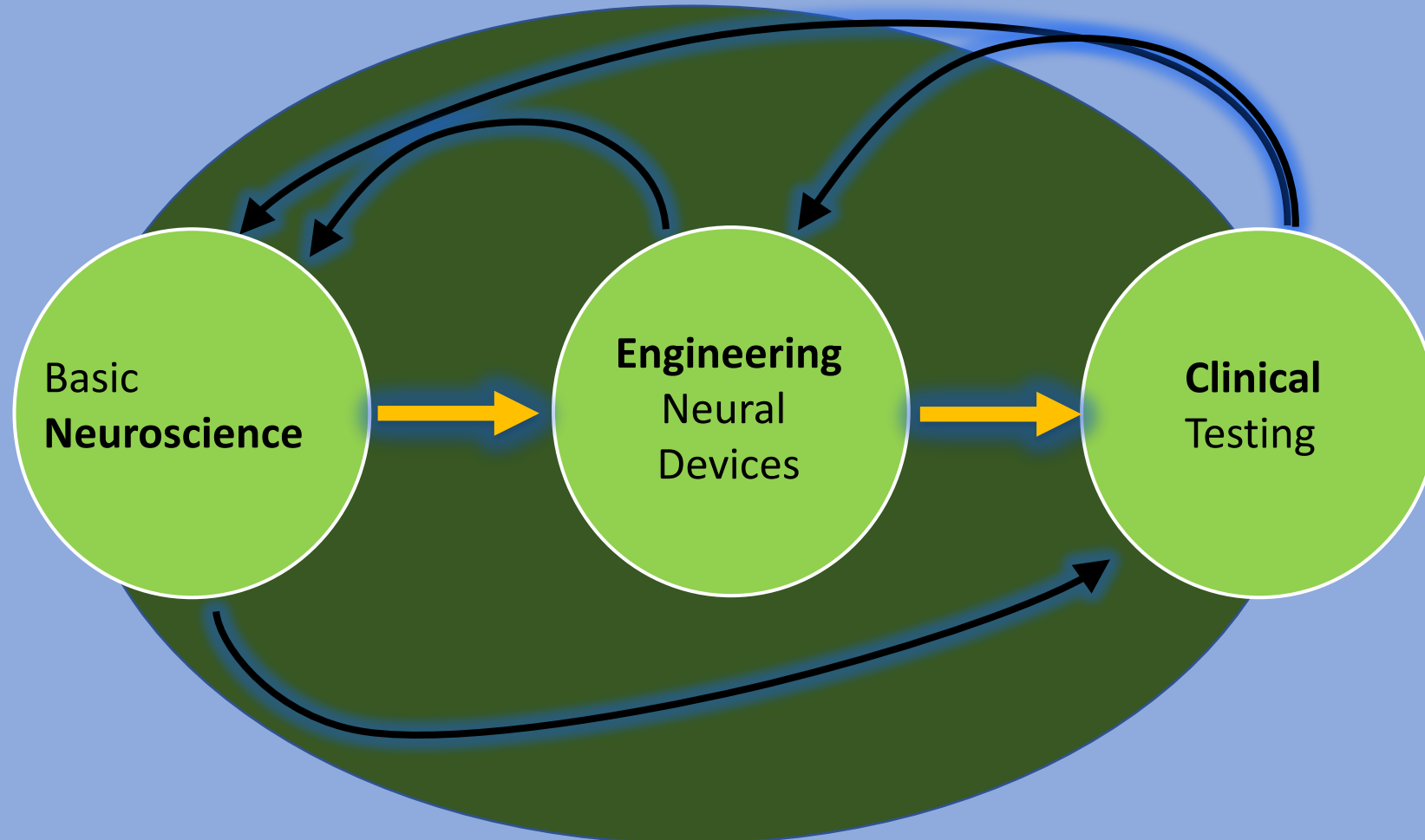


# Neuroengineering

Organizers: Sanjay Joshi, UC Davis, and Benoit Larrat, Neurospin  
2017 EU-US National Frontiers of Engineering Symposium, USA National  
Academy of Engineering



# Neuroengineering for neuroscience and therapy

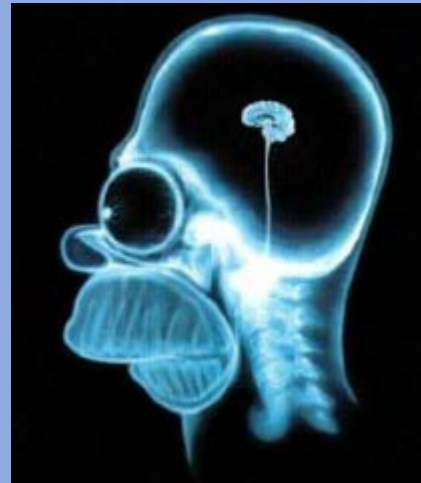
## Recording brain activity

MRI  
Optics  
EEG  
MEG  
Electrodes  
Ultrasound  
...

Understand healthy and pathologic brain  
Brain therapy  
Brain computer Interface  
Augmented human  
...

## Neuromodulation

Transcranial direct current stimulation  
Transcranial magnetic stimulation  
Invasive electrodes  
Optogenetics  
Ultrasound  
...



# Session Outline

## *How We Image, Measure, and Understand the Brain*

Alexandre Gramfort, Inria, University Paris-Saclay

## *Interface Between Modern Microelectronics and the Human Brain*

Adam Williamson, Aix-Marseille University

## *Clinical Neuromodulation Technology*

Cameron McIntyre, Case Western Reserve University

## *Platform Research Tools and Deployment Strategies to Accelerate Translational Discovery*

Tim Denison, Medtronic

