RYAN PRATAMA

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EDUCATION

THE UNIVERSITY OF NEW SOUTH WALES, SYDNEY, AUSTRALIA   *2008-2013*

Bachelor of Science, Biotechnology (Honours II Div I, 83%). Approximately equivalent to US 3.6-4.0 [1]

EXPERIENCES

RESEARCH ASSISTANT / Antimicrobial Resistance Project   *OCT 2013 - CURRENT*

Department of Microbiology, SEALS Pathology, NSW HEALTH

- Maintained and exported 14 years of microbiological data from laboratory information system into a relational database model. Generated data visualisation with several different parameters.
- Generated area level and hospital level cumulative antibiograms to monitor antimicrobial resistances according to Australian standard.
- Assisted on various data requests for clinicians and researchers.

RESEARCH STUDENT   *FEB - NOV 2012*

Neilan Laboratory of Microbial and Molecular Diversity, UNSW

- Generated DNA libraries of cyanobacterial isolates, bioinformatically elucidated cyanobacterial gene clusters and performed heterologous expression of a specific gene cluster in *Escherichia coli.*
- Replenishing materials, laboratory instrument and general aspects of laboratory maintenance.
- Responsible for various consultancy projects, laboratory database, information systems and website.

PUBLICATIONS & PRESENTATIONS

R Sinha, T Davis, L Pearson, J Muenchhoff, **R Pratama**, A Jex, M Burford, and B Neilan. Comparative genomics of *Cylindrospermopsis raciborskii* strains with differential toxicities. **BMC Genomics 2014** 15:83. doi:10.1186/1471-2164-15-83. Presented in: 9th International Conference on Toxic Cyanobacteria. South Africa, 2013

B Neilan, A Roberts, **R Pratama**, L Pearson, and J Muenchhoff. Engineering cyanobacteria and their toxin biosynthesis pathways for unnatural production. Presented in: 14th International Symposium on Phototrophic Prokaryotes. Portugal, 2012

P Taylor, **R Pratama**, A Eigenstetter, S Winter, K Clezy, M Piza, G Rubin, A Santangelo. Data analysis of antimicrobial resistance (AMR) in South East Sydney and Illawarra region of New South Wales, Australia from 2001 to 2014. Presented in: 9th Healthcare Infection Society International Conference. Lyon, 2014

SKILLS

Bioinformatics and Biostatistics NCBI tools, sequence analysis, primer design, genomic data analysis and comparison, Roche 454 and AB 3730 sequencer, gene mapping and annotations, phylogenetics, various statistical analysis and programs.

Microbiology, molecular biology, genetic engineering and biochemistry General microbiology tests, media preparations, DNA/RNA extractions and purifications, PCR, RT-PCR, qPCR, electrophoresis, molecular cloning, plasmid preparations, spectrophotometry, cell culture, natural product extractions, compound separation and purification, organic chemistry techniques, analytical chemistry (NMR, infrared spectroscopy, LCMS), and chromatography.

Computers, IT, and Networking   *Star sign denotes skill level*

- *Programming and scripting*: Python*, PHP***, Javascript***, HTML/CSS***, Visual Basic**, Bash and command line scripts*, LaTeX**, R*, Mathematica*.
- *Database programming*: SQL*** and NoSQL** environment e.g. MySQL***, PostgreSQL*, MSSQL**, MongoDB**, Google BigQuery*, Microsoft Access***, Teradata*
- Microsoft Office*** including Macro**, VB Scripting**, and Excel PivotTables***. Business Intelligence and visualisation: Microsoft BI**, Google charts**
- *Cloud based architecture* e.g Amazon Web Services***, Google Cloud Platform**, Office 365*. Website management and server handling**.

RELEVANT COURSEWORKS	○ Organic chemistry ○ Microbiology ○ Genetics ○ Advanced molecular biology and biochemistry ○ Medical biotech ○ Environmental biotech ○ Commercial biotech ○ Professional issues in biotech
LANGUAGES	○ English (Full professional fluency) ○ Bahasa Indonesia (Native) ○ Japanese (Conversational)

[1]Based on UNSW comparison of grading system available here: **https://student.unsw.edu.au/grades-comparison-of-grading-systems**. UNSW is ranked 48th in the world by 2014 QS World University Rankings and 109th by 2014 Times Higher Education.