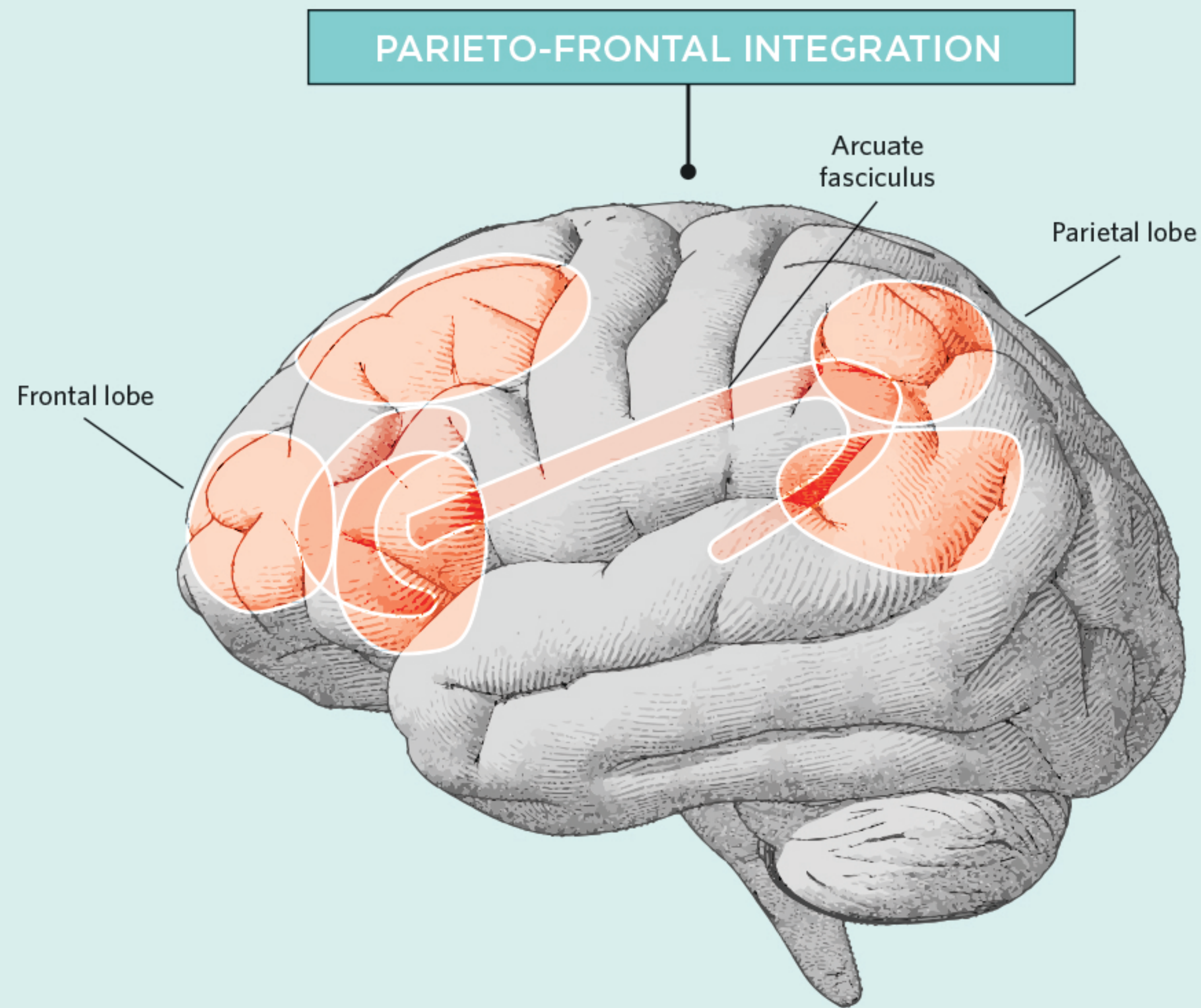


PARSING SMARTNESS

The biological basis for variations in human intelligence is not well understood, but research in neuroscience, psychology, and other fields has begun to yield insights into what may undergird such differences. One well-known hypothesis, backed by evidence from brain scans and studies of people with brain lesions, proposes that intelligence is seated in particular clusters of neurons in the brain, many of them located in the prefrontal and parietal cortices. Known as the fronto-parietal integration, the hypothesis holds that the structure of these areas, their activity, and the connections between them vary among individuals and correlate with performance on cognitive tasks.



Researchers have also proposed a slew of other hypotheses to explain individual variation in human intelligence. The variety of proposed mechanisms underlines the scientific uncertainty about just how intelligence arises. Below are three of these hypotheses, each backed by experimental evidence and computational modeling:

