

Muhammad Aranza Triputra

R&D Formulation Development Supervisor

Depok, Indonesia | Phone: +6289634444720 | Email: muhammad.aranza@gmail.com

SUMMARY

R&D Formulation Development Supervisor with over 7 years of experience in pharmaceutical and health supplement product development, specializing in oral solid and liquid dosage forms. Proven expertise in leading formulation development from laboratory to pilot and commercial scale, delivering BPOM-approved products, and accelerating regulatory approval timelines. Strong background in ASEAN Common Technical Dossier (ACTD) documentation, COGS calculation, process optimization, and cross-functional collaboration with business development, marketing, manufacturing, and regulatory teams.

WORK EXPERIENCES AND ACHIEVEMENTS

PT Darya-Varia Laboratoria Tbk – Citeureup, Bogor

R&D Formulation Development Supervisor (July 2022 – Present)

- Successfully created a prototype sample of a new product accepted by the regionals and the mother company (Unilab).
- Delivered 3 new products (oral solid drugs and health supplements) from formulation development through pilot scale, commercial production, finished goods on hand (FGOH), and market launch in alignment with agreed timelines.
- Led formulation development and scale-up activities (laboratory, pilot, commercial scale) involving dry granulation, wet granulation, dry mixing, tableting, and coating, resulting in stable and reproducible formulations.
- Developed stable pilot-scale formulations of drug products containing digestive enzymes and multivitamins with shelf life up to 24 months.
- Successfully completed comprehensive registration documents of a new product, which led to 4-month BPOM faster approval.
- Conducted financial evaluation (COGS and development cost) for new products indicated for immune system support, supporting business development and marketing approval.
- Initiated and led continuous improvement projects, including development of an internal dashboard system for R&D punches and dies tooling maintenance and qualification of a new low-humidity area (LHA) for laboratory scale purposes.
- Led a subordinate (R&D Formulation Development Operator) by completing the technical skills target of the laboratory scale machines at a proficient level.
- Authored and revised SOPs related to formulation trials, laboratory machines and equipment, raw materials, and internal systems.
- Completed a comprehensive technical feasibility study and literature study on the formulation of a new multivitamin product.
- Completed a comprehensive technical feasibility study and literature study on the formulation of a new laxative product.
- Reviewed and qualified new raw material technical specifications and sources that will be used for initial raw material qualification and next development steps (laboratory scale, pilot scale, and commercial production scale) by ensuring the raw materials meet the required standard as per the regulation and intended use.

PT Darya-Varia Laboratoria Tbk – Citeureup, Bogor

R&D Formulation Development Researcher (November 2019 – June 2022)

- Executed laboratory-scale formulation trials involving dry granulation, wet granulation, dry mixing, tableting, and coating, producing stable formulations for new drug products.
- Performed scale-up trials using MicroNIR technology to determine optimized dry mixing endpoints.
- Developed prototype samples that were approved by business development and marketing teams.
- Prepared ACTD-compliant formulation documentation, including product formulas, specifications, process flowcharts, and API/excipient reviews.
- Conducted technical feasibility and literature studies for new products indicated for seizures and digestive disorders.
- Calculated COGS and development costs for new products (laxative, seizure, and digestive indications), ensuring financial viability.

PT Darya-Varia Laboratoria Tbk – Citeureup, Bogor
Management Trainee (NexTalent) Program (November 2018 – November 2019)

- Developed stable laboratory-scale formulations for drug products containing digestive enzymes and multivitamins.
- Conducted patent reviews and literature studies supporting new product development initiatives.
- Prepared financial evaluations (COGS and development costs) for new drug products indicated for common cold.
- Compiled technical summaries on formulation concepts including in vitro–in vivo correlation (IVIVC).

EDUCATION

UNIVERSITAS INDONESIA (2013 – 2018)
Bachelor of Pharmacy Program - GPA 3.34/4.00 (2013 – 2017)
Apothecary Profession Program - GPA 3.56/4.00 (2017 – 2018)

TRAINING

- Film Coating Training: Film Coating Troubleshooting and Setup & Control of the Film Coating Process – 2019
- Solid Dosage Training – 2019
- Tableting Troubleshooting at the Development & Production Scale – 2019
- Halogen Moisture Analyzer Training – 2020
- Change Control System Training – 2023
- Data Integrity Training – 2024
- Cara Pembuatan Obat yang Baik (CPOB) Training – 2025
- Rotary Compression Machine Training – 2025
- Technology Transfer by ISPE – 2025
- Workshop on Patents in the Pharmaceutical Industry – 2025
- Utilizing A Stepwise Approach for Nitrosamine Risk Mitigation by ISPE – 2025
- Assessment of Nitrosamine Impurities in Drug Substances, Drug Products, and Packaging Materials by Etilo – 2025

SKILLS

- Problem solving
- Innovative thinking
- Analytical thinking
- Decision making
- Active learning
- Teamwork
- Communication
- New product development design
- Patent research
- Continuous improvement projects
- English as a Second Language (ESL)