

RIDHA ALVINY SYAKIRAH, S. T.

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PERSONAL INFORMATION

A Biomedical Engineering graduate with experience as a Quality Control Staff in a biopharmaceutical company. A clear understanding of quality testing, pharmaceutical industries, and biological research. Trained in laboratory work, GMP practices, quality testing, and aseptic techniques. Motivated to learn and excel in biotechnology and cellular & molecular biology.

WORKING EXPERIENCES

RESEARCH CENTER FOR BIOMEDICAL ENGINEERING (RCBE), UNIVERSITAS INDONESIA

Depok

Laboratory Assistant

Jun 2025 to Present

- Operated Scanning Electron Microscope (SEM) and EDS, including monitoring usage and maintenance.
- Participated in biomaterial research and successfully performed several characterizations, including antibacterial activity testing and drug release profiling using spectrophotometer.
- Prepared scientific manuscript and graphical abstract for scientific publication in international journals.
- Presented biomedical research findings at international conferences involving multidisciplinary scientific audiences

PT. SELATOX BIO PHARMA

Cikarang, Bekasi

Quality Control – Cell Based Assay Staff

April 2026 – July 2026

- Performed routine maintenance of mammalian cell lines, including thawing and subculturing using proper aseptic techniques.
- Prepared materials for cell culture activities, including media formulation, reagent preparation, and laboratory equipment setup.
- Operated and maintained mammalian cell laboratory equipment, including biosafety cabinets, CO₂ incubators, microscopes, cell counters, liquid nitrogen tanks, pH meter, analytical balance, and pipette.

PT. Biotis Pharmaceuticals Indonesia

Gunung Sindur, Bogor Regency

Quality Control Staff

Jan 2023 to Apr 2024

- Succeeded in carrying out validation for measuring virus titer using plaque assay method with CV percentage under 20%.
- Participated in analytical method transfer with international company for protein estimation using the Lowry method in 3 days.
- Prepared media solution VPSFM and methylcellulose with a 1-month shelf life for cell culture and plaque assay.
- Performed endotoxicity test, ds-DNA quantification, and total protein test for water sample, finish good, and stability samples.
- Analyzed S1-RBD protein content and impurities HCP in bulk antigen and stability samples of a vaccine using ELISA assay.
- Initiated 6 standard operational procedures for equipment, testing, and sample handling method.

Stem Cells and Tissue Engineering Research Center (SCTE-RC), IMERI, FK UI

Salemba, Jakarta

Student Researcher

Apr 2022 to Jun 2022

- Accomplished aseptic technique for cultivating more than 1 million mesenchymal stem cells, succeeded in performing its cytotoxicity in vitro test using MTS assay.
- Completed stem cell differentiation into bone cells in 21 days, tested using alizarin red staining.
- Transformed raw data into insights using SPSS, performing one-way and two-way ANOVA, to quantify the stem cell viability and differentiation across scaffold samples.

EDUCATION

University of Indonesia

Depok

Bachelor's Degree, Biomedical Engineering (Grade: 3.64/4.00)

Sept 2018 to Sept 2022

- Undergraduate Thesis titled "Effect of TiO₂ and f-MWCNT on Biocompatibility Properties of HAp/Collagen/Chitosan Composite Scaffold."
- Participated as a Biomedical Laboratory Assistant, specifically in Immunology practice for 6 months

CERTIFICATION AND PUBLICATIONS

Certifications

- Laboratory Management System Training Based on **ISO 17025:2017** – Trust Consultant July 2026
- Fundamental of Genomics Laboratory – GSI Academy Training Feb 2025
- IELTS - IDP Education Ltd (Overall Band 7.5) July 2024

Publications

- *Synthesis and characterization of collagen and hydroxyapatite derived from tuna by-products as biomaterials*. Next Materials, vol. 12, p. 102254. 2026. <https://doi.org/10.1016/j.nxmte.2026.102254>.
- *A simple approach for curcumin extraction from turmeric roots*. AIP Conference Proceedings. 2022. <https://doi.org/10.1063/5.0097948>

SKILLS AND INTERESTS

- **Pharmaceutical Industry:** cGMP or CPOB, Data Integrity, Halal Product Guarantee or Sistem Jaminan Produk Halal (SJPH), working in sterile area – Grade D, BSL 2 and 3
- **Laboratory Equipment:** incubator, inverted microscope, cell counter, BSC, Pipette, pH meter, analytical balance, SEM, EDX, Qubit Fluorometer, UV-Vis spectrophotometer, PCR, Nanophotometer
- **Testing/Assay:** Elisa assay, Bacterial Endotoxicity test, plaque assay, inactivation test, cell cultures and counting, cell differentiation, DNA extractions, and quantification, MTS Assay, Gel Electrophoresis