



LIPI

# FULLY-FUNDED RESEARCH OPPORTUNITIES

Center for Drug Discovery and Development (CD3)  
Research Center for Biotechnology - LIPI

"We are seeking highly-motivated students to join our research team on conducting research and development of bioactive and valuable compounds from Indonesian bioresources".

## Position Description:

- Willing to do the research project at CD3 Research Facilities from April to December 2020.
- Open for graduate students at different levels (bachelor, master and doctoral program).

## Required Qualifications:

- Students from Department of Biology/ Chemistry/ Chemical Engineering/ Biology/ Pharmacy/ Fisheries and Marine Science.
- Possess good communication skills and abilities to work as a team.
- Having experiences in statistic and metabolomic analysis is strongly preferable.

## Benefits:

- Fully-funded by CD3, RC-Biotechnology LIPI (research/international conferences).
- Having access to all of supporting facilities in LIPI's campus.

## AVAILABLE RESEARCH PROJECTS 2020

- Bioprospecting for mangrove-derived endophytic fungi with antimicrobial activity.
- Bioprospecting for mangrove-derived endophytic fungi with anticancer and antiaging activities.
- Metabolomic studies on ethanol extracts of red ginger (*Zingiber officinale* var. *rubrum*) with antihypertensive activity.
- Metabolomic studies on ethanol extracts of roselle (*Hibiscus sabdariffa*) with antihypertensive activity.
- Metabolomic studies on ethanol extracts of celery (*Apiumgraveolens*) with antihypertensive activity.
- Metabolomic studies on sea cucumber (*Holothuria* sp.) extract with anticancer activity.
- Metabolite profiling and antioxidant activity of citronella oil.
- Metabolite profiling of patchouli oil and its antioxidant and antiaging activities.
- Optimisation Extraction and Characterization of Acid Soluble Collagen (ASC) and Pepsin Soluble Collagen (PSC).
- Optimisation of Enzymatic-based Hydrolysis of Collagen as a Source of Bioactive Peptides with Anticancer Activity.
- Optimisation Extraction of Sea Cucumber-derived compounds with Anticancer Activity.
- Peptide Mapping of Collagen Bioactive Peptide towards aiding in absorption of essential minerals.
- Microbial community composition and metabolite diversity in marine invertebrates (sponge, ascidian, soft corals).
- Bioprospecting for sponge-associated actinomycetes/Isolation and identification of sponge-associated actinomycetes.
- Bioprospecting for sponge-associated actinomycetes with anticancer activity.
- Optimisation of production of anticancer compounds from sponge-associated actinomycetes.
- Screening for biosynthetic gene clusters (PKS and NRPS) in marine invertebrates (sponge, ascidian, soft corals).
- Optimization of red ginger extraction for antihypertensive agent using respons surface methodology.
- Optimization of roselle extraction for antihypertensive agent using respons surface methodology.
- Optimization of Indonesian herbal formulation in the management of hypertension.



## Registration:

Please send your CV and transcript to [cdd.lipi@gmail.com](mailto:cdd.lipi@gmail.com) before 20 March 2020

## REQUIREMENTS FOR PROSPECTIVE STUDENTS

### S1 (Undergraduate):

- Applicants should be in their final year of undergraduate level and are willing to conduct research at LIPI for 6 - 12 months.
- Majoring in Chemistry/Biology/Pharmacy/ Fisheries and Marine Science.
- Co-supervisor must be a researcher from LIPI.

### S2 (Postgraduate - Masters):

- Applicants should be in their final year of masters degree and are willing to conduct research at LIPI for a minimum of 12 months.
- Majoring in Chemistry/Biology/Pharmacy/ Fisheries and Marine Science.
- One of the co-supervisors must be a researcher from LIPI with a doctoral degree.

### S3 (Postgraduate - Doctoral):

- Applicants should be in their final year of doctoral degree and are willing to conduct research at LIPI for a minimum of 24 months.
- Majoring in Chemistry/Biology/Pharmacy/ Fisheries and Marine Science.
- Co-promotor must be a researcher from LIPI with a doctoral degree.

## More information:

Website : <https://sites.google.com/view/ddclipi/news>

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