

**Society for Behavioral Neuroendocrinology**  
**7<sup>th</sup> Annual Meeting**  
**June 25-29, 2003**  
**University of Cincinnati**  
**Cincinnati, OH**

**GENERAL INFORMATION**

**LOCATION AND HOUSING:** Rooms have been reserved at the Kingsgate Marriott Conference Hotel. (See Housing page for details.) This is also the location of most of the meeting functions (sessions, posters, workshops, banquets, reception, etc.). You will be able to attend the entire meeting only a short walk from your room. General sessions will be held in the large Grand Ballroom and poster sessions will be generously accommodated in several meeting rooms. Workshops will be held in the Vontz Research Building, located adjacent to Kingsgate.

**Kingsgate Marriott Conference Hotel at the University of Cincinnati**

University of Cincinnati, 151 Goodman Drive, Cincinnati, OH, 45219, USA

Phone: 1-513-487-3800 Fax: 1-513-487-3810

Reservations (from U.S. and Canada): 1-888-720-1299

In addition, one of the scientific symposia will take place at the Cincinnati Zoo. One of the top rated zoos in the country, the Cincinnati Zoo has been touted by Newsweek as the "sexiest zoo in the nation" for its spectacular successes in breeding Nambian cheetahs, Sumatran rhinos, Komodo dragons and other rare wild animals. In addition to the scientific program, there will be time for a leisurely stroll through the exhibits. Admission is free for meeting registrants, and guest tickets will be available. The zoo is within walking distance from the Kingsgate.

**STUDENT HOUSING:** In addition to housing at Kingsgate, student housing is available at the University of Cincinnati Residence Halls (See Housing page for details).

**FOOD AND DRINK:** Morning and afternoon beverage breaks will be provided during the meeting. Options for breakfast, lunch and dinner will be available in the hotel. There is a full-service restaurant located inside the Kingsgate serving breakfast, lunch and dinner. The breakfast and lunch buffets are excellent and very convenient. In addition, the Kingsgate has a bar, which serves drinks, appetizers and snacks. For those wanting something a little different, the Clifton-on-Ludlow area is a 10-15 minute walk from the conference center. This funky little neighborhood contains a variety of restaurants, shops, bars, a grocery store and a movie theater.

**TRANSPORTATION:** The Cincinnati-Northern Kentucky International Airport (CVG) is 15 miles from the hotel, about a 20 minute drive. Transportation is available by the following means:

**Airport Executive Shuttle:** Shuttles to Downtown Cincinnati and Covington cost \$14 one way and \$24 round-trip. Rates to other locations vary. Call 24 hours in advance to guarantee a reservation; however, walk-up service is also available. For more information visit the Airport Executive Shuttle desk in any of the baggage claim areas or call (859) 261-8601 or 1-800-990-8841.

**Taxi Service:** Visit the taxi desk in the baggage claim area of Terminal 3 (Delta Terminal) or use the courtesy phone near the exits of Terminals 1 and 2 (dial 3260) to make arrangements. Service is available 24 hours a day. The fare from the airport to the University of Cincinnati is approximately \$24. Call (859) 767-3260 for more information.

**Rental Car Service:** Courtesy phones are located near the exits in baggage claim areas for your convenience in making rental arrangements. Shuttles are available every 15-20 minutes to take you to the rental dealer of your choice. Minimum car rental is normally for one day.

**Driving directions from the airport:** Follow the signs to exit the airport. Bear right on the I-275 East ramp towards Louisville. Continue on I-275 East, then take the I-75 North exit towards Cincinnati, exit #84. Continue on I-75 North. (When you cross the Ohio River bridge, you will need to stay in the left 2 lanes.) Take the Hopple Street exit. (This is a LEFT exit!) Turn left at the light onto Hopple St. Hopple will turn into Martin Luther King Drive. Continue straight on Martin Luther King Drive towards the University Campus. Turn left onto Vine Street and the first right onto Goodman. The Kingsgate Conference Center is on your right.

**CLIMATE AND ATTIRE:** At this time of year, the weather in Cincinnati is quite temperate. High temperatures average in the mid-80s (~30 °C) and average lows are in the mid 60s (~15 °C). In addition, it can sometimes be somewhat humid, and rain showers are not uncommon. Please check the local weather forecast for the most accurate information. All events will be held indoors at either the Kingsgate or Vontz center. Attire for the conference is casual.

**REGISTRATION:** The meeting registration fee includes morning and afternoon beverage breaks. The fee also covers the cost of one banquet ticket.

	<b>Postmark by April 8, 2003</b>	<b>Postmark after April 8, 2003</b>
SBN Member (Includes Postdocs)	\$170	\$195
Nonmember	\$220	\$245
Graduate Student Member	\$75	\$100
Graduate Student Nonmember	\$125	\$150
Undergraduate	\$75	\$100

Visit the Registration page for additional information about registration, membership forms and fees.

**REFUNDS:** Requests for refunds will be honored until June 1st. See the Registration page for details.

**RECEPTION AND REGISTRATION:** There will be an opening reception during the late afternoon and early evening on Wednesday, June 25th, at the Kingsgate. Registration will take place during the reception. Registration will continue outside the Grand Ballroom from 8:00 a.m. through 1:00 p.m. on June 26, 27 and 28.

**SCIENTIFIC SESSIONS:** Oral sessions will be held from 8:30 a.m. through 6:00 p.m. in the Grand Ballroom on June 26, 27, & 28. Three poster sessions will be held in separate meeting rooms from 1:00 p.m. through 3:30p.m on the same dates.

**STUDENT PROGRAM:** Several events and workshops are being planned by the Student Affairs Committee. Details will be posted soon.

**POSTER BOARDS:** The boards are 3.8 feet high by 7.9 feet long with a display surface on each side. Poster session presenters may begin putting up their posters at 8:30 a.m. on the day of their presentation. Posters from one session must be taken down by 8:30 a.m. the following day.

**ORAL PRESENTATIONS:** Computer projection will be available at all sessions. 35 mm slide projection can be provided upon request. All speakers will be contacted by the conference organizers prior to the meeting to inquire about individual audiovisual needs.

**CONFERENCE BANQUET:** A banquet dinner will be held the evening of the final meeting day (June 28th), from 8:00 p.m. through 12:00 Midnight at the hotel. Music will be provided following the banquet. The price of the banquet is included in the registration fee. Additional tickets are available for \$50 each.

## **PROGRAM SCHEDULE**

### **Wednesday, June 25-Day 1**

12:30-5:00      **Workshop on “Functional Genomics in Behavioral Endocrinology”, Co-Chairs: Lique Coolen, University of Cincinnati and and Jessica Mong, Rockefeller, University.**

6:00-8:00      **Opening Reception**

#### **Evening**

8:00-10:00      **Workshop: “The Academic Job Search: When, Where, and How”, Chair: John Buntin, University of Wisconsin (Pizza Provided)**

### **Thursday, June 26-Day 2**

#### **Morning**

8:15-8:30      **Brief Welcome- Members of the Local Organizing Committee**

8:30-9:30      **Keynote Address: Dr. Elizabeth Gould, Princeton University, Title: “Hormones, Experience and Neurogenesis”**

9:30-9:50      *coffee break*

9:50-12:00      **Symposium: “Timing and Mechanisms of Neural and Behavioral Change During Puberty”; Co-Chairs: Kim Wallen, Emory University and Cheryl Sisk, Michigan State University.**

10:00-10:30      Leslie M. Jackson, Theresa M. Lee, Ruth I. Wood, Jane E. Robinson, Vasantha Padmanabhan, Douglas L. Foster  
Prenatal Programming of Sex Differences in the Timing of Puberty in Sheep

10:30-11:00      Cheryl L. Sisk  
Behavior@Puberty.org

11:00-11:30      Julia L. Zehr  
Prenatal Hormonal Influences on Female Rhesus Monkey Behavioral and Neuroendocrine Puberty

11:30-12:00      Susan L. Andersen and Martin H. Teicher  
Pubertal Changes in Neurotransmitter Systems: Implications for Human Puberty and Psychopathology

12:00-12:15      Business Meeting

12:00-1:00      *Lunch*

#### **Afternoon**

1:00-3:30      **Poster Session 1**

- 3:30-6:00      **Symposium: “Social Influences on Hormones and Health” Co-Chairs: Courtney DeVries and Randy Nelson, Ohio State University**
- 3:30-4:00      Megan R. Gunnar  
Early Experience and Activity of the HPA Axis in Children
- 4:00-4:30      Bruce S. McEwen  
Protective and Damaging Effects of Stress Mediators: Allostasis and Allostatic Overload
- 4:30-5:00      Christopher L. Coe  
Prenatal Conditions Influence Physiological Set Points in the Developing Infant
- 5:00-5:30      A. Courtney DeVries  
Social Modulation of Stress Responses and Disease Outcomes
- 5:30-6:00      S. L. Klein, E. R. Hinson, & G. E. Glass  
Social Behavior and Hantavirus Infection in Norway Rats: Cause or Effect?

Evening

- 6:30-8:30      **Workshop: “Strategies for Minority Recruitment in Behavioral Neuroendocrinology”, Co-Chairs: Kiran Soma, UCLA and Teresa Horton, Northwestern University**  
(Pizza Provided)

**FRIDAY, JUNE 27- DAY 3**

Morning

- 8:30-9:30      **Keynote Address: Dr. Michael Meaney , McGill University, Title: “Causes and Consequences of Individual Differences in Maternal Behavior”**
- 9:30-9:50      *coffee break*
- 9:50-12:00      **Symposium: “Vasopressin: Contemporary Thoughts on the Behavioral Role of an Ancient Peptide”(followed by panel discussion); Chair: Scott Wersinger, National Institute of Health**
- 10:00-10:30      H.E. Albers\*  
Vasopressin (AVP)/ Oxytocin (OXT) and the Central Regulation of Social Behavior
- 10:30-10:45      Semsar, K\*. and Godwin, J.  
The Role of Arginine Vasotocin in the Control of Social Status in the Bluehead Wrasse, a Sex-Changing Fish
- 10:45-11:15      Scott R. Wersinger\* and W. Scott Young III

Altered Social Motivation in Male Mice Lacking the Vasopressin 1B Receptor Gene

11:15-11:30 Emma Coddington\*, Christine Lewis, Jim Rose, and Frank L. Moore  
Sex, Stress and Drugs: Interactions between Vasotocin, Corticosteroids and Cannabinoids

11:30-12:00 Panel Discussion

12:00-1:00 *Lunch*

Afternoon

1:15-3:35 **Symposium: “The Cincinnati Zoo: Endocrinology in Unusual Settings” Co-Chairs: Bill Truitt and Juan Dominguez, University of Cincinnati.**

1:15-1:45 Cheryl S. Asa, Joan E. Bauman, and Tim Coonan  
Evidence for Induced Ovulation in Channel Island Gray Foxes (*Urocyon littoralis*)

1:45-2:15 Nadja Wielebnowski and Janine L. Brown  
Applying Noninvasive Hormone Monitoring and Behavioral Studies to Address Management Issues in Threatened and Endangered Felids

2:15-2:45 A. Dixson, N. Povich, and M. Anderson.  
Reproduction and Behavior in a Herd of Javan Banteng (*Bos javanicus javanicus*) at the San Diego Wild Animal Park.

2:45-3:15 Terri L. Roth  
Breeding the Sumatran Rhinoceros (*Dicerorhinus sumatrensis*) in Captivity: Behavioral Challenges, Hormonal Solutions

3:15-5:00 **Zoo Exhibits**

5:00-7:30 **Poster Session 2**

Evening: *Nothing Scheduled*

**Saturday, June 28 Day 4**

Morning

8:30-9:40 **Invited Presidential Address: Dr. Andrew Bass, Cornell University, “Evolutionarily labile patterning of brain and social behavior: A tale of two males”**

9:40-10:00 *coffee break*

10:00-12:00 **Symposium: “Behavioral Neuroendocrinology of Maternal Effects: Mechanisms and Functions” Co-Chairs: Hubert Schwabl, Washington State University and Norbert Sachser, University of Muenster, Germany**

10:00-10:30 Hubert Schwabl, Rosemary Strasser & Amy Poopatanapong

Yolk Steroids, Behavior, and Fitness in Birds

- 10:30-11:00 Ton Groothuis, Corinne Eising, Nikolaus von Engelhardt & Wendt M\_ller  
Maternal Modulation of Early Exposure to Androgens in Avian Species and its  
Consequences for Individual Differentiation
- 11:00-11:30 Keith W. Sockman  
Hormonal Orchestration of the Sibling Competitive Hierarchy in Birds
- 11:30-12:00 Norbert Sachser & Sylvia Kaiser  
Social Environment, Stress, and Offspring Behavioral Differentiation in Guinea  
Pigs
- 12:00-1:00 *Lunch*

Afternoon

- 1:00-3:30 **Poster Session 3**
- 3:30-5:50 **Symposium: “Nuclear Receptor Coactivator Function in the CNS and  
Behavior”**; Co-Chairs Marc Tetel, Skidmore College and Cynthia Jordan,  
Michigan State University
- 3:40-4:10 Brian Rowan, Yatrik Shah, Abeer El-Gharbawy, Mohamed Desouki, Sharif  
Kershah, Mariam Al-Dhaheer, Kristen Koterba  
Hierarchies of Steroid Receptor Regulation Through Coregulators and Signalling  
Pathway Crosstalk
- 4:10-4:40 Anthony P. Auger\*  
The Role of Nuclear Receptor Co-Activators in Developing Rat Brain.
- 4:40-5:00 T. D. Charlier\*, C. J. Auger, J. Balthazart, G. F. Ball  
Modulation of Steroid Activity by Transcription Coactivators in Songbirds
- 5:00-5:20 Erin O’Bryant\* and Cynthia L. Jordan  
Nuclear Receptor Coactivators in an Androgen-Responsive Neuromuscular  
System
- 5:20-5:50 M. J. Tetel\*, H. A. Molenda, C. P. Kilts, S. D. Murphy, R. L. Allen  
Nuclear Receptor Coactivators Modulate Hormone-Dependent Female Sexual  
Behavior and Neural Gene Expression in Rats
- 6:00 **Conclusion of Scientific Program**
- 7:30 *Banquet*

## Poster Session 1

1. Rudick, C.N., and Woolley, C.S.  
**ESTROGEN TREATMENT ELIMINATES THE SENSITIVITY OF HIPPOCAMPAL GABAergic SYNAPSES TO MUSCARINIC RECEPTOR MODULATION**
2. Todd, B.J., Amateau S.K., and McCarthy, M.M.  
**PROSTAGLANDIN-E<sub>2</sub> MEDIATES ESTRADIOL EFFECTS ON SYNAPTIC PLASTICITY BUT NOT CELL SURVIVAL**
3. Schwarz, J.M., Todd, B.J., McCarthy, M.M.  
**LOOKING AT GLUTAMATE TO UNDERSTAND THE ROLE OF ESTRADIOL ON DENDRITIC SPINE GROWTH IN THE DEVELOPING HYPOTHALAMUS**
4. Hilton, G.D., Nunez, J.L., McCarthy, M.M.  
**BRAIN DAMAGE IN THE NEONATE: SEX DIFFERENCE IN RESPONSE TO KAINIC ACID**
5. Kippin, T.E., Cain, S.W., Masum, Z., and Ralph, M.R.  
**PRENATAL STRESS PERMANENTLY DECREASES FOREBRAIN NEURAL STEM CELLS IN THE HAMSTER**
6. Fowler, C.D., and Wang, Z.  
**ESTROGEN DIFFERENTIALLY REGULATES CELL PROLIFERATION IN THE BRAIN OF FEMALE PRAIRIE AND MEADOW VOLES**
7. Peterson, R.S., Fernando, G., Schlinger, B.A., and Lee, D.W.  
**INJURY-INDUCED AROMATASE EXPRESSION AND CYTOGENESIS IN THE ADULT ZEBRA FINCH BRAIN: EFFECTS OF OVARECTOMY AND AROMATASE INHIBITION.**
8. Amory, E.A., Brunjes, P.C., and Rissman, E.F.  
**ESTRADIOL TREATMENT DOES NOT AFFECT CELL PROLIFERATION IN THE DENTATE GYRUS OF ADULT FEMALE MICE**
9. Sandstrom, N.J., and O'Brien, J.L.  
**ESTRADIOL PROTECTS AGAINST ISCHEMIA INDUCED DEFICITS IN WATER MAZE PERFORMANCE OF MALE RATS**
10. Franklin, T., and Perrot-Sinal, T.

**OVARIAN HORMONES AND ACUTE RESTRAINT STRESS INTERACT TO  
MODULATE BDNF PROTEIN LEVELS IN RAT BRAIN**

11. Lord, M.A. and Godwin, J.  
**BRAIN-DERIVED NEUROTROPHIC FACTOR EXPRESSION IN THE BRAIN OF THE  
BLUEHEAD WRASSE**
12. Schulz, K.M., Zehr, J.L., Osetek, A.J., and Sisk, C.L.  
**GONADAL HORMONES DURING PUBERTY MAY CONTRIBUTE TO THE  
DEFEMINIZATION OF LORDOSIS BEHAVIOR IN MALE SYRIAN HAMSTERS**
13. Lee, T.M., Aizenberg, D., Karsch, F.J., Foster, D.L., and Padmanabhan, V.  
**EXCESS PRENATAL TESTOSTERONE ALTERS REPRODUCTIVE BEHAVIOR OF  
ADOLESCENT MALE AND FEMALE SHEEP**
14. von Esenwein, S. A  
**NEONATAL EXPOSURE TO ANDROGENS ORGANIZES MASCULINIZED  
PARTNER PREFERENCE IN RATS.**
15. Lacreuse, A., Goh, M.Y., Hall, M.H., Volk, A.M., Chhabra, R.K., and Herndon, J.G.  
**SEX AND AGE DIFFERENCES IN FINE MOTOR FUNCTION IN THE RHESUS  
MONKEY**
16. Kim, A.J., Bales, K.L., and Carter, C.S.  
**PUP EXPOSURE INFLUENCES THE DEVELOPMENT OF A PARTNER  
PREFERENCE IN PRAIRIE VOLES**
17. Taravosh-Lahn, K., David, J.T., and Delville, Y.  
**PERINATAL STRESS AND THE DEVELOPMENT OF AGONISTIC BEHAVIOR IN  
GOLDEN HAMSTERS**
18. Morris, J.A., Jordan, C.L., Breedlove, S.M.  
**MEDIAL AMYGDALA VOLUME IS SEXUALLY DIMORPHIC IN MICE**
19. DeMarchi, G.A., and Krohmer, R.W.  
**VOLUME OF SEXUALLY DIMORPHIC NUCLEI AND CELLULAR DENSITY IN THE  
BRAINS OF MALE, FEMALE AND SHE-MALE RED-SIDED GARTER SNAKES**
20. Pietrucha, J. and Krohmer, R.W.  
**DISTRIBUTION OF DOPAMINE IMMUNOREACTIVE CELLS IN THE BRAIN OF THE  
RED-SIDED GARTER SNAKE**
21. Coulter-Thurley, R., Lehmann, M.L., and Erskine, M.S.  
**VARIATION IN THE TIMING OF CHEMICAL STIMULATION OF THE MEDIAL  
AMYGDALA (MEAPD) AND ITS EFFECT UPON INDUCTION OF ESTROUS  
ACYCLICITY IN THE FEMALE RAT**
22. Yang, J., Coulter-Thurley, R., Lehmann, M.L., and Erskine, M.S.  
**LATERALIZED NEURAL ACTIVATION IN AMYGDALA OF PACED VS. NON-  
PACED FEMALE RATS**
23. Hammerbeck, A., Adamson, L.A., and Gullledge, C.C.

## FOSB AND $\mu$ -OPIOID RECEPTORS IN THE MPOA OF POSTPARTUM RATS

24. Lehmann, M.L., and Erskine, M.S.  
**SYNERGISTIC ACTIONS BETWEEN MATING AND CHEMICAL STIMULATION OF THE MEDIAL AMYGDALA (MEApd): TOWARDS THE FORMATION OF A NEUROENDOCRINE MEMORY**
25. Cruz-Barrera, R., and Hull, E.  
**(S)-3,5-DHPG, A METABOTROPIC GLUTAMATE RECEPTOR 1 AGONIST, ENHANCES SEXUAL BEHAVIOR IN THE MALE RAT**
26. Sato, S., Cedeno, C.D., Xu, Z., and Hull, E.M.  
**EFFECTS OF cGMP MANIPULATION ON MPOA DOPAMINE LEVELS AND COPULATION IN MALE RATS**
27. Smith, D.J., Cedeno, C., Loewke, A.A., Sato, S., and Hull, E.M.  
**8-OH-DPAT IN THE ANTERIOR LATERAL HYPOTHALAMUS REVERSES SEXUAL SATIETY IN MALE RATS**
28. Xu, Z., and Hull, E.M.  
**TONIC INHIBITION BY THE MPOA OF THE MESOACCUMBENS DOPAMINE TRACT BEFORE AND DURING MALE SEXUAL BEHAVIOR**
29. Lagoda, G., Vigdorichik, A., Hull, E.  
**MICROINJECTION OF A NOS INHIBITOR INHIBITS COPULATION IN NAÏVE AND SEXUALLY EXPERIENCED MALE RATS**
30. Schmich, J.M., Loewke, A.A., and Hull, E.M.  
**L-TRANS-2, 4-PDC, A GLUTAMATE REUPTAKE INHIBITOR, MICROINJECTED INTO THE MPOA, MAY ENHANCE MALE RAT SEX BEHAVIOR**
31. Vigdorichik, A., Lagoda, G., and Hull, E.M.  
**A GLUTAMATE NMDA RECEPTOR ANTAGONIST, MICROINJECTED INTO THE MPOA IMPAIRS MALE SEXUAL BEHAVIOR**
32. Kabelik, D., Weiss, S.L., and Moore, M.C.  
**SEASONAL PLASTICITY IN STEROID HORMONE LEVELS, BRAIN MORPHOLOGY, AND AGGRESSIVE BEHAVIOR OF THE TREE LIZARD, *UROSAURUS ORNATUS***
33. Farrell W.J., and Wilczynski, W.  
**AGGRESSIVE EXPERIENCE INFLUENCES PLACE PREFERENCE IN GREEN ANOLE LIZARDS (*ANOLIS CAROLINENSIS*)**
34. Hattori, T., and Wilczynski, W.  
**THE EFFECT OF SOCIAL EXPERIENCE ON ESTABLISHMENT OF DOMINANCE IN MALE GREEN ANOLE LIZARDS (*Anolis carolinensis*)**
35. Yang, E.J. and Wilczynski, W.  
**CHANGES IN PLASMA TESTOSTERONE DURING AGGRESSIVE EXPERIENCE ARE IMPORTANT FOR EXPERIENCE-DEPENDENT BEHAVIORAL PLASTICITY**
36. Cooper, M.A., Karom, M., Huhman, K.L., and Albers, H.E.

**SOCIAL DEFEAT AND VASOPRESSIN (V1A) RECEPTORS IN MALE SYRIAN HAMSTERS**

- 37a. Hazelton J.L., Cushing B.S., Carter C.S., Hoffman G.E., Ottinger M.A.  
**EXPRESSION OF CFOS FOLLOWING COHABITATION IN THE PRAIRIE VOLE (*Microtus ochrogaster*).**
37. Davis, E.S., and Marler, C.A.  
**C-FOS CHANGES FOLLOWING AN AGGRESSIVE ENCOUNTER IN FEMALE CALIFORNIA MICE: A SYNTHESIS OF BEHAVIOR, HORMONE CHANGES AND NEURAL ACTIVITY**
38. Oliveira, R.F., Silva, A., Hirschenhauser, K., and Canário, A.V.M.  
**EXPERIENTIAL EFFECTS AND ANDROGENS IN A CICHLID FISH**
39. Earley, R.L., Felton, K., Netherton, J.D., Aseem, O., Edwards, J., Blumer, L., and Grober, M.S.  
**AN INTEGRATIVE ANALYSIS OF CHRONIC SOCIAL SUBORDINATION IN CONVICT CICHLIDS (*ARCHOCENTRUS NIGROFASCIATUM*)**
40. Lutterschmidt, D.I. and Mason, R.T.  
**MELATONIN TRANSDUCES ENVIRONMENTAL TEMPERATURES AND INITIATES MALE COURTSHIP BEHAVIOR IN RED-SIDED GARTER SNAKES**
41. Greives, T.J., Casto, J.M., and Ketterson, E.D.  
**BEHAVIORAL AND PHYSIOLOGICAL CONSEQUENCES OF BIASED SEX RATIOS IN DARK-EYED JUNCOS**
42. Choleris, E., Pfaff, D.W., and Ogawa, S.  
**SIMILAR IMPAIRMENTS OF SOCIAL DISCRIMINATION IN ESTROGEN RECEPTOR ALPHA, BETA AND OXYTOCIN KNOCKOUT FEMALE MICE: A DETAILED BEHAVIORAL ANALYSIS**
43. Aragona, B.J., Liu, Y., Yu, Y.J., Damron, A., Perlman, G., and Wang, Z.  
**OPPOSITE MODULATION OF SOCIAL ATTACHMENT BY D1- AND D2-TYPE DOPAMINE RECEPTOR ACTIVATION IN NUCLEUS ACCUMBENS SHELL**
44. Kikusui, T., Nakamura, K., Isaka, Y., Takeuchi, Y., and Mori, Y.  
**MODIFICATION OF SOCIAL BEHAVIORS FOLLOWING PRECOCIOUS WEANING IN MICE**
45. Edwards, D.A., and Waters, J.  
**WOMEN'S INTERCOLLEGIATE VOLLEYBALL: SALIVA TESTOSTERONE AND CORTISOL ARE ELEVATED DURING COMPETITION AND BEFORE-MATCH TESTOSTERONE IS RELATED TO TEAMMATE-RATINGS OF PLAYING ABILITY**
46. Peters, K.D., and Wood, R.I.  
**ANDROGEN OVERDOSE: BEHAVIORAL AND PHYSIOLOGICAL EFFECTS OF ACUTE ADMINISTRATION**
47. Bardi, M., Shimizu, K., Barrett, G.M., Huffman, M.A., Borgognini-Tarli, S.M

**DIFFERENCES IN THE SOCIAL BEHAVIOR AND ENDOCRINE PROFILES  
ACROSS PARTURITION BETWEEN RHESUS AND JAPANESE MACAQUES**

48. Remage-Healey, L., and Bass, A.H.  
**STEROID HORMONES EXERT RAPID, SEX-SPECIFIC CHANGES IN VOCAL  
COMMUNICATION SIGNALS IN GULF TOADFISH, *OPSANUS BETA***
49. Forlano, P.M., Sisneros, J.A., Knapp, R., and Bass, A.H.  
**REPRODUCTIVE PERIODICITY OF GONADAL STEROID HORMONE LEVELS IN  
THE VOCAL PLAINFIN MIDSHIPMAN, *PORICHTHYS NOTATUS***
50. London, S.E. and Schlinger, B.A.  
**EVIDENCE FOR STERIOD SYNTHESIS IN SONGBIRD BRAIN: CLONING AND  
EXPRESSION OF 3 $\alpha$ -HSD**
51. Kondo, Y., Xiao, K., and Sakuma, Y.  
**ODOR PREFERENCE IN MALE AND FEMALE RATS: EFFECTS OF CASTRATION  
AND GONADAL STEROIDS**
52. Øverli, Ø., Pottinger, T.G., and Winberg, S.  
**BEHAVIORAL CORRELATES OF STRESS RESPONSIVENESS IN RAINBOW  
TROUT**
53. Nunes, S., Curtin, M., and Faustino, J.  
**DEVELOPMENT OF THE HORMONAL STRESS RESPONSE IN JUVENILE  
BELDING'S GROUND SQUIRRELS**
54. Bilbo, S.D. and Nelson, R.J.  
**PHOTOPERIOD AND EXERCISE AFFECT METABOLISM AND DELAYED TYPE  
HYPERSENSITIVITY IN SIBERIAN HAMSTERS**
55. Bowers, S.L., Bilbo, S.D., Dhabhar, F.S. and Nelson, R.J.  
**DELAYED-TYPE-HYPERSENSITIVITY AND CORTICOSTERONE RESPONSES TO  
VARIOUS STRESSORS IN MICE**
56. Solomon, M.B., Askew, J.A., Cooper, M.A., Huhman, K.L.  
**BLUNTED STRESS RESPONSE IN PREVIOUSLY DEFEATED FEMALE  
HAMSTERS**
57. Kinsey, S.G., Prendergast, B.J., Nelson, R.J.  
**INTERACTIONS AMONG GONADAL HORMONES, STRESS, AND WOUND  
HEALING IN SIBERIAN HAMSTERS**
- 58a. Walf, A.A., and Frye, C.A.  
**INHIBITING INTRACELLULAR ESTROGEN RECEPTORS IN THE HIPPOCAMPUS,  
BUT NOT THE AMYGDALA, OF PROESTROUS RATS ATTENUATES ANXIETY  
AND DEPRESSIVE BEHAVIOR.**
58. Huber, S., Palme, R., and Arnold, W.  
**ADRENOCORTICAL RESPONSE OF RED DEER (*Cervus elaphus*) TO HUMAN  
DISTURBANCES**
59. Rubinow, M.J., Beverly, J.L., Arseneau, L.M., and Juraska, J.M.

**ESTROUS CYCLE INTERACTS WITH STRESS IN AFFECTING WATER MAZE PERFORMANCE**

60. Woodson, J.C., Park, C.R., Campbell, A.M., Muñoz, C., and Diamond, D.M.  
**DISSOCIATION BETWEEN THE EFFECTS OF STRESS VERSUS ELEVATED GLUCOCORTICOID LEVELS ON SPATIAL MEMORY IN RATS**
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