

## BIOGRAPHICAL SKETCH

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NAME Bernard, Daniel Jay <hr/> eRA COMMONS USER NAME	POSITION TITLE Associate Professor of Pharmacology and Therapeutics		
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Carleton College, Northfield, MN	B.A.	1990	Psychology
The Johns Hopkins University, Baltimore, MD	M.A.	1992	Biopsychology
The Johns Hopkins University, Baltimore, MD	Ph.D.	1996	Biopsychology
Northwestern University, Evanston, IL	Postdoc	1995-2001	Neurobiology/Physiology

### A. Positions and Honors

#### Positions and Employment

1990-1995 Graduate student, Psychology, The Johns Hopkins University, Baltimore, MD  
 1995-1998 Post-doctoral fellow, Neurobiology and Physiology, Northwestern University, Evanston, IL  
 1998-2001 Research Associate, Neurobiology and Physiology, Northwestern University, Evanston, IL  
 2001-2006 Staff Scientist, Population Council, New York, NY  
 2002-2006 Adjunct Assistant Professor, The Rockefeller University, New York, NY  
 2006- Associate Professor, Pharmacology and Therapeutics, McGill University, Montréal, Québec

#### Honors/Awards

1990 Graduated *cum laude*, Carleton College  
 1990 Distinction on Senior Honors Thesis, Department of Psychology, Carleton College  
 1990-1995 Graduate Student Fellowship, Dept. of Psychology, The Johns Hopkins University  
 1995 NIMH Individual National Research Service Award, "Hormonal and Environmental Control of Aggression" (Not activated at request of recipient)  
 1995-1996 Post-doctoral fellowship, National Institutes of Health (Northwestern University Reproductive Biology Training Grant)  
 1996-1998 NIMH Individual NRSA, "Neural Mechanisms Mediating Seasonal Reproductive Cycles", F32 MH11493  
 1996 NSF Travel Award, International Conference on Hormones, Brain, and Behavior, Turin, Italy  
 1998 NSF Travel Award, 1998 Workshop on Steroid Hormones & Brain Function, Breckenridge, CO  
 1998 Constance Campbell Memorial Research Award, Second Place in Oral Division, Nineteenth Annual Mini-symposium in Reproductive Biology, Northwestern University  
 2000-2001 Lalor Foundation Post-Doctoral Fellowship in Mammalian Reproductive Biology, "Regulation and Function of the Inhibin binding protein, p120"  
 2001 Lalor Foundation Post-Doctoral Fellowship in Mammalian Reproductive Biology, "Regulation and Function of the Inhibin binding protein, InhBP"  
 2003 Travel Award, Endocrine Society's 85th Annual Meeting, Philadelphia, PA  
 2007 John R. & Clara M. Fraser Memorial (Salary) Award, McGill University, Faculty of Medicine  
 2008-2010 FRSQ Chercheurs-boursiers Junior 2

## B. Selected peer-reviewed publications (in chronological order)

1. **Bernard DJ**, Casto JM, Ball GF 1993 Sexual dimorphism in the volume of song control nuclei in European starlings: Assessment by a Nissl stain and autoradiography for muscarinic cholinergic receptors. *J Comp Neurol* 334: 559-570.
2. Ball GF, **Bernard DJ**, Casto JM 1993 Neurochemistry of the avian vocal control circuit: Hormonal modulation and sex differences. *Poul Sci Rev* 5: 15-27.
3. Ball GF, Casto JM, **Bernard DJ** 1994 Sex differences in the volume of avian song control nuclei: Comparative studies and the issue of brain nucleus delineation. *Psychoneuroendocrinology* 19: 485-504.
4. **Bernard DJ**, Ball GF 1995 Two different markers reveal a similar photoperiodic difference in the volume of the high vocal center in male European Starlings. *J Comp Neurol* 360: 726-734.
5. **Bernard DJ**, Eens M, Ball GF 1996 Age- and behavior-related variation in the volume of song control nuclei in male European starlings. *J. Neurobiol* 30: 329-339.
6. **Bernard DJ**, Ball GF 1997 Photoperiodic condition modulates the effects of testosterone on song control nuclei volumes in male European starlings. *Gen Comp Endo* 105: 276-283.
7. **Bernard DJ**, Wilson FE, Ball GF 1997 Testis-dependent and -independent effects of photoperiod on the volumes of song control nuclei in American tree sparrows (*Spizella arborea*). *Brain Res* 760: 163-169
8. **Bernard DJ**, Losee-Olson S, Turek FW 1997 Age-related changes in the photoperiodic response of Siberian hamsters. *Biol Reprod* 57: 172-177.
9. Ball GF, **Bernard DJ** 1997 Photoperiodic and endocrine regulation of plasticity in the vocal control system of European starlings and other songbirds. In "Perspectives in Avian Endocrinology" (S. Harvey and R.J. Etches, Eds.), Journal of Endocrinology Ltd., Bristol, UK, pp 133-148.
10. Challet E, **Bernard DJ**, Turek FW 1998 Lesions of glucose-responsive neurons impair synchronizing effects of calorie restriction in mice. *Brain Res* 801:244-250.
11. **Bernard DJ**, Abuav-Nussbaum R, Horton TH, Turek FW 1999 Photoperiodic effects on gonadotropin releasing-hormone (GnRH) content and the GnRH-immunoreactive neuronal system of male Siberian hamsters. *Biol Reprod*, 60: 272-276.
12. Challet E, **Bernard DJ**, Turek FW 1999 Gold-thioglucose-induced hypothalamic lesions inhibit metabolic modulation of light-induced circadian phase shifts in mice. *Brain Res* 824: 18-27.
13. **Bernard DJ**, Bentley GE, Balthazart J, Turek FW, Ball GF 1999 Androgen receptor, estrogen receptor  $\alpha$ , and estrogen receptor  $\beta$  show distinct patterns of expression in forebrain song control nuclei of European starlings. *Endocrinology*, 140, 4633-4643.
14. Ball GF, **Bernard DJ**, Foidart A, Lakaye B, Balthazart J 1999 Steroid sensitive sites in the avian brain: Does the distribution of the estrogen receptor  $\alpha$  and  $\beta$  types provide insight into their function? *Brain Beh Evol*, 54: 28-40.
15. **Bernard DJ**, Merzlyak IY, Horton TH, Turek FW 2000 Differential regulation of gonadotropin subunit mRNA levels in photostimulated Siberian hamsters. *Biol Reprod* 62: 155-161.
16. Chong H, Pangas SA, **Bernard DJ**, Wang E, Gitch J, Chen W, Draper LB, Cox ET, Woodruff TK 2000 Structure and expression of a membrane component of the inhibin receptor system. *Endocrinology* 141: 2600-2607.
17. Maney DL, **Bernard, DJ**, Ball GF 2001 Gonadal steroid receptor mRNA in catecholaminergic nuclei of the canary brain. *Neurosci. Lett.* 311: 189-192.
18. **Bernard DJ**, Woodruff TK 2001 Inhibin binding protein in rats: alternative transcripts and dynamic regulation in the pituitary across the estrous cycle. *Mol Endocrinol*, 15: 654-667.
19. **Bernard DJ**, Woodruff, TK 2001 Genetic approaches to the study of pituitary follicle-stimulating hormone regulation. In "Transgenics in Endocrinology" (MM Matzuk, CW Brown, and TR Kumar, Eds.), Humana Press, Totawa, NJ, pp. 297-317.
20. **Bernard DJ**, Chapman SC, Woodruff TK 2001 Mechanisms of inhibin signal transduction. *Recent Prog Horm Res*, 56: 417-450.
21. **Bernard DJ**, Chapman SC, Woodruff TK 2001 An emerging role for co-receptors in inhibin signal transduction. *Mol Cell Endocrinol*, 180: 55-62.
22. Kenny HA, **Bernard DJ**, Horton TH, Woodruff TH 2002 Photoperiod-dependent regulation of inhibin in Siberian hamsters: I. Ovarian inhibin production and secretion. *J. Endocrinol.* 174: 71-83.

23. Kenny HA, **Bernard DJ**, Horton TH, Woodruff TH 2002 Photoperiod-dependent regulation of inhibin in Siberian hamsters: II. Regulation of inhibin production and secretion by pregnant mare serum gonadotropin. *J. Endocrinol.*, 174: 85-94.
24. Chapman SC, **Bernard DJ**, Jelen J, Woodruff TK 2002 Properties of inhibin binding to betaglycan, InhBP/p120 and the activin type II receptors. *Mol. Cell. Endocrinol.*, 196: 79-93.
25. **Bernard DJ**, Chapman SC, Woodruff TK 2002 Inhibin binding protein (InhBP/p120), betaglycan, and the continuing search for the inhibin receptor. *Mol. Endocrinol.*, 16: 207-212.
26. **Bernard DJ**, Burns KH, Haupt, B, Matzuk, MM, Woodruff, TK 2003 Normal reproductive function in InhBP/p120-deficient mice. *Mol. Cell. Biol.*, 23(14):4882-4891.
27. **Bernard DJ** 2003 SMAD expression in the testis predicts age- and cell-specific responses to activin and TGF $\beta$ . *J. Androl.*, 24(2): 201-203.
28. **Bernard DJ** 2003 Inhibin Receptor Signaling. In *Encyclopedia of Hormones*, Henry, Helen L., Norman, Anthony W., Eds. Volume 2 pp. 297-303, Academic Press.
29. **Bernard DJ** 2004 Both SMAD2 and SMAD3 mediate activin-stimulated expression of the FSH $\beta$  subunit in mouse gonadotrope cells. *Mol. Endocrinol.*, 18(3):606-623.
30. **Bernard DJ**, Woodruff TK, Plant TM 2004 Cloning of a novel inhibin- $\alpha$  cDNA from rhesus monkey testis. *Reprod. Biol. Endocrinol.* 2(1):71
31. Ball GF, Auger CJ, D. J. **Bernard DJ**, Charlier TD, Sartor JJ, Ritters LV, Balthazart J 2004 Seasonal plasticity in the song control system: Multiple brain sites of steroid hormone action the importance of variation in singing behavior. *Ann. N.Y. Acad. Sci.* 1016: 586-610.
32. Gore AJ, Philips DP, Miller WL, **Bernard DJ** 2005 Differential regulation of follicle stimulating hormone by activin A and TGFB1 in murine gonadotropes. *Reprod. Biol. Endocrinol.*, 3(1):73.
33. Lamba P, Santos MM, Philips DP, **Bernard DJ** 2006 Acute regulation of murine follicle stimulating hormone  $\beta$  subunit transcription by activin A. *J. Mol. Endo.*, 36(1): 201-220.
34. **Bernard DJ**, Lee KB, Santos MM 2006 Activin B can signal through both ALK4 and ALK7 in gonadotrope cells. *Reprod. Biol. Endocrinol.*, 4(1):52.
35. Lee KB, Khivansara V, Santos MM, Lamba P, Yuen T, Sealfon SC, **Bernard DJ** 2007 Bone morphogenetic protein 2 and activin A synergistically stimulate follicle-stimulating hormone beta subunit transcription. *J. Mol. Endo.* 38:315-30.
36. Ge R, Chen G, Dong Q, Akingbemi B, Sottas CM, Santos MM, Sealfon SC, **Bernard DJ**, Hardy MP 2007 Biphasic effects of postnatal exposures to diethylhexylphthalate on the timing of puberty in male rats. *J. Androl.*, 28(4):513-20.
37. Lamba P, Khivansara V, Santos M, **Bernard DJ** 2008 *Paired*-like homeodomain transcription factors 1 and 2 regulate follicle-stimulating hormone beta-subunit transcription through a conserved *cis*-element. *Endocrinology*, 149(6):3095-108
38. Lamba P, Hjalt TA, **Bernard DJ** 2008 Novel forms of *paired*-like homeodomain transcription factor 2 (PITX2): Generation by alternative translation initiation and mRNA splicing. *BMC-Molecular Biology*, 9:31.
39. Wang Y, Fortin J, Lamba P, Bonomi M, Persani L, Roberson MS, **Bernard DJ** 2008 AP-1 and Smad proteins synergistically regulate human follicle-stimulating hormone  $\beta$  promoter activity. *Endocrinology* Jul 24. [Epub ahead of print].
40. Lamba P, Fortin J, Wang Y, **Bernard DJ** 2008 Comparative analysis of the follicle-stimulating hormone (FSH)  $\beta$  promoter identifies the winged helix/forkhead transcription factor, FOXL2, as a mediator of activin-regulated transcription. *Submitted*.
41. Robakis T, Bak B, Lin S-H, **Bernard DJ**, Scheiffele P 2008 An internal signal sequence directs intramembrane proteolysis of a cellular immunoglobulin-domain protein. *In revision*.