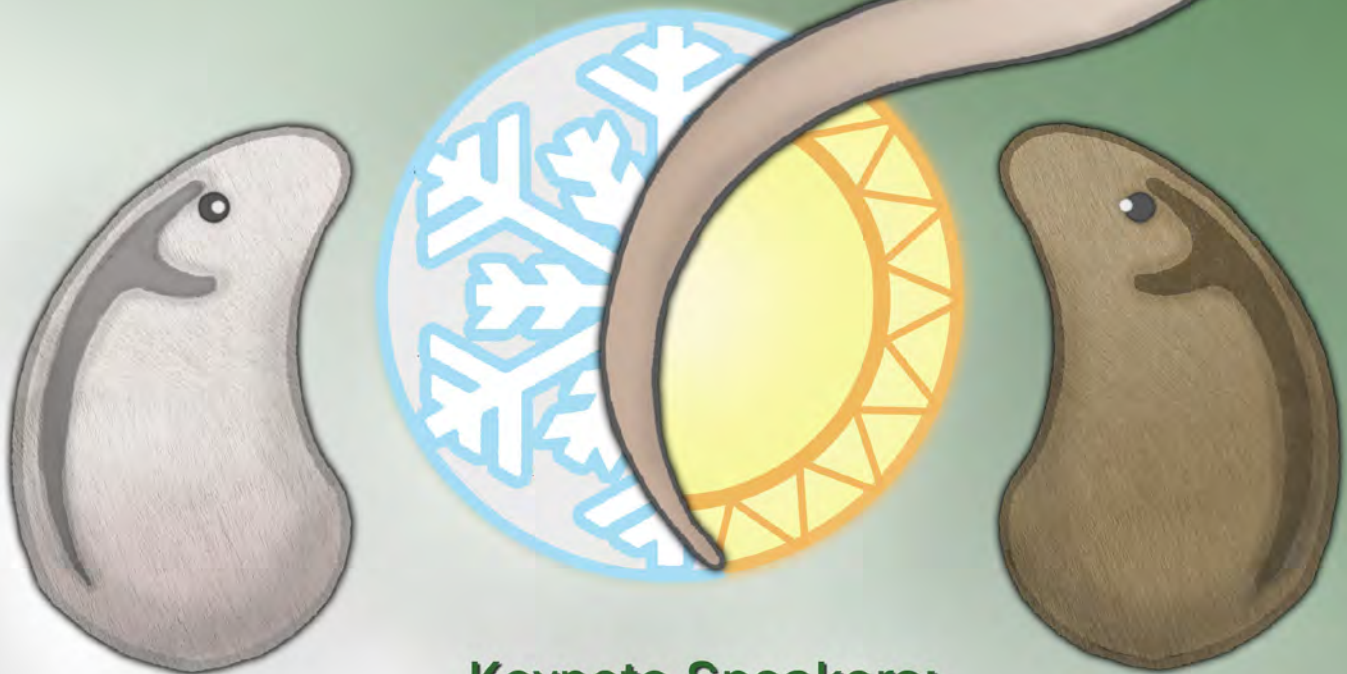


THE 23RD ANNUAL INDIANA UNIVERSITY

ANIMAL BEHAVIOR CONFERENCE

MARCH 31ST - APRIL 2ND 2016
BLOOMINGTON, IN



Keynote Speakers:

Friday: Dr. Alison Fleming (*University of Toronto*)

Saturday: Gregory Demas (*Indiana University*)

Saturday Symposium:

"Changing Paradigms in Animal Behavior"

CONTENTS

PROGRAM IN BRIEF	2
WI-FI ACCESS	3
INFORMATION FOR PRESENTERS	3
MAPS	
Bloomington	4
Includes all conference venues, bus routes, parking information, and restaurant locations	
Indiana Memorial Union	6
PROGRAM SCHEDULE	
Thursday Poster Presentations	7
Friday Oral Presentation Schedule	12
Saturday Symposium Schedule	15
BIOGRAPHIES	
Keynote and Exemplar Speakers	17
Saturday Symposium: Invited Panel Members	18
ACKNOWLEDGEMENTS	20

Abstracts of all poster and oral presentations are available online:

[Download poster presentation abstracts](#)

[Download Friday oral presentation abstracts](#)

[Download Saturday oral presentation abstracts](#)

PROGRAM IN BRIEF

THURSDAY, MARCH 31ST

Poster Session

7:00 PM – 9:00 PM, Indiana Memorial Union, Solarium

FRIDAY, APRIL 1ST

Oral Presentations

8:00 AM – 5:30 PM, Indiana Memorial Union, Alumni Hall

Reception

7:00 PM – 9:00 PM, Home of Cara Wellman and Dale Sengelaub, 1526 East Dunstan Drive

SATURDAY, APRIL 2ND

Saturday Symposium

9:30 AM – 5:45 PM, IU Student Building, 701 E. Kirkwood Avenue, Room 015

HOW TO DONATE TO CISAB

Registration for the IU Animal Behavior Conference is free. However, funding for the meeting depends on contributions from generous donors. Please consider donating to CISAB's Foundation account to help support this and future meetings.

Suggested Donation: Students - \$10; Faculty - \$30

Donate by visiting the [CISAB website](#). Type 'ANIMAL' in the Search Box to find "Center for Animal Behavior"

WI-FI ACCESS

You may access Indiana University's free guest wireless internet service from anywhere on campus.

To connect, make sure your device's Wi-Fi is turned on, and select the "attwifi" SSID. You may need to start your web browser to finish authenticating AT&T.

If you need assistance, contact the IMU front desk at 812-856-6381.

INFORMATION FOR PRESENTERS

FRIDAY ORAL PRESENTATIONS

TALK FORMAT: Time allotted for talks is 15 minutes, roughly composed of a 12-minute talk, with 3 minutes for questions from the audience.

LOADING TALKS: Please upload your talk as soon as possible after you arrive at the conference, and no later than an hour before your presentation time. Computers for uploading talks will be available near the registration table. Staff will be available to assist you on Thursday from 5:00 PM – 7:00 PM, Friday from 7:30 AM – 5:30 PM, and Saturday from 9:30 AM – 12:30 PM.

POSTER PRESENTATIONS

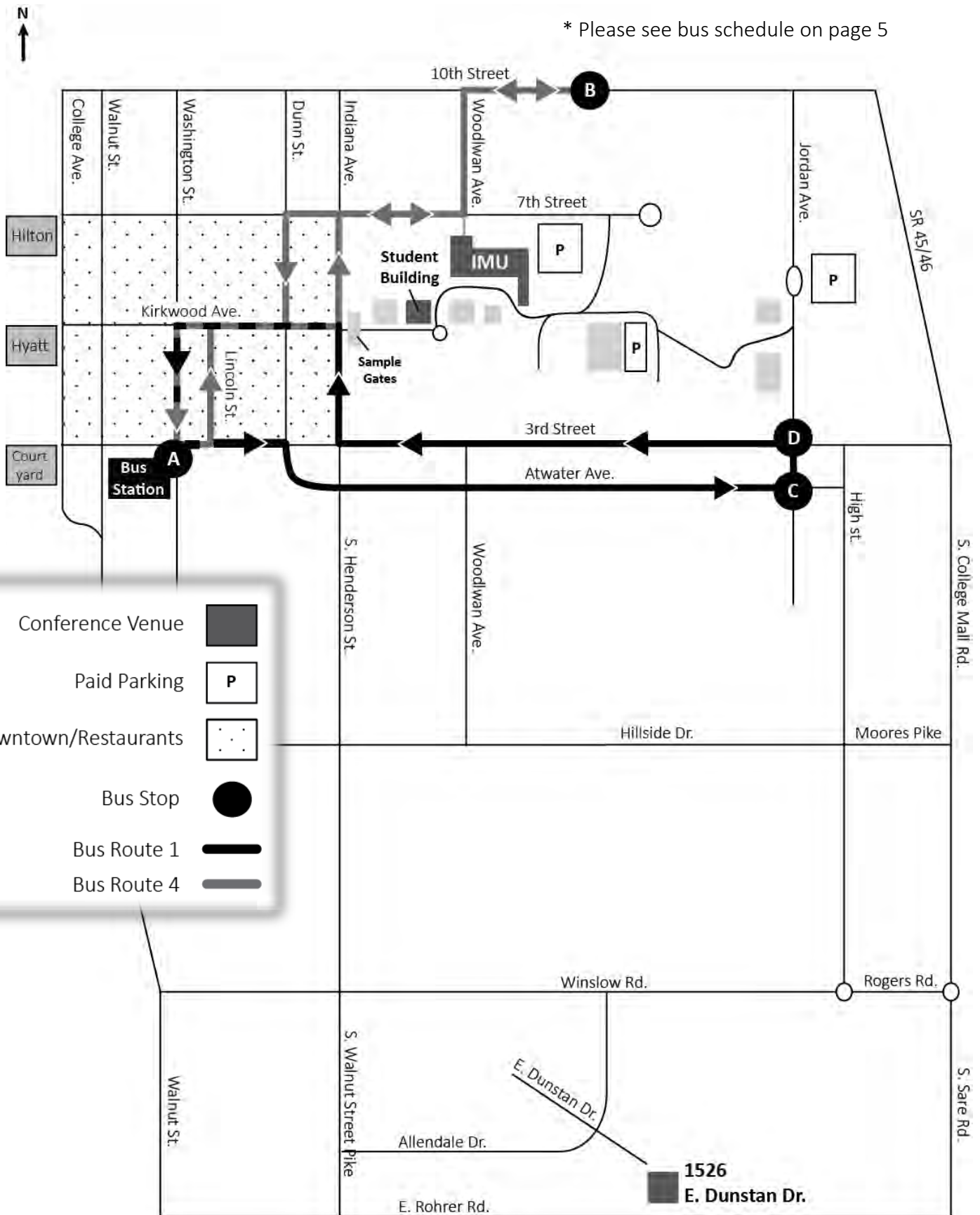
POSTER FORMAT: The space allotted for posters is 4 feet by 4 feet.

POSTER SET-UP: Posters can be set up in the IMU Solarium any time after 5:45 PM on Thursday, March 31st. Presenters will receive poster numbers, instructions regarding where to hang poster, and hanging materials upon arrival.

POSTER TAKE-DOWN: Posters will be available for viewing on Friday morning, so presenters are encouraged to leave their posters in the Solarium after the poster session. Posters must be taken down by 1:00 PM on Friday, April 1st.

MAP OF CONFERENCE VENUES

* Please see bus schedule on page 5



Conference Venue	
Paid Parking	
Downtown/Restaurants	
Bus Stop	
Bus Route 1	
Bus Route 4	

BUS SCHEDULES

Shaded area does not operate on Saturdays; neither route operates on Sundays.
 Bus fare is \$1.00. For all routes, please visit the [Bloomington Transit website](#).

ROUTE 1 FEE LANE / BHS NORTH

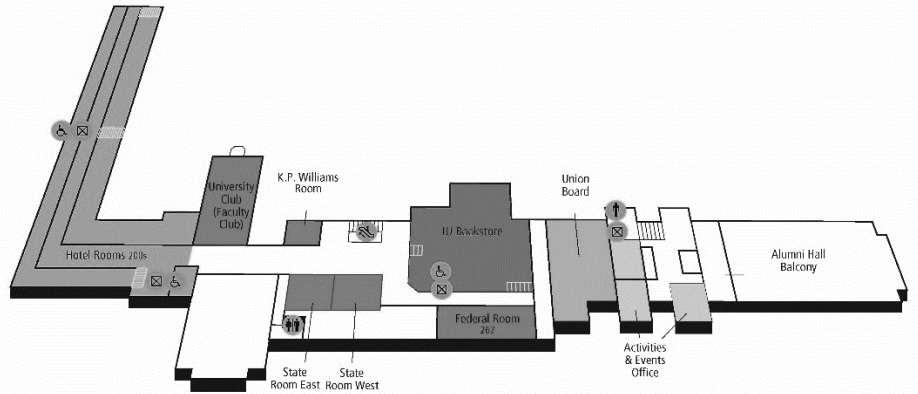
3 rd & Walnut (A)	10 th & Fee (B)	10th & Fee (B)	3rd & Walnut (A)
-	-	6:51	7:02
7:10	7:15	7:51	8:02
8:10	8:15	8:51	9:02
9:10	9:15	9:51	10:02
10:10	10:15	10:51	11:02
11:10	11:15	11:51	12:02
12:10	12:15	12:51	1:02
1:10	1:15	1:51	2:02
2:10	2:15	2:51	3:02
3:10	3:15	3:51	4:02
4:10	4:15	4:51	5:02
5:10	5:15	5:51	6:02
6:10	6:15	6:51	7:02
7:10	7:15	7:51	8:02
8:10	8:15	8:51	9:02
9:10	9:15	9:51	10:02
10:10	10:15	10:51	11:02
11:10	11:15	-	-

ROUTE 4 HIGH STREET SHERWOOD OAKS

3 rd & Walnut (A)	Atwater & Jordan (C)	3 rd & Jordan (D)	3 rd & Walnut (A)
-	-	6:51	6:59
7:10	7:13	7:51	7:59
8:10	8:13	8:51	8:59
9:10	9:13	9:51	9:59
10:10	10:13	10:51	10:59
11:10	11:13	11:51	11:59
12:10	12:13	12:51	12:59
1:10	1:13	1:51	1:59
2:10	2:13	2:51	2:59
3:10	3:13	3:51	3:59
4:10	4:13	4:51	4:59
5:10	5:13	5:51	5:59
6:10	6:13	6:51	6:59
7:10	7:13	7:51	7:59
8:10	8:13	8:51	8:59
9:10	9:13	9:51	9:59
10:10	10:13	10:51	10:59
11:10	11:13	-	-

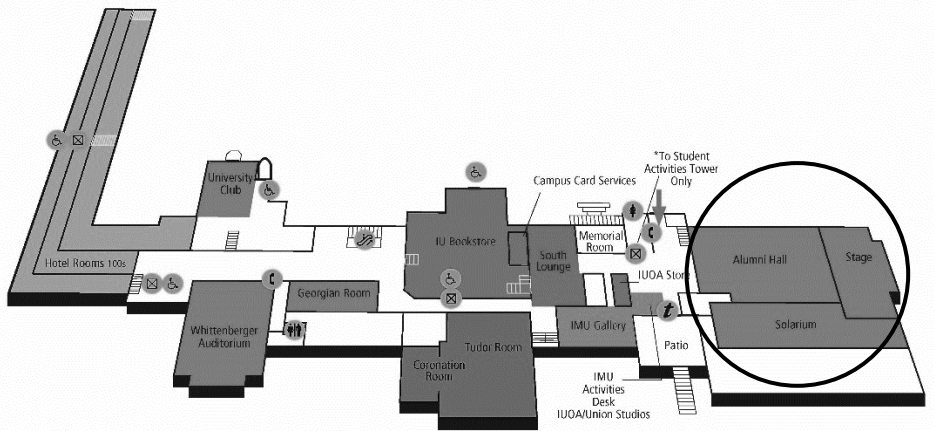
INDIANA MEMORIAL UNION

FOURTH FLOOR

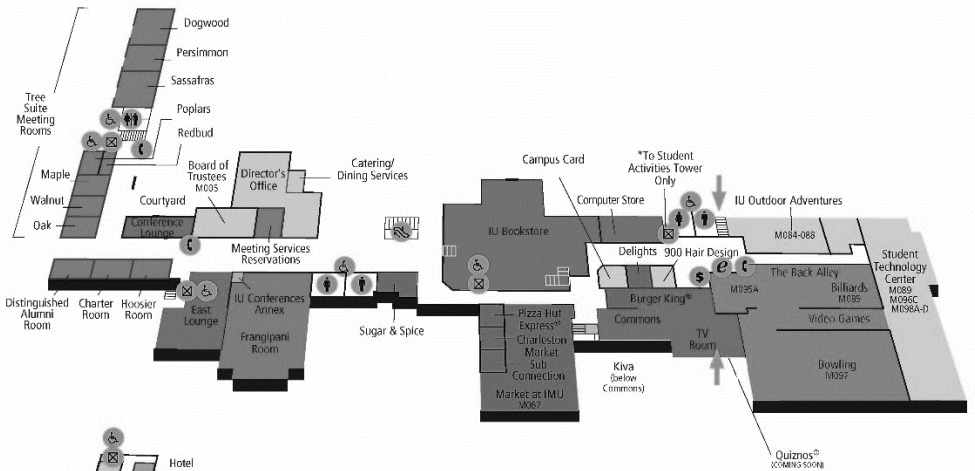


THIRD FLOOR

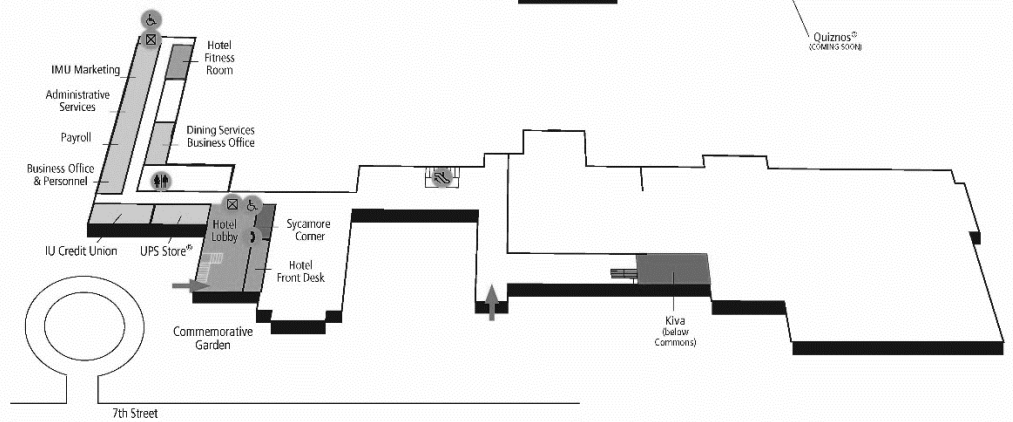
Poster presentations in Solarium
Oral presentations in Alumni Hall



SECOND FLOOR



FIRST FLOOR



POSTER PRESENTATIONS

THURSDAY, MARCH 31ST, IMU SOLARIUM

Organized alphabetically by first author last name. Numbers indicate poster numbers.

Most posters will remain available for viewing until 1:00 PM on Friday, April 1st.

[Click here](#) to download abstracts of all poster presentations.

- 1 AFD VILLI INTEGRITY IS NECESSARY FOR MAGNETIC ORIENTATION BY *C. ELEGANS* Barickman L, Bracht B, Bainbridge C, and Vidal-Gadea A
School of Biological Sciences, Illinois State University
- 2 CIRCADIAN DISRUPTION, COGNITIVE FUNCTION AND NEUROTRANSMISSION IN A RODENT MODEL Balachandran RC¹, Leventhal MB¹, Robertson AL¹, Beaudin S², Mahoney, MM¹, and Eubig PA¹
¹*Department of Comparative Biosciences, College of Veterinary Medicine, University of Illinois at Urbana-Champaign;* ²*Microbiology and Environmental Toxicology, University of California Santa Cruz*
- 3 AFRICAN ELEPHANT CALVES EXHIBIT THE TYPICAL LATERAL SEQUENCE GAIT AND A WALKING TROT Bates HR¹, and Dale RHI²
¹*Department of Biological Sciences, Butler University;* ²*Department of Psychology, Butler University*
- 4 RHESUS MONKEYS SELECTIVELY SHIFT ATTENTION WITHIN WORKING MEMORY TO PRIORITIZE RELEVANT INFORMATION Brady RJ and Hampton RR
Department of Psychology, Emory University; Yerkes National Primate Research Center
- 5 EVIDENCE FOR THE SPLIT-ATTENTION HYPOTHESIS: MALE SAILFIN MOLLIES (*POECILIA LATIPINNA*) SPLIT ATTENTION BASED ON SOCIAL ENVIRONMENT Burrige SB¹, Makowicz AM², and Schlupp I¹
¹*Department of Biology, University of Oklahoma;* ²*Department of Biology, University of Konstanz*
- 6 INDIVIDUAL DIFFERENCES IN AGGRESSION ARE BETTER PREDICTED BY SEX THAN BY DIFFERENCES IN VISION Caceres J, Suriyampola PS, Iruri-Tucker AA, Sykes DJ, and Martins EP
Department of Biology, Indiana University
- 7 BIRTH: AN OVERLOOKED EVENT IN THE DEVELOPMENT OF BRAIN AND BEHAVIOR? Castillo-Ruiz A, Mosley M, and Forger NG
Neuroscience Institute, Georgia State University
- 8 CHRONIC STRESS DIFFERENTIALLY ALTERS MICROGLIA ACTIVATION IN THE ORBITOFRONTAL CORTEX OF MALE AND FEMALE RATS Collins K¹, Bollinger JL^{1,2}, and Wellman CM^{1,2}
¹*Department of Psychological and Brain Sciences and* ²*Center for the Integrative Study of Animal Behavior, Indiana University*
- 9 EMBRYONIC EXPOSURE TO BPA AND RESULTING EFFECTS ON LEARNING IN HATCHLING RED-EARED SLIDER TURTLES (*TRACHEMYS SCRIPTA*) Dillard JE, Paitz RT, and Bowden RM
School of Biological Sciences, Illinois State University

- 10 NO DETECTABLE EFFECT OF DISTURBANCE ON FEATHER FAULT BARS IN CAPTIVE DARK-EYED JUNCOS (*JUNCO HYEMALIS*)
Gall BJ, Hanauer RE, and Ketterson ED
Department of Biology, Indiana University
- 11 NEUROGENOMIC RESPONSES TO SOCIAL CHALLENGES: AN EXPERIMENTAL TEST OF SOCIAL PRIMING IN MALE SONGBIRDS
George EM¹, Peterson MP², Buechlein A³, Tang H³, Rusch D³, Ketterson ED¹, and Rosvall KA¹
¹*Department of Biology, Indiana University;* ²*Biology, Viterbo University;* ³*Center for Genomics and Bioinformatics, Indiana University*
- 12 SKIN LIPIDS OF STRIPED PLATEAU LIZARDS (*SCELOPORUS VIRGATUS*) MAY SIGNAL FEMALE RECEPTIVITY AND REPRODUCTIVE QUALITY ALONGSIDE VISUAL ORNAMENTS
Goldberg JK^{1,2}, Wallace AK¹, and Weiss SL¹
¹*Biology Department, University of Puget Sound;* ²*Department of Biology, Indiana University*
- 13 THE ACTIVATION OF VASOACTIVE INTESTINAL POLYPEPTIDE BRAIN CELLS IN RESPONSE TO FIGHT OR FLIGHT
Gucwa A, Staehler N, Jan N, Alexander G, Goodson JL, and Kingsbury MA
Department of Biology, Indiana University
- 14 USE OF A TEMPERATURE LOGGER TO MONITOR NEST ATTENDANCE IN HOUSE SPARROWS (*PASSER DOMESTICUS*)
Hamilton HP, Martin GR, and Fox RA
Biology, Transylvania University
- 15 BODY SIZE AND MATE SELECTION: FEMALE EASTERN NEWTS (*NOTOPHTHALAMUS VIRIDESCENS*) DO NOT EXHIBIT PREFERENCE FOR SMALL MALES
Hart SL, Spicer MM, and Gall BG
Biology, Hanover College
- 16 TRANSGENERATIONAL EFFECTS OF DI-(2-ETHYLHEXYL) PHTHALATE ON ANXIETY BEHAVIOR AND BRAIN GENE EXPRESSION IN MALE AND FEMALE MICE
Hatcher KM^{1,3}, Willing J^{2,3}, Chiang C¹, Rattan S¹, Juraska JM^{2,3}, Flaws JA¹, and Mahoney MM^{1,3}
¹*Department of Comparative Biosciences,* ²*Department of Psychology,* and ³*Neuroscience Program, University of Illinois*
- 17 THE EFFECT OF APOMORPHINE AND MPTP ON ADULT ZEBRAFISH
Helmke E, Douma MJ, Cruz YT, De Venecia AN, and Saszik S
Department of Psychology, Northeastern Illinois University
- 18 LANDMARKS ALTER GROUP STRUCTURE OF ZEBRAFISH, *DANIO RERIO*
Howard EM, Suriyampola PS, Sykes DJ, and Martins EP
Department of Biology, Indiana University
- 19 THE MORE THE MERRIER: LARGER GROUPS ARE BETTER AT RESPONDING TO FLUCTUATING ENVIRONMENTS
Iruri-Tucker AA, Suriyampola PS, Enriques A, Blackwell G, Shelton DS, Caceres J, and Martins EP
Department of Biology, Indiana University
- 20 VISUAL RESOLUTION OF TWO SPECIES OF *SCELOPORUS* LIZARDS THAT DIFFER IN VENTRAL COLORATION
Jarvis HV¹, Ossip-Klein AG¹, Ronald KL², Fernandez-Juricic E², Hews DK³, and Martins EP¹
¹*Department of Biology, Indiana University;* ²*Biological Sciences, Purdue University;* ³*Department of Biology, Indiana State University*

- 21 HORMONE AND MELANOCYTE SIGNALING IN A SOCIAL FEATHER ORNAMENT
Kassab HD, Fitzpatrick KD, Bryant J, Abolins-Abols M, and Ketterson ED
Department of Biology, Indiana University
- 22 LOSS OF FUNCTION IN THE NEMATODE *UBE3A* ORTHOLOG LEADS TO NEUROLOGICAL IMPAIRMENTS IN A *C. ELEGANS* MODEL OF ANGELMAN SYNDROME
Khalil M and Vidal-Gadea A
School of Biological Sciences, Illinois State University
- 23 SEX AND BODY TEMPERATURE PREDICT SPATIAL POSITIONING OF INDIVIDUALS IN HUDDLE
Kim NS^{1,2}, Myers MA¹, Cahela JP³, Shelton DS^{1,2}, and Alberts JR¹
¹*Department of Psychological and Brain Sciences and*
²*Department of Biology, Indiana University;* ³*Department of Psychology, University of Hawaii*
- 24 THE NEUROBIOLOGY OF NOCICEPTION: ANALYZING DENDRITIC MORPHOLOGY OF TRANSGENIC *DROSOPHILA*
Fisher K, Jeffirs S, and Kumar E
Program in Neuroscience, Indiana University
- 25 HABITAT SELECTION AND THE EFFECT OF CONSPECIFIC PRESENCE IN FORAGE FISH
Levell ST¹ and Greene CM²
¹*Department of Biological Science, Florida State University;* ²*Fisheries Ecology, Northwest Fisheries Science Center*
- 26 THE SOCIAL DEVELOPMENT OF AN *EX SITU* ELEPHANT CALF MIRRORS THAT OF AN *IN SITU* CALF
Machado JM, Haddon AJ, and Dale RHI
Department of Psychology, Butler University
- 27 BEHAVIORAL AND ELECTROPHYSIOLOGICAL CHANGES IN THE Q175 MOUSE MODEL OF HUNTINGTON'S DISEASE FOLLOWING ADMINISTRATION OF AAV9-GLT1
McCormick BM, Bunner KD, Rangel-Barajas CR, Barton SJ, and Rebec GV
Program in Neuroscience, Indiana University
- 28 BEHAVIORAL EFFECTS OF PRENATAL OXYTOCIN MANIPULATION IN MICE
Miller TV¹, Tamborski S², and Caldwell HK^{1,2}
¹*School of Biomedical Sciences, Kent State University;*
²*Department of Biological Sciences, Kent State University*
- 29 BODY TEMPERATURES AND SOCIAL CENTRALITY IN MOUSE PUPS
Myers MA¹, Kim NS¹, Cahela JP³, Shelton DS^{1,2}, and Alberts JR¹
¹*Department of Psychological and Brain Sciences and*
²*Department of Biology, Indiana University;* ³*Department of Psychology, University of Hawaii*
- 30 SEASONAL VARIATION IN THE PRODUCTION OF BEHAVIORAL TYPES IN *TRACHEMYS SCRIPTA*
Nichols H, Wilson Carter A, and Bowden R
Illinois State University
- 31 MULTIVARIATE SEXUAL SELECTION ON MALE TEGMINA IN WILD POPULATIONS OF SAGEBRUSH CRICKETS, *CYPHODERRIS STREPITANS* (ORTHOPTERA: HAGLIDAE)
Ower GD¹, McGrath CM¹, Halpin R², Hunt J³, and Sakaluk SK¹
¹*School of Biological Sciences, Illinois State University;*
²*Division of Mathematical and Natural Sciences, Arizona State University;* ³*School of Biosciences, University of Exeter in Cornwall*

- 32 SEX-DEPENDENT STRESS EFFECTS ON MICROGLIAL CELL MORPHOLOGY IN BASOLATERAL AMYGDALA
Patel R¹, Bollinger JL^{1,2,3}, and Wellman CL^{1,2,3}
¹Program in Neuroscience, ²Department of Psychological and Brain Sciences, and ³Center for the Integrative Study of Animal Behavior, Indiana University
- 33 *C. ELEGANS* SUPPRESSOR MUTANT RESCUES MUSCULAR DEGENERATION IN NEMATODE MODEL OF DUCHENNE MUSCULAR DYSTROPHY
Rodriguez A, Barickman L, Goel S, Schuler A, DeVries P, Cisneros M, Alvarado G, Anastitia A, Barsanti B, DePerez J, Dickens S, Esfahanian M, Jarris B, Larson B, Mathis C, Mecidor R, Mills S, Oates B, Pascalis T, Quintana E, Telander T, Young J, and Vidal-Gadea AG
School of Biological Sciences, Illinois State University
- 34 ARE NEOPHOBIA AND HABITUATION RELATED TO NESTING HABITAT IN HOUSE SPARROWS (*PASSER DOMESTICUS*)?
Rowe RD, Saldaña CA, and Fox RA
Biology Program, Transylvania University
- 25 THE SOCIAL DEVELOPMENT OF AN *EX SITU* AFRICAN ELEPHANT CALF RESEMBLES THAT OF *IN SITU* CALVES
Ruppert SJ, Knepper BA, and Dale RHI
Department of Psychology, Butler University
- 36 CORRELATES OF MELANINIZATION IN MULTIPLE HIGH AND LOW-ELEVATION POPULATIONS OF THE LIZARD, *SCELOPORUS OCCIDENTALIS*: AGGRESSION, TESTOSTERONE, AND STRESS REACTIVITY
Seddon RJ and Hews DK
Department of Biology, Indiana State University
- 37 THE EFFECTS OF DEVELOPMENTAL HYPOTHYROIDISM ON SHORT-TERM OBJECT RECOGNITION MEMORY
Sieg ML¹, Townes CA¹, Balachandran RC¹, Gilbert ME², and Eubig PA¹
¹Department of Comparative Biosciences, College of Veterinary Medicine, University of Illinois at Urbana-Champaign; ²U.S. Environmental Protection Agency, National Health and Environmental Effects Laboratory, Toxicity Assessment Division
- 38 SOCIAL HOUSING INFLUENCES SEROTONERGIC FLUCTUATIONS IN MALE MICE DURING RESIDENT-INTRUDER ENCOUNTERS
Sloss BG, Keesom SM, and Hurley LM
Department of Biology, Indiana University
- 39 RATS REMEMBER ITEM IN CONTEXT USING EPISODIC MEMORY
Panoz-Brown DE, Sluka CM, Brotheridge S, Corbin H, Dalecki S, Gentry M, Wu JE, and Crystal JD
Department of Psychological and Brain Sciences, Indiana University
- 40 FEMALE MATE PREFERENCE IN EASTERN NEWTS (*NOTOPHTHALMUS VIRIDESCENS*) IN RELATION TO THE NUMBER AND BRIGHTNESS OF RED SPOTS ON MALES
Spicer MM, Hart SL, and Gall BG
Department of Biology, Hanover College
- 41 EFFECTS OF A BROAD-SPECTRUM ANTIBIOTIC ON THE SIBERIAN HAMSTER (*PHODOPUS SUNGORUS*) GUT MICROBIOME
St. John EA, Sylvia KE, Jewell CP, and Demas GE
Department of Biology, Indiana University

- 42 DOES THE PRESENCE AND NATURE OF A CONSPECIFIC AFFECT THE BEHAVIORAL AND NEUROHORMONAL RESPONSE TO ACUTE STRESS IN MALE PRAIRIE VOLES?
 Staehler N, Alexander G, Perkeybile AM, Kenkel WM, Carter CS, and Kingsbury MA
Department of Biology, Indiana University
- 43 EFFECTS OF PREWEANLING STRESS ON DENDRITIC SPINE DENSITY IN BASOLATERAL AMYGDALA
 Swanson KM¹, Skipper RA¹, Quinn JJ², Herbst MR², and Wellman CL¹
¹*Department of Psychological and Brain Sciences and Center for the Integrative Study of Animal Behavior, Indiana University;* ²*Department of Psychology, Miami University*
- 44 THE ROLE OF ACID-SENSING ION CHANNELS (ASICs) IN OLFACTORY BEHAVIOR
 Vann KT and Xiong Z
Neuroscience Institute, Morehouse School of Medicine
- 45 THE EFFECT OF SOCIAL EXPERIENCE ON SEROTONERGIC FIBER DENSITY IN THE AUDITORY MIDBRAIN
 Wise BM¹, Keesom SM¹, Sandlain R², and Hurley LM¹
¹*Department of Biology, Indiana University;* ²*Illinois Institute of Technology*
- 46 CREATING A CULTURAL BRIDGE IN AN URBAN POVERTY ZONE TO INCREASE CANINE AND HUMAN WELFARE
 Wisok A
Bergin University of Canine Sciences
- 47 MATERNAL BEHAVIOR IN VIRGIN FOREBRAIN OXYTOCIN RECEPTOR KNOCKOUT MICE
 Witchev SK¹ and Caldwell HK^{1,2}
¹*Department of Biological Sciences and* ²*School of Biomedical Sciences, Kent State University*

ORAL PRESENTATIONS

FRIDAY, APRIL 1ST, IMU ALUMNI HALL

[Click here](#) to download abstracts of all Friday presentations.

- 8:00 – 8:15 **Welcoming Remarks**
Cara L. Wellman, Ph.D., Director, Center for the Integrative Study of Animal Behavior
- SESSION I** Moderator: Amanda Gibson
- 8:15 – 8:30 **YOU CAN TELL BY THE WAY I USE MY MARK: USE OF MALE SUBSTRATE-BORNE
PHEROMONE IN FEMALE MATE CHOICE**
Tyler N. Wittman
Department of Biological Sciences, Northern Illinois University
- 8:30 – 8:45 **SOCIAL SYNCHRONIZATION IS STRONG IN FIELD FORAGING HONEYBEE COLONIES AND CAN
OVERRIDE PHOTIC ENTRAINMENT**
Guy Bloch, Ph.D.
Department of Ecology, Evolution, and Behavior, The Hebrew University of Jerusalem
- 8:45 – 9:00 **INTRINSIC EXCITABILITY AND EXCITATORY SYNAPTIC INPUT DO NOT DIFFER BY SEX IN
PREPUBERTAL RAT NUCLEUS ACCUMBENS SHELL MEDIUM SPINY NEURONS**
Jamie A. Willett
*Department of Biological Sciences, W.M. Keck Center for Behavioral Biology, Graduate
Program in Physiology, North Carolina State University*
- 9:00 – 9:15 **CONNECTING CHEMOSENSORY BEHAVIOR WITH COMPOSITION OF COMMUNICATIVE
CHEMICAL SIGNALS**
Stephanie M. Campos
Department of Biology, Indiana University
- 9:15 – 9:30 **CIRCADIAN DISRUPTION, COGNITIVE FUNCTION AND NEUROTRANSMISSION IN A RODENT
MODEL**
Rekha C. Balachandran
*Department of Comparative Biosciences, College of Veterinary Medicine, University of Illinois
at Urbana-Champaign*
- 9:30 – 9:45 **REAL-TIME STRIATAL MEASUREMENTS OF OXIDATIVE STRESS AND DOPAMINE IN THE
DYSKINETIC RAT DURING CHRONIC L-DOPA TREATMENT FOR PARKINSON'S DISEASE**
Leslie R. Wilson
Department of Chemistry, North Carolina State University
- REFRESHMENT BREAK
- SESSION II** Moderator: Caroline Deimel
- 10:00 – 10:15 **SOCIAL NETWORKS AND REPRODUCTIVE OUTPUT IN FEMALE BROWN-HEADED COWBIRDS
(MOLOTHRUS ATER)**
Gregory M. Kohn, Ph.D.
Department of Psychological and Brain Sciences, Indiana University

- 10:15 – 10:30 **GIVE IT ALL WE GOT TONIGHT? TERMINAL INVESTMENT AND MALE CRICKET CALLING EFFORT**
 Kristin R. Duffield, Ph.D.
School of Biological Sciences, Illinois State University
- 10:30 – 10:45 **UPREGULATION OF GLUTAMATE TRANSPORTER 1 (GLT1): A THERAPEUTIC TARGET FOR HUNTINGTON'S DISEASE?**
 Kendra D. Bunner
Department of Psychological and Brain Sciences, Indiana University
- 10:45 – 11:-00 **FAMILIARITY AFFECTS NETWORK STRUCTURE AND INFORMATION FLOW IN GUPPY (*POECILIA RETICULATA*) SHOALS**
 Matthew J. Hasenjager
Department of Biology, University of Louisville
- 11:00 – 11:15 **SEX-DEPENDENT EFFECTS OF CENTRAL VASOPRESSIN ADMINISTRATION ON RICHARDSON'S GROUND SQUIRREL SOCIAL BEHAVIOR**
 Angela R. Freeman
Department of Biological Sciences, Kent State University
- 11:15 – 11:30 **DEVELOPMENTAL CONSEQUENCES IN OFFSPRING FOLLOWING MATERNAL OXYTOCIN ADMINISTRATION AT BIRTH**
 William Kenkel, Ph.D.
Kinsey Institute, Indiana University
- LUNCH BREAK
- SESSION III** Moderator: Amrita Bhattacharya
- 1:30 – 1:45 **THE SCENT OF DANGER: LIZARDS RECOGNIZE CHEMICALS FROM SNAKES THAT DIFFER IN LEVEL OF PREDATION RISK**
 Jake A. Pruett
Department of Biology, Indiana State University
- 1:45 – 2:00 **DOES ER α EXPRESSION INFLUENCE MALE PRAIRIE VOLE SOCIOSEXUAL BEHAVIOR IN THE FIELD?**
 Connor T. Lambert
Department of Biology, Miami University
- 2:00 – 2:15 **HANGRY, HANGRY HAMSTERS: MILD FOOD RESTRICTION IN AN INTERMEDIATE PHOTOPERIOD TRIGGERS SEASONAL CHANGES IN AGGRESSIVE, BUT NOT REPRODUCTIVE, BEHAVIOR IN MALE AND FEMALE SIBERIAN HAMSTERS**
 Allison M. Bailey
Department of Biology, Center for the Integrative Study of Animal Behavior, Indiana University
- 2:15 – 2:30 **WHAT MAKES A MULTIMODAL SIGNAL ATTRACTIVE? A PREFERENCE FUNCTION APPROACH**
 Kelly L. Ronald
Department of Biological Sciences, Purdue University
- 2:30 – 2:45 **MAGNETOTACTIC BEHAVIOR OF THE NEMATODE *C. ELEGANS***
 Chance Bainbridge
School of Biological Sciences, Illinois State University

REFRESHMENT BREAK

SESSION IV	Moderator: Will Kenkel
3:00 – 3:15	COMPETITION CHANGES COURTSHIP BEHAVIORS OF MALE DARK-EYED JUNCOS (<i>JUNCO HYEMALIS</i>) Rachel L. Wadleigh <i>Earlham College</i>
3:15 – 3:30	COUNTING ON YOUR FRIENDS: THE ROLE OF SOCIAL ENVIRONMENT ON QUANTITY DISCRIMINATION Elizabeth Kelly <i>Department of Neurobiology and Behavior, Cornell University</i>
3:30 – 3:45	THE EFFECT OF RISK ON TERRITORIAL BEHAVIOR DEPENDS ON CONDITION BUT NOT COMPETITION Mikus Abolins-Abols <i>Department of Biology, Indiana University</i>
3:45 – 4:00	BEHAVIORAL MECHANISMS IN A CONDITIONAL SIGNAL IN <i>XIPHOPHORUS HELLERII</i> Elizabeth J. Hardy <i>Department of Biology, University of Oklahoma</i>
4:00 – 4:20	AWARD PRESENTATIONS Undergraduate Poster Award Hanna Kolodziejcki Fellowship William J. Rowland Mentoring Award Goodson Prize for Art in Science CISAB Exemplar Award
4:20 – 5:20	KEYNOTE SEMINAR: NEUROPSYCHOLOGY OF MOTHERING AND THE EFFECTS OF EXPERIENCE Alison Fleming <i>University of Toronto, Mississauga</i>
5:20 – 5:30	Closing Remarks Cara Wellman, Ph.D., Director, Center for the Integrative Study of Animal Behavior

RECEPTION

Please join us for a reception at the home of Dr. Cara Wellman and Dr. Dale Sengelaub.

7:00-9:00 PM
1526 E. Dunstan Drive Bloomington, IN 47401

See map on page 3

SATURDAY SYMPOSIUM

APRIL 2ND, INDIANA UNIVERSITY STUDENT BUILDING (701 E. KIRKWOOD AVE), ROOM 015

[Click here](#) to download abstracts of all Saturday presentations.

9:30 – 9:45 **Opening Remarks**
Tierney Lorenz, Ph.D., Visiting Research Scientist, The Kinsey Institute for Research in Sex, Gender, and Reproduction

9:45 – 10:45 **EXTENDING EVOLUTION: THE STRUCTURE, ASSUMPTIONS, AND OBJECTIVES OF THE EXTENDED EVOLUTIONARY SYNTHESIS (EES)**
Armin Moczek, Ph.D.
Professor, Department of Biology, Indiana University

SHORT BREAK

PANEL I **YES, YES, WE ALL KNOW THE KIPLING QUOTE: CHANGING PARADIGMS IN FEMALE AGGRESSION**

11:00 – 11:15 **EXPANDING THE 'CENTRAL' DOGMA: PERIPHERAL MECHANISMS OF SEASONAL AGGRESSION**
Nikki Rendon
Doctoral Candidate, Department of Biology, Indiana University

11:15 – 11:30 **MEAN ON THE SCREEN: SOCIAL AGGRESSION ON TELEVISION AND ITS IMPACT ON YOUTH**
Nicole Martins, Ph.D.
Assistant Professor, Department of Communication Science, Indiana University

11:30 – 11:45 **FEMALE AGGRESSION: WHAT'S T GOT TO DO WITH IT?**
Kim Rosvall, Ph.D.
Assistant Professor, Department of Biology, Indiana University

11:45 – 12:15 **PANEL I DISCUSSION – RESEARCH IN THE RING: AGGRESSION RESEARCHERS ON DOING CONTROVERSIAL SCIENCE**

LUNCH BREAK

1:30 – 2:30 **THE PORN ADDICTION MYTH AND POPPERIAN FALSIFICATION IN THE MEDIA**
Nicole Prause, Ph.D.
*Associate Scientist, Department of Psychiatry, University of California, Los Angeles
Founder, Liberos LLC*

SHORT BREAK

EXEMPLAR TALK **YOU MAKE ME SICK: USING SICKNESS BEHAVIOR TO RE-THINK WHAT WE THINK ABOUT ANIMAL BEHAVIOR**

2:45 – 3:45 Greg Demas, Ph.D.
Professor, Department of Biology, Indiana University

SHORT BREAK

PANEL II

EVEN MONKEYS FALL FROM TREES: SENIOR SCIENTISTS TALK ON CHANGING THEIR MINDS

4:00 – 5:30

INVITED PANEL MEMBERS:

Ellen Ketterson, Ph.D.

Distinguished Professor, Department of Biology, Indiana University

Cara Wellman, Ph.D.

*Professor, Department of Psychological and Brain Sciences, Indiana University
Director, Center for the Integrative Study of Animal Behavior*

Julia Heiman, Ph.D.

*Professor, Department of Psychological and Brain Sciences, Indiana University
Senior Research Fellow Director, The Kinsey Institute*

Virginia Vitzthum, Ph.D.

*Professor, Department of Anthropology, Indiana University
Senior Research Scientist, The Kinsey Institute*

5:30 – 5:45

Closing Remarks

Tierney Lorenz, Ph.D., Visiting Research Scientist, The Kinsey Institute for Research in Sex, Gender, and Reproduction

BIOGRAPHIES

KEYNOTE SPEAKER

ALISON S. FLEMING

PROFESSOR, UNIVERSITY OF TORONTO, MISSISSAUGA



Alison Fleming received her Ph.D. at the Institute of Animal Behavior at Rutgers University, and studied as a postdoctoral fellow at the University of California, Berkeley. She is now a professor, research scientist, and Canada Chair in Behavioral Neurobiology and Genetics at the University of Toronto, Mississauga. Spanning the last thirty years, her research endeavors have helped to form the current understanding of why mothers want to mother. Research in her laboratory focuses on many factors that induce maternal behavior, including hormonal and sensory factors, roles of different brain mechanisms, and the influences of early experiences.

[Fleming Lab Website](#)

EXEMPLAR SPEAKER

GREGORY E. DEMAS

PROFESSOR, INDIANA UNIVERSITY



Professor Demas is a highly prolific researcher and one of the founders of the field of ecoimmunology. He studies seasonality, female aggression, sickness behavior, and reproduction and has worked primarily with small mammals but also with birds and humans. He has served as director of the IU Center for the Integrative Study of Animal Behavior where he helped to develop one of the only undergraduate majors in animal behavior in the US.

[Demas Lab Website](#)

SATURDAY SYMPOSIUM: INVITED SPEAKERS AND PANEL MEMBERS

Julia R. Heiman, Professor, Indiana University

Julia R. Heiman, Ph.D., ABPP, is Professor of Psychological and Brain Sciences and Clinical Psychiatry at Indiana University. From 2004-2013, she served as the Director of the Kinsey Institute for Research in Sex, Gender, and Reproduction, and previously co-founded and directed the University of Washington Reproductive and Sexual Medicine Clinic. Dr. Heiman's career has focused on understanding patterns of sexuality from an integrated psychosocial-biomedical perspective. She has published broadly in the area of sex research on male and female sexual function and dysfunction, with her primary interests being psychophysiological components of sexual arousal patterns, measurement of sexual response, sexual dysfunction treatment, sexuality and health, and sexual and relationship correlates of histories of childhood sexual and physical abuse. Her most recent work has focused on postpartum depression, oxytocin and brain responsiveness to emotional stimuli.

[Heiman Lab Website](#)

Ellen D. Ketterson, Distinguished Professor, Indiana University

Ellen Ketterson is an integrative animal behaviorist with interests in animal migration, sexual selection, and organismal biology. She has been associated with Indiana University since her student days and is affiliated with CISAB, Biology, the Kinsey Institute, the Program in Neuroscience, and the Cognitive Sciences Program.

[Ketterson Lab Website](#)

Nicole Martins, Assistant Professor, Indiana University

Dr. Martins' expertise concerns the social and psychological effects of the mass media youth. She has a longstanding interest on the effects of relationally aggressive portrayals in the media, as well the impact of the media on children's self-esteem and body-image concerns. She has published over two dozen scholarly articles and book chapters, and has received numerous top paper awards from the National Communication Association and International Communication Association, and is on the editorial board of the Journal of Children and Media.

[Martins Lab Website](#)

Armin P. Moczek, Professor, Indiana University

Armin Moczek is an evolutionary developmental biologist broadly interested in understanding why and how developmental evolution has unfolded the way it has, why and how novel complex traits originated when they did, and the future of developmental evolution on a rapidly changing planet. In all of this he pays particular attention to the mechanisms and consequences of developmental plasticity, which growing evidence implicates as a key enabler of evolutionary diversification. More recently he has also become interested in symbiosis and niche construction as additional facilitators of evolutionary change. Lastly, in a somewhat parallel life he studies - in collaboration with colleagues at IU's School of Education - the teaching and learning of complex systems in young children, and is heavily invested in science outreach and minority recruitment into STEM.

[Moczek Lab Website](#)

Nicole Prause, Associate Scientist, University of California, Los Angeles

Nicole Prause received her PhD in clinical science from Indiana University in 2007 with joint supervision from the Kinsey Institute. Her research uses sexual psychophysiology and neuroscience to investigate why humans vary in their sexual motivation levels. Her current laboratory interests include primary rewards, transcranial brain stimulation, and approach motivation. After completing her contract as an Associate Scientist at UCLA in 2015, she founded Liberos LLC, an independent organization NIH- and foundation-funded, to research brain stimulation.

[Prause Lab Website](#)

Nikki Rendon, Doctoral Candidate, Indiana University

Nikki M. Rendon received her BS in Biology from Northern New Mexico College where she worked with the comparative neuroendocrinologists Drs. Meredith Garcia and Richard Harlan. Currently, she is a graduate student in the laboratory of Dr. Gregory Demas where she has focused on defining neuroendocrine mechanisms of seasonal aggression in females. Through her collaborative endeavors, she has also examined sex differences and seasonal variation in chemical and vocal signals used during aggressive encounters.

[Demas Lab Website](#)

Kimberly A. Rosvall, Assistant Professor, Indiana University

After getting her B.S. in Biology from UCLA, and spending some time in Paris studying French, Kimberly Rosvall moved to North Carolina to train for her Ph.D. with Steve Nowicki at Duke University. In 2009, she began a NIH NRSA postdoc at Indiana in the Ketterson, Goodson, and Sengelaub labs. She started her own research program in 2012 as a Research Scientist at IU, and in 2014 was hired as an Assistant Professor – the Rosvall Lab was born! Research in Dr. Rosvall's lab seeks to identify the genomic and physiological bases of behavioral adaptation and plasticity, and how these mechanisms change over evolutionary time. They approach these questions by combining conceptual and analytical tools from animal behavior, neuroendocrinology, evolutionary ecology, physiology, and genomics - primarily by studying free-living birds.

[Rosvall Lab Website](#)

Virginia J. Vitzthum, Professor, Indiana University

Dr. Virginia Vitzthum research focuses on the impact of environmental stressors (physical, biotic, behavioral, sociocultural) on human female reproductive functioning (e.g., hormonal variation, conception rates, early pregnancy loss). Her work takes advantage of "natural experiments" to test evolutionary hypotheses (e.g., Andean agropastoralists experiencing significant energetic stress, Mongolian nomadic herders consuming high fat diets, former East and West German women under different economic-political systems, effects of extreme photoperiod on Arctic women). She received her doctoral training at University of Michigan followed by a post-doc in demography. Dr. Vitzthum is now a tenured professor at UC Riverside, SUNY Binghamton, IUB, and has worked at USAID (focused principally on prevention of HIV transmission from mother to child), WHO (reproductive health), NSF (program officer), Max Planck Institute for Evolutionary Anthropology (Fulbright Fellow). She is also a fellow of the American Association for the Advancement of Science.

[Vitzthum Lab Website](#)

Cara L. Wellman, Professor, Indiana University

Dr. Cara L. Wellman earned her PhD in Neuroscience and Clinical Psychology at Indiana University and then completed a postdoctoral fellowship in Neurobiology at Amgen. Dr. Wellman's work uses laboratory rodent models to examine the effects of chronic stress and stress hormones on behaviors mediated by prefrontal cortex and related brain structures, as well as the changes in neural pharmacology, physiology, and morphology that underlie these effects. Her lab is now more fully characterizing these effects in males and females, assessing their functional significance, and elucidating mechanisms underlying them. Dr. Wellman is currently a Professor of Psychological and Brain Sciences and Director of the Center for the Integrative Study of Animal Behavior at Indiana University.

[Wellman Lab Website](#)

ACKNOWLEDGEMENTS

CISAB ADMINISTRATION

Center Director: Dr. Cara L. Wellman
Administrative Assistant: Linda Summers
Web and Graphics Design: Frank Morris
Laboratory Director: Dr. Christine Bergeon Burns
Laboratory Assistant: Charli Taylor



CONFERENCE ORGANIZERS

Saturday Symposium Organizer

Tierney Lorenz
Will Kenkel

Poster Session Committee

Kristyn Sylvia (Chair)
Amrita Bhattacharya
Elizabeth George
Kayleigh Hood
Sam Slowinski
Undergraduate Volunteers

Undergraduate Poster Judging Committee

Kelly Moench (Chair)
Justin Bollinger
Sam Cohen
Caroline Deimel

Promotions Committee

Justin Bollinger (Chair)
Stephanie Campos
Will Kenkel
Kelly Moench

Program Committee

Rachel Skipper (Chair)
Sam Cohen
Abby Kimmitt
Paul Meyer
Piyumika Suriyampola
Delawrence Sykes

Equipment Committee

Abby Kimmitt (Co-Chair)
Mikus Abolins-Abols (Co-Chair)
Rachel Skipper

Registration Table Supervisor

Charli Taylor

Session Moderators

Amrita Bhattacharya
Caroline Deimel
Will Kenkel
Mandy Gibson

Cover Art

Will Kenkel

FUNDING SOURCES

Indiana University College of Arts and Sciences
The Hanna Kolodziejski Fellowship Fund
The William J. Rowland Mentorship Award Fund



Center for the Integrative Study of Animal Behavior

Indiana University

409 N. Park Ave.
Bloomington, IN 47405

812-855-9663
CISAB@indiana.edu
www.indiana.edu/~animal