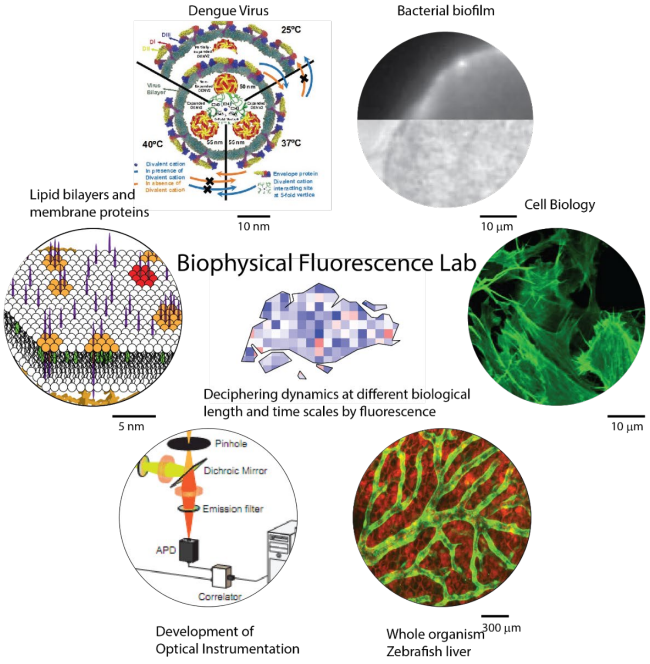
NUS National University of Singapore | Department of Biological Sciences, Faculty of Science

PUBLIC LECTURE

Friday 25 Oct 2019 | 7pm | LT 20

Microscopy in the 21st century – seeing is believing





By **Thorsten Wohland**

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Vision is arguably the most important sense for humans who have an uncanny capability to recognize complex patterns in images and make sense of what they see. However, the capability of our naked eyes is limited and we cannot see details beyond a certain minimum size (roughly the width of a human hair). For anything smaller we need help by lenses and microscopes. We don't know exactly when the first lenses were used as magnifying glasses to improve our vision, but the first lenses were made already more than 2500 years ago by Assyrians and Egyptians. Nevertheless, by the 13th century magnifying glasses were regularly used and in the 16th century the first microscopes were developed. Since then microscopy evolved rapidly driven by curiosity about the world that lies beneath what humans can see with their naked eyes: the world of cells, bacteria and microorganisms, and later the world of molecules and atoms. This curiosity lead to development not only of light microscopes but of microscopes using electrons, ions, sound waves, and even microscopes that use touch. Today, we possess microscopy techniques that can image anything from atoms and molecules to cells and organisms. In this talk, I will discuss some of the current achievements of microscopy and try to give a perspective where it might head in the future as we realize that sometimes images just aren't enough.

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