

BÙI HOÀNG THANH LONG

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"Quality Management Specialist with 13+ years of experience in scientific and quality assurance roles. Proven ability to develop and implement quality systems, leverage data analytics for performance improvement, and ensure adherence to regulatory standards (GMP, GLP) in healthcare and manufacturing settings. Skilled in laboratory operations, genetic analysis techniques, and cross-departmental collaboration."

SKILLS

Programming Language & Tools:

- **Python** (including Regex, Selenium, NumPy, Pandas, Seaborn, Matplotlib).
- **SQL** (with expertise in Filtering, Sorting, Grouping, Joining Data, SubQueries, BigQuery, CTEs, Aggregate, and Window Functions).
- **R** (including graphics and ggplot2).

Statistical Analysis and Machine Learning: Linear & Logistic Regression, Unsupervised Learning

Visualization & Report Tools: Tableau, Looker Studio, Power BI (including DAX, Power Query).

Office Productivity: Microsoft Word, Excel, PowerPoint

Soft Skills: Communication, Critical thinking, Attention to detail, Teamwork & collaboration.

Languages: English – Intermediate (IELTS 5.5), Cantonese – Elementary.

PROFESSIONAL EXPERIENCE

Quality Management Specialist

Hung Vuong Hospital – HCM, Vietnam

Jun, 2023 – Dec, 2023

- Developed and implemented a comprehensive hospital quality indicator system aligned with national health ministry guidelines and international standards from AHRQ, ACHS, and WHO.
- Leveraged data analytics and interactive dashboards to identify trends, performance patterns, and improvement opportunities in healthcare delivery.
- Collaborated cross-departmentally to conduct regular self-audits and assessments of healthcare processes, services, and facilities, ensuring quality improvement and patient safety.
- Investigated patient care incidents, complaints, and non-conformities, conducting root cause analysis (RCA) and implementing corrective and preventive actions (CAPA) to prevent recurrence.
- Championed the implementation of the ACHS International Equip-7 Quality Assessment and Improvement Program, including translation of materials, document compilation, and program monitoring.
- Contributed to quality improvement initiatives through participation in research projects, project development, and the creation of Standard Operating Procedures (SOPs).

Quality Assurance Specialist

Medcen J.S.C. – Long An, Vietnam

Apr, 2023 – Jun, 2023

- Led the development, review, and execution of validation protocols for equipment, processes, cleaning, and analytical methods, ensuring compliance with regulatory requirements (GMP, GSP) throughout the process.
- Provided technical expertise in validating new and existing processes, equipment, and systems, including risk assessment and comprehensive documentation.
- Collaborated cross-functionally with Quality Control, Manufacturing, and R&D to establish validation strategies and timelines.
- Managed validation documentation (plans, protocols, reports, deviations) for completeness and accuracy.
- Conducted risk assessments to identify critical parameters and potential validation issues, proposing mitigation strategies.
- Supported internal/external audits and regulatory inspections by providing validation documentation and expertise.
- Investigated validation discrepancies, deviations, and Out-of-Specification (OOS) results, implementing corrective and preventive actions (CAPAs).
- Delivered training on validation principles and procedures to ensure company-wide understanding.

Quality Control Microbiology Supervisor

SaVipharma J.S.C. – HCM, Vietnam

Dec, 2022 – Feb, 2023

- Led the QC department in adhering to strict quality standards (GMP, GLP) and company policies.
- Optimized workflow by efficiently scheduling and distributing work to ensure timely completion and release of products (raw materials, in-process, finished).
- Championed a culture of quality by ensuring staff competency through training on SOPs for environmental monitoring (water sampling, settle plates, RODAC, air plates).
- Proactively identified and resolved potential issues impacting compliance, product quality, and availability, ensuring appropriate product release/rejection decisions.
- Collaborated with management to streamline operations and improve departmental efficiency.
- Investigated Out-of-Specification (OOS) results, documented them thoroughly, and provided technical support to Manufacturing, Quality Assurance, and R&D.
- Provided regular progress reports to management on product testing status and completion timelines.
- Collaborated with colleagues to develop and implement laboratory documents (SOPs, Specifications, Protocols, and Reports) while training analysts and conducting OOS investigations.
- Managed Material Requirements Planning (MRP) for the Microbiology Team, ensuring proper material availability for QC activities.

Financial, Supply Chain Planning and Analyst

Big Belly /Chuk Tea & Coffee – HCM, Vietnam

Jul, 2022 – Nov, 2022

- Generated insightful sales reports (monthly & weekly) to facilitate real-time performance analysis.
- Collaborated with a team to ensure accurate recordkeeping and timely file updates.
- Maintained strong client/department relationships, keeping stakeholders informed of financial developments.
- Leveraged material master data and BOMs (Bills of Materials) to forecast demand for new products.
- Developed material, manufacturing, and purchasing plans for related departments.

Genetic Technologist

Hung Vuong Hospital – HCM, Vietnam

Sep, 2010 – Aug, 2022

- Utilized advanced techniques (MLPA, FISH, Karyotype, Sanger/Next Generation Sequencing, Real-time PCR) for comprehensive genetic analysis in various areas including prenatal testing, mental retardation diagnosis, and infectious disease (COVID-19) detection.
- Analyzed biometric and ultrasonic data using Excel and R to establish diagnostic models.
- Performed venipuncture for blood sample collection.
- Cultivated and analyzed human chromosomes from amniocentesis and blood specimens.
- Interpreted combined results from various tests to reach accurate diagnoses of genetic abnormalities.
- Maintained laboratory quality assurance through proficiency testing and equipment troubleshooting/repair.
- Documented test results and insights into laboratory information systems (LIMS, HIS).
- Prepared performance reports to monitor laboratory efficiency.

ACADEMIC INVOLVEMENT

Visiting Lecturer, Biochemistry

College of Pharmacy Saigon – HCM, Vietnam

Jul, 2023 – Now

Visiting Lecturer, Labwork on analyzing human karyotyping.

University of Science – HCM, Vietnam

2017 – Now

EDUCATION

Master of Biotechnology

2015 – 2019

University of Science - VNUHCM

Bachelor of Pharmacy

2016 – 2019

University of Medicine and Pharmacy – HCM, Vietnam

Bachelor of Biology

2007 - 2011

University of Science - VNUHCM

Intermediate Professional Diploma in Electronic Telecommunication

2006 - 2008

Vietnam Aviation Academy – HCM, Vietnam

PROFESSIONAL CERTIFICATE

<i>Hospital Quality Management</i>	<i>Oct, 2023</i>
School of Preventive Medicine and Public Health - HN, Vietnam	
<i>CME in Drug Administration and Clinical Pharmacy</i>	<i>Mar, 2023</i>
University of Medicine Pham Ngoc Thach – HCM, Vietnam	
<i>Data Science</i>	<i>May, 2022</i>
CoderSchool – HCM, Vietnam	
<i>Medical Practice Certificate</i>	<i>Nov, 2021</i>
Ho Chi Minh City Department of Health	
<i>Laboratory Biosafety</i>	<i>Mar, 2021</i>
Pasteur Institute – HCM, Vietnam	
<i>ISO 15189: Quality management of medical laboratories</i>	<i>Apr, 2021</i>
Center for Standardization and Quality Control in Medical Laboratory – HCM, Vietnam	
<i>Medical Laboratory Technologist</i>	<i>Sep, 2020</i>
University of Medicine Pham Ngoc Thach – HCM, Vietnam	
<i>Data Science and Machine Learning: Basic and Advanced Levels</i>	<i>Jan, 2017</i>
Ton Duc Thang University – HCM, Vietnam	
<i>Advanced Topics in Biotechnology and Medicine</i>	<i>Jan, 2016</i>
University of Tsukuba – HCM, Vietnam	

VOLUNTARY WORK/ INTERNSHIPS

<i>Internship in Molecular Biology</i>	<i>Jul 2010 – Oct 2010</i>
Lab of Molecular Biology – University of Science/Biotechnology Khoa Thuong Company	
Focused on cloning and PCR diagnostics, enhancing foundational skills in molecular biology.	

PROJECTS

<i>Global Terrorism</i>	<i>2022</i>
— Problem: The prospect of global terrorism and why is the number of terrorist cases increasing?	
— Methods and Results: The study was carried out from 1970 – 2017 with many variables such as year, group name, suicide and so on. Finding that the presence of terrorist groups as well as the number of cases and suicide cases had been tending to increase. Since then, we have found many interesting insights from the psychological factors of the suicide bombers.	
— Technique: Pandas to clean, transform and analyze; Matplotlib and Tableau to visualize insights.	
— Source: Kaggle , Demo .	
<i>SARS – Cov2 Variant Classifications from NGS Data.</i>	<i>2021</i>
— Problem: Which variants accounted for the most among healthcare staff? Figuring out the relationship with the source of infection.	
— Solution: From NGS data sequencing infected healthcare staffs, transforming DNA data to protein data and comparing to released COVID – 19 variants' database. Eventually, determining the related variants healthcare staffs are infected.	

- **Technique:** NGS Sequencing to create DNA data for each sample; FastQC to check quality of sequencing data; using Galaxy to analyze and render variant *calling*.

Isolation LAB Strains from fermented vegetables for Antibacterial Activity Against Helicobacter pylori. **2019**

- **Problem:** Which LAB Strains from fermented vegetables are capable of assisting in Helicobacter pylori treatment? Which factors from LAB Strains have antibacterial activity against *Helicobacter pylori* (HP)?
- **Solution:** From fermented vegetable, isolating LAB Strains and screening their characteristics. Then, isolating LAB Strains having anti – HP activity when co-culturing with HP; simultaneously, determining whether anti – HP factors derive from protein or not. Eventually, identifying and classifying species of LAB Strains having anti – HP activity.
- **Technique:** Technically, using culture procedures to isolate and screen LAB's activities. Using biochemical tests and Sanger sequencing to figure out species of LAB Strains.
- **Source:** [Central Library – VNU HCMC](#).

Evaluating fetal biometric tables for small gestational age screening **2018**

- **Problem:** how is the diagnostic accuracy of frequent biometry references in small gestational age screening.
- **Methods and Results:** The cross – sectional study was based on the biometric measurements from 2017. Evaluating the sensitivity and PPV (positive predictive value) from the tables of Hadlock and IG – 21 (Intergrowth – 21) in small gestational age screening and finding that the sensitivity of Hadlock standard is superior to IG – 21 in detecting small fetal size.
- **Technique:** Excel to join, clean; R to build, visualize models based on linear regression and comparing the accuracy of IG – 21 and Hadlock ultrasound formula.
- **Source:** [Journal of Obstetrics and Gynecology](#).