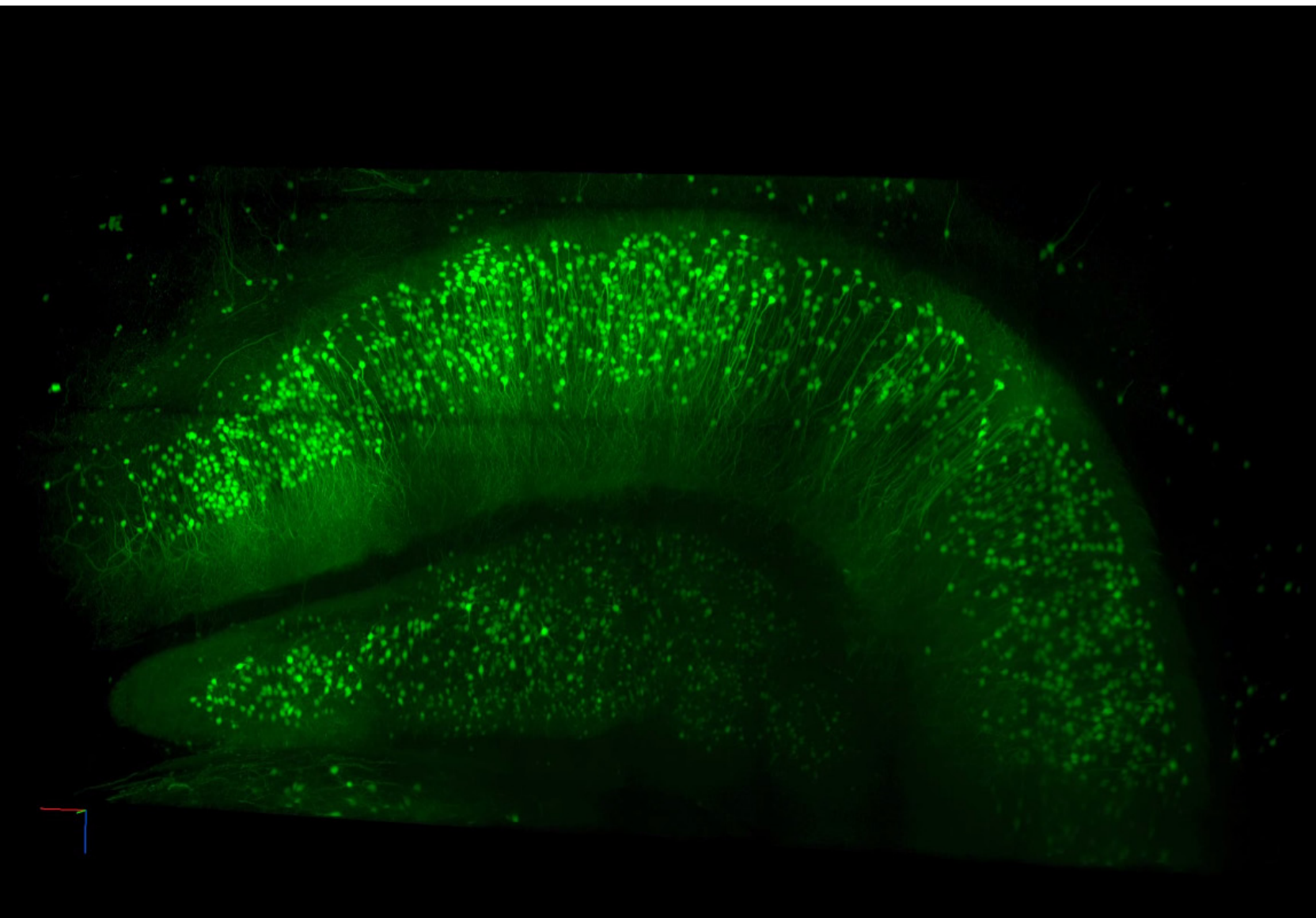


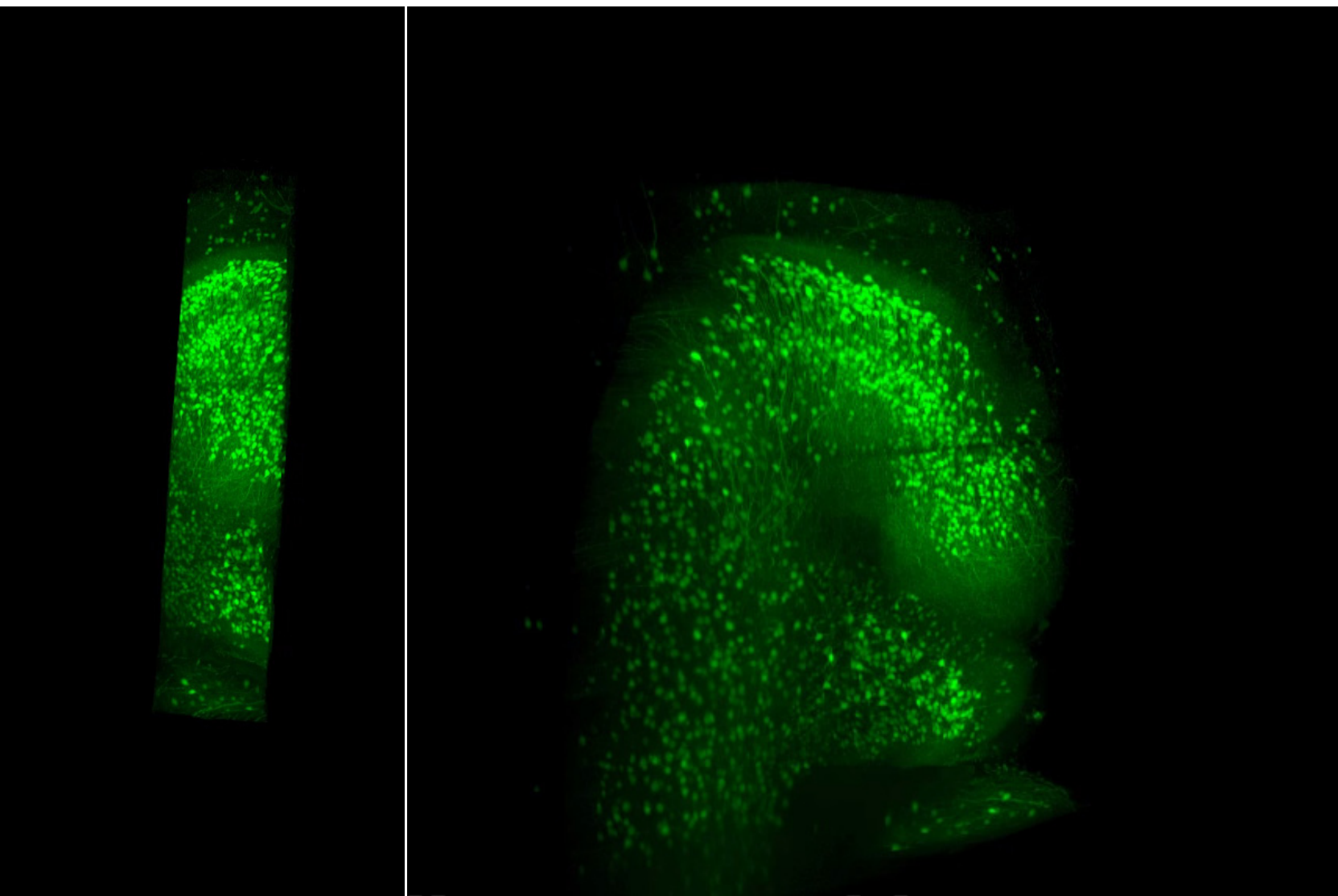
## En‘light’ening Journey

The saying ‘seeing is believing’ describes the curious nature of man to see things far smaller than can be perceived with the naked eye. It has been known for over 2000 years that glass bends light. Since then, many innovations have been made to manipulate light bending through different shapes of clear glass. These innovations paved the way for the development of the optical lens. Since the era of the middle ages in the 11th century, Arabians have been using plano-convex lenses made of polished beryl as reading stones to magnify manuscripts. To date, multiple wavelengths of light and many shapes of clear glasses have been manipulated to develop high magnification lenses in modern microscopes. The contribution of microscopes in various fields of research is extensively significant as the device has played a major role in landmark life sciences discoveries and multiple medical breakthroughs. A research microscope can be used to track the progression of tumour growth from single cell to metastatic stage, or the specific signal and location of synapse loss or dysfunction, the main cause of the progressive neurodegenerative disease, Alzheimer’s. With this information, scientists have more access to engineer a better solution towards future treatment and therapies to enhance patients’ recovery experience. In other words, improvements from the initial finding of light bending have contributed to revolutionary techniques that open a new horizon of discovery for humankind. This video shows the mouse hippocampus (Thy1-EGFP M-line) optically cleared in LUMOS clearing agent.

*Siti Sarah Othman, Lim Siang Hui, Hanis Faudzi and  
Zeiss Malaysia*



video screenshot



video screenshot

## En'light'ening Journey

Siti Sarah Othman, Lim Siang Hui, Hanis Faudzi and Zeiss Malaysia

Specific research microscope can be used to track the progression of tumour growth from single cell to metastatic stage or specific signal and location of synapse loss or dysfunction, the main cause of progressive neurodegenerative disease, Alzheimer's. This video shows the mouse hippocampus (Thy1-EGFP, M-line) optically cleared in LUMOS clearing agent.

