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Image created at the
University of Alberta

Images of Research Competition

University of Alberta

Hidden World

Semi-finalist (2019)

Much of science is hidden. Either conducted behind closed doors, or obfuscated by papers unreadable to even members of the same discipline, stories of science are seldom heard. The left portion of the image represents this – an image of a fixed mouse brain, which had been injected with 2 viruses used to trace connections in the brain. However, only one virus is visible to the naked eye, as the region in pink. This is the retrosplenial cortex, an area I aim to characterize over my degree. But such an image belies the truly intricate nature of the brain, reducing it to an amorphous mush. These viruses produce fluorescent proteins, which when put under a microscope, seen right, explode with colour and reveal the intricate networks of brain cells they have infected. I will be researching how the retrosplenial cortex, in pink, is connected to a region labelled “the seat of consciousness” by Crick and Koch – the claustrum. Understanding this connection through these viruses and images may help uncover the full role of the claustrum. The connections of the brain are there, whether I do my experiment or not. Only when viewed through the right lens, can the hidden be seen.