

CURRICULUM VITAE

DATE PREPARED: September 15, 2007

PART I: General Information

Name: JANET ELIZABETH HALL

Home Address: 121 KIRKSTALL RD, NEWTON, MA 02460

Office Address: Reproductive Endocrine Unit
Massachusetts General Hospital 55
Fruit Street, BHX-511
BOSTON, MA 02114 United States

Phone: (617) 726-3038

Email: hall.janet@mgh.harvard.edu

Fax: (617) 726-5357

Place of Birth: Toronto, Ontario, Canada

Education:

1972 B.A./B.P.E., MCMASTER UNIVERSITY, CANADA
1979 M. SC., MCMASTER UNIVERSITY, CANADA
1981 M.D., MCMASTER UNIVERSITY, CANADA

Postdoctoral Training:

1981-1982 Resident 1, Internal Medicine, McMaster University
1982-1983 Resident 2, Internal Medicine, McMaster University
1983-1984 Chief Resident, Internal Medicine, McMaster University
1984-1985 Clinical Fellowship, Endocrinology, Massachusetts General Hospital
1986-1987 Research Fellowship, Endocrinology, Massachusetts General Hospital

Licensure and Certification:

1984 Fellow of the Royal College of Physicians and Surgeons of Canada
1984 Ontario Canada Medical License (Inactive)
1985 Massachusetts Medical License
1986 American Board of Internal Medicine
1988 American Board of Internal Medicine (Endocrinology & Metabolism)

Academic Appointments:

1984-1987 Research Fellow in Medicine, Harvard Medical School, Boston, MA
1987-1990 Instructor in Medicine, Harvard Medical School, Boston, MA
1990-1999 Assistant Professor of Medicine, Harvard Medical School, Boston, MA
1999- 2007 Associate Professor of Medicine, Harvard Medical School, Boston, MA
2007-2005 Visiting Scientist, Massachusetts Institute of Technology, Cambridge, MA
2003- Affiliate Faculty, Division of Sleep Medicine, Harvard Medical School, Boston, MA
2007- Professor of Medicine, Harvard Medical School, Boston, MA

Hospital or Affiliated Institution Appointments:

1984-1989 Clinical and Research Fellow in Medicine and Gynecology, Massachusetts General Hospital, Boston, MA
1990-1992 Clinical Assistant in Medicine, Massachusetts General Hospital, Boston, MA
1993-1998 Assistant in Medicine, Massachusetts General Hospital, Boston, MA
1997- Associate Physician, Active Affiliate Staff, Brigham and Women's Hospital, Boston, MA
1998-2005 Assistant Physician, Massachusetts General Hospital, Boston, MA
1998-2005 Affiliate Staff, Medical Service, Massachusetts Institute of Technology, Boston, MA
2006- Associate Physician, Medical Service, Massachusetts General Hospital, Boston, MA

Hospital and Health Care Organization Clinical Service Responsibilities:

1989- Reproductive Endocrine Associates, Massachusetts General Hospital
1990- Attending Physician, Endocrine Unit, Massachusetts General Hospital
1993-1994 Attending Physician, Medical Service, Massachusetts General Hospital

Major Administrative Responsibilities:

1988- Director, Female Physiology/Pathophysiology, Reproductive Endocrine Unit, Massachusetts General Hospital
1996-2002 Assistant Chief, Reproductive Endocrine Unit, Massachusetts General Hospital
1996-1998 Education Unit, Massachusetts General Hospital
1998-2004 Associate Director, Education Unit, Clinical Research Program, Massachusetts General Hospital
2001-2002 Medical Director, Research Subject Advocate Program, General Clinical Research Center, Massachusetts General Hospital
2002- Associate Chief, Reproductive Endocrine Unit, Massachusetts General Hospital
2006- Consultant, Research Subject Advocate Program, General Clinical Research Center, Massachusetts General Hospital

Major Committee Assignments:

Hospital

1992-1997 Subcommittee for Review of Research Proposals, Member, Massachusetts General Hospital
1993-1994 Taskforce on Clinical Investigation, Physiology Subcommittee, Member, Massachusetts General Hospital
1993-1994 Taskforce on Clinical Investigation, Infrastructure Subcommittee, Working Group Leader, Massachusetts General Hospital
1996-1998 Executive Committee on Teaching, Internal Review Panel Member, Massachusetts General Hospital
1999- General Clinical Research Center Advisory Committee, Member, Massachusetts General Hospital
2001- Women's Health Coordinating Council, Research Committee, Member, Massachusetts General Hospital
2004,2005 Scientific Advisory Committee Annual Meeting, Small Group Faculty Session,

2006 Massachusetts General Hospital
Department of Medicine Taskforce on Women's Health, Member, Massachusetts
General Hospital

Harvard Medical School

1999-2006 Research Core, Center of Excellence in Women's Health, Member, Harvard Medical
School
1999-2002 Co-Chair, Research Core, Center of Excellence in Women's Health, Harvard Medical
School
2002-2006 Executive Committee, Scholars in Clinical Science Program, Harvard Medical
School
2002- Faculty Fellowships Selection Committee, Harvard Medical School
2002 Mentoring Awards Selection Committee, Harvard Medical School
2003- Council of Distinguished Scholars, Harvard Medical School
2003 HMS Accreditation Site Visit, Faculty Participant, Harvard Medical School
2006- Executive Committee, Building Interdisciplinary Research Careers in Women's Health
(BIRCHW) Program, Harvard Medical School

National/International

1991 Adolescence to Adulthood Working Group, Member, NIH Office of Research on
Women's Health
1991 Reproductive Biology Core Group, Member, NIH Office of Research on Women's
Health
1992 Reproductive Biology Study Section, Ad-Hoc Member, National Institutes of Health
1993 NIH Conference: "Kallmann's Syndrome: A Disorder of Neuronal Migration", Co-
Chair, National Institutes of Health, NICHD/NIDDC
1993 General Clinical Research Centers Program, Grant Reviewer, NIH, National Center for
Research Resources
1993 General Clinical Research Center Program, Site Visit Team, NIH, National Center for
Research Resources
1993 Reproductive Biology Study Section, Ad-Hoc Member, NIH, National Center for
Research Resources
1994 General Clinical Research Center Program, Site Visit Team, NIH, National Center for
Research Resources
1995 NICHD Conference: "Psychobiology of Infertility and Reproductive Disorders", Co-
Chair, National Institutes of Health
1994 SBIR Study Section, Ad-Hoc Member, National Institutes of Health
1996-2000 Reproductive Endocrine Study Section, Member, National Institutes of Health
1997 Special Emphasis Panel, Member, National Institutes of Health
1997 Adolescence to Adulthood Working Group, Member, NIH Office of Research on
Women's Health
1998 General Clinical Research Center Program, Site Visit Team, NIH, National Center for
Research Resources
1998 University-Industry Research Chair, External Reviewer, Medical Research Council of
Canada
1998 Special Emphasis Panel, Member, National Institutes of Health
1999 Special Emphasis Panel, Member, National Institute of Environmental Health
Sciences
1999 Special Emphasis Panel, Member, National Institutes of Health
2001 General Clinical Research Center Program, Site Visit Team, NIH, National Center for

Research Resources
 2002- Scientific Advisory Council, Member, The Center for Menstrual Cycle and
 Ovulation Research, University of British Columbia
 2002 General Clinical Research Center Program, Site Visit Team, NIH National Center for
 Research Resources
 2002 Special Emphasis Panel, Member, National Institutes of Health
 2002 Special Emphasis Panel, Chairperson, National Institutes of Health
 2004-present External Advisory Committee, NIH Cooperative Reproductive Research Science
 Centers at Minority Institutions Program
 2004 Reproductive Endocrine Study Section, Ad-Hoc Member, National Institutes of Health
 2004-2005 Integrated and Comparative Endocrinology and Reproduction Study Section, Ad-
 Hoc Member, National Institutes of Health
 2005-2009 Gynecology, Reproduction and Andrology Study Section, Member, National
 Institute of Child Health and Human Development Initial Review Group,
 National Institutes of Health
 2005 Chair, Biology of the Perimenopause Study Section, National Institutes of
 Health
 2006 Special Emphasis Panel (Fellowship), National Institutes of Health
 2006 Special Emphasis Panel, National Institutes of Health
 2007 Chair, Special Emphasis Panel, National Institutes of Health

Professional Societies:

1975-1993 American College of Sports Medicine, Member
 Awards Committee, 1988-1991
 Abstract Reviewer, 1989-1990
 1984- American Federation of Medical Research, Member
 1986- Women in Endocrine, Member
 Nominating Committee, 1996-1999
 Chair, Nominating Committee, 1997-1998
 Awards Committee, 2002-2005
 Chair, Awards Committee, 2003
President, 2006-2008
 1986- Endocrine Society, Member
 Abstract Reviewer, 1990-2006
 Public Communications Committee, 1996-1999
 Nominating Committee, 1999-2001
 Self-Assessment Steering Committee, 1999-2001
 Chair, Nominating Committee, 2000-2001
 Research Affairs Committee, 2000-2004
 Chair Clinical Research Taskforce 2001-2003
 Chair, Clinical Research Subcommittee, 2002-2003
Vice President, Clinical Science, 2003-2006
 Chair, Clinical Scientist Taskforce, 2006
 Annual Meeting Steering Committee, 2006-2008
 Reproductive Endocrine Section Team Leader, 2006, 2007
 Presidential Nominee, 2007
 1999- Association for Patient-Oriented Research, Member
 2000- American Medical Association, Member

- 2000- The North American Menopause Society, Member
 2001 Federation of American Societies for Experimental Biology (FASEB)
 Board of Directors, 2001-2004
 Public Advocacy Executive Committee, 2002-2004
 Chair, Funding Conference NIH Committee, 2003,2004
 Strategic Planning Conference, 2004
 Public Advocacy Subcommittee
 Clinical Research Subcommittee, 2005-
 Chair, 2005-2006
 Presidential Nominee, 2006
- 2002- American Society for Reproductive Medicine, Member
 2007- Society of Diagnostic Medical Sonography

Community Service Related to Professional Work:

- 1994-1996 Visiting Endocrinologist, Harvard Community Health Center
 2005- Consultant and Facilitator, Puberty Education Program, Buckingham, Browne & Nichols School

Editorial Boards:

- 1990- Reviewer, The Endocrinologist
 1990- Reviewer, Fertility & Sterility
 1990- Journal of Clinical Endocrinology & Metabolism
 Reviewer, 1990-present
 Editorial Board, 1994-1999
Associate Editor, 1999-2004
- 1990- Reviewer, Endocrinology
 1990- Reviewer, Metabolism
 1990- Reviewer, Menopause
 1990- Reviewer, Human Reproduction
 1990 Reviewer, Alcoholism: Clinical & Experimental Research
 1990 Reviewer, Acta Endocrinologica
 2000-2002 Current Opinion in Endocrinology and Diabetes
 Editorial Board, 2000-2002
 Section Editor, 2000-2002
 Editorial Consultant, American College of Physicians—PIER
- 2006 Reviewer, Gynecological Endocrinology
 2006 Reviewer, Biology of Reproduction

Awards and Honors:

- 1968 McMaster University Entrance Scholarship, McMaster University, Canada
 1968 Ontario Scholar, Province of Ontario
 1969 Canadian Fitness and Sports Directorate Award, McMaster University, Canada
 1984-1990 Fellowship, Medical Research Council of Canada
 1998- Listed in "The Best Doctors in America"
 2000 A. Clifford Barger Excellence in Mentoring Award, Harvard Medical School
 2002 Nominated for Best Lecturer in the Integrated Human Physiology Block, Harvard Medical School
 2005 Partners in Excellence Award, Massachusetts General Hospital

Part II: Research, Teaching, and Clinical Contributions

A. Narrative report of Research, Teaching, and Clinical Contributions

I am a physician-scientist who studies human reproductive physiology and pathophysiology with a view to translating this information to benefit women with reproductive disorders. The focus of my research in the broad area of women's health is on the neuroendocrine interactions underlying normal human reproduction and the changes that occur with aging and in clinical disorders of ovulation. In the human, indirect techniques must be used to gain access to information regarding the neuroendocrine control of reproduction. I have developed a number of novel approaches to the assessment of GnRH physiology: i) the use of GnRH receptor blockers as physiologic probes to provide insight into the quantity of GnRH secreted, the absolute requirement for GnRH, and the plasma disappearance of LH and glycoprotein free alpha subunit; ii) the use of the glycoprotein free alpha subunit as a surrogate marker of pulsatile GnRH secretion; iii) estrogen receptor blockade and aromatase inhibition to investigate the relative roles of inhibin and estradiol in the control of FSH across the menstrual cycle, using GnRH-deficient and normal women to isolate the relative pituitary versus hypothalamic sites of estrogen feedback; and iv) MRI and PET imaging to localize the sites of estrogen negative and positive feedback in the hypothalamus and pituitary.

In normal women, my research group has used a combination of clinical investigative approaches to determine that generation of the midcycle surge in women does not require an increase in the frequency or overall amount of GnRH. This is contrary to what was believed based on studies in animal models and has refocused interest in the field on pituitary mechanisms underlying the LH surge. In addition, we have used PET and MRI to localize the sites of estrogen negative feedback to the hypothalamus and estrogen positive feedback to the pituitary. We have shown that the increase in GnRH pulse frequency that occurs during the luteal-follicular transition in normal women is not only highly correlated with, but is required for the luteal-follicular rise in FSH that is critical to folliculogenesis. We have shown that sleep has a profound inhibitory effect on GnRH pulse frequency in women in the early follicular phase while circadian factors do not appear to influence gonadotropin secretion in women. Women who work shifts have an increased prevalence of irregular menstrual cycles and our ongoing studies are examining the implications of the kind of sleep disturbance that occurs in shift workers on menstrual cycle dynamics. In studies that have helped to define the physiology of the inhibins in women, we have shown that inhibin B is an early marker of declining ovarian function in late reproductive life, preceding decreases in inhibin A and estradiol. Additional studies have defined the specific roles of FSH and LH in the control of inhibin B and inhibin A secretion in women and have shown that inhibin A and inhibin B reflect ovarian function, but are not useful predictors of pregnancy outcome in patients undergoing assisted reproductive therapies. Our studies of inhibin have provided evidence for endocrine feedback of inhibin B on FSH in normal women. We are currently determining the relative roles of estradiol and the inhibins in the control of FSH during the normal menstrual cycle. We have now shown that African-American women have higher estradiol levels throughout the menstrual cycle compared with Caucasian women, a finding that may help to explain the disparities in disease prevalence in these two populations. We are currently investigating the hypothesis that ovarian aromatase is increased in African-American women in studies in which follicular fluid and granulosa cells are collected from single dominant follicles during normal cycles.

My laboratory has made significant contributions to understanding the effects of aging on the neuroendocrine components of the reproductive system, using the model of postmenopausal women in whom ovarian steroidal inputs can be controlled. We have shown that in women, there are

dramatic hypothalamic and pituitary changes that occur with aging – a decrease in secretion of LH and FSH with aging, a dramatic decrease in GnRH pulse frequency that is accompanied by an increase in the amount of GnRH per secretory bolus, prolonged disappearance of plasma LH with changes in the isoform composition of LH and FSH due in part to the loss of estrogen feedback and in part to aging per se, and maintenance of estrogen and progesterone negative feedback with aging. Our current studies are examining the effect of aging on estrogen positive feedback. These studies provided a critical window through which to examine the effects of aging on the brain, challenging the current understanding that menopause in women results from ovarian aging alone. These studies have shown that there may be a loss of effect of estrogen on the brain in areas responsible for cognition and emotion, while feedback on endocrine processes remains intact. Finally, we are investigating the relationship between hot flashes, sleep and depression in postmenopausal women and studying the effects of both estrogen and aging on cognitive function and activation of brain areas that are important for cognition and emotion.

My research group has defined the underlying abnormalities in GnRH secretion in hypothalamic amenorrhea (HA), polycystic ovarian syndrome (PCOS) and acquired hypogonadotropic hypogonadism (AHH) and the phenotype of several patients with GnRH receptor mutations. We are involved in ongoing collaborations aimed at defining the broader genotype/phenotype relations in patients with hypogonadotropic hypogonadism. Our recent studies in PCOS have demonstrated that gonadotropin levels are decreased by obesity, that this decrease is mediated at a pituitary rather than a hypothalamic level and is accompanied by an increase in the clearance of LH. We have also shown the polycystic ovarian morphology in women with regular ovulatory cycles is associated with higher levels of testosterone and insulin, but that this ovarian morphology does not predispose to the subsequent development of PCOS itself. In addition, we have shown that use of sodium valproate in women with bipolar disease predisposes to the development of irregular cycles and hyperandrogenism (PCOS) which largely resolves with discontinuation of this medication. We have developed the use of pulsatile GnRH to induce ovulation in a variety of disorders of ovulation. Using this form of treatment, conception rates are high in patients with isolated GnRH deficiency and Kallmann's Syndrome, HA and AHH and the risks of multiple gestation and hyperstimulation are lower than with alternative therapies. Thus, this is an extremely important mode of ovulation induction. Importantly, we have also defined the subset of patients with PCOS in which this form of ovulation is also likely to be successful. The importance of controlling the risk of multiple gestation is emphasized in studies in which we demonstrated the profound economic and psychosocial impact of this complication of ovulation induction. These studies were instrumental in the adoption of national guidelines to reduce multiple gestation in 'in vitro' fertilization (IVF) programs.

The bulk of my teaching involves the direct supervision of Fellows and students involved in clinical investigation. I was one of the first recipients of the Mid-Career Award for Mentoring in Clinical Investigation from the NIH (K24) and received the A. Clifford Barger Excellence in Mentoring Award from Harvard Medical School. I personally supervise one to two postdoctoral fellows per year and am involved in review of all applicants for research fellowships in the Reproductive Endocrine Unit and selection of those that will be supported by the Reproductive Endocrine Training Grant. I also personally supervise one to two pre-doctoral students per year for summer or full year training in clinical research, a number of whom have been referred to my lab through the Harvard Medical School Pre-matriculation Summer Program for Minority Students. I am Co-Director of the Reproductive Endocrine Unit Biomedical Research Career program that seeks to identify promising pre-doctoral students and introduce them to clinical or translational research and particularly focuses on supporting the careers of minority students. In addition, I have provided close supervision and mentoring to several Fellows and Junior Faculty in other departments such as Psychiatry and the HMS Division of Sleep Medicine. I supervise Endocrine Fellows in my clinic and as attending physician. As part of the MGH Clinic Research Program, I have been involved in the design and organization of courses for Fellows and investigators interested in clinical research and continue to

contribute to these courses. In addition, I am a regular contributor to the course in clinical investigation offered to MGH medical house staff. I have previously taught in the HMS I and HMS II Reproduction sections, am currently contributing to the HMS II Endocrinology section and contribute in the area of reproductive endocrinology to several noted textbooks in Medicine, Endocrinology and Reproductive Endocrinology.

I maintain an active clinical practice in the Reproductive Endocrine Associates practice of the Reproductive Endocrine Unit at Massachusetts General Hospital. My practice is limited to patients with reproductive endocrine disorders. I see patients with primary and secondary amenorrhea or other menstrual cycle disorders, including PCOS, and patients with infertility. While the majority of my patients are women, I also see men with hypogonadism with or without infertility. As part of the treatment of infertility, I have an active ovulation induction program, which is both relatively unique in a Department of Medicine, and is distinguished by high success rates and low rates of multiple gestation. I perform or supervise the ultrasound evaluation of these cycles. Finally, I see patients with issues relating to the perimenopause and menopause with assessment of the potential use of estrogen replacement or other therapies for management of symptoms. I attend for one month a year on the Endocrine Service at Massachusetts General Hospital.

B. Funding Information

Current

- 1995-2008 P.I., N.I.H., R01-AG-13241 (JE Hall), Aging and the Hypothalamic-Pituitary Reproductive Axis
- 1999-2009 P.I., N.I.H., K24-HD-01290 (JE Hall), Neuroendocrine Control of Reproduction in the Female
- 2002-2008 PI Subcontract, N.I.H., R01-HD-40291 (EB Klerman), Impact of Sleep Disruption on Menstrual Cycle Dynamics
- 2002-2008 P.I., N.I.H., R01-HD-42708 (JE Hall), FSH, Estradiol and Inhibin in Female Reproduction

Past

- 1984-1989 P.I., Medical Research Council of Canada, Fellowship
- 1985-1989 Co-P.I., N.I.H., R01 HD15080 (WF Crowley, Jr), Neuroendocrine Control of Reproduction in the Female
- 1985-1989 Co-P.I., N.I.H., N01-HD-32837 (WF Crowley, Jr), Clinical Pharmacology of LHRH Antagonists in the Female
- 1989-1996 Project Co- P.I., N.I.H., U54-HD-29164 (WF Crowley, Jr), Infertility: Defects in LH/FSH Synthesis-Secretion-Action" Project I: "Neuroendocrine Control of Reproduction in the Female"
- 1989-1996 Project PI, N.I.H., U54-HD-29164 (WF Crowley, Jr), Infertility: Defects in LH/FSH Synthesis, Secretion and Action "Project II: Treatment of Infertility due to Ovulatory Dysfunction"
- 1990-1993 P.I., FDA, FD-R-000477 (JE Hall), Pulsatile GnRH in Anovulatory Infertility
- 1996-2002 Project PI, N.I.H., U54-HD-29164 (WF Crowley, Jr), National Center for Infertility Research at MGH "Project I Control of FSH in the Female: Relation to Infertility"
- 2000-2002 Co-Director Research Core, DHHS, 213-98-0009 (JA Bigby), National Center of Excellence in Women's Health
- 2001-2002 Medical Director, RSA Program, N.I.H., M01-RR-01066 (J Mongan), General Clinical Research Centers Program
- 2001-2003 P.I., HMS Fund for Women's Health (JE Hall), Multiple Births Outcome Study

D. Report of Teaching

1. Local contributions

a. Medical School Courses

1987-1988 Introduction to Clinical Medicine

Preceptor	8 Medical Students	<i>contact time</i> 6 hours/week for 8 week(s)	<i>prep time</i> 1 hours/week for 8 week(s)
-----------	--------------------	--	---

1995-1997 HMS I Endocrinology

Lecturer	25 Medical Students	<i>contact time</i> 6 hours/week for 1 year(s)	<i>prep time</i> 2 hours/year for 1 year
----------	---------------------	--	--

1996 HMS II Renal/Endocrine/Reproductive

Lecturer	25 Medical Students	<i>contact time</i> 1.5 hours/year	<i>prep time</i> 2 hours/year
----------	---------------------	---------------------------------------	----------------------------------

1997-1998 HMS I Endocrinology

Lecture	25 Medical Students	<i>contact time</i> 1.5 hours/year for 1 year (s)	<i>prep time</i> 2 hours/year for 1 year (s)
---------	---------------------	---	--

1997-1998 HMS II Endocrine/Reproductive

Lecturer	100 Medical Students	<i>contact time</i> 1 hours/year for 1 year(s)	<i>prep time</i> 6 hours/year for 1 year(s)
----------	----------------------	--	---

2001, 2003 HMS I Endocrinology

Lecturer	100 Medical Students	<i>contact time</i> 4 hours/year for 1 year(s)	<i>prep time</i> 4 hours/year for 1 year(s)
----------	----------------------	--	---

2006, 2007 HMS II Musculoskeletal, Endocrine and Reproductive Pathophysiology

Lecturer	100 Medical Students	<i>contact time</i> 4 hours/year for 1 year(s)	<i>prep time</i> 20 hours/year for 1 year(s)
----------	----------------------	--	--

b. Graduate Medical Courses

1985-present Reproductive Endocrine Unit Clinical Conference Series

Lecturer	2 Medical Students 15 Post-doc Students 5 Other Students	<i>contact time</i> 6 hours/year for 1 year(s)	<i>prep time</i> 18 hours/year for 1 year(s)
----------	--	--	--

1985-present	<u>Reproductive Endocrine Unit, Journal Club</u>		
		<i>contact time</i>	<i>prep time</i>
Discussant	2 Medical Students	3 hours/year	9 hours/year
	10 Post-doc Students	for 1 year(s)	for 1 year(s)
	10 Other Students		
1996	<u>Introduction to Clinical Investigation - Study Design: Physiologic Investigation</u>		
		<i>contact time</i>	<i>prep time</i>
Lecturer	110 Post-doc Students	2 hours/year	12 hours/year
	10 Resident	for 1 year(s)	for 1 year(s)
	30 Other Students		
1997-present	<u>Design and Conduct of Clinical Trials: Phase I Studies</u>		
		<i>contact time</i>	<i>prep time</i>
Lecturer	25 Post-doc Students	1.5 hours/year	2 hours/year
	2 Resident	for 9 year(s)	for 9 year (s)
	10 Other Students		
1998, 2004	<u>Grant Writing Seminar</u>		
		<i>contact time</i>	<i>prep time</i>
Lecturer	50 Post-doc Students	2 hours/year	12 Hours/year
	10 Other Students	for 1 year(s)	for 1 year (s)
1998-1999	<u>Issues in Physiologic Investigation, Choices of Models in Physiologic Studies</u>		
		<i>contact time</i>	<i>prep time</i>
Lecturer	30 Post-doc Students	1 hours/year	8 hours/year
	10 Other Students	for 1 year(s)	for 1 year(s)
1999, 2001	<u>Introduction to Clinical Investigation – Study Design: Physiologic Investigation</u>		
		<i>contact time</i>	<i>prep time</i>
Lecturer	110 Post-doc Students	2 hours/year	12 hours/year
	10 Residents	for 1 year(s)	for 1 year(s)
	30 Other students		
2000-2002	<u>Clinical Scholars Program – Choices of Models, Tools of Physiologic Investigation</u>		
		<i>contact time</i>	<i>prep time</i>
Lecturer	13 Post-doc students	2 hours/year	8 hours/year
		for 1 year(s)	for 1 year(s)
2004-present	<u>Tools of Human Investigation for Medical House Staff: Physiologic Studies</u>		
		<i>contact time</i>	<i>prep time</i>
Lecturer	13 Residents	6 hours/year	6 hours/year
		for 3 year(s)	for 3 year(s)

2006 Writing Your First NIH Grant as a Young Investigator: How to Write an NIH Grant

		<i>contact time</i>	<i>prep time</i>
Lecturer	220 Post-doc Students	1.5 hours/year for 1 year(s)	12 Hours/year for 1 year (s)

2006 Writing Your First NIH Grant as a Young Investigator: The Review Process

		<i>contact time</i>	<i>prep time</i>
Lecturer	220 Post-doc Students	1.5 hours/year for 1 year(s)	12 Hours/year for 1 year (s)

c. Local Invited Presentations Case Preparation and Comments

1993 Clinical Pathological Conference, Massachusetts General Hospital
Lecturer: 100 participants, 1 hours contact time per year, 5 hours prep time per year

Endocrine Grand Rounds

1991 "GnRH Antagonists: Insights into the Differential Control of LH and FSH",
Massachusetts General Hospital
Lecturer: 50 participants, 1 hours contact time per year, 5 hours prep time per year

1991 "The Use of GnRH Antagonists to Provide Insights into the Control of
Reproduction", Tufts New England Medical Center
Lecturer: 37 participants, 1 hours contact time per year, 6 hours prep time per year

1992 "GnRH Antagonists as Physiologic Probes", Brigham and Women's Hospital
Lecturer: 40 participants, 1 hours contact time per year, 6 hours prep time per year

1995 "New Perspectives in Polycystic Ovarian Syndrome", Boston City Hospital Lecturer:
45 participants, 1 hours contact time per year, 4 hours prep time per year

1996 "Treatment of Acquired Hypogonadotropic Hypogonadism", Children's Hospital
Lecturer: 48 participants, 1 hours contact time per year, 4 hours prep time per year

1997 "PCOS: Understanding the Spectrum of the Disorder", Beth Israel Hospital Lecturer:
49 participants, 1 hours contact time per year, 4 hours prep time per year

1997 "Polycystic Ovarian Syndrome: New Perspectives", Brigham and Women's
Hospital/Children's Hospital
Lecturer: 85 participants, 1 hours contact time per year, 6 hours prep time per year

1998 "New Perspectives in the Diagnosis and Management of PCOS", University of
Massachusetts Medical Center
Lecturer: 67 participants, 2 hours contact time per year, 6 hours prep time per year

2000 "Physiology and Pathophysiology of Inhibin in Women", Boston City Hospital
Lecturer: 34 participants, 1 hours contact time per year, 4 hours prep time per year

- 2002 "Aging of the Reproductive System: A Multifaceted Process", Beth Israel Hospital
Lecturer: 56 participants, 1 hours contact time per year, 3 hours prep time per year
- 2003 "The Relationship of Valproate to PCOS", Massachusetts General Hospital Lecturer:
100 participants, 1 hours contact time per year, 7 hours prep time per year
- 2003 "Reproductive Aging: Insights into the Brain", Brigham and Women's Hospital
Lecturer: 83 participants, 1 hours contact time per year, 4 hours prep time per year
- 2006 "PCOS: What's in a Definition?" Massachusetts General Hospital
Lecturer: 100 participants, 1 hours contact time per year, 12 hours prep time per year
- 2007 "Postmenopausal Hyperandrogenism" Massachusetts General Hospital
Lecturer: 100 participants, 1 hours contact time per year, 8 hours prep time per year

Interview

- 1990 "Pulsatile GnRH for Treatment of Infertility", Channel 7

Keynote Speaker

- 2001 "Aging of the Reproductive System: A Multifaceted Process", Center of Excellence in
Women's Health, Harvard Medical School
Lecturer: 120 participants, 1 hours contact time per year, 8 hours prep time per year
- 2003 "Managing the Perimenopause", Revere Health Center Postgraduate Day,
Massachusetts General Hospital
Lecturer: 20 participants, 1.5 hours contact time per year, 4 hours prep time per year

Medical Grand Rounds

- 1991 "Medical Implications of Polycystic Ovarian Disease", Massachusetts General
Hospital
Lecturer: 90 participants, 1 hours contact time per year, 6 hours prep time per year
- 1992 "Ovulation Induction: Evaluating the Choices", Massachusetts General Hospital
Lecturer: 150 participants, 1 hours contact time per year, 6 hours prep time per year
- 1994 "Polycystic Ovarian Syndrome: Metabolic Complications", Massachusetts General
Hospital
Lecturer: 150 participants, 1 hours contact time per year, 5 hours prep time per year
- 1996 "Diagnosis and Treatment of PCOS", Mount Auburn Hospital
Lecturer: 84 participants, 1 hours contact time per year, 6 hours prep time per year
- 2000 "PCOS: What the Internist Should Know", Lawrence General Hospital
Lecturer: 60 participants, 1 hours contact time per year, 4 hours prep time per year
- 2000 "Diagnosis and Medical Management of PCOS", Falmouth Hospital
Lecturer: 40 participants, 1 hours contact time per year, 5 hours prep time per year

2006 "Understanding the Menopausal Transition: Implications for Management"
Massachusetts General Hospital
Lecturer: 100 participants, 1 hours contact time per year, 12 hours prep time per year

2006 "Menstrual Disorders" Harvard University Health Services Grant Rounds
Lecturer: 50 participants, 1 hours contact time per year, 3 hours prep time per year

Medical House Staff Rounds

1996 Case Discussion, Massachusetts General Hospital
Lecturer: 29 participants, 1 hours contact time per year, 4 hours prep time per year

1997 Case Discussion, Massachusetts General Hospital
Lecturer: 40 participants, 1 hours contact time per year, 4 hours prep time per year

2000 Case discussion, Massachusetts General Hospital
Lecturer: 30 participants, 1 hours contact time per year, 3 hours prep time per year

2002 Case discussion, Massachusetts General Hospital
Lecturer: 40 participants, 1 hours contact time per year, 3 hours prep time per year

Obstetrics & Gynecology Rounds

1990 "The Use of GnRH Antagonists as Physiologic Probes" , Brigham and Women's Hospital
Lecturer: 20 participants, 1 hours contact time per year, 5 hours prep time per year

1990 "Pulsatile GnRH in Patients with Reproductive Dysfunction", Massachusetts General Hospital
Lecturer: 15 participants, 1 hours contact time per year, 5 hours prep time per year

1994 "GnRH Antagonists in Clinical Investigation" , Beth Israel Hospital
Lecturer: 35 participants, 1 hours contact time per year, 6 hours prep time per year

1997 "Polycystic Ovarian Syndrome: Understanding the Pathophysiology", Brigham and Women's Hospital
Lecturer: 15 participants, 1 hours contact time per year, 4 hours prep time per year

2000 "Physiology of Inhibin in Women", Massachusetts General Hospital
Lecturer: 20 participants, 1 hours contact time per year, 4 hours prep time per year

2002 "Reproductive Aging in Women", Brigham and Women's Hospital
Lecturer: 17 participants, 1 hours contact time per year, 3 hours prep time per year

Oral Presentation

1987 MGH Research Symposium XI "Use of a GnRH Antagonist in Women",
Massachusetts General Hospital
Lecturer: 100 participants, no contact time reported, 4 hours prep time per year

Panel

- 2003 Career Pathways in Medicine, Massachusetts General Hospital Office of Women's Careers
Lecturer: 50 participants, 1 hours contact time per year, 1 hours prep time per year
- 2004 MGH Career Planning Session for Medical House Staff, Massachusetts General Hospital
Lecturer: 20 participants, 1 hours contact time per year, 1 hours prep time per year
- 2005 Building a Research Program, Clinical Research Program K Club, Massachusetts General Hospital
Panel: 30 participants, 2 hours contact time per year, 1 hours prep time per year

Pediatric Endocrine Rounds

- 1990 "Pulsatile GnRH in Hypogonadotropic Hypogonadism", Massachusetts General Hospital
Lecturer: 15 participants, 1 hours contact time per year, 4 hours prep time per year
- 1992 "Acquired GnRH Deficiency", Massachusetts General Hospital
Lecturer: 15 participants, 1 hours contact time per year, 4 hours prep time per year
- 2004 "New Perspectives in PCOS: Implications for Diagnosis and Management", Massachusetts General Hospital
Lecturer: 20 participants, 1.5 hours contact time per year, 4 hours prep time per year

Schwartz Center Rounds

- 2005 "The Impact of Infertility on Families: Perspectives from Patient Care and Clinical Research", Massachusetts General Hospital Institute of Health Professions
Lecturer: 100 participants, 1 hours contact time per year, 1 hours prep time per year

Seminar

- 1986-1990 "Reproduction in Men and Women", MGH Institute of Health Professions Lecturer:
30 participants, 1 hours contact time per year, 4 hours prep time per year
- 1993 "GnRH Antagonists in Reproductive Endocrinology", Executive Committee on Research, Massachusetts General Hospital
Lecturer: 30 participants, 1 hours contact time per year, 5 hours prep time per year
- 1994 "Economic Impact of Multiple Gestation", Boston Fertility Society
Lecturer: 150 participants, 1.5 hours contact time per year, 6 hours prep time per year
- 2001 "Inhibin in Reproductive Medicine: Physiology and Clinical Applications", Boston Fertility Society
Lecturer: 150 participants, 1 hours contact time per year, 4 hours prep time per year

- 2002-present "Polycystic Ovarian Syndrome: Diagnosis and Management", MGH Institute of Health Professions
Lecturer: 15 participants, 2 hours contact time per year, 4 hours prep time per year
- 2003 "Reproductive Endocrinology, Basics and Effects of Aging", MGH General Clinical Research Center
Lecturer: 20 participants, 1 hours contact time per year, 1 hours prep time per year
- 2003 "Clinical Research in Academic Health Centers/Translational Research", MGH Institute of Health Professions
Lecturer: 15 participants, 2 hours contact time per year, 4 hours prep time per year
- 2004 "Aging of the Neuroendocrine System: Insights into the Brain", MGH Senior Health Clinic, Massachusetts General Hospital Lecturer: 15 participants, 1 hours contact time per year, 4 hours prep time per year
- 2004 "Understanding Infertility: Choices and Concerns During a Challenging Time", Massachusetts General Hospital, Women's Health Coordinating Council
Lecturer: 40 participants, 2 hours contact time per year, 6 hours prep time per year

Sleep Grand Rounds

- 2004 "Sleep and Circadian Effects on the Female Reproductive System", Harvard Medical School Division of Sleep Medicine Lecturer: 44 participants, 1 hours contact time per year, 10 hours prep time per year

d. Continuing Medical Education Courses

- 1986-1995 Reproductive Endocrine Postgraduate Course
Lecturer: 100 participants, 3 hours contact time per year, 10 hours prep time per year
- 1989-1996 Primary Care of Women Postgraduate Course
Lecturer: 150 participants, 1 hours contact time per year, 3 hours prep time per year
- 1991-present Endocrinology Postgraduate Course
Lecturer: 225 participants, 2 hours contact time per year, 4 hours prep time per year
- 1991-present Endocrinology Post-Graduate Course
Problem Seminar: 225 participants, 1 hours contact time per year, 3 hours prep time per year
- 1997-2002 Primary Care
Lecturer: 327 participants, 1 hours contact time per year, 3 hours prep time per year
- 2001-2002 The X and Y: Current Topics in Gender-Specific Medicine
Lecturer: 200 participants, 1 hours contact time per year, 6 hours prep time per year

e. Advisory and Supervisory Responsibilities in Clinical or Laboratory Setting

- 1989-1990 1 Medical Students for 300 hrs/year, Supervision of HMS research year and honors

thesis, Harvard Medical School

- 1989-1998 2 Fellows for 250 hrs/year, Supervising in Reproductive Endocrine Clinic, Massachusetts General Hospital
- 1990-present 5 Fellows for 70 hrs/year, Attending in Endocrinology, Massachusetts General Hospital
- 1991 1 Undergraduate Student for 250 hrs/year, Scholar of the College Research Project, Boston College
- 1991-1994 1 Medical Students for 600 hrs/year, Supervisor of HMS student research project - summer research experience (MGH Summer Minority Research Training Program), HMS Enrichment Program, Soma Weiss oral presentation, HMS research year (NIH Minority Student Supplement) and MPP thesis advisor , Harvard Medical School
- 1993 1 Undergraduate Student for 200 hrs/year, Honors Thesis Project, Boston College
- 1993-1994 6 Interns, residents and medical students for 120 hrs/year, Attending Physician, Medical Service, Massachusetts General Hospital
- 1994 1 Medical Students for 100 hrs/year, Supervisor of HMS summer student research project (MGH Summer Minority Research Training Program) and Soma Weiss poster, Harvard Medical School
- 1994 1 Medical Students for 80 hrs/year, Supervisor of research project, Brown University
- 1995 1 Student for 80 hrs/year, Supervisor of summer research project, Massachusetts General Hospital
- 1995 1 Student for 80 hrs/year, Supervisor of summer research project, Massachusetts General Hospital, Summer Minority Research Training Program
- 1996-1997 1 Student for 300 hrs/year, Supervisor of year long research project, Massachusetts General Hospital
- 1996-2001 1 Medical Students for 500 hrs/year, Supervisor of student research projects - summer (MGH Summer Minority Research Training Program), summer (GCRC Student Fellowship), HMS Enrichment Program and Soma Weiss posters, HMS research year (NIH Minority Supplement) and HMS honors thesis, Harvard Medical School
- 1997-1998 1 Student for 350 hrs/year, Supervision of year long research project, Massachusetts General Hospital
- 1998- 1 Fellows for 200 hrs/year, Supervising in Reproductive Endocrine Clinic, Massachusetts General Hospital
- 1998 1 Students for 20 hrs/year, Co-supervisor of Project Success Summer Research

Internship, Harvard University

- 1998 1 Medical Students for 20 hrs/year, Supervisor of HMS advanced biomedical sciences program research project, Harvard Medical School
- 2000 1 Medical Students for 80 hrs/year, Supervisor of HMS II PASTEUR Program summer research, Harvard Medical School
- 2000 1 Medical Students for 80 hrs/year, Supervisor, Summer Research Fellowship, University of Massachusetts Medical School
- 2000-2004 1 Medical Students for 500 hrs/year, Supervisor of research project - HMS Pre-matriculation Summer Program for Minority Students, HMS Enrichment Program, Soma Weiss posters, HMS honors thesis, Harvard Medical School
- 2002 5 Predoctoral Students for 8 hrs/year, Faculty Advisor for Biomedical Science Careers Student Conference for Minority Students, Harvard Medical School
- 2003 1 Medical Students for 80 hrs/year, Supervisor of research project - HMS Pre-Matriculation Summer Enrichment Program for Minority Students, Harvard Medical School
- 2003 7 Fellows and Junior Faculty for 4 hrs/year, Senior Faculty Mentor, Council of Distinguished Scholars Mentoring Conference, Harvard Medical School
- 2004 1 Medical Students for 80 hrs/year, Supervision of summer research project - HMS Pre-matriculation Summer Enrichment Program for Minority Students, Harvard Medical School
- 2004 1 Medical Students for 80 hrs/year, Supervision of summer research project, Massachusetts General Hospital
- 2004 7 Junior Faculty for 5 hrs/year, Small Group Discussion Leader, HMS Leadership Development for Physicians and Scientists, Harvard Medical School
- 2005 1 Undergraduate Student (Tufts University) for 50 hrs/year, Supervision of research project, Massachusetts General Hospital
- 2006 1 Predoctoral Student for 500 hrs/year, Biomedical Research Career Award supervisor, Massachusetts General Hospital
- 2006 1 Medical Students for 80 hrs/year, Supervisor of research project - HMS Pre-Matriculation Summer Enrichment Program for Minority Students, Harvard Medical School
- 2006 1 Predoctoral Student for 500 hrs/year, Clinical Research Internship, Massachusetts General Hospital
- 2007 1 Medical Student for 100 hrs/year, Supervision of research project, Massachusetts General Hospital

f. Leadership Roles

- 1985-1986 Coordinator, Reproductive Endocrine Unit Basic Science Seminar Series, Massachusetts General Hospital
Responsibility: Organization of series, invitation of speakers, organization of day, hosting of speaker
- 1987-1989 Coordinator, Reproductive Endocrine Unit Journal Club, Massachusetts General
Responsibility: Organization and operationalization of series.
- 1988-1990 Course Director, Reproductive Endocrine Unit Clinical Conference Series, Massachusetts General Hospital
Responsibility: Organization of series and coordination of all aspects of weekly conferences.
- 1988-1991 Co-Director, Reproductive Endocrine Post-Graduate Course, Massachusetts General Hospital
Responsibility: Organization of course, invitation of speakers, coordination of all aspects of course.
- 1990- Co-Director, Biomedical Research Career Award Program, Reproductive Endocrine Unit, Massachusetts General Hospital
Responsibility: Interviewing, selection and placement of students with appropriate mentors for summer or yearlong mentored research experiences.
Special Accomplishments: Establishment of program to identify promising minority and non-minority pre-doctoral and medical students to encourage careers in clinical and translational research.
- 1993-1997 Staff Supervisor, Reproductive Endocrine Unit Clinical Conference Series, Massachusetts General Hospital
Responsibility: Oversight of conference series, mentoring of series director.
- 1995-1997 Co-Director, MGH/BWH Joint Reproductive Endocrinology Research Seminar Series, Brigham and Women's Hospital and MGH
Responsibility: Coordination of series with BWH, choice of speakers and organization of all seminars.
- 1996-2004 Course Director, Introduction to Clinical Investigation, Clinical Research Program, Massachusetts General Hospital
Responsibility: Co-Director responsible for course design, direction of individual presentations and syllabus contributions.
Special Accomplishments: New course designed to introduce the MGH community to the spectrum of clinical investigation.
- 1997-2005 Course Director, Design and Conduct of Clinical Trials, Clinical Research Program, Massachusetts General Hospital
Responsibility: Co-Director responsible for course design, conceptualization of teaching format, direction of individual presentations, oversight of syllabus

materials, oversight of each session, and evaluation.

Special Accomplishments: Designed this highly successful course in collaboration with Dr. Jeff Clark; ongoing responsibility for course direction with Dr. Jim Talcott until 2005; winner of 2005 Partners in Excellence Award for Community Service; continue to contribute to this course as a lecturer and mentor.

- 1998-1999 Course Director for Issues in Physiologic Investigation, Clinical Research Program, Massachusetts General Hospital
Responsibility: Conceptualization, course design, direction of individual presentations, oversight of syllabus materials, oversight of sessions, and evaluation with expansion to include seminar series for MGH Residents in Clinical Research Track in 1999
- 1998-2004 Co-Director of Seminars in Biostatistics, Clinical Research Program, Massachusetts General
Responsibility: conceptualization, oversight and evaluation
- 1998-2004 Co-Director of Grant-Writing Seminar, Clinical Research Program, Massachusetts General Hospital
Responsibility: Conceptualization, oversight and evaluation
- 2002 Co-Director, Recruiting Minority Women into Clinical Trials, Harvard Medical School
Responsibility: Planning committee and working group leader.

g. Advisees/Trainees

<i>Training Duration</i>	<i>Name</i>	<i>Current Position</i>
1988-1990	Ann E. Taylor, MD	Director, Early Clinical Leader for Obesity, Pfizer Global R&D
1989-1990	Lori Kaplowitz, MD	Child Psychiatry/Women's Health, Cambridge City Hospital
1992-1993	Tamara Callahan, MD	Assistant Professor of Ob/Gyn, Vanderbilt School of Medicine, Medical Director, Ob/Gyn, Vanderbilt Clinic
1993-1994	Linda Spence	
1993-1995	Vivian Fuh, MD	Director, Regulatory Affairs, Merck Research Labs
1994 -	Corrine K. Welt, MD	Assistant Professor of Medicine, Harvard Medical School
1995-1996	Catherine Rowbatham, MSc, MBA	Organizational Development, General Electric
1996-1997	Carrie Strauss, MD	Department of Emergency Medicine, Lee Memorial Hospital, Fort Meyers, FL
1996-1998	Julie Sharpless, MD	Assistant Professor of Medicine, University of North Carolina Chapel Hill, NC
1996-1998	Helen Lavoie, MD	Assistant Professor of Medicine, University of Montreal; Consultant in Reproductive Endocrinology and Director of Clinical Research, Procrea BioScience, Montreal, CA
1996-2003	Erica Marsh, MD	Fellow in Reproductive Endocrinology and Infertility, Northwestern University School of Medicine, Chicago, IL
1998-1999	Yousef Bo-Abbas, MD	Assistant Professor of Medicine, Kuwait University
1999-	Hadine Joffe, MD	Associate Professor in Psychiatry, Massachusetts General Hospital, Harvard Medical School

1999	Annie Brewster, MD	Advanced Biomedical Sciences Independent Study, HMS
1999-2001	Sabrina Gill, MD	Clinical Assistant Professor, Division of Endocrinology & Metabolism, University of British Columbia
1999-	Elizabeth Klerman, MD	Assistant Professor of Medicine, Harvard Medical School, Associate Physician, Brigham & Women's Hospital and Division of Sleep Medicine, Harvard Medical School
2000	Sue Gurgel, MD	Harvard Medical School
2000	Leah Doret, MD	University of Massachusetts Medical School; Fallon Clinic, Chalton, MA
2000-2003	Yanira Pagan, MD	Director Pediatric Endocrine Program Center for Diabetes for Puerto Rico, Puerto Rico School of Medicine
2000-2003	Marcia Ellison, PhD	Ellertson Fellow, Bixby Center for Reproductive Health Research & Policy Dept. of Obstetrics, Gynecology & Reproductive Sciences University of California, San Francisco
2000-2004	Tami Tiamfooks , MD	Resident, Harvard Affiliated Emergency Medicine Residency, Harvard Medical School
2001-2004	Myles Wolfe, M.D.	Assistant Professor in Medicine, Harvard Medical School; Associate Program Director for Career Development, Internal Medicine Training Program, Massachusetts General Hospital
2003	Roberta Capp, BA	Harvard Medical School
2003-2004	William Ottowitz, MD	Graduate School of Arts and Sciences, Columbia University
2004	Fred Papali, BSc	McGill University School of Medicine
2004	Amsalu Dabela, BA	Harvard Medical School
2004-	Serene Srouji, MD	Instructor, Harvard Medical School, Center for Reproductive Medicine, Brigham & Women's Hospital,
2005-2007	Stephanie Histed, BA	UCLA School of Medicine
2006	Crysel Smith, BS	Harvard Medical School
2007-	Julie Lamusta, BA	Biomedical Research Career Award, Massachusetts General Hospital
2007-	Alice Lorch, BS	Harvard Medical School

2. Regional, national, or international contributions

a. Invited Presentations

Discussant

National

- 2001 NIH/ASRM Staging of Reproductive Aging Workshop, Park City, UT, NIH (NIA /NICHD) and ASRM
- 2005, 2006 Review of Participant Protocols, Clinical Investigators Workshop for Trainees, The Endocrine Society, Boston, MA

Endocrine Grand Rounds

International

- 1988 "Abnormal GnRH Secretion in Hypothalamic Amenorrhea and the Use of Pulsatile GnRH", McMaster University Medical School, Hamilton, Canada
- 1993 "GnRH Antagonists as Physiologic Probes in Women: Studies in PCOS", Jewish General Hospital, Montreal, Canada
- 2000 "The Role and Control of Inhibin in Women", Endocrine Division, University of Toronto, Toronto, Canada

National

- 1992 "Gonadotropin and Androgen Responses to GnRH Antagonists in PCOS", University of Chicago, Chicago, IL
- 2001 "Physiology and Clinical Utility of Inhibin in Women", Beth Israel Hospital, New York
- 2007 "Reproductive Aging: Implications for Management of the Menopausal Transition", Medical College of Virginia, Virginia Commonwealth University, Richmond, VA
- 2007 "The Menopause: Ovarian and Neuroendocrine Mechanisms". Northwestern University Medical School, Chicago, IL.

Regional

- 1992 "GnRH Antagonists: What do they teach us about the physiology and pathophysiology in women?", Yale University School of Medicine, New Haven, CT
- 1992 "Diagnosis and Management of PCOS", University of Massachusetts Medical School, Worcester, MA
- 1993 "GnRH Antagonists: Probes for Understanding the Neuroendocrine Physiology of the Pituitary-Gonadal Axis", Brown University, Providence, RI
- 1998 "PCOS: New Insights and their Implications for Clinical Management", School of Medicine of the University of Connecticut Health Center, Farmington, CT

External Reviewer

National

- 1998 Clinical Investigation 1998, General Clinical Research Center, University of Virginia, Charlottesville, VA

Interview

- 1988 "New Treatments for Infertility: Pulsatile GnRH in Men and Women", CNN
- 1992 "Infertility – Pulsatile GnRH", Lifetime Television
- 1994 "The Economic Impact of Multiple Gestation", USA Today; Boston Globe
- 1996 "Reproductive Technology and Multiple Gestation", TODAY Show, New

York, NY

Invited Lecture

International

- 1986 Sports Medicine Seminar, BC Sport Medicine , Whistler, Canada
- 1986 International Seminar on Sports Medicine, Toronto, Canada
- 1996 Invited Speaker and Meet-The-Professor Session, "Polycystic Ovarian Syndrome", 22 Congresso Brasileiro de Endocrinologia & Metabologia, Salvador-Bahia, Brazil
- 1996 IX World Congress on Human Reproduction, "Mechanisms Underlying the Midcycle Surge in Women", American Society of Reproductive Medicine, Philadelphia, PA
- 1998 "Pathophysiology and Management of Hypothalamic Hypogonadism", 41emes Journees Internationales d'Endocrinologie Clinique, Paris, France
- 2000 "Continuing Work in the U. S. ", Career Development Workshop for Trainees , Endocrine Society Annual Meeting, Toronto, Canada
- 2000 "The Measurement of Inhibin and Related Peptides in Women: Potential Clinical Applications", International Meeting on Inhibins, Activins and Follistatins, Melbourne, Australia
- 2005 "Polycystic Ovarian Syndrome (PCOS) Management: Logic and Strategy", "The Menopausal Transition: Implications for Management", Clinical Endocrine Update, Toronto, ON, Canada

National

- 1984 "The Menstrual Cycle and Physical Activity", U.S. Olympic Committee
- 1985 "Paradoxical Effects of a GnRH Antagonist", Workshop on LHRH Analogs, Contraceptive Development Branch, NIH
- 1986 "The NAL-ARG GnRH Antagonist: Dose-Response Relationships in Early Follicular Phase Women", Workshop on LHRH Analogs, Contraceptive Development Branch, NIH
- 1988 "Acute Effects of GnRH Receptor Blockade in Normal Women: Studies of the NAL-GLU GnRH Antagonist", Workshop on LHRH Analogs and Reproductive Peptides, Contraceptive Development Branch, NIH
- 1989 "Effect of Blockade of GnRH-Dependent Pituitary Support of the Ovary", Workshop on LHRH Analogs and Reproductive Peptides, Contraceptive Development Branch, NIH
- 1990 "Use of GnRH Antagonists as Physiologic Probes in Women", Modes of Action of GnRH and GnRH Analogues, Scottsdale, AZ

- 1992 "Physiology and Pathophysiology of the Female Reproductive System", NIAAA Symposium on Alcohol and the Endocrine System, San Diego, CA
- 1992 "GnRH Antagonists in Hyperandrogenemia", Workshop on LHRH Analogs and Reproductive Peptides, Contraceptive Development Branch, NIH
- 1993 "Kallmann's Syndrome (KS) Past and Present", NIH Conference on Kallmann's Syndrome: A Disorder of Neuronal Migration, Bethesda, MD
- 1994 "Reassessing Amenorrhea-Oligoamenorrhea Syndromes"; "Hyperandrogenic Disorders, PCOS and other Causes of Hirsutism", American Association of Clinical Endocrinologists Annual Meeting, Boston, MA
- 1995 "Multiple Gestation Pregnancies: An Added Complication for the Infertile Couple", NIH Psychobiology of Infertility Conference, Bethesda, MD
- 1996 "Body Weight and Gonadotropin Secretion in Normal Women and Women with Reproductive Abnormalities", Pennington Nutrition and Reproduction Symposium, Baton Rouge, LA
- 1997 "Neuroendocrinology of Puberty and the Normal Menstrual Cycle", Frontiers in Reproductive Endocrinology, Washington, DC
- 1998-present "Female Reproduction" Review of Endocrinology Diagnosis and Treatment, NIH, Foundation for Advanced Education in the Sciences, Bethesda, MD
- 1999 "Inhibin Physiology in the Female", North American Inhibin & Activin Conference, Evanston, IL
- 1999 "How to Link Basic Science to Clinical Investigation", Introduction to Molecular & Cellular Research, Endocrine Society, San Diego, CA
- 2000 "Inhibin-Activin Control of Female Reproduction", The Endocrine Basis of Reproductive Function, Tampa, FL
- 2001 "GnRH Antagonists: Potential Benefits in Chemo and Radiation Therapy"
"Application of GnRH Antagonists in the Perimenopause", NIH Conference on Potential Clinical Applications for GnRH Antagonists, Bethesda, MD
- 2004 "Gonadotropin Dysfunction in PCOS: Exploring the Relationship with Weight", Updates in Infertility Treatment, Marco Island, FL
- 2005 "The Perils of Twinning: Economic and Psychosocial Impacts of Multiples", NY Fertility Society, New York, NY
- 2005 "Women in Academic Medicine: Charting Your Own Path", Women Physician Scientist Seminar Series, Office of Academic Career Development, University of Pittsburgh Medical Center, Pittsburgh PA
- 2005 "Use of the GCRC", Clinical Investigators Workshop for Trainees, The Endocrine Society, Boston, MA

- 2006 "The Spectrum of Polycystic Ovarian Syndrome: Diagnosis and Management", Oregon Health Sciences University, Endocrinology Post-Graduate Course, Ashland OR
- 2006 "Selecting a Mentor: What to Look For and Avoid", Clinical Investigators Workshop for Trainees, The Endocrine Society, Boston, MA
- 2007 "Reproductive Aging in Women", Keystone Symposium: Reproduction: Advances and Challenges, Santa Fe, NM
- 2007 "The Menopausal Transition: Changing Dynamics of Hypothalamic-Pituitary-Ovarian Feedback", Food and Drug Administration, CDER Symposium, Washington, DC
- 2007 "Ovarian and Neuroendocrine Mechanisms of Reproductive Aging in Women", Center for Reproductive Sciences, Northwestern University, Evanston, IL
- 2007 "PCOS and How it Impacts Clinical Management of Infertility Patients", Organon Experts in Reproductive Medicine Meeting, Miami, FL

Regional

- 1996 "Evaluation of Hirsutism and Virilization", Northeast Regional Nurse Practitioner Association, Nashua, NH
- 1997 "Menstrual Cycle Dysfunction: Diagnosis & Treatment", Northeast Regional Nurse Practitioner Association, Manchester, NH
- 2005 "Polycystic Ovary Syndrome: Diagnosis, Implications and Treatment", Northeast Regional Nurse Practitioner Association, Westford, MA

Keynote Speaker

National

- 2004 "Dynamics of the Female Reproductive System and Changes with Aging", NIH Conference on the Biology of the Perimenopause: Impact on Health and Aging, Bethesda, MD
- 2006 "Building a Career in Clinical Investigation", Career Development Workshop, The Endocrine Society Annual Meeting, Boston, MA

Medical Grand Rounds

National

- 2005 "Understanding the Menopause: The Key to Patient Management", University of Pittsburgh Medical Center, Pittsburgh, PA

International

- 1986 "Exercise-Related Amenorrhea: Effects of Exercise on the Menstrual Cycle", Victoria General Hospital, Vancouver, Canada

Meet-the-Professor

International

- 1994 Endocrine Postgraduate Assembly "Hirsutism/Virilization Syndromes", The Endocrine Society, Toronto, ON, Canada
- 2005 Clinical Endocrine Update, "Perimenopausal Management and Decisions on Testosterone Replacement", The Endocrine Society, Toronto, ON, Canada
- 2007 "Diagnosis of PCOS", The Endocrine Society Annual Meeting, Toronto, ON, Canada

National

- 1992 Endocrine Postgraduate Assembly, "Polycystic Ovarian Syndrome", The Endocrine Society, Boston, MA
- 1993 "Estrogen Replacement Therapy", The Endocrine Society Annual Meeting, Las Vegas, NV
- 1996 Clinical Endocrinology Update "Amenorrhea", The Endocrine Society, Chicago, IL
- 1997 "Amenorrhea", The Endocrine Society Annual Meeting, Minneapolis, MN
- 1998 Clinical Endocrine Update "Menstrual Cycle Abnormalities: Diagnosis & Management", The Endocrine Society, Boston, MA
- 1998 Clinical Endocrine Update, Minority Student Outreach Program, The Endocrine Society, Boston, MA
- 2002 Clinical Endocrine Update, "Dilemmas in Managing the Perimenopausal Patient", The Endocrine Society, Miami, FL

Symposium Presentation

International

- 1999 "Physiology of GnRH Antagonists", American Society of Reproductive Medicine Annual Meeting, Toronto, Canada

National

- 1991 "GnRH Antagonists in Women: Physiologic and Clinical Studies", Endocrine Society Annual Meeting, Washington, DC
- 1994 "Update in Female Reproduction", Endocrine Society Annual Meeting, Anaheim, CA
- 1997 "Aging of the Hypothalamic-Pituitary-Ovarian Axis in Women", Endocrine Society Annual Meeting, San Diego, CA
- 2001 "How to Write a Successful NIH Grant", North American Menopause Society Annual

Meeting, New Orleans, LA

- 2005 "The Menopausal Transition: Changing Dynamics of Hypothalamic-Pituitary-Ovarian Feedback", Endocrine Society Annual Meeting, San Diego, CA
- 2005 "Depression, Sleep and Menopause", Endocrine Society Representative to the White Paper Conference on the Menopause sponsored by ASRM, Birmingham, AL.
- 2006 "Peer Review of Clinical Research: Is there a problem and how can it be addressed?" FASEB Symposium on "Peer Review: Issues, Mechanisms, and Models", Washington, DC.

Visiting Professorship

International

- 2004 "Understanding the Menopause"; "Pulsatile GnRH: 25 years of Experience", University of Montreal, Montreal, Canada

National

- 1999 "Polycystic Ovarian Syndrome: Implications for the Internist"; "Aging of the Hypothalamic-Pituitary Reproductive Axis in Women", University of Virginia Health Sciences Center, Charlottesville, VA

b. Professional Leadership Roles related to Teaching

- 1993 National National Institute of Health
Co-Chairperson, NIH Conference "Kallmann's Syndrome: A Disorder of Neuronal Migration", Bethesda, MD
- 1994 International Endocrine Society
Chair, Reproductive Endocrine Section, Endocrine Postgraduate Assembly, Toronto, ON, Canada
- 1995 National National Institutes of Child Health and Disease, NIH
Co-Chair, NIH Conference "Psychobiology of Infertility", Bethesda, MD
- 1998 National Endocrine Society
Chair, Reproductive Endocrine Section, Clinical Endocrine Update, Boston, MA
- 1999-2001 National Endocrine Society/Up-to-Date
Section Editor, Endocrine Self Assessment Program, Endocrine Society/Up-to-Date
- 2000 National Association of Program Directors in Endocrinology & Metabolism
Chair, Reproductive Endocrine Section, Curriculum Development Committee
- 2003 National Endocrine Society
Chair, Reproductive Endocrine Section, Clinical Endocrine Update, Miami, FL
- 2004 International Ferring Symposia
Scientific Program Committee, Updates in Infertility Treatment, Marco Island, CA

- 2005 International Endocrine Society
Chair, Reproductive Endocrine Section, Clinical Endocrine Update, Toronto, ON, Canada
- 2005 National Endocrine Society
Co-Director, Clinical Investigators Workshop for Trainees, Boston, MA
- 2006 International Endocrine Society
Team Leader, Reproductive Section, 2007 Annual Meeting Steering Committee, Toronto, ON, Canada
- 2007 National Endocrine Society
Team Leader, Reproductive Section, 2007 Annual Meeting Steering Committee, San Diego, CA

3. Description of Teaching Award(s) Received

- 2000 A. Clifford Barger Excellence in Mentoring Award
Harvard Medical School
- 2005 Partners in Excellence Award, Massachusetts General Hospital

E. Report of Clinical Activities

1989- Endocrinology, Reproductive Endocrinology Massachusetts General Hospital Clinical Activity Description: Clinical practice is conducted in the Reproductive Endocrine Associates group practice, seeing Endocrinology patients with a particular focus on Reproductive Endocrinology--including menstrual cycle abnormalities, male and female infertility, hirsutism and management of the perimenopause and menopause. Inpatient admissions relate primarily to clinical research activities. As the majority of patients are secondary or tertiary referrals, the complexity of management is generally high. Approximately 50 inpatient admissions per year for complex clinical investigative protocols.

Patient Load: 350/year

Clinical Contributions: Dr. Hall's studies on the use of pulsatile GnRH have defined the appropriate patient populations for its use and have pointed out the low risk of multiple gestation with this form of ovulation induction. Studies on the economic impact of multiple gestation highlighted the importance of this common side effect and have influenced the establishment of national guidelines for the number of embryos transferred during in vitro fertilization. Studies of the psychosocial implications of multiples have revealed areas of vulnerability that can be addressed through specific counseling and support services.

Other Relevant Information: Recognition as a leader in the field through:

1. Invitations to teach in local and national Continuing Medical Education courses;
2. Meet-the-Professor Sessions for the Endocrine Society Annual Meeting;
3. Reproductive Endocrine Editor of the Endocrine Society Self-Evaluation Program;
4. Chair of the Reproductive Endocrine Section of Clinical Endocrine Update, the Endocrine Society's National Postgraduate Course on four separate occasions;
5. Chair of the Reproductive Endocrine Section of the Curriculum Development Committee for the Association of Program Directors in Endocrinology and Metabolism;
6. Editor - Journal of Clinical Endocrinology & Metabolism 2000-2004
7. Section Editor - Current Opinion in Endocrinology & Diabetes 2000-2002

8. Included in 1998-present Best Doctors in America.
9. Contributions to leading on-line and print textbooks of Internal Medicine (Harrison's, ACP Medicine (formerly Scientific American Medicine), Endocrinology and Reproductive Endocrinology).

Part III: Bibliography

Original Articles

1. **Jurkowski [Hall] JE**, Jones NL, Walker WC, Younglai EV, Sutton JR. Ovarian hormonal responses to exercise. *J Appl Physiol: Respirat Environ Exercise Physiol.* 1978;44:109-114.
2. Jones NL, Jurkowski **[Hall] JE**. Body carbon dioxide storage capacity in exercise. *J Appl Physiol: Respirat Environ Exercise Physiol.* 1979;46:811-815.
3. **Hall Jurkowski JE**, Jones NL, Toews CJ, Sutton JR. Effects of menstrual cycle on blood lactate, O₂ delivery and performance during exercise. *J Appl Physiol: Respirat Environ Exercise Physiol.* 1981;51:1493-1499.
4. Waldstreicher J, Santoro NF, **Hall JE**, Filicori M, Crowley WF. Hyperfunction of the hypothalamic-pituitary axis in women with polycystic ovarian disease: indirect evidence for partial gonadotroph desensitization. *J Clin Endocrinol Metab.* 1988;66(1):165-72.
5. **Hall JE**, Brodie TD, Badger TM, Rivier J, Vale W, Conn PM, Schoenfeld D, Crowley WF. Evidence of differential control of FSH and LH secretion by gonadotropin-releasing hormone (GnRH) from the use of a GnRH antagonist. *J Clin Endocrinol Metab.* 1988;67(3):524-31.
6. Hopkins CC, **Hall JE**, Santoro NF, Martin KA, Filicori M, Crowley WF. Closed intravenous administration of gonadotropin-releasing hormone: safety of extended peripheral intravenous catheterization. *Obstet Gynecol.* 1989;74(2):267-70.
7. Martin K, Santoro N, **Hall J**, Filicori M, Wierman M, Crowley WF Jr. Management of ovulatory disorders with pulsatile gonadotropin-releasing hormone (GnRH). *J Clin Endocrinol Metab.* 1990;71:1081 A-G.
8. Prior JC, Vigna YM, Schulzer M, **Hall JE**, Bonen A. Determination of luteal phase length by quantitative basal temperature methods: validation against the midcycle LH peak. *Clin Invest Med.* 1990;13:123-31.
9. **Hall JE**, Whitcomb RW, Rivier JE, Vale WW, Crowley WF. Differential regulation of luteinizing hormone, follicle-stimulating hormone, and free alpha-subunit secretion from the gonadotrope by gonadotropin-releasing hormone (GnRH): evidence from the use of two GnRH antagonists. *J Clin Endocrinol Metab.* 1990;70(2):328-35.
10. Schneyer AL, Sluss PM, Whitcomb RW, **Hall JE**, Crowley WF, Freeman RG. Development of a radioligand receptor assay for measuring follitropin in serum: application to premature ovarian failure. *Clin Chem.* 1991;37(4):508-14.
11. **Hall JE**, Bhatta N, Adams JM, Rivier JE, Vale WW, Crowley WF. Variable tolerance of the developing follicle and corpus luteum to gonadotropin-releasing hormone antagonist-induced gonadotropin withdrawal in the human. *J Clin Endocrinol Metab.* 1991;72(5):993-1000.
12. **Hall JE**, Schoenfeld DA, Martin KA, Crowley WF. Hypothalamic gonadotropin-releasing hormone secretion and follicle-stimulating hormone dynamics during the luteal-follicular transition. *J Clin Endocrinol Metab.* 1992;74(3):600-7.
13. Martin KA, **Hall JE**, Adams JM, Crowley WF. Comparison of exogenous gonadotropins and pulsatile gonadotropin-releasing hormone for induction of ovulation in hypogonadotropic amenorrhea. *J Clin Endocrinol Metab.* 1993;77(1):125-9.
14. Lambert-Messerlian GM, **Hall JE**, Sluss PM, Taylor AE, Martin KA, Groome NP, Crowley WF, Schneyer AL. Relatively low levels of dimeric inhibin circulate in men and women with polycystic ovarian syndrome using a specific two-site enzyme-linked immunosorbent assay. *J Clin Endocrinol Metab.* 1994;79(1):45-50.
15. **Hall JE**, Taylor AE, Martin KA, Rivier J, Schoenfeld DA, Crowley WF. Decreased release of gonadotropin-releasing hormone during the preovulatory midcycle luteinizing hormone surge in

- normal women. *Proc Natl Acad Sci U S A*. 1994;91(15):6894-8.
16. Callahan TL, **Hall JE**, Ettner SL, Christiansen CL, Greene MF, Crowley WF. The economic impact of multiple-gestation pregnancies and the contribution of assisted-reproduction techniques to their incidence. *N Engl J Med*. 1994;331(4):244-9.
 17. Adams JM, Taylor AE, Schoenfeld DA, Crowley WF, **Hall JE**. The midcycle gonadotropin surge in normal women occurs in the face of an unchanging gonadotropin-releasing hormone pulse frequency. *J Clin Endocrinol Metab*. 1994;79(3):858-64.
 18. **Hall JE**, Martin KA, Whitney HA, Landy H, Crowley WF. Potential for fertility with replacement of hypothalamic gonadotropin-releasing hormone in long term female survivors of cranial tumors. *J Clin Endocrinol Metab*. 1994;79(4):1166-72.
 19. Khoury RH, Wang QF, Crowley WF, **Hall JE**, Schneyer AL, Toth T, Midgley AR, Sluss PM. Serum follistatin levels in women: evidence against an endocrine function of ovarian follistatin. *J Clin Endocrinol Metab*. 1995;80(4):1361-8.
 20. Taylor AE, Whitney H, **Hall JE**, Martin K, Crowley WF. Midcycle levels of sex steroids are sufficient to recreate the follicle-stimulating hormone but not the luteinizing hormone midcycle surge: evidence for the contribution of other ovarian factors to the surge in normal women. *J Clin Endocrinol Metab*. 1995;80(5):1541-7.
 21. Christin-Maitre S, Taylor AE, Khoury RH, **Hall JE**, Martin KA, Smith PC, Albanese C, Jameson JL, Crowley WF, Sluss PM. Homologous in vitro bioassay for follicle-stimulating hormone (FSH) reveals increased FSH biological signal during the mid- to late luteal phase of the human menstrual cycle. *J Clin Endocrinol Metab*. 1996;81(6):2080-8.
 22. Ibañez L, **Hall JE**, Potau N, Carrascosa A, Prat N, Taylor AE. Ovarian 17-hydroxyprogesterone hyperresponsiveness to gonadotropin-releasing hormone (GnRH) agonist challenge in women with polycystic ovary syndrome is not mediated by luteinizing hormone hypersecretion: evidence from GnRH agonist and human chorionic gonadotropin stimulation testing. *J Clin Endocrinol Metab*. 1996; 81(11):4103 -7.
 23. Ettner SL, Christiansen CL, Callahan TL, **Hall JE**. How low birthweight and gestational age contribute to increased inpatient costs for multiple births. *Inquiry*. 1997;34(4):325-39.
 24. Taylor AE, McCourt B, Martin KA, Anderson EJ, Adams JM, Schoenfeld D, **Hall JE**. Determinants of abnormal gonadotropin secretion in clinically defined women with polycystic ovary syndrome. *J Clin Endocrinol Metab*. 1997;82(7):2248-56.
 25. Welt CK, Martin KA, Taylor AE, Lambert-Messerlian GM, Crowley WF, Smith JA, Schoenfeld DA, **Hall JE**. Frequency modulation of follicle-stimulating hormone (FSH) during the luteal-follicular transition: evidence for FSH control of inhibin B in normal women. *J Clin Endocrinol Metab*. 1997; 82(8):2645 -52.
 26. Martin KA, Hornstein MD, Taylor AE, **Hall JE**, Barbieri RL. Exogenous gonadotropin stimulation is associated with increases in serum androgen levels in in-vitro fertilization-embryo transfer cycles. *Fertil Steril*. 1997;68(6):1011-6.
 27. Lavoie HB, Martin KA, Taylor E, Crowley WF, **Hall JE**. Exaggerated free alpha-subunit levels during pulsatile gonadotropin-releasing hormone replacement in women with idiopathic hypogonadotropic hypogonadism. *J Clin Endocrinol Metab*. 1998;83(1):241-7.
 28. Martin KA, Welt CK, Taylor AE, Smith JA, Crowley WF, **Hall JE**. Is GnRH reduced at the midcycle surge in the human? Evidence from a GnRH-deficient model. *Neuroendocrinology*. 1998;67(6):363-9.
 29. Hayes FJ, **Hall JE**, Boepple PA, Crowley WF. Clinical review 96: Differential control of gonadotropin secretion in the human: endocrine role of inhibin. *J Clin Endocrinol Metab*. 1998;83(6):1835-41.
 30. Hayes FJ, Taylor AE, Martin KA, **Hall JE**. Use of a gonadotropin-releasing hormone antagonist as a physiologic probe in polycystic ovary syndrome: assessment of neuroendocrine

- and androgen dynamics. *J Clin Endocrinol Metab.* 1998;83(7):2343-9.
31. Harlow BL, Signorello LB, **Hall JE**, Dailey C, Komaroff AL. Reproductive correlates of chronic fatigue syndrome. *Am J Med.* 1998;105(3A):94S-99S.
 32. **Hall JE**, Taylor AE, Hayes FJ, Crowley WF. Insights into hypothalamic-pituitary dysfunction in polycystic ovary syndrome. *J Endocrinol Invest.* 1998;21(9):602-11.
 33. Welt CK, McNicholl DJ, Taylor AE, **Hall JE**. Female reproductive aging is marked by decreased secretion of dimeric inhibin. *J Clin Endocrinol Metab.* 1999;84(1):105-11.
 34. Sharpless JL, Supko JG, Martin KA, **Hall JE**. Disappearance of endogenous luteinizing hormone is prolonged in postmenopausal women. *J Clin Endocrinol Metab.* 1999;84(2):688-94.
 35. **Hall JE**, Welt CK, Cramer DW. Inhibin A and inhibin B reflect ovarian function in assisted reproduction but are less useful at predicting outcome. *Hum Reprod.* 1999;14(2):409-15.
 36. Hayes FJ, McNicholl DJ, Schoenfeld D, Marsh EE, **Hall JE**. Free alpha-subunit is superior to luteinizing hormone as a marker of gonadotropin-releasing hormone despite desensitization at fast pulse frequencies. *J Clin Endocrinol Metab.* 1999;84(3):1028-36.
 37. Perkins RB, **Hall JE**, Martin KA. Neuroendocrine abnormalities in hypothalamic amenorrhea: spectrum, stability, and response to neurotransmitter modulation. *J Clin Endocrinol Metab.* 1999;84(6):1905-11.
 38. Welt CK, Adams JM, Sluss PM, **Hall JE**. Inhibin A and inhibin B responses to gonadotropin withdrawal depends on stage of follicle development. *J Clin Endocrinol Metab.* 1999;84 (6):2163-9.
 39. Lavoie HB, Taylor AE, Sharpless JL, Anderson EJ, Strauss CC, **Hall JE**. Effects of short-term hormone replacement on serum leptin levels in postmenopausal women. *Clin Endocrinol (Oxf).* 1999;51(4):415-22.
 40. Seminara SB, Beranova M, Oliveira LM, Martin KA, Crowley WF, **Hall JE**. Successful use of pulsatile gonadotropin-releasing hormone (GnRH) for ovulation induction and pregnancy in a patient with GnRH receptor mutations. *J Clin Endocrinol Metab.* 2000;85(2):556-62.
 41. **Hall JE**, Lavoie HB, Marsh EE, Martin KA. Decrease in gonadotropin-releasing hormone (GnRH) pulse frequency with aging in postmenopausal women. *J Clin Endocrinol Metab.* 2000; 85 (5):1794-800.
 42. Anderson EJ, Lavoie HB, Strauss CC, Hubbard JL, Sharpless JL, **Hall JE**. Body composition and energy balance: lack of effect of short-term hormone replacement in postmenopausal women. *Metabolism.* 2001;50(3):265-9.
 43. Beranova M, Oliveira LM, Bédécarrats GY, Schipani E, Vallejo M, Ammini AC, Quintos JB, **Hall JE**, Martin KA, Hayes FJ, Pitteloud N, Kaiser UB, Crowley WF, Seminara SB. Prevalence, phenotypic spectrum, and modes of inheritance of gonadotropin-releasing hormone receptor mutations in idiopathic hypogonadotropic hypogonadism. *J Clin Endocrinol Metab.* 2001;86 (4):1580-8.
 44. Welt CK, Smith ZA, Pauler DK, **Hall JE**. Differential regulation of inhibin A and inhibin B by luteinizing hormone, follicle-stimulating hormone, and stage of follicle development. *J Clin Endocrinol Metab.* 2001;86(6):2531-7.
 45. Gill S, Taylor AE, Martin KA, Welt CK, Adams JM, **Hall JE**. Specific factors predict the response to pulsatile gonadotropin-releasing hormone therapy in polycystic ovarian syndrome. *J Clin Endocrinol Metab.* 2001;86(6):2428-36.
 46. Perkins RB, **Hall JE**, Martin KA. Aetiology, previous menstrual function and patterns of neuroendocrine disturbance as prognostic indicators in hypothalamic amenorrhoea. *Hum Reprod.* 2001;16(10):2198-205.
 47. Gill S, Lavoie HB, Bo-Abbas Y, **Hall JE**. Negative feedback effects of gonadal steroids are

- preserved with aging in postmenopausal women. *J Clin Endocrinol Metab.* 2002;87(5):2297-302.
48. Gill S, Sharpless JL, Rado K, **Hall JE**. Evidence that GnRH decreases with gonadal steroid feedback but increases with age in postmenopausal women. *J Clin Endocrinol Metab.* 2002;87(5):2290-6.
 49. Joffe H, **Hall JE**, Soares CN, Hennen J, Reilly CJ, Carlson K, Cohen LS. Vasomotor symptoms are associated with depression in perimenopausal women seeking primary care. *Menopause.*2002;9(6):392-8.
 50. Welt CK, Taylor AE, Martin KA, **Hall JE**. Serum inhibin B in polycystic ovary syndrome: regulation by insulin and luteinizing hormone. *J Clin Endocrinol Metab.* 2002;87(12):5559-65.
 51. Welt CK, Pagan YL, Smith PC, Rado KB, **Hall JE**. Control of follicle-stimulating hormone by estradiol and the inhibins: critical role of estradiol at the hypothalamus during the luteal-follicular transition. *J Clin Endocrinol Metab.* 2003;88(4):1766-71.
 52. Ellison MA, **Hall JE**. Social stigma and compounded losses: quality-of-life issues for multiple birth families. *Fertil Steril.* 2003;80(2):405-14.
 53. Meysing AU, Kanasaki H, Bedecarrats GY, Acierno JS, Conn PM, Martin KA, Seminara SB, **Hall JE**, Crowley WF Jr, Kaiser UB. GNRHR mutations in a woman with idiopathic hypogonadotropic hypogonadism highlight the differential sensitivity of LH and FSH. *J Clin Endocrinol Metab.* 2004;89:3189-98.
 54. Adams JM, Taylor AE, Crowley WF Jr, **Hall JE**. Polycystic ovarian morphology with regular ovulatory cycles: insights into the pathophysiology of polycystic ovarian syndrome (PCOS). *J Clin Endocrinol Metab.* 2004;89:4343-4350.
 55. Welt CK, **Hall JE**, Adams JM, Taylor AE. Relationship of estradiol and inhibin to the FSH variability in hypergonadotropic hypogonadism or premature ovarian failure. *J Clin Endocrinol Metab.* 2005; 90: 826-830.
 56. **Hall JE**, Sullivan JP, Richardson GS. Brief wake episodes modulate sleep- inhibited LH secretion in the early follicular phase. *J Clin Endocrinol Metab.* 2005;90:2050-2055.
 57. Ellison ME, Hotamisligil S, Lee H, Rich-Edwards JW, Pang SC, **Hall JE**. Psychosocial risks associated with fertility treatment-related multiple births. *Fertil Steril.* 2005;83:1422-1428.
 58. Welt CK, Falorni A, Taylor AE, Martin KA, **Hall JE**. Selective theca cell dysfunction in autoimmune oophoritis results in multifollicular development, decreased estradiol and elevated inhibin B levels. *J Clin Endocrinol Metab.* 2005; 90:3069-3076.
 59. Lavoie HB, Marsh EE, **Hall JE**. Absence of apparent circadian rhythms of gonadotropins and free alpha-subunit in postmenopausal women: evidence for distinct regulation relative to other hormonal rhythms. *J Biol Rhythms* 2006;21:58-67.
 60. Pagan YL*, Srouji S*, Jimenez Y, Emerson AC, Gill S, **Hall JE**. Inverse relationship between LH and BMI in PCOS: Investigation of hypothalamic and pituitary contributions. *J Clin Endocrinol Metab* 2006;91:1309-1316. *contributed equally as first author
 61. Pitteloud N, Acierno JS, Meysing A, Eliseenkova AV, Ma J, Ibrahimi O, Metzger D, Hayes FJ, Dwyer AA, Hughes VA, Yialamas M, **Hall JE**, Grant E, Mohammadi M, Crowley WF. Mutations in fibroblast growth factor receptor 1 cause both Kallmann Syndrome and normosmic idiopathic hypogonadotropic hypogonadism. *Proc Natl Acad Sci* 2006;103:6281-6286.
 62. Joffe H, **Hall JE**, Gruber S, Sarmiento IA, Cohen LS, Yurgelun-Todd D, Martin KA. Estrogen therapy selectively enhances prefrontal cognitive processes: a randomized, double-blind, placebo-controlled study with functional magnetic resonance imaging in perimenopausal and recently menopausal women. *Menopause* 2006;13:411-422.
 63. Joffe H, Cohen LS, Suppes T, McLaughlin WL, Lavori P, Adams JM, Hwang CH, **Hall JE***, Sachs GS*. Valproate is associated with new-onset oligomenorrhea with hyperandrogenism

in women with bipolar disorder. *Biol Psychiatry*. 2006;59:1078-86. *contributed equally as senior author

64. Welt CK, Jimenez Y, Sluss PM, Smith PC, **Hall JE**. Control of estradiol secretion in reproductive aging. *Hum Reprod*. 2006;21:2189-93.
65. Murphy MK, **Hall JE**, Adams JM, Lee H, Welt CK. Polycystic ovarian morphology in normal women does not predict the development of polycystic ovary syndrome. *J Clin Endocrinol Metab*. 2006; 91(10):3878-84.
66. Joffe H, Cohen LS, Suppes T, Hwang CH, Molay FJ, Adams JM, McLaughlin WL, Sachs GS*, **Hall JE***. Longitudinal follow-up of reproductive and metabolic features of valproate-associated polycystic ovarian syndrome features. *Biol Psychiatry*. 2006; 60(12):1378-81. *contributed equally as senior author
67. Srouji SS*, Pagán YL*, D'Amato F, Dabela A, Jimenez Y, Supko JG**, **Hall JE**** . Pharmacokinetic factors contribute to the inverse relationship between luteinizing hormone and body mass index in polycystic ovarian syndrome. *J Clin Endocrinol Metab* 2007; 92:1347-52. *contributed equally as first author; **contributed equally as senior author
68. Pitteloud N, Quinton R, Pearce S, Raivio T, Acierno J, Dwyer A, Plummer L, Hughes V, Seminara S, Cheng Y-Z, Li W-P, MacColl G, Eliseenkova AV, Olsen SK, Ibrahim OA, Hayes FJ, Boepple P, **Hall JE**, Bouloux P, Mohammadi M, Crowley W Jr. Digenic mutations account for variable phenotypes in idiopathic hypergonadotropic hypogonadism. *J Clin Invest*. 2007; 117(2):457-63.
69. Joffe H, Gottschall H, Petrillo L, Soares CN, Viguera AC, **Hall JE***, Cohen LC* Treatment of premenstrual worsening of depression with adjunctive oral contraceptive pills: a preliminary report. *J Clin Psychiatry*. 2007 (in press) * contributed equally as senior author

Proceedings of Meetings

1. Santoro N, Filicori M, Wierman M, **Hall J**, Crowley WF. Hypogonadotropic hypogonadism in females. In: *The Episodic Secretion of Hormones*; New York: Churchill Livingstone, Inc.;1987. p. 247-56.
2. **Hall JE**, Taylor AE, Martin KA, and Crowley WF. Neuroendocrine investigation of PCOD: New approaches. In: *Polycystic Ovary Syndrome*. A Dunaif MD, J Givens MD, G Merriam MD, and F Haseltine MD, Ph.D. (eds); Cambridge, MA: Blackwell Scientific Publications, Inc.;1992. p. 39-50.
3. **Hall JE**, Crowley WF Jr. Use of GnRH antagonists as physiologic probes in the female. In: *Modes of Action of GnRH and GnRH Analogs*. PM Conn, WF Crowley Jr. (eds.) Sero Symposia 1991; New York: Springer-Verlag;1992. p. 310-321.
4. **Hall JE**. Physiology and pathophysiology of the female reproductive system. In: *Alcohol and the Endocrine System*; S Zakhari (ed); Research Monograph No. 23; NIH Publication No. 93-3533; US DHHS;1993. p. 117-137.
5. **Hall JE**, Taylor AE, Martin KA, Crowley WF. New approaches to the study of the neuroendocrine abnormalities of women with the polycystic ovarian syndrome. In: *Ann NY Acad Sci*; ;1993. p. 182-92.
6. Crowley WF, **Hall JE**, Martin KA, Adams J, Taylor AE. An overview of the diagnostic considerations in polycystic ovarian syndrome. In: *Intraovarian Regulators and Polycystic Ovarian Syndrome*; Philadelphia: Ann NY Acad Sci;1993. p. 235-241.
7. Crowley WF, **Hall JE**, Martin KA, Adams J, Taylor AE. An overview of the diagnostic considerations in polycystic ovarian syndrome. In: *Ann NY Acad Sci*; Philadelphia, PA;1993. p. 235-241.
8. Crowley WF, Taylor AE, Martin KA, Whitcomb RW, Finkelstein JS, **Hall JE**. Use of the free

- alpha subunit (FAS) of glycoprotein secreting hormones as a surrogate marker of GnRH secretion in the human. In: *Glycoprotein Hormones: Structure, Function and Clinical Implications*. JW Lusbader, JD Puett, R Ruddon (eds); USA: Serono Symposia;1994. p. 253-263.
9. Martin KA, **Hall J**, Adams J, Crowley WF Jr. Pulsatile GnRH in hypogonadotropic hypogonadism. In: *Ovulation Induction: Basic Science and Clinical Advances*. M Filicori, C Flamigni (eds); Amsterdam: Excerpta Medica;1994. p. 255-266.
 10. **Hall JE**, Crowley WF Jr. Elucidation of hypothalamic-pituitary-gonadal interactions in polycystic ovarian syndrome. In: *The Ovary: Regulation, Dysfunction and Treatment*. M Filicori and C Flamigni (eds); Amsterdam: Elsevier Science BV;1996. p. 287-293.
 11. Taylor AE, **Hall JE**. Disordered gonadotropin secretion in polycystic ovary syndrome. In: *The Ovary: Regulation, Dysfunction and Treatment*. M Filicori and C Flamigni (eds); Amsterdam: Elsevier Science BV;1996. p. 187-194.
 12. Schneyer AL, Wang QF, Weiss J, Boepple P, **Hall J**, Khoury R, Taylor A, Pralong F, Sluss P, Crowley WF. Follistatin physiology and potential mechanisms of action in the human. In: *Inhibin, Activin, Follistatin: Regulatory Function in System and Cell Biology*. Aono T, Sugino H and Vale WW (eds). Serono Symposia SA Publication; New York: Springer-Verlag;1997. p. 28-38.
 13. **Hall JE**, Taylor AE, Martin KA. Body weight and gonadotropin secretion in normal women and women with reproductive abnormalities. In: *Nutrition and Reproduction*, Wm Hansel, G Bray and D Ryan (eds); Baton Rouge, LA: Louisiana State University Press;1998. p. 378-393.
 14. **Hall JE**, Taylor AE, Martin KA, Crowley WF Jr. New Approaches to the study of the neuroendocrine abnormalities of women with the polycystic ovarian syndrome. In: *Intraovarian Regulators and Polycystic Ovarian Syndrome*; Philadelphia: Ann NY Acad Sci;1998. p. 182-192.
 15. Crowley WF Jr, **Hall JE**, Martin KA, Adams J, Taylor AE. An overview of the diagnostic considerations in polycystic ovary syndrome. In: *Polycystic Ovary Syndrome: A New Approach to Treatment*. Franks S and Neuman F (eds); Chester UK: Adis International;1998. p. 10-18.
 16. Hayes FJ, **Hall JE**, Crowley WF Jr. Inhibin secretion in men and women during the menstrual cycle. In: *Treatment of Infertility: the New Frontiers*. Filicori M, Flamigni D (eds); New Jersey: Communications Media for Education;1998. p. 85-96.
 17. Martin KA, **Hall JE**. Pulsatile GnRH in hypogonadotropic hypogonadism. In: *Ovulation Induction Update '98: Proceedings of the 2nd World Conference on Ovulation Induction*. M Filicori and C Flamigni (eds); London: The Parthenon Publishing Group;1998. p. 47-54.
 18. **Hall JE**. Physiologic and genetic insights into the pathophysiology and management of hypogonadotropic hypogonadism. In: *Ann Endocrinol (Paris)*;1999. p. 93-101.
 19. **Hall JE**, Welt CK. . In: 2000, pp. 151-167. Inhibin and female reproduction. In: *Endocrine Basis of Reproductive Function*. Filicori M (ed); Monduzzi Editore ;2000. p. 151-167.
 20. Taylor AE, **Hall JE**, Adams JM, Martin KA, Welt CK, Crowley WFC Jr. The physiology of the midcycle gonadotropin surge. In: *Ovulation: Evolving Scientific and Clinical Concepts*. Adashi EY (ed); New York: Springer-Verlag;2000. p. 79-97.
 21. **Hall JE**. Gonadotropin secretion in PCOS: In: *Updates in Infertility Treatment 2004*; Bologna, Italy: Monduzzi Editore;2004. p. 441-456.
 22. Cerrato F, Shagoury J, Beranova M, Dwyer A, Falardeau J, **Hall JE**, Hayes FJ, Pitteloud N, Martin KA, Welt C, Seminara SB. Coding sequence analysis of GNRHR and GPR54 in patients with congenital and adult-onset forms of hypogonadotropic hypogonadism. *Eur J Endocrinol*. 2006 Nov;155 Suppl 1:S3-S10.

Reviews/Chapters/Editorials

1. **Hall JE**. Females and Physical Activity. In: *Current Therapy in Sports Medicine 1985-1986*. R

- Shepherd (ed). Toronto: BC Decker, Inc;1985. p. 116-120.
2. **Hall JE**, Brodie TD, Badger TM, Rivier J, Vale W, Conn PM, Crowley WF. Physiologic effects of a gonadotropin- releasing hormone antagonist in normal women. In: GnRH Analogues in Cancer and Human Reproduction. BH Vickery, PhD and B Lunenfeld, MD (eds). Lancaster, England: MPT Press Limited;1990. p. 77-88.
 3. **Hall JE**. Menstrual cycle. In: Encyclopedia of Sleep and Dreaming. M Carskadon, A Rechtschaffen, G Richardson, T Roth, J Siegel (eds). New York: MacMillan Publishing Company;1992. p. 365-367.
 4. **Hall JE**. Polycystic ovarian disease as a neuroendocrine disorder of the female reproductive axis. In: Endocrine and Metabolism Clinics of North America. JD Veldhuis (ed). Philadelphia, PA: WB Saunders Company;1993. p. 75-92.
 5. Hall JE. GnRH antagonists: effects on the ovarian follicle and corpus luteum. In: Clinical Obstetrics and Gynecology. Barbieri R (ed). Philadelphia: J.B.Lippincott Co;1993. p. 744-752.
 6. **Hall JE**. Amenorrhea. In: Primary Care of Women. Carlson KJ and Eisenstat SA (eds). St. Louis: Mosby Year Book Publishers;1994. p. 214-221.
 7. **Hall JE** and Crowley WF Jr. Gonadotropins and the gonad: physiology and their disturbances in clinical endocrine disease. In: Endocrinology. DeGroot LJ (ed). Philadelphia: W.B.Saunders Co;1995. p. 242-258.
 8. Welt CK, **Hall JE**. Gonadotropin deficiency: differential diagnosis and treatment. In: Pituitary Disease: Diagnosis and Treatment. Wierman ME (ed). Totawa, NJ: Humana Press Inc;1997. p. 221-246.
 9. Hayes FJ, **Hall JE**, Crowley WF, Jr. Inhibin secretion in men and women during the menstrual cycle. In: Treatment of Infertility: The New Frontiers. Filicori M, Flamigni D (eds). New Jersey: Communications Media for Education;1998. p. 85-96.
 10. Seminara SB, **Hall JE**, Taylor AE, Crowley WF Jr, Martin KA. The Reproductive Endocrine Associates of the Massachusetts General Hospital: fifteen years of integrated clinical practice and investigation. J Clin Endocrinol Metab. 1999;84:1912-1918.
 11. **Hall JE**, Callahan TL. The economics of multiple gestation pregnancy. In: Iatrogenic Multiple Pregnancy: Clinical Implications. Blickstein I and Keith LG (eds). New York, NY: The Parthenon Publishing Group;2000. p. 185-96.
 12. **Hall JE**. Infertility and fertility control. In: Harrison's Principles of Internal Medicine. Braunwald E, Fauci AS, Kasper DL, Hauser SL, Longo DL, Jameson LJ (eds). New York, NY: The McGraw-Hill Companies, Inc;2000. p. 301-305.
 13. Joffe H, Taylor AE, **Hall JE**. Polycystic ovarian syndrome: relationship to epilepsy and antiepileptic drug therapy. In: J Clin Endocrinol Metab;2001. p. 2946-2949.
 14. **Hall JE**, Gill S. Neuroendocrine aspects of aging in women. In: Endocrinology & Metabolism Clinics of North America: Neuroendocrinology. A Klibanski (ed). Philadelphia, PA: WB Saunders Co.;2001. p. 631-646.
 15. Hayes FJ, **Hall JE**. Hirsutism and virilisation. In: Endocrinology in Clinical Practice. Harris P and Bouloux P (eds). London: Martin Dunitz Ltd.;2003. p. 201-216.
 16. Tortoriello DV, **Hall JE**. Menstrual dysfunction. In: Handbook of Diagnostic Endocrinology. **Hall JE** and Nieman LK (eds). Totawa, NJ: Humana Press Inc. 2003. p. 295-321.
 17. Joffe H, **Hall JE**, Cohen LS, Taylor AE, Baldessarini RJ. A putative relationship between valproic acid and polycystic ovarian syndrome: Implications for treatment of women with seizure and bipolar disorders. Harv Rev Psychiatry. 2003;11(2):99-108.
 18. **Hall JE**. Infertility and fertility control. In: Harrison's Principles of Internal Medicine. Braunwald E, Fauci AS, Kasper DL, Hauser SL, Longo DL, Jameson JL (eds). New York, NY: McGraw-

- Hill Companies, Inc;2004. p. 279-283.
19. **Hall JE**. Neuroendocrine physiology of the early and late menopause. In: Endocrine & Metabolism Clinics of North America. Santoro N and Chervanek J (eds). Philadelphia, PA: Elsevier Publishing;2004. p. 637-659.
 20. **Hall JE**. Neuroendocrine control of the menstrual cycle. In: Yen and Jaffe's Reproductive Endocrinology. J Strauss, R Barbieri (eds). Philadelphia, PA: Elsevier Publishing;2004. p. 195-211.
 21. Gill S, **Hall JE**. Neuroendocrinology. In: Essential Reproductive Medicine. Carr B, Blackwell, R, Azziz R (eds). New York, NY: McGraw-Hill Publishing;2004. p. 45-59.
 22. **Hall JE**, Callahan TL. Economic considerations. In: Multiple Pregnancy: Epidemiology, Gestation & Perinatal Outcome. Blickstein I and Keith LG (eds). Abington, UK: Taylor & Francis;2005. p. 889-894.
 23. Welt CK, **Hall JE**. Abnormal ovulation: hypothalamic and pituitary disorders. In: Endocrinology of Fertility and the Reproductive System: Practical Aspects. Spratt D, Santoro N (eds). Totawa, NJ: Humana Press Inc. 2005. p. 295-321.
 24. **Hall JE**. Normal and abnormal menstruation. In: 16 Women's Health. ACP Medicine Online. Dale DC, Federman DD, Eds. WebMD, Inc., New York 2006. p. 1-12.
 25. Lobo RA, Belisle S, Creasman WT, Frankel NR, Goodman NE, **Hall JE**, Ivey SL, Kingsberg S, Langer R, Lehman R, McArthur DB, Montgomery-Rice V, Notelovitz, M, Packin GS, Rebar RW, Rousseau M, Schenken RS, Schneider DL, Sherif K, Wysocki S. Should symptomatic menopausal women be offered hormone therapy? MedGenMed. 2006;8(3):40.
 26. **Hall JE**. Infertility and fertility control. In: Harrison's Endocrinology. JL Jameson (ed). New York: McGraw Hill Medical Publishing Division. 2006. p. 259-266.
 27. **Hall JE**. Neuroendocrine changes with reproductive aging in women. Semin Reprod Med. 2007;25:344-51.
 28. **Hall JE**. Menstrual disorders and pelvic pain. In: Harrison's Principles of Internal Medicine. Braunwald E, Fauci AS, Kasper DL, Hauser SL, Longo DL, Jameson JL, Loscalzo J (eds). New York, NY: McGraw-Hill Companies, Inc. 2007 (in press).
 29. **Hall JE**. Disorders of the ovary and female reproductive tract. In: Harrison's Principles of Internal Medicine. Braunwald E, Fauci AS, Kasper DL, Hauser SL, Longo DL, Jameson JL, Loscalzo J (eds). New York, NY: McGraw-Hill Companies, Inc. 2007 (in press).
 30. Gill S, Welt CK, Yialamas MA, **Hall JE**. Female reproduction. In: A Case-Based Textbook of Clinical Endocrinology. Davies TF (ed). Totawa, NJ, Humana Press, Inc. 2007 (in press).

Books, Monographs, and Textbooks

1. Handbook of Diagnostic Endocrinology, **Hall JE** and Nieman LK (eds). Totawa, NJ: Humana Press; 2003.

Clinical Communications

1. **Hall Jurkowski JE**. The female athlete: puberty, cycles and pregnancy. Sport Med Info. 1982;2(2).

Educational Materials

1. **Hall JE.** Polycystic Ovarian Syndrome. In: Clinical Endocrinology Update, pp. 516-525. 1992.
2. **Hall JE.** Hirsutism/Virilization Syndromes. In: Clinical Endocrinology Update, pp. 125-131. 1994.
3. **Hall JE.** Amenorrhea. In: Clinical Endocrinology Update, pp. 91-96. 1996.
4. **Hall JE.** Neuroendocrine Control of Reproduction: Puberty and the Normal Menstrual Cycle. In: International Symposium on Frontiers in Reproductive Endocrinology, pp. 47-53. 1997.
5. **Hall JE.** Menstrual Cycle Abnormalities: Diagnosis and Treatment. In: Clinical Endocrinology Update, pp. 227-232. 1998.
6. **Hall JE.** How to Link Basic Science to Clinical Investigation. In: Introduction to Molecular and Cellular Research, pp. 135-139. 1999.
7. Seminara S, **Hall JE.** Amenorrhea. PIER module. 2001.

Thesis

1. **Jurkowski [Hall] JE.** MSc Thesis: Physiological and hormonal responses to exercise in relation to the menstrual cycle. Hamilton, Canada: McMaster University;1979.

Abstracts

1. Ottowitz WE, Dougherty DD, Fischman AJ, **Hall JE.** PET studies in postmenopausal women reveal a decrease in cerebral metabolic rate in the hypothalamic area associated with estrogen negative feedback. (oral presentation). Endocrine Society 86th Annual Society Meeting. 2004.
2. Pagan YL, Keutmann HT, Everson AE, Jimenez YG, Yu WH, McCann SM, **Hall JE.** The effects of L-GnRHIII on selective FSH and LH release in humans. Endocrine Society 86th Annual Society Meeting, New Orleans, USA. 2004.
3. Ottowitz WE, Darin DD, Fischman A, **Hall JE.** Amygdalar functional connectivity during estrogen infusion: implications for spatial working memory performance under stress. Endocrine Society 87th Annual Meeting, San Diego, CA. 2005.
4. Ottowitz WE, Dougherty DD, Fischman A, **Hall JE.** Efficacy of PET for evaluation of amygdalar-prefrontal functional connectivity. Society of Nuclear Medicine Annual Meeting, 2005.
5. Joffe H, Dorsey C, Thurston R, Yehezkel R, Somley B, Petrillo L, Viguera A, **Hall JE,*** Cohen LS.* Predictors of improvement in mood in symptomatic peri/postmenopausal women. Society of Biological Psychiatry's 61st Annual Scientific Program and Convention, Toronto, Canada, May 2006.
6. Srouji S, Histed S, Gill, S Sluss P, **Hall JE.** LH half-life in postmenopausal women is prolonged by both estrogen withdrawal and aging. Endocrine Society 88th Annual Meeting, Boston, MA. 2006.
7. **Hall JE,** Dean D, Smith PC, Klerman EB. Sleep attenuates LH pulse frequency in the luteal as well as the early follicular phase in normal women. Endocrine Society 88th Annual Meeting, Boston, MA. 2006.
8. Ottowitz WE, Lindquist M, Derro D, Dougherty D, Fischman AJ, **Hall JE.** Correlation of suprahypothalamic neural network activity with the hypothalamus during estrogen infusion: employing path analysis in evaluation of the HPO axis. Endocrine Society 88th Annual Meeting, Boston, MA. 2006.
9. Raivio T, Cole LW, Hayes FJ, Seminara S, Plummer L, Hughes V, Dwyer A, Quinton R, Pearce S, **Hall JE,** Crowley WF Jr, Mohammadi M, Pitteloud N. FGF8 mutations cause idiopathic hypogonadotropic hypogonadism. Endocrine Society 89th Annual Meeting, Toronto, 2007.
10. **Hall JE,** Joffe H, Ottowitz WE, Fischman AJ, Dougherty DD. Effects of short-term estrogen

administration and aging on cortical activation in postmenopausal women. Endocrine Society 89th Annual Meeting, Toronto, 2007.

11. Srouji SS, Histed S, Sluss PM, Schneyer AL, **Hall JE**. Ovarian aromatase activity is increased in African-American compared with Caucasian women. Endocrine Society 89th Annual Meeting, Toronto, 2007.
12. Joffe H, McCurnin K, **Hall JE**. Hormone dynamics and sleep consequences of experimentally- induced hot flashes. Endocrine Society 89th Annual Meeting, Toronto, 2007.