

**Name:** William F. Crowley, Jr., M.D.

**Address:** 77 Kirkstall Road, Newtonville, MA 02460

**Date of Birth:** December 28, 1943

**Place of Birth:** Meriden, Connecticut

**Education:**

1965	B.A.	Holy Cross College (Honors Curriculum)
1969	M.D.	Tufts Medical School
1992	A.M.	Harvard University (Honorary)

**Postdoctoral Training:**

Internships and Residencies:

1969-1971	Intern & Assistant Resident in Medicine, Massachusetts General Hospital
1971-1973	General Medical Officer, Lieutenant, USNR, Naval Hospital, Newport, RI
1973-1974	Senior Resident in Medicine, Massachusetts General Hospital

Research Fellowships:

1974-1975	Clinical Fellow in Medicine, Massachusetts General Hospital and Harvard Medical School
1975-1977	Clinical and Research Fellow in Medicine, Massachusetts General Hospital and Harvard Medical School

**Licensure and Certification:**

1971	Massachusetts License Registration No. 56596
1974	American Board of Internal Medicine
1977	American Board of Internal Medicine (Endocrinology and Metabolism)

**Academic Appointments:**

1974-1976	Lecturer in Scientific Writing, Harvard College
1976-1980	Instructor in Medicine, Harvard Medical School
1980-1984	Assistant Professor of Medicine, Harvard Medical School
1984-1992	Associate Professor of Medicine, Harvard Medical School
1992-	Professor of Medicine, Harvard Medical School

**Hospital Appointments:**

1977-1982	Assistant in Medicine, Massachusetts General Hospital
1982-1984	Assistant Physician, Massachusetts General Hospital
1984-	Chief, Reproductive Endocrine Unit, Massachusetts General Hospital

1985-1987	Associate Physician, Massachusetts General Hospital
1987-1990	Director of Vincent Research Laboratories, MGH
1988-	Physician (Medicine), Massachusetts General Hospital
1990-	Member, Executive Committee on Research, MGH
1991-	Director, Reproductive Endocrine Sciences Center, Harvard University
1991-2002	Director, National Center for Infertility Research, at the Massachusetts General Hospital
1993-95	Chief, Endocrine Division, Massachusetts General Hospital
1993-94	Chairman, Massachusetts General Hospital Task Force on Clinical Research
1995-	Agenda Committee, Executive Committee on Research
1996-	Director of Clinical Research, Massachusetts General Hospital
1997-	Adjunct Professor, Faculty of the MGH Institute of Health Professions
1997-	Associate Physician, Brigham & Women's Hospital

**Awards and Honors:**

1965	Honors Curriculum Degree, Holy Cross College
1969	First Student Member, Curriculum Committee, Tufts Medical School
1969	Massachusetts Medical Society Award for Excellence in Medicine
1975-1978	Daland Fellowship, American Philosophical Society
1981	Leathem Lecturer, Rutgers University
1982	Israel Mackler Lecturer, Albert Einstein College of Medicine
1984	Invited Speaker, Laurentian Hormone Conference
1985	American Society of Clinical Investigation (ASCI)
1985	President's Award - Best Scientific Paper, Pan American Conference on Fertility
1985	American Society of Clinical Investigation
1982	Winkler Memorial Lecture, University of Buffalo
1989	Goldfarb Memorial Lecture, Vanderbilt University, Nashville
1989	Association of American Physicians
1989	Invited Speaker, Laurentian Hormone Conference
1992	Best Doctors in America
1994	Plenary Speaker, The American Fertility Society
1994	Interurban Club
1995	James M. Cuozzo Memorial Lecture, University of Pennsylvania
1996	Sandoz Lecturer, Canadian Endocrine Society
1996	Eric Reiss Memorial Lecture, University of Miami
1996	Eli Lilly Memorial Lecture, McGill University

1997	John Crigler Lecture, Boston Children's Hospital
1997	Presidential Lecture, Endocrine Society Annual Meeting
1998	Fuller Albright Award, Peripatetic Club
1999	Honorary Fellow of the Royal College of Physicians (Ire.)
1999	Clinical Investigator Award and Lecture, Endocrine Society
2000	Mentor of the Year Award, Women in Endocrinology. Endocrine Society
2002	GCRC Program Annual Award for Excellence in Clinical Research
2002	The Endocrine Society and Pharmacia Corporation International Award for Excellence in Published Clinical Research in the Journal of Clinical Endocrinology & Metabolism
2003	3 <sup>rd</sup> Robert L. Rosenfield Lecture, University of Chicago
2003	University Lecture Series, University of Texas Southwestern
2004	Sanctae Crucis Award, Holy Cross College, Worcester, MA
2005	Fred Conrad Koch Award, The Endocrine Society
2006	Keith Harrison Memorial Lecturer, Endocrine Society of Australia
2008	IPSEN Foundation Prize in Endocrinology

**Visiting Professorships & Honorary Lectures:**

1983	Visiting Professor, Yale University
1984	Visiting Professor, Duke University
1983	Visiting Professor, New York Obstetrical Society
1985	Visiting Professor, George Washington University
1989	Visiting Professor, University of Miami
1990	Visiting Faculty Member, Mayo Clinic
1990	Visiting Professor, University of Chicago
1994	Visiting Professor, University of Virginia (Charlottesville)
1995	Visiting Professor, Northwestern Medical School
1998	Visiting Professor, Dartmouth Medical School Visiting Professor, Michigan State University
2000	Visiting Professor, Albert Einstein School of Medicine
2001	Visiting Professor, Baylor College of Medicine
2001	James Givens Visiting Professor of Medicine, University of Tennessee, Memphis
2002	Visiting Professor, Northwestern Medical School
2002	Visiting Professor, St. Jude Children's Research Hospital
2003	Visiting Professor, University of Chicago
2003	Visiting Professor, University of Texas, Southwestern
2003	Buerki Visiting Professor, Henry Ford Hospital, Detroit
2004	Biennial Ernst Knobil Lecture, University of Pittsburgh

2004	John W. Ensinnck Visiting Lecture, University of Washington, Seattle
2004	First Neena B. Schwartz Lecture, Northwestern University, Chicago
2005	Visiting Professor, Morehouse School of Medicine, Atlanta
2006	Clinical Endocrinology Visiting Professor, UK
2006	Clinical Endocrinology Trust Visiting Professor Lecture, 8 <sup>th</sup> European Congress of Endocrinology
2007	The Landes/Merimon Keynote Address Speaker, University of North Carolina School of Medicine Student Research Day, Chapel-Hill
2007	Guest Lecturer, Annual Pediatric Endocrinology Symposium, Infants & Children's Hospital of Brooklyn at Maimonides and St. Barnabas Medical Center, Livingston, NJ
2007	Visiting Professor, University of Puerto Rico, San Juan

#### Major Committee Assignments:

##### Massachusetts General Hospital

1982-1985; 1997- 2000	Intern Selection Committee, Department of Medicine
1982-1999	MGH Clinical Research Center Steering Committee
1984-	Scientific Advisory Committee for General Clinical Research
1984-	Unit Chiefs Committee, Department of Medicine
1985-1990	Chairman, Visiting Professorship Committee, Department of Medicine, Mass. General Hospital
1984-1987	Committee on Research, Mass General Hospital
1990-	MGH Executive Committee on Research
1991-	Research Advisory Committee, Department of Medicine, Mass General Hospital
1991-1992	Physicians Retirement Panel, Mass General Hospital
1993-	Appointment and Promotions Committee, Department of Medicine
1994	Search Committee, Chairman of Pediatrics, Massachusetts General Hospital
1994-1995	Search Committee, Richardson Chairman Obstetrics and Gynecology, Harvard Medical School
1994	Liaison Committee on Governance and Administration, Harvard Medical School
1994-	Minority Mentorship Committee, MGH
1994-	Research Computer Advisory Committee, MGH
1994-1995	Steering Committee - MGH Strategic Planning Committee
1995	Integrated Human Physiology Course at Harvard

	Medical School
1995	Information Resources Strategic Planning Group, MGH
1996-	Chiefs Council, MGH
1996-	General Executive Committee, MGH
1996-	Medical House Staff Mentoring Committee
1996	Executive Committee, MGH Center for Procedural Medicine
1996-	Partners Research Council
1996-	Advisory Committee, Training Program in Cancer Biology
1997-	Faculty Standing Committee, M.D.-Ph.D. Program, HMS
1997-	Partners Task Force on Genetics
1998	Partners Genetics Search Committee
1998-	Massachusetts General Hospital, Department of Medicine Academic Council
1998	Massachusetts General Hospital Informed Consent Committee (Ad Hoc)
1998-2001	Chairman, Massachusetts General Hospital, Department of Medicine Awards Committee
1999	Harvard Medical School Search Committee for Director, Endocrine Division (Brigham & Women's Hospital)
1999-2000	Partners Strategic Branding Advisory Committee
2000	Partners Search Committee for Director of Human Research Affairs
2000	HMS Masters Program, Executive Committee, Scholars in Clinical Science
2003-2004	MGH Strategic Planning Steering Committee
2003-	Partners Steering Committee for Genetics & Genomics
2004-05	Chairman, Internal Advisory Committee, I2B2 Grant
2004-	HPCGG Outstanding Geneticist Award Committee
2005-	HPCGG Personalized Medicine Organizing Committee
2005-	HMS CTSA Executive Committee
2006-	PHS Genetics Enters Medicine Committee
2006-	Vice Chair, Thematic Directors Centers Executive Committee
2006-	i2b2-PHS Advisory Committee (iPAC)

#### National and Regional

1979-1980	Consultant, Center for Population Research, NICHD, National Institutes of Health
1979-1994	Consultant, Contract Advisory Board, Contraceptive Development Branch, NICHD, National Institutes of Health
1984	Five Year Planning Committee, NICHD, National Institutes of Health

1986-1988	Technical Advisory Committee, Contraceptive Research and Development (CONRAD), University of Eastern Virginia Medical Center
1986-	Advisory Committee, Contraceptive Development Branch, National Institute of Child Health and Development, NIH
1986-1988	Advisory Committee, National Hormone and Pituitary Program, NIH
1986 1987-	Advisory Committee on Extramural Research, NIAMD Consultant, Endocrine and Metabolism Division, Food and Drug Administration
1990-1991	Member, MacArthur Foundation, Health and Behavior Network
1992-1995 1996-1999	Publications Committee, Endocrine Society Consultant, NIH Director's Panel On Clinical Research
1999-2000	Board of Directors, Federation of Societies of Experimental Biology (FASEB)
1999-2000	Executive Committee, Federation of American Societies for Experimental Biology (FASEB)
2000-2004	Clinical Research Roundtable, Institute of Medicine, National Academy of Sciences
2004-	Board of Advisors, Center for Information and Study On Clinical Research Participation (CISCRP)
2004-	Member, Central Committee of the International Society for Endocrinology, Endocrine Society
2006	NICHD Reproductive Sciences Branch Expert Panel, Portfolio Review Committee

### Industrial Experience

1983-1990 1983-	Consultant, Ferring Pharmaceutical Company Consultant, Abbott Diagnostics Laboratories
1984-1994	Consultant, Ortho Pharmaceutical Company
1985-1994	Consultant, Genentech Inc.
1990-1994	Member, Pharmaceutical Scientific Advisory Board, Johnson & Johnson Pharmaceuticals
1993	Consultant, Janssen Pharmaceuticals
1993-1998	Scientific Advisory Board, Women's Health Institute, Wyeth-Ayerst Pharmaceuticals
1993-1995	Scientific Advisory Board, Metpath, Inc.
1994-2000	Consultant, PRAECIS Pharmaceuticals Inc. Cambridge, MA
1996-	Co-Founder (with R. Langer, Ph.D), & Chair, Scientific Advisory Board Combinent BioMedical Systems, Inc., Boston, MA
1997-2000	Scientific Advisory Board, Ligand Pharmaceuticals, San Diego, CA
1999-2002	Consultant, Transkaryotic Therapies, Cambridge, Ma

2001-2006	Consultant, Takeda Pharmaceuticals, Chicago, Ill.
2003-2005	Consultant and Member, Scientific Advisory Board, QUOSA.com, Boston
2004-05	Consultant, Novartis Pharmaceuticals
2004	Consultant, Ferring Pharmaceuticals
2005	Senior Advisory Board, Nephromics
2006	Senior Advisory Board, Proventys, Inc.

**Academic Industrial Liaisons:**

Established Partners Healthcare Inc./Millennium Collaboration, 1999  
 Established Partners Healthcare Inc./deCODE. Collaboration, 1999  
 Established Partners Healthcare, Inc./MDS Proteomics Collaboration, 2000  
 Established Partners Healthcare, Inc./Thermo-Finnigan Collaboration, 2001

**Memberships, Offices and Committee Assignments in Professional Societies:**

1976 -	New York Academy of Sciences
1980 -	The Endocrine Society
1980 -	American Federation of Clinical Research
1984 -	Massachusetts Medical Society
1987-1990	Scientific Program Committee, Endocrine Society (Chairman, 1990)
1985-	American Society of Clinical Investigation (ASCI)
1986-	Society for the Study of Reproduction
1989-	Association of American Physicians (AAP)
1991-	Lawson-Wilkins Society
1992-1995	Publications Committee, Endocrine Society
1994-	Interurban Club
1996-1997	Nominating Committee, Endocrine Society Chairman (1996-7)
1996-1998	Peripatetic Club
1996-1998	Chairman, Professional Affairs Committee, The Endocrine Society
1997-	Human Genome Organization (HUGO)
1997-2000	Council of The Endocrine Society
1997-	Fellow, Molecular Medicine Society
1998-	Long Range Planning Committee, The Endocrine Society
1999-2002	Executive Committee, The Endocrine Society
2000-2001	President-elect, The Endocrine Society
2001-2002	President, The Endocrine Society
2002-2003	Past-President, The Endocrine Society
2004-2006	Member, Nominating Committee, Endocrine Society
2005-2009	Member, Awards Committee, Endocrine Society
2006-	Member, American Clinical & Climatological Association
2007-	Fellow, American College of Physicians

**PAST AND PRESENT RESEARCH SUPPORT MECHANISMS**

**A.) PAST SUPPORT**

7/1/76-6/30/79	<p>NRSA-T32-AM07028  Therapeutic mole of LHRH and its analogues in hypogonadotropic dis  Role: Trainee  Annual Cost: \$37,800.</p>
1/1/79-6/30/82	<p>K08-AM-000573  Clinical Investigator Award.  Therapeutic use of LRF and its long-acting  analogue.  Role: PI  Total Cost: \$105,000.</p>
9/30/83-11/89	<p>N01-HD-32837  Clinical Pharmacology of an LHRH Antagonist.  Role: PI  Total Cost: \$588,036.</p>
12/1/87-11/30/89	<p>Grantee  Andrew Mellon Foundation.  Alteration of the Biological Activity of Follicle  Stimulating Hormone by Gonadal Secretions and Manipulations with  Role: PI  Total Cost: \$170,000.</p>
7/1/81-11/95	<p>R01-HD-15788  LHRH Physiology in Man: in Vivo And In Vitro  Approaches  Role: PI  Annual Cost (1994-95): \$102,705.</p>
7/1/83-6/30/98	<p>R01-HD-18169  Neuroendocrine - Gonadal function in puberty.  Role: PI 1983-1995</p>
5/1/91-4/30/00	<p>P30-HD-28138  Reproductive Endocrine Sciences Center  Role: PI  Annual Direct Cost (2000): \$480,990..</p>
7/1/91-6/30/01	<p>T32-HD-07396  Training Program in Reproductive and  Developmental Biology.  Role: PI  Annual Direct Cost (2003): \$57,000.</p>
9/30/91-3/31/02	<p>U54-HD-29164  National Center for Infertility Research at MGH.  Role: PI &amp; Center Director  Annual Direct Cost (2002): \$956,464</p>

**B.) ACTIVE SUPPORT**

7/1/81-6/30/07	5R01HD15788 F17 Male Reproductive Physiology in the Human Approaches. Role: PI Current Annual Direct Cost: \$255,462
4/01/79-3/31/10	5U54HD28138-16 Harvard-wide Center of Excellence in Reproduction Neuroendocrine & Gonadal Control of Male Reproduction Role: PI and Center Director Current Annual Direct Cost: \$937,704
7/15/91-4/30/07	T32HD07396-14 Training Program in Reproductive & Experimental Biology Role: PI Annual Director Cost: \$115,968
9/26/02-3/31/07	5U01HD044417-05 The Genetics of Polycystic Ovarian Syndrome Role: PI Annual Direct Cost: \$364,293.

**Editorial Boards:**

1983-1987;2004-	Journal of Clinical Endocrinology and Metabolism
1983-1988	Acta Endocrinologica
1985-1993	International Journal of Fertility
1986-1989	Annals of Internal Medicine
1987-	Neuroendocrinology
1988-1991	Endocrinology
1989-1992	Molecular and Cellular Neurosciences
1990-	Associate Editor, The Endocrinologist
1990-1991	Editor, Endocrine Reviews
1995-1999	Endocrine Reviews
1997-	American Journal of Medicine
1999	Advisory Board, Endocrine Reviews

**Major Research Interests:**

1. Neuroendocrine and genetic control of reproduction and growth in the human
2. Physiology of gonadotropin secretion
3. Physiology and Genetics of puberty
4. Genetic Control of Human Reproduction
5. Clinical Investigation

### Principal Clinical and Hospital Service Responsibilities:

1979-1987	Director of Clinical Research and Education, Vincent Memorial Research Laboratories, Massachusetts General Hospital
1983-1987	Co-Director of Fellowship Training, Vincent Memorial Research Laboratories, Massachusetts General Hospital
1987-1990	Director of Vincent Memorial Research Laboratories, Massachusetts General Hospital
1984-	Chief, Reproductive Endocrine Unit, Department of Medicine, Massachusetts General Hospital
1993-95	Chief, Endocrine Division, Department of Medicine, Massachusetts General Hospital
1996-	Director of Clinical Research, Massachusetts General Hospital

### Major Administrative Responsibilities:

1991-2005	Center Director, Reproductive Endocrine Sciences Center at Harvard University (NICHD Center of Excellence)
1991-2000	Center Director, Center for Infertility Research at MGH (NICHD Center of Excellence)
1993-1994	Chairman, MGH Task Force on Clinical Research
1996-	Director of Clinical Research, Massachusetts General Hospital
1996-	Founder, Academic Health Center Clinical Research Forum
2001-	Co-Director, Clinical Research, Partners HealthCare System, Inc.

### Teaching Experience:

1978-	Attending Physician, Baker Medical Service, Massachusetts General Hospital
1979-	Attending Physician, Bigelow Medical Service, Massachusetts General Hospital
1979-	Attending Physician, Endocrine Consultation Service, Massachusetts General Hospital

### Bibliography - Original Reports

1. **Crowley WF**. Hypertension and peripheral edema in a man with suprarenal mass. *N Engl J Med* 1976; 295:774-77.
2. **Crowley WF**, Ridgway EC, Bough EW, Francis GS, Daniels GH, Kourides IA, Myers GS, Maloof F. Noninvasive evaluation of cardiac function in hypothyroidism. Response to gradual thyroxin replacement. *N Engl J Med* 1977; 296:1-6.
3. Bough EW, **Crowley WF**, Ridgway EC, Walker H, Maloof F, Myers GS, Daniels GH. Myocardial function in hypothyroidism. Relation to disease severity and response to treatment. *Arch Intern Med* 1978; 138:1476-80.

4. Hall DA, Hann LE, Ferrucci JT, Black EB, Braitman BS, **Crowley WF**, Nikrui N and Kelley JA. Sonographic morphology of the normal menstrual cycle. *Radiology* 1979; 133:185-88.
5. **Crowley WF**, Beitins IZ, Vale W, Kliman B, Rivier J, Rivier C, McArthur JW. The biologic activity of a potent analogue of gonadotropin-releasing hormone in normal and hypogonadotropic men. *N Engl J Med* 1980; 302:1052-57.
6. **Crowley WF**, McArthur JW. Simulation of the normal menstrual cycle in Kallmann's syndrome by pulsatile administration of luteinizing hormone-releasing hormone (LHRH). *J Clin Endocrinol Metab* 1980; 51:173-75.
7. **Crowley WF**. Development of a male contraceptive - a beginning. *N Engl J Med* 1981; 305:695-96.
8. **Crowley WF**, Comite F, Vale W, Rivier J, Loriaux DL, Cutler GB. Therapeutic use of pituitary desensitization with a long-acting LHRH agonist: a potential new treatment for idiopathic precocious puberty. *J Clin Endocrinol Metab* 1981; 52:370-72.
9. Loughlin JS, Badger TM, **Crowley WF**. Perfused pituitary cultures: a model for LHRH regulation of LH secretion. *Am J Physiol* 1981; 240:E591-96.
10. Comite F, Cutler GB, Rivier J, Vale WW, Loriaux DL, **Crowley WF**. Short-term treatment of idiopathic precocious puberty with a long-acting analogue of luteinizing hormone-releasing hormone. A preliminary report. *N Engl J Med* 1981; 305:1546-50.
11. Hier DB, **Crowley WF**. Spatial ability in androgen-deficient men. *N Engl J Med* 1982; 306:1202-5.
12. Hoffman AR, **Crowley WF**. Induction of puberty in men by long-term pulsatile administration of low-dose gonadotropin-releasing hormone. *N Engl J Med* 1982; 307:1237-41.
13. Mansfield MJ, Beardsworth DE, Loughlin JS, Crawford JD, Bode HH, Rivier J, Vale W, Kushner DC, Crigler JF and **Crowley WF**. Long-term treatment of central precocious puberty with a long-acting analogue of luteinizing hormone-releasing hormone. *N Engl J Med* 1983; 309:1286-90.
14. Filicori M, Hall DA, Loughlin JS, Rivier J, Vale W, **Crowley WF**. A conservative approach to the management of uterine leiomyoma: pituitary desensitization by a luteinizing hormone-releasing hormone analogue. *Am J Obstet Gynecol* 1983; 147:726-27.
15. Conn PM, Hsueh AJW, **Crowley WF**. Gonadotropin-releasing hormone: Molecular and cell biology, physiology, and clinical applications. *Fed Proc* 1984; 43:2351-61.

16. Filicori M, Butler JP, **Crowley WF**. Neuroendocrine regulation of the corpus luteum in the human. Evidence for pulsatile progesterone secretion. *J Clin Invest* 1984; 73:1638-47.
17. Dunaif A, Scully RE, Andersen RN, Chapin DS, **Crowley WF**. The effects of continuous androgen secretion on the hypothalamic-pituitary axis in women: Evidence from a luteinized thecoma of the ovary. *J Clin Endocrinol Metab* 1984; 59:389-93.
18. Dunaif A, Longcope C, Canick J, Badger T, **Crowley WF**. The effects of the aromatase inhibitor <sup>1</sup> testolactone on gonadotropin release and steroid metabolism in polycystic ovarian disease. *J Clin Endocrinol Metab* 1985; 60:773-80.
19. Wierman ME, Beardsworth DE, Mansfield MJ, Badger TM, Crawford JD, Crigler JF, Bode HH, Loughlin JS, Kushner DC, Scully RE, Hoffman WH, **Crowley WF**. Puberty without gonadotropins: a unique mechanism of sexual development. *N Engl J Med* 1985; 312:65-72.
20. Spratt DI, **Crowley WF**, Butler JP, Hoffman AR, Conn PM, Badger TM. Pituitary luteinizing hormone responses to intravenous and subcutaneous administration of gonadotropin-releasing hormone in men. *J Clin Endocrinol Metab* 1985; 61:890-95.
21. Dunaif A, Hoffman AR, Scully RE, Flier JS, Longcope C, Levy LJ, **Crowley WF**. Clinical, biochemical, and ovarian morphologic features in women with acanthosis nigricans and masculinization. *Obstet Gynecol* 1985; 66:545-52.
22. **Crowley WF**, Filicori M, Spratt DI, Santoro NF. The physiology of gonadotropin-releasing hormone (GnRH) secretion in men and women. *Rec Prog Horm Res* 1985; 41:473-531.
23. Spratt DI, Chin WW, Ridgway EC, **Crowley WF**. Administration of low dose pulsatile gonadotropin-releasing hormone (GnRH) to GnRH-deficient men regulates free  $\alpha$ -subunit secretion. *J Clin Endocrinol Metab* 1986; 62:102-8.
24. Wierman ME, Beardsworth DE, Crawford JD, Crigler JF, Mansfield MJ, Bode HH, Boepple PA, Kushner DC, **Crowley WF**. Adrenarche and skeletal maturation during luteinizing hormone releasing hormone analogue suppression of gonadarche. *J Clin Invest* 1986; 77:121-26.
25. Santoro N, Wierman ME, Filicori M, Waldstreicher J, **Crowley WF**. Intravenous administration of pulsatile gonadotropin-releasing hormone in hypothalamic amenorrhea: effects of dosage. *J Clin Endocrinol Metab* 1986; 62:109-16.
26. Butler JP, Spratt DI, O'Dea LStL, **Crowley WF**. Interpulse interval sequence of LH in normal men essentially constitutes a renewal process. *Am J Physiol* 1986; 250:E338-40.

27. Hall DA, **Crowley WF**, Wierman ME, Simeone JF, McCarthy KA. Sonographic monitoring of LHRH analogue therapy in idiopathic precocious puberty in young girls. *J Clin Ultrasound* 1986; 14:331-38.
28. Veldhuis JD, Samojlik E, Evans WS, Rogol AD, Ridgway CE, **Crowley WF**, Kolp L, Checinska E, Kirscher, MA, Thorner MO, Stumpf P. Endocrine impact of pure estradiol replacement in postmenopausal women: alterations in anterior pituitary hormone release and circulating sex steroid hormone concentrations. *Am J Obstet & Gynecol* 1986; 155:334-39.
29. Spratt DI, Finkelstein JS, Badger TM, Butler JP, **Crowley WF**. Bio- and immunoactive luteinizing hormone responses to low doses of gonadotropin-releasing hormone (GnRH): dose-response curves in GnRH-deficient men. *J Clin Endocrinol Metab* 1986; 63:143-50.
30. Filicori M, Santoro N, Merriam GR, **Crowley WF**. Characterization of the physiologic pattern of episodic gonadotropin secretion throughout the human menstrual cycle. *J Clin Endocrinol Metab* 1986; 62:1136-44.
31. Spratt DI, Finkelstein JS, O'Dea LStL, Badger TM, Rao PN, Campbell JD, **Crowley WF**. Long-term administration of gonadotropin-releasing hormone in men with idiopathic hypogonadotropic hypogonadism: a model for studies of the hormone's physiologic effects. *Ann Intern Med* 1986; 105:848-55.
32. Boepple PA, Mansfield MJ, Wierman ME, Rudlin CR, Bode HH, Crigler JF, Crawford JD, **Crowley WF**. Use of a potent, long acting agonist of gonadotropin-releasing hormone in the treatment of precocious puberty. *Endocrine Reviews* 1986; 7:24-33.
33. Santoro N, Filicori M, Spratt D, **Crowley WF**. Gonadotropin-releasing hormone (GnRH) physiology in men and women. *Acta Medica Hungarica* 1986; 43:201-21.
34. Santoro N, Filicori M, **Crowley WF**. Hypogonadotropic disorders in men and women: diagnosis and therapy with pulsatile gonadotropin-releasing hormone. *Endocrine Reviews* 1986; 7:11-23.
35. **Crowley WF**. Progesterone antagonism. *N Engl J Med* 1986; 315:1607-08.
36. Waldhauser F, Lieberman HR, Lynch HJ, Waldhauser M, Herkner K, Frisch H, Vierhapper H, Waldhausl W, Schemper M, Wurtman RJ, **Crowley WF**. A pharmacological dose of melatonin increases PRL levels in males without altering those of GH, LH, FSH, TSH, testosterone, or cortisol. *Neuroendocrinology* 1987; 46:125-30.
37. Spratt DI, Carr DB, Merriam GR, Scully RE, Rao PN, **Crowley WF**. The spectrum of abnormal patterns of gonadotropin-releasing hormone secretion in men with idiopathic hypogonadotropic hypogonadism: clinical and laboratory correlations. *J Clin Endocrinol Metab* 1987; 64:283-291.

38. Spratt DI, Finkelstein JS, Butler JP, Badger TM, **Crowley WF**. Effects of increasing the frequency of low doses of gonadotropin-releasing hormone (GnRH) on gonadotropin secretion in GnRH-deficient men. *J Clin Endocrinol Metab* 1987; 64:1179-86.
39. Klibanski A, Deutsch PJ, Jameson JL, Ridgway EC, **Crowley WF**, Hsu DW, Habener JF, Black PMCL. Luteinizing hormone-secreting pituitary tumor: biosynthetic characterization and clinical studies. *J Clin Endocrinol Metab* 1987; 64:536-42.
40. Finkelstein JS, Klibanski A, Neer RM, Greenspan SL, Rosenthal DI, **Crowley WF**. Osteoporosis in men with idiopathic hypogonadotropic hypogonadism. *Ann Intern Med* 1987; 106:354-61.
41. Phillips A, Hahn DW, Klimek S, McGuire JL, **Crowley WF**. Sensitivity differences in reproductive/endocrine organs to chronically administered LHRH agonists in female rats. *Life Sci* 1987; 40:1379-89.
42. Boepple PA, Mansfield MJ, Link K, Crawford JD, Crigler JF, Kushner DC, Blizzard RM, **Crowley WF**. Impact of sex steroids and their suppression on skeletal growth and maturation. *Am J Physiol* 1988; 255:E559-66.
43. Mansfield MJ, Rudlin CR, Crigler JF, Karol KA, Crawford JD, Boepple PA, **Crowley WF**. Changes in growth and serum growth hormone and plasma somatomedin-C levels during suppression of gonadal sex steroid secretion in girls with central precocious puberty. *J Clin Endocrinol Metab* 1988; 66:3-9.
44. 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; 67:524-31.
45. 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; 66:165-72.
46. Spratt DI, O'Dea LStL, Schoenfeld D, Butler J, Rao PN, **Crowley WF**. Neuroendocrine-gonadal axis in men: frequent sampling of LH, FSH and testosterone. *Am J Physiol* 1988; 254:E658-66.
47. Spratt DI, **Crowley WF**. Pituitary and gonadal responsiveness is enhanced during GnRH-induced puberty. *Am J Physiol* 1988; 254:E652-7.
48. Finkelstein JS, Badger TM, O'Dea L StL, Spratt DI, **Crowley WF**. Effects of decreasing the frequency of gonadotropin-releasing hormone stimulation on gonadotropin secretion in gonadotropin-releasing hormone-deficient men and perfused rat pituitary cells. *J Clin Invest* 1988; 81:1725-33.

49. Finkelstein JS, McCully WF, MacLaughlin DT, Godine JE, **Crowley WF**. The mortician's mystery: gynecomastia and reversible hypogonadotropic hypogonadism in an embalmer. *N Engl J Med* 1988; 318:961-5.
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