrine, 29:217-231, 2006.*
10. Szymczak, S., Kalita, K., Jaworski, J., Mioduszewska, B., Savonenko, A., Markowska, A., **Merchenthaler, I**., Kaczmarek, L.: Increased estrogen receptor beta expression correlates with decreased spine formation in the rat hippocampus. *Hippocampus, 16:453-463, 2006.*
11. **Merchenthaler, I**.,Shughrue, P.J.: Neuroprotection by estrogen in animal models of ischemia and Parkinson’s disease. *Drug Developmenl Research. 68:1-10, 2006*.
12. **Merchenthaler, I.**: The effect of estrogens and antiestrogens in rat models of hot flush. *Drug Developmenl Research. 68:182-188, 2006.*
13. Dubal, D.B., Rau, S.W., Shughrue, P.J., Zhu, H., Yu, J., Cashion, B., Suzuki, S., Gerhold, L.M., Bottner, M.B., Dubal, S.B., **Merchenthaler, I**., Kindy, M.S., Wise, M.P.: Differential modulation of estrogen receptors (ERs) in ischemic brain injury: A role for ER-alpha in estradiol-mediated protection against delayed cell death. *Endocrinology 147:3076-3084, 2006.*
14. Dudas, B., Semeniken, K.R., **Merchenthaler, I.:** Morphological substrate of the catecholaminergic input of the vasopressin neuronal system in humans. *J. Neuroendocrinology, 18:79-95, 2006.*
15. Deecher, D.C., Alfinito, P.D., Leventhal, L., Cosmi S., Johnston, G.H., **Merchenthaler, I**, Winneker, R.: Restoring temperature regulation with the new serotonin and norepinephrine reuptake inhibitor desvenlafaxine succinate. *Endocrinology, 148:1376-1383, 2007.*
16. Suzuki, S., Gerhold, L.M., Bottner, Rau, S.W., Dela-Cruz, C., Yang, E., Zhu, H., Ju, J., Cashion, A.B., Kindy, M.S., **Merchenthaler, I.,** Gage, F.H., Wise, P.M.: Estradiol enhances neurogenesis following ischemic stroke through estrogen receptor  and . *J. Comp. Neurol., 500:1064-1075,*

*2007.*

1. Hrabovszky, E., Kallo, I., Szlavik, N., Keller, E., **Merchenthaler, I**., Liposits Z.: Gonadotropin-releasing hormone neurons express estrogen receptor-beta. *J. Comp. Neurol., 503:270-279, 2007.*
2. Symonds, D.A, **Merchenthaler, I.**, Flaws, J.A.: Methoxychlor and Estradiol Induce Oxidative Stress DNA Damage in the Mouse Ovarian Surface Epithelium” *Toxicological Sciences. 105:182-187, 2008.*
3. [Deltondo, J](http://www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&Cmd=Search&Term=%22Deltondo%20J%22%5BAuthor%5D&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_DiscoveryPanel.Pubmed_RVAbstractPlus)., [Por, I](http://www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&Cmd=Search&Term=%22Por%20I%22%5BAuthor%5D&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_DiscoveryPanel.Pubmed_RVAbstractPlus)., [Hu, W](http://www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&Cmd=Search&Term=%22Hu%20W%22%5BAuthor%5D&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_DiscoveryPanel.Pubmed_RVAbstractPlus)., [**Merchenthaler, I**](http://www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&Cmd=Search&Term=%22Merchenthaler%20I%22%5BAuthor%5D&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_DiscoveryPanel.Pubmed_RVAbstractPlus)**.**, [Semeniken, K](http://www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&Cmd=Search&Term=%22Semeniken%20K%22%5BAuthor%5D&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_DiscoveryPanel.Pubmed_RVAbstractPlus)., [Jojart, J](http://www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&Cmd=Search&Term=%22Jojart%20J%22%5BAuthor%5D&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_DiscoveryPanel.Pubmed_RVAbstractPlus)., [Dudas, B](http://www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&Cmd=Search&Term=%22Dudas%20B%22%5BAuthor%5D&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_DiscoveryPanel.Pubmed_RVAbstractPlus).: Associations between the human growth hormone-releasing hormone- and neuropeptide-Y-immunoreactive systems in the human diencephalon: A possible morphological substrate of the impact of stress on growth. *Neuroscience 153:1146-1152, 2008.*
4. **Merchenthaler, I**.: Galanin and the neuroendocrine axis. *Cellular and Molecular Life Sciences, 65:1826-1835, 2008.*
5. Varju, P., Chang, K.C., Hrabovszky, E., **Merchenthaler, I**., Liposits, Z.: Temporal profile of

estrogen-dependent gene expression in LHRH-producing GT1-7 cells. *J. Neurochemistry, 54:119-134, 2009*

158. Semeniken, K., **Merchenthaler, I**., Hu, H., Dudas, B. Catecholaminergic input to the

 oxytocin neurosecretory system in the human Hypothalamus. *J. Chem. Neuroanat.*

 *37:229-233, 2009.*

159. Albrecht, .E.D., Lane, M.V., Marshall, G.R., **Merchenthaler, I.**, Simorangkir, D.R.,

 Pohl, C.R., Plant, T.M., Pepe, G.J. Estrogen promotes of germ cell and seminiferous

 tubule development in the Baboon fetal testis. *Biology f Reproduction, 81:406-414, 2009.*

160. Gullapalli, R., Aracava, Y., Zhuo, J., Neto, E.H., Wang, J., Makris, G., **Merchenthaler I.,** Pereira,

E.F.R., Albuquerque, E.X.: Magnetic Resonance imaging reveals that galantamine

 prevents structural brain damage induced by an acute exposure of guinea pigs to soman.

 *Neurotrauma, NeuroToxicology, 31:67-76, 2010.*

161. Pereira, E.F.R., Aracava, Y., Alkondon, M., Akkerman, M., **Merchenthaler, I**.,

 Albuquerque, E.X.: Molecular and cellular actions of galantamine; clinical implications for

 treatment of organophosphate poisoning. *J. Mol. Neurosci. 40:196-203, 2010.*

162. Anderson, D., Baker, M., Grignol, G., Hu, W., **Merchenthaler, I**., Dudas, B.

 Distribution and morphology of the juxtapositions between growth hormone-releasing hormone (GHRH)-immunoreactive neuronal elements. *Growth Hormone & IGF Res. 20:356-359, 2010.*

163. Dudas, B., Baker, M., Rotoli, G., Grignol, G., Bohn, M.C., **Merchenthaler, I**.: Distribution and morphology of the catecholaminergic neuronal elements in the human hypothalamus. *Neuroscience, 17:187-195, 2010*.

164. **Merchenthaler, I**. and Prokai, L.: Central nervous system-selective estrogens: a safe estrogen therapy. *Cyberrounds, 2010.*

165. **Merchenthaler, I**.: Galanin and the neuroendocrine axis. *EXS 102:71-85, 2010.*

166. **Merchenthaler, I.**, Rotoli, G., Grignol, G. Dudas, B.: Intimate associations between the

 neuropeptide Y system and the galanin-immunoreactive neurions in the human diencephalon.

 *Neuroscience, 17:839-845, 2010.*

167. Ko, L., Rotoli, G., Grignol, G., Hu, W., **Merchenthaler, I**., Dudas, B.: A putative morphological

 substrate of the catecholamine-influenced NPY release in the human hypothalamus.

 *Neuropeptides, 45:197-203, 2011,*

168. Liu, J., Yang, A.R.S.T., Kelly, T., Puche, A.C., Esoga, C., June, Jr., H.L., Elnabawi, A.,

**Merchenthaler, I**., Sieghart, W., June, Sr. H.L., Aurelian, L.: Binge alcohol drinking is associated with GABAA 2-regulated TLR4 expression in the central amygdala. *Proc. Natl. Acad. Sci. USA108:4465-4470, 2011*

169. Rotoli, G., Grignol, G., **Merchenthaler, I**., Dudas, B.: Catecholaminergic axonal varicosities appear to innervate growth hormone-releasing hormone-immunoreactive neurons in the human hypothalamus: the possible morphological substrate of the stress-suppressed growth. *J. Clin. Endo. Metab, 96:E1711-E1606-1611, 2011.*

170. Vinish, M., Elnabawi, A., Milstein, J.E., Burke, J.S., Kallevang, J.K., Turek, K.C., Lansink, C.S., **Merchenthaler, I**., Bailey, A.M., Kolb, b., Cheer, J.F., Frost, D.O.: Olanzepine treatment of adolescent rats alters adult reward behavior and nucleus accumbens function*. Int. J. Neuropsychol. Page 1 of 11. f CINP 2013 doi:10.1017/S1461145712001642.*

171. **Merchenthaler, I.,** Rotoli, G., Peroski, M., Grignol, G., Dudas, B.: Catecholaminergic system innervates galanin-immunoreactive neurons in the human diencephalon. *Neuroscience, 238:327-334, 2013.*

172. Murthy, S.R.K., Thouennon, E., Li, W-S., Cheng, Y., Bhupatkar, J., Cawley, N.X., Lane, M., **Merchenthaler, I**., Loh, Y.P. Carboxypeptidase E protects hippocampal neurons during stress in male mice by upregulating pro-survival BCL2 proein expression. *Endocrinology, 154:3284-3293, 2013.*

173. Yu-Yahiro, J.A., Ruff, C.B., Parks, B.G., Sinkov, V.S., **Merchenthaler, I**.: S-equol prevents loss of bone strength in rat osteoporosis model. *J. Aging Res. Clin. Practice 3:72-78, 2014.*

174 Olsen, J., Peroski M., Kizcek M., Grignol, G., **Merchenthaler, I**., Dudas, B.: Intimate associations between the endogenous opiate systems and the growth hormone-releasing hormone (GHRH) system in the human hypothalamus. *Neuroscience, 258:238-245, 2014.*

175. Bernstein, L.R., Mackenzie, A.C.L., Kraemer, D.C., Morley, J.E., Farr, S., Chaffin, C.L., **Merchenthaler, I**. Shortened estrous cycle length, increased FSH levels, FSH variance, and oocyte spindle aberrations and early declining fertility in aging senescence-accelerated mouse prone-8 (SAMP8) mice: concomitant characteristics of human mid-life female reproductive aging. *Endocrinology, 155:2287-3000, 2014*.

176. Montasser., M.E., Ziv-Gal, A., Brown, J.P., Flaws, J.A., **Merchenthaler, I.** A potentially

functional variant in the serotonin transporter gene is associated with peri-menopausal hot flashes. *Menopause, 22:108-113, 2015.*

# 177. Prudan, N., Peroski, M., Grignol, G., Merchenthaler, I., Dudas, B.: Juxtapositions between the somatostatinergic and growth hormone-releasing hormone (GHRH) neurons in the human hypothalamus. *Neuroscience 297:205-210, 2015*.

178. Prokai, L., Nguyen, V., Szarka, Sz., Ughy, B., Sabnis, G., Bimonte-Nelson, H.A., McLaughlin,

 K.J., Talboom, J.S., Conrad, C.D., Brodie,A., Gould, T.D., Koulen,P., **Merchenthaler, I**., Prokai-

 Tatrai, K. Metabolism-based targeting of 17β-estradiol into the brain. *Science Translational*

 *Medicine*, 7, *29,ra113, 2015.*

179. Bernstein, L. R., MacKenzie, A.C.L., Se-Jin L., Chaffin, C.L. , **Merchenthaler, I**.: Activin decoy receptor ActRIIB:Fc lowers FSH and therapeutically restores oocyte yield, prevents oocyte chromosome misalignments and spindle aberrations, and increases fertility in midlife female SAMP8 mice. *Endocrinology 157(3):1234-1247, 2016*.

180. Peroski, M., Proudan, N., Grignol, G., **Merchenthaler, I.,** Dudas, B.: Corticotropin-releasing hormone (CRH)-imunoreactive (IR) axons varicosities target growth hormone-releasing hormone (GHRH)-IR neurons in the human hypothalamus. *J Chem Neuroanat, 78:119-124, 2016.*

181. **Merchenthaler, I**., Lane, M., Sabnis, G., Brodie, A., Prokai-Tatrai, K., Prokai, L. Novel treatment of menopausal hot flushes with an estradiol bioprecursor in two animal models of thermoregulatory dysfunction. *Nature,* *Scientific Reports, 6:30721, 2016.*

182.Selvaraj, P., Xiao, L., Lee, C., Murthy, S.R.K., Cawley, N.X., Lane, M., **Merchenthaler, I.,** Ahn, S., Loh, Y.P.: Neurotrophic factor-alpha-1: A key Wnt-beta-catenin-dependent anti-proliferation factor and ERK-Sox9-activated inducer of embryonic neural stem cell differentiation to astrocytes in neurodevelopment. *Stem Cells, In press*

**Submitted***:*

**Non-refereed publications (Proceedings):**

1. Vigh, S., **Merchenthaler, I.,** Petrusz, P., Schally, A.V., and Flerkó, B.: Distribution of corticotropin releasing factor (CRF) in the central nervous system. In Labrie, F., Proulx, L. (eds) *Endocrinology. Proc. 7th Int. Cong. Endocr. Exrepta Medica, Amsterdam, pp. 945‑954, 1984.*

2. Arimura, A., and **Merchenthaler, I.**: Localization of GHRH in the rat brain. In Vizi, E.S., and Magyar, K. (eds) *Regulation of Transmission Function: Basic and Clinical Aspects, GHRF, Part 1, Akademiai Kiado, Budapest, pp. 117‑128, 1984.*

3. Wetsel, W., **Merchenthaler, I.**, Valenca, M., Liposits, Zs., López, F., Negro-Vilar, A.: New tools and approaches in molecular and cellular neuroendocrinology. *Proceedings of the Advanced Endocrinology Workshop in Intracellular Signalling and Cell-Cell Regulation, La Toja, Spain, 1992.*

4. Negro-Vilar, A., Wetsel, W., Valenca, M, **Merchenthaler, I.**, López, F., Liposits, Zs., Ching, M., Weiner, R. and Melon, P.: Cellular and molecular aspects of LHRH secretion and bioactivity. *Serono Symposium, Scottsdale, AR, 1992.*

*5.* **Merchenthaler, I.**, Liposits, Zs., López, F.J., Wetsel, W.C., Negro-Vilar, A.: Functional morphology of the GnRH neuronal system: connectivity and co-localization. *Proceedings of the Satellite Symposium on Gonadotropins, GnRH, GnRH Analogs and Gonadal Peptides. P. Bouchard, A. Caraty, H.J.T. Coelingh Bennink, S.N. Pavlou (eds) , Paris, France, Parthenon Publishing Group, London, pp.23-39, 1992 .*

6. Negro-Vilar, A., Wetsel, W, López, F.J., Valenca, M., Moretto, M., Liposits, Zs., **Merchenthaler, I.:** Novel concepts in the physiology of the LHRH pulse-generator. *Proceedings of the Satellite Symposium on Gonadotropins, GnRH, GnRH Analogs and Gonadal Peptides.. P. Bouchard, A. Caraty, H.J.T. Coelingh Bennink, S.N. Pavlou (eds), Paris, France, Parthenon Publishing Group, London, pp 39-53., 1992.*

7*.* Negro-Vilar, A., López, F.J., **Merchenthaler, I.,** Wetsel, W.: Steroid effects on LHRH cells. *Progress in Endocrinology. Proceedings of the 9th International Congress of Endocrinology. R. Mornex, C. Jaffiol and J. Lecler (eds). The Parthenon Publishing Group Inc., New York, pp.152-154, 1993.*

8. Daikoku, S., Hisano, S.S., **Merchenthaler, I.,** Sawchenko, P, Shioda, S., Silverman, A-J.: The endocrine hypothalamus. *106th Meeting of the American Association of Anatomists Held Jointly with The Japanese Association of Anatomists. San Diego, CA, 1993*

9. Negro-Vilar, A., Moretto, M., **Merchenthaler, I**., López, F.J.: Recent advances in the cellular and molecular biology of the luteinizing hormone-releasing hormone (LHRH) pulse generator. *Serono Symposium, Palma de Majorca, Spain, 1993.*

**Books edited:**

1. Neuropeptides and Peptide Analogs. M. Kovacs and I. Merchenthaler, I. (eds), *Research Signpost, Kerala, India, 2009.*

**Bookchapters***:*

1. **Merchenthaler, I.,** and Vigh S.: CRF and GHRH in the rat central nervous system. An immunocytochemical study. In Vizi, E.S., and Magyar, K. (eds) *Regulation of Transmission Function: Basic and Clinical Aspects, Part 1, Akademiai Kiado, Budapest, pp. 385‑388, 1984.*
2. Petrusz, P., **Merchenthaler, I.,** and Maderdrut, J.L.: Distribution of enkephalin‑containing neurons in the central nervous system. In Bjorklund, A., Hokfelt, T. (eds) *Handbook of Chemical Neuroanatomy, Vol. 4, Part I, GABA and Neuropeptides in the CNS: 273‑334, 1985.*
3. Stumpf, W.E., Sar, M., Jennes, L., **Merchenthaler, I.,** and Reiger, G.: Steroid hormone regulation of monoaminergic and peptidergic neurons. Histochemical evidence. In Kobayashi, H., Bern, H.A., and Urano, A. (eds) *Neurosecretion and Biology of Neuropeptides. Japan Scientific Press, Tokyo and Springer‑Verlag, New York, pp. 202‑209, 1985.*
4. Flerkó, B., **Merchenthaler, I.,** and Sétáló, G.T.: Short and ultrashort feedback control of gonadotropin secretion. In Leung P.C.X., Armstrong, D.T., Ruf, K.B., Moger, W.H., and Friesen, H.G. (eds.) *Endocrinology and Reproduction, Plenum Press, New York, pp. 37‑50, 1987.*
5. **Merchenthaler, I.,** Liposits, Z. and Gallyas, F. Silver intensification in immunocytochemistry. In Bullock, G.R. and Petrusz, P. (eds) *Techniques in Immunocytochemistry Vol. 4, Acad. Press, London, pp. 217-252, 1989.*
6. **Merchenthaler, I.,** and Lengvári, I.: Neuroendocrine control. In Pearson, J., Kopp, N., and Riederer, P. (eds) *An Introduction to Neurotransmitters in Health and Disease. Acad. Press, London, pp. 93-118, 1990*
7. Negro-Vilar, A., López, F.J., **Merchenthaler, I.,** Ching, M., Culler, M.D., Romanelli, F. and Wanderley, I.: Pituitary-testicular interactions: role of inhibin, steroids and intracellular messengers. In Fabbri, A. and Isidori, A. (eds) *Hormonal Communicating Events in the Testis. Raven Press, New York, 1991.*
8. Petrusz, P. and **Merchenthaler, I.**: The corticotropin-releasing factor system. In Nemeroff C.B. (ed) *Comprehensive Textbook of Neuroendocrinology. Section II: Anatomical Neuroendocrinology. CRC Press, Boca Raton, Florida, pp. 125-179, 1992.*
9. Negro-Vilar, A., López, F.J., Donoso, A., **Merchenthaler, I.,** Ching, M., Valenca, M.: Cellular and molecular mechanisms regulating LHRH release and gonadal function. *In: Fronteras en Endocrinologia. C. Dieguez, F.F. Casanueva (eds). Ediciones Diaz de Santos, S.A., Madrid, pp. 171-188, 1992.*
10. López, F.J., **Merchenthaler, I.,** Liposits, Zs., Moretto, M., Meade, E.H., Negro-Vilar, A.: Galanin: a hypothalamic hypophysiotropic hormone. *Progress in Endocrinology. Proceedings of the 9th International Congress of Endocrinology. R. Mornex, C. Jaffiol and J. Lecler (eds). The Parthenon Publishing Group Inc., New York, pp. 143-146, 1993.*
11. **Merchenthaler, I.,** López, F.J., Negro-Vilar, A.: The synthesis of galanin and LHRH is sex steroid dependent. The role of galanin in the regulation of LH secretion. *Current Topics in Andrology. H. Oshima & HG Burger (Eds). Japan Society of Andrology, pp. 13-19, 1993.*
12. **Merchenthaler, I** : Functional morphology of hypophysiotropic factors: identification, connectivity and plasticity. *Principles of Medical Biology.* *Molecular and Cellular Endocrinology. E. Bittar and N. Bittar (eds), JAI Press, Inc., Greenwich, CT, pp. 119-142, 1997.*
13. Wetsel., W.C., **Merchenthaler, I**., Liposits, Zs.: Functional morphology of the immortalized hypothalamic LHRH neurons. *In: Methods in Neuroendocrinology. The Cellular and Molecular Pharmacology Series, L. Van de Kar (ed), CRC Press, Boca Raton, FL., 1998.*
14. **Merchenthaler, I**. and Shughrue, P.J. Estrogen receptor alpha vs beta: new estrogen responsive tissues and new potentials for HRT. *In: Biology of Menopause.* Serono Series, Springer, pp.259-272, 2000.

15. Dudas, B. and **Merchenthaler, I**.: Peptidergic afferents of luteinizing hormne-releasign hormone (LHRH)-synthesizing neurosn in the human brain. *In: Neuropeptides and Peptide Analogs. M. Kovacs and I. Merchenthaler, I. (eds), Research Signpost, Kerala, India, pp.1-32, 2009.*

16. **Merchenthaler, I**.: Galanin and the neuroendocrine axis. *In: Galanin. Hokfelt, T. (ed), Springer, Basel, pp.71-86, 2010.*

17. **Merchenthaler, I.**: The Aging Hypothalmaus. In: The Human Hypothalamus: Anatomy, Funnctinos, and Disorders**.** *B. Dudas (ed). Nova Science Publishers, Inc., Hauppauge, NY, In press.*

18. Dudas, B. and **Merchenthaler, I.:** Morphology and distribution of hypothalamic Peptidergic systems. In: The Human Hypothalamus: Anatomy, Funnctinos, and Disorders**.** B. Dudas (ed). *Nova Science Publishers, Inc., Hauppauge, NY, 2013.*

19. Dudas, B. and **Merchenthaler, I**.: Catecholamines in the human hypothalamus. In: The Human Hypothalamus: Anatomy, Funnctinos, and Disorders**.** B. Dudas (ed). *Nova Science Publishers, Inc., Hauppauge, NY, 2013.*

20. Dudas, B. and **Merchenthaler, I**.: Regulation of gonadal functions in the human hypothalamus: inputs of the gonadotropin-releasing hormone (GnRH) system. In: The Human Hypothalamus: Anatomy, Funnctinos, and Disorders**.** B. Dudas (ed). *Nova Science Publishers, Inc., Hauppauge, NY, 2013.*

21. Dudas, B. and **Merchenthaler, I**.: Hypothalamic regulation of growth. In: The Human Hypothalamus: Anatomy, Funnctinos, and Disorders**.** B. Dudas (ed). *Nova Science Publishers, Inc., Hauppauge, NY, 2013.*

22. Dudas, B. and **Merchenthaler, I.:** Cetecholaminergic regulation of the hypothalamic neuropeptide Y (NPY) and galanin systems. Chapter 3. The Catechooaminergic System of the Human Brain. Ed; B. Dudas, Nova Science Publishers, Inc. Hauppauge, NY, 2014

23. Dudas, B., and **Merchenthaler, I.**: Stress and gonadal functions: the role of catecholamines. Chapter 4. The Catechooaminergic System of the Human Brain. Ed; B. Dudas, *Nova Science Publishers, Inc., Hauppauge, NY, 2014.*

24. Dudas, B. and **Merchenthaler, I**.: central catecholamin4egic regulation of growth. Chapeter 5. The Catechooaminergic System of the Human Brain. Ed; B. Dudas, *Nova Science Publishers, Inc., Hauppauge, NY, 2014.*

25. Dudas, B. and **Merchenthaler, I.:** catecholaminergic regulation of the magocellular neurosecretory system. Chapter 6. The Catechooaminergic System of the Human Brain. Ed; B. Dudas, *Nova Science Publishers, Inc., Hauppauge, NY, 2014.*

# Major Invited Speeches

1. Corticotropin releasing factor (CRF)-immunoreactive structures in the central nervous system of the rat. Minisymposium, Dallas, TX, 1983.

2. Silver intensification in immunocytochemistry: localization of LHRH and CRF in the rat brain. Tulane University, Medical Center, New Orleans, 1983.

3. CRF and GRF systems of the rat brain. European Society for Neuroscience, Budapest, Hungary, 1984.

4. Hypophysiotropic neuronal systems in the rat brain. Semmelweis Medical School, Budapest, Hungary, 1984.

5. Immunocytochemical localization of classical hypophysiotropic hormones in the rat central nervous system. Brain Research Institute Seminar, UCLA, CA, 1986.

6. Proenkephalin-derived peptides in the rat brain: Immunocytochemical localization. Department of Anatomy, University of California, Irvine, CA, 1986.

7. New data n the localization of CRF, GRF, and TRH in the rat central nervous system. U.S.-Japan, Biomedical Research Center, Tulane University, New Orleans, 1986.

8. Hypothalamic hypophysiotropic neuronal systems: morphological studies. The Salk Institute, La Jolla, CA, 1986.

1. Hypophysiotropic neuropeptides in the rat brain. European Society for Comparative

 Endocrinology, Belgrad, Yugoslavia, 1986.

10. Metorphamide‑like immunoreactivity in the rat brain. Colocalization with a‑MSH. Satellite Symposium of the Second World Congress of Neuroscience, Budapest, Hungary, 1987.

11. Classical releasing hormones. Origin and pathways, Second World Congress of Neuroscience, Budapest, Hungary, 1987.

12. Classical hypophysiotropic hormone-containing perikarya and pathways in the rat brain. University of Missouri-Columbia, Missouri, 1987.

13. New data on the localization of hypophysiotropic neuronal systems in the rat brain. LMIN, NIEHS, NIH, Research Triangle Park, N.C., 1987.

14. Hypothalamic LHRH-and galanin neurons controlled by ovarian steroids. Research Institute of Scripps Clinic, San Diego, CA, 1991.

15. Ujabb adatok a hypophysis elülsö lebenye müködésének szabályozásában résztvevö hypothalamikus neuronrendszerek morfologiájahoz. Hungarian Academy of Sciences, Budapest, 1992.

16. Hypophysiotroph neuronrendszerek in vivo and in vitro morfologiai vizsgálata. University of Pecs, Medical School, Pecs, Hungary, 1992.

17. Functional morphology of the GnRH neuronal system. Symposium on Gonadotropins, GnRH, GnRH Analogs and Gonadal Peptides. A Satellite Symposium of the IXth International Congress of Endocrinology. Paris, France, 1992.

18. Hypophysiotropic neurons: identification, colocalization, and plasticity. Neuroscience Colloquium at Florida State University, Tallahassee, Florida, 1992.

19. Hypophysiotropic neurons: identification, colocalization, and plasticity. Greater New Orleans Chapter for Neuroscience, Tulane University, New Orleans, 1992.

20. Identification of hypophysiotropic neurons by a combination of retrograde labeling and immunocytochemistry. 106th Ann. Meeting of the American and Japanese Association of Anatomists, San Diego, CA, 1993.

21. The endocrine hypothalamus. 106th Ann. Meeting of the American and Japanese Association of Anatomists, San Diego, CA, 1993.

22. The colocalization of galanin and LHRH is estradiol and progesterone dependent. The role of galanin in the regulation of gonadotropin secretion. 5th International Congress of Andrology. Tokyo, Japan, 1993.

23. Plasticity of retrogradely labeled hypophysiotropic neurons. The effect of the endocrine background on the colocalization of neuropeptides and neurotransmitters. Karolinska Institute, Stockholm, Sweden, 1993.

24. Colocalization of neuropeptides and neurotransmitters in retrogradely identified hypophysiotropic neurons. National Institute of Health, Bethesda, 1993.

25. Colocalization of neuropeptides and neurotransmitters in retrogradely identified hypophysiotropic neurons; LHRH/galanin and enkephalin/dopamine. Department of Physiology, University of Pittsburgh, PA, 1996.

26. Colocalization of neuropeptides and neurotransmitters in retrogradely identified hypophysiotropic neurons; LHRH/galanin and enkephalin/dopamine. Wisconsin Regional Primate Research Center, Madison, WI, 1996.

27. ER-beta: a newly discovered estrogen receptor. Tissue distribution of its mRNA. Department of Anatomy, Albert Szent-Gyorgyi Medical University, Szeged, Hungary, 1997.

1. Tissue distribution of ER-a vs ER-b mRNAs in rodents. Department of Obstetrics & Gynecology, Yale University, New Haven, CT, 1997.

29. ER-alpha vs ER-beta: tissue distribution and regulation in rodents. Brain Research Institute, University of California at Los Angeles, Los Angeles, CA, 1998.

30. ER-alpha vs ER-beta: Who will win? Symposium presentation, Annual Meeting of the Endocrine Society, New Orleans, 1998.

31. LHRH and sexual dimorphism. Symposium presentation, Galanin: Basic Research Discoveries and Therapeutic Implications. Stockholm, Sweden, 1998.

32. ER-alpha vs ER-beta Distribution of their mRNA in estrogen targets. Department of Physiology, University of Kentucky, Lexington, KY, 1998.

33. ER-alpha vs ER-beta: tissue distribution and regulation in rodents. Karolinska Institute, Stockholm, Sweden, 1998.

1. ER-alpha vs ER-beta: New estrogen responsive tissues and new potentials for HRT. Int. Symposium on Biology of Menopause. Serono Symposia USA. Newport Beach, CA 1998

35. Comparative distribution of ER-α and ER-β mRNAs in rodents. Temple University, Philadelphia, PA, 1998.

36. Estrogen receptor-β: a novel receptor for estrogen action.University of Pittsburgh, Pittsburgh, PA, 1999.

1. A new estrogen receptor (ER-β) for estrogenic action. Italian Endocrine Society, Gerontology Section. Parma, Italy, 1999.

38. Comparative distribution of ER-α and ER-β mRNAs in rodents. Northeastern Universities of Ohio, Rootstown, OH, 1999.

1. Comparative distribution of ER-α and ER-β mRNAs in rodents. University of Commonwealth of Virginia, Richmod, VA, 1999.
2. Estrogen receptor-α and β in the central nervous system: from gene to function. Fifth IBRO World Congress of Neuroscience, Jerusalem, Israel, 1999.
3. Estrogen receptor-α and β in the central nervous system: from gene to function. Weizmann Institute of Science, Rehovot, Israel, 1999.
4. Estrogen receptor-α and β in the central nervous system: from gene to function. International Symposium on "Steroids Meet Growth Factors", Schlos Reisensburg, Germany, 1999.
5. Localization and functional role of the α and β estrogen receptors in the neuroendocrine systems. "Past, Present, and Future in Neuroendocrinology. International Semmelweis Symposium, Budapest, Hungary, 1999.
6. Functional morphology of the α and β estrogen receptors in the neuroendocrine systems. Annual Meeting of the Hungarian Endocrine Society. Lillafured, Hungary, 2000.
7. Estrogen in the treatment of ischemic CNS injury. First International Pannonian Symposium on CNS injury. Pecs, Hungary, 2000.
8. Functional morphology of estrogen receptors. International Symposium on Tissue Selective Estrogen Action. Pannon Symposium, Pecs, Hungary, 2000.
9. Functional morphology of estrogen receptors. International Symposium on Signal Transduction in Health and Disease (STADY II), Tel Aviv. Israel, 2000.
10. Functional morphology of estrogen receptors. First World Congress on Women's Mental Health, Berlin, Germany, 2001.
11. Neuroprotection by estrogen: the role of ER alpha and ER beta. FENS and IBRO International Summer School,: "Receptor Activation and Beyond", Sulejow, Poland, 2001.
12. Identification of estrogen receptor-β in GnRH neurons of the rodent hypothalamus. 7th Int. Symp. On GnRH Analogues in Cancer and Human Reproduction. Amsterdam, The Netherlands, 2003.
13. Direct and indirect actions of estrogen on LHRH neurons: morphological correlates. The Netherlands Institute for Brain Research, Amsterdam, The Netherlands, 2003.
14. Neuroprotection by estrogen in global and focal ischemia. 2nd Int. Meeting on Steroids and Nervous System. Torino, Italy, 2003.
15. Neuroprotection by estrogen in global and focal ischemia. 2nd International Pannonian Symposium on CNS injury. Pecs, Hungary, 2003.

53. Estrogen: a neuroendocrine regulator and neuroprotective factor. Annual Meeting of the Hungarian Physiology Society, Pecs, Hungary, 2003.

1. Estrogen: a neuroendocrine regulator and neurotrophic factor. Gedeon Richter, LTD, Budapest, Hungary, 2003.
2. Estrogen: a neuroendocrine regulator and neurotrophic factor. Hungarian Academy of Sciences, Budapest, Hungary, 2003.
3. Neuroprotection by estrogen in animal models of global and focal ischemia. National Institutes of Health, National Aging Institute, Baltimore, MD, 2003.
4. Neuroprotection with estrogen in animal models of focal and global ischemia. 37th Winter Conference on Brain Research, Copper Mountain, CO, 2004.
5. Estrogen: a neuroendocrine regulator and neurotrophic factor National Institute of Mental Health, National Institute of Health, Bethesda, MD, 2004.
6. Estrogen: a neuroendocrine regulator and neurotrophic factor. Farber Institute of Neuroscience, Thomas Jefferson University, Philadelphia, PA, 2004.
7. Neuroprotection with estrogen in animal models of focal and global ischemia. Department of Neurology, Thomas Jefferson University, Philadelphia, PA, 2004.
8. Neuroprotection with estrogen in animal models of focal and global ischemia. Amgen, Thousand Oaks, CA, 2004.
9. Estrogen: a neuroendocrine regulator and neurotrophic factor. University of Maryland, Baltimore, MD, 2004.
10. Estrogen stimulates galanin expression within luteinizing hormone-releasing hormone-immunoreactive (LHRH-i) neurons via estrogen receptor-beta (ER-beta) in the female rat brain. Galanin 2004 Symposium, San Diego, CA, 2004.
11. Neuroprotection with estrogen in animal models of focal and global ischemia. Neuroprotection Seminar Series, University of Maryland, Baltimore, MD, 2005.
12. Neuroprotection with estrogen in animal models of focal and global ischemia. University of Southern California, Los Angeles, CA, 2006.
13. Estrogen as a neuroendocrine regulator and a neuroprotector. UCLA, Los Angeles, CA, 2006
14. Estrogen receptor-beta in the central nevous system. Annual Meeting of the American Chemical Society, Chicago, IL, 2007.
15. The Good, the Bad, and the Ugly” Divergent aspects of gonadal steroids on models of neurologic disease. ISSWSH 2007 “The Four Seasons” (of a Woman’s Sexuality). Orlando, FL, 2007.
16. Receptor-dependent and independent neuroprotection by estrogens. 4th Pannonian Symposium on Central Nervous System Injury. Pecs, Hungary, 2008.
17. Prodrug of estrogen alleviates symptoms of menopause (hot flushes, depression, and neuronal cell death) in animal models without exhibiting uterotrophic activity. Annual Meeting of the American Menopause Society, San Diego, CA, 2009.
18. Use of pro-estrogen to treat menopausal sympptoms. OSSD, Baltimore, 2011.
19. A novel pro-drug approach to treat menopausal symptoms. Elan Pharmaceuticals, San Francisco, 2012.
20. CNS-selective estrogen therapy: utopia or possibility. Seminar. Department of Basic MedicalScinces, College of Medicine, Phoenix, AZ, 2013.
21. Development of CNS-selective estrogen therapy for meno-and andropausal symptoms.University of Maryland Estern Shore, Salisbury, MD, 2015.
22. Development of brain-seolective estrogen therapy for meno- and andropausal symptoms. Global Summit on Steroids 2015, Baltimore, 2015.
23. Development of brain-selective estrogen therapy. Brain Research Consortium, Baltimore, MD, 2016.
24. Development of brain-selective estrogen therapy for meno- and andropausal symptoms. MPRC Conte Symposium, Baltimore, 2016.
25. Development of brain-selective estrogen for meno-and amndropausal symptoms. Joint Conference of the Hungarian Pharmacology, Anatomy, Microcirculation and Physiological Societies (FAME), Pecs, Hungary, 2016.

**Proffered Communications:**

1. **Merchenthaler, I.,** and Petrusz, P.: New data on the localization of gonadotropin releasing hormone (GnRH)‑containing neuronal structures in the rat brain. *Anat. Rec. 202: 126A, 1982.*
2. Vigh, S., **Merchenthaler, I.,** Petrusz, P., Sueiras‑Diaz, J., and Schally, A.V.: Specific antibodies against corticotropin releasing factor (CRF): immunocytochemical localization of CRF in the rat brain. *64th Annual Meeting Endocr. Soc. 84, 1982.*
3. **Merchenthaler, I.,** Görcs, T., and Petrusz, P.: Silver intensification of the diaminobenzidine reaction product for peroxidase immunocytochemistry. *J. Histochem. Cytochem. 30: 607, 1982.*
4. **Merchenthaler, I.,** Hynes, M.A., Vigh, S., and Petrusz, P.: Corticotropin releasing factor (CRF): Origin and course of afferent pathways to the median eminence (ME) of the rat hypothalamus. *65th Annual Meeting Endocr. Soc. 145, 1983.*
5. Hynes, M.A., **Merchenthaler, I.,** and Petrusz, P.: Studies on the distribution and origin of immunoreactive corticotropin releasing factor (irCRF) in the rat spinal cord. *65th Annual Meeting Endocr. Soc. 147, 1983.*
6. **Merchenthaler, I.,** Vigh, S., Schally, A.V., Petrusz, P., Okazaki, F., and Randall, R.V.: Immunocytochemical localization of growth hormone releasing hormone (GHRH) in human and rat hypothalami. *Soc. Neuorsci. Abstr. 9: 389, 1983.*
7. Hynes, M.A., **Merchenthaler, I.,** and Petrusz, P.: Origin and distribution of immunoreactive corticotropin releasing factor (irCRF) in the rat spinal cord. *Soc. Neurosci. Abstr. 9: 1015, 1983.*
8. **Merchenthaler, I.,** Arimura, A., and Vigh, S.: Immunocytochemical localization of growth hormone releasing factor (GHRF) in the rat brain. *7th Int. Cong. Endocr., Quebec, Canada, p. 1516, 1984.*
9. Arimura, A., **Merchenthaler, I.,** Iwaski, K., Culler, M.D., Thomas, C.R., Kanda, M., Palkovits, M.: Distribution and release of GRF. *7th Int. Cong. Endocr., Quebec, Canada, 166, 1984.*
10. **Merchenthaler, I.** and Vigh, S.: CRF and GRF in the rat brain. *Eur. Soc. for Neurochem., Budapest, Hungary, 229, 1984.*
11. Maderdrut, J.L., Sundberg, D.K., **Merchenthaler, I.,** Okada, N., and Oppenheim, R.W.: Development of proenkephalin‑like immunoreactivity in lumbar spinal cord and adrenal medulla of the chicken embryo. *Eur. Soc. for Neurochem., Budapest, Hungary, p. 206, 1984.*
12. Maderdrut, J.L., **Merchenthaler, I.,** and Oppenheim, R.W.: Reduction and enhancement of naturally occurring cell death in the ciliary ganglion of the chick embryo following blockade of neuromuscular and ganglionic transmission. *Soc. for Neurochem., Los Angeles, p. 639, 1984.*
13. **Merchenthaler, I.,** Arimura, A., and Petrusz, P.: The hypothalamo‑infundibular growth hormone releasing factor (GRF) system of the rat. *1st Int. Cong. Neuroendocr. 71, 1986.*
14. **Merchenthaler, I.**: Hypothalamic hypophysiotropic peptides. Immunocytochemical Data. *13th Conf. of European Comp. Endocrinologists, Belgrade, Yugoszlavia, 1986.*
15. **Merchenthaler, I.**: Classical releasing hormones. Origin and pathways. *Neuroscience 22 (Supplement), 1725W, l987.*
16. **Merchenthaler, I.,** Culler, M.D., Negro‑Vilar, A. and Flerko, B.: Comparative immunochemical studies with GAP and LHRH antisera. *69th Annual Meeting Endocr. 49, 1987.*
17. **Merchenthaler, I.,** and Gallyas, F,: Silver postintensification of the nickel‑diaminobenzidine (Ni‑DAB) end‑product for peroxidase immunocytochemistry. *Neuroscience 22 (Supplement), 1143P, 1987.*
18. Liposits, Z., Sievers, L., Paull, W.K., Lechan, R.M., Coen, C.V., Culler, M.D., **Merchenthaler, I.,** and Jackson, I.M.D.: Monoamine and peptidergic innervation of chemically characterized hypophysiotropic neurons. *Neuroscience 22 (Supplement), 2423P, 1987.*
19. Lázár, G., **Merchenthaler, I.,** Maderdrut, J.L., and Petrusz, P.: Distribution of met‑enkephalin in the frog's brain. *Neuroscience 22 (Supplement), 910P, 1987.*
20. Mess, B., **Merchenthaler, I.,** Csontos, Cs., Csernus, V., and Petrusz, P.: Immunocytochemical localization of TRH in the rat central neurons system. *Neuroscience 22 (Supplement), 914P, 1987.*
21. **Merchenthaler, I.**: Pro‑GnRH‑immunoreactive system of the rat brain: effect of changes in the endocrine background. Selected topics in hypothalamic research. *Satellite Symp. to the 2nd World Congress of Neuroscience, Budapest, Hungary, 1987.*
22. **Merchenthaler, I.**: Characterization of metorphamide‑like immunoreactivity in the zona incerta and lateral hypothalamus: co‑localization with a‑melanocyta‑stimulating hormone‑like immunoreactivity. Peptidergic and purinergic neurons. *Satellite Symp. to the 2nd World Congress of Neuroscience, Pecs, Hungary, 1987.*
23. **Merchenthaler, I.,** and Gallyas, F.: Copper‑H2O2 oxidation extremely increases the efficiency of silver intensification of the nickel‑ diaminobenzidine (Ni‑DAB) end‑product for peroxidase immunocytochemistry. *2nd World Cong. Neurosci., Budapest, Hungary, 1987.*
24. **Merchenthaler, I.,** Culler, M.D., Petrusz, P., Flerkó, B., and Negro‑Vilar, A.: Inhibin‑immunoreactivity in endocrine organs. *Int. Cong. Endocrin., Kyoto, Japan, 1988.*
25. **Merchenthaler, I.,** Stankovics, J., and Gallyas, F.: A highly sensitive one‑step method for the silver‑intensification of the DAB‑reaction product. *Proc. 8th Int. Cong. Histochem. Cytochem., Washington, DC, Abstr. #353, 1988.*
26. Petrusz, P., **Merchenthaler, I.,** and Maderdrut, J.L.: In situ enzymatic cleavage as a tool for the study of neuropeptide precursors by immunocytochemistry. *Proc. 8th Int. Cong. Histochem. Cytochem., Washington, DC, Abstr. #46, 1988.*
27. **Merchenthaler, I.** and Petrusz, P.: Co‑localization of TRH and Enkephalin in hypothalamic perifornical neurons projecting to the lateral septum. *Proc. of the Histochem. Soc., Orlando, FL, Abstr. #29, 1989.*
28. **Merchenthaler, I.,** Sétáló, G., Petrusz, P., Negro‑Vilar, A. and Flerkó, B.: Indentification of hypophysiotropic luteinizing hormone-releasing hormone (LHRH) neurons by combined retrograde labeling and immunocytochemistry. *Am Assoc Anat, New Orleans, LA, Abstr. #78A, 1989.*
29. **Merchenthaler, I.** and Negro‑Vilar, A.: Co‑localization of luteinizing hormone-releasing hormone (LHRH) and galanin in a subpopulation of neurons in the preoptic region of the rat brain. *Soc. for Neurosci., Phoenix, AZ, 1989.*
30. Thai, L., Hong, J.S., **Merchenthaler, I.,** Stumpf, W.E., and Sar, M.: Distribution of glutamate‑like immunoreactivity in the rat brain. *Soc. for Neurosci., Phoenix, AZ, 1989.*
31. **Merchenthaler, I.,** Inoue, T., and Negro‑Vilar, A.: Perikarya for peptidergic neurons are present in the rat median eminence: Distribution and effects of monosodium glutamate. *Endocrine Soc., Seattle, WA, 1989.*
32. **Merchenthaler, I.**: Neurons with access to fenestrated capillaries of the rat central nervous system. *The 3rd Joint Meeting of the Japanese and the American Histochemical Society, Seattle, WA, 1990.*
33. **Merchenthaler, I.,** Sétáló, G., Petrusz, P., Flerkó, B. and Negro‑Vilar, A.: The hypophysiotropic luteinizing hormone releasing hormone (LHRH) system of the rat: retrograde labeling with WGA and LHRH immunocytochemistry. *Duke Univ. Neurosci. Day, Durham, NC, 1989.*
34. **Merchenthaler, I.** and Negro-Vilar, A.: Sexual dimorphism in the co-localization of LHRH and galanin in the rat hypothalamus. *Endocrine Society, Atlanta, GA, 1990.*
35. **Merchenthaler, I.** and Maderdrut, J.L.: Neurokinin B-immunoreactive structures in the rat central nervous system. *American Association of Anatomists, Philadelphia, PS, 1990.*
36. **Merchenthaler, I.** and Negro-Vilar, A.: Sexual dimorphism in the co-localization of LHRH and galanin in the rat hypothalamus. *Int. Congress of Neuroendocrinology, Bordeaux, France, 1990.*
37. **Merchenthaler, I.** and Negro-Vilar, A.: The hypophysiotropic galanin system of the rat brain. *Soc. for Neurosci. Saint Louis, MI, 1990.*
38. Liposits, Z., **Merchenthaler, I.** and Negro-Vilar, A.: Immunelectronmicroscopic characterization of galanin-immunoreactive neurons in hypophysiotorpic areas of the rat brain. *Soc. for Neurosci. Saint Louis, MI, 1990.*
39. Negro-Vilar, A., López, F.J., **Merchenthaler, I**., Ching, M., Culler, MD., Romanelli, F. and Wanderley, I.: Pituitary-testicular interactions: role of inhibin, steroids and intracellular messengers. *Serono Symposium on Hormonal Communicating Events in the Testes. Rome, Italy, 1990.*
40. **Merchenthaler, I.**: Sex-linked differences in galanin and LHRH co-expression in septal-preoptic neurons are enhanced by estrogen. *Endocrine Society, Washington, DC, 1991.*
41. López, F.J., Liposits, Zs. and **Merchenthaler, I.**: Evidence for an ultrashort-loop positive feedback regulating galanin (GAL) release from arcuate nucleus-median eminence fragments in vitro: physiological and moprhological studies. *Endocrine Society, Washington, DC, 1991.*
42. **Merchenthaler, I.**, López, F.J. and Negro-Vilar, A.: Galanin (GAL) is co-localized in a subpopulation of LHRH neurons and represents an important regulator of reproductive functions. *Serono Symposium on the Modes of Action of GnRH and GnRH analogues, Scotsdale, Arizona, 1991.*
43. **Merchenthaler, I**: The hypophysiotropic CRH, TRH, and enkephalin-immunoreractive perikarya: a retrograde labeling-immunocytochemical study. *Third IBRO World Congress of Neuroscience, Montreal, Canada, 1991.*
44. Liposits, Zs., Valenca, M.M., **Merchenthaler, I.**, Wetsel, W.C., Reid, J.J., Mellon, P.L., Weiner, R.I. and Negro-Vilar, A: Morphological and physiological characteristics of immortalized hypothalamic LHRH neurons. *Third IBRO World Congress of Neuroscience, Montreal, Canada, 1991.*
45. Culler, M.D., **Merchenthaler, I.**, Heindel, J.J. and Wetsel, W.C: Role of inhibin during long to short photoperiod transition in the hamster. *Society for the Study of Reproduction, 1991.*
46. Khan, W.K., Wetsel, W.C., **Merchenthaler, I.**, Rivera, H., Negro-Vilar, N.V. and Hannun, Y: Differential tissue distribution of Protein Kinase C isoenzymes.-Endocrine localization of PKCs. *Abstr. Am Fed Clin Res, Seattle, WA, 1991.*
47. **Merchenthaler, I.,** Negro-Vilar, A. and Wetsel, W.: Distribution of Protein Kinase C∂ in the rat brain. *Society for Neuroscience, New Orleans, LA, 1991.*
48. Liposits, Zs., Valenca, M.M., López, F.J., **Merchenthaler, I.** and Negro-Vilar, A.: Galanin neurons innervate anterior periventricular somatostatin cells and modulate somatostatin secretion from arcuate nucleus-median eminence fragments. *Society for Neuroscience, New Orleans, LA, 1991.*
49. Wetsel, W.C., Rivera, H. and **Merchenthaler, I.**: Activation of different Protein Kinase C isoenzymes in immortalized LHRH neurons. *Society for Neuroscience, New Orleans, LA, 1991.*
50. Negro-Vilar, A., Wetsel, W., Valenca, M., **Merchenthaler, I.,** Liposits, Zs., López, F.J.: Anatomy and cell biology of the LHRH pulse generator. Conference on GnRH Pulse Generator. *Reproductive Sciences Branch, Center for Population Research, National Institute of Child Health and Human Development, Washington, DC, 1991.*
51. Negro-Vilar, A., López, F.J., Donoso, A., **Merchenthaler, I.,** Ching, M., Valenca, M.: Cellular amd molecular mechanisms regulating LHRH release and gonadal function. *Proceedings of the X. Congress of the Spanish Society for Endocrinology. Santiago de Compostela, Spain, 1991.*
52. Negro-Vilar, A., Wetsel, W., Valenca, M., **Merchenthaler, I.,** López, F.J., Liposits, Zs., Ching, M., Weiner, R.I., Mellon, P.L.: Cellular and molecular aspects of LHRH secretion and bioactivity. *Course in Molecular and cellular Endocrinology. La Toja, Spain, 1991.*
53. **Merchenthaler, I.**, Trasti, S.L.: Neuropeptide Y is colocalized with dopamine neurons of the arcuate nucleus in the lactating rat brain and these neurons can be retrogradely labeled from the median eminence with peripherally administered Fluoro-Gold. *Amarican Association of Anatomists, 105th Annual Meeting, New York, NY, 1992.*
54. Ceresini, G., **Merchenthaler, I.,** Merchenthaler, A., Negro-Vilar, A.: Age-related changes in galanin-coexpression in preoptic LHRH neurons. *74th Annual Meeting of the Endocrine Society, San Antomnio, TX, 1992.*
55. **Merchenthaler, I.,** Trasti S.L.: The hypophysiotropic neuropeptide Y-containing neurons in intact cycling and lactating rats. *74th Annual Meeting of the Endocrine Society, San Antomnio, TX, 1992.*
56. **Merchenthaler, I.**: Enkephalin in dopamine neurons of the arcuate nucleus in lactating rats. *9th International Congress of Endocrinology, Nice, France, 1992.*
57. López, F.J., Moretto, M., **Merchenthaler, I.,** Petrusz, P., Negro-Vilar, A.: Nitric oxide (NO) as a possible synchronizing neural messenger for the LHRH pulse generator. *Satellite Symposium on Gonadotropin, GnRH Analogs, and Gonadal Peptides. Paris, France, 1992.*
58. **Merchenthaler, I.**: The expression of galanin in LHRH neurons is inhibited in pregnant and lactating rats. *Society for Neuroscience, Anaheim, CA, 1992.*
59. Liposits, Zs., Wetsel, W., Reid, J.J., **Merchenthaler, I.,** Mellon, P.L., Negro-Vilar, A.: Electron microscopic studies on co-lultures of immortalized hypothalamic LHRH neurons and primary or immortalized anteriro pituitary cells. *Society for Neuroscience, Anaheim, CA, 1992.*
60. Daikoku, S., Hisano, S.S., **Merchenthaler, I.,** Sawchenko, P, Shioda, S., Silverman, A-J.: The endocrine hypothalamus. *106th Meeting of the American Association of Anatomists Held Jointly with The Japanese Association of Anatomists. San Diego, CA, 1993.*
61. **Merchenthaler, I.**: Identification of the hypophysiotropic neurons by using a combination of retrograde labeling and immunocytochemistry. *106th Meeting of the American Association of Anatomists Held Jointly with The Japanese Association of Anatomists. San Diego, CA, 1993.*
62. **Merchenthaler, I.,** Negro-Vilar, A.: Evidence that progesterone can blunt estrogen-dependent coexistence of galanin in LHRH neurons. *The Endocrine Society, Las Vegas, AZ, 1993.*
63. Liposits, Zs., Reid, J.J., **Merchenthaler, I.,** Negro-Vilar, A.: Estrogen-dependent packaging of galanin into luteinizing hormone-releasing hormone (LH-RH) immunoreactive secretory vesicles. *The Endocrine Society, Las Vegas, AZ, 1993.*
64. Charlton, P., **Merchenthaler, I.**, Chernausek, S.: Immunocytochemical localization of insulin-like growth factor binding protein-4 (IGFBP-4) in the rat brain. *The Endocrine Society. Las Vegas, AZ, 1993.*
65. Petrusz, P., **Merchenthaler, I.,** Weinberg R.J., Grossman, G., Ordronneau, P.: Characterization of an antiserum to citrulline for use in immunocytochemistry. 44th *Annual Meeting of the Histochemical Society, Washington, DC. 1993*
66. **Merchenthaler, I.**: Multiple coexistence (dopamine, enkephalin, neurotensin, and dynorphin) within tuberoinfudibular dopaminergic (TIDA) neurons: the role of prolactin and sex steroids. *Society for Neuroscience, Washington, DC, 1993.*
67. Negro-Vilar, A., Lopez, F.J., **Merchenthaler, I.**, Liposits, Zs., Giustina, A.: Role of galanin in pituitary control. *3rd International Pituitary Congress. A Basic and Clinical Update. Las Vegas, 1993*.
68. **Merchenthaler, I**., Lennard, D.E., Bronstein, D.M.: Colocalization of multiple neuropeptides (enkephalin, neurotensin and dynorphin) and their messages within tuberoinfundibular (TIDA) neurons of lactating rats. *Society for Neuroscience, Washington, DC, 1993.*
69. Wetsel, W.C., Collins, S., **Merchenthaler, I**., Valenca, M.M., Curtis, I., Eling, T.E., Negro-Vilar, A.: Activation of LHRH release by the phospholipase C (PLC) and A2 pathways from GT1- cells. *Society for Neuroscience, Washington, DC, 1993.*
70. Camacho-Hubner, C., **Merchenthaler, I**., Cotterill, A., Balasubramanyam, A., Busby, W., Clemmons, D.: Co-expression of IGF-II and IGFBP-2 by non-islet tumors. *3rd International Symposium on Insulin-like Growth Factors. Sydney, Australia, 1993.*
71. Ceresini, G., Bronstein, D., **Merchenthaler, I**.: Dexamethasone treatment of female rats reduces the estradiol-induced galanin expression in pituitary and in preoptic LHRH neurons. *The Endocrine Society, Anaheim, CA, 1994.*
72. **Merchenthaler, I.**, Cienchetta, P., Lennard, D.E., Bronstein, D.: Proenkephalin gene expression in TIDA neurons of rats with pharmacologically-induced hyperprolactinemia. *The Endocrine Society, Anaheim, CA, 1994.*
73. López, F.J., Moretto, M., **Merchenthaler, I.**, Negro-Vilar, A.: Nitric oxide (NO) is produced in immortalized LHRH-secreting neurons (GT1-7 cells) and stimulates LHRH release in a cGMP-dependent manner. *The Endocrine Society, Anaheim, CA, 1994.*
74. Reid, J., Wetsel, W., **Merchenthaler, I**.: Implantation of immortalized hypothalamic LHRH-containing neurons into hypogonadal (hpg) mice: innervation of the median eminence without restoration of gonadal functions. *The Endocrine Society, Anaheim, CA, 1994.*
75. Liposits Zs., Wetsel, W.C., Eckert, W.A., Reid, J.J., **Merchenthaler, I.**: Ultrastructural organization of immortalized luteinizing hormone-releasing hormone neurons implanted into the third ventricle of the rat brain. *3rd Int. Congress of Neuroendocrinoly, Budapest, Hungary, 1994.*
76. **Merchenthaler, I.**: Experimentally-induced hyperprolactinemia causes the *de novo* synthesis of proenkephalin in TIDA neurons. *3rd International Congress of Neuroendocrinology, Budapest, Hungary, 1994.*
77. Ceresini, G., Valenti, G., Bernasconi, S., Ghizzoni, L., **Merchenthaler, I.**, Lopez, F.J.: CRF induces an increase in galanin plasma levels in prepubertal subjects. *3rd International Congress of Neuroendocrinology, Budapest, Hungary, 1994.*
78. **Merchenthaler, I.**: Colocalization of hypophysiotropic factors in retrogradely-labeled hypophysiotropic neurons; the physiological significance of the phenomenon. *In: Neuropendocrin regulation and neuronal systems. Satellite Symposium of the 3rd International Congress of Neuroendocrinology, Pecs, Hungary, 1994.*
79. Cianchetta,P., Lennard, D.E., Bronstein, D., **Merchenthaler, I.**: Distribution of dynorphin mRNA in the central nervous system of the rat. *Society for Neuroscience, Miami, FL, 1994.*
80. **Merchenthaler, I.**: In situ hybridization histochemistry in vibratome sections from perfusion-fixed rat brains. *4th Joint Meeting Japan Society for Histochemistry and Cytochemistry and the Histochemical Society, Hawaii, 1994.*
81. **Merchenthaler, I.**, Shughrue, P. J., Lane, M.V., Lubahn, D.B., Korach, K.S., Negro-Vilar, A.: Gene expression of estrogen-regulated neuropeptides and steroid hormone receptors (estrogen and progesterone) in the diagonal band of Broca/preoptic area of estrogen receptor disrupted mice. *The Endocrine Society, Washington, DC, 1995.*
82. Shughrue P, Katovich M, **Merchenthaler I.**: The chemical induction of hot flush augments the level of *c-fos*  in specific regions of the rat brain. *The Endocrine Society, Washington, DC, 1995.*
83. Lopez, F.J.,  **Merchenthaler, I.**, Perez, C., Shughrue, P.J., Deecher, D., Komm, B., Meade, E.H., Negro-Vilar, A.: Presence of estrogen receptor and galanin (GAL) in immortalized LHRH neurons: estrogenic modulation of GAL gene expression. *The Endocrine Society, Washington, DC, 1995.*
84. Ceresini, G., Bronstein, D., Valenti, G., **Merchenthaler, I**.: Effect of pituitary adenylate cyclase activating polypeptide on *c-fos* gene expression in GH3 cells. *The Endocrine Society, Washington, DC, 1995.*
85. Shughrue, P., Lane, M.L., **Merchenthaler, I.**: The distribution of neurokinin B receptor (NK-3) mRNA in the female rat CNS. *Society for Neuroscience, San Diego, CA, 1995.*
86. **Merchenthaler, I.**, Shughrue, P.J., Lubahn, D., Negro-Vilar, A., Korach, K.S.: Estrogen responses in estrogen receptor-disrupted mice: an in vivo autoradiographic and in situ hybridization study. *10th Int. Cong. Endocrinol. San Francisco, CA 1996.*
87. Shughrue, P.J., Lane, M.V., Negro-Vilar, A., **Merchenthaler, I**.: The regulation of progesterone receptor (PR) mRNA in female rat brain by estrogenic and anti-estrogenic compounds. *10th Int. Cong. Endocrinol. San Francisco, CA 1996.*
88. Ceresini, G., Fabbo, A., Baffoni, T., Reali, N., Troglio, G., Valenti, G., **Merchenthaler, I.**: Evaluation of galanin plasma levels during a cold pressor test in healthy human subjects. *10th Int. Cong. Endocrinol. San Francisco, CA 1996.*
89. Shughrue, P., Lane, M., **Merchenthaler, I**.: The distribution of glucagon-like peptide 1 receptor (GLP1-R) mRNA in the rat central nervous system. *Society for Neuroscience, Washington, DC, 1996.*
90. Dudas, B., Dobo, E., **Merchenthaler, I**., Liposits, Zs.: Distribution and relationship of luteinizing hormone-releasing hormone and neuropeptide Y-immunoreactive systems in the human diencephalon. *Society for Neuroscience, Washington, DC, 1996.*
91. **Merchenthaler, I**., Carver, J.M., Funkhouser, J.M., Lundeen, S.G., Winneker, R.C. : The effect of estrogens and antiestrogens in a rat model for Hot Flush. *The Endocrine Society, Minneapolis, Minnesota. 1997.*
92. Shughrue, P.J., Lane, M., **Merchenthaler, I**.: The distribution of estrogen receptor alpha and beta mRNA in the hypothalamo-pituitary-gonadal axis. *The Endocrine Society, Minneapolis, Minnesota. 1997.*
93. Merchenthaler, I., Lane, M.V., Shughrue, P.J.: The comparative distribution of estrogen receptor ( and ) mRNA-expressing neurons in the rat central nevous system: *in situ* hybridization study. *Society for Neuroscience, New Orleans, LA, 1997.*
94. Merchenthaler, I.: Estrogen response in estrogen receptor knockout (ERKO) mice. 1997 Workshop on Steroid Hormones and Brain Function. Breckenridge, CO, 1997.
95. Shughrue, P.J.: Comparative distribution of ER-a vs ER-b mRNA-expressing cells. *1997 Workshop on Steroid Hormones and Brain Function Breckenridge, CO, 1997.*
96. Fitzpatrick, S.L., Sindoni, D.M., Shughrue, P.J., **Merchenthaler, I**., Frail, D.E.: Expression of growth differentiation factor-9 messenger ribonucleic acid in ovarian and nonovarian rodent and human tissues. *The Endocrine Society, Minneapolis, Minnesota. 1997.*
97. Hrabowsky, E., Kallo, I., Hajszan, T., Shughrue, P.J., **Merchenthaler, I**., Liposits, Z.: Expression of estrogen receptor-β mRNA in oxytocin and vasopressin neurons of the supraoptic and paraventricular nuclei. *The Endocrine Society, New Orleans, LA, 1998.*
98. Shen, E.S., Shenk, J.L., **Merchenthaler**, **I**., Lopez, F.J.: The alpha subtype of the estrogen receptor (ERα) is necessary for estradiol induction of galanin (GAL) gene expression in the mouse anterior pituitary. *The Endocrine Society, New Orleans, LA, 1998.*
99. Hrabowsky, E., Kallo, I., Shughrue, P.J., **Merchenthaler, I**., Liposits, Zs.: Lack of estrogen receptor-β (ER-β) mRNA co-expression in luteinizing hormone-releasing hormone (LHRH) neurons of the rat brain. *The Endocrine Society, New Orleans, LA, 1998.*
100. Shughrue, P.J., Lane, M.V., **Merchenthaler, I**.: Autoradiographic evidence for the binding of 125I-estrogen to estrogen receptor-β (ERβ) in the wild type and ERα-knockout(ERaKO) mouse brain. *Society for Neuroscience, Los Angeles, CA, 1998.*
101. Dudas, E., Dobo, E., **Merchenthaler, I**., Liposits, Zs.: Luteinizing hormone-releasing hormone (LHRH) synthesizing neurons are innervated by subtance-P-immunoreactive axons in the human hypothalamus. *Society for Neuroscience, Los Angeles, CA, 1998.*
102. **Merchenthaler, I**.: Estrogen receptor-beta: a novel mediator of estrogen action. *Gerontology Society, Italian Endocrine Society, Parma, Italy, 1999.*
103. **Merchenthaler, I**.: Estrogen receptors in the brain. *Ulm Research Conferences: Steroids meet Growth Factors. Ulm, Germany, 1999.*
104. Shughrue, P.J., Lane, M.V., **Merchenthaler, I**.: Localization of 125I-estrogen binding sites in the rat cerebral cortex and hippocampus: an in vivo autoradiographic study. *Society for Neuroscience, Miami, FL, 1999.*
105. Kashon, M.l., Rosewell, K.L., Wilson, M.E., Shughrue, P.J., **Merchenthaler, I**., Wise, P.M.: Age differentially influences estrogen receptor-β (ER-b) gene expression in specific regions of the brain. *Society for Neuroscience, Miami, FL, 1999.*
106. **Merchenthaler, I**: Estrogen receptor-α and β in the central nervous system: from gene to function. *Fifth IBRO World Congress of Neuroscience, Jerusalem, Israel, 1999.*
107. Fitzpatrick S.L., Sindoni D.M., Shughrue P.J., Lane M.V., **Merchenthaler I.** and Frail D.E. Expression of growth differentiation factor-9 (GDF-9) mRNA in ovarian and non-ovarian rodent tissues. *Society for the Study of Reproduction, 1999..*
108. Dubal D.B., Shughrue P.J., Wilson M.E., **Merchenthaler I**. and Wise, P. M. Estradiol-mediated neuroprotection involves differential modulation of estrogen receptors-α and -β in the cerebral cortex. *Endocrine Society Program and Abstracts, OR10-1,* 1999*.*
109. Dubal D.B., Wilson M.E., Shughrue P.J., **Merchenthaler I.** and Wise, P.M. Induction of galanin gene expression in estradiol-mediated neuroprotection against cerebral ischemia. *Society for Neuroscience Abstract, 25:1449,* 1999*.*
110. Shughrue P.J., Askew G.R. and **Merchenthaler, I.** 125I-estrogen binding sites in the estrogen receptor double knockout (ERα/βKO) mouse brain. *Society for Neuroscience Abstract, 26:923, New Orleans, 2000.*
111. **Merchenthaler I**., Scrimo P.J. and Shughrue, P.J.The distribution of estrogen receptor-β immunoreactivity in the rat brain. Society for Neuroscience Abstract, 26:926, *New Orleans, 2000.*
112. Dubal D.B., Zhu H., Yu J., Rau S.W., Shughrue P.J., **Merchenthaler I**., Kindy M.S. and Wise, P.M. Estrogen receptor alpha (ER-α) is critical in estradiol-mediated\ neuroprotection against stroke injury: insights from ER-αβknockout (ERKO) mice. *Society for Neuroscience Abstract, 26:779, New Orleans, 2000.*
113. Hrabovszky E., Shughrue P.J., **Merchenthaler I.,** Hajsan T., Carpenter C.D., Liposits Z. and Peterson, S.L. Demonstration of estrogen receptor-β mRNA and 125I-estrogen binding sites in luteinizing hormone-releasing hormone neurons of the rat brain. *Society for Neuroscience Abstract, 26:4, New Orleans, 2000.*
114. Liposits Z., Steinhauser A., Shughrue P.J., Hrabovszky E. and **Merchenthaler, I.** Ultrastructural analysis of estrogen receptor-β immunoreactivity in the rat forebrain. *Society for Neuroscience Abstract, 26:926*, *New Orleans, 2000*.
115. **Merchenthaler, I.** Neuroprotection by estrogen. *CNS Injury. Pannonian Symposium, Pecs, Hungary, 2000.*
116. **Merchenthaler, I.** Fnctional morphology of estrogen receptors. *Pannon Symposium on Tisseu Selective Estrogen Action: From Basic Science to the Clinical Practice. Pecs, Hungary,* 2000.
117. **Merchenthaler, I.** Estrogen receptor alpha and beta: evidence for a tissue selective distribution of their mRNAs and proteins. *International Symposium on Signal Trunsduction in Health and Disease (STADY II). Tel Aviv, Israel, 2000*.
118. **Merchenthaler, I.** ER-beta: A New estrogen receptor: Morphological bservations. *XVIII. Annual Meeting of the Hungarian Endocrine Society and International Symposium of the European Federation of Endocrine Societies. Lillafured, Hungary* , *2000*.
119. **Merchenthaler, I.** Neuroprotection by estrogen. *International Brain Research Organization (IBRO) and European Federation of Neuroscience Summer School, Sulejow, Poland, 2001.*
120. Funkhouser, J., **Merchenthaler, I.** Premarin and two of its components (delta 8,9-dihydroestrone sulfate and estrone sulfate ) block hot flushes in a rat model. *The Endocrine Society, Denver, Colorado, P2-162, 2001.*
121. Dellovade, T., **Merchenthaler. I.** Estrogen receptor-β immunoreactivity in the mouse central nervous system. *The Endocrine Society, Denver, Colorado, P2-160, 2001.*
122. **Merchenthaler, I.**, Scrimo, P.J., Dellovade, T.L. The effect of estrogen on neurokinin B (NKB) gene expression in wild type and estrogen receptor knockout mice. *The Endocrine Society, Denver, Colorado, P2-16,* *2001*.
123. Shughrue P.J**.** and **Merchenthaler, I**. Estrogen prevents the loss of CA1 hippocampal neurons in *gerbils after ischemic injury. Society for Neuroscience Abstract, San Diego, CA, 2001.*
124. Dellovade, T., Scimo, P., and **Merchenthaler, I**. Estrogen is Neuroprotective Following Transient Global Ischemia in the Gerbil Brain. *Society for Neuroscience Abstract, San Diego, CA, 2001.*
125. Gyula Lázár, Jerome L. Maderdrut, **Merchenthaler, I.**Distribution of melanin-concentrating hormone‑like immunoreactivity in the central nervous system of *Rana esculenta*. *Spain, 2001.*
126. Dellovade, T and **Merchenthaler I.** Focal ischemic injury in the cerebral cortex of mice induces the expression of estrogen receptor-a (ER-a): an immunocytochemical analysis. *The Endocrine Society, San Francisco, CA. 2002.*
127. **Merchenthaler, I** and Funkhouser, I. Progesterone blocks hot flushes following estrogen pretreatment in a rat model. *The Endocrine Society, San Francisco, CA. 2002.*
128. Leventhal, L., O’Connor, L., Sipe, K., Funkhouser, J, Johnston, G., Deecher, D., **Merchenthaler, I.** Validation of rat models for hot flush. *Society for Neuroscience, Miami, FL, 2002.*
129. Bitran, D.D., Lin, M.J., Barros, T.L., Vo, O.P, McCann, P.T., Countu, G., Osgood, R.M., Baker, J.L., McGrath, J.A., **Merchenthaler, I**. Selective stimulation the estrogen receptor beta (ER-b) improves spatial working memory. *Society for Neuroscience, Orlando, FL, 2002*
130. Bora, S.H., Kecojevic, A., **Merchenthaler, I**., Liu, Z.P., Koliatsos, V.E. Pro-cholinergic effects of estrogen on axotomized septal neurons: the role of specific estrogen receptors. *Society for Neuroscience, Miami, FL, 2002.*
131. Hrabowszky, E., Barabas, K., Kallo, I., **Merchenthaler, I**., Moenter, S.M., Liposits, Z.: Comparative studies of nuclear estrogen receptor β-immunoreactivity in gonadotropin-releasing hormone neurons of rats and mice. *5th Int. Cong. Neuroendocrinology, Bristol, UK, 2002.*
132. Dudas, B. and **Merchenthaler. I.** Potential afferents of luteinizing hormone-releasing hormone neurons in the human brain: an immunocytochemical analysis. *The Endocrine Society, Philadelphia, PA, 2003.*
133. **Merchenthaler. I** and Dudas. B. Close juxtapositions between galanin-immunoreactive fibers/nerve terminals and LHRH-immunoreactive neurons in the human diencephalon. *The Endocrine Society, Philadelphia, PA, 2003.*
134. Lane. M. and **Merchenthaler. I.** Estrogen binding sites in the gerbil central nervous system: in vivo autoradiographic studies. *The Endocrine Society, Philadelphia, PA, 2003.*
135. Leventhal, L., O’Connor, L., Funkhouser, F., Sipe, K., Johnston, G., Deecher, D., and **Merchenthaler. I.** Venlafaxine alleviates vasomotor instability in two rodent models of hot flush. *The Endocrine Society, Philadelphia, PA, 2003*
136. Hrabowszky, E., Kallo, I., Steinhauser, A, **Merchenthaler, I**., Liposits, Zs.: ER- in oxytocin and vasopressin neurons in the rat and human hypothalamus. Immunocytochemical and *in situ* hybridization studies, *IBRO World Congress, Prague, 2003.*
137. Varju, P., Chang, K., Kallo, I., Wetsel, W., **Merchenthaler, I**., Liposits, Zs.: Genomic effects of estrogen in LHRH-producing, immortalized GT1-7 neurons. *IBRO Wolrd Congress, Prague, 2003*.
138. Lane, M., Malamas, M.S., Collini, M.D., DeVitt, R., Harris, H., **Merchenthaler, I**: Estrogen stimulates galanin expression within LHRH neurons via ER-beta in the female rat brain. *The Endocrine Society, New Orleans, LA, 2004.*
139. Sipe, K.J., Leventhal, L., Burroughs, K., Cosmi, S., Johnston, G., **Merchenthaler, I.**, Deecher, D.C.: Serotonin 2A receptor (5-HT2A) modulates tail-skin temperature responses in two rodent models of thermoregulatory dysfunction. *Society for Neuroscience, San Diego, CA, 2004.*
140. Dudas, B. & **Merchenthaler, I.** Stress and water balance: catecholaminergic input of the vasopressin neuronal system. Society *for Neuroscience, Dan Diego, CA, 2004.*
141. Dudas, B. & **Merchenthaler, I**. The paper model of skull: novel way to teach surgical anatomy of the cranial nerves. *Society for Neuroscience, San Diego, CA, 2004.*
142. Dudas B & **Merchenthaler I**. The role of galanin in estrogen-mediated LHRH neuronal activity in humans and rats. *Galanin 2004, San Diego, CA, 2004*.
143. Alfinito, P.D., Leventhal, L., Cosmi, S., **Merchenthaler, I.,** Winneker, R., Deacher, D.C.: Desvenlafaxine succinate: a selective serotonin and norepinephrine reiptkae inhibitor restores emperature regulation in two overiactomy-induced models of thermoregulatory dysfunction. *Society for Neuroscience, Washington, DC, 2005.*
144. **Merchenthaler I**: Estrogen receptor beta in the central nervous system. *The Endocrine Society Annual Meeting, Symposium: Estrogen Receptor Beta. San Diego, CA 2005*.
145. Alfinito, P.D., Leventhal, L., Cosmi, S., **Merchenthaler, I.,** Winneker, R., Deacher, D.C.: Desvenlafaxine succinate: a selective serotonin and norepinephrine reuptkae inhibitor restores emperature regulation in two overiactomy-induced models of thermoregulatory dysfunction. *Society for Neuroscience, Washington, DC, 2005.*
146. Deecher, D.C, Leventhal, L., Cosmi, S., Johnston, G., **Merchenthaler, I.**, Winneker, R.: Desvenlafaxine restores thermoregulatory dysfunction in two preclinical models of temperature regulation. The *Endocrine Society Annual Meeting, San Diego, CA, 2005*.
147. Semeniken, C., **Merchenthaler, I.,** Dudas, B..: Catecholaminergic inoput of the oxytocinergic neuronal system in human. *The Endocrine Society Annual Meeting, San Diego, CA, 2005*.
148. **Merchenthaler, I.**, Tomic, D., Furth, P.A., Koos, R.D., Flaws, J.A., Lane, M.V.: Estrogen receptor alpha (ERa) expression in the forebrain of conditionally ERa-obverxpressing transgenic mice*: in situ* hybridization studies. *The Endocrine Society Annual Meeting, Boston, MA, 2006*.
149. Manoj, S., Lane, M.V., Shuhadolnik, L., Kopf, G.S., **Merchenthaler, I.**, Stevis, P.: Calbindin-D9K expression is regulated by estrogen in the hypothalamus of the rat: Close association with estrogen receptor alpha. *In vivo* confirmation of mircoarray data utilizing an immortalized cell line (D12). *The Endocrine Society Annual Meeting, Boston, MA, 2006.*
150. Ottinger, M.A., **Merchenthaler, I.**, Hoffman, G.E., Mouton, P.R., O’Neil, I.N., Manaye, K.M., Duffy, K., Tinkler, G.P., Ingram, D.K.: Estradiol receptors in brain regions of aged female dtg app/ps1 mice. *Society for Neuroscience, Atlanta, GA, 2006.*
151. **Merchenthaler, I.**, Puskar, A., Marion, S., Hoyer, P.: The 4-vinylcyclohexene diepoxide (VCD)-treated rats provide a unique  peri-menopausal model to study the effect of estrogens in hot flushes. *Annual Meeting of* t*he Endocrine Society, Toronto,Canada, 2007.*
152. Puskar, A., López, F.J., **Merchenthaler, I.**: Testosterone or dehydrotestosterone do not block naloxone-induced increases in tail skin temperature in the ovariectomized morphine-addicted rat hot flush model. *Annual Meeting of* t*he Endocrine Society, Toronto,Canada, 2007.*
153. Hattersley, G., Paquin, D.G., Ho, S., **Merchenthaler, I.**, Ogasawara, A., Nakagawa, M., Ogura, H., Lyttle, C.R.: **[P1-415] RAD-1901, a Novel SERM, Has Efficacy in an Animal Model of Vasomotor Symptoms.** *Annual Meeting of* t*he Endocrine Society, Toronto,Canada, 2007.*
154. **Merchenthaler, I.,** Puskar, A., Prokai-Tatrai, K., Prokai, L.: Paraquinol of 17-beta-estradiol prevents tail skin temperature rise, representing hot flushes, in an animal model of hot flush. *Society for Neuroscience, San Diego, CA, 2007.*
155. **Merchenthaler, I.**, Pereira, E., Aracava, Y., Albuquerque, E.X.: Galantamine provides protection from organophosphate-induced cell death in the guinea pig telencephalon. *Society for Neuroscience, San Diego, CA, 2007.*
156. Prokai, L., Prokai-Tatrai, K., Koulen, P., **Merchenthaler, I**., Brodie, A., Bimonte-Nelson, H.: Brain-selective estrogen therapy. *Wienna, Austria, 2008.*

157. Albrecht, .E.D., Lane, M.V., Marshall, G.R., **Merchenthaler, I.**, Simorangkir, D.R.,

 Pohl, C.R., Plant, T.M., Pepe, G.J.Estrogen Promotes Germ Cell and Seminiferous Tubule

 Development in the Baboon Fetal Testis. *SRI Meeting, Toronto, Canada, 2009.*

158. Yu-Yahiro, J., Ruff, C., Parks, B., Sinkov, V., **Merchenthaler, I**., Jackson, R.L., Schwen, R. S-

 Equol Prevents Loss of Bone Strength in Rat Osteoporosis Model. *SRI* *Meetingy, Toronto,*

 *Canada, 2009.*

159. **Merchenthaler, I**., Puskar, A., Prokai-Tatrai, K,. Prokai, L. Paraquinol of 17-beta-estradiol

 prevents hot flushes in an animal model without exhibiting uterotropic activity. *Annual Meeting*

 *of the Endocorine Society, Washington, DC, 2009.*

160. **Merchenthaler, I**., Puskar, A., Schwen, R., Jackson, R.L. S-equol prevents hot flushes

and prostate hypertrophy in animal models. *Annual Meeting of the Endocorine Society, Washington, DC, 2009.*

*161.* **Merchenthaler, I.**, Rotoli, G., Grignol, G., Dudas, B. Close, morphological communication between NPY and galanin in the human hypothalamus. *Society for Neuroscience, San Diego, CA, 2010*

162. Dudas, B., Baker, M., Rotoli, G., Grignol, G., Bohn, M.C., **Merchenthaler, I**. Close, morphological communications between catecholaminergic and peptidergic neurons in the human hypothalamus. *Society for Neuroscience, San Diego, CA, 2010.*

163. Murthy, S.R.K., Li, W., Thouennon, E., Bhupartkar, J., Lane, M., **Merchenthaler, I**., Loh, Y.P. The Neuroprotective Protein Carboxypeptidase E is Up Regulated in the Hippocampus during Chronic Restraint Stress. *Society for Neuroscience, San Diego, CA, 2010.*

164. Frost, D.O., Vinish, M., Milstein, J., Enos, J., El-Nabawi, A., Adle, T., Robson, S., **Merchenthaler, I.**, Kolb, B.Long-term behavioral sequelae and neurobiological effects of adolescent olanzapine treatment. *ACNP, Miami, 2010*.

*165.* Arad, M., Prokai, L., Tatrai-Prokai, K., **Merchenthaler, I.**, Gould, T.D. Antidepressant- like activity of a novel estradiol prodrug in the mouse: Implications for a role of para-quinol of 17β-estradiol in hormone-related depression and anxiety in women. *ACNP, Miami, 2010.*

166. Elnabawi, A., Milstein, J.A., Vinish, M., Enos, J.K., **Merchenthaler, I**., Kolb, B.E., Frost, D.O. Adolescent Olanzapine Treatment Induces Long-Lasting Changes in Dopamine Receptor Binding. *Society for Neuroscience, San Diego, CA, 2010.*

167. Merchenthaler, I., Arad, M., Prokai, L., Gould, T. A novel 17-beta esttadiol prodrug for the treatment of menopausal symptoms in animal models of hot flush and depression. *Annual Meeting of the Endocrine Society, Boston, 2011.*

168. Ceresini, G., Lane, M.L., Merchenthaler, I., Effects of estrogen on Sodium/Iodide-Symporter and Thyroid Peroxidase gene expression in female rats. *Annual Meeting of the Endocrine Society, Boston, 2011.*

169. Murthy, S.R.K., Thouennon, E., Li, W-S., Cheng, Y., Bhupatkar, J., Cawley, N.X., Lane, M., **Merchenthaler, I**. and Loh, Y.P. Glucocorticoid-induced neuroprotection of hippocampal neurons in stressed mice is mediated by carboxypeptidase E. *Society for Neuroscience, Washington DC, 2011.*

170. **Arad M**., Prokai L., Tatrai-Prokai K., Merchenthaler I., Gould TD. (2011) Mood-related effects of a novel brain-selective prodrug of 17β-estradiol (DHED) in the mouse: Implications for treatment in women. *Society for Neuroscience, Washington DC, 2011.*

171. **Arad M**., Prokai L., Tatrai-Prokai K., Tonelli LH., Merchenthaler I., Gould TD. Further support for a brain-selective activity of 17β-estradiol prodrug (DHED) in the mouse. *American College of Neuropsychopharmacology (ACNP) Annual Meeting, Waikoloa, Hawaii, USA. 2011.*

172. **Merchenthaler I.,** A novel 17-beta-estradiol prodrug restores diurnal tails skin temperature rhythm in ovariectomized rats: potential use to treat menopausal hot flushes. *Annual Meeting of the* *Endocrine Society, Huston, TX, 2012.*

173. **Merchenthaler I**., A novel prodrog approach to treat menopausal symtoms: hot flushes, depression/anxity, sleep disorders. *OSSD, Baltimore, 2012*.

174. Murthy, S.R.K., Thouennon, E., Lane, M.,**Merchenthaler, I**. and Loh, Y.P. Glucocorticoid-induced neuroprotection of hippocampal neurons in stressed mice is mediated by carboxypeptidase E. *Society for Neuroscience, Washington DC, 2012.*

175. Arad, M., Piantadosi, S.C., Prokai, L., Tatrai-Prokai, L., **Merchenthaler, I.,** Gould, T.D.: Antidepressant- and anxiolytic-like effects of a brain-selective prodrug of 17β-estradiol (DHED) in the male mouse: Implications for the use of estrogen in men. *Association of Clinical Neuropsychiatry. San Francisco, CA 2012.*

176. **Merchenthaler, I.,** Lane, M., Tatrai-Prokai, K., Prokai, L.: Progesterone receptor-expressing and kisspeptin-suppressing actions of a prodrug-derived 17β-estradiol are antagonized in the brain by the estrogen-receptor antagonist ICI182,780. *Society for Neuroscience, San Diego, CA, 2013.*

177. Montasser., M.E., Ziv-Gal, A., Brown, J.P., Flaws, J.A., **Merchenthaler, I.** A potentially

 unctional variant in the serotonin transporter gene is associated with peri-menopausal hot flashes.

 *Endocrine Society Annual Meeting, Chicago, IL, 2014.*

178. M**erchenthaler, I**., Lane, M., Viescweg, S., Mong, *J.:* 17β-estradiolregulates diurnal tail skin temperature of male rats*. Society form Neuroscience, Washington, DC, 2014.*

179. Georgiu, P., Zanos, P., McCarthy, M.M., Lobo M.K., **Merchenthaler, J.I**., Prokai, L., Gould, T.D.: Increased susceptibility of hypogonadal male mice to social stress in mediated by estradiol. *Am. College Neuro Psychopharm, Hollywood, FL, 2015.*