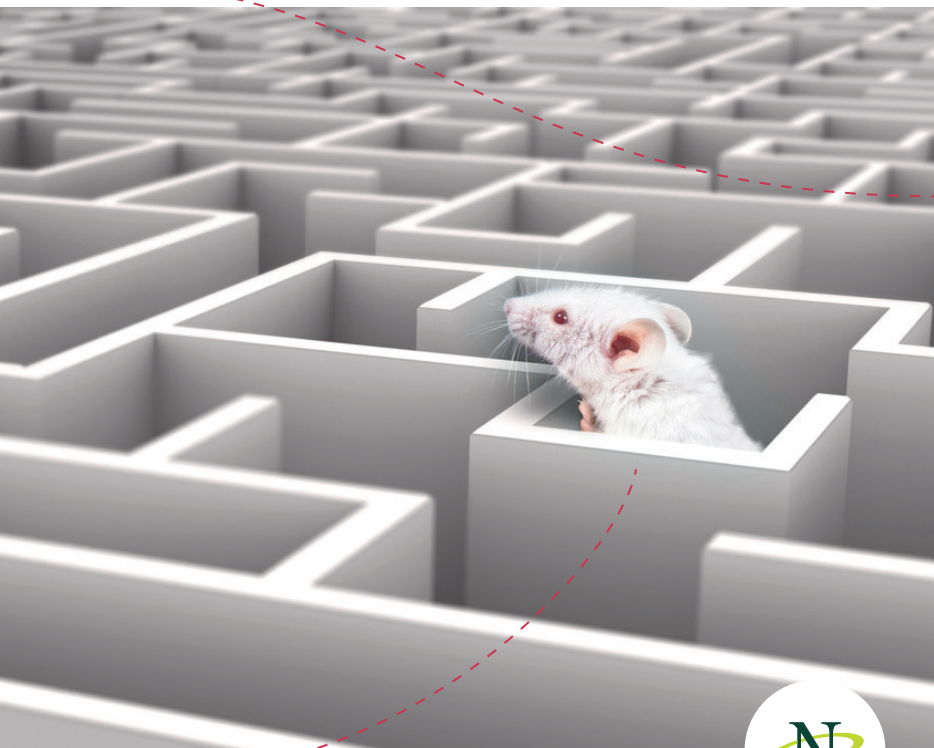


Find your way to

# Research with Noldus tools

Program book Neuroscience 2023



Noldus Information Technology



Noldus Information Technology helps you improve your behavioral neuroscience research, inspired by scientific and societal challenges

This booklet provides an overview of presentations from the Noldus community at Neuroscience 2023 (organized by date). Studies that incorporate one or more Noldus tools, such as EthoVision XT, DanioVision, PhenoTyper, or CatWalk. Enjoy!

Saturday, November 11<sup>th</sup>

Sunday, November 12<sup>th</sup>

Monday, November 13<sup>th</sup>

Tuesday, November 14<sup>th</sup>

Wednesday, November 15<sup>th</sup>



Saterday, November 11<sup>th</sup>

**Regulation of stress and mood in a mouse model of oral contraceptives**

*Kristen Schuh et al., University of Michigan, Ann Arbor, MI, USA*

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**Poster** Halls A-C 043.17

1:00 - 5:00 PM (presenting 1.00 – 2.00 PM)

**ETHOVISION XT**

## Neural and behavioral effects of early life stress

*Janet Ronquillo et al., Santa Clara University, San Francisco, CA, USA*

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**Poster** Halls A-C 044.10  
1.00 – 5.00 PM (presenting 2.00 – 3.00 PM)

**ETHOVISION XT**

## High-resolution analysis highlights heterogeneous behavior and histology after repetitive low-intensity primary blast wave exposure

*Amitai Zuckerman et al., University of Missouri, Colombia, MO, USA*

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**Poster** Halls A-C 021.22  
1.00 – 5.00 PM (presenting 2.00 – 3.00 PM)

**PHENOTYPER, ETHOVISION XT**

**Contribution of CRF- and SOM-  
expressing BNST neurons in early  
cued fear learning**

*Varya Zlotnik et al., Santa Clara  
University, Santa Clara, CA, USA*

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**Poster** Halls A-C 039.02  
1.00 – 5.00 PM (presenting 2.00 – 3.00 PM)

**ETHOVISION XT**

**Gonadal hormone regulation of social  
learning: Interactions with dorsal  
hippocampal D2-type dopamine  
receptors in male and female mice**

*Noah Bass et al., University of Guelph,  
Thornhill, ON, Canada*

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**Poster** Halls A-C 050.10  
1.00 – 5.00 PM (presenting 2.00 – 3.00 PM)

**THE OBSERVER XT**

**Mice Exposed to Open-Field Low-intensity Blast Revealed Position-Dependent Blast Effects on Molecular Signatures and Neurobehavioral Deficits**

*Zecong Gu et al., University of Missouri, Columbia, MO, USA*

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**Poster** Halls A-C 021.23

1.00 – 5.00 PM (Presenting 3.00 – 4.00 PM)

**PHENOTYPER**

**Acute sciatic nerve repair with 4-hydroxi-tempo (Tempol) and poly-etilenglycol axon fusion protocol**

*Lynn A.F. Salamanca Guillen et al., Univ. Estadual de Campinas, Brazil*

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**Poster** Halls A-C 019.03

1.00 – 5.00 PM (Presenting 3.00 – 4.00 PM)

**CATWALK XT**

**Continuous high-throughput  
automated home-cage system to  
characterize the complex behavioral  
responses to stress**

*Yotam Sagi et al., Nathan Kline  
Institute, New York, USA*

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**Poster** Halls A-C 036.24  
1.00 – 5.00 PM (Presenting 4.00 – 5.00 PM)

**ETHOVISION XT**

**Emergence of chronic depressive-  
behavior and changes in NMDA-  
receptor expression following closed-  
head impact traumatic brain injury**

*Caiti-Erin Talty et al., Virginia Tech,  
Blacksburg, VA, USA*

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**Poster** Halls A-C 021.08  
1.00 – 5.00 PM (Presenting 4.00 – 5.00 PM)

**ETHOVISION XT**



Sunday, November 12<sup>th</sup>

**Investigating the Relationship  
between Early Life Stress-Induced  
Behavioral Deficits and Immune  
Response**

*Michael Nguyen et al., Santa Clara  
University, Santa Clara, CA, USA*

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**Poster** Halls A-C 064.17  
8.00 – 12.00 AM (Presenting 8.00 – 9.00 AM)

**ETHOVISION XT**



**Perinatal choline suppl. modulates neuroinflammatory processes and ameliorates synaptic deficits in the APP NL-G-F AD mouse model**

*Thomas Bellio et al., Boston University, Boston, MA, USA*

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**Poster** Halls A-C 073.02  
8.00 – 12.00 AM (Presenting 9.00 – 10.00 AM)

**ETHOVISION XT**

**Preclinical evaluation of a small molecule that inhibits tau self-association in transgenic mouse exhibiting mutant tau and APP**

*Dhruv Patel et al., Oligomerix Inc., Bronx, NY, USA*

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**Poster** Halls A-C 073.19  
8.00 – 12.00 AM (Presenting 10.00 - 11.00 AM)

**ETHOVISION XT**

**Beneficial effects of 5-HT<sub>4</sub>R activation in mice: a transversal approach, from memory to its hippocampal correlates**

*Candice Roux et al., University of Caen Normandy, Caen, France*

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**Poster** Halls A-C 170.20

1.00 – 5.00 PM (Presenting 4.00 – 5.00 PM)

**ETHOVISION XT**



Monday, November 13<sup>th</sup>

**Binge drinking during early adulthood disrupts gait, circadian rhythm, tauopathy and neuroinflammation in a preclinical mouse model**

*Nicole Maphis et al., University of New Mexico, Albuquerque, NM, USA*

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**Poster** Halls A-C 232.17

8.00 – 12.00 AM (presenting 8.00 – 9.00 AM)

**CATWALK XT**

**Does acute psychedelic “therapy”  
persistently reverse reward related  
abnormalities induced by early life  
adversity?**

*Kate Lawson et al., University of  
California, Irvine, CA, USA*

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**Poster** Halls A-C 228.22  
8.00 – 12.00 AM (presenting 8.00 – 9.00 AM)

**ETHOVISION XT**

**Chronic Pain Development in Female  
Rats Following Repeated Mild Blast  
Neurotrauma**

*Amirah Wright et al., Virginia Tech,  
Blacksburg, VA, USA*

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**Poster** Halls A-C 205.14  
8.00 – 12.00 AM (presenting 9.00 – 10.00 AM)

**ETHOVISION XT**

**Understanding the importance of stress as a pre-existing condition to traumatic brain injury**

*Jessica Strickler et al., Virginia Tech, Blacksburg, VA, USA*

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**Poster** Halls A-C 205.02  
8.00 – 12.00 AM (presenting 9.00 – 10.00 AM)

**ETHOVISION XT**

**Deciphering the neuronal circuitry controlling vasomotor symptoms**

*Encarnacion Torres Jimenez et al., Harvard Med. School, Boston, MA, USA*

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**Poster** Halls A-C 224.03  
8.00 – 12.00 AM (Presenting 10.00 – 11.00 AM)

**ETHOVISION XT**

**Assessment of microglia after adolescent delta 9-tetrahydrocannabinol and adulthood heroin exposure**

*Maricela Martinez et al., UC Irvine, Irvine, CA, USA*

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**Poster** Halls A-C 228.25  
8.00 – 12.00 AM (Presenting 11.00 – 12.00 AM)

**ETHOVISION XT**

**Modulation of Anxiety and Fear via Distinct Intrahippocampal Projections to Ventral CA1**

*Maltesh Kambali et al., University of Illinois, Urbana, IL, USA*

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**Poster** Halls A-C 304.09  
1.00 – 5.00 PM (Presenting 1.00 – 2.00 PM)

**ETHOVISION XT**

**Evaluation of tetracycline-controlled overexpression of human Kv1.1 to alleviate disease phenotypes in Nav1.2-deficient mice**

*Brody Deming et al., Purdue University, West Lafayette, IN, USA*

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**Poster** Halls A-C 251.21  
1.00 – 5.00 PM (Presenting 1.00 – 2.00 PM)

**ETHOVISION XT**

**Long term memory consolidation in the hippocampus require the histone lysine demethylase KDM5B**

*Michiel Albert Basson et al., University of Exeter, Exeter, United Kingdom*

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**Poster** Halls A-C 306.14  
1.00 – 5.00 PM (Presenting 2.00 – 3.00 PM)

**ETHOVISION XT**

**Longevity treatments affect  
Alzheimer's neuropathology in  
aged male EFAD mice**

*Amy Christensen et al., Univ. of Southern  
California, Los Angeles, CA, USA*

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**Poster** Halls A-C 258.03  
1.00 – 5.00 PM (Presenting 3.00 – 4.00 PM)

**ETHOVISION XT**

**Deletion of xCT exclusively on immune  
cells is not sufficient to obtain preser-  
vation of hippocampus-dependent  
memory**

*Laura De Pauw et al., VUB, Jette,  
Belgium*

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**Poster** Halls A-C 249.07  
1.00 – 5.00 PM (Presenting 3.00 – 4.00 PM)

**ETHOVISION XT**



**Early life adversity induces blood-brain barrier alterations contributing to stress vulnerability vs resilience**

*Jose Luis Solano Lopez et al., University Laval, Quebec, QC, Canada*

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**Poster** Halls A-C 252.16  
1.00 – 5.00 PM (Presenting 3.00 – 4.00 PM)

**ETHOVISION XT**

**Optimization and characterization of a bone marrow transplantation mouse model and its use to study the role of neuroinflammation**

*Pauline Janssen et al., Vrije Universiteit Brussels, Brussels, Belgium*

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**Poster** Halls A-C 249.08  
1.00 – 5.00 PM (Presenting 4.00 – 5.00 PM)

**ETHOVISION XT**

**Inactivation of Astrocytes in Dentate Gyrus Results in Anxiolytic-like and Cognitive Phenotypes**

*Muxiao Wang et al., University of Illinois, Urbana, IL, USA*

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**Poster** Halls A-C 252.21  
1.00 – 5.00 PM (Presenting 4.00 – 5.00 PM)

**ETHOVISION XT**



Tuesday, November 14<sup>th</sup>

**Pharmacological Treatments to  
Improve Remyelination & Recovery  
in Aged Mice with Spinal Cord Injury**

*Bethany Kondiles, University of British  
Columbia, Vancouver, BV, Canada*

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**Nanosymposium** 140 - 064.07

2:30 – 2:45 PM

**CATWALK XT**

**TSPO expression in the 5XFAD animal model of AD: Cellular sources and association with AD pathophysiology using a life course approach**

*Daniel A. Martinez-Perez et al., Florida International Univ., Miami, FL, USA*

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**Poster** Halls A-C 324.19  
8.00 – 12.00 AM (presenting 10.00 – 11.00 AM)

**ETHOVISION XT**

**A dual-hit mouse model of Parkinson's disease with anxiety and depression symptoms that precede the onset of motor impairment**

*Abraham Vezquez et al., MapLight Therapeutics, Redwood City, CA, USA*

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**Poster** Halls A-C 327.12  
8.00 – 12.00 AM (presenting 11.00 – 12.00 AM)

**ETHOVISION XT**

**Investigation of neural circuits  
underlying hedonic consumption**

*Sooji Choi et al., POSTECH, Pohang-si,  
Republic of Korea*

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**Poster** Halls A-C 425.14  
1.00 – 5.00 PM (presenting 2.00 – 3.00 PM)

**ETHOVISION XT**

**Propofol attenuates surgery-induced  
cognitive impairment in aged mice  
via  $\alpha 5$ -GABA-A receptors**

*Rajasekar Nagarajan et al., University  
of Illinois, Urbana, IL, USA*

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**Poster** Halls A-C 393.07  
1.00 – 5.00 PM (presenting 3.00 – 4.00 PM)

**ETHOVISION XT**

**Glibenclamide Treatment Decreases  
Markers of Neurodegeneration and  
Increases Neurogenesis Across Both  
Sexes After Murine TBI**

*Anupama Rani et al., Barrow Neuro-  
logical Institute, Phoenix, AZ, USA*

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**Poster** Halls A-C 407.19  
1.00 – 5.00 PM (Presenting 3.00 – 4.00 PM)

**ETHOVISION XT**

**Microglial NF- $\kappa$ B activation con-  
tributes to neuronal network and  
behavioral alterations**

*Patrick Honma et al., Gladstone/UCSF,  
San Francisco, CA, USA*

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**Poster** Halls A-C 391.07  
1.00 – 5.00 PM (Presenting 3.00 – 4.00 PM)

**ETHOVISION XT**



Wednesday, November 15<sup>th</sup>

**Long-term behavioral alterations in  
mtbi: home-cage monitoring in mice**

*Lior Bikovski et al., Tel-Aviv University,  
Yafo, Israel*

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**Poster** Halls A-C 472.06  
8.00 – 12.00 AM (presenting 9.00 – 10.00 AM)

**PHENOTYPER**

**The role of Glycogen Synthase  
Kinase-3 paralogs in synaptic plas-  
ticity and cognitive functions**

*Shinwon Kang et al., University of  
Toronto, Toronto, ON, Canada*

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**Poster** Halls A-C 455.11  
8.00 – 12.00 AM (presenting 10.00 – 11.00 AM)

**ETHOVISION XT**

**Isolation of a basal ganglia-receiving  
brainstem population and its role  
in motor rescue of a Parkinsonian  
mouse model**

*Mary Cundiff et al., Carnegie Mellon  
University, Pittsburgh, PA, USA*

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**Poster** Halls A-C 484.20  
8.00 – 12.00 AM (presenting 11.00 – 12.00 AM)

**ETHOVISION XT**



**The GABA-A receptor  $\alpha 5$ -selective positive allosteric modulator, MP-III-022, rescues postoperative cognitive impairments in aged mice**

*Jinrui Lyu et al., University of Illinois, Urbana, IL, USA*

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**Poster** Halls A-C 571.20

1.00 – 5.00 PM (presenting 4.00 – 5.00 PM)

**ETHOVISION XT**

**Discovery of a presynaptic actin-signaling mechanism crucial for working memory**

*Jaebin Kim et al., Duke University, Durham, NC, USA*

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**Poster** Halls A-C 565.08

1.00 – 5.00 PM (presenting 4.00 – 5.00 PM)

**ETHOVISION XT**

**Dopaminergic modulation of posterior  
basolateral amygdala circuits mediates  
the transition of defensive behavior**

*Jung Hyun Pyo et al., POSTECH,  
Pohang-si, Republic of Korea*

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**Poster** Halls A-C 555.16

1.00 – 5.00 PM (presenting 4.00 – 5.00 PM)

**ETHOVISION XT**

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# Neuroscience research trends

[Survey](#)

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