

CURRICULUM VITAE (rev. 7/13)

REINHOLD JOSEF HUTZ

PLACE OF BIRTH: Salzburg, Austria (Naturalized U.S. Citizen, 1972)

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RESEARCH/PROFESSIONAL EXPERIENCE:

- 2008-Present . Investigator, NIEHS-supported Children's Environmental Health Sciences Core Center, University of Wisconsin-Milwaukee (UWM) and the Children's Research Institute (CRI) of Children's Hospital and Health System, Department of Pediatrics, Medical College of Wisconsin (<http://www4.uwm.edu/cehsc/>); Associate/Interim Director, Career Development; and UWM School of Public Health
- 2003-2005 . Interim Associate Dean for Research, Graduate School, University of Wisconsin-Milwaukee
- 2001-2007 . Leader, Basic Sciences Core, Institute of Environmental Health, University of Wisconsin-Milwaukee
- 1999-Present . Associate Adjunct Professor, Departments of OB/GYN (primary) (1991); Physiology (1996); and Pharmacology and Toxicology, Medical College of Wisconsin, Milwaukee
- 1998-Present . Professor, Department of Biological Sciences, University of Wisconsin-Milwaukee; School of Freshwater Sciences (2010); School of Public Health (2011, expected)
- 1993-2007 . Investigator (Deputy Director, 1997-2006), NIEHS Marine and Freshwater Biomedical Sciences Center, Great Lakes Wisconsin Aquatic Technology and Environmental Research (WATER) Institute, University of Wisconsin, Milwaukee. (Group Leader, "Signal transduction and endocrine disruption")
- 1993-1997 . Director, Graduate Studies in Biological Sciences (co-Director, 2001-2002)
- 1992-Present . Affiliate, Women's Studies Program, University of Wisconsin-Milwaukee
- 1992-1998 . Associate Professor with Tenure; Department of Biological Sciences, University of Wisconsin-Milwaukee.
- 1987-Present . Affiliate Scientist; Wisconsin National (formerly Regional) Primate Research

Center, University of Wisconsin-Madison.

- 1986-1992 . Assistant Professor; Department of Biological Sciences, University of Wisconsin-Milwaukee.
- 1983-1986 . Postdoctoral Research Associate; Wisconsin Regional Primate Research Center, Madison, Wisconsin (Reproductive Endocrinology; Dr. D.J. Dierschke, supervisor. Primary research area: Effects of estrogens on folliculogenesis.)
- 1980-1983 . Ph.D.; Michigan State University, East Lansing, Michigan (Physiology; Dr. W.R. Dukelow, advisor. Dissertation: Biochemical aspects of embryonic development in primates following fertilization in vitro.)
- 1978-1980 . M.S.; Loyola University of Chicago, Chicago, Illinois (Biology; Dr. J.J. Peluso, advisor. Thesis: Aging effects on ovum maturation and RNA and protein syntheses in vitro.)
- 1974-1978 . B.S.; Loyola University of Chicago, Chicago, Illinois (Biology)

AWARDS AND HONORS:

Chartered member, ALTX-4 Study Section, National Institutes of Health (NIH), 2001-2003; recent grant awards, NIH R15 ES011569, 2002-2006, "Modulation by dioxin of ovarian estrogen synthesis"; NIH RO1 ES08342, 1996-2001, "PAH action on ovarian steroidogenesis *in vitro*"; NIH R15 ES06807, 1995-1998, "Molecular basis for TCDD modulation of estrogen at ovary"; NIH R13 RR07778, 1992-93, "New directions in primate reproduction" conference grant. Co-Recipient, Japanese Ministry of Education travel grant (MONBUSHO), 1998-2001.

Listed, "Who's Who in America", 2001-2004, 2009, 2013, 2014 (68th Edition); "Who's Who in the World", 1997; Recipient, 1996 Graduate School/UWM Foundation Annual Research Award; Listed, "American Men and Women of Science, 1996, 2002, 2004/05, 2006, 2009; "Who's Who in Science and Engineering in America," 1994/5; Senior Fellow, Japan Society for the Promotion of Science (JSPS) in collaboration with Fogarty International Center, NIH, Tokyo University of Agriculture and Technology (TUAT), April 1996. Travel Fellow, Burroughs-Wellcome Fund, National University of Ireland- (formerly University College-) Galway, Ireland, June/July 1997. Fulbright Senior Specialist in Environmental Science, 2003-2008 (TUAT, Tokyo, Japan, 2004, 2008). Invited module speaker, Annual Meeting of the Soc for the Study of Reproduction (SSR), Montreal, Québec, Canada, July, 2013.

PROFESSIONAL ACTIVITIES:

Editorial Board Member, *Annual Review and Research in Biology*, *International Journal of Advanced Veterinary Medicine*, *J Anim Sci Advances* (Global Researchers Journals), *World Journal of Methodology*, 2011; *Animals*, 2010 ("Open Access" journal); Consulting ("Action") Editor, *American Journal of Primatology*, 1989-2004; member, Advisory Board, *Primates*, 1996-2013; Scientific Board, *Fish and Fisheries Research*, peer-reviewed on-line journal; review board, *Ind. J. Exp. Biol.*; registered referee *Reprod Biol Endocrinol* (2010); invited BioSection Editor, *Am. J. Applied Sciences*, 2008; ad-hoc reviewer: *Agricultural Sciences in China*, *Amer J*

Obstet Gynecol, Amer. J. Physiol., Animal Reproduction Sci, Biology of Reproduction, Biotechnic and Histochemistry (formerly Stain Technology), Brain Research, Chem Res Toxicol, Comp. Beh. Physiol, Comp Biochem Physiol, Chemico-Biol Interactions, Current Med Chem, Ecotox Env Safety, Endocrinology, Endocrine (Journal), Environ Health Perspect, Environmental Res, Fertil Steril, Food Chem Toxicol, Histochemistry and Cell Biology), Int. J of Primatology, J Andrology (now Andrology), J Clin Endo Metab, J Med Primatol, J Neuroendocrinology, J Nutr Biochem, J Reprod Genetics, J Zhejiang University Science, Life Sciences, Mol Cell Endocrinol, Mol Endocrinol, Planta Medica, Reproduction (formerly, Journal of Reproduction and Fertility), Reprod Nutrition Develop, Reprod Toxicol, Science of the Total Environment, Toxicology, Toxicol Lett, Toxicological Sci, Toxicology, Toxicol Appl Pharmacol, Vaccine.

Reviewer NIH, SEP, Superfund, Sept./October 1999, 2004, 2005, 2007. Reviewer, Raine Foundation., Australia, 2007. Ad-hoc reviewer, ARP Study Sections, Special Review Committees (e.g., RFAs and Superfund projects), and SEPs, NIH 1990-99, 2003-2005 (EMNR), 2011 (ZES-1 JAB-J(BP), 2012 (R13); *ad-hoc*, ALTX-4, 2000, CDC/ATSDR, 2003; March of Dimes" grant applications, NSF Research and Travel Grants, "Anatomy and Physiology" texts and software; member; NIH Site Visit Team, Animal Resources Review Committee, to California National Primate Res. Ctr., 1989, 1999.

Co-inventor, International Patent application, (WO/1995/030434) METHODS BASED ON THE ROLE OF NEUROTROPHIN 3 IN FEMALE REPRODUCTION, World Intellectual Property Organization, 1995, <http://www.wipo.int/pctdb/en/wo.jsp?wo=1995030434>, Regeneron Pharmaceuticals, applicant.

Elected Treasurer, International Primatological Society, 1992-1996; Chair, Election Counting Committee, Amer. Soc. Primatol., 1988. Chair, Education Committee, Amer. Soc. Primatol., 1988-90. Member, Election Committee, Int'l Primatol. Soc., 1991. Chair, Program Committee, Amer. Soc. Primatol., 1990-1992, organized bi-national meetings: Veracruz, Mexico and Toronto, Canada-- scientific conference program/corporate sponsorship organizer, and logistics (local arrangements and travel accommodations); and Chair, History Committee, International Primatol. Soc., 1990-1992. Invited Session Chairman, "Socioendocrinology and Environmental Physiology," XIIIth Congress of the Int'l Primatol Soc., Nagoya, Japan, 1990. Invited Symposium Organizer, "New Directions in Primate Reproduction," Int'l. Primatol. Soc., Strasbourg, France, 1992. Invited interviewee, Directorship of the German Primate Center (DPZ), Göttingen, Germany, December 1991 (C4/W3 position). Participant, training course in "Molecular Techniques in Aquatic Biomedical Research"; NIEHS Core Center, Milwaukee, WI, July 6-31, 1993. Invited lecturer, Embryology and Andrology National Review Course for Certification of Directors of *In-vitro* Fertilization clinics, sponsored by Amer. Assoc. of Bioanalysts, Chicago, IL, August 27-28, 1994; April 15, 2000. Co-convener, Symposium on "Physiology and Toxicology in Non-human Primates", International Primatological Society (IPS) Congress, Madison, WI, August 8-11, 1996. External Advisory Committee Member, Program Project, California Regional Primate Research Center, 1998. Appointed, Nominating Committee, Society for the Study of Reproduction (SSR), 1996. Invited Poster, Gordon Conference on "Environmental Endocrine Disruptors", Plymouth, NH, July 11-17, 1998. Invited Poster, EPA/NIEHS Investigators Meeting, Oct. 6-9, 1998, Research Triangle Park, NC. Reviewed graduate programs in Biological Sciences, Kent State University, 2004. Member, Program Committee, American Soc Primatologists (ASP), 2005-2008; Membership Committee, SSR (Wisconsin representative), 2005; Cmte. on Reproduction and the Environment, SSR, 2006-2012. Member, Sea Grant Program Advisory Council 2005-2007; *ad-hoc* member, Committee on Disciplinary

Representation, ASP; Plenary Speakers Cmte., co-Chair, Program Cmte., Soc. for Environmental Toxicology and Chemistry (SETAC), Milwaukee, WI, 2007; Member, Local Arrangements Committee, SSR, Milwaukee, July, 2010; Member, Program Committee, SSR, Portland, OR, 2011. Member, Initial Executive Committee, School for Freshwater Sciences, UWM, 2009-2010. *Nature* Reading Panel, 2010/2011; *Endocrine Society* mentor, 2010. Member, IPS Research Committee, (conference abstract and scientific award review committee), 2008 to present; Consultant, ACCDON LLC, 2011 to present. Member, SSR Membership Committee, 2012 to present.

TEACHING EXPERIENCE:

At Loyola University, I participated in teaching lecture and/or laboratory portions of courses in Anatomy and Physiology to primarily Nursing, Health Science and Biology students, and in Biology and Physiology to Biology majors. At Michigan State University, I was involved in teaching Introductory and Comparative Physiology, and Gastrointestinal Physiology to Physiology majors, and various courses in Reproductive Physiology and Endocrinology to Physiology majors and graduate students. At the University of Wisconsin-Madison, I presented lectures in Primatology and Reproductive Physiology. At UW-Milwaukee, my teaching responsibilities have included comparative Animal and Human Anatomy and Physiology courses to undergraduates (Nursing, Health Sciences and pre-medical students); Physiology and Pathology of Reproduction to graduate students; Honors courses in "The New Assisted Reproductive Technologies"; and selected lectures in the "Biology of Women"; "Foundations of Biological Sciences"; "Modern Topics in Biology"; and Reproductive Endocrinology and Molecular Toxicology lectures at the Medical College of Wisconsin.

INVITED SEMINARS/SYMPOSIA PRESENTATIONS (65 as of 11 May 2011):

1. "Embryonic development in primates", Hope College, Holland, MI, 1982.
2. "Primate in-vitro fertilization and development", Sienna Heights College, MI, 1982.
3. "Laboratory techniques in embryo manipulation", Aquinas College, MI, 1982.
4. "Uptake of steroids and ³H-uridine during embryonic development", Western Michigan University, Kalamazoo, MI, 1983.
5. "Biochemical aspects of in-vitro fertilized primate embryos", Endocrinology-Reproductive Physiology Program, Univ. of Wisconsin-Madison, 1983.
6. "Seasonal effects on primate ovarian folliculogenesis", Wisconsin Reg. Primate Res. Ctr., Madison, July, 1984.
7. "Regulation of ovarian folliculogenesis by estrogen", Dept. of Biological Sciences, Univ. of Wisconsin-Milwaukee, January, 1986.
8. "Embryology and early development of nonhuman primates", Symposium, Gottingen, West Germany, July 20-25, 1986.
9. "Current advances in reproductive technologies", workshop on "Medical and Ethical Issues Pertaining to Reproductive Technologies", Center for Women's Studies, Univ. of

Wisconsin-Milwaukee, October 24, 1989.

10. "Regulation by estrogen of ovarian folliculogenesis in guinea pigs", Biology Department, Beloit College, WI, October 27, 1989.
11. "The new reproductive technologies", Department of Biology, Univ. of Wisconsin-Whitewater, February 2, 1990.
12. "Regulation of ovarian follicular atresia in mammals by steroids and peptides", Division of Endocrinology, Metabolism, and Clinical Nutrition, Medical College of Wisconsin, Milwaukee, April 26, 1990.
13. "Biotechnology relating to human and nonhuman primate in-vitro fertilization", Symposium, Kyoto, Japan, July 18-24, 1990.
14. "Hormones and behavior in primate reproduction", Symposium, Kyoto, Japan, July 18-24, 1990.
15. "Effects of angiotensin II and estradiol-17 β on ultrastructure and steroidogenesis of ovarian theca", 3rd Annual Meeting of the Hokkaido Soc. of Reprod. Med., Sapporo, Japan, July 27, 1990.
16. "Role of steroids and peptide hormones in the regulation of ovarian function", Endocrine/Diabetes Center, St. Luke's Hospital, Milwaukee, WI, Sept. 18, 1990.
17. "Regulation of ovarian function in primates", Department of OB/GYN, Faculty of Sciences, University of Veracruz, Xalapa, Mexico, November 29, 1990.
18. "Effects of estrogens and peptides on ovarian function in vivo and in vitro", Reproductive Endocrine Section, Rush-Presbyterian - St. Luke's Medical Center, Chicago, IL, March 6, 1991.
19. "Latest developments in contraceptive and reproductive technologies", Minority Biomedical Research Support Program, Rutgers University, Newark, NJ, April 1, 1991.
20. "Regulation of ovarian follicle development by estrogens and peptides in rhesus monkeys", German Primate Center, Goettingen, Germany, December 18, 1991.
21. "Are there estrogen receptors in the rhesus monkey ovary?" Department of Zoology and Wisconsin Regional Primate Research Center, Madison, WI, April 24, 1992.
22. "Role of angiotensin II in ovarian follicle regulation and atresia", Dept. of OB/GYN, Rush-Presbyterian - St. Luke's Medical Center, Chicago, IL, April 28, 1992.
23. "New directions in primate reproduction", Symposium, Strasbourg, France, August 16-21, 1992.
24. "A functional role for estrogen receptors in the ovary", NIEHS Marine and Freshwater Biomedical Core Ctr., Milwaukee, WI, February 25, 1993.

25. "Recent developments in contraception and assisted reproductive technologies", Honors Program, UWM, September 15, 1994.
26. "Role of estrogenic compounds in ovarian follicle development", Department of Pharmacology and Toxicology, Medical College of Wisconsin, Milwaukee, January 12, 1995.
27. "Primates as models for human diseases," Department of Biology, University of Wisconsin-Stevens Point, March 13, 1995.
28. "Recent developments in contraceptives and assisted reproductive technologies," Department of Biology, University of Wisconsin-Platteville, April 6, 1995.
29. "Role of estrogens and (anti)estrogenic xenobiotics in receptor-mediated ovarian function," Section of Endocrinology, Metabolism, and Clinical Nutrition, Department of Internal Medicine, Medical College of Wisconsin, June 1, 1995.
30. "Assisted reproductive technologies" Ethics Seminar, St. Michael's Hospital, Milwaukee, WI, July 27, 1995.
31. "Estrogenic molecules and the ovary", Department of Biology, Carroll College, Waukesha, WI, November 8, 1995.
32. "Role of estrogens in ovarian follicle function", Department of Biology, Marquette University, Milwaukee, WI, November 10, 1995.
33. "Use of the guinea pig as a model to investigate polycystic ovarian syndrome", Laboratory of Reproductive Physiology, Tokyo University of Agriculture and Technology, Fuchu, Tokyo, Japan, April 5, 1996.
34. "Estrogen receptor in ovarian follicle development and atresia", Biological Sciences Seminar, Department of Veterinary Physiology, Tokyo University of Agriculture and Technology, Tokyo, Japan, April 5, 1996.
35. "Dioxin modulation of the estrogen signal at the ovary", Laboratory of Veterinary Physiology, University of Tokyo, April 12, 1996.
36. "Localization of estrogen receptor in primate ovary: a functional role?", California Regional Primate Research Center, UC-Davis, May 7, 1996.
37. "Dioxin effects on the estrogen-receptor signaling pathway", Institute of Toxicology and Environmental Health, University of California-Davis, May 7, 1996.
38. "Perturbation of ovarian function by tetrachlorodibenzo-p-dioxin (TCDD)", NIEHS, Research Triangle Park, NC, November 21, 1996.
39. "Dioxin modulation of the estrogen signal and ovarian function", Institute of Chemical Toxicology, Wayne State University, Detroit, MI, January 16, 1997.

40. "Disruption of the reproductive axis by dioxin", University College Galway, (now National University of Ireland, Galway), Ireland, June, 1997.
41. "Modulation by dioxin of female reproductive axis function: physiologic relevance or fantasy?", Department of Biological Sciences, UWM, December 10, 1997.
42. "Xenobiotic estrogens and reproduction", Dept of Veterinary Physiology, Tokyo Univ. of Agriculture and Technology (TUAT), February 5, 1999.
43. "Modulation of ovarian function by dioxin". National Institute of Environmental Studies, Tsukuba Science City, Japan, Feb 9, 1999.
44. "Defects in reproductive function due to TCDD", Graduate Program, Dept of Vet. Physiol., TUAT, Tokyo, Feb 12, 1999.
45. "Modulation of female reproductive function by dioxin", University of Wisconsin-Whitewater, March 12, 1999.
46. "Use of competitive RT-PCR to quantify modulation in steroidogenic enzyme mRNAs by dioxin", Dept. of Zoology, University of Wisconsin-Madison, October 15, 1999.
47. "Dioxins and reproduction", Azabu University School of Pharmacy, Japan, February 22, 2000.
48. "TCDD modulation of ovarian structure and estrogen secretion", Tokyo University of Pharmacy and Life Sciences, February 21, 2000.
49. "Female Reproductive Physiology and Anatomy" lecture, American Association of Bioanalysts
Board national review course, Rush Medical University, Chicago, IL, April 15, 2000.
50. "Environmentally relevant concentrations of tetrachlorodibenzo-p-dioxin (TCDD, dioxin) inhibit ovarian steroid production by reducing levels of mRNAs for steroidogenic enzymes, and induce programmed cell death in granulosa cells", plenary talk, Annual Symposium of the Endocrinology-Reproductive Physiology Program, University of Wisconsin-Madison, September 15, 2000.
51. "Reproductive effects of environmental pollutants", Tokyo University of Agriculture and Technology (TUAT), Fuchu, Tokyo, Japan, April 4, 2001.
52. "Modulation of reproductive axis by dioxin *in vivo* and *in vitro*", Dept of Pharmacology, Case Western Reserve University, May 14, 2002.
53. "Dioxin modulation of female reproductive function", Dept. of Veterinary Physiology (graduate program), TUAT, Fuchu, Tokyo, April 6, 2004.
54. "Environmental pollutants and endocrine disruption", Dept. of Veterinary Physiology (undergraduate veterinary program, *Ibid.*, April 7, 2004.

55. "Helpful hints on manuscript and grant proposal preparations", Tokyo University of Agriculture and Technology, School of Veterinary Medicine, *Ibid.*, April 12, 2004.
56. "Effects of PCBs and ammonium perchlorate on ovarian follicle maturation, Azabu University, School of Veterinary Medicine, Fuchinobe, Japan, April 14, 2004.
57. "Dioxin and ovarian function", Division of Endocrinology, Metabolism and Clinical Nutrition, Dept of Internal Medicine, Medical College of Wisconsin, Milwaukee, October 24, 2006.
58. "Disturbances in female reproductive function due to dioxin", Robert Wood Johnson Medical School-University of Medicine and Dentistry of New Jersey, March 21, 2007.
59. "Perturbation of female reproductive function by dioxin", NIEHS Biomedical Sciences Center, Great Lakes WATER Institute, UW-Milwaukee, April, 2007.
60. "Dioxin alters biomarkers of fertility in mammals and fish", Dept. of Veterinary Physiology (graduate program), TUAT, Fuchu, Tokyo, April 2, 2008.
61. "Tips for writing manuscripts in English-language scientific journals", Tokyo University of Agriculture and Technology, School of Veterinary Medicine, *Ibid.*, March 26, 2008.
62. "Dioxin and nanoparticle effects on ovarian function". Nanjing Agricultural University, Nanjing, People's Republic of China (PRC), March 27-29, 2010 (host, Dr. F.X. Shi; discussions, Dr. Dong Niu, Zhejiang University, Hangzhou).
63. "Environmental endocrine disruptors". Jiangsu Academy of Agricultural Sciences, Nanjing, PRC, March 23, 2010 (host, Dr. Fan Biqin).
64. "Endocrine disruption in the environment", infertility focus, speaker and panelist, 12th Annual Urban Initiatives Conference, *Public Health in Milwaukee: Past+Present=Future*, UWM Center for Urban Initiatives (CUIR), UWM School of Public Health, and City of Milwaukee Health Department, Italian Community Center, Milwaukee, WI, June 2, 2010.
65. "Familiar and novel endocrine disruptors in the environment: exactly how disruptive are they?" Endocrine Grand Rounds, Georgetown University Medical Center, Washington, D.C., March 15, 2011.
66. "Endocrine disruptors in the environment" and translational science; American Medical Student Association (AMSA), UWM Chapter, March 27, 2012.
67. "Environmental endocrine disruptors of the ovary, familiar and novel: xenoestrogens, dioxins, and gold nanoparticles", Soc Study Reprod, Montreal, Québec, Canada, July, 2013 (invited "Ovary Module" talk).
68. Endocrine Grand Rounds, Medical College of Wisconsin, fall, 2013?

69. Talks, Nanjing and Tokyo, October, 2013. October 26/27, Workshop on Endocrine Disruptors, TAT, Fuchu, Tokyo.

SOCIETIES (as of 2012):

American Association for the Advancement of Science, to 2012
American Nano Society, to 2012
American Physiological Society (APS, member of FASEB); Sections of Endocrinology and Metabolism, History of Physiology, Teaching of Physiology, and Cell and General Physiology, to 2012
American Society of Primatologists (ASP), to 2012
Endocrine Society (peer-reviewed, elected), to 2012
International Primatological Society (IPS), current
National Geographic Society (NGS), current
Sigma Xi, to 2012
Society for the Study of Reproduction (SSR), current
Society of Environmental and Chemistry (SETAC), 2007-2008
Society of Toxicology (peer-reviewed, elected) (SOT); and Midwest Regional Chapter, to 2012
Wisconsin Association for Biomedical Research and Education (WABRE, Board of Directors, 2005-2007)
Zoological Society of Japan (ZSJ), to 2012

PUBLICATIONS (Hirsch [h]-index=18 as of 3/13):**INVITED REVIEWS:**

1. Hutz, R.J. Disparate effects of estrogens on in-vitro steroidogenesis by mammalian and avian granulosa cells. Biol. Reprod. 40:709-713, 1989.
<http://www.biolreprod.org/cgi/reprint/40/4/709>
2. Hutz, R.J., Dierschke, D.J., and Wolf, R.C. Role of estradiol in regulating ovarian folliculogenesis in rhesus monkeys. J. Med. Primatol. 19:553-571, 1990.
3. Hutz, R.J. and O'Shaughnessy, I.M. Superovulation and ovulation induction. In: The Encyclopedia of Human Biology, R. Dulbecco, ed. Academic Press, Inc., San Diego, CA, Vol. 7., 1991, pp. 345-351.
4. Hutz, R.J., Ellis, L.C., Stagg, L., and Wehrenberg, W.B. The Reproductive Biology of Female Mink. In: The Blue Book of Fur Farming, Fur Rancher, Eden Prairie, MN, 1992, pp. 47-51.
5. Dierschke, D.J., Chaffin, C.L., and Hutz, R.J. Role and site of estrogen action in follicular atresia. Trends in Endo. Metab. 5:215-219, 1994.

6. Hutz, R.J. Overview of female reproductive anatomy and physiology. In: *Embryology and Andrology Review Course Manual*. AAB, St. Louis, MO, 1994.
7. Hutz, R.J. International Directory of Primatology, 2nd Edition, L.Jacobsen *et al.*, eds., Madison, WI. *Int'l J. Primatol.* 16:683-684, 1995 (Book Review).
8. Trewin AL, Hutz RJ. The Female Guinea Pig. In: *The Encyclopedia of Reproduction*, E. Knobil and J. Neill (eds.), Academic Press, San Diego, 1999, pp. 583-588.
9. Hutz, R.J. and O'Shaughnessy, I.M. Superovulation and ovulation induction. In: *The Encyclopedia of Human Biology*, R. Dulbecco, ed. Academic Press, Inc., San Diego, CA, 2nd Edition, 1998.
10. Hutz, R.J. Reproductive endocrine disruption by environmental xenobiotics that modulate the estrogen-signaling pathway, particularly TCDD. *J. Reprod. Develop.* 45:1-12, 1999.
11. Hutz RJ, Carvan MJ III, Baldridge MG, Conley LK, King Heiden T. Environmental toxicants and effects on female reproductive function. *Trends in Reproductive Biology* Vol. 2:1-11, 2006/07 (also NIH PubMed Central).
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC18384/pdf>
12. Myers DE, Hutz RJ. Current status of potential bisphenol toxicity in dentistry. *General Dentistry* 59:262-265, 2011.
13. Larson JK, O'Shaughnessy IM, Hutz RJ. Superovulation and ovulation induction. In: *The Encyclopedia of Human Biology*, J Abelson, M Simon, eds., Elsevier, 3rd Edition, 2014 (invited, submitted).

FULL PAPERS (100+ total, 90+ peer-reviewed, published as of December 2011):

14. Peluso, J.J., England-Charlesworth, C., and Hutz, R. Effect of age and of follicular aging on the preovulatory oocyte. *Biol. Reprod.* 22:999-1005, 1980.
<http://www.bioreprod.org/cgi/reprint/22/4/999>
15. Peluso, J.J. and Hutz, R. The effect of age on the ability of oocytes to synthesize RNA and protein during *in-vitro* maturation. *Cell Tiss. Res.* 213:29-35, 1980.
16. Peluso, J.J., Hutz, R., and England-Charlesworth, C. *In-vitro* maturation of preovulatory oocytes collected from mature and aged proestrous rats. In: *Dynamics of Ovarian Function*, Raven Press, New York, 1980.
17. Peluso, J.J., Hutz, R., and England-Charlesworth, C. Development of preovulatory follicles and oocytes during the estrous cycle of mature and aged rats. *Acta Endocrinol.* 100:434-443, 1982.
18. Chan, P.J., Hutz, R.J., and Dukelow, W.R. Non-human primate *in-vitro* fertilization: Seasonality, cumulus cells, cyclic nucleotides, RNA and viability assays. *Fertil. Steril.*

38:609-615, 1982.

19. Ghosh, M., Hutz, R.J., and Dukelow, W.R. Serum estradiol-17 β , progesterone and relative LH levels in *Saimiri sciureus*: Cyclic variation and effect of laparoscopy and follicle aspiration. *J. Med. Primatol.* 11:312-318, 1982.

20. Hutz, R.J., Chan, P.J., and Dukelow, W.R. Nonhuman primate *in vitro* fertilization: Biochemical changes associated with embryonic development. *Fertil. Steril.* 40:521-524, 1983.

21. Dukelow, W.R., Chan, P.J., Hutz, R.J., DeMayo, F.J., Dooley, V.D., Rawlins, R.G., and Ridha, M.T. Preimplantation development of the primate embryo after *in-vitro* fertilization. *J. Exp. Zool.* 228:215-221, 1983.

22. Hutz, R.J., Holzman, G.B., and Dukelow, W.R. Synthesis of ribonucleic acid in oocytes collected from squirrel monkeys and humans following chorionic gonadotropin administration. *Am. J. Primatol.* 5:267-270, 1983.

23. Hutz, R.J., Ghosh, M., and Dukelow, W.R. Steroid uptake and 3 H-uridine incorporation by early hamster and squirrel monkey (*in-vitro* fertilized) embryos: Effects of ovulatory regimen. *Zool. Sci.* 1:771-776, 1984.

24. Hutz, R.J., DeMayo, F.J., Chan, P.J., and Dukelow, W.R. Accumulation of 2-deoxy-D-glucose by primate oocytes fertilized *in vitro*. *Am. J. Primatol.* 7:57-61, 1984.

25. Hutz, R.J., DeMayo, F.J., and Dukelow, W.R. The use of vital dyes to assess embryonic viability in the hamster (*Mesocricetus auratus*). *Stain Technol.* 60:163-167, 1985.

26. Hutz, R.J., Dierschke, D.J., and Wolf, R.C. Seasonal effects on ovarian folliculogenesis in rhesus monkeys. *Biol. Reprod.* 33:653-659, 1985.
<http://www.biolreprod.org/cgi/reprint/33/3/653>

27. Dierschke, D.J., Hutz, R.J., and Wolf, R.C. Induced follicular atresia in rhesus monkeys: Strength-duration relationships of the estrogen stimulus. *Endocrinology* 117:1397-1403, 1985.

28. Hutz, R.J., Dierschke, D.J., and Wolf, R.C. Markers of atresia in ovarian follicular components from rhesus monkeys treated with estradiol-17 β . *Biol. Reprod.* 34:65-70, 1986.
<http://www.biolreprod.org/cgi/reprint/34/1/65>

29. DeMayo, F.J., Hutz, R.J., and Dukelow, W.R. Cryopreservation of squirrel monkey (*Saimiri sciureus*) oocytes. In: Current Perspectives in Primate Biology. D.M. Taub and F. King, eds. Van Nostrand Reinhold Co., Inc., 1986.

30. Morgan, P.M., Hutz, R.J., Kraus, E.M., and Bavister, B.D. Ultrasonographic assessment of the endometrium in rhesus monkeys during the normal menstrual cycle. *Biol. Reprod.*

36:463-469, 1987.
<http://www.biolreprod.org/cgi/reprint/36/2/463>

31. Dierschke, D.J., Hutz, R.J., and Wolf, R.C. Atretogenic action of estrogen in rhesus monkeys: Effects of repeated treatment. Am. J. Primatol. 12:251-261, 1987.

32. Hutz, R.J., Gold, D.A., and Dierschke, D.J. Diminished steroidogenic response of hamster granulosa cells to estrogen *in vitro*. Cell Tiss. Res. 248:531-534, 1987.

33. Hutz, R.J., Dierschke, D.J., and Wolf, R.C. Temporal and endocrine sequelae of aspirating follicular contents in rhesus monkeys. Am. J. Primatol. 13:195-202, 1987.

34. Hutz, R.J., Krueger, G.S., Meller, P.A., Sholl, S.A., and Dierschke, D.J. FSH-induced aromatase activity of hamster granulosa cells: Effect of estradiol-17 β *in vitro*. Cell Tiss. Res. 250:101-104, 1987.

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