GIS FELLOW WINS SG100 WOMEN IN TECH 2021 AWARD

The Singapore 100 Women in Tech (SG100WIT) 2021 list celebrates women who have made significant contributions to tech in Singapore. Congratulations to Dr Liu Jinyue, GIS Fellow from the Laboratory of Single-Cell Spatial Neuromics, for making it to the SG100WIT list during this Year of Celebrating SG Women!

Jinyue is a pioneer in applying spatial transcriptomics on biological tissues. The goal of this technology is to create a Google map for any tissue at high resolution which would help doctors develop new paths for treatment. Spatial transcriptomics is a ground breaking molecular profiling method to allow scientists to measure all the gene activity in a tissue sample and map where the activity is occurring.

The technology is so new that she has to engage instrumentation engineers to build prototype equipment and computational scientists to improve data acquisition and analysis. Thus far, she has completed a proof-of-concept reconstruction of human brain development at high resolution and scale, evidence that imaging-based spatial transcriptomics technology is achievable.

She is excited about a "Google" map she is building of the human brain, collecting and analysing all the interactions of cells in the brain during good health and disease. This map will shed light on the human brain while the instruments and analysis tools developed can transform digital pathology, diagnostics and scientific discovery. She presented her ground breaking work at the international 2021 Advances in Genome Biology and Technology conference, the pre-eminent meeting on genome technologies.

Her vision is to develop new ways to decode mental illness and other mysteries of the human body.