Visual Comparison of Deep Brain Stimulation Parameters

Thomas Fogal

Joint work with Christopher Butson (PI), Georg Tamm, Sanket Jain, and Jens Krüger

SCI
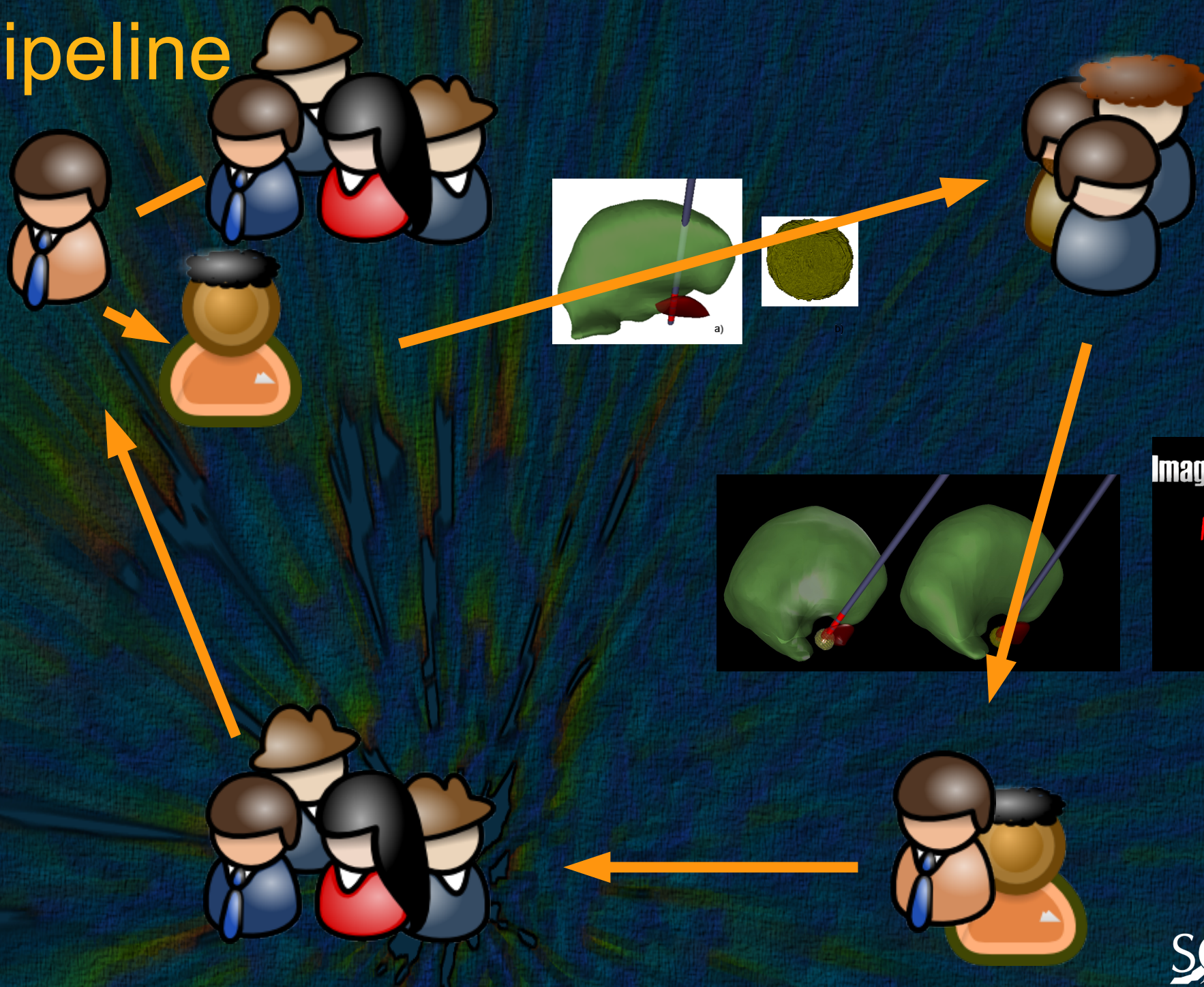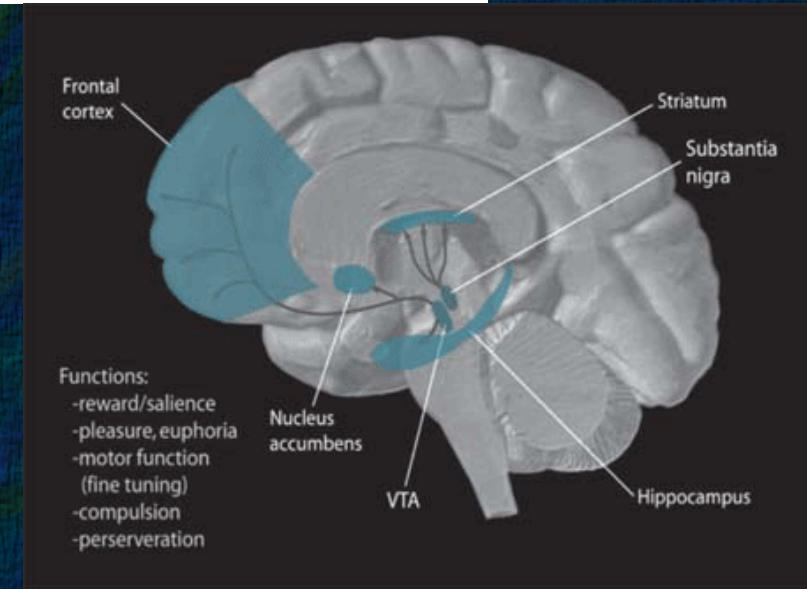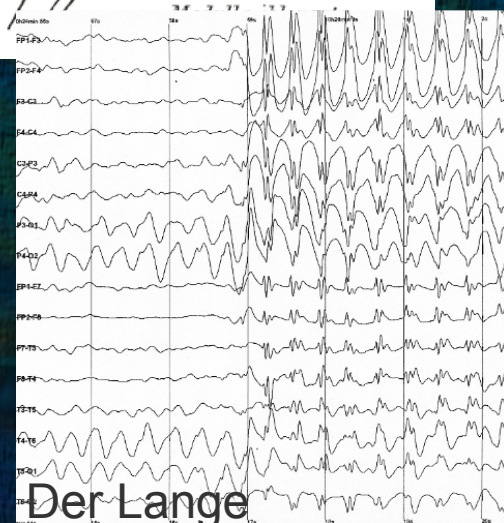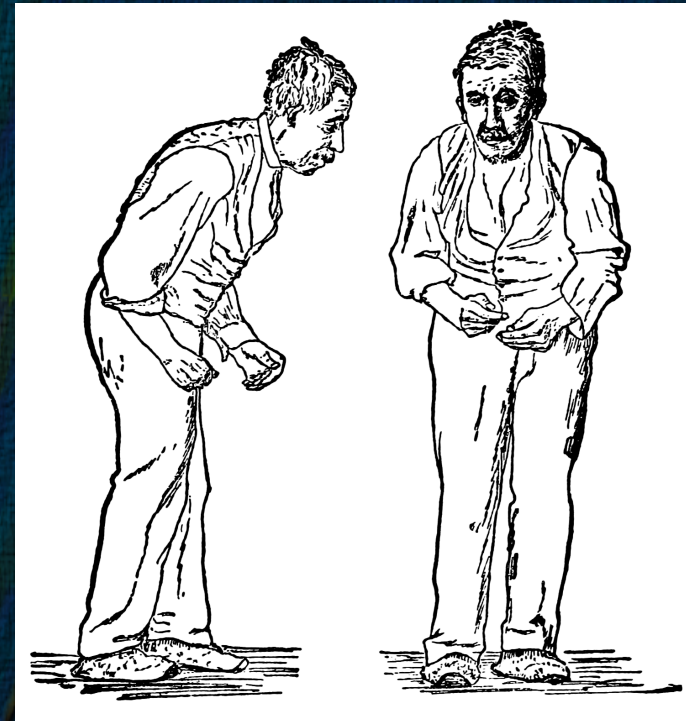www.sci.utah.edu

Team

Bioengineering

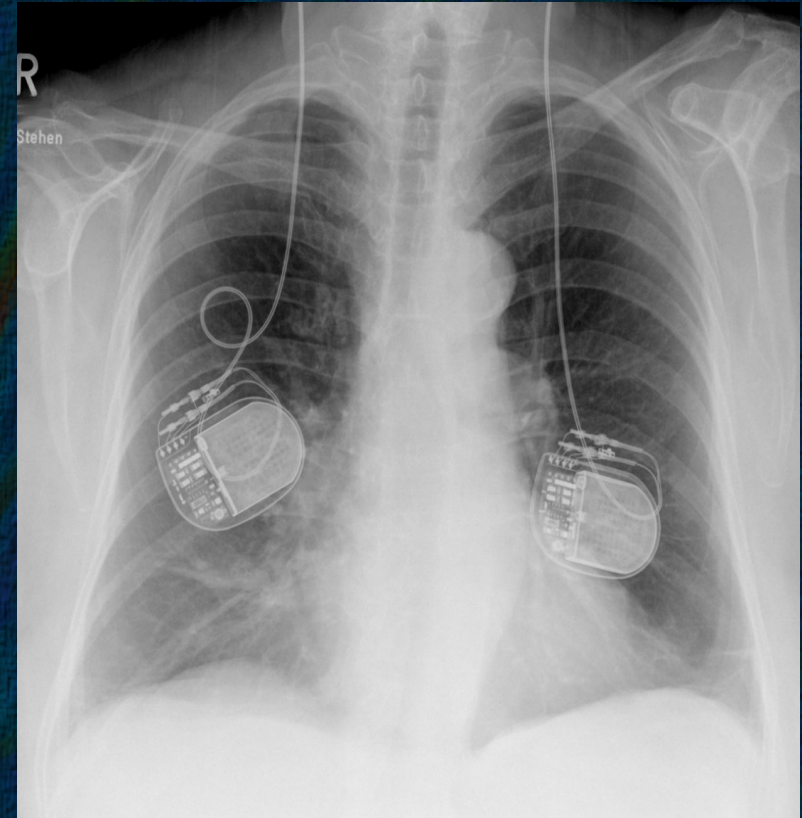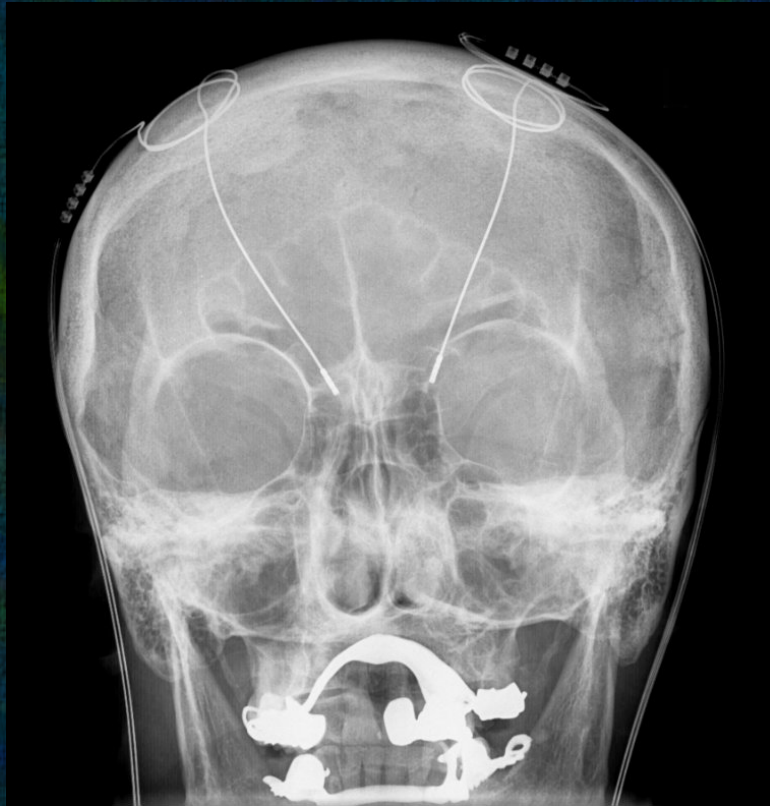MDs

Computer Science

Pipeline

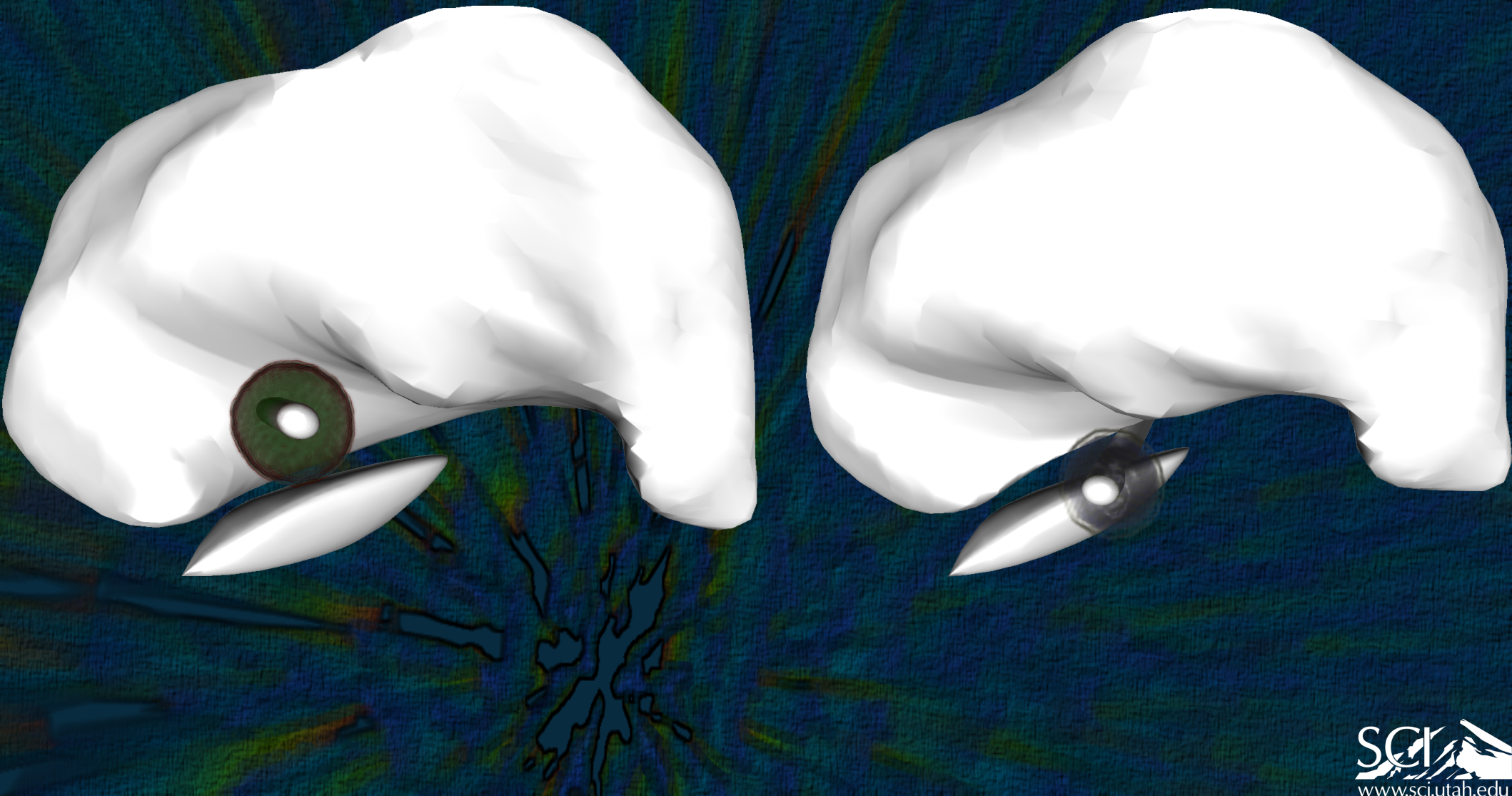# Motivation

Der Lange

Clinical Relevance

- 14th leading cause of death (US)!

- ~500k to a million effected

- ~55k new diagnoses / year

  - Aging population...

- Generally treated via drugs

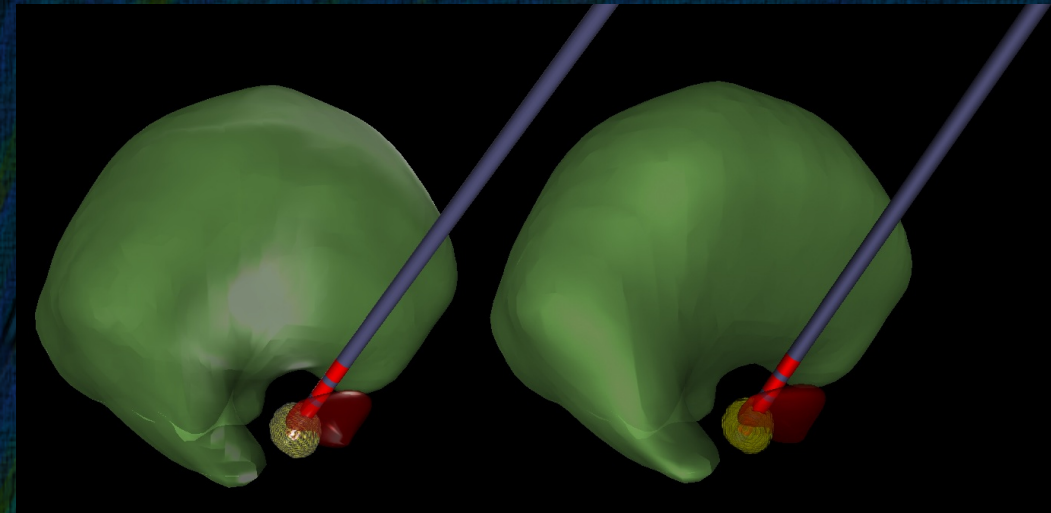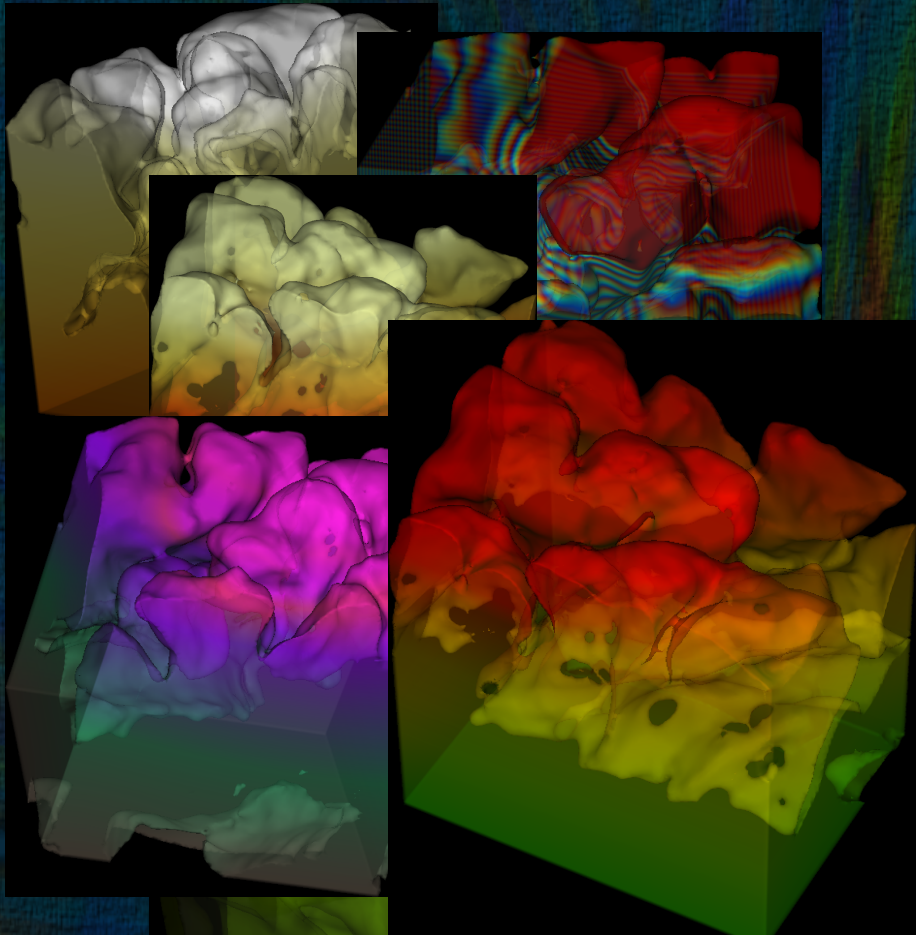# Deep Brain Stimulation

DBS Challenges
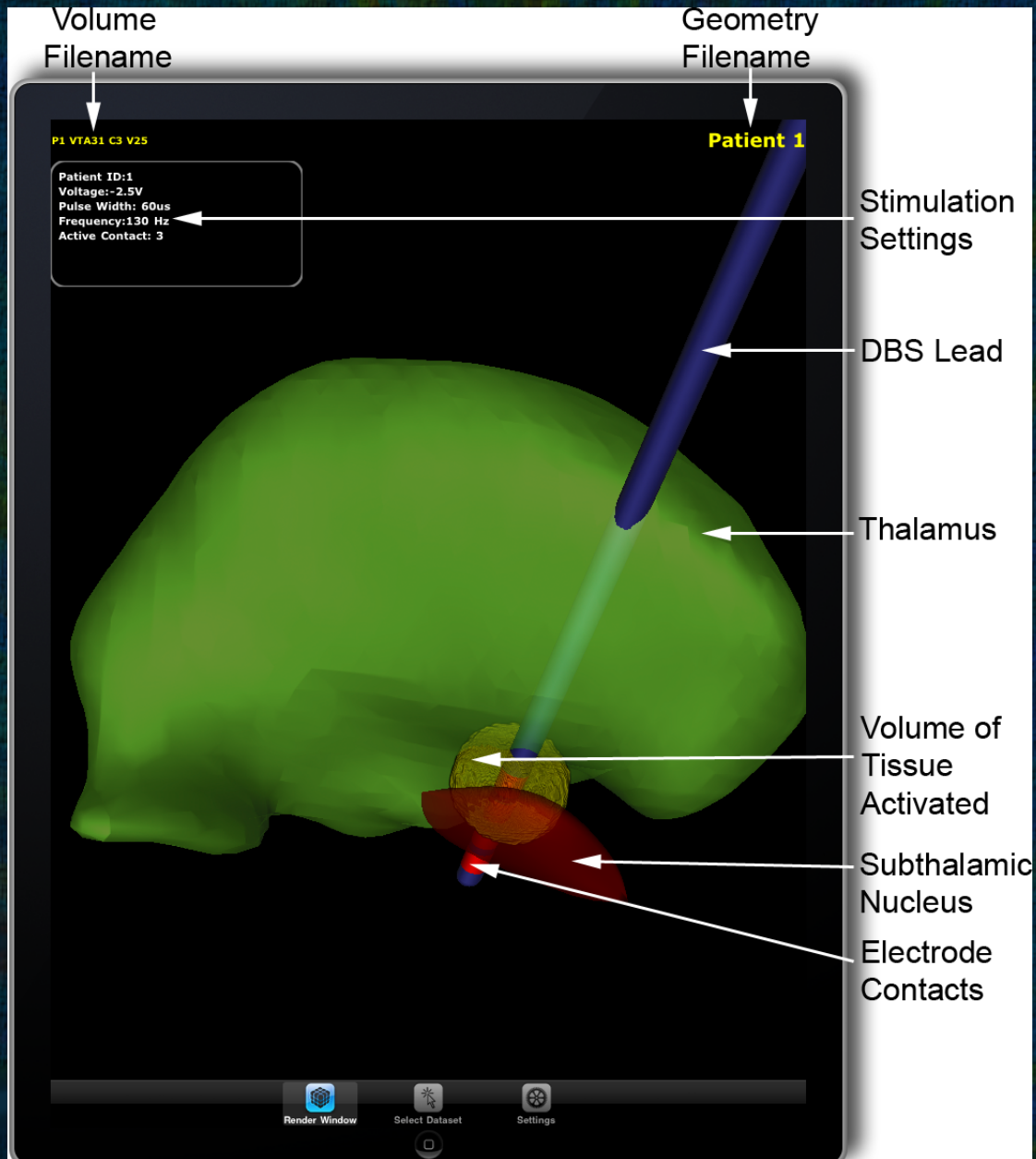
DBS Challenges (Continued)

K. Hunka, et al. J. Neuroscience Nursing, vol. 37, pp. 204-210, 2005.
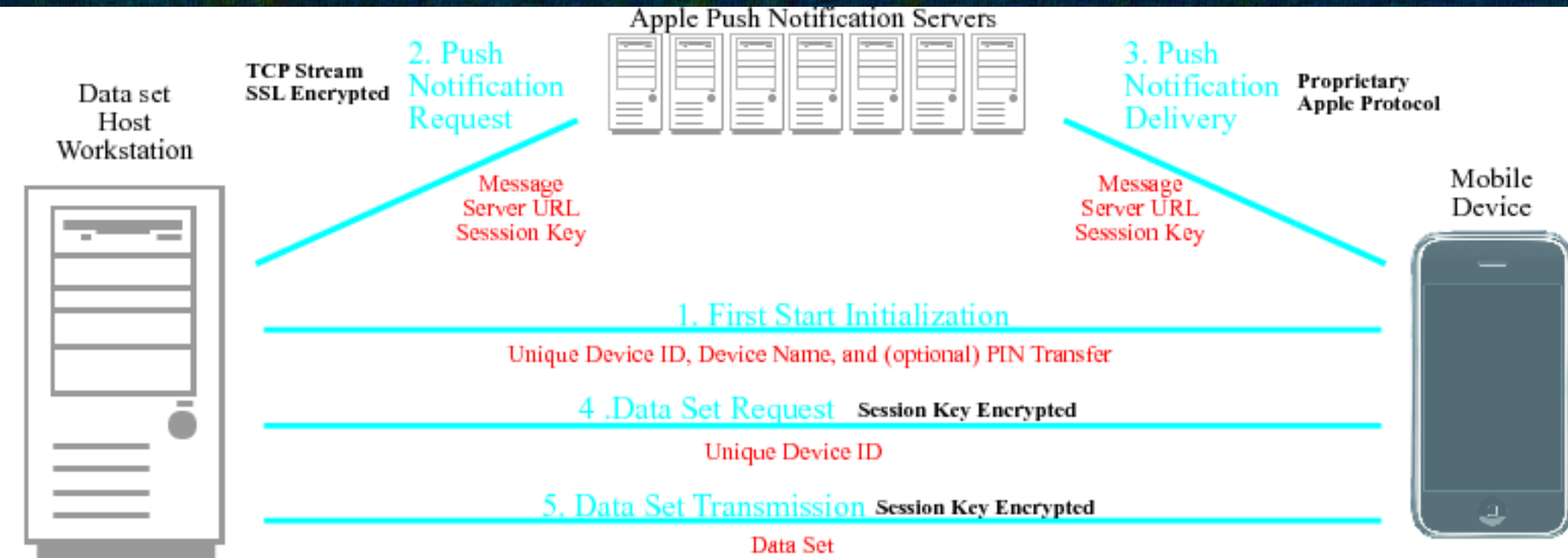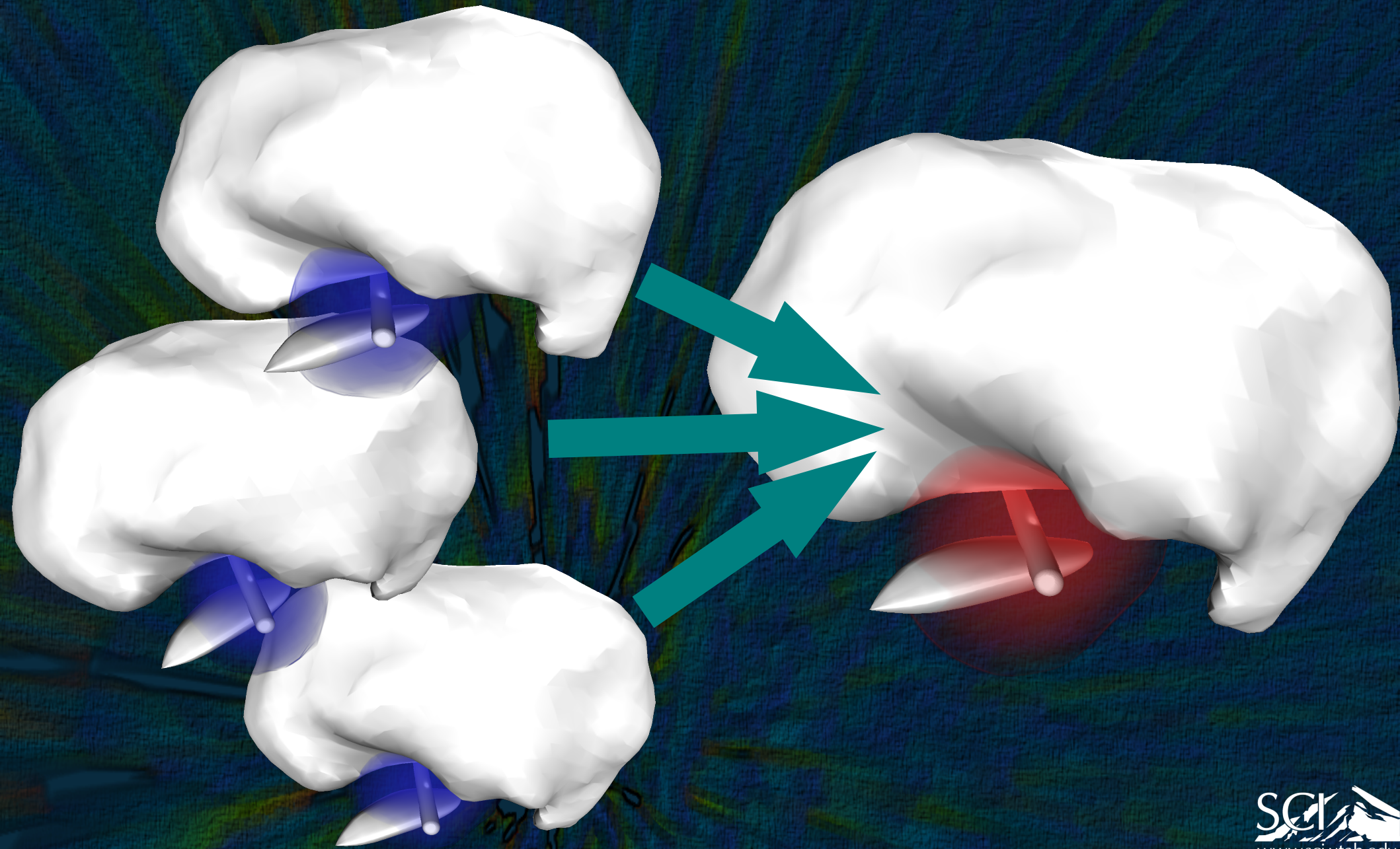
Visual Comparison

DBS Solution

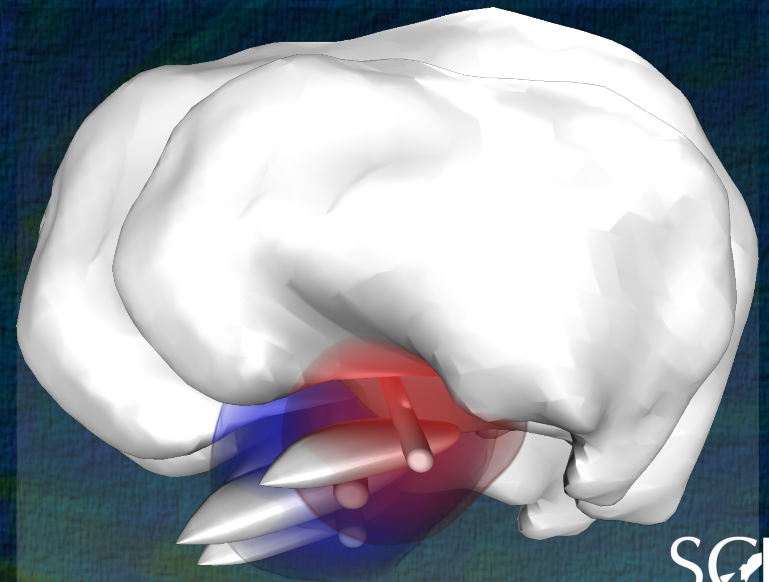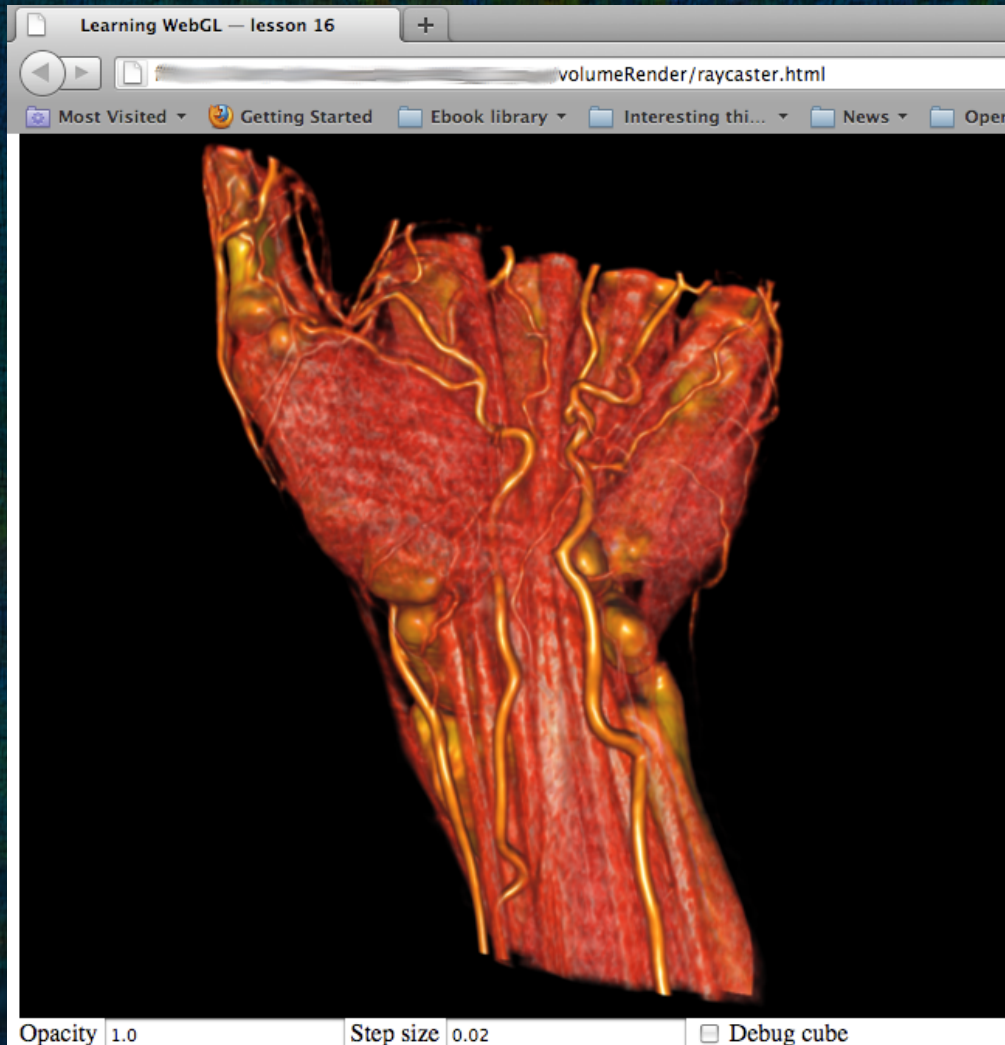- DBS programming: 4 hours → 4 minutes!

Data Notification

Atlas Generation

Summary

Future

Questions?