

Dr Tan Hock Siew

PhD (University of Wuerzburg, Germany)

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Google Scholar: <https://scholar.google.com/citations?user=VvlzmlQAAAAJ&hl=en>

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Profile

Dr Tan Hock Siew is an early career academic who had recently joined the School of Science, Monash University Malaysia as a Scholarly Teaching Fellow. He received his Honours degree and Masters in Biotechnology from University Sains Malaysia in 2012. Subsequently, he secured a research fellowship to pursue his doctoral work at the University of Wuerzburg in Germany and obtained his PhD in 2017. He is trained in the field of microbial genetics, focussing on RNA biology. His research interest is to understand the role of RNA in regulatory networks in pathogens by using global RNA biology approaches to characterise transcriptome profiles to uncover RNA-based control mechanisms of clinically relevant pathogens. As a researcher who is passionate about RNA regulation in bacteria, he has worked on numerous projects in this field. Dr Tan has collaborated with researchers from various discipline and has presented his work at international conferences.

Scientific Publications

Bischler T, Hsieh PK, Resch M, Liu Q, **Tan HS**, Foley PL, Hartleib A, Sharma CM, Belasco JG. Identification of the RNA pyrophosphohydrolase RppH of *Helicobacter pylori* and global analysis of its RNA targets. *J Biol Chem*. 2017 292(5):1934-1950. **(Q1, IF 4.323)**

Bischler T, **Tan HS**, Nieselt K, Sharma CM. Differential RNA-seq (dRNA-seq) for annotation of transcriptional start sites and small RNAs in *Helicobacter pylori*. *Methods*. 2015 86:89-101. **(Q1, IF 3.802)**

Rahman AY, Usharraj AO, Misra BB, Thottathil GP, Jayasekaran K, Feng Y, Hou S, Ong SY, Ng FL, Lee LS, **Tan HS**, Sakaff MK, Teh BS, Khoo BF, Badai SS, Aziz NA, Yuryev A, Knudsen B, Dionne-Laporte A, Mchunu NP, Yu Q, Langston BJ, Freitas TA, Young AG, Chen R, Wang L, Najimudin N, Saito JA, Alam M. Draft genome sequence of the rubber tree *Hevea brasiliensis*. *BMC Genomics*. 2013 14:75. **(Q1, IF 4.284)**

Research Funding

2018-2019 Tropical Medicine and Biology (TMB) Seed Grant, Monash University Malaysia

2015 Chemical Biology of native Nucleic Acid Modifications. German Research Foundation

2012-2015 PhD Research Fellowship. Graduate School of Life Sciences, Germany

Awards and Recognitions

2014	Best poster award	International Symposium Wuerzburg, Germany
2014	Travel fellowship	German Society for Hygiene and Microbiology
2007-2008	Dean list	School of Biological Sciences, Universiti Sains Malaysia

Research Experience

- *In vitro* and *in vivo* RNA biochemistry techniques
- Generation of cDNA libraries for RNA-seq analysis
- Proteomics and molecular biology techniques
- Microbiology
- Mapping and analysis of next-generation sequencing data
- Basic phylogenetic and synteny analysis of genes
- Manual curation pipeline for genome annotation

Completed Projects

- 2017 Characterisation of small RNA (sRNA) from *Helicobacter pylori* (manuscript in preparation)
- 2016 Characterisation of RNA pyrophosphohydrolase in *Helicobacter pylori* (published)
- 2015 Identification of transcriptional start sites and small RNAs in *Helicobacter pylori* (published)
- 2013 Genome of the national rubber tree (published)
- 2011 Identification of sRNAs from *Geobacillus thermoleovorans* (unpublished)

Professional Affiliation

German Society for Hygiene and Microbiology

Conferences and Seminars

Oral presentations:

- 2014, 2017 Meet the PhD Student Seminar, Institute for Molecular Infection Biology, Germany
- 2014, 2015 PhD Retreat, Graduate School of Life Sciences, Wuerzburg, Germany
- 2014 4th Joint Conference of the German Society for Hygiene and Microbiology (DGHM) & the Association for General and Applied Microbiology (VAAM), Dresden, Germany
- 2013 *Helicobacter* Workshop, Wennigsen, Germany

Poster presentations:

- 2017 5th Joint Conference of DGHM & VAAM, Wuerzburg, Germany
- 2016 Sensory and Regulatory RNAs in Prokaryotes, Munich, Germany
- 2015 Sensory and Regulatory RNAs Meeting, Braunschweig, Germany
- 2014 Molecular Microbiology Meeting, Wuerzburg, Germany
- 2013 Regulating with RNA in Bacteria, Wuerzburg, Germany
- 2012 GBM Study Group RNA Biochemistry, Bonn, Germany
- 2010 Non-coding Genome, Heidelberg, Germany