

CURRICULUM VITAE
Marta E Couce, MD, PhD
January 2004

BIOGRAPHICAL

Name: Marta Emma Couce

Home Address: 4342 Centre Avenue
Pittsburgh, PA 15213

Birth Place: Ferrol, Spain

Birth Date: November 25, 1961

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Citizenship: Spain. Visa: Permanent Resident
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Business Address: Department of Pathology
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EDUCATION AND TRAINING

Graduate:

University of Santiago, Spain PhD Doctoral Thesis 1991
(10/86-11/91)

Dr. Jacqueline McGinty and
Dr. Jeronimo Forteza
Expression and regulation of
Insulin-like growth factor II,
IGF-II/Mannose 6-Phosphate
receptor and PKC isoforms in the
rat CNS"

University of Santiago, Spain Specialty in Neuroendocrinology 1988
(1/88-12/88)

Dr. Felipe Casanueva and
Dr. Daniel Acuna-Castroviejo
Neuroendocrinology

University of Santiago, Spain Master Thesis 1986
(1/85-9/86)

Dr. Ramon Rodriguez-Suarez
"Study of hemoptysis in Galicia"

University of Santiago, Spain MD 1986
(9/79-9/86)

Medicine and Surgery

Galician General Hospital,
Spain (6/1983-6/1986)

Voluntary Assistant

Dr. Ramon Rodriguez-Suarez
Section of Respiratory Diseases,
Department of Internal Medicine,
Galician General Hospital,
Spain

Post-Graduate

10/86-12/91

Galician General Hospital
Santiago University, Spain and
East Carolina University

Dr. Jeronimo Forteza
Dr Jacqueline McGinty
Graduate student in Pathology

8/89-2/90

Laboratory of Cell Biology, NIMH,
Bethesda, MD

Dr. Charles Gerfen
Neuroanatomy & Cell Biology

12/91-08/93

Department of Anatomy and Cell
Biology, East Carolina University,
Greenville, NC

Dr. Jacqueline McGinty
Research Associate in
Neuroanatomy

10/93-7/94

Department of Medicine
Mayo Clinic, Rochester MN

Dr. Peter Butler
Research Fellow,
Endocrine Research

7/94-7/96

Department of Pathology,
Yale New Haven Hospital,
Yale University School of Medicine
New Haven CT

Dr. Jose Costa
Resident in Pathology

7/96-7/97

Department of Pathology,
Mayo Clinic, Rochester MN

Dr. Joseph Parisi
Fellow in Neuropathology &
Instructor in Pathology

7/97-7/98

Department of Pathology
Mayo Clinic, Rochester MN

Dr. Henry Tazelaar
Fellow in Surgical Pathology &
Instructor in Pathology

7/98-7/99

Department of Pathology
Mayo Clinic, Rochester MN

Dr. Joseph Parisi
Fellow in Neuropathology &
Instructor in Pathology

APPOINTMENTS AND POSITIONS

9/99-6/00

Boston University Medical Center
Evans Biomedical Research Center
Boston, MA

Research Associate

07/00

University of Pittsburgh Medical
Center Pittsburgh, PA

Assistant Professor of Pathology

CERTIFICATION AND LICENSURE

Board Certification

12/95 National Board of Medical Examiners

Specialty Certification

7/02 Anatomic Pathology Board certified

5/00 Neuropathology Board qualified

Licensing Board

1996 Minnesota Medical Licensure
License # 39552

2000 Pennsylvania Medical License
2001 License # MD-071799-L

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

Galician Society of Endocrinology and Metabolism	1987
American Diabetes Association	1991
College of American Pathologists	1995
United States and Canadian Academy of Pathology	1996
American Association of Neuropathologists	1998
National Association for the study of obesity	2001

PUBLICATIONS

Refereed articles:

1. Fraga Rodriguez M, **COUCE ME**, Rami Porta R , Ledo Andión R, Corbal Mosteiro M, Berdugo Oviedo M, Perez Becerra y Calzadilla Martín. G. 1990. Carcinoides bronquiales: Estudio clínico, histopatológico e inmunohistoquímico. Arch Bronconeumol. 26:12-16
2. Burguera B, **COUCE ME**, Lage M, Viña MD, Dieguez C, Casanueva FF. 1991 Falta de efecto de la administración de TRH sobre la secreción de hormona de crecimiento, inducida por dexametasona. Rev. Clin Esp. 188:65.

3. Antunez JR, **COUCE ME**, Fraga M, Garcia-Caballero T, Beiras A, Perez-Becerra E, Forteza J. 1991. Immunohistochemical demonstration of neuronal and astrocytic markers and oncofetal antigens in retinoblastomas. *Histol Histopathol* 6: 241-6.
4. McGinty JF, **COUCE ME**, Bohler WT and Ways K. 1991. Protein kinase C subspecies distinguish major cell types in rat hippocampus: an immunocytochemical and in situ hybridization histochemical study. *Hippocampus*. 1:293-302
5. **COUCE ME**, Weatherington AJ, McGinty JF. 1992 Expression of IGF-II/Man 6-P R in the rat hippocampus. An in situ hybridization and immunocytochemical study. *Endocrinology* 131: 1636-1642
6. Levy A, **COUCE ME**, Lightman SL, and Young WS III. 1992. The effects of pituitary stalk transection, hypophysectomy and thyroid hormone status on insulin-like growth factor 2, growth hormone releasing hormone and somatostatin mRNA prevalence in rat brain. *Brain Research* 579: 1-7.
7. Fraga M, Garcia-Caballero T, Antunez JR, **COUCE ME**, Beiras A, Forteza J. 1993. A comparative immunohistochemical study of pheochromocytomas and paragangliomas. *Histol Histopathol* 8:429-36
8. **COUCE ME**, Smith AW, Ways D., and McGinty JF. 1995. Streptozotocin-induced diabetes alters protein kinase C isoforms in rat hippocampal neurons. *Endocrinology and Metabolism* 2:135-146
9. Rother KI, Carney JA, **COUCE ME**, Charlesworth J, and Butler P. 1995 Islet amyloid polypeptide in pancreatic tissue of children with persistent hyperinsulinemic hypoglycemia due to primary islet hyperplasia and nesidioblastosis. *J Clin Endocrinol Metab* 80:1956-1959
10. **COUCE ME**, Kane LA, O'Brien TD, Soeller W, Kreutter D and Butler P 1996 Induction of insulin resistance in mice transgenic for human islet amyloid polypeptide, causes islet amyloidosis and b-cell dysfunction. *Diabetes* 45:1094-1101
11. **COUCE ME**, O'Brien TD, Moran A and Butler P 1996 Diabetes Mellitus in cystic fibrosis is characterized by islet amyloidosis *J. Clin Endocrinol Metab* 81:1267-1272
12. **COUCE ME**, Burguera B, Parisi JE, Jensen MD, Lloyd RV. 1997. Localization of leptin receptor in the human brain. *Neuroendocrinology* 66: 145-150
13. Caselli R.J., **COUCE ME**, Osborne D., Deen H.G., Parisi J.E. 1998. From slowly progressive amnesic syndrome to rapidly progressive Alzheimer disease. *Alzheimer Dis Assoc Disord* 12:251-3
14. **COUCE ME**, Bautista D, Costa J, Carter D. 1999. Analysis of K-ras, N-ras, H-ras and p53 in lung neuroendocrine neoplasms. *Diagn Mol Pathol* 8: 71-79.

15. Jin L, Burguera B, **COUCE ME**, Lamsam J, K. Kovacs, Lloyd RV. 1999 Leptin receptor (OB-Rb) expression in normal and neoplastic human pituitaries. Regulation of pituitary cell proliferation by leptin. *J Clin Endo Metab* 84:2903-2911.
16. **COUCE ME**, Perry A, Webb P, Scheithauer BW. 1999. Fibrous meningioma with tyrosine-rich crystals. *Ultrastructural Pathology* 23:341-345.
17. Burguera B, **COUCE ME**, Long J, Lamsam J, Parisi JE, Lloyd RV. 2000. The long form of the leptin receptor (OB-Rb) is widely expressed in the human brain.. *Neuroendocrinology* 71: 187-195.
18. Jin L, Burguera B, **COUCE ME**, K. Kovacs, Lloyd RV .2000. Leptin receptor (OB-Rb) expression in rat pituitaries. *Endocrinology* 141: 333-339
19. Burguera B, **COUCE ME**, Curran G., Lamsam J, Cleary M, Poduslo J. 2000. Obesity is associated with a decreased of leptin permeability across the blood brain barrier and up regulation of leptin receptor in the hypothalamus. *Diabetes* 49: 1219-1223
20. **COUCE ME**, Aker FV, Scheithauer BW. 2000. Chordoid meningioma: A clinico-pathologic study of 42 cases. *Am. J Surg. Pathol.* 24 (7): 899-905
21. Burguera B, **COUCE ME**, Lloyd RV. 2000. Leptin receptor and the brain: a tale of body weight regulation. *Curr. Op in Endocrinol. Metab:* 7:225-230
22. Burguera B, **COUCE ME**. Leptin Access into the brain: A saturated transport system versus a post-receptor defect in obesity. 2000. *J. Clin Invest.* E-Letter.
23. Lee CH, Carter D, Philpotts LE, **COUCE ME**, Horvath LJ, Lange RC, Tocino I. Ductal carcinoma in situ diagnosed with stereotactic core needle biopsy: can invasion be predicted? *Radiology* 2000; 217(2):466-70
24. Burguera B, **COUCE ME**. Leptin Access into the Brain: a Saturated Transport Mechanism in Obesity. 2001. *Physiol Behav.* 2001; 74(4-5):717-20.
25. **COUCE ME**, Green D, Brunetto A, Achim C, Lloyd RV, Burguera B. Limited brain access for leptin in obesity. 2001. *Pituitary.* 2001 Jan-Apr;4(1-2):101-10.
26. Lloyd RV, Jin L, Tsumanuma I, Vidal S, Kovacs K, Horvath E, Scheithauer BW, **COUCE ME**, Burguera B. Leptin and leptin receptor in anterior pituitary function. *Pituitary* 2001 Jan-Apr; 4(1-2):33-47
27. Kondziolka D, **COUCE ME**, Niranjan A, Maesawa S, Fellows W. Histology of the 100-Gy Thalamotomy in the baboon. 2002. *Radiosurgery:* 4: 279-284

28. Ozolek JA, Finkelstein, SD, COUCE ME. Gliosarcoma with epithelial differentiation: Molecular correlates. A case report and review of the literature. 2004. Modern Pathol (In press)
29. Burguera B, COUCE ME. Type 2 Diabetes and obesity. A clinical problem of epidemic proportions. Medicina Clinica. In press

Reviews and Book Chapters

1. Burguera B, Werner H, **COUCE ME**, Roberts Jr CT, Le Roith D, Caro JF. 1992. Physiology of the insulin-like growth factor I and insulin-like growth factor II/ Mannose 6-phosphate receptors: 271-294. In: Regulation of growth hormone and somatic growth. L.F. de la Cruz (Ed) Elsevier Amsterdam.
2. Burguera B, **COUCE ME**, Caro JF. 1991 Papel del IGF-II R en la regeneración hepática. 221-236 In: Avances en Endocrinología Molecular y Celular C. Dieguez, FF Casanueva (Eds.) Fundación Ramón Areces.
3. McGinty JF, **COUCE ME**, Ways DK. 1992. Comparison of the localization of protein kinase C subspecies by in situ hybridization and immunocytochemical methods. Molecular Imaging in Neuroscience: A Practical Approach. Oxford University Press 1993: 23-42.
4. COUCE ME, Dieguez C, Casanueva FF., 2002. Oxford Textbook of endocrinology and diabetes. Clinical Neuroendocrinology. Pituitary anatomy and physiology: 75-85. Oxford University Press
5. Ghassan Bejjani, Constantinos G. Hadjipanayis, **COUCE ME**. Oligodendroglioma, in Sekhar LN, Fessler R: Atlas of microsurgical techniques, Thieme Medical Publishing, New York, 2003 (In Press)
6. Ghassan Bejjani,, **COUCE ME**. Ganglion Cell tumors by, in Sekhar LN, Fessler R: Atlas of microsurgical techniques, Thieme Medical Publishing, New York, 2003 (In Press)
7. **COUCE ME**, Raab SS, Bejarano PA, Bissell MG, Silverman JF, Stanley MW. 2003. Neuropathology chapter. 2003 Yearbook of Pathology and Laboratory Medicine. Stephen S. Raab, Editor in Chief. Mosby Press

Published Abstracts:

1. Cuevas Alvarez E., **COUCE ME**, Fraga Rodriguez M, Varela Durán J, Beiras Iglesias A, 1988. Granular cell tumor of the orbit. IV International Symposium of Surgical Pathology, Santiago de Compostela, Spain.

2. **COUCE ME**, Cuevas Alvarez E, Fraga Rodriguez M, Perez Becerra E, Varela Durán J. 1988 Adult intestinal pneumatosis. Description of a case. IV International Symposium of Surgical Pathology, Santiago de Compostela, Spain.
3. Fraga Rodriguez M, **COUCE M E**, Cuevas Alvarez E, Beiras Iglesias A, Varela Durán J. 1988 Alfa-1 antitrypsine deficit associated to hypoplasia of the extrahepatic biliary tract. A study of four cases. IV International Symposium of Surgical Pathology, Santiago de Compostela, Spain
4. **COUCE ME**, Fraga Rodriguez M, García Caballero T, Antúnez López J, Beiras Iglesias A, Forteza Vila J. 1989. Immunohistochemical study of tumors of the paraganglion system: A comparative study between pheochromocytomas and paragangliomas. 4th Meeting of the European Neuroendocrine Association Santiago, Spain.
5. Fraga Rodriguez M, **COUCE ME**, García Caballero T, Perez Becerra E, Beiras Iglesias A, Forteza Vila J. 1989. Immunohistochemical profile of bronchial and gastrointestinal carcinoid: panneuroendocrine and other tumor markers. 4th Meeting of the European Neuroendocrine Association Santiago, Spain.
6. McGinty JF, **COUCE ME**, Bohler WT, and Ways K. 1990. Protein kinase C isoforms distinguish major cell types in rat hippocampus. Society for Neuroscience 20th Annual Meeting, San Diego, CA.
7. **COUCE ME**, Weatherington AJ., McGinty JF. 1991. Streptozotocin induces an increase in IGF-II receptors in diabetic rat brain. 73rd Annual Meeting of the Endocrine Society, Washington, DC.
8. Levy A, **COUCE ME**, and Young III WS. 1991. Effects of hypothalamo-pituitary disconnection, thyroid hormone status and diabetes mellitus on Insulin-like growth factor II, growth hormone releasing hormone and somatostatin mRNA prevalence in adult rat brain. Society for Neuroscience 21st Annual Meeting, New Orleans, LA.
9. **COUCE ME**, McGinty JF, and Weatherington AJ. 1991. Distribution of IGF-II and IGF-II receptor immunoreactivity and mRNA in rat brain. 2nd International IGF Symposium, San Francisco, CA.
10. **COUCE ME**, Weatherington AJ, Bohler W, and McGinty JF. 1991. Kainic acid and streptozotocin-induced diabetes alter PKC isoform immunoreactivity in rat hippocampus. 3rd IBRO World Congress of Neuroscience, Montreal, Quebec, Canada.
11. Burguera B, Dudek RW, Stanzak R, **COUCE ME**, Caro JF. 1992. GLUT-2 expression in NIDDM patients. 6th Annual Research Day, Department of Medicine, ECU School of Medicine, Greenville, NC.
12. O' Brien T, **COUCE ME**, Moran A, Butler P. 1995. Islet amyloid is present in Diabetes Mellitus due to cystic fibrosis. American Diabetes Association 55th Annual Meeting, Atlanta, GA.

13. **COUCE ME**, Kane LA, O'Brien TD, Soeller W, McNeish J, Kreutter D, Roche P, Butler P. 1996 Induction of insulin resistance in mice transgenic for human islet amyloid polypeptide causes islet amyloidosis and b-cell dysfunction. American Diabetes Association 56th Annual Meeting, San Francisco, CA.
14. **COUCE ME**, O'Brien T, Moran A, Butler P. 1996. Islet amyloid in diabetics with cystic fibrosis. Cause or consequence? United States and Canadian Academy of Pathology 85th Annual Meeting, Washington, D.C.
15. **COUCE ME**, Bautista D, Costa J, Carter D. 1997 Analysis of K-ras, N-Ras, H-ras and p53 in lung neuroendocrine neoplasms. Can we predict prognosis. United States and Canadian Academy of Pathology 86th Annual Meeting, Orlando, FL
16. **COUCE ME**. 1996. Primary optic nerve sheath meningioma with positive resection margins. Joint Meeting of the Michael J. Hogan Eye Pathology Society and Georgiana Dvorak Theobald Eye Pathology Society.
17. **COUCE ME.**, Parisi JE, Schochet Jr SS. 1997. Adult onset Niemann-Pick disease type C. A report of two cases. American Association of Neuropathologists 73rd Annual Meeting. Pittsburgh, PA
18. Burguera B, **COUCE ME**, Parisi JE, Jensen MD, Lloyd RV. 1997. Localization of leptin receptor in the human brain. 79th Annual Meeting of the Endocrine Society, Minneapolis, MN.
19. **COUCE ME**, Perry A, Webb P, Scheithauer BW. 1998. Fibrous meningioma with tyrosine-rich crystals. United States and Canadian Academy of Pathology 87th Annual Meeting. Boston, MA
20. Burguera B, **COUCE ME**, Lamsam J, Jensen MD, Lloyd RV. 1998. The long form of the leptin receptor (OBpRb) is widely expressed in the human brain. 80th Annual Meeting of the Endocrine Society, New Orleans, LA.
21. L. Jin, Burguera B, **COUCE ME**, Lamsam J, K. Kovacs, Lloyd RV. 1998. Leptin receptor (OB-Rb) expression in normal and neoplastic human pituitaries. Regulation of pituitary cell proliferation by leptin. 80th Annual Meeting of the Endocrine Society, New Orleans, LA.
22. **COUCE ME**, Aker FV, Scheithauer BW. 1998. Chordoid meningioma: A clinicopathologic study of 38 cases. United States and Canadian Academy of Pathology 87th Annual Meeting. Boston, MA.
23. **COUCE ME**, Parisi JE, Burguera B, Long J, Zhang, Lloyd RV. 1999. The leptin (OB-R beta) receptor is widely expressed in the human brain. American Association of Neuropathologists 75th Annual Meeting. Portland, OR.

24. **COUCE ME**, Parisi JE, Lloyd RV, Burguera B. 2000. Obesity is associated with a defect of leptin transport at the BBB. American Association of Neuropathologists 76th Annual Meeting. Atlanta, GA.
25. **COUCE ME**, Esplen J, Brunetto A, Kates C, Green D, Achim C, and Burguera B. 2001. Both, Leptin and Ghrelin have a trophic effect on developing neurons and glial cells. NAASO 2001 Annual Meeting, Quebec City, Quebec, Canada.
26. Goodpaster B, Chaves S, Achim C, Kelley DE, **COUCE ME**, and Burguera B. 2001 Exercise upregulates ghrelin levels in obese and lean humans. NAASO 2001 Annual Meeting, Quebec City, Quebec, Canada.
27. Medina-Flores R, Esplen JE, Achim CA, Burguera B, and **COUCE ME**. Ghrelin has a trophic effect on developing human neurons. American Association of Neuropathologists 77th Annual Meeting, Denver, CO.
28. **COUCE ME**, Cottam D, Esplen J, Teijeiro R, Schauer P, and Burguera B Acute Changes in Plasma Ghrelin after Gastric Bypass Surgery. 2003. American Diabetes Association 63rd Scientific Sessions, New Orleans, LA
29. **COUCE ME**, Goodpaster B, Teijeiro R, Esplen J, Cameron JL, and Burguera B. 2003. Impact of resistance training on ghrelin levels in primates. American Diabetes Association 63rd Scientific Sessions New Orleans, LA.
30. **COUCE ME**, Teijeiro R, Esplen J, Medina-Flores R, Garcia-Ocaña A, Cameron J, and Burguera B. 2003. Human Obesity Is Associated with Increased Hypothalamic Synthesis of Ghrelin. American Diabetes Association 63rd Scientific Sessions New Orleans, LA.
31. Medina-Flores R, Esplen J, Achim C, Burguera B and **COUCE ME**. 2003. Ghrelin has a trophic effect on developing human neurons. American Association of Neuropathologists 79th Annual Meeting, Orlando, FL.
32. **COUCE ME**, Cottam D, Esplen J, Teijeiro R, Schauer P, and Burguera B. Central vs peripheral ghrelin levels. Impact on human obesity. NAASO 2003 Fort Laudardale, FL
33. Lall A, Bartynski WS, **COUCE ME**, Kassam A, Grahovac SZ, Rothfus WE. Granular cell tumor (choristoma) of the neurohypophysis: Imaging and neurosurgical implications with pathological correlation. American Society of Neuroradiology 2004, Seattle, WA

PROFESSIONAL ACTIVITIES

TEACHING

Lectures:

2nd year Curriculum in Pathology, Mayo Medical School (March 97, March 98, March 99)

- I. Neurodegenerative diseases
- II. Demyelinating diseases

Program in Physical Therapy, Mayo School of Health- Related Sciences (April 98, April 99)

Cerebrovascular and Metabolic diseases

- I. Demyelinating and Degenerative diseases
- II. Tumors of the Central Nervous system

Ophthalmology Residents Lecture series, Mayo Clinic (May 99)

- I. Phacomatosis I
- II. Phacomatosis II

Endocrine Disorders course (2001-2004)

Pituitary Sub-block (University of Pittsburgh School of Medicine MSII)

Cell Structure, Metabolism and Nutrition (2001-2002)
(PBL curriculum, University of Pittsburgh School of Medicine MSI)

Molecular Pathobiology (2001-2004)
(MSCMP 2740, University of Pittsburgh Graduate School curriculum)
Couce, ME . Diabetes Module Leader

Supervision of directed research

Neuroscience Program East Carolina University (September 1991-May 1993)

April Weatherington	Master Thesis
James Daunais	Graduate Student
Todd Helton	Graduate Student
Jeffrey Simpson	Graduate Student

University of Pittsburgh (July 2001-September 2001)

Charity Kates	Undergraduate Summer Program
Corina Petre	Undergraduate Summer Program

RESEARCH

1. Grants Awarded:

Xunta de Galicia, Spain Predoctoral Grant East Carolina University Greenville, NC	IGF-II and IGF-II receptor in the rat brain	100% Principal Investigator	6/87-7/89	Autonomic Government of Galicia, Spain \$45,000
Diabetes Research Council Starter Research Grant	Study of IGF-II receptor in diabetic rat brain	100% Principal Investigator	5/90-6/90	East Carolina University School of Medicine \$2,000
National Institutes of Health Grant	Study of IGF-II receptor in diabetic rat brain	100% Principal Investigator	6/90-6/92	East Carolina Feasibility Grant Diabetes Research Council \$40,000
Postdoctoral grant	Study of insulin resistance in transgenic mice for human Islet amyloid polypeptide	100% Principal Investigator	10/93-7/94	Pfizer Corporation \$28,000
Research Grant	Obesity: a reset of the cerebral adipostat?	50% Co-Investigator	11/96-10/97	Eli Lilly Pharmaceutical Company \$100,000
Research Grant renewal	Obesity: a reset of the cerebral adipostat?	50% Co-Investigator	11/97-10/98	Eli Lilly Pharmaceutical Company \$100,000
Research Grant renewal	Obesity: a reset of the cerebral adipostat?	50% Co-Investigator	11/98-7/99	Eli Lilly Pharmaceutical Company \$100,000
Discretionary Funds Department of Pathology Mayo Clinic	Study of the access of leptin into the brain	100% Principal Investigator	4/99-7/99	DLMP Research Committee Department of Pathology \$25,000
Research grant	Use of hypothalamic gamma knife radiosurgery as a therapy for obesity	5% Co-Investigator	5/01	Pittsburgh Foundation Copeland Fund \$30,000
Research grant	Malfunction in hypothalamic cross- talk as the cause of obesity	25% Co-Investigator	8/01-03	Pittsburgh Foundation Emmerling Fund 160,000
Research grant	Is ghrelin responsible for the weight loss after bariatric surgery in humans?	100% Principal Investigator	7/02-6/03	Obesity/Nutrition Research Center University of Pittsburgh

Research grant renewal	Is ghrelin responsible for the weight loss after bariatric surgery in humans?	100% Principal Investigator	7/03-6/04	Obesity/Nutrition Research Center University of Pittsburgh
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2. Seminars and invited lectureships

11/91	“Streptozotocin-induced diabetes induces increase immunoreactivity of IGF-II/M-6-P receptor in the hippocampal neurons of rats” Diabetes Center Seminar Series East Carolina University School of Medicine Greenville, NC
6/92	“Diabetes induces changes in content and distribution of PKC isoforms in the hippocampal region of rats” Diabetes Center Seminar Series East Carolina University School of Medicine Greenville, NC
5/94	Islet amyloid in diabetics with Cystic Fibrosis: Cause or consequence?” Endocrine Research Seminar Series Mayo Clinic, Rochester, MN
5/96	“Role of Molecular Pathology in Residency training” Department of Pathology Annual Retreat YALE University New Haven, CT
9/11/97	“Demyelinating diseases” University of Santiago de Compostela, Spain International Course on Neuropathology Santiago, Spain
9/12/97	“Non-Alzheimer's dementias” University of Santiago de Compostela, Spain International Course on Neuropathology Santiago, Spain
2/01	“Demyelinating diseases” University of Pittsburgh Medical Center Department of Pathology Clinical Series
	“Vascular Neuropathology” University of Pittsburgh Medical School Neurobiology Course/Second Year Curriculum
	CPC Neuroscience Seminar University of Pittsburgh Medical Center
	“Demyelinating diseases” University of Pittsburgh Graduate School
2/03	“Obesity, a hypothalamic perspective” University of Pittsburgh Endocrinology Grand rounds

3. Other Research related activities

University of Pittsburgh Brain Tumor Bank, COUCE ME Director, Hamilton R, Co-Director

4. Current Research Interests

- I. Study of the role of the pineal gland in appetite regulation
- II. Investigate the effects of hypothalamic Gamma-knife radiation on resetting the cerebral adipostat and treating obesity.
- III. Study of the interrelations between major players in appetite regulation (ghrelin/leptin/NPY/agouti/serotonin/CRF) in human brain. Comparison between lean and obese subjects.
- IV Role of central ghrelin in obesity and exercise training