Congratulations to the 2020 FSU iGEM (International Genetically Engineered Machine) team won a silver medal in the 2020 Virtual Giant Jamboree!!!

You can find their 2020 presentation at the link below: https://www.youtube.com/watch?v=jnSL3QuLjdA
Lin Zhang and Deirdre McCarthy each won the 2021 TRIS Research Award for their presentations at the annual meeting of the American Professional Society for ADHD and Related Disorders (APSARD).

Their presentations:

"Repetitive mild traumatic brain injury in a mouse model of ADHD" by Lin Zhang, Valentina Cea Salazar, Deirdre M McCarthy, Cathy Levenson, Joseph Biederman, Thomas J. Spencer, Ross Zafonte, Pradeep G. Bhide. All authors are at BMS except for the following:

- Thomas Spencer and Joseph Biederman are from the Pediatric Psychopharmacology Unit, Massachusetts General Hospital and Harvard Medical School, Boston, MA 02114.
- Ross Zafonte is from the Department of Physical Medicine and Rehabilitation, Spaulding Rehabilitation Hospital, Massachusetts General hospital, Brigham and Women’s Hospital and Harvard Medical School, Charlestown, MA 02129.

"Kappa Opioid Receptor antagonists show therapeutic potential in preclinical models of Autism Spectrum Disorder" by Deirdre M McCarthy, Ayla Scholma, Angeli Canekeratne, Enrique Carrazana, Mia X. Trupiano, Joseph Biederman, Thomas J. Spencer, Pradeep G. Bhide. All authors are at BMS except for the following:

- Thomas Spencer and Joseph Biederman are from the Pediatric Psychopharmacology Unit, Massachusetts General Hospital and Harvard Medical School, Boston, MA 02114.
- Enrique Carrazana is from Avekshan, LLC, Alachua, FL 32615.

In addition, their work was presented at the following two symposia:

1. Novel Pharmacology and Technology Approaches to the Non-Medical Use of Stimulants
2. What’s New in the Pharmacologic Treatment of ADHD? Drugs in the Pipeline

APSARD [www.apsard.org] is the premier international organization dedicated to ADHD research and its annual meeting this year was held as a virtual conference (https://apsard.societyconference.com/v2/) from January 15 to 17, 2021.

**Rationale:** The activation of the glucagon-like peptide-1 receptor (GLP-1R) has been purported to have antidepressant-like and cognitive-enhancing effects. Many people suffering from major depressive disorder (MDD) also experience deficits in cognition. While currently approved antidepressant pharmacotherapies can alleviate the mood symptoms in some patients, they do not treat the cognitive ones.

**Objectives:** We tested whether systemic administration of a GLP-1R agonist would alter location discrimination, a cognitive task that is diminished in humans with MDD.

**Methods:** Male and female laboratory mice (6-8 weeks old, N = 6-14/sex) were trained in a touchscreen operant task of location discrimination. Upon reaching baseline criterion, mice were administered vehicle or a GLP-1R agonist, Exendin-4, systemically prior to testing in probe trials of varying difficulty.

**Results:** Following GLP-1R activation, males showed modest yet non-significant performance in the location discrimination task. Females, however, showed enhanced performance during the most difficult probe tests following Exendin-4 administration.

**Conclusions:** GLP-1R activation appears to enhance overall performance in the location discrimination task and does so in a sex- and difficulty-dependent manner. These preliminary yet impactful data indicate that GLP-1R agonists may be useful as an adjunctive pharmacotherapy to treat cognitive deficits associated with MDD and/or multiple neurological disorders.

2. Nella Delva of the Stanwood Lab had a first author mini-review accepted for publication by Experimental Biology and Medicine, authored by Nella Delva and Gregg Stanwood entitled “Dysregulation of brain dopamine systems in major depressive disorder”.

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**Publications**

Congratulations to the Stanwood lab, with 2 recent publications!
Save the Date

Friday, Mar. 19th
CoM Match Day 2021

Wednesday, Mar. 24th
Seminar Series: Devin Hagarty

Wednesday, Apr. 7th
Seminar Series: Julian Stelzer

Wednesday, Apr. 23rd
Last Day of Spring Semester

Do you have news you wish to share in the Biomed Newsletter? Contact Ryan Teston at: ryan.teston@med.fsu.edu