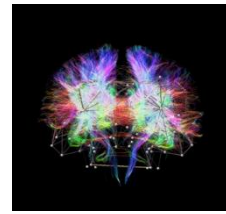


NEUROREPAIR 2022: SURGERY AND REHABILITATION

05./06.07.2022 BERLIN



IGL
Image Guidance Lab

Day 1

INTRO:

8.00-9.00

1) Introduction: Reconstructive neurosurgery.

CRANIAL NERVES

VISION

9.00-9.30

2) Restoring vision

FACE

9.30-10.00

3) Nerve transfer for the reanimation of the face

10.00-10.30

4) Dynamic reanimation by free functional muscle transfer

10.30-11.00 Coffee break

MOTOR SYSTEM

PERIPHERAL NERVES

11.00-11.30

5) Current concepts in adult peripheral nerve and brachial plexus reconstruction surgery

11.30-12.00

6) Free neurovascular muscle transplantation

12.00-12.30

7) Selective tendon transfer upper extremity

12.30-13.00

8) Tendon transfers lower extremity

13.00-14.00 Lunch break



CENTRAL LESIONS

14.00-14.30

9) Concepts for individualized non-invasive brain stimulation for neurorehabilitation

14.30-15.00

10) Vagus nerve stimulation paired with rehabilitation for upper limb motor function after ischaemic stroke

15.00-15.30

11) Towards precision medicine: patient-tailored treatment strategies to enhance motor recovery

15.30-16.00

12) Structural and functional connectivity networks

16.00-16.30

13) Transcranial direct current stimulation elicits recovery and stem cell-mediated regeneration

16.30-17.00 Coffee break

SPEECH

17.30-18.00

14) Reorganisation and modulation of language networks

18.00-18.30

15) Electrical stimulation of the motor cortex enhances treatment outcome in post-stroke aphasia

20.00 Social event

Day 2

SPINAL CORD INJURY

8.00-8.30

16) Spinal Cord Injury-Repair and Regeneration.

8.30-9.30

17) Nerve transfers for spinal cord injury.

9.30-10.00

18) The Corticospinal reserve

10.00-10.30

19) Patterned Epidural Stimulation after SCI

10.30-11.00 Coffee break

11.00-11.30

20) Spatiotemporal neuromodulation therapies improve motor control after spinal cord injury

11.30-12.00

21) Paired associative stimulation after non-traumatic spinal cord injury

12.00-12.30

22) Corticospinal neuroprostheses to restore locomotion after spinal cord injury

12.30-13.00

23) Neural stem cells in spinal cord injury repair

13.00-14.00 Lunch break

14.00-14.30

24) Upcoming technologies for neurorehabilitation

VEGETATIVE FUNCTION

14.30-15.00

25) Neural reconstruction methods of restoring bladder function.

NEUROCOGNITION AND CONSCIOUSNESS

15.00-15.30

26) Effects of a multi-session cognitive training combined with brain stimulation

15.30-16.00

27) Deep brain stimulation in Alzheimer's disease

16.00-16.30 Coffee break

BIONICS /BRAIN MACHINE INTERFACES

16.30-17.00

28) Viewing functional motor neurorestoration through the engineering prism

17.00-17.30

29) Brain Computer Interfaces in Neurorehabilitation

17.30-18.00

30) Bionic Reconstruction

18.00-18.30

31) Microbots in Neurorehabilitation

18.30-18.45

Final remarks

Anna Zdunczyk/ Peter Vajkoczy