Closed-loop Deep Brain Stimulation

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Making waves...
Deep Brain Stimulation –
A pacemaker for your brain!
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Seeking a switch from “fan” mode to “auto”
Why listen to the brain?

- Inject currents when symptoms are present
  ✓ Individualize therapy
  ✓ Reduce side effects
  ✓ Increase battery life
Where to listen?
Where to listen?
Where to listen?
Adaptive Deep Brain Stimulation

[Movie Unavailable]
Tourette Syndrome

[Movie Unavailable]
Freezing of Gait in Parkinson’s Disease

[Movie Unavailable]
What the future holds...
Telling Truth From Lie in Individual Subjects With Fast Event-Related fMRI

Daniel D. Langleben,* James W. Loughead, Warren B. Bilker, Kosha Ruparel, Anna Rose Childress, Samantha I. Busch, and Ruben C. Gur

Damage to dorsolateral prefrontal cortex affects tradeoffs between honesty and self-interest

Lusha Zhu¹, Adrianna C Jenkins², Eric Set²,³, Donatella Scabini⁴,⁵, Robert T Knight⁴,⁵, Pearl H Chiu¹,⁶,⁷, Brooks King-Casas¹,⁶-⁸ & Ming Hsu²,⁵
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• UF Brain Mapping Laboratory Members
Questions?

brainmappinglab.org