

SHOFIYAH

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SUMMARY

Biomedical Engineering graduate (Universitas Indonesia) with hands-on experience in laboratory analytical testing, mammalian cell culture, sample preparation, and Good Laboratory Practice (GLP) compliance across multiple research internships. Skilled in data recording, quality-focused documentation, and laboratory safety (K3), with a track record of precise, detail-oriented technical reporting.

PROFESSIONAL EXPERIENCE

Research Assistant Intern | Aretha Medika Utama, Bandung

Apr – May 2026

- Performed **mesenchymal stem cell (MSC) culture** techniques (thawing, seeding, passaging, cryopreservation) in an in vitro lab setting
- Conducted cell characterization assays — **PCR analysis**, differentiation staining, and viability assessment via **spectrophotometry**

Research Assistant | RCBE & IBB Universitas Indonesia x CGMedtech, Depok

Sep 2025 – Mar 2026

- Conducted **analytical testing** on **54 magnesium implant samples** (Pure Mg, Resomet, WE43), including **sample preparation** via grinding and surface cleaning to evaluate degradation behavior
- Performed **in vitro immersion testing** under controlled conditions, collecting and analyzing hydrogen evolution data across **24-hour, daily, and weekly intervals**
- Maintained accurate **laboratory records and documentation**, supporting data interpretation and quality-focused reporting

Cell Culture Research Program Intern | Daewoong Pharmaceutical, Depok

Jun – Sep 2025

- Ensured compliance with laboratory safety regulations and **Good Laboratory Practice (GLP)** standards while conducting cell culture (HeLa, MSC, iPSC, RAW 264.7) using aseptic technique, passaging, cryopreservation, and viability assessment
- Operated laboratory instruments in strict adherence to standard safety and sterility procedures
- Performed molecular techniques including **CRISPR/Cas9** transfection, plasmid cloning, and sgRNA design, with data interpretation under mentor guidance

Assistant Lecturer, K3 (Occupational Safety and Health) | Universitas Indonesia, Depok

Aug – Dec 2025

- Taught and assessed Occupational Safety and Health (K3) coursework for **53 students**, integrating real-world case studies to build a preventive, regulation-compliant safety mindset.

RnD Intern in Reverse Engineering Lab - FT Entrepreneurship and Innovation Unit | Universitas Indonesia, Depok

Jan – Feb 2025

- Designed an extruder and mechanical components for a 3D Bioprinter using Fusion 360, and implemented a wiring system for a 3D Bioprinter

LEADERSHIP & ORGANIZATIONAL EXPERIENCE

- Vice Head of Science and Technology**, IME FTUI (2024) — led the department to **overall champion** at OIM FTUI 2024, coordinating a **92-participant** event committee
- Project Leader**, Akselerasi Akademis (2024) — analyzed academic needs of **1,200+ students** and coordinated 9 department representatives using **Excel**

EDUCATION

Universitas Indonesia, Depok | GPA: 3.63/4.0

Aug 2022 – Jul 2026

- Undergraduate **Thesis**: Effect of HPL and FGF-2 on Growth and Differentiation of WJ-MSC — identified optimal culture conditions for clinical-scale, xeno-free protocols.
- Capstone Project**: developed FizzFresh, a natural effervescent denture-cleaning tablet and smart cup system for elderly denture hygiene in Indonesia.
- Relevant **coursework**: Biological Engineering and Laboratory, Basic Chemistry, Standards and Regulations of Biomedical Engineering, Basic Anatomy and Physiology, Biomaterials, Computational Biology and Bioinformatics

PUBLICATIONS

- Co-author, **Cell Biochemistry and Biophysics** (2026) — CAR-Macrophages Derived from iPSCs for Solid Tumor Therapy
- Co-author, **IJECBE** (2025) — iPSC-Derived MSCs: Transition to Xeno-Free Culture

SKILLS, TOOLS & LANGUAGES

Technical: Laboratory Testing & Analytical Techniques, **Good Laboratory Practice (GLP)**, Cell Culture Technique, PCR, Microscopy, Data Analysis, Documentation & Record-Keeping

Lab Instruments: Biological Safety Cabinet (BSC), Microplate Spectrophotometer, Centrifuge, Light (optical) Microscopes, Analytical Balance, pH meter, CO2 Incubator, Water Bath, Hemocytometer, Gel Electrophoresis System, Thermal Cycler, Vortex Mixer

Soft Skills: Analytical Thinking, Attention to Detail, Problem Solving, SOP Compliance, Time Management, Teamwork

Tools: Laboratory Equipment, GraphPad Prism, ImageJ, SnapGene, AutoDock, Fusion360, G Suite

Languages: Bahasa Indonesia (Native), English (Conversational)