

INVITED SPEAKER SEMINAR

Adjunct 5-hydroxytryptophan slow-release (5-HTP SR) for treatment-resistant depression: Deduced from human data, confirmed in mice

ABOUT THE LECTURE

Dr. Jacob Jacobsen will talk about a novel antidepressant augmentation principle, which will have a short path from bench to bedside. This is important because intractable treatment-resistant depression is a major unmet need affecting tens of millions worldwide. Dr. Jacobsen is a Senior Research Associate from the Laboratory of Dr. Marc Caron, Duke University and has previously held positions at Lundbeck Pharma and NeuroSearch Biotech.

Depression is a leading cause of disability globally (WHO). Selective serotonin-reuptake inhibitors (SSRIs) remain the mainstay of antidepressant treatment. Yet, less than 50% of patients remit. Sadly, the antidepressant pipeline is thin. Any improved treatments will benefit the lives of millions.

5-HTP is the immediate, rate-limiting precursor to serotonin. There is evidence that 5-HTP is an antidepressant in humans, in particular as augmentation treatment to serotonergic antidepressants. The human safety record is good, with no severe side effects ever reported. However, 5-HTP is rapidly absorbed and rapidly eliminated. This makes 5-HTP utterly impractical for chronic antidepressant treatment and curtails the therapeutic potential. However, an advanced slow-release (SR) formulation could remedy 5-HTP's drugability limitations and transform 5-HTP into the drug 5-HTP SR.

In mice, this is exactly what Dr. Jacobsen and colleagues find. Adjunct 5-HTP SR to chronic SSRI treatment robustly augments the serotonin neurochemical/pharmacodynamic and "antidepressant-like" behavioral effects. In an extensive screen of side effects adjunct 5-HTP SR caused none. In contrast, adjunct conventional 5-HTO immediate release could not produce this therapy-like profile in mice.

Speaker:

Dr. Jacob Jacobsen

*Laboratory of Prof Marc Caron, Department of Cell Biology
Duke University Medical Center, Durham, NC*

Hosts:

Prof David M. Epstein &

Director, Center for Technology & Development

Prof Shirish Shenolikar

Interim Director for Neuroscience & Behavioral Disorders Program

Date:

Wednesday, 15th Oct 2014

Time:

12:00 - 1:00 pm (*Light refreshments will be served at 11:30am*)

Venue:

Meeting Room 7C, Level 07

Duke-NUS Graduate Medical School

Contact Person:

Ms Shanti Rajaram, Office of Research

Tel: 6516 7266 or Email: shanti.rajaram@duke-nus.edu.sg

ABOUT THE SPEAKER

Dr. Jacobsen represents a group of investigators at Duke University who is visiting Duke-NUS. He is interested in developing new therapeutic approaches for treatment resistant depression. He hopes to move 5-HTP SR towards becoming a clinical reality in Singapore and Asia.

Duke-NUS, CTED, NBD and DUNES is sponsoring this presentation as part of its drive to foster innovation and collaboration.



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