

WHO WE ARE

The Hoglund Brain Imaging Center (HBIC) at the University of Kansas Medical Center (KUMC) brings together a unique combination of neuroimaging technologies under one roof. HBIC is a regional resource engaged in activities at the forefront of neuroscientific endeavors. The Center provides an environment where basic and clinical neuroscientists can work together to integrate structural and functional approaches to the assessment of the brain in both health and disease.

Thanks largely to philanthropic (Forrest and Sally Hoglund), State, and Federal support, HBIC connects outstanding researchers and state-of-the-art imaging technology to explore brain disorders throughout the entire life span, from before birth to old age.

OUR MISSION

To carry out and support research, teaching, and clinical activities in neuroimaging as part of a premier academic medical center.



Directions:

From I-70 or I-35 exit on US 169 S toward 7th St. Trfwy/Rainbow Blvd. Proceed south on US 169/7th St. Trfwy/Rainbow Blvd.

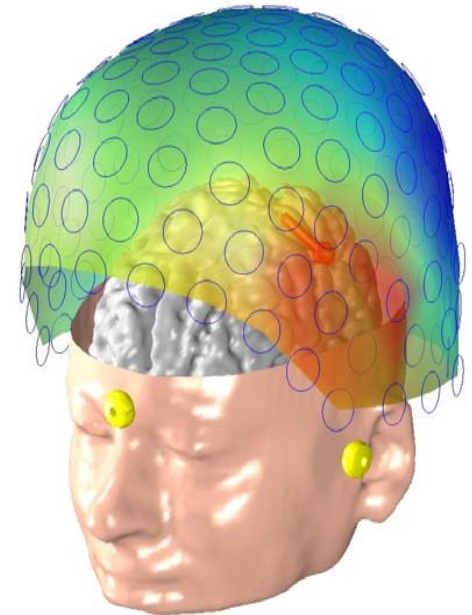
Turn east on 39th Street and take the next left. HBIC is the second building on the right. Parking is available in front.

Visit our website at:

www.kumc.edu/hoglund

For More Information Contact:

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**Turning today's research
vision into tomorrow's
standard of care**

HBIC Faculty and Staff perform basic research and clinical investigations on:

- Traumatic Brain Injury
- Spinal Cord Injury
- Autism and Epilepsy
- Addiction
 - Smoking
 - Obesity
- Fetal Health Research
 - Effects of maternal smoking, diet and medications
- Anxiety Disorders
- Brain development
 - Normal
 - Cognitive Processing
 - Learning Disabilities

Outside collaborations include:

- Stroke
- Dementia
- HIV-AIDS
- Prader-Willi Syndrome
- Parkinson's Disease
- Multiple Sclerosis
- Macular Degeneration
- Irritable Bowel Syndrome

The Resources

Magnetic Resonance Imaging (MRI) can be used to assess brain structure, function, and metabolism. Using functional MRI, scientists at HBIC study how the brain supports cognition.



Complementing the human system, a high field MRI is used to study animal models of brain injury and disease.



Magnetoencephalography (MEG) evaluates brain function. In patients with epilepsy, it can be used in conjunction with structural MRI and MR spectroscopy to localize brain areas giving rise to seizures.



Using a dedicated Fetal MEG unit, HBIC scientists are investigating the effects of smoking on fetal brain and heart development.

The Faculty



(Left to Right)

Lisa Hale, PhD

Cary Savage, PhD

Kathleen Gustafson, PhD

William Brooks, PhD - Director

Mehmet Bilgen, PhD

Mihai Popescu, PhD

In-Young Choi, PhD

Sang-Pil Lee, PhD

Carmen Cirstea, MD, PhD (Not Pictured)

On the Cover

MEG uses an array of sensitive detectors arranged around the subject's head (the sensors are shown as blue circles) to measure the magnetic field generated by the small electric current from active brain areas (the current is exemplified by a red dipole). MEG localizes regions associated with various brain functions in real time and with millimeter spatial accuracy.