



## DR. MUHAMAD ARIF BIN MOHAMAD JAMALI

PENSYARAH UNIVERSITI DS13

### CONTACT

**Phone:** 01156883807

**E-mail:**  
arifjamali@usim.edu.my

**Faculty:** Fakulti Sains  
Dan Teknologi

### SUPERVISION

PhD - Completed: 0, Ongoing: 0

Master - Completed: 0,  
Ongoing: 1

### AREAS OF EXPERTISE

Crystallography

Bio-inorganic Chemistry

Structural Proteomics

Computational Biochemistry

Bioinformatics

### ACADEMIC QUALIFICATION

PhD in Life Science, Picobiology (biophysics) (2020)

Master in Applied Biology (2016)

Bachelor in Biology (2013)

### RESEARCH

#### 1. INVESTIGATING THE ROLE OF MGLUR5 IN CURCUMIN-INDUCED PROLIFERATION IN HUMAN NEURONAL CELLS

2025 GERAN PENYELIDIKAN USIM RACER ON GOING CO-RESEARCHER

#### 2. TECHNO-FUNCTIONAL ENHANCEMENT OF SOYBEAN AQUAFABA AS EGG SUBSTITUTES USING SYNERGISTIC ULTRASOUND AND ENZYMATIC PROCESSING

2025 GERAN PEMBANGUNAN INOVASI (GPI) ON GOING CO-RESEARCHER

#### 3. FROM PLANTS TO PAIN RELIEF: A COMPUTATIONAL STUDY ON THE BINDING EFFICACY OF HERBAL COMPOUNDS TO THE MU-OPIOID RECEPTOR

2024 GERAN KPT ON GOING MAIN RESEARCHER

#### 4. IN-SILICO EVALUATION OF ZERUMBONE IN PAIN RELATED RECEPTORS.

2024 GERAN PENYELIDIKAN USIM RACER ON GOING CO-RESEARCHER

## 5. THE DEVELOPMENT OF RAPID IN-SITU ELECTROCHEMICAL BIOSENSOR PROTOTYPE FOR BIOGENIC AMINE DETERMINATION

2024

GERAN KPT

ON GOING

CO-RESEARCHER

# RESEARCH

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## 6. COMPUTATIONAL BIOPHYSICS SIMULATIONS OF CARDAMOMIN BINDING TO CANNABINOID RECEPTORS TO UNRAVEL ITS MOLECULAR MECHANISMS

2023

GERAN PENELITIAN USIM

ON GOING

MAIN RESEARCHER

# PUBLICATION

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## 1. MOLECULAR DOCKING STUDY OF APTAMER-BASED BIOSENSOR FOR DETECTION OF SHIGA TOXIN (STX) PROTEIN FROM ESCHERICHIA COLI O157:H7.

INNOVATION IN ACTION: TURNING IDEAS INTO REALITY

2025 CHAPTER IN BOOK CO-AUTHOR

## 2. MOLECULAR DOCKING AND DYNAMICS SIMULATION STUDIES UNCOVER THE HOST-PATHOGEN PROTEIN-PROTEIN INTERACTIONS IN PENAEOUS VANNAMEI AND VIBRIO PARAHAEMOLYTICUS

PLOS ONE

2024 JOURNAL ISI, SCOPUS AND ERA CO-AUTHOR

## 3. MOLECULAR DOCKING AND DYNAMICS SIMULATION STUDIES UNCOVER THE HOST-PATHOGEN PROTEIN-PROTEIN INTERACTIONS IN PENAEOUS VANNAMEI AND VIBRIO PARAHAEMOLYTICUS

PLOS ONE

2024 JOURNAL ISI, SCOPUS AND ERA CO-AUTHOR

## 4. UNRAVELLING THE LINK BETWEEN SARS-COV-2 MUTATION FREQUENCIES, PATIENT COMORBIDITIES, AND STRUCTURAL DYNAMICS

PLOS ONE

2024 JOURNAL ISI, SCOPUS AND ERA CO-AUTHOR

## 5. CHARACTERIZATION AND ANTIMICROBIAL ACTIVITY OF CHITOSAN EXTRACTED FROM SQUID PEN WASTES

MALAYSIAN JOURNAL OF CHEMISTRY

2024 JOURNAL OTHER DATABASE CORRESPONDING AUTHOR

## 6. CHARACTERIZATION AND ANTIMICROBIAL ACTIVITY OF CHITOSAN EXTRACTED FROM SQUID PEN WASTES

MALAYSIAN JOURNAL OF CHEMISTRY

2024 JOURNAL OTHER DATABASE CO-AUTHOR

## 7. IN SILICO DESIGNED APTAMER FOR THE DETECTION OF BACTERIA LEAF BLIGHT DISEASE IN PADDY BY TARGETING THE VIRULENCE PROTEIN

MALAYSIA GRAND INVENTION EXPO (MAGIEX) 2024

2024 PROCEEDING NON-INDEX CO-AUTHOR

## 8. IMPACT OF RAPID VACCINATION ON SARS-COV-2 GENOMIC DIVERSITY: AN INTERVENTION TO MINIMISE THE PUBLIC BURDEN OF THE PANDEMIC

MALAYSIAN JOURNAL OF PUBLIC HEALTH MEDICINE

2023 JOURNAL SCOPUS CO-AUTHOR

## 9. MOLECULAR DYNAMIC SIMULATIONS OF MLAC INHIBITION BY ANTIBIOTIC IN ESCHERICHIA COLI

MALAYSIAN JOURNAL OF BIOCHEMISTRY AND MOLECULAR BIOLOGY

2023 JOURNAL SCOPUS CO-AUTHOR

## 10. STRUCTURE-FUNCTION STUDIES OF GABA (A) RECEPTORS AND RELATED COMPUTER-AIDED STUDIES

JOURNAL OF MOLECULAR NEUROSCIENCE

2023 JOURNAL ERA CO-AUTHOR

## 11. INSIGHTS INTO THE DIVERSITY OF NEPENTHES L. (NEPENTHACEAE) ACROSS PENINSULAR MALAYSIA, INCLUDING THE FIRST SIGHTING OF AN UNDESCRIBED TAXON WITH FLARED PERISTOMES AND QUADRUPLE-ROW VENTRAL WINGS

JOURNAL OF SUSTAINABLE NATURAL RESOURCES

2023 JOURNAL OTHER DATABASE CO-AUTHOR

## 12. ANTIMICROBIAL ACTIVITY OF EEL MUCUS: A REVIEW

MALAYSIAN JOURNAL OF SCIENCE, HEALTH & TECHNOLOGY (MJSOHT)

2023 JOURNAL OTHER DATABASE CORRESPONDING AUTHOR

## 13. MOLECULAR DOCKING STUDY OF SELECTED KOMBUCHA BIOACTIVE COMPOUNDS AS POTENTIAL CYCLOOXYGENASE-2 (COX-2) INHIBITOR

1ST INTERNATIONAL BIOMECS SYMPOSIUM 2022

2022 PROCEEDING NON-INDEX CO-AUTHOR

# PUBLICATION

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## 14. MOLECULAR DOCKING STUDY OF SELECTED KOMBUCHA BIOACTIVE COMPOUNDS AS POTENTIAL CYCLOOXYGENASE-2 (COX-2) INHIBITOR (POSTER PRESENTATION)

INTERNATIONAL BIOMECS SYMPOSIUM (IBS) 2022

2022

PROCEEDING

NON-INDEX

CORRESPONDING AUTHOR

## 15. THE ACTIVE FORM OF QUINOL-DEPENDENT NITRIC OXIDE REDUCTASE FROM NEISSERIA MENINGITIDIS IS A DIMER

IUCRJ

2020

JOURNAL

ISI

MAIN AUTHOR

# CONSULTATION

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## 1. PASUKAN PERUNDING HIGH PERFORMANCE COMPUTING (HPC)@USIM

USIM

2023

UNIVERSITY

## 2. biosensor

BIOGENES

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National

# AWARDS/RECOGNITION

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## 1. BIOSPECTRO APPS: SPECTROPHOTOMETER APPLICATION FOR WATER MONITORING BASED ON DETECTION OF CHANGES IN WAVELENGTH

INTERNATIONAL CREATIVE INNOVATION IDEA COMPETITION (ICIIC), 2026

2026

ANTARABANGSA

SILVER

## 2. APC

2025

UNIVERSITY

## 3. VISITING SCIENTIST (SAINTIS PELAWAT)

KYUSHU INSTITUTE OF TECHNOLOGY

2025

INTERNATIONAL

## 4. BIOPHYSICAL MECHANISMS OF APTAMER AND SHIGA TOXIN INTERACTION FOR APTAMER-BASED BIOSENSOR DETECTION: IN-SILICO ANALYSIS

MALAYSIA INVENTION & INNOVATION EXPO 2025

2025

KEBANGSAAN

GOLD

## 5. IN SILICO DESIGN APTAMER FOR THE DETECTION OF BACTERIA LEAF BLIGHT DISEASE IN PADDY BY TARGETING THE VIRULENT PROTEIN

MALAYSIA GRAND INVENTION EXPO (MAGIEX) 2024

2024

ANTARABANGSA

SILVER