



School of Medical Sciences Research Seminar Series

Wednesday 11th of March 2020

3:00 – 4:00pm with networking until 4:30pm
Kirby Seminar Rm, lvl 6, Wallace Wurth Building

Prof Antoine van Oijen

Distinguished Professor, ARC Laureate Fellow
School of Chemistry and Molecular Bioscience
Director, Molecular Horizons, University of Wollongong
Illawarra Health and Medical Research Institute

“Tackling antimicrobial resistance, one molecule at a time”

Bio: Antoine van Oijen led research groups at Harvard Medical School and Groningen University (the Netherlands) before moving to the University of Wollongong in 2015 as an Australian Research Council Laureate Fellow. His research revolves around the development and use of single-molecule biophysical tools to study complex biological systems. At the University of Wollongong, he is spearheading the establishment of Molecular Horizons, an \$80M investment in a new molecular life sciences research institute. With Molecular Horizons, Prof van Oijen aims to create a research ecosystem that brings together scientists from biology, chemistry, physics, and medicine to use molecular visualisation approaches as a key driver for medical discovery.



Talk: Advances in optical imaging and molecular manipulation techniques have made it possible to observe individual enzymes and record molecular movies that provide new insight into their dynamics and reaction mechanisms. I will discuss how we have developed and applied single-molecule approaches to the study of DNA replication and repair. I will present how we use single-molecule fluorescence imaging and nano-manipulation techniques to visualise the dynamics of individual replication and repair complexes and how these experimental approaches have led to new insights into genomic maintenance and pathways leading to antibiotic resistance.

Early Career Researchers ~ Lunch with Prof Antoine van Oijen

Please register your interest with Dr Nicola J Smith nicola.smith@unsw.edu.au.