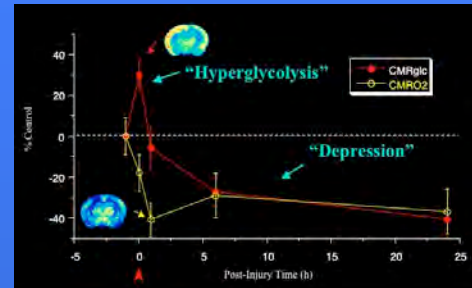
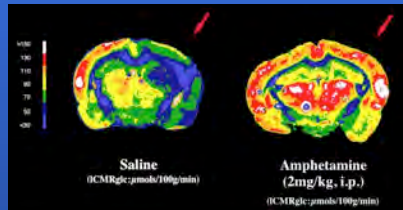
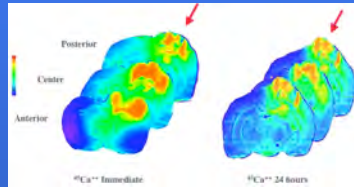
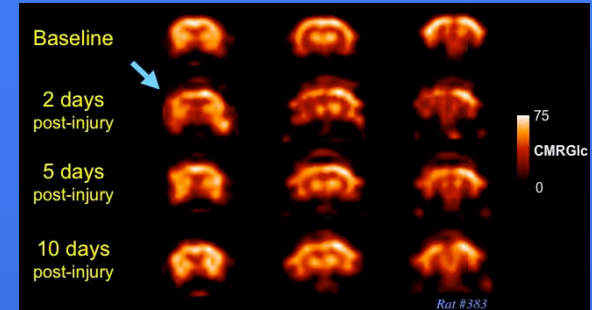
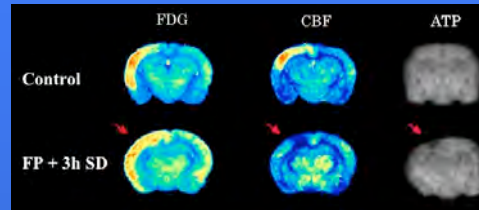


# Past and Present Studies

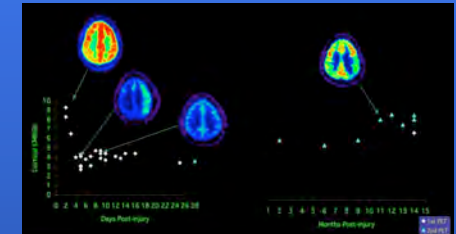
## PET/microPET



## Multi-Label Autoradiography

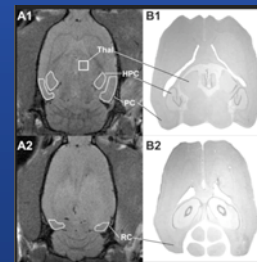
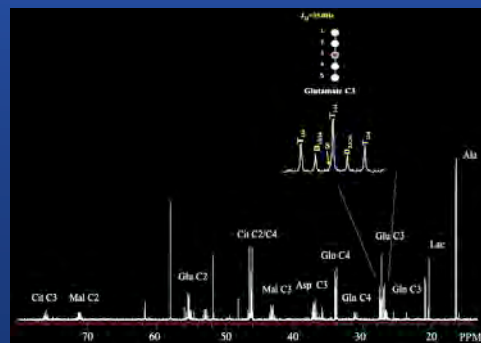


## Metabolic Responses to Traumatic Brain Injury in Adult rats (NIH Funding through 4/2010)

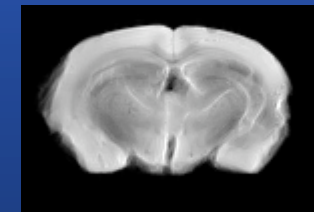


## MRI/MRI-DTI

## $^1\text{H}$ , $^{13}\text{C}$ MR Spectroscopy



Conventional



DTI

Stefan M. Lee, Ph.D.  
Depts. of Neurosurgery and  
Cell & neurobiology

# Future Direction

## HSC/USC Strengths

- Strong Neuro-rehabilitation group
- Strong Biostatistical Core
- Leaders in the areas of Learning and Memory, Cognitive Neuroscience, Neural prosthetics, Virtual Reality Rehabilitation
- Leading Stem Cell Institute
- Eagerness to collaborate

## HSC/USC Weaknesses

- Better integration of acute treatments to long-term rehabilitation
- More emphasis on innovative treatments, e.g., multiple, combined drug therapies for treatment of neurological disorders, similar to cancer treatments
- Need to enhance or create a “Small Animal Imaging Facility” at HSC, modeled after the facility at Cal Tech
- More emphasis on translational studies, especially bioengineering and stem cells

*Stefan M. Lee, Ph.D.  
Depts. of Neurosurgery and  
Cell & neurobiology*