

Conference Program

MONDAY, MARCH 04, 2019

REGISTRATION & MORNING NETWORKING COFFEE

08:00 - 09:00

WELCOME REMARKS

09:00 - 09:15

Plenary Hall

- 09:00 **Rafi Gidron**
IBT Founder and Chairman (Israel)
- 09:05 **Miri Polachek**
CEO, Joy Ventures; IBT Founding Executive Director (Israel)
- 09:10 **Karin Mayer Rubinstein**
IATI CEO, Israel (Israel)

KEYNOTE LECTURE: PRESCRIPTION DIGITAL THERAPEUTICS: CHARTING A COURSE TOWARD STANDARD OF CARE

09:15 - 09:45

Plenary Hall

- 09:15 **Corey McCann**
MD, PhD, President and CEO, Pear Therapeutics (USA)

Pear Therapeutics is leading development of a new treatment class known as prescription digital therapeutics, or PDTs. PDTs are designed to directly treat disease, tested for safety and efficacy in randomized clinical trials, evaluated by the FDA, and prescribed by healthcare providers. Dr. McCann will discuss this new treatment class and share recent developments across the portfolio, including the commercial launch of reSET, for the treatment of Substance Use Disorder, and reSET-O, for the treatment of Opioid Use Disorder. He will also provide a view into the company's pipeline, with PDTs in development across a range of serious diseases.

FIRESIDE CHAT: USING A BRAIN COMPUTER INTERFACE PILOTED EXOSKELETON TO RESTORE MOBILITY

09:45 - 10:30

Plenary Hall

Posttraumatic Tetraplegia is a Life Changing Circumstance calling for major solutions to restore a minimal mobility to improve quality of life. We will discuss a new first in man global approach.

- 09:45 **Moran Cerf**
Professor, Neuroscience & Business, Kellogg School of Management, Northwestern University, (USA)
- Alim Louis Benabid**
Professor, Chairman of the Board, Clinelec; Member of the Academy of Sciences; Professor Emeritus of Biophysics at Joseph Fourier University; Scientific Advisor at the Atomic Energy Commission; Clinelec, Edmond J Safra Research Center, LETI-Minatec (France)

BREAK

10:30 - 11:00

Exhibition & Networking Area

BRINGING THE LATEST DEVELOPMENTS IN BRAIN STIMULATION AND NEUROMODULATION TO THE CLINICS

11:00 - 12:30

Plenary Hall

Subject to exploration in this session are the current and future technologies for deep brain stimulation. What is the possibility to use deep brain stimulation for disorders other than Parkinson or other movement disorders?

Chair: **Zvi Israel**, Director, Center for Functional and Restorative Surgery, Dept. of Neurosurgery, Hadassah Medical Center, Jerusalem (Israel)

11:00 CLOSING THE LOOP ON PARKINSON'S DISEASE – FROM PHYSIOLOGY TO TREATMENT AND BACK

Hagai Bergman

Professor of Physiology, The Hebrew University of Jerusalem; President, Israel Society for Neuroscience (ISFN) (Israel)

11:15 NEURAL CO-PROCESSING: SHIFTING OUR MINDSET FROM MODULATING TO RESTORING DISEASED BRAIN CIRCUITS

Timothy Denison

Royal Academy of Engineering Chair in Emerging Technologies, Department of Engineering Science, Nuffield Department of Clinical Neuroscience, MRC Brain Network Dynamics Unit, Oxford University (UK)

11:30 PANEL DISCUSSION: WHAT IS THE BEST TECHNOLOGY FOR THE FUTURE DEEP BRAIN STIMULATION THERAPY?

Hagai Bergman

Professor of Physiology, The Hebrew University of Jerusalem; President, Israel Society for Neuroscience (ISFN) (Israel)

Timothy Denison

Royal Academy of Engineering Chair in Emerging Technologies, Department of Engineering Science, Nuffield Department of Clinical Neuroscience, MRC Brain Network Dynamics Unit, Oxford University (UK)

Imad Younis

President, Alpha Omega (Israel)

Ziv Peremen

VP Medical Solutions, elminda (Israel)

Zvi Israel

Director, Center for Functional and Restorative Surgery, Dept. of Neurosurgery, Hadassah Medical Center, Jerusalem (Israel)

START-UP FINALISTS PRESENTATIONS

12:30 - 13:15

Plenary Hall

Judges:

Eti Finkelstein, Merage Alumni Manager at Merage Institute

Amir Konigsberg, Co-Founder & Board Director of Twiggle; Board Member, Allegro.Ai

Sigal Yosef, Head of Life Science, Innovation and R&D Incentives Center, EY

Imad Younis, President, Alpha Omega

Finalists:

12:35 **Genetika+**

12:43 **Nia Therapeutics, Inc**

12:51 **RenewSenses Ltd.**

12:59 **Wearable Devices Ltd.**

13:07 **NeuroIndex Ltd.**

BREAK: LUNCH

EXHIBITION, POSTER SESSIONS, B2B MEETINGS, TECH DEMOS

13:15 - 14:15

Exhibition & Networking Area

TECH DEMOS

13:15 – 13:20 Innosphere

REVOLUTIONIZING ADHD TREATMENT

Gabriel Shakour, Product manager, Innosphere (Israel)

13:20 – 13:30 Senso Medical

BIOPOT DEVELOPMENT KIT INTRODUCTION BY SENSOMEDICAL

A. Mark Mento, Marketing Director, Senso Medical (USA)

13:30 – 13:45 Alpha Omega

CLOSING THE LOOP IN DBS – PART 2

Omer Naor, PhD, Project manager, Alpha Omega Engineering, (Israel)

13:45 – 14:15 Vielight

PHOTOBIOMODULATION IS OPENING NEW OPPORTUNITIES FOR BRAIN STIMULATION

Lew Lim, PhD, DNM, MBA, Founder & CEO, VieLight (Israel)

THE FUTURE OF DIGITAL BRAINTech

14:15 - 16:00

Plenary Hall

The session explores the impact of Digital Health on the Brain Related healthcare. We will address the questions - what is preventing a more massive adoptions of Digital therapeutic technologies and what business models could work.

Chair: **Anya Eldan**, VP of the Israel Innovation Authority & Head of Startup Division (Israel)

14:15 **KEYNOTE LECTURE: GLIMPSE OF HEALTH RESEARCH AT GOOGLE**

David Ben Shimol

MD, Health Technologies Lead, Research at Google, USA

14:35 **PANEL DISCUSSION: DIGITAL BRAIN THERAPY – A REALITY?**

Anya Eldan

VP of the Israel Innovation Authority & Head of Startup Division (Israel)

Dan Shwarzman

CEO, MindUp (Israel)

Shlomo Mendlovic

PhD, MD, MHA, Director, Shalvata Mental Health Center (Israel)

Eran Harary

Senior Director, Global Clinical Development, Neuropsychiatry, Teva Pharmaceutical Industries Ltd. (Israel)

Dorit Sokolov

Managing Director, aMoon Fund (Israel)

15:15 STARTUP SPOTLIGHT

15:18 Brainmarc

If You Can't Beat Them - Join Them; Digital Therapy for Social Anxiety

Nir Goren

CTO, Brainmarc, (Israel)

15:25 Neurolief

Fighting Migraine with Neuromodulation Digital Therapeutics

Eran Schenker

Dr., Chief Medical Innovation Officer, Neurolief (Israel)

15:32 Novotalk

"Power to the patient" - disentangling the digital therapeutic delivery model

Zohar Beeri

Chairman & CEO, Novotalk, (Israel)

15:39 Train Pain

The future of digital health for treating pain-related brain plasticity

Elan Schneider

DPT, CEO & Co-Founder, Train Pain, (Israel)

15:46 EmotiPlay

Virtual Reality Therapy? Special people inspire special ideas

Noga Meir-Goren

Product manager, EmotiPlay, (Israel)

15:53 Viz.ai

Time=Brain, Automatic stroke detection and the next revolution in Healthcare

David Golan

Co-founder & CTO, Viz.ai, (Israel)

BREAK

16:00 - 16:30

Exhibition & Networking Area

FROM FUNDAMENTAL NEUROSCIENCE TO NEXT-GENERATION NEUROTECHNOLOGY

16:30 - 18:00

Plenary Hall

Recent experimental and theoretical work provide new insights into the principles that govern the dynamics of neural systems and the processing of information. This session will discuss how ideas from basic research in neuroscience can be translated into reliable neurotechnologies.

Chair: **Oren Shriki**, Assistant Professor, Dept. of Cognitive and Brain Sciences and Dept. of Computer Science, Zlotowski Center for Neuroscience, Ben-Gurion University of the Negev (Israel)

16:30 **LIVING ON THE EDGE: ON CRITICAL BRAIN DYNAMICS AND ITS APPLICATIONS TO DIAGNOSING NEUROLOGICAL DISORDERS**

Oren Shriki

Assistant Professor, Dept. of Cognitive and Brain Sciences and Dept. of Computer Science, Zlotowski Center for Neuroscience, Ben-Gurion University of the Negev (Israel)

16:52 **CLOSING THE CHASM: ACCELERATING TRANSLATIONAL NEUROSCIENCE APPLICATIONS THROUGH AUTOMATED BIOSIGNAL ANALYSIS IN THE CLOUD**

Tim Mullen

PhD, Founder & CEO, Research Director, Intheon (USA)

17:14 **MEASURING PHYSIOLOGY AND BEHAVIOR IN YOUNG CHILDREN WITH AUTISM**

Ilan Dinstei

Negev Autism Center, Ben-Gurion University of the Negev (Israel)

17:36 **TRANSLATIONAL NEUROREHABILITATION: DEFINITIONS, CHALLENGES AND OPPORTUNITIES. INTRODUCTION OF THE BGU-ALEH NEGEV INITIATIVE**

Simona Bar-Haim

Founder, Step of Mind. Head, The laboratory for Motor Control and Rehabilitation of Walking, Ben-Gurion University of the Negev (Israel)

Lior Shmuelof

Head, Brain & Action Lab, Ben-Gurion University of the Negev (Israel)

IBT MATHEMATICAL NEUROSCIENCE PRIZE AWARD

18:00 - 18:15

Plenary Hall

NETWORKING HAPPY HOUR

18:15 - 19:15

Exhibition & Networking Area

TUESDAY, MARCH 05, 2019

REGISTRATION & MORNING NETWORKING COFFEE

08:00 - 09:00

NEUROWELLNESS: EXPLORING SCIENCE, TECHNOLOGY AND CONSUMER PRODUCTS

Neurowellness is an emerging field focused on emotional wellbeing and resilience. There has been exponential growth in scientific research and technological developments dedicated to understanding and enhancing the human experience. The following two sessions will explore the science behind emotional wellbeing, showcase some of the latest technologies in the field and discuss how these technologies will reach the individual consumer to enhance our lives.

NEUROWELLNESS: UNDERSTANDING & ENHANCING RESILIENCE

09:00 - 10:30

Plenary Hall

09:00 HERE'S FOR A BETTER MOOD: MEMORY, PREDICTION AND DEPRESSION

Moshe Bar

Prof., Director, Leslie and Susan Gonda Multidisciplinary Brain Research Center, Bar-Ilan University, (Israel)

09:25 CAN WE TRICK OUR BRAINS TO BE HEALTHY?

Talma Hendler

Prof., School of Psychological Science, Faculty of Medicine, Sagol School of Neuroscience, Tel Aviv University; Director of the Sagol Brain Institute, Wohl Institute for Advanced Imaging, Tel Aviv Sourasky Medical Center (Israel)

Asya Rolls

Prof., HHMI-Wellcome International Scholar; Rappaport Institute for Medical Research; Technion, Israel Institute of Technology (Israel)

09:50 SPOTLIGHT ON APPLIED NEURO WELLNESS RESEARCH

Noam Sobel

Prof., Head, Department of Neurobiology, Weizmann Institute of Science (Israel)

Hadas Okon-Singer

PhD, Department of Psychology, Chair, Department of Cognitive Sciences University of Haifa (Israel)

10:10 TRANSFORMATIVE TECHNOLOGIES FOR WELLBEING

Nichol Bradford

Executive Director and Co-Founder, The Transformative Technology Lab (USA)

BREAK: EXPERIENCE ZONE BREAK

10:30 - 11:00

Exhibition & Networking Area

CONSUMER PRODUCTS FOR EMOTIONAL WELLBEING

11:00 - 12:30

Plenary Hall

- 11:00 THE STORY OF MUSE – BRINGING NEUROTECH TO CONSUMER BRAIN HEALTH**
Ariel Garten
Founder and Chief Evangelism Officer at InteraXon, makers of Muse (Canada)
- 11:20 UNLEASHING JOY**
Miri Polachek
CEO, Joy Ventures (Israel)
- 11:30 PANEL DISCUSSION: THE FUTURE OF EMOTIONAL WELLBEING PRODUCTS**
Miri Polachek
CEO, Joy Ventures (Israel)
- Gilad Peleg**
Co-founder & Chairman, Joy Ventures (Israel)
- Mike Edelhart**
Managing Partner, Joyance Partners (USA)
- Benjamin Huerta**
Director, Amdocs Guadalajara (Mexico)
- Nava Levit - Binnun**
Director, Sagol Center for Brain and Mind; Founder & Director, Muda Institute for Mindfulness, Science and Society, Interdisciplinary Center (IDC) Herzliya (Israel)
- 11:50 STARTUP SPOTLIGHT**
- Nanea Reeves**
CEO, Co-Founder, TRIPP, Inc. (USA)
- Aziz Kaddan**
CEO, Myndlift (Israel)
- Tomer Aharonovitch**
Co-Founder & CEO, NYX Technologies (Israel)
- Fotini Markopoulou**
PhD, CEO, Doppel (UK)

BREAK: EXPERIENCE ZONE BREAK

12:30 - 13:00

Exhibition & Networking Area

BREAK: LUNCH

EXHIBITION, POSTER SESSIONS, B2B MEETINGS, TECH-DEMOS

13:00 - 14:00

Exhibition & Networking Area

TECH DEMOS

13:00 – 13:10 Myndlift
NEUROFEEDBACK FOR THE MASSES
Aziz Kaddan, CEO, Myndlift (Israel)

13:10 – 13:15 Excellent Brain
MAKING NEUROFEEDBACK ACCESSIBLE TO ALL
Merav Klo, CEO, Excellent Brain, (Israel)

13:15 – 13:20 Selfit Medical

SELFIT - DIGITAL THERAPY FOR NEUROLOGICAL DISORDERS

Shahar Figelman, CEO of Selfit Medical (Israel)

13:20 – 13:25 elminda

BRAIN NETWORKS ANALYTICS

Boaz Sadeh, Neuroscience Lead & Algorithm Developer, elminda (Israel)

13:25 – 13:35 ELSC

THE EDMOND AND LILY SAFRA CENTER FOR BRAIN SCIENCES (ELSC)

A MULTIDISCIPLINARY ACADEMIC HUB FOR BRAIN-TECH PARTNERSHIP, THE HEBREW UNIVERSITY OF JERUSALEM (ISRAEL)

Mickey London, The Hebrew University of Jerusalem (Israel)

BIOPOT DEVELOPMENT KIT HANDS-ON BY SENSO MEDICAL

Meeting room 4

13:00 – 14:00 Your platform for neuro technology development

BRAIN AND ARTIFICIAL INTELLIGENCE - MUTUAL INSPIRATION AND APPLICATIONS

14:00 - 15:30

Plenary Hall

The field of Artificial Intelligence takes inspiration from human intelligence and from the human brain. At the same time, Artificial Intelligence is utilized to better understand and serve the human brain, and ultimately improve people's lives. This session will give an overview of activities at the forefront of the work being done in applying brain inspired technologies in industry and will also outline how these advancements are being applied to better understand the human brain.

Chair: **Amir Konigsberg**, Co-founder and Board Director of Twigggle Inc. (Israel)

14:00

HYBRID ML - COMBINING NETWORKS WITH WORLD KNOWLEDGE

Avinatan Hassidim

Research Group Lead, Google (Israel)

14:22

ATTENTION: FROM COGNITIVE NEUROSCIENCE TO COMPUTER VISION

Nilli Lavie

Professor of Psychology and Brain Sciences and Director of the Attention and Cognitive Control laboratory at the University College London Institute of Cognitive Neuroscience (UK)

14:44

FROM NEURAL NETWORKS TO DEEP LEARNING

Gal Chechik

Director of AI at NVIDIA, Associate Professor at the Gonda Brain Research Institute, Bar Ilan University (Israel)

15:06

OPENING THE BLACK-BOX OF DEEP NEURAL NETWORKS: THE INFORMATION BOTTLENECK THEORY OF DEEP LEARNING

Naftali Tishby

Professor, Compute Science, The Hebrew University; Member of the Edmond and Lilly Safra Center for Brain Sciences (ELSC), Hebrew University (Israel)

BREAK

15:30 - 16:00

Exhibition & Networking Area

FROM BRAINSTORM TO BENCH - OBSTACLES AND TRIUMPHS ON THE WAY TO INCORPORATING BRAINTech IN EVERYDAY CLINICAL PRACTICE

16:00 - 17:00

Plenary Hall

Real life case studies from clinicians and hospital researches of attempts at integrating neuro-tech in the medical world - what works and what doesn't? What is needed and is the hype around current technologies justified?

Chair: **Dana Gefen Doron**, Neurorehabilitation specialist, Senior Physician, Stroke Unit,, Sheba Medical Center (Israel)

16:00 INCORPORATING CUTTING EDGE TECHNOLOGIES IN FUNCTIONAL NEUROSURGERY

Ido Strauss

Director, Neuromodulation Unit, Department of Neurosurgery, Tel Aviv Sourasky Medical Center (Israel)

16:15 REAL WORLD CHALLENGES TO PREDICTION OF PSYCHIATRIC DISORDERS

Abraham Reichenberg

Professor of Preventive Medicine and Psychiatry at the Ichan School of Medicine at Mount Sinai in New York, Senior Fellow of the Seaver Center for Autism Research and Treatment, New York (USA)

16:30 HOW THE STARTUP NATION MAY BECOME THE NATION THAT WILL PREVENT ALZHEIMER'S DISEASE?

Michal Beeri

Director of the Sagol Neuroscience Research Center, Sheba Medical Center (Israel)

16:45 THE OBSTACLES IN ADOPTING NEW TECHNOLOGIES IN NEURO-MEDICINE

Gili Givaty

Neurologist, Deputy Director of Barzilai Medical Center (Israel)

KEYNOTE LECTURE: BRAINMIND: ACADEMICS, ENTREPRENEURS, INVESTORS, PHILANTHROPISTS – A COALITION CATALYZING IMPACT IN BRAIN SCIENCE

17:00 - 17:30

Plenary Hall

17:00 Michael McCullough

Entrepreneur In Residence at Greylock Partners, Founder & President of BrainMind & QuestBridge, & Asst Professor of Emergency Medicine at UCSF, (USA)

BrainMind is an ecosystem and platform for impact-oriented company creation in brain and mind science. Brain science is in the midst of a transformative step change in capacity, akin to the sequencing of the human genome in genetics or development of nuclear fission in physics. Emerging technologies with unprecedented ability to access and manipulate the brain and mind are being rapidly developed in the private sector, where public oversight is limited. As a species, we must proactively navigate this watershed era in neuroscience. The BrainMind ecosystem will catalyze impact-maximizing innovation in brain science with new forms of capital and leadership support for non-venture-backable ideas with the most potential to benefit humanity. Less than a year old, the platform has attracted Stanford, MIT, and Oxford and a growing list of academic collaborators. BrainMind's leaders Michael McCullough, Ed Boyden, Laura Roberts, and Reid Hoffman have leveraged the private sector to draw together top philanthropists/foundations (>\$100BN in capital), and the world's top investors and entrepreneurs in this ecosystem to support these pivotal ideas from the lab to society.

START UP COMPETITION & BEST POSTER PRIZE ANNOUNCEMENTS & CLOSING REMARKS

17:30 - 17:45

Plenary Hall