

# NTU centre ties up with Carl Zeiss to zoom in on bacteria

BACTERIA are like people – they behave differently in a group.

To get these micro-organisms to yield their secrets into how exactly they do this, a research centre at Nanyang Technological University (NTU) has teamed up with optics company Carl Zeiss to develop new ways to observe their interaction.

They have set up the \$6.5 million Advanced Biofilm Imaging Facility, which will set out to give researchers new and better tools to see how bacteria interact.

Professor Yehuda Cohen, the deputy director of the Singapore Centre on Environmental Life Sciences Engineering (Scelse) at NTU, said: “If we know their me-

chanics and language, we can interfere with them.”

Scelse, set up last year with a \$120 million fund to be spread over 10 years, aims to investigate micro-organisms which can exist in communities called biofilms.

Biofilms are responsible for many things, from the plaque on one’s teeth to the slime that accu-

mulates on the hulls of ships and slows them down.

Carl Zeiss will provide Scelse with advanced imaging tools such as high-resolution and high-sensitivity laser-scanning systems, and work with the centre to come up with new and customised machines.

These will be used in Scelse’s

bacteria research work, which includes two projects with national water agency PUB to improve the waste-water treatment process and to recycle rainwater.

Other potential projects include conducting research into superbug infections, which are difficult to get rid of because the bacteria can develop biofilms; the

sticky layers of cells act as a shield, preventing antibiotics from destroying the bacteria underneath.

The centre and company signed a memorandum of understanding yesterday at NTU. The new facility is funded by Scelse and NTU.

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