RYAN PRATAMA

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EDUCATION

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

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

EXPERIENCES

RESEARCH ASSISTANT / Computer Manager - Antimicrobial Resistance Project   *OCT 2013 - OCT 2014*

Department of Microbiology, SEALS Pathology, NSW HEALTH

- Exported and maintained 14 years of microbiological data from SEALS laboratory information system into a relational database model.
- Generated data visualisation with selectable parameters in order to support decision making for clinicians and various organisations of the NSW Health.
- Designed and maintained a network environment for antimicrobial resistances surveillance system to monitor antimicrobial resistances in South East Sydney and Illawarra areas.
- Generated area level and hospital level cumulative antibiograms according to Australian standard, following protocols by Australian Commission on Safety and Quality in Health Care.
- Assisted on various data requests for clinicians and researchers, analysis of data, participating in discussions and presentations by Australian government bodies and international groups.

RESEARCH STUDENT / Computational biology - genomics   *FEB - NOV 2012*

Neilan Laboratory of Microbial and Molecular Diversity, UNSW

- Responsible for managing laboratory website, laboratory information systems and database. Responsible for laboratory network maintenance, database of primers and chemicals, and database of various cyanobacteria genomes.
- Bioinformatically analysed genomes of various organisms to look for gene cluster, and generated analysis if their properties.
- 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.

FREELANCE SYSTEM AND WEB ADMINISTRATOR   *AUG 2011 - Current*

- Freelance on-demand system and web administrator for various web consultancy projects in Australia and overseas.

PUBLICATIONS & PRESENTATIONS

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

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

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

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- *Programming and scripting*: Python*, PHP***, Javascript***, HTML/CSS***, Visual Basic**, Bash and command line scripts*, LaTeX**, R*, Mathematica*, Jquery**, Bootstrap**, Git**, Mercurial*.
- *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**.

Bioinformatics and Biostatistics NCBI tools, DNA 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 (Geneious, Restriction digests, etc).

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.

RELEVANT COURSEWORKS

○ Organic chemistry ○ Microbiology ○ Genetics ○ Advanced molecular biology and biochemistry ○ Medical biotechnology ○ Environmental biotechnology ○ Commercial biotechnology ○ Professional issues in biotechnology

LANGUAGES

○ English (Full professional fluency) ○ Bahasa Indonesia (Native) ○ Japanese (Conversational)

REFERENCES

A. Prof Peter Taylor MBBS FRCPA FSHEA FAICD
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