Clarisse Ratu Diandra

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EDUCATION & AWARDS

Biochemistry MBiol, BSc September 2020 - July 2024

University of Leeds, UK Molecular Cloning | Advanced Biomolecular Techniques | Biophysical Characterisations

- Classification: High Upper Second-Class Honours
- Dean's List Award (top 5% students): 2021, 2022
- Dean's Excellence Scholarship (exemplary academic performance): 2020, 2021, 2022

A-levels July 2018 - June 2020

Surabaya Cambridge School, Indonesia Mathematics | Physics | Biology | Chemistry

- A*A*AA

RESEARCH EXPERIENCE

University of Leeds October 2023 - May 2024

Characterising Highly Disordered but Conserved Regions of Ire1 Luminal Domain C-terminal for Oligomerisation

- Optimised expression and purification of Ire1 luminal domain variants to enhance experimental reproducibility and efficiency for parallel experiments.
- Utilised Mass Photometry, Flow-Induced Dispersion Analysis, and Nuclear Magnetic Resonance for biophysical characterisation of Ire1 luminal domain to observe changes in its structure in response to ligands.

University of Leeds October 2022 - March 2023

Investigating HIV-1 Nef Hijacking of Cell Machinery for Pathogenesis

- Investigated HIV-1 Nef's function in CD4 downregulation and interactions with Hck-SH3 protein to formulate insights for future vaccine development.
- Employed Circular Dichroism, Surface Plasmon Resonance, Nuclear Magnetic Resonance, confocal microscopy and flow cytometry to explore pathogenesis and structural importance of Nef in human cell machinery.

University of Leeds March 2022 - April 2022

Screening of Inhibitors Targeting GSK3β kinase in Drug Design

- Executed in silico compound screening of inhibitor compound libraries to select the lowest ligand free binding energies.
- Implemented biochemical assays to obtain the IC50 of chosen inhibitors with their target enzyme, GSK3 kinase.

University of Leeds October 2021 - November 2021

GFP Gene Expression and EGFP Protein Purification

- Genetically modified *E. coli* (DH5α) cells by ligating pET28c expression vector with GFP DNA to express GFP gene.
- Performed western blot analysis on purified EGFP protein expression to assess protein quality.

WORK EXPERIENCE

University of Leeds

FBS Student Engagement Intern: International Position August 2023 - July 2024

- Organised student-led events and hosted activities for 200+ participants.
- Worked with student support and employability team to promote inclusivity within the community.
- Improved year-to-year event engagement by 30% through proactive insights and feedback acquisition.

SKILLS

Protein Expression & Purification (Liquid Chromatography & FPLC) | Protein Characterisation Techniques (Flow-Induced Dispersion Analysis, Mass Photometry, Nuclear Magnetic Resonance, Surface Plasmon Resonance, Circular Dichroism) | Plasmid Expression & Purification | Molecular Biology Techniques (PCR, SDS-PAGE, Western Blot, Molecular Cloning, DNA Sequencing) | Cellular Imaging Techniques (Confocal Microscopy, Flow Cytometry) | Drug Design (Argus Lab) | Bioinformatics | Data & Statistical Analysis | PyMOL | Detailed Record Keeping | Good Laboratory Practice (GLP) | Benchling | Origin Lab | Fiji | Troubleshooting & Optimisation |

CERTIFICATES

LifeArc Life Sciences: Biology Research Job Simulation October 2024

- Optimised experimental conditions of fibroblast-to-sensory differentiation protocol.
- Analysed experimental results using RStudio software and logistic regression.

Pfizer UK: Molecule to Market Job Simulation May 2024

- Researched clinical care pathways and prepared evidence for NICE submission for hypothetical new medicine.
- Created brand positioning statement and effective go-to-market strategy.

Thermofisher Scientific: Genetic Sciences Job Simulation February 2024

- Analysed real-time PCR amplification curves and determined cycle thresholds for gene targets in Thermo Fisher.
- Evaluated assay sensitivity, specificity, and positive percent agreements to assess limits of real-time PCR tests.

LANGUAGES

English *full professional proficiency*, **Bahasa Indonesia** *native*, **Javanese** *native*

INTERESTS

Painting | 2D Art | Photography | Ancient History