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Basic-Translational-Clinical Roundtables

BTCR01: Miracles Can Happen: Recent Advances in the Restoration of Vision, Hearing, and Touch — José-Alain Sahel

Location: MCP Room S401

Time: Monday, October 7, 2024, 10:30 AM - 12:00 PM

Description: This roundtable features experts who will present recent advances in sensory restoration. Dr. Chen will describe gene therapies to restore hearing in congenitally deaf children, Dr. Sahel will present approaches to restore sight partially in end-stage retinal degenerations, focusing on optogenetics and prosthetics, and Dr. Graczyk will present chronically implanted neural interfaces to restore touch and proprioception following limb loss and spinal cord injury. A discussion follows the talks.

Program #: BTCR01.01

Support: Laboratoire d'Excellence (LabEx) LIFESENSES (ANR-10-LABX-0065)
Institut Hospitalo-Universitaire FOReSIGHT (ANR-18-IAHU-0001)
LIGHT4DEAF (ANR-15-RHUS-000)
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European Research Council (ERC) Synergy Helmholtz Grant (#610110)
Pixium Vision, GenSight Biologics, Sparing Vision, Cilensee, Prophesee,
Chronolife, Tilak Healthcare, VegaVect, Inc., Avista, Tenpoint, SharpEye

Chair: J.-A. Sahel;

University of Pittsburgh, Pittsburgh, PA

Disclosures: J. Sahel: B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Laboratoire d'Excellence (LabEx) LIFESENSES (ANR-10-LABX-0065), Institut Hospitalo-Universitaire FOReSIGHT (ANR-18-IAHU-0001), LIGHT4DEAF (ANR-15-RHUS-000), University-Hospital Institute FOReSIGHT (ANR-18-IAHU-0001), The Edward N. & Della L. Thome Memorial Foundation Awards Program in Age-Related Macular Degeneration Research, United States Department of Defense (W81XWH-22-9-0011 & 2019-447-005), NIH National Institutes of Health CORE Grant (P30 EY08098), RPB Research to Prevent Blindness, Unrestricted Grant, European Research Council (ERC) Synergy Helmholtz Grant (#610110). D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents (e.g., speakers' bureaus); Pixium Vision, GenSight Biologics, Sparing Vision, Prophesee, Chronolife, Tilak Healthcare, VegaVect, Inc., Avista, Tenpoint, SharpEye. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds);

Gensight, Sparing Vision, Avista, Tenpoint, Prophesee, Chronolife, Tilak Healthcare, SharpEye, Cilensee, VegaVect. F. Consulting Fees (e.g., advisory boards); Avista Therapeutics, Tenpoint.

Program #: BTCR01.02

Speaker: J.-a. Sahel;

University of Pittsburgh, Pittsburgh, PA

Disclosures: J. Sahel: A. Employment/Salary (full or part-time);; University of Pittsburgh Medical School and Medical center. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; my institution on multiple trials. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); none. D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents (e.g., speakers' bureaus); none. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Gensight Biologics, Sparing Vision, Lightstone ventures, Prophesee, Chronolife, Tilak Healthcare, SharpEye, Ciensee, Netramind, Vegavect, Avista Therapeutics. F. Consulting Fees (e.g., advisory boards); UPMC Enterprises, Avista, Tenpoint, Lightstone Ventures, Foundation Fighting Blindness, Gilbert Family Foundation.

Program #: BTCR01.03

Speaker: Z.-Y. Chen;

Massachusetts Eye and Ear, Boston, MA

Disclosures: Z. Chen: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Salubritas Therapeutics, Decibel Therapeutics.

Program #: BTCR01.04

Speaker: E. Graczyk;

Case Western Reserve University, Cleveland, OH

Disclosures: E. Graczyk: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); I am a co-inventor on two patents related to the work. Neither have been licensed by any company..

Basic-Translational-Clinical Roundtables

BTCR02: Sex as a Biological Variable in Traumatic Brain Injury and Stroke Research — Grace S. Griesbach

Location: MCP Room S401

Time: Tuesday, October 8, 2024, 10:30 AM - 12:00 PM

Description: Traumatic brain injury impacts physiological pathways in a sex-dependent manner. Properly addressing sex is essential for research translation and application. The session will help

define guidelines for approaching sex differences, covering considerations for experimental design, statistics, and data analysis led by an expert panel. Discussion will include logistical concerns and approaches to preclinical and clinical challenges. The session intends to be interactive and educational.

Program #: BTCR02.01

Chair: G. S. Griesbach;
Centre for Neuro Skills, Keswick Avenue, CA

Disclosures: G.S. Griesbach: None.

Program #: BTCR02.02

Speaker: C. O. Bondi;
University of Pittsburgh, Pittsburgh, PA

Disclosures: C.O. Bondi: None.

Program #: BTCR02.03

Speaker: T. A. Jones;
University of Texas at Austin, Austin, TX

Disclosures: T.A. Jones: None.

Program #: BTCR02.04

Speaker: H. O. Awwad;
National Institute of Neurological Disorders & Stroke (NINDS/NIH), Rockville, MD

Disclosures: H.O. Awwad: None.

Basic-Translational-Clinical Roundtables

**BTCR03: Cortical Interneurons: From the Developing Brain to the Operating Room —
Derek G. Southwell**

Location: MCP Room S401

Time: Wednesday, October 9, 2024, 10:30 AM - 12:00 PM

Description: This session will consider interneuron (IN) transplantation as a novel, cell-based therapy for human epilepsy. A panel with expertise in development, regenerative medicine, and surgical epilepsy management will discuss 1) cortical IN development and function, 2) preclinical studies of IN transplantation in animal models, 3) the generation of a clinical-grade human IN cell product (NRTX-1001), and 4) preliminary insights from a first-in-human study of IN transplantation for focal epilepsy.

Program #: BTCR03.01

Chair: D. G. Southwell;
Duke University, DURHAM, NC

Disclosures: D.G. Southwell: B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Principal Investigator, NRTX-1001 clinical trial (Neurona Therapeutics).

Program #: BTCR03.02

Speaker: A. Alvarez-Buylla;
University of California San Francisco, San Francisco, CA

Disclosures: A. Alvarez-Buylla: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neurona Therapeutics (stocks, patent holder). F. Consulting Fees (e.g., advisory boards); Neurona Therapeutics (advisory board).

Program #: BTCR03.03

Speaker: M. Bershteyn;
Neurona Therapeutics, South San Francisco, CA

Disclosures: M. Bershteyn: A. Employment/Salary (full or part-time);; Neurona Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neurona Therapeutics.

Program #: BTCR03.04

Speaker: D. G. Southwell;
Duke University, DURHAM, NC

Disclosures: D.G. Southwell: B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Principal Investigator, NRTX-1001 clinical trial (Neurona Therapeutics).

Dual Perspectives

DUP01: Exploring Emotions: A Dual Perspective Debate — Luiz Pessoa

Location: MCP Room S105

Time: Sunday, October 6, 2024, 10:30 AM - 12:00 PM

Description: This session will contrast perspectives on the nature and mechanisms of emotions. Lisa Feldman Barrett, PhD, emphasizes the role of the brain as a generator of culturally inherited categories in constructing instances of emotion. Kent Berridge, PhD, investigates the neurobiological substrates and evolutionary foundations of motivation, hedonic affect, and emotion. Moderated by Luiz Pessoa, PhD, this panel aims to facilitate dialogue and inspire innovation within the field of affective neuroscience.

Moderator:

***L. PESSOA;**

Psychology, Univ. of Maryland, Col. Park Neurosci. and Cognitive Sci. Program, College Park, MD

Disclosure:

Speakers: L. F. Barrett;

Northeastern University, Boston, MA.

Disclosure: L.F. Barrett: None.

Speakers: K. C. Berridge;

Psychology, University of Michigan, Ann Arbor, MI.

Disclosure: K.C. Berridge: None.

Dual Perspectives

DUP02: Connectomics: Opportunities and Limitations — Davi Bock

Location: MCP Room S406A

Time: Tuesday, October 8, 2024, 1:30 PM - 3:00 PM

Description: Two decades have passed since people began to map brain connectivity at the level of individual neurons and the synapses between them with automated volume electron microscopy. Since then, connectomes of the nematode, the larval fruit fly, portions of the mammalian brain, and, more recently, the adult fruit fly have been generated. The speakers will compare and contrast their approaches to leveraging and analyzing connectomes (e.g., at the whole-network level vs. by selecting targeted cellular pathways of interest). We will also discuss

the impact, limitations, and future prospects of connectomics alone and in combination with other modalities.

Moderator:

***D. BOCK;**

Neurolog. Sci., Univ. of Vermont, Burlington, VT

Disclosure: D. Bock: None.

Speakers: R. I. Wilson;

Harvard Medical School, Boston, MA

Disclosure: R.I. Wilson: None.

Speakers: S. C. Turaga;

HHMI Janelia Research Campus, Ashburn, VA

Disclosure: S.C. Turaga: None.

Storytelling

STR01: How Storytelling Through Engagement and Advocacy Can Change Approaches to Neuroscience Research — Mark M. Rasenick

Location: MCP Room S105

Time: Monday, October 7, 2024, 1:30 PM - 3:00 PM

Description: Neuroscience is embedded into society. This session will use storytelling to describe the calibration of science, advocacy, and social impact. Specifically, how partnering with those in the community can impact how researchers frame their scientific practice and discoveries. This session will feature stories from a leading advocacy voice in neuroscience, the American Brain Coalition (ABC), and illustrate how collaboration can bring about meaningful change.

STR01.01

Chair: M. M. Rasenick;
U. Illinois College of Medicine, Chicago, IL

Disclosures: M.M. Rasenick: None.

STR01.02

Speaker: T. L. Williamson;
Massachusetts General Hospital, Boston, MA

Disclosures: T.L. Williamson: None.

STR01.03. A brain disease advocate tells her story

J. Hieshetter;
Dystonia Medical Research Foundation, Chicago, IL

Disclosures: J. Hieshetter: None.

STR01.04. A professional Storyteller tells his story

T. Schlesinger;
Storytellers Academy, NORTHBROOK, IL

Disclosures: T. Schlesinger: None.