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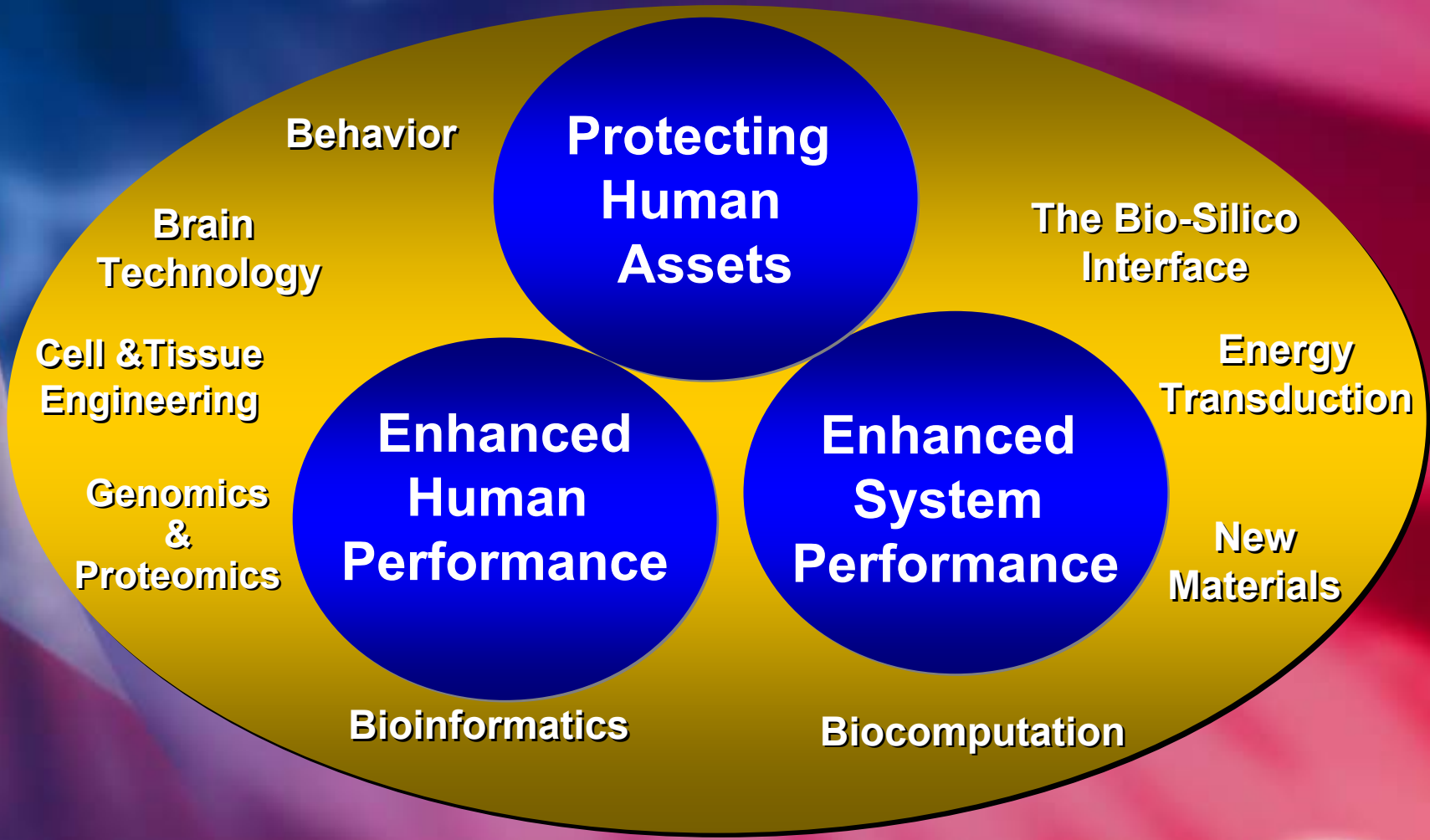
DARPATech
2002 Symposium
Transforming
Fantasy

The Brain Machine Interface: Augmenting Human Performance

Eric Eisenstadt
Defense Sciences Office

Biology…
DARPA's Future Historical Strength



Transformative Fantasy

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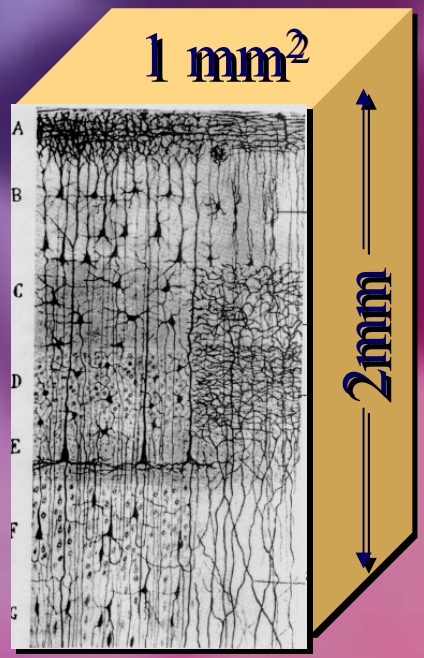
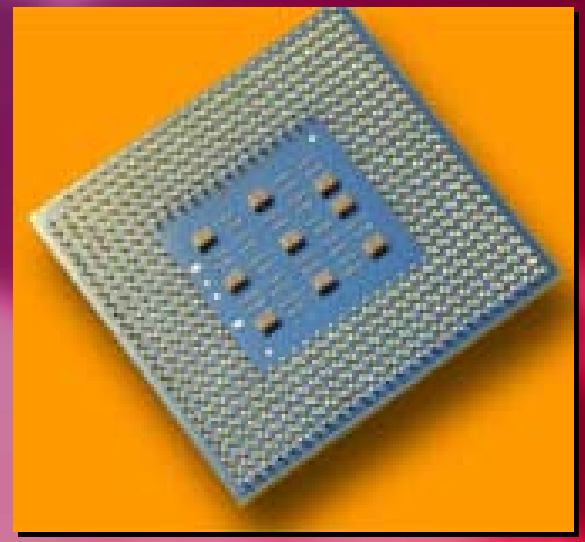
Brains vs. Electronics





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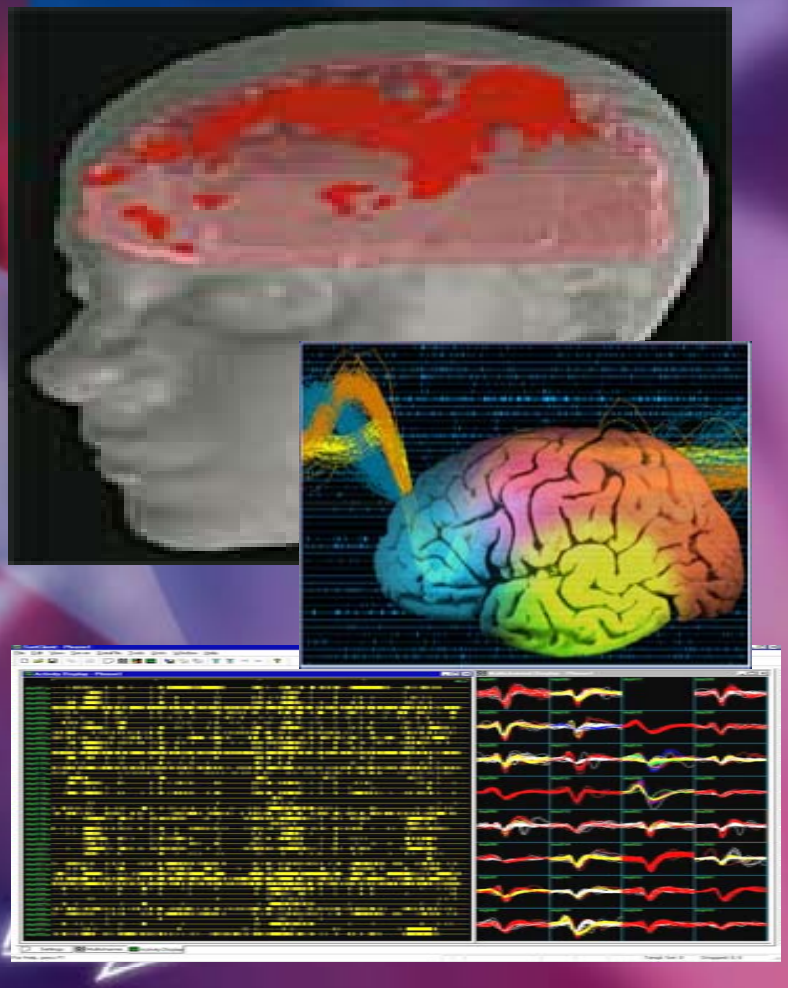
Brain Fundamentals

From Pharmacology and Physiology to Learning and Behavior



- Improving brain processing and retention of data
- Evaluating Target sites and Molecules for pharmacological interventions

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Insect Locomotion and Mimetics

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Intelligent Machines:

Insect Visual Processing In an Autonomous Helicopter

Real Time Two Way Behavioral Communication

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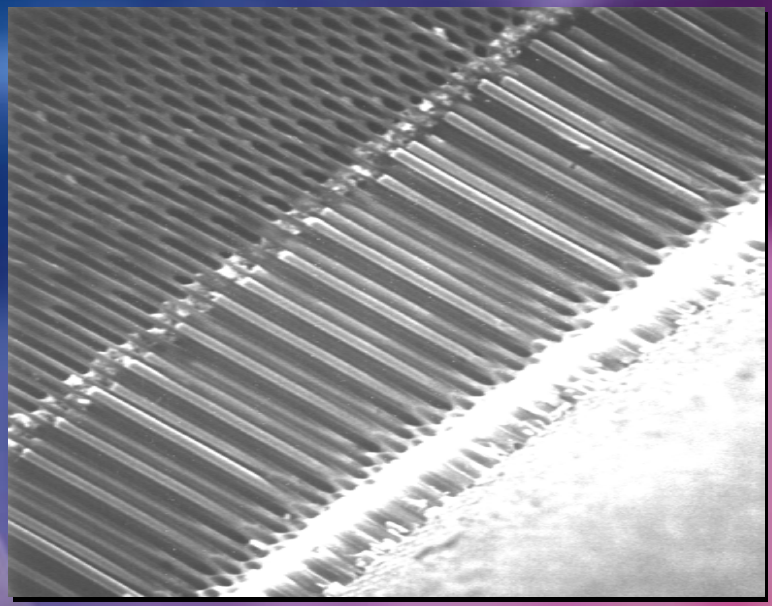
Rat Meets Tony

Retinal Prosthetic

Nanochanneled Glass



30 μ

Chip output from digital camera input

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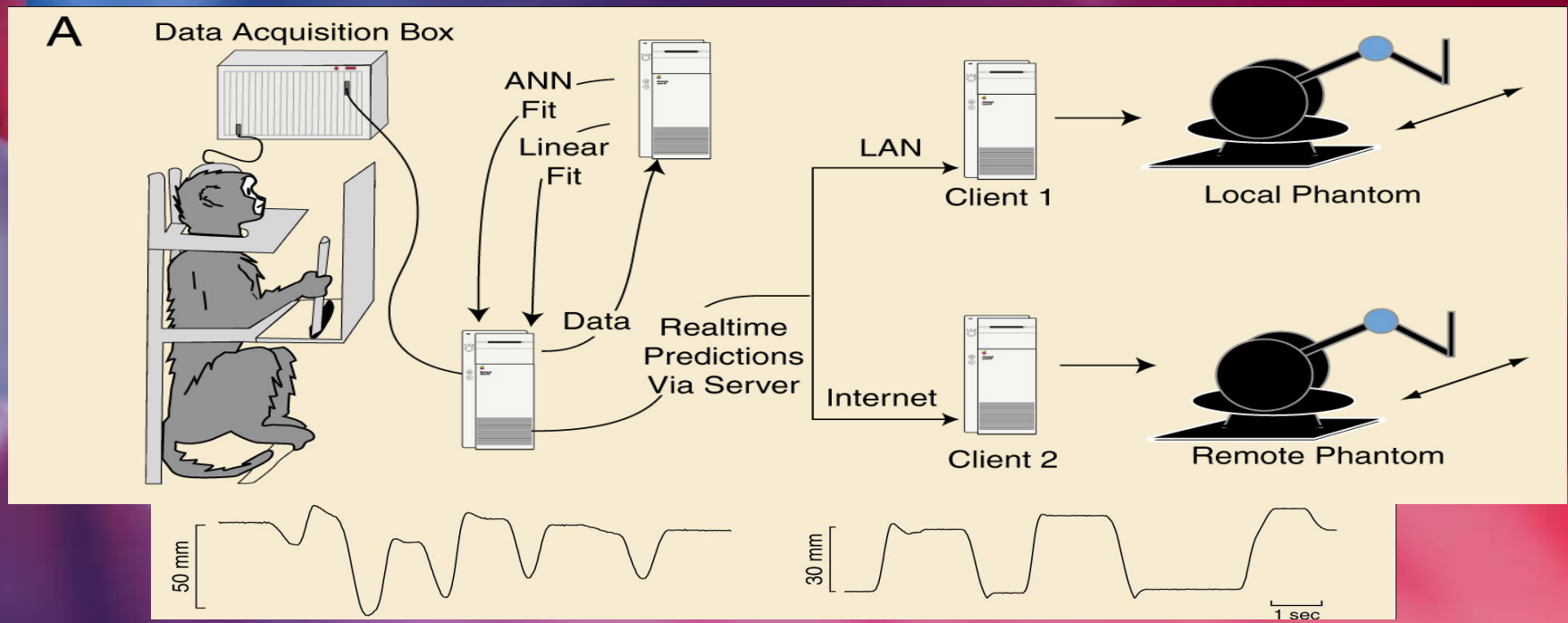
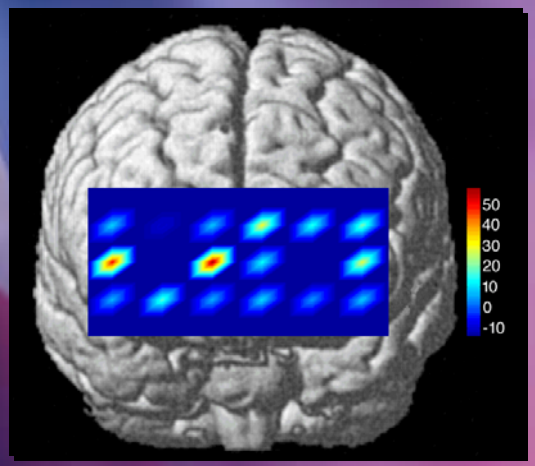
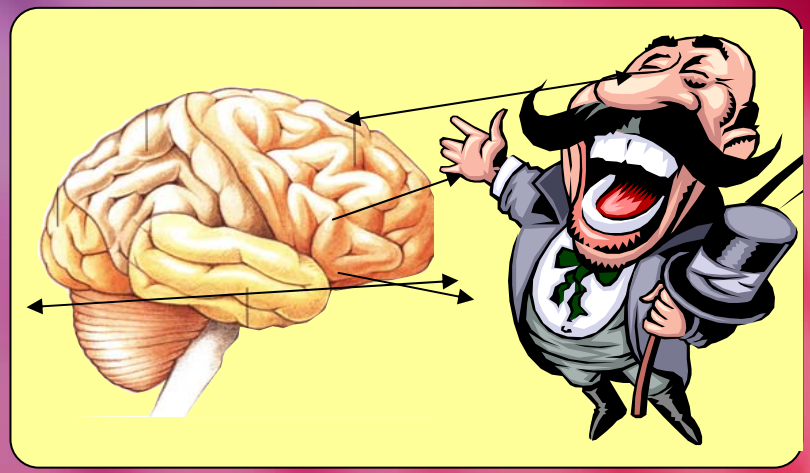
Brain Machine Interface

Control devices & machines with thought



Deception Detection





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