

# BRAINSPAN

---

## ATLAS OF THE DEVELOPING HUMAN BRAIN

### ACKNOWLEDGEMENTS

The project consortium gratefully acknowledges the following contributors and collaborators for their generosity and support of BrainSpan, an atlas of the developing human brain.

This project was supported by Award Numbers RC2MH089921 (PIs: Ed Lein & Michael Hawrylycz, Allen Institute for Brain Science), RC2MH090047 (PI: James A. Knowles, University of Southern California) and RC2MH089929 (PI: Nenad Sestan, Yale University) from the National Institute of Mental Health. The content is solely the responsibility of the respective authors and does not necessarily represent the official views of the National Institute of Mental Health or the National Institutes of Health.

### TISSUE ACQUISITION AND PROCESSING

**Ian A. Glass, MBChB, MD**, Professor of Pediatrics & Medicine, University of Washington School of Medicine.

**Thomas M. Hyde, MD, PhD**, Acting Chief Operating Officer, Lieber Institute for Brain Development, Baltimore, MD; and Special Volunteer, Clinical Brain Disorders Branch, Section on Neuropathology, GCAP, Intramural Research Program, National Institute of Mental Health, National Institutes of Health.

**Joel E. Kleinman, MD, PhD**, Section on Neuropathology, Clinical Brain Disorders Branch, Genes Cognition and Psychosis Program, Intramural Research Program, National Institute of Mental Health, National Institutes of Health.

**NICHD Brain and Tissue Bank for Developmental Disorders, H. Ronald Zielke, PhD, Director; Peter Baab, John Cottrell, Melissa Davis, Kim Moraniec, Robert Johnson, Ling Li, Anthony Weldon, Yang Zhang**, University of Maryland School of Medicine, for tissue acquisition and processing. Supported by NICHD Contracts N01-HD-4-3368 and N01-HD-4-3383.

**Barry Daly, MD, FRCR, Rao Gullapalli, PhD, Alan McMillan, PhD**, Department of Diagnostic Radiology and Nuclear Medicine, University of Maryland School of Medicine and University of Maryland Medical Center, for magnetic resonance imaging.

**Advanced Bioscience Resources Inc.**, for providing tissue used for expression profiling and reference atlas generation.

**Human Fetal Tissue Repository**, Albert Einstein College of Medicine, for providing tissue used for expression profiling.

**Laboratory of Developmental Biology**, University of Washington, for providing tissue used for expression profiling and reference atlas generation. This project was supported by NIH Award Number 5R24HD0008836 from the Eunice Kennedy Shriver National Institute of Child Health & Human Development.

**MRC-Wellcome Trust Human Developmental Biology Resource**, Institute of Human Genetics, University of Newcastle, U.K., for providing tissue used for expression profiling.

**Department of Neurobiology at Yale School of Medicine**, for providing tissue used for expression profiling.

## NEUROPATHOLOGICAL EVALUTIONS

**Anita Huttner, MD**, Yale University, for comprehensive analysis of all brain specimens, tissue slabs or tissue sections.

**Alexander Vortmeyer, MD, PhD**, Yale University, for comprehensive analysis of all brain specimens, tissue slabs or tissue sections.

## RNA SEQUENCING, EXON MICROARRAYS, GENOTYPING ARRAYS

**Gene Logic, Inc.** (Gaithersburg, MD), for performing Exon microarray hybridizations.

**Yale Center for Genome Analysis**, Yale University, for performing RNA sequencing, Exon microarray and genotyping array hybridizations.

## RNA BARCODING FOR RNA SEQUENCING

**Mark Salit, PhD**, National Institute of Standards and Technology (Gaithersburg, MD), for providing control RNA for barcoding RNA sequencing samples.

## LMD/MICROARRAY

**Covance Genomics Laboratory** (Seattle, WA) for microarray probe generation, hybridization and scanning.

## REFERENCE ATLASES

**NeuroScience Associates** (Knoxville, TN) for tissue processing (embedding and sectioning) and histological staining (Nissl, SMI-32 and parvalbumin) of the adult reference atlas brain.

**Robert Hevner, MD, PhD**, Professor of Neurological Surgery, University of Washington School of Medicine and Seattle Children's Research Institute for consultation on prenatal neuroanatomy and annotation.

**Gulgun Sengul (Kayalioglu), MD**, Professor of Anatomy, Ege University, School of Medicine, Department of Anatomy for consultation on ontologies and prenatal neuroanatomy and annotation.