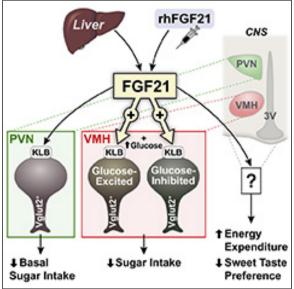
@UlowaNeuro Notes

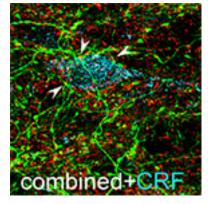
March 2021

In all the ways our lives were turned upside down at this time last year, one thing that remained constant was our publishing. Even when we couldn't gather new data during the lab closures of the early pandemic, we could shift our attention to the data in hand and work on manuscripts to bring new knowledge to publication.

We've had some impressive papers come out of INI labs in the last year that advance fundamental neuroscience research and offer thought leadership on notable work in other labs.

A <u>Cell Metabolism</u> paper from the Potthoff Lab, with co-first authors Sharon Jensen-Cody and Kyle Flippo, identifies how the hormone FGF21 signals to cells in the hypothalamus to specifically suppress sugar intake. Their data demonstrate that FGF21 affects neuronal activity by increasing activation and excitability of neurons in the ventromedial hypothalamus. This is a significant new development in their work on how the brain receives hormonal cues to regulate our food preferences.





A <u>PNAS</u> paper from the Radley Lab, with first author Ryan Lingg and INI collaborators Kumar Narayanan and Ryan LaLumiere, reveals a neural basis for how stress hormones modulate memory. This new work suggests that diminished activity in the anteroventral bed nuclei of the stria terminalis underlies the memory-enhancing effects produced by increases in glucocorticoid hormones following a stressful event. It further demonstrates that divergent pathways emanating from this brain region mediate the differential ability of stress to enhance or impair memory.

In addition to fundamental science, our members are frequently invited to comment on external scholarship and to review the literature in their fields. A <u>TINS</u> paper by Hanna Stevens and Banu Gumusoglu is an excellent example of our INI efforts to connect fundamental neuroscience research to the clinic. It taps into an lowa research strength by collaborating with the Santillan labs to examine what is known about how a common disorder—preeclampsia—featuring high blood pressure during pregnancy can impact children's brain health, from cognitive impairments to neurological disease.

INI collaborators Kumar Narayanan, Jan Wessel, and Jeremy Greenlee were invited to offer commentary on work by Chen et al. in <u>Neuron</u> describing millisecond interactions in a human hyperdirect pathway that connects the frontal cortex and the subthalamic nucleus. As leaders studying frontal circuits in inhibitory control, they were called on to review and interpret these important new findings.

It's always a highlight of my day when I learn of new papers from our INI colleagues. Did you know that one of the best ways to spread the word about new work is through Twitter? Tag @UlowaNeuro and/or @TedAbelNeuro and I'll retweet you! Not on Twitter? <u>Email</u> us your paper and a short description of its significance and we can share it via the INI account.