Direct recordings of grid-like neuronal activity in human spatial navigation

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Abstract

Grid cells in the entorhinal cortex appear to represent spatial location via a triangular coordinate system. Such cells, which have been identified in rats, bats and monkeys, are believed to support a wide range of spatial behaviors. Recording neuronal activity from neurosurgical patients performing a virtual-navigation task, we identified cells exhibiting grid-like spiking patterns in the human brain, suggesting that humans and simpler animals rely on homologous spatial-coding schemes.

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