

CHANDRA RIFANA ARIFIN

Food Microbiology | Functional Foods | Fermentation Biotechnology

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SUMMARY

Biology graduate with a strong foundation in **food microbiology, microbial fermentation, and functional food research**. Experienced in laboratory-based research involving kombucha fermentation, microbial analysis, and physicochemical characterization, with a growing interest in developing innovative fermented foods and exploring bioactive compounds for human health.

EDUCATION

Universitas Gadjah Mada

Bachelor of Science | Biology

Aug 2022 - Jul 2026

GPA: 3.41/4.00

Relevant Coursework:

- Microbiology
- Microbial Systematics
- Microbial Physiology
- Food Microbiology

Research Focus:

- Microbial Fermentation
- Functional foods

RESEARCH EXPERIENCES

Research Thesis:

Development of Kombucha-Fermented Robusta Coffee
as a Functional Beverage

May 2025 - Jan 2026

- Designed and conducted interdisciplinary research on fermented functional beverages by integrating microbiology, food chemistry, and sensory science.
- Evaluated the impact of kombucha fermentation on coffee quality, antioxidant activity, microbial characteristics, and consumer acceptance.
- Applied HS-SPME GC-MS, microbiological assays, and antioxidant analyses to investigate biochemical changes during kombucha fermentation.

Research Competition on Student Creativity Week (PKM):

Utilization of organic materials as growth regulators (ZPT)
in the flowering process of moon orchids (*Phalaenopsis amabilis*).

May 2025 - Jan 2026

- Led a research project focused on sustainable innovation in orchid cultivation.
- Identified a natural plant growth regulator with potential to improve flowering performance.
- Contributed to scientific outputs with practical value for environmentally friendly agriculture.

ADDITIONAL INFORMATION

- **Technical Skills:** Microbial fermentation & analysis, HS-SPME GC-MS, Total Plate Count (TPC), Most Probable Number (MPN), DPPH Assay, volatile compound analysis, Sensory Evaluation.
- **Software:** SPSS, Microsoft Office, Adobe Creative Cloud
- **Language:** English & Indonesian

PROFESSIONAL EXPERIENCE

Laboratory Assistant, Food Microbiology Laboratory UGM

Jan 2026 - Jun 2026

- Facilitated laboratory practicals in food fermentation, microbial quality assessment, and physicochemical analyses.
- Mentored students in food microbiology techniques, including microbial enumeration, pathogen detection, and spoilage analysis.
- Supervised laboratory experiments involving lactic acid bacteria (LAB) cultivation and culture-based microbiological methods.

Project Officer, International Summer Course Faculty of Biology UGM

Apr 2026 - Jul 2026

- Coordinated event planning and programme execution with “Tropical Biodiversity” theme
- Managed communication with 10 international & 12 national speakers, 100 participants (both international and national), and 17 partner universities and institutions
- Collaborated with multidisciplinary teams to ensure smooth event operations.

Mentor, Community Service Program

Mar 2025 - Nov 2025

- Delivered community training on kefir and kombucha fermentation as part of the One Village One Product (OVOP) initiative, promoting local food innovation and entrepreneurship.
- Translated food microbiology concepts into practical, hands-on workshops for local communities to support knowledge transfer and skill development.

Laboratory Assistant, Animal Embryology Laboratory UGM

Jul 2024 - Dec 2024

- Facilitated undergraduate laboratory practicals in vertebrate embryology and reproductive biology.
- Guided students in microscopic observation, embryonic development analysis, and developmental stage identification across multiple vertebrate models.
- Mentored laboratory skills and scientific interpretation through hands-on sessions.

ACHIEVEMENTS

First Prize of International Bioinformatics Competition 2025, Conducted by Insitut Bioinformatika Indonesia (INBIO)

Oct 2025

- Developed an award-winning science communication video introducing pangenomics to public audiences. I also campaigned this breakthrough as a new term called “Pangenomism”.

Awardee of MALAKA X Kapal Api Scholarship, Conducted by MALAKA

Oct 2025

- Completed an intensive leadership development programme
- Won the Best Video Essay competition entitled “Probiotic Coffee”

Awardee of Sakura Science Program, Yamagata University, Japan

Feb 2025

- Achieved the course of exchange program learning molecular technique administered by Japan and Technology Agency (JST), Japan.

Silver Winner on National Scientific Writing Competition, Conducted by Universitas Brawijaya

Sep 2023

- Brought Article Title: Implementation of the Trembesi Bioluminescent Plant (*Albizia saman* (Jacq.) Merr) as a Pollution Illuminator and Bio-accumulator in the Indonesian Urban Environment.