



THE UNIVERSITY OF  
CHICAGO



# Brain Atlas

## Introduction

This atlas was developed to identify the major neuroanatomical structures of the entire brain on MRI scan, in both interactive digital technology and in print. It is intended that it would help in teaching, learning, testing, and in correlating lesions found on patients' MRI scans with anatomical structures.

## Methods

- The MRI scan in this Atlas is that of a 31-year-old healthy male taken in a 3Tesla scanner.
- Arrangement of the anatomical terms and user interface for the interactive demonstration was developed using Adobe Flash.

## References

- Henry Gray and Susan Standring, Gray's Anatomy. Elsevier Academic Press, 2008.
- Zang-Hee Cho, editor, 7.0 Tesla MRI Brain Atlas. Springer, 2010.
- Melville P. Roberts et al., Atlas of the Human Brain in Section. Lippincott Williams & Wilkins, 1987.
- "Salamonís Neuroanatomy and Neurovasculature Web-Atlas Resource" <http://www.radnet.ucla.edu/sections/DINR>
- Jurgen K. Mai et al., Atlas of the Human Brain, second edition. Elsevier Academic Press, 2004.

## Acknowledgements

- Arrangement of the anatomical terms and programming for the interactive demonstration of structures, was done by Katharine Lion, BFA.
- Brain Research Foundation for support to pay for obtaining the MRIs of normal volunteers and for digital equipments.
- This work was completed in part with resources provided by the University of Chicago Research Computing Center.

## Results

**THE UNIVERSITY OF CHICAGO MRI Brain Atlas**

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Axial 0-D70 (Mid AC-PC)

Welcome

This atlas was developed to identify the major neuroanatomical structures of the entire brain on MRI scan, in both interactive digital technology and in print. It is intended that it would help in teaching, learning, testing, and in correlating lesions found on patients' MRI scans with anatomical structures. As seen in the slide below.

### How To Use The Interactive Interface

This program uses mouseover interaction; use your mouse to roll over objects, if the arrow becomes a hand icon, you may click on that object to reveal an anatomical term or click on a button to advance through the program.

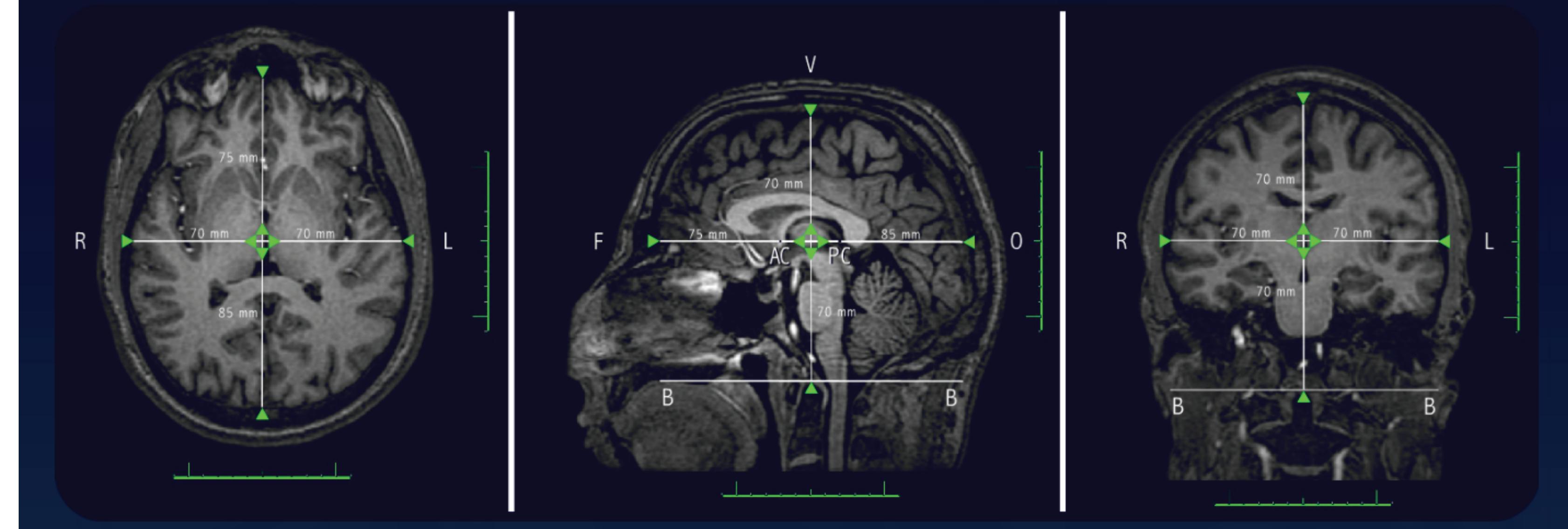
- Turn all anatomical terms on
- Turn all anatomical terms off
- Goes to the directory for all sections
- Goes to the directory for that specific section
- Navigates to the previous MRI slice
- Navigates to the next MRI slice

### Abbreviations

A = Axial	F = Frontal	AC = Anterior Commissure
B = Basal	O = Occipital	PC = Posterior Commissure
C = Coronal	V = Vertex	Mid AC-PC = A point in the middle of AC-PC line, O point
D = Distance from surface of cortex	L = Left	
	R = Right	

### Topographic Divisions

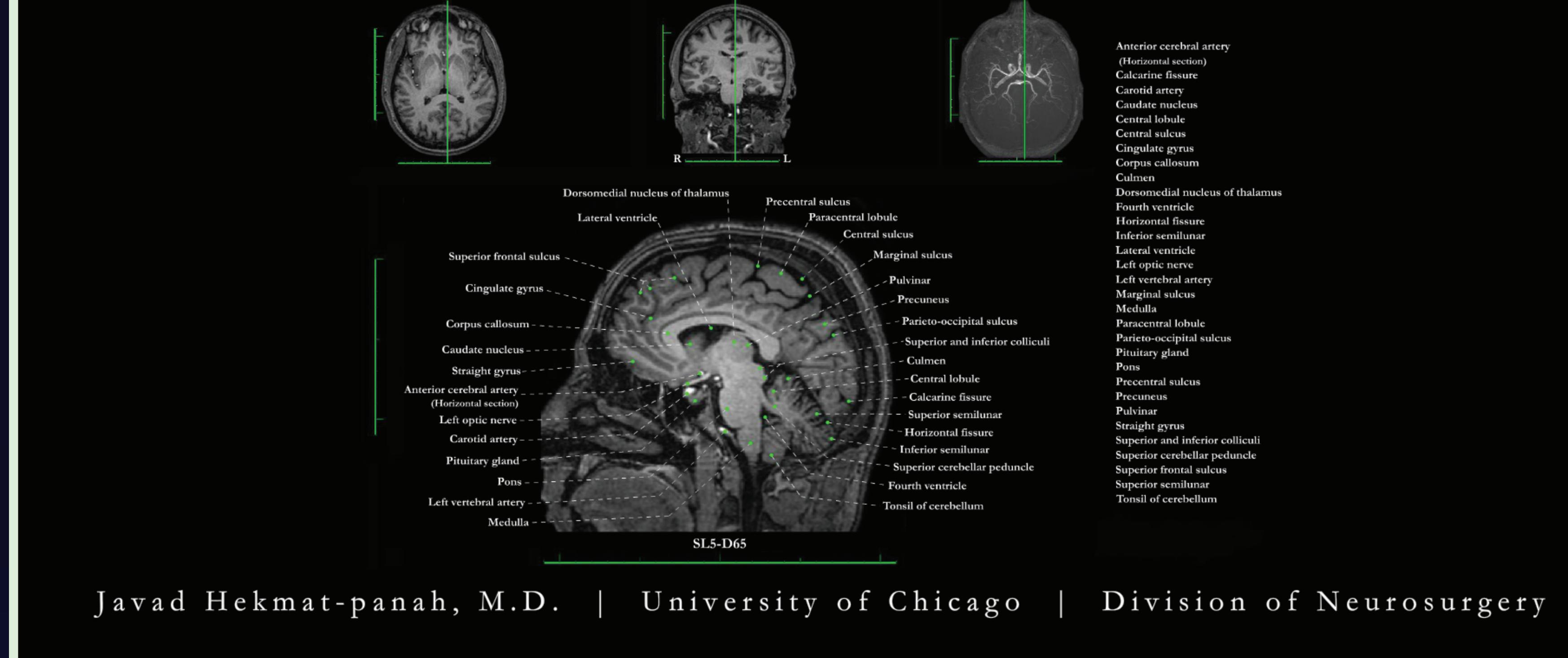
The Topographic Divisions of the brain are defined according to their relation to the AC-PC line, a line drawn from the upper surface of the Anterior Commissure (AC) horizontally to the Posterior Commissure (PC) in sagittal view. The MRI scan in this Atlas is that of a 31-year-old healthy male with no history of abnormal neurological condition. It is one of ten MRI scans of healthy individuals, obtained with IRB approval to study the anatomical correlation of the brain with MRI scan, taken in a 3Tesla scanner.



<https://jhpmribrainatlas.rcc.uchicago.edu>

## MRI Atlas of the Brain

An interactive presentation of the anatomical structures



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Axial Sections

Coronal Sections

Sagittal Sections

### Coronal frontal (anterior to AC-PC)

### Coronal occipital (posterior to AC-PC)

### Coronal occipital (posterior to AC-PC)

C05-COD00  
C080-COD5  
C075-COD10  
C070-COD15  
C065-COD20  
C060-COD25  
C055-COD30  
**C050-COD35**  
C045-COD40  
C040-COD45  
C035-COD50  
C030-COD55  
C025-COD60  
C020-COD65  
C015-COD70  
C010-COD75  
C05-COD80  
CO-Mid AC-PC

