

## CURRICULUM VITAE

April, 2015

Ronald M. Lechan, M.D., Ph.D.  
Professor of Medicine, Tufts University School of Medicine  
Chief, Division of Endocrinology, Diabetes and Metabolism  
Tufts Medical Center  
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Boston, MA 02111  
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### EDUCATION

1972 B.A. Brandeis University (Magna Cum Laude, Honors in Biology)  
1976 M.D. University of Vermont College of Medicine  
1984 Ph.D. Tufts University Sackler School of Graduate Biomedical Sciences  
Department of Anatomy and Cellular Biology

### POSTDOCTORAL TRAINING

#### INTERNSHIP AND RESIDENCY

1976 Internal Medicine  
Beth Israel Hospital  
Boston, Massachusetts

#### FELLOWSHIP

1978 Endocrinology and Metabolism  
New England Medical Center  
Boston, Massachusetts

### LICENSURE AND CERTIFICATIONS

1976 Massachusetts Board of Registration in Medicine  
1977 National Board of Medical Examiners  
1979 American Board of Internal Medicine  
1982 Subspecialty Board in Endocrinology and Metabolism

### ACADEMIC APPOINTMENTS

1981 - 1982 Instructor in Medicine  
Tufts University School of Medicine  
Boston, Massachusetts

1982 - 1987      Assistant Professor of Medicine  
 Tufts University School of Medicine  
 Boston, Massachusetts

1987 -            Associate Professor of Medicine  
 Tufts University School of Medicine  
 Boston, Massachusetts

1993 -            Professor of Medicine  
 Tufts University School of Medicine  
 Boston, Massachusetts

**HOSPITAL APPOINTMENTS**

1981              Assistant Physician  
 New England Medical Center Hospitals  
 Boston, Massachusetts

1987 -            Physician  
 Tufts-New England Medical Center  
 Boston, Massachusetts

1996-            Acting Chief, Division of Endocrinology, Diabetes, and Metabolism

T

                    Tufts Medical Center, Boston, Massachusetts  
 Program Director  
 Division of Endocrinology, Diabetes and Metabolism  
 Tufts Medical Center, Boston, Massachusetts

2000 -            Director, Dr. Gerald J. and Dorothy R. Friedman Program in  
 Diabetes & Metabolism  
 Tufts Medical Center, Boston, Massachusetts

2006              Chief, Division of Endocrinology, Diabetes and  
 Metabolism  
 Tufts Medical Center, Boston, Massachusetts

**AWARDS AND HONORS**

1976              Alpha Omega Alpha Honorary Medical Society

1979              NIAMDA Traineeship Award

1981              NIAMDD New Investigator Award

1991              Fellowship, American College of Physicians

- 1991 Elected Member, American Society for Clinical Investigation
- 1991 Van Meter/Forrest Award, American Thyroid Association
- 1996 Fellow, Italian Academy of Sciences
- 2001 Lecturer, The Endocrine Brain Symposium, Szeged, Hungary 1/26/01  
McGill/Knoll Lectureship 4/4/01  
Visiting Professor, McGill University 4/5/01
- 2001 Fellow, Society of Medicine and Natural Science, The University of Parma, Italy
- 2002 Medallion of the University of Catania, Sicily 5/9/02  
Medallion of the University of Palermo, Sicily 5/10/02
- 2005 15<sup>th</sup> Annual Sidney H. Ingbar Memorial Lecturer, Beth Israel Deaconess Hospital, 4/08/05  
Invited Participant, 24<sup>th</sup> International Summer School of Brain Research, Amsterdam, The Netherlands, Aug 29 – Sept 2, 2005  
Cited as one of Boston's Best Doctors in the Boston Herald
- 2006 Award for Distinguished Academic Achievement, University of Vermont College of Medicine
- 2007 Twenty-Five Year Service Award, Tufts University School of Medicine  
Best Doctors in America 2007-2008 Database  
Castle Connolly America's Top Doctors
- 2008 Boston Magazine 2008 list of Top Doctors  
Castle Connolly America's Top Doctors
- 2009 Elected as a Corresponding Member in the Class of Physical Sciences to the Academy of Sciences of Bologna  
Gold Medal of the Academy of Sciences of Bologna for recognition of scientific excellence  
Recognition by Faculty 1000 Biology for having one of the most

- interesting papers published in the biological sciences  
(Endocrinology May 2009).  
Best Doctors in America 2009-2010 Database  
Boston Magazine 2009 list of Top Doctors  
2009 Patients' Choice Award
- 2010 American Registry Top Doctor Award  
2010 Patients' Choice Award  
Boston Magazine 2010 list of Top Doctors
- 2011 Selected by the International Association of Healthcare Professionals (IAHCP) as "Top Endocrinologist in Boston, MA" and as "Boston Super Doctors by Key Professional Media, Inc.  
Selected one of "America's Top Doctors" by Castle Connolly Medical LTD  
Patients' Choice Award  
Boston Magazine 2011 list of Top Doctors
- 2012 Selected as Top Doctor in Natick, MA by International Association of Internists (IAI)  
Selected one of "America's Top Doctors" by Castle Connolly Medical LTD  
Boston Magazine 2012 list of Top Doctors
- 2013 Named to 2013 Boston Super Doctors list  
Top 10 Endocrinologists Award from American Registry  
Top Doctor Award from Castle Connolly  
Recognition by Faculty 1000 Biology for having one of the most interesting papers published in the biological sciences (The Journal of Clinical Investigation, 2013).
- 2014 Boston Magazine 2014 list of Top Doctors

## COMMITTEES

### HOSPITAL AND MEDICAL SCHOOL

- 1984 - Director, Endocrinology Seminar Series  
1988 - Member, Animal Research Committee, Tufts University School of Medicine and New England Medical Center Hospitals

1990,1991, 1992, 1995	Ad Hoc Member, Promotions Committee Tufts University School of Medicine and Tufts-New England Medical Center
1996 - 2005-2007	Member of the Graduate Medical Education Committee Member, GRASP Center Executive Committee Member, GCRC Genetics and Genomics Task Force
2005-2008	Member, PhD Thesis Committee, Thaddeus Unger
2005- 2009	Member, PhD Thesis Committee Sarah Teillon
2007-2009	Member, Neurology Search Committee GME Internal Review Committee, Division of Nephrology Ad Hoc Member, Basic Science Faculty Appointment, Promotion and Tenure Committee, Tufts University School of Medicine
2010	Ad Hoc Member, Promotion and Tenure Committee, Tufts University School of Medicine
2012	Ad Hoc Member, Promotion and Tenure Committee, Tufts University School of Medicine
2014 - Center	Ambulatory EHR Physician Advisory Group, Tufts Medical Center
 REGIONAL	
1986 - 1987	Chairman, Committee to Place Seatbelts on School Buses in Natick, MA
1990	Ph.D. Thesis Committee for Maurene Shamgochian Department of Physiology, U. Mass Medical School, Worcester, MA Ad Hoc Reviewer, Institutional Grants, U Mass Medical School
1999	Ph.D. Thesis Committee, Susan Weninger, Harvard Medical School, Boston, MA
1999-2004	Advisory Board, NIH Program Project in Obesity, Dr. Jeffrey Flier, P.I., Beth Israel Hospital, Boston, MA
2011	Ph.D. Thesis Committee, Nathan A. Billings, Harvard Medical School, "Thyroid Hormone Signaling during Chick Retinal Development"
 NATIONAL	
1984 -	NIH Ad Hoc Reviewer and Special Review Committee
1985	NIH Site Visit Team
1988 -	NSF Ad Hoc Reviewer Ph.D. Thesis Committee for Peter Van den Bergh, Catholic University of Louvain, Brussels, Belgium

- 1997 NIH Biological and Physiological Sciences Special Emphasis Panel  
 2000 Chairperson, Center for Scientific Review Special Emphasis Panel, NIH  
 2001 Reviewer for North West Cancer Research Fund Scientific Committee, University of Liverpool, Liverpool, England  
 2005 NIH Reproductive Endocrinology Special Emphasis Panel Member  
 2006-2008 Ph.D. Thesis Committee and Co-Advisor, Monica Bodria, University of Parma, Italy  
 2007 Co-Chair, First Annual Gerald J. Friedman Fellows Symposium, New York, NY  
 2012 Co-Chair, Gerald J. Friedman Fellows Symposium, NY  
 2014 Organizing Committee and Co-Chair, Friedman Fellows Ancillary Symposium at the American Diabetes Association annual meeting, San Francisco, CA  
 Organizing Committee, Annual Meeting of The Pituitary Society  
 External Expert, PhD Program in Molecular Medicine, University of Parma School of Medicine  
 Member of the International FIPA Consortium to study familial pituitary adenomas

## TEACHING RESPONSIBILITIES

- 1981 - New England Medical Center, Housestaff Conferences  
 1981 - Tufts University School of Medicine, Endocrine Pathophysiology  
 1983 - 1988 Tufts University, Community Health 103, Endocrinology  
 1985 - 1990 Tufts University School of Dental Medicine, Endocrinology  
 1988 Harvard School of Public Health, Pharmacology 212  
 Hypothalamus: Anatomy, biosynthesis and processing of regulatory neuropeptides  
 1989 - Tufts University School of Medicine, Neuroscience 202, Hypothalamic Anatomy and Limbic System  
 1991 - University of Chieti Medical School, Chieti, Italy; University of Trieste Medical School, Trieste, Italy; University of Bologna Medical School, Bologna, Italy, University of Parma Medical School, Parma, Italy, Hypothalamic Anatomy

1994 - Preclinical Selective Program Tufts University School of Medicine  
2007 Mentor for Runa Achuria, Building Diversity in Biomedical Diversity  
in Biomedical Sciences Program, Tufts University, First Prize  
Recipient in Poster Competition of BDBS Research Symposium

2009

M  
Mentor for Maribel Vazquez, Building Diversity in Biomedical  
Sciences Program, Tufts University; First Prize Recipient in Poster  
Competition of BDBS Research Symposium

### PROFESSIONAL SOCIETIES

1976 Century Club of the University of Vermont College of Medicine

1981 American Association for the Advancement of Science

1982 Massachusetts Medical Society

1983 The Endocrine Society

1983 Society for Neuroscience

1983 International Brain Research Organization

1987 New York Academy of Science

1991 American Society for Clinical Investigation

1992 The Pituitary Society

2013 Pheochromocytoma Research Support Organization

(PRESSOR)

### COMMITTEE ASSIGNMENTS IN PROFESSIONAL SOCIETIES

1991 Program Committee, The Endocrine Society

1992 Founding Member, The Pituitary Society

### RESEARCH SUPPORT

#### Present

a. NIDDK  
Tanocytes and Hypothalamic Inflammation Associated with  
Obesity  
Principal Investigator: Ronald M. Lechan, M.D., Ph.D.  
2015-2017

b. Dr. Gerald J, and Dorothy R. Friedman New York Foundation for

Medical Research

Principal Investigator: Ronald M. Lechan, M.D., Ph.D.  
Interim Support to Study Hypothalamic Neuroendocrine  
Regulation

2012 -

Principal Investigator: Ronald M. Lechan, M.D., Ph.D.

- c. Lilly Pharmaceutical, Inc.  
The Global Hypopituitary Control and Complications Study  
1998 -  
Principal Investigator: Ronald M. Lechan, M.D., Ph.D.
- d. Tercica, Inc.  
Somatuline Depot Injection for Actomegaly(SODA) Study  
2009 -  
Principal Investigator: Ronald M. Lechan, M.D., Ph.D.
- e. Novartis Pharmaceuticals Corporation  
Pasireotide EAP study (Seascape)  
2013 -  
Principal Investigator: Ronald M. Lechan, M.D., Ph.D.
- f. Dr. Gerald J.and Dorothy R. Friedman New York Foundation for  
Support for Fellowship training in Endocrinology, Diabetes and  
Metabolism Medical Research  
2000 -  
Principal Investigator: Ronald M. Lechan, M.D., Ph.D.
- g. NIH, TCGA Trial (Study of the Pathophysiology and Molecular  
Biology of Pheochromocytoma)  
2013 -  
Principal Investigators: Ronald M. Lechan, M.D., PhD., Arthur  
Tischler, M.D.
- h. Novartis Pharmaceuticals Corporation (Lechan, PI)  
  
An ACromegaly, open-label, multi-CENTER, Safety monitoring  
program for treating patients with SOM230 (pasireotide) LAR who  
have need to receive medical therapy (ACCESS)  
2013 -



Principal Investigator: Ronald M. Lechan, M.D., Ph.D.

## Past

- a. Role of ProTRH-derived Peptides in the Midbrain PAG  
NIDA RO1 DK10521  
4/1/97 - 3/31/01  
Principal Investigator: Ronald M. Lechan, M.D., Ph.D.
- b. D2 Tanycytes in the Regulation of the Hypothalamic-Pituitary-Thyroid Axis  
NIDDK R21 DK57727  
6/1/00 - 5/30/03  
Principal Investigator: Ronald M. Lechan, M.D., Ph.D.
- c. Melanocortin Signaling in Anorexia  
Tufts-New England Medical Center Research Fund  
6/01/02 - 5/31/03  
Principal Investigator: Ronald M. Lechan, M.D., Ph.D.
- d. CART and the Hypothalamic-Pituitary-Thyroid Axis  
NIH TW01494-01  
1/01/01 - 1/31/05  
Fogarty International Collaboration Award to Dr. Csaba Fekete  
Principal Investigator: Ronald M. Lechan, M.D., Ph.D.
- e. TRH and Energy Homeostasis  
NIDDK R21 DK 70600  
6/01/05 - 5/31/08  
Principal Investigator: Ronald M. Lechan, M.D., Ph.D.
- f. Russo Family Charitable Foundation Trust Grant  
Identification of the DPP2 Substrate in the VMN of the Hypothalamus that Controls Glucose Metabolism  
4/01/10-3/31/11  
Principal Investigators: Brigitte Huber, Ph.D., and Ronald M. Lechan, M.D., Ph.D.
- g. Role of Oleyethanolamine in the Regulation of the HPT Axis

1R03 TW007834

1/01/09 - 1/31/12

Fogarty International Collaboration Award to Dr. Csaba Fekete

Principal Investigator: Ronald M. Lechan, M.D., Ph.D.

- h. Tanycytes and Nonthyroidal Illness  
NIDDK R21 DK078998  
05/10/09 – 04/30/12  
Principal Investigator: Ronald M. Lechan, M.D., Ph.D.
- i. TRH Regulation/Biosynthesis in the Paraventricular Nucleus  
NIDDK 5 R01 DK 37021  
2/1/86 - 9/30/12  
Principal Investigator: Ronald M. Lechan, M.D., Ph.D.

## Pending

- a. TRH and Energy Homeostasis  
National Institutes of Health  
Principal Investigator: Ronald M. Lechan, M.D., Ph.D.
- b. Functional Importance of Type 2 Deiodinase (D2) in  
Hypothalamic Tanycytes  
National Institutes of Health  
Principal Investigator: Ronald M. Lechan, M.D., Ph.D.
- c. Tanycytes as Neural Progenitors for POMC Neurons in the  
Postnatal Hypothalamus  
National Institutes of Health  
Principal Investigator: Ronald M. Lechan, M.D., Ph.D.
- d. TRH/Histamine Interactions in Appetite and Metabolic Control  
National Institutes of Health  
Principal Investigator: Ronald M. Lechan, M.D., Ph.D.
- e. Neurobiology of Glutamatergic and GABAergic Neurons in the  
Hypothalamic Arcuate Nucleus  
National Institutes of Health  
Principal Investigator: Ronald M. Lechan, M.D., Ph.D.

- f. Characterization of a Satiety Circuitry in the CNS  
National Institutes of Health  
Principal Investigator: Ronald M. Lechan, M.D., Ph.D.

### **RESEARCH ACCOMPLISHMENTS**

- identified origin of neurons giving rise to all of the hypothalamic releasing and inhibiting factors involved in anterior pituitary regulation (elucidation of the hypothalamic tuberoinfundibular system )
- brought attention to the importance of the hypothalamic paraventricular nucleus (PVN) in neuroendocrine regulation
- identified the origin and axonal trajectory to the median eminence of thyrotropin-releasing hormone (TRH) neurons involved in anterior pituitary TSH regulation
- isolated the cDNA for TRH, deduced the sequence of mammalian preproTRH, and demonstrated that proTRH contains other potentially important biologically active peptides.
- demonstrated the presence of TRH in the spinal cord and its importance in muscle recovery following denervation
- demonstrated the activating effects of melanocortin signaling on hypophysiotropic TRH neurons in the hypothalamic paraventricular nucleus and potent inhibitory effects of NPY
- demonstrated importance of CREB phosphorylation in melanocortin signaling to hypophysiotropic TRH neurons
- elucidated central mechanisms responsible for the nonthyroidal illness syndrome associated with fasting including roles of leptin, neuropeptide Y,  $\alpha$ -MSH, AGRP and CART.
- demonstrated presence of type 2 iodothyronine deiodinase in tanycytes lining the third ventricle, their regulation by endotoxin and proposed their importance in regulation hypothalamic levels of thyroid hormone

- demonstrated type 2 iodothyronine deiodinase in the meninges of endotoxin-treated animals, suggesting a mechanism for inflammatory regulation in the CNS
- proposed a new mechanism for feedback regulation of the hypothalamic-pituitary-thyroid axis *via* thyroid hormone-induced upregulation of pyroglutamyl peptidase II in tanycytes lining the third ventricle and degradation of TRH from TRH-containing axon terminals.
- demonstrated expression of type 2 deiodinase in meninges and regulation by endotoxin
- identified potential satiety regions in the hypothalamus including the ventral parvocellular subdivision of the hypothalamic paraventricular nucleus and their projections to brainstem feeding centers
- demonstrated importance of CART as a prolactin inhibitory factor
- demonstrated two subtypes (glutamatergic and GABAergic) of POMC-producing neurons in the hypothalamic arcuate nucleus
- demonstrated that tanycytes express the POMC gene and POMC precursor, raising possibility that tanycytes serve as progenitor cells for POMC-expressing neurons in the hypothalamic arcuate nucleus
- demonstrated that TRH densely innervates histamine neurons in the tuberomammillary nucleus, hypothesizing this may contribute to the regulation of appetite and thermogenesis
- provided evidence that isolated ACTH deficiency is secondary to autoimmune recognition of corticotroph antigens
- recognized association between IL-2 and IF- $\alpha$  therapy and autoimmune thyroiditis
- demonstrated efficacy of temozolomide in the treatment of invasive, dopamine-agonist resistant prolactinoma
- contributed to characterization of AIP mutations in families with familial pituitary adenomas
- contributed to the identification of a new syndrome of somatostatinoma,

pheochromocytoma and polycythemia and identification of a somatic mutation in HIF-2 $\alpha$  giving rise to this syndrome

- reported that patients with cardiac paragangliomas frequently have mutations in the SDHC gene

## **EDITORIAL BOARDS**

Endocrinology  
Endocrine Pathology  
Acta BioMedica 2007

### **Ad Hoc Reviewer for:**

Journal of Clinical Endocrinology and Metabolism,  
Neuroendocrinology,  
Brain Research,  
Journal of Histochemistry and Cytochemistry,  
Journal of Comparative Neurology  
Life Science,  
Neuroscience and Behavioral Reviews,  
New England Journal of Medicine  
Diabetes,  
Journal of Neurochemistry,  
Peptides,  
Thyroid,  
Endocrine Reviews  
Biological Psychiatry  
Endocrine Practice

## **PREVIOUS AND CURRENT TRAINEES**

<b>NAME</b>	<b>CURRENT POSITION</b>
Malcolm Low, MD, PhD	Professor of Molecular and Integrative Physiology and Internal Medicine, University of Michigan Medical School

Eric Dyess, MD	Private Practice, University of Mississippi Medical Center, Jackson, Mississippi
Hyman Schipper, MD, PhD	Professor of Neurology, Center for Neurotranslational Research and Bloomfield Centre for Research in Ageing, McGill University, Montreal, Quebec
Thomas Segerson, MD	Vice President, Medical and Scientific Affairs, Bayer Inc. (deceased)
Naoto Minamitani, MD	Executive Director, Minamitani Clinics and Research Center, Osaka, Japan
Peter Van den Bergh, MD	Professor of Neurology Director, Neuromuscular Reference Center Catholic University of Louvain President, Belgian Neurological Society Brussels, Belgium
Richard Siegel, MD	Associate Professor of Medicine, Tufts University School of Medicine
Gabor Legradi, PhD	Assistant Professor, Department of Anatomy, University of South Florida, Tampa, FL
Csaba Fekete, MD, PhD	Professor, Institute of Experimental Medicine, Hungarian Academy of Science, Department of Endocrine Neurobiology, Budapest Hungary
Emese Mihaly, MD, PhD	Clinical Instructor, Semelweiss University, Budapest, Hungary
Sumathi Srivasta, MD	Assistant Professor of Medicine, Emory University School of Medicine, Atlanta, GA
Linda Margiloff, MD	Clinical Instructor, Department of Medicine, Tufts-New England Medical Center, Boston, MA Boston, MA

Sorin Herscovici, MD	Saints Medical Center, Lowell, MA
Anatassios Pittas, MD	Associate Professor of Medicine, Tufts University School of Medicine
Alejandra Pro-Risquez, MD	Assistant Professor of Medicine, Tufts University School of Medicine, St. Elizabeth's Hospital, Brighton, MA
Sunita Schurgin, MD	Private Practice, Mystic Medical, Medford, MA
Sumit Sarkar, PhD	Research Associate, Department of Pharmacology and Toxicology, Indiana University School of Medicine, Indianapolis, IN
Radhika Hariharan, MD	Assistant Professor, Northshore University Health System and University of Chicago
Nandini Joseph, MD	Private Practice, Palo Alto Medical Foundation
Florence Solages, MD	Director, Obesity, Diabetes and Metabolism Center of S. Florida, Plantation, FL
Rula Goussous, MD	Private Practice, King Hussein Cancer Center, Amman, Jordan
Chortip Nartshupa, MD	Private Practice, Bumrungrad International Hospital, Bangkok, Thailand
Colleen Digman, MD	Private Practice, Northshore Medical Group, Northshore Medical Center
Arpita Patel, MD	Private Practice, Bergin County Consultants, Englewood, NJ
Lisa Neff, MD	Assistant Professor, Northwestern School of Medicine, Chicago, IL
Renee Amori, MD	Assistant Professor, Drexel University College of Medicine

Lisa Ceglia, MD	Assistant Professor, Tufts University School of Medicine
Michelle Weil, MD	Assistant Professor, Massachusetts General Hospital
Duha Shaheen, MD	Dubai Health Authority, Dubai, UAE
Noah Lubowsky, MD	Renal-Endocrine Associates, PC, Pittsburgh, PA
Edith Sanchez-Jaramillo, PhD	Assistant Professor, University of Mexico
Praful Singru, PhD	Assistant Professor, School of Biological Sciences, National Institute of Science Education and Research, Orissa, India
Nuha El Sayed, MD	Assistant Professor, Joslin Diabetes Center
Eliana Schenk, MD	Private Practice, Lakeside Medical Associates, Burbank, CA
Nicole V. Tilluckdharry, MD	Private Practice, Trinidad; Chairperson Trinidad & Tobago Medical Association and Ministry of Health
Wen-Yee Tsai, MD	Associated Internal Medicine Medical Group, Inc., Oakland, CA
Gabor Wittmann, PhD	Postdoctoral Fellow, Tufts Medical Center
Joanna Mitri, MD	Private Practice, Prima-Care, Fall River, MA
Radhika Phadke, MD	Private Practice, Cornerstone Endocrinology, High Point, North Carolina
Bindiya Magoon, MD	Private Practice
Esther Lee, MD	Summitt Medical Group, Morristown, New Jersey



Saud Alzahrani, MD	Private Practice, Lowell General Hospital
Rajaa Nahra, MD	Director of Clinical Research, CVMD, Global Medicines Development, AstraZenica
Naweed Alzaman, MD	Postdoctoral Fellow, Tufts Medical Center
Vorawan Ummaritchot, MD	Private Practice, Providence RI
Anthony Liberatore, MD	Postdoctoral Fellow, Tufts Medical Center
Anam Akmal, MD	Postdoctoral Fellow, Tufts Medical Center
Priscilla Villasmil, MD	Postdoctoral Fellow, Tufts Medical Center
Iqra Javeed, MD	Postdoctoral Fellow, Tufts Medical Center

## BIBLIOGRAPHY

### Refereed Papers:

1. Lechan RM, Alpert LC, Jackson IMD: Synthesis of Luteinizing Hormone Releasing Factor and Thyrotropin-Releasing Factor in Glutamate Lesioned Mice. *Nature* 264:463-465, 1976.
2. Lechan RM, Nestler JL, Jacobson S, Reichlin S: The Hypothalamic "Tuberoinfundibular" System of the Rat as Demonstrated by Horseradish Peroxidase (HRP) Microiontophoresis. *Brain Res* 195:13-27, 1980.
3. Lechan RM, Nestler JL, Molitch ME: Immunohistochemical Identification of a Novel Substance with Human Growth Hormone-Like Immunoreactivity in Rat Brain. *Endocrinology* 109:1950, 1981.
4. Lechan RM, Nestler JL, Jacobson S: Immunohistochemical Localization of Retrogradely and Anterogradely Transported Wheat Germ Agglutinin (WGA) Within the Central Nervous System of the Rat: Application to Immunostaining of a Second Antigen Within the Same Neuron. *J Histochem Cytochem* 29:1255, 1981.
5. Lechan RM, Nestler JL, Jacobson S: The Tuberoinfundibular System of the Rat as Demonstrated by Immunohistochemical Localization of Retrogradely Transported Wheat Germ Agglutinin (WGA) from the Median Eminence. *Brain Res* 245:1-15, 1982.
6. Lechan RM, Jackson IMD: Immunohistochemical Localization of Thyrotropin- Releasing Hormone in the Rat Hypothalamus and Pituitary. *Endocrinology* 111:55, 1982.
7. King JS, Lechan RM, Kugel G, Anthony ELP: Acrolein: A Fixative for Immunocytochemical Localization of Peptides in the Central Nervous System. *J Histochem and Cytochem* 31:62-68, 1983.
8. Lechan RM, King JC, Molitch ME, Alberg J: Immunohistochemical Localization of Human Growth Hormone-Like Material in the Median Eminence of the Rat: Light and Electron Microscopic Observations. *Neuroscience Letters* 30:229-234, 1982.
9. Lechan RM, Molitch ME, Jackson IMD: Distribution of Immunoreactive Human Growth Hormone-Like Material and Thyrotropin-Releasing Hormone in the Rat Central Nervous System: Evidence for Their Coexistence in the Same Neurons. *Endocrinology* 112:877, 1983.
10. Lechan RM, Goodman RH, Rosenblatt M, Reichlin S, Habener JF: Prosomatostatin-Specific Antigen in Rat Brain: Localization by Immunocytochemical Staining with an Antiserum to a Synthetic

- Sequence of Preprosomatostatin. *Proc Natl Acad Sci USA* 80:2780-2784, 1983.
11. Kapcala LP, Lechan RM, Reichlin S: Origin of Immunoreactive ACTH in Brain Sites Outside the Ventral Hypothalamus. *Neuroendocrinology* 37:440-445, 1983.
  12. Lechan RM, Lin HD, Ling N, Jackson IMD, Jacobson S, Reichlin S: Distribution of Immunoreactive Growth Hormone Releasing Factor (1-44) NH<sub>2</sub> in the Tuberoinfundibular System of the Rhesus Monkey. *Brain Res* 309:55-61, 1984.
  13. Lechan RM, Snapper SB, Jacobson S, Jackson IMD: The Distribution of Thyrotropin-Releasing Hormone (TRH) in the Rhesus Monkey Spinal Cord. *Peptides, Suppl 1*, 5:185-194, 1984.
  14. Lechan RM, Snapper SB, Jackson IMD: Evidence that Spinal Cord Thyrotropin-Releasing Hormone is Independent of the Paraventricular Nucleus. *Neurosci Lett* 43:61-65, 1983.
  15. Lamberton P, Lechan RM, Jackson IMD: Ontogeny of Thyrotropin-Releasing Hormone and Histidyl Proline Diketopiperazine in the Rat Central Nervous System and Pancreas. *Endocrinology* 115:2400-2405, 1984.
  16. Pan JX, Lechan RM, Lin HD, Jackson IMD: Immunoreactive Neuron Pathways of Growth Hormone-Releasing Hormone (GRH) in the Brain and Pituitary of the Teleost *Gadus Morhua*. *Cell Tiss Res* 241:487-493, 1985.
  17. Lechan RM, Jackson IMD: Thyrotropin Releasing Hormone but not Histidyl-Proline Diketopiperazine is Depleted from Rat Spinal Cord Following 5,7-Dihydroxytryptamine Treatment. *Brain Res* 326:152-115, 1985.
  18. Pan JX, Lechan RM, Lin HG, Sohn J, Reichlin S, Jackson IMD: Multiple Forms of Human Pancreatic Growth Hormone Releasing Factor-Like Immunoreactivity in Teleost Brain and Pituitary. *Endocrinology* 116:1663-1665, 1985.
  19. Low MJ, Lechan RM, Hammer RF, Brinster RL, Habener JF, Mandel G, Goodman RH: Gonadotroph-Specific Expression of Metallothionein Fusion Genes in Pituitaries of Transgenic Mice. *Science* 231:1002-1004, 1986.
  20. Jackson IMD, Wu P, Lechan RM. Immunohistochemical Localization in the Rat Brain of the Precursor for Thyrotropin-Releasing Hormone. *Science* 229:1097, 1985.

21. Lechan RM, Wu P, Jackson IMD, Wolf H, Cooperman S, Mandel G, Goodman RH. Thyrotropin-Releasing Hormone Precursor: Characterization in Rat Brain. *Science* 231:159-161, 1986.
22. Lechan RM, Wu P, Jackson IMD: Immunolocalization of the Thyrotropin-Releasing Hormone Prohormone in the Rat Central Nervous System. *Endocrinology* 119:1210-1216, 1986.
23. Jackson IMD, Adelman LS, Munsat TL, Forte S, Lechan RM: Amyotrophic Lateral Sclerosis: Thyrotropin-Releasing Hormone and Histidyl Proline Diketopiperazine in the Spinal Cord and Cerebrospinal Fluid. *Neurology* 36:1218-1223, 1986.
24. Hoefler H, Childers H, Montminy MR, Lechan RM, Goodman RH, Wolfe HJ: *In situ* Hybridization Methods for the Detection of Somatostatin mRNA in Tissue Sections Using Antisense RNA Probes. *Histochemical Journal* 18:597-604, 1986.
25. Hoefler H, Childers H, Montminy MR, Goodman RH, Lechan RM, DeLellis RA, Tisher AS, Wolfe HJ: Localization of Somatostatin mRNA in the Gut, Pancreas and Thyroid Gland of the Rat Using Anti-Sense RNA Probes for *In Situ* Hybridization. *Acta Histochem Suppl* 34:101-105, 1987.
26. Van den Bergh P, Kelly JJ, Adelman L, Munsat TL, Jackson IMD, Lechan RM: Effect of Spinal Cord TRH Deficiency on Lower Motoneuron Function in the Rat. *Muscle and Nerve* 10:397-405, 1987.
27. Minamitani N, Minamitani T, Lechan RM, Bollinger-Gruber J, Reichlin S: Paraventricular Nucleus Mediates Prolactin Secretory Responses to Restraint Stress, Ether Stress, and 5-Hydroxy-L-Tryptophan Injection in the Rat. *Endocrinology* 120:860-867, 1987.
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145. Nahra R, Bogen S, Lechan RM, Spurious elevations in PTH may be secondary to heterophile antibodies, 95<sup>th</sup> Annual Meeting of The Endocrine Society, San Francisco, CA, 2013
146. Wittmann G, Larsen PR, Lechan RM, Species differences in the regulation of type 2 deiodinase expression in the brain by bacterial endotoxin, 95<sup>th</sup> Annual Meeting of The Endocrine Society, San Francisco, CA, 2013
147. Alzaman N, Shah S, Lechan RM, An unusual case of adrenal insufficiency associated with valproic acid administration, 95<sup>th</sup> Annual Meeting of The

- Endocrine Society, San Francisco, CA, 2013
148. Pacak K, Jochmanova I, Prodanov T, Yang C, Merino M, Fojo T, Prchal JT, Tischler AS, Lechan RM, Zhuang Z, A new syndrome of paraganglioma and somatostatinoma associated with polycythemia, 95<sup>th</sup> Annual Meeting of The Endocrine Society, San Francisco, CA, 2013
  149. Vida B, Zseli G, Lechan RM, Fekete C, Neuronal connections of the central amygdaloid nucleus with refeeding-activated brain areas, 43<sup>rd</sup> Annual Meeting, Society for Neuroscience, 2013
  150. Aseli G, Vida B, Lechan RM, Fekete C, Connections of the parabrachial nucleus with refeeding activated brain areas, 43<sup>rd</sup> Annual Meeting, Society for Neuroscience, 2013
  151. Wittmann G, Mohacsik P, Gereben B, Lechan RM, Parallel regulation of thyroid hormone transporter MCT8 and OATP1c1 mRNAs in brain blood vessels during and after endotoxemia, ICE/ENDO 2014, Chicago.
  152. Del Rivero, J, Zhuang A, Yang C, Prchal JT, Lechan RM, Tischler AS, Fojo T, Taieb D, Popovic V, Young J, Nambuba J, Adams KT, Jochmanova I, Merino M, Stratakis CA, Kebebew E, Pacak K, The NIH experience of seven somatic HIF2A patients presenting with multiple paragangliomas and duodenal somatostatinomas associated with polycythemia, ICE/ENDO 2014, Chicago, IL
  153. Wittmann G, Mohacsik P, Gereben B, Lechan RM, Lat 1 mRNA in brain blood vessels is regulated similarly to thyroid hormone transporters, OATP1c1 and MCT8, following lipopolysaccharide administration, 97<sup>th</sup> Annual Meeting of The Endocrine Society, San Diego, CA, 2015
  154. Liberatore A J, Lechan RM, Hypopituitarism secondary to bilateral carotid-cavernous fistulas, 97<sup>th</sup> Annual Meeting of The Endocrine Society, San Diego, CA, 2015
  155. Javeed I, Tischler A, Lechan RM, Presentation of a patient with an unusual composite pheochromocytoma-ganglioneuroblastoma, 97<sup>th</sup> Annual Meeting of The Endocrine Society, San Diego, CA, 2015

## **Selected Regional and International Speaking Engagements 2004-2014**

- 9/30/04 American Thyroid Association, 76<sup>th</sup> Annual Meeting, Vancouver, British Columbia, Central Mechanisms for the Regulation of the Hypothalamic-Pituitary-Thyroid Axis: Implications for the Nonthyroidal Illness Syndrome
- 10/25/04 Department of Human Anatomy, University of Bologna, Bologna, Italy, Update on Thyrotropin-Releasing Hormone (TRH): Mechanisms of Central Regulation of the Hypothalamis-Pituitary-Thyroid Axis in Association with Fasting and Endotoxin Administration
- 10/26/04 Department of Anatomy, University of Parma, Parma, Italy, Functional Anatomy of the Hypothalamus and Pituitary
- 4/08/05 15<sup>th</sup> Annual Memorial Sidney H. Ingbar lecture, Beth Israel Deaconess Hospital, Boston, MA
- 8/30/2005 24<sup>th</sup> International Summer School of Brain Research, Amsterdam, The Netherlands, The TRH Neuron: Role in Energy Homeostasis
- 10/20/05, TRH and Energy Homeostasis, Visiting Professor Research Lecture, Department of Medicine, University of Parma, Parma Italy.
- 10/20/05, Update on Cushing's Syndrome, Visiting Professor Clinical Lecture, Department of Medicine, University of Parma, Parma, Italy.
- 10/21/05, Mechanisms for Regulation of Thyroid Function, Symposium on the Thyroid in History, Art and Medicine, Department of Archeology, University of Bologna at Ravenna, Ravenna, Italy
- 6/26/06, 88<sup>th</sup> Annual Meeting of The Endocrine Society, Boston, MA, Symposia, Thyroid Hormone and Hypothalamic Function; Lessons from Studies on Central Regulation of the Hypothalamic-Pituitary-Thyroid Axis.
- 10/16/06, University of Bologna, Bologna, Italy, Thyroid Hormone and Hypothalamic Function: Lessons from Studies on the Hypothalamic-Pituitary-Thyroid Axis
- 10/17/06, University of Parma, Parma, Italy, Functional Anatomy of the Hypothalamus and Pituitary with Applications to Clinical Problem Solving
- 10/18/06, University of Pisa, Pisa, Italy, Central Mechanisms for the Nonthyroidal Illness Syndrome.
- 01/16/07 Keynote Speaker, Keystone Symposium, Arcuate to PVN Connections and Regulation of Thyroid Function.
- 3/23/07 Keynote Speaker, New England Thyroid Association Annual Meeting, Waltham, MA, Central Control of Thyroid Function: Clinical and Physiological Implications.
- 6/23/07 VHL Alliance Annual Meeting, John Hancock Hotel, Boston, MA, Medical Management of Pheochromocytoma.
- 6/26/07 Endocrine Grand Rounds, Massachusetts General Hospital

10/7/07 Symposium Speaker, 78<sup>th</sup> Annual Meeting of the American Thyroid Association, Central Mechanisms for Thyroid Hormone Regulation by Deiodinase

1/5/08 University of Trieste, Trieste, Italy, Functional Anatomy of the Hypothalamic-Pituitary Axis with Clinical Case Discussions

1/21/08 University of Bologna, Bologna, Italy, Update on Mechanisms for Central Regulation of the Hypothalamic-Pituitary-Thyroid Axis.

2/11/08 University of Chicago, Central Regulation of the Hypothalamic-Pituitary-Thyroid Axis: Implications for the Nonthyroidal Illness Syndrome

6/05/08 Congress of the Hungarian Society of Endocrinology and Metabolism, Eger, Hungary, New Concepts in Thyroidology: From Bench to Bedside, Role of Deiodinases in the Central Regulation of the Thyroid Axis

12/17/08 Brigham and Women's Hospital, Endocrine Grand Rounds

5/19/09 University of Ferrara, Ferrara, Italy, Central Mechanisms for the Regulation of the Hypothalamic-Pituitary-Thyroid Axis

5/20/09 Rizzoli Institute, Bologna, Italy, Central Mechanisms for the Regulation of the Hypothalamic-Pituitary-Thyroid Axis; Implications for the Nonthyroidal Illness Syndrome

5/20/09 Italian Academy of Sciences, Bologna, Italy, The Dilemma of the Nonthyroidal Illness Syndrome: To Treat or Not To Treat

5/21/09 Mantova Hospital, Mantova, Italy, The Dilemma of the Nonthyroidal Illness Syndrome: To Treat or Not To Treat

4/08/11 Beth Israel Hospital, Boston, MA, Endocrinology Grand Rounds, Lessons Learned from Studies on the Hypophysiotropic TRH Neuronal System

4/07/12 MetroWest Medical Center, Medical Management of Pituitary Adenomas

5/07/13: Lablinks Symposia on Neural Control of Appetite, Functional Characterization and Heterogeneity of Melanocortin-Producing Neurons in the Hypothalamic Arcuate Nucleus, Boston, MA

12/09/13: Boston Medical Center, Endocrinology Grand Rounds: Heterogeneity of Melanocortin Signaling Systems in the Central Nervous System