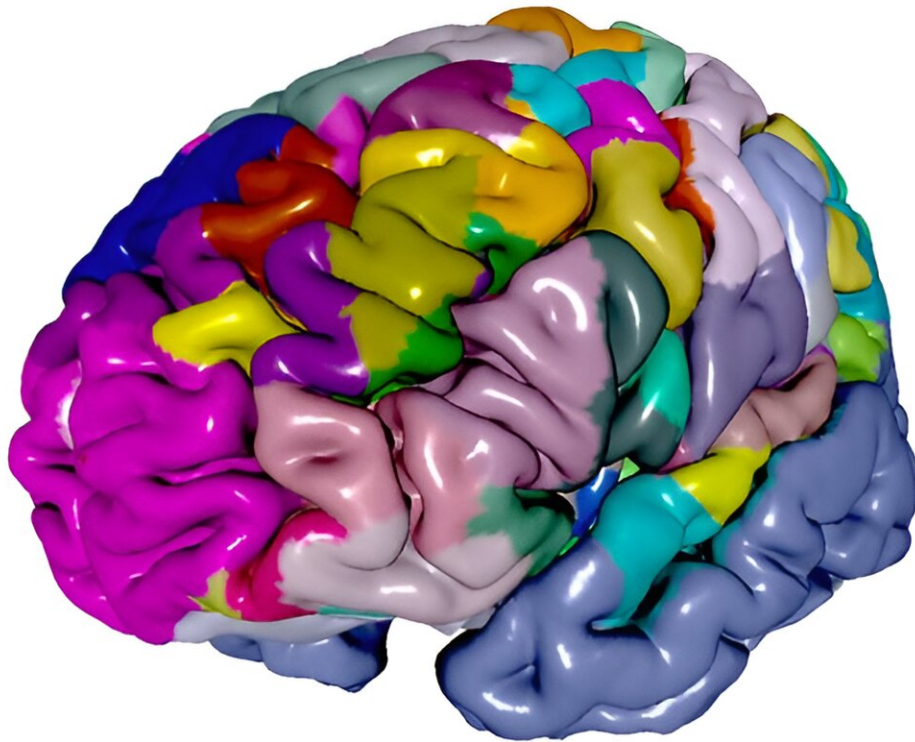


# New release of the Julich Brain Atlas adds 52 new maps

June 26 2024

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Credit: Forschungszentrum Jülich

The [Julich Brain Atlas](#) contains cytoarchitectonic maps of 227 areas of the human brain including cortical areas and subcortical nuclei. Based on

differences in distribution, density and morphology of cells in a three-dimensional space it contains probabilistic maps that reflect the variability between individual brains. It represents the most comprehensive and complete microstructural map of the human brain to date.

The Julich Brain is the foundation of the Multilevel Human Brain Atlas on EBRAINS, which integrates neuroanatomical features with complementary maps of the molecular architecture, function and connectivity across multiple scales and is openly available to the [research community](#). In this way the [atlas](#) serves as a basis for spatially aligning and annotating data and knowledge from different levels of brain organization and as a powerful tool to help researchers and clinicians better interpret images of individual brains.

The Julich Brain Atlas is a living atlas that is consistently being expanded and refined. Special features in Release 3.1 include the completely mapped thalamus with all its subnuclei, which are included in the Julich Brain Atlas for the first time—a result of a collaboration with Harry Uylings from Amsterdam.

All maps are available in commonly used reference spaces Colin27, MNI152 and fsaverage, which means that both a volume-based version with cortical and subcortical areas and a surface-based version with [cortical areas](#) are provided. Furthermore, rich meta-data is included to enable the provision of data via the EBRAINS infrastructure according to the FAIR principles.

**More information:** Katrin Amunts et al, Julich-Brain: A 3D probabilistic atlas of the human brain's cytoarchitecture, *Science* (2020). [DOI: 10.1126/science.abb4588](https://doi.org/10.1126/science.abb4588)

Provided by Forschungszentrum Juelich

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