**Title: Specialised cortical circuits for perceptual decisions about 3D stimuli**

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**Abstract:** When we walk along a busy street against the flow of people and try to find someone we have arranged to meet, we have to navigate a world of dynamically changing visual input. Specialised brain circuits process and combine these inputs in a stream of perceptual decisions to inform successful actions. In the primate brain, we are beginning to understand the underlying neural mechanisms beyond single neurons. I will show that we can delineate the structural and functional circuits that compute perceptual decisions. This understanding allows us to causally and meaningfully interfere in these perceptual decision processes to actively alter and shape perceptual reports, for example, about three-dimensional visual objects. Finally, these brain circuits do not just process visual information, but allow the systematic integration of cognitive signals related to decision strategy, reward or social information into our perceptual processes.