MICHIGAN CHAPTER- SOCIETY FOR NEUROSCIENCE

50th Annual Meeting

May13, 2019

Michigan Chapter

CMU
CENTRAL MICHIGAN UNIVERSITY

MICHIGAN STATE UNIVERSITY

UNIVERSITY OF MICHIGAN

GRAND VALLEY STATE UNIVERSITY

EASTERN MICHIGAN UNIVERSITY

UNIVERSITY OF DETROIT MERCY

Hope COLLEGE

WAYNE STATE UNIVERSITY

Michigan Technological University

OAKLAND UNIVERSITY

ROCHESTER COLLEGE

Hosted by

Western Michigan University

The Michigan Chapter is one of over 150 local chapters of the Society for Neuroscience (SfN). It is one of the original two chartered chapters of SfN upon its formation in 1969. The first Michigan Chapter meeting preceded that of the first SFN meeting.

SfN offers a number of grants and awards directed at chapters:

Chapter Grants
These allow chapters to apply for funding of up to $2,000 a year to support chapter activities. Our chapter has been very successful in obtaining these awards, which has helped to fund outreach activities across the state.

Chapter of the Year Award
Recognizes outstanding chapters for their efforts and accomplishments across a broad range of activities that are in line with the mission and strategic initiatives of SfN. We are in consideration each year.

Trainee Professional Development Awards
Chapters support their members' applications for these awards that provide trainees the opportunity to advance their careers by presenting a scientific abstract and networking with senior scientists at the SfN annual meeting.

For more information on Chapter grants and awards, visit:
https://www.sfn.org/awards-and-funding/chapter-grants-and-awards

If you are interested in applying for a grant or award, contact the Chapter President, Dr. Susanne Brummelte: sbrummelte@wayne.edu

SOCIETY FOR NEUROSCIENCE
Michigan Chapter

SOCIETY for NEUROSCIENCE

2019 MISfN Meeting Schedule

All events held throughout in the Fetzer Center

8:30 - 9:15 Registration and Continental Breakfast

9:15 - 10:30 Poster Session A

10:30 - 11:00 Coffee Break

11:00 - 11:45 Poster Session B

11:45 - 1:45 Lunch and Business Meeting

1:45 - 2:30 Data Blitz

2:30 - 3:00 Founders Award: **Chela Wallin**

"Buprenorphine exposure during gestation results in dose-dependent consequences for the dam and her litter in a translational model of opioid-maintenance therapy"

3:00 - 3:15 Coffee Break

3:00 - 4:15 Keynote Speaker: **Dr. Huda Akil, PhD**

"*My Quest to Understand the Emotional Brain"*

4:15 – 4:30 Awards and Adjournment

5:00 50th Anniversary Reception at Bell's Café

Poster Presentation Procedure

Due to the large number of poster presentations and to keep meeting costs low, the poster session is organized into two sessions, A and B.

Abstract authors can find their session and board number in the pages that follow.

Posters should be in landscape format and not exceed 48” x 63”.

Presenters in poster session A should have posters up by 9:15 am and should be taken down by 11:00 am.

Presenters in poster session B should have posters up by 11:00 am and should be taken down by 12:30 pm.

Business Meeting Agenda

MISfN 50th Annual Scientific Meeting, May 13th, 2019
Fetzer Center Auditorium Immediately after Lunch

1. Welcome and acknowledgements	Susie Brummelte
2. Treasurer's report	Tom Fischer
3. Awards Chair report	Eric Ramsson
4. President's report	Susie Brummelte
5. Chapter outreach activities	Representatives from participating universities
6. Elections for open MISFN positions and voting on proposed by-law changes	Susie Brummelte

To be elected at the meeting (self-nominations are welcome):

Position	**Term**
Treasurer-Membership Chairperson - elect (new position)	2019-2020 (will be treasurer 2020-2022)
Awards Chair	2019-2021
Central Michigan University Councilor	2019-2021
Michigan State University Councilor	2019-2021
University of Michigan	2019-2021
Field Neuroscience Institute	2019-2021
Councilor at Large	2019-2021
Student Councilor	2019-2021

Michigan Chapter of the Society for Neuroscience Council

2018-2019

Office	Name	Term
President	Susie Brummelte, WSU	2017-2019
President-elect	Jessica Matchynski-Franks, Rochester College	2018-2019
Past-President		2019-2020
Secretary	Nora Fritz, WSU	2018-2020
Treasurer	Tom Fischer, WSU	2017-2019
Awards Chair	Eric Ramsson, GVSU	2017-2019

Councilor	Name	Term
Central Michigan University	Julien Rossignol	2017 - 2019
Michigan State University	Nicholas Kanaan	2017 - 2019
University of Michigan	Jonathan Morrow	2017 - 2019
Wayne State University	Anna Moszczynska	2018 - 2020
Western Michigan University	Jeremy Duncan	2018 - 2020
Field Neuroscience Institute	Gary Dunbar	2017 - 2019
Councilor at Large I	Andrew Gall, Hope College	2018 - 2020
Councilor at Large II	Kevin Trewartha, Michigan Tech	2017 - 2019
Student Councilor I	Zackary Bowers, CMU	2017 - 2019
Student Councilor II	Harmony Risca, WMU	2018 - 2020

Upcoming meetings (tentative)

2020 CMU
2021 MSU
2022 UM
2023 WSU
2024 WMU

ACKNOWLEDGEMENTS

Each year, programs in our host institutions provide generous support that helps us to keep meeting costs low. This allows for greater participation of students in our meetings to provide a valuable training experience for young Michigan neuroscientists. The chapter is grateful for their support.

The Michigan Chapter of the Society for Neuroscience 2019 Annual meeting was supported by financial contributions from the following:

The College of Arts and Sciences-Western Michigan University

Office of the President- Western Michigan University

Office of the Provost- Western Michigan University

Office of the Vice President for Research

Department of Biological Sciences- Western Michigan University

Department of Psychology- Western Michigan University

And by:

Data Blitz

1:45 – 2:30 Fetzer Center Auditorium

Each presenter will be given 3 minutes to present their research and one question from the audience.

- Alex Chen
“Homeostatic metaplasticity in hippocampal networks”

- Lana Grasser
“Dance/movement therapy as a somatic-based intervention for addressing trauma and stress among syrian refugee children”

- Andrew Nelson
“Ankyrin-g regulates forebrain connectivity and network synchronization via interaction with gabarap”

- Akash Pal
“Activity dependent neuronal modulation”

- Caitlin Posillico
“Neuroimmune activation has sex-specific effects on learning and memory consolidation processes in mice”

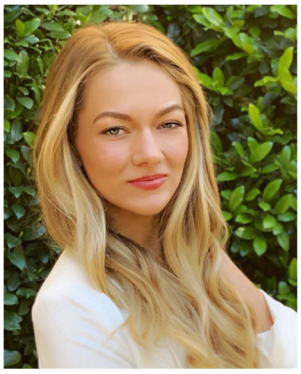
- Lavanya Rajeshkumar
“Effect of eccentric exercise on motor learning and emotional intelligence abilities in older adults”

- Amanda White
“Early acquisition of fear conditioning in selectively-bred anxious rats: regulation by maternal presence and fgf2”

Founders Award

2:30-3:00 Fetzer Center Auditorium

This award is in honor of Montford F. Piercey and Duncan McCarthy for their contributions in organizing our chapter.



2019 WINNER: CHELA WALLIN

BUPRENORPHINE EXPOSURE DURING GESTATION RESULTS IN DOSE-DEPENDENT CONSEQUENCES FOR THE DAM AND HER LITTER IN A TRANSLATIONAL MODEL OF OPIOID-MAINTENANCE THERAPY

Chela M. Wallin[1], Scott E. Bowen[1], Susanne Brummelte[1]
1 Department of Psychology, Wayne State University, Detroit, MI, 48202, USA

Significance: The opioid crisis has led to increases in pregnant opioid-dependent women treated with opioid-maintenance therapy (buprenorphine, BUP). However, not much is known about the consequences of gestational BUP exposure on pregnancy outcomes or fetal development. Previous work has not accounted for the critical fact that women are likely already using opioids at the time of conception and continue to use throughout the postpartum. Unsurprisingly, the initiation of drug use in a new user has considerable physiological effects as compared to a regular user which necessitate consideration.

Method: Our translational animal model aimed to resemble human BUP treatment patterns by starting vehicle or BUP exposure subcutaneously (s.c.) in adult female Sprague-Dawley rats (N=30) at least 7 days before conception and continuing exposure throughout the postpartum period. We evaluated effects of therapeutic (low-dose, 0.3 mg/kg) and overexposure (high-dose, 1 mg/kg) BUP exposure against saline-control (1 mg/mL). Females were randomly assigned to exposure groups (n=10/group) and were bred in house with drug-naïve adult male Sprague-Dawley rats. At parturition, successful litters (N=26) were culled to 5 males/5 females and one male and female per litter were randomly assigned to various behavioral tests during neonatal periods (precipitated withdrawal on postnatal day (PN) 2) or during adolescence (anxiety-like behavior, stress-sensitivity, nociceptive response). Pregnancy outcomes, maternal care behavior, neonatal opioid withdrawal syndrome (NOWS), as well as offspring development were evaluated.

Results: Overexposure (high-dose) BUP exposure resulted in increased pup mortality, increased symptoms of NOWS, and decreased maternal care behavior. In fact, most highdose pups did not survive past PN 2. Therapeutic (low-dose) BUP exposure delayed offspring development, decreased body weight, length, and body temperature, as well as increased tolerance to morphine's analgesic effect (p's $< .05$).

Conclusion: Overall our results demonstrate that therapeutic (low-dose) levels of BUP are relatively safe though they do have subtle effects on exposed offspring. However, overexposure (high-dose) to BUP interferes with maternal care giving behavior and thus offspring survival. More research is needed to further determine the translational implication of these findings for human expectant mothers being maintained on buprenorphine or other opioids.

Keynote Address

3:00-4:15 Fetzer Center Auditorium

Dr. Huda Akil

Co-Director and Research Professor, MBNI

Distinguished University Professor and Quarton Professor of Neurosciences,

Department of Psychiatry

The University of Michigan

“My Quest to Understand the Emotional Brain”

Research Interests

Research in the Akil laboratory is focused on understanding the neurobiology of emotions, including pain, anxiety, depression and substance abuse. Early on, our research focused on the role of the endorphins and their receptors in pain and stress responsiveness. We provided the first physiological evidence for a role of endogenous opioids in the brain; and showed that endorphins are activated by stress and cause pain inhibition, a phenomenon we termed Stress-Induced Analgesia. We defined how the posttranslational processing of opioid precursors is modulated by stress, and demonstrated the coordinate actions of the neuropeptide products on behavior. We are also examining and manipulating the molecules involved in this relationship between glia and nerve terminals. We have made transgenic mice in which a target gene in Schwann cells can be turned on at the will of the investigator by simply giving the mouse an oral antibiotic. The system works well and we are now embarking on experiments to express proteins that we believe are crucial for the function of these cells.

MISfN 2019 Poster Assignments

Theme: Cognition			
Poster Session	**Poster Number**	**Presenter Last Name**	**Abstract Title**
A	**A1**	**Barea**	ASSOCIATIONS BETWEEN WHITE MATTER MICROSTRUCTURE AND VERBAL LEARNING RETEST EFFECTS DIFFER IN NORMAL AGING, MCI AND ALZHEIMER'S DISEASE.
B	**B1**	**Burson**	EFFECTS OF REPEATED VARIABLE STRESS IN ADOLESCENCE ON ADULT RESPONSE TO TRAUMATIC STRESS AND BRAIN CATECHOLAMINES IN RATS
A	**A2**	**Hardy**	MARTIAL ARTS BASED MEDITATIVE TECHNIQUES REDUCE CORTICO-LIMBIC RESPONSE TO DISTRESS IN CHILDREN WITH CANCER
B	**B2**	**Hehr**	EVALUATION OF A MARTIAL-ARTS MEDITATIVE INTERVENTION FOR HIGH-RISK SCHOOLCHILDREN: USE OF AN OBJECTIVE MARKER OF ANXIETY
A	**A3**	**Posillico**	NEUROIMMUNE ACTIVATION HAS SEX-SPECIFIC EFFECTS ON LEARNING AND MEMORY CONSOLIDATION PROCESSES IN MICE AUTHOR LIST: POSILLICO
B	**B3**	**Pruitt**	THE RELATIONSHIP BETWEEN EMPATHY, OPTIMISM, AND STRESS AFTER COMPETITION
A	**A4**	**Sadik**	EFFECTS OF A CLASS IIA HISTONE DEACETYLASE INHIBITOR ON LOCOMOTOR ACTIVITY AND ANXIETY-LIKE BEHAVIOR IN MALE AND FEMALE RATS
B	**B4**	**Waara**	THE IMPACT OF AGING AND EXECUTIVE CONTROL ON THE ABILITY TO MAKE CORRECTIVE ACTIONS FOR OBSTACLE COLLISION AVOIDANCE

Theme: Development			
Poster Session	**Poster Number**	**Presenter Last Name**	**Abstract Title**
A	**A5**	**Babcock**	EFFECTS OF ASD-ASSOCIATED MUTATION IN DENDRITIC SPINE DEVELOPMENT
B	**B5**	**Blinkiewicz**	DETERMINING THE FUNCTION OF GATA3 IN DIFFERENTIATING HAIR CELLS
A	**A6**	**Bonefas**	UNCOVERING THE TEMPORAL FUNCTIONS OF HISTONE DEMETHYLASE KDM5C IN NEURODEVELOPMENT AND BEHAVIOR
B	**B6**	**Doherty**	INVESTIGATING THE ROLES OF ERBB4 DIRECT NUCLEAR SIGNALING IN BRAIN DEVELOPMENT USING NOVEL MOUSE MODELS
A	**A7**	**Ketchum**	SELECTIVE ELIMINATION OF NEUROD1 FROM SPIRAL GANGLION NEURONS REVEALS IMPORTANCE IN AXON DEVELOPMENT AND PROJECTION
B	**B7**	**Medendorp**	CORTICAL HYPEREXCITATION DURING EARLY DEVELOPMENT RESULTS IN AUTISM BEHAVIORAL PHENOTYPES
A	**A8**	**Morgan**	PACAP RECEPTOR POLYMORPHISM EFFECTS ON FUNCTIONAL ORGANIZATION OF THE LIMBIC SYSTEM IN YOUTH
B	**B8**	**Nelson**	EXPLORING THE ROLE OF PARP1 IN TRANSCRIPTIONAL REGULATION OF NEURODEVELOPMENT
A	**A9**	**Paulisin**	FAILURE TO EXTINGUISH FEAR IN TRAUMA-EXPOSED CHILDREN WITH A COMMON VARIANT IN THE CANNABINOID RECEPTOR 1 GENE
B	**B9**	**Phaneuf**	NEURAL CORRELATES OF INHIBITORY CONTROL IN ADOLESCENTS WITH SYMPTOMS OF FOOD ADDICTION
A	**A10**	**Sheltz-Kempf**	CHARACTERIZING THE OVER-EXPRESSION OF GATA3 IN DIFFERENTIATING HAIR CELLS
B	**B10**	**Stoner**	SPIRAL GANGLION NEURONS RELY ON FZD3 FOR AXONAL PATHFINDING
A	**A11**	**Timmerman**	EFFECTS OF NEONATAL PROCEDURAL PAIN AND MATERNAL ISOLATION ON CELL PROLIFERATION IN POSTNATAL RAT BRAINS

Theme: Integrative Physiology and Behavior; Motivation and Emotion			
Poster Session	**Poster Number**	**Presenter Last Name**	**Abstract Title**
A	**A12**	**Beekly**	ROLE OF MELANIN-CONCENTRATING HORMONE NEURONS IN THE INTEGRATION OF SLEEP AND REPRODUCTIVE PHYSIOLOGY
B	**B12**	**Bosse**	OPIOID EXPOSURE FOLLOWING TRAUMATIC BRAIN INJURY EXACERBATES BEHAVIORAL AND NEUROINFLAMMATORY OUTCOMES
A	**A13**	**Burroughs**	AGE AS A DETERMINANT IN MDPV AND METHAMPHETAMINE-INDUCED LOCOMOTOR SENSITIZATION
B	**B13**	**Cargile**	3,4-METHYLENEDIOXYPYROVALERONE (MDPV) DISCRIMINATION IN ADULT FEMALE SPRAGUE-DAWLEY RATS
A	**A14**	**Chinnusamy**	SEX-SPECIFIC EFFECTS OF STRESS: ŒÎFOSB AND ITS ROLE IN THE DEVELOPMENT OF DEPRESSION
B	**B14**	**Davidson**	DIFFERENCES IN LOCOMOTOR ACTIVATION DURING EXPOSURE TO BINGE-LIKE TOLUENE EXPOSURE DURING THE PERIADOLSCENCE PERIOD IN SWISS-WEBSTER MICE
A	**A15**	**Doyle**	DETERMINING THE EFFECT OF CELL TYPE-SPECIFIC VTA SGK1 MANIPULATION ON DRUG REWARD
B	**B15**	**Durga**	SEX-SPECIFIC EFFECTS OF EARLY LIFE STRESS ON HIPPOCAMPAL NEUROGENESIS IN THE PIG
A	**A16**	**Durrett**	ACADEMIC STRESS PREDICTS ABNORMAL EEG LATERALIZATION
B	**B16**	**Fry**	EXAMINING PROCESSING OF ABSENT GUSTATORY STIMULI IN DISRUPTED-IN-SCHIZOPHRENIA-1 MICE
A	**A17**	**GHEIDI**	CELLULAR COMPARTMENT ANALYSIS OF TEMPORAL ACTIVITY BY FLUORESCENT IN SITU HYBRIDIZATION (CATFISH) IN THE RAT TRANSCARDIALLY PERFUSED BRAIN
B	**B17**	**Grasser**	FROM EXPOSURE TO HEALING: TRACKING MENTAL HEALTH TRAJECTORY IN SYRIAN

			REFUGEES AND IMPACT OF BODY-BASED TREATMENTS
A	**A18**	**Karavidha**	COCAINE DIFFERENTIALLY AFFECTS LOCOMOTOR BEHAVIOR IN MALE AND FEMALE RATS, AND IN FEMALES ESTRUS CYCLE MEDIATES THE BEHAVIORAL RESPONSE
B	**B18**	**Kohler**	D-AMPHETAMINE EFFECTS ON IMPULSIVE CHOICE IN A RODENT MODEL OF DELAY DISCOUNTING
A	**A19**	**Raycraft**	ESTRUS CYCLE MODULATES THE EFFECTS OF MELANIN CONCENTRATING HORMONE ON PERFORMANCE IN AN INTERVAL TIMING TASK
B	**B19**	**Manning**	CIRCUIT-SPECIFIC HIPPOCAMPUS ŒÎFOSB EXPRESSION MEDIATES RESILIENCE IN CHRONIC SOCIAL DEFEAT STRESS
A	**A20**	**McLocklin**	EFFECTS OF DOPAMINE RECEPTOR ANTAGONISM ON EFFORTFUL DECISION MAKING
B	**B20**	**Parikh**	EFFECT OF SUCROSE VS. HIGH FRUCTOSE CORN SYRUP DURING DIFFERENT PATTERNS OF ACCESS ON CONSUMPTION, RESPONDING FOR FOOD, AND SENSORY SPECIFIC SATIETY
A	**A21**	**Pence**	ABERRANT DOPAMINE PROJECTIONS TO MESOSTRIATAL BRAIN AREAS ASSOCIATED IN DISRUPTED-IN-SCHIZOPHRENIA-1 MICE
B	**B21**	**Rajeshkumar**	EFFECT OF ECCENTRIC EXERCISE ON MOTOR LEARNING AND EMOTIONAL INTELLIGENCE ABILITIES IN OLDER ADULTS
A	**A22**	**Reppucci**	ACTIVATION OF THE VENTRAL TEGMENTAL AREA SUPPORTS THE EXPRESSION OF SOCIAL PLAY BEHAVIOR IN JUVENILE RATS,
B	**B22**	**Risca**	CONDITIONED PLACE PREFERENCE WITH LOW DOSE MIXTURES OF 3,4-METHYLENEDIOXYPYROVALERONE (MDPV) AND 3,4-METHYLENEDIOXYMETHAMPHETAMINE (MDMA) IN MALE AND FEMALE SPRAGUE-DAWLEY RATS
A	**A23**	**Rodriguez**	THE ROLE OF DIMINISHED MOTIVATION IN EXTINGUISHING FEAR RESPONSES TO ENVIRONMENTAL STIMULI

B	**B23**	**Showers**	DETERMINATION OF EFFECTIVE IN VIVO DELIVERY OF SGK1 INHIBITOR IN THE VTA TO STUDY ITS EFFECT ON SGK1 CATALYTIC ACTIVITY AND PHOSPHORYLATION IN DRUG-RELATED BEHAVIORS
A	**A24**	**Stark**	VALIDATION OF VTA SGK1 KNOCKOUT MICE FOR USE IN MORPHINE NEUROADAPTATION STUDIES
B	**B24**	**Thomas**	AN EVALUATION OF SUB-CHRONIC KETAMINE EXPOSURE ON RODENT MEMORY AS ASSESSED BY THE ODOR SPAN TASK
A	**A25**	**Thompson**	CHARACTERIZING REPRODUCTIVE FUNCTION IN POMC-DEFICIENT MICE
B	**B25**	**Tyan**	SLEEP AND MIDBRAIN DOPAMINERGIC NEURONS ARE MODULATED BY THE PRESENCE OF A NEST
A	**A26**	**White**	MALES AND FEMALES DIFFER IN THEIR SENSITIVITY TO MATERNAL BUFFERING OF FEAR

Theme: Neural Excitability, Synapses, and Glia			
Poster Session	**Poster Number**	**Presenter Last Name**	**Abstract Title**
B	**B26**	**Almeida Alves**	THE EFFECTS OF AGING AND EXERCISE ON GLIAL CELL LINE-DERIVED NEUROTROPHIC FACTOR CONTENT IN RAT HEARTS
A	**A27**	**Caballero-Floran**	LITHIUM PARTIALLY RESTORES PRESYNAPTIC GABAERGIC SIGNALING DEFICITS IN THE ANK3 W1989R MOUSE MODEL
B	**B27**	**Catalfano**	USE OF SITE-DIRECTED MUTAGENESIS TO PROBE THE SUBSTRATE BINDING SITE WITHIN SYSTEM
A	**A28**	**Chaby**	REPEATED VARIABLE STRESS EXPOSURE IN MID-ADOLESCENCE ATTENUATES BEHAVIORAL AND EPIGENETIC EFFECTS OF TRAUMA-LIKE STRESS IN EARLY ADULTHOOD
B	**B28**	**Chen**	HOMEOSTATIC METAPLASTICITY IN HIPPOCAMPAL NETWORKS

A	**A29**	**France**	NOVEL INTERACTION BETWEEN ANKYRIN-B AND NAV1.2 IS DISRUPTED BY AUTISM SPECTRUM DISORDER DE NOVO MUTATIONS IN SCN2A
B	**B29**	**Garay**	NEURAL ACTIVITY-DEPENDENT TRANSCRIPTION START SITES
A	**A30**	**Gregory**	STRUCTURAL AND FUNCTIONAL CHANGES OF PYRAMIDAL NEURONS IN PRIMARY MOTOR CORTEX AT THE SITE OF AN IMPLANTED MICROELECTRODE ARRAY
B	**B30**	**Hughes**	THE ACUTE EFFECTS OF MELATONIN ON STRIATAL DOPAMINE RELEASE: PROGRESSIVE ELECTROCHEMICAL ANALYSIS IN AN EX VIVO MOUSE MODEL UTILIZING FAST SCAN CYCLIC VOLTAMMETRY
A	**A31**	**Nelson**	A LOSS-OF-FUNCTION VARIANT IN ANK3 FROM A FAMILY WITH BIPOLAR DISORDER CAUSES ALTERED FOREBRAIN CIRCUITRY
B	**B31**	**Scheib**	ADULT ZEBRAFISH ASTROGLIAL RESPONSE TO OLFACTORY ORGAN DAMAGE IN THE OLFACTORY BULB
A	**A32**	**Stanchfield**	GENE EXPRESSION CHANGES IN MULLER GLIA AFTER STIMULATION OF RETINAL PIGMENT EPITHELIUM WITH AN ALPHA7 NICOTINIC ACETYLCHOLINE RECEPTOR AGONIST
B	**B32**	**Var**	MICROGLIAL PROLIFERATION PATTERNS FOLLOWING DAMAGE TO THE OLFACTORY BULB IN ADULT ZEBRAFISH
A	**A33**	**Tsukahara**	HISTONE H3 LYSINE 4 METHYLTRANFERASES AND SYNAPTIC SCALING

Theme: Neurodegenerative Disorders and Injury

Poster Session	Poster Number	Presenter Last Name	Abstract Title
B	**B33**	**Ali**	RECOVERY OF OLFACTORY SENSORY NEURONS AFTER DAMAGE INVOVLES CHANGES IN PROLIFERATION PATTERNS
A	**A34**	**Anderson**	LASTING BENEFITS OF STIMULATING TRANSPLANTED STEM CELLS IN UNILATERAL 6-OHDA LESIONED RATS

B	**B34**	**Calvo-Ochoa**	RECOVERY AND MORPHOLOGICAL REMODELING OF THE ZEBRAFISH OLFACTORY BULB FOLLOWING A FOCAL EXCITOTOXIC LESION
A	**A35**	**Combs**	INHERITED TAUOPATHY MUTATION ALTERS THE INTERACTION BETWEEN TAU AND PROTEIN PHOSPHATASE 1
B	**B35**	**Eppler**	BIOCHEMICAL CHARACTERIZATION OF HUMAN TAU EXPRESSED IN A DROSOPHILA MODEL OF TAUOPATHY
A	**A36**	**Gall**	REVEALING FUNCTIONAL BRAIN ACTIVITY FOLLOWING EXCITOTOXIC INJURY TO RETINAL GANGLION CELLS IN A DIURNAL RODENT MODEL
B	**B36**	**Gezer**	EFFECTS OF LOW-DOSE DEVELOPMENTAL DIELDRIN EXPOSURE ON NEUROINFLAMMATION AND Œ±-SYNUCLEIN AGGREGATES IN THE MOUSE NIGROSTRIATAL PATHWAY
A	**A37**	**Jaster**	DECISION TREE ANALYSIS IDENTIFIES CHANGING PATTERNS, POTENTIAL DRUG INTERACTIONS, AND BIOMARKERS ASSOCIATED WITH OPIOID DEATHS
B	**B37**	**Kendziorski**	NON-INVASIVE OPTOGENETIC STIMULATION IN A RAT MODEL OF SPINAL CORD INJURY
A	**A38**	**Kochmanski**	LOW-DOSE DEVELOPMENTAL DIELDRIN EXPOSURE ALTERS DNA METHYLATION AT GENES RELATED TO PARKINSON,ÄÔS DISEASE IN MOUSE MIDBRAIN
B	**B38**	**Koneru**	COMPARISON BETWEEN BOVINE AND OVINE SOURCES OF GANGLIOSIDE GM1 AS A POTENTIAL TREATMENT OF HUNTINGTON'S DISEASE IN YAC128 HD MICE MODEL
A	**A39**	**Lynch**	IN VIVO REDOX REGULATION OF ΔFOSB'S STRUCTURE-FUNCTION RELATIONSHIP IN ALZHEIMER'S
B	**B39**	**Mecklenburg**	EFFECTS OF AGE AND EXERCISE ON DENSITY OF SYMPATHETIC INNERVATION IN RAT VASCULATURE
A	**A40**	**Miller**	STN DBS REDUCES LEWY BODY-LIKE ALPHA-SYNUCLEIN INCLUSION FORMATION TRIGGERED BY INTRASTRIATAL FIBRIL INJECTION

B	**B40**	**Munro**	USE OF CURCUMIN ENCAPSULATED DENDRIMER AS AN ANTI-INFLAMMATORY AGENT FOR GLIOBLASTOMA THERAPY IN C57BL/6J MICE
A	**A41**	**Nath**	DUAL PROTECTIVE ACTION OF αA-CRYSTALLIN ON RETINAL GLIAL AND NEURONAL CELLS DURING METABOLIC STRESS
B	**B41**	**Paris**	INDUCED REGENERATION USING AN ALPHA7 NICOTINIC ACETYLCHOLINE RECEPTOR AGONIST IN A GENETIC MOUSE GLAUCOMA MODEL
A	**A42**	**Phadte**	FUNCTIONAL CHARACTERIZATION OF RECOMBINANT αA-CRYSTALLINS AS POTENTIAL THERAPEUTICS FOR NEURODEGENERATION,ÄÌASSOCIATED CELL DEATH IN DIABETIC RETINOPATHY (DR).
B	**B42**	**Ray**	ANALYZING TOXIC TAU DEGRADATION AND CLEARANCE IN A DROSOPHILA MODEL OF TAUOPATHY
A	**A43**	**Sluzala**	PHOSPHOMIMETIC AND NON-PHOSPHORYLATABLE MUTANTS OF αA-CRYSTALLIN EXHIBIT DIFFERENCES IN SOLUBILITY
B	**B43**	**Stoll**	MICROGLIAL DEPLETION TO ATTENUATE SYNUCLEINOPATHY-TRIGGERED NEUROINFLAMMATION
A	**A44**	**Suresh**	THE ROLE OF NEUROINFLAMMATION ON THE CLEARANCE OF MACROMOLECULAR SOLUTES IN THE RAT BRAIN
B	**B44**	**Tien**	ATRAZINE CAUSES OLFACTORY SENSORY NEURON APOPTOSIS IN CRAYFISH (ORCONECTES VIRILIS) FOLLOWING ENVIRONMENTALLY RELEVANT EXPOSURES
A	**A45**	**Webster**	THE ALPHA7 NICOTINIC ACETYLCHOLINE RECEPTOR AGONIST, PNU-282987, ACTIVATES RETINAL PIGMENT EPITHELIUM CELLS TO INDUCE NEUROGENESIS AND REGENERATION IN ADULT MAMMALS
B	**B45**	**Wright**	BLOCKING RAN TRANSLATION ENHANCES FMRP AND REDUCES TOXICITY IN UNMETHYLATED FULL MUTATION FRAGILE X STEM CELLS

Theme: Sensory and Motor Systems			
Poster Session	**Poster Number**	**Presenter Last Name**	**Abstract Title**
A	**A46**	**Bonekamp**	INHIBITORY CONTROL OVER THE LAYER SIX CORTICOTHALAMIC FEEDBACK SYSTEM
B	**B46**	**Cintron-Colon**	EFFECT OF LONG TERM EXERCISE ON GDNF EXPRESSION AND INNERVATION IN RAT SKELETAL MUSCLE
A	**A47**	**Edwards**	BACKWARD WALKING MEASURES ARE INDICATIVE OF FALLS IN MULTIPLE SCLEROSIS
B	**B47**	**Groves**	SHEDDING LIGHT ON BEHAVIOR: THE NEURONAL CIRCUITRY OF LIGHT-GUIDED BEHAVIORAL RESPONSES IN THE MEDICINAL LEECH
A	**A48**	**Harding**	FUNCTIONAL IMPLICATIONS OF MULTIPLE BURST PHENOTYPES IN THALAMIC RETICULAR NEURONS
B	**B48**	**Maser**	DIFFERENTIAL RESPONSE OF ZEBRAFISH OLFACTORY SENSORY NEURON SUBTYPES AFTER INTRANASAL INFUSION WITH DETERGENT
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