



DR. LIYANA BINTI AZMI

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CONTACT

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Faculty: Fakulti
Perubatan Dan Sains
Kesihatan

SUPERVISION

PhD - Completed: 0, Ongoing: 1

Master - Completed: 0,
Ongoing: 1

AREAS OF EXPERTISE

Other Biochemistry

Molecular And Structural Biology

Other Microbiology

ACADEMIC QUALIFICATION

PhD in Infection And Immunology (with Specialisation In Microbiolog (2019)

Master in Infection And Immunology (with Specialisation In Microbiolog (2014)

Bachelor in Biomedicine (2013)

RESEARCH

1. DEVELOPING A DECISION TREE MODEL: TOWARDS A PREDICTIVE TOOL FOR ANTIMICROBIAL RESISTANCE IN LOW-RESOURCE HEALTHCARE SETTINGS

2026 GERAN ANTARABANGSA ON GOING MAIN RESEARCHER

2. ELUCIDATING THE IMPACT OF ACETYLATION IN PATHOGENIC ESCHERICHIA COLI THROUGH A MULTI-OMICS ANALYSIS TO UNDERMINE ANTIMICROBIAL RESISTANCE

2024 GERAN KPT ON GOING MAIN RESEARCHER

3. EMPOWERMENT OF HOUSEWIVES AS ANTIMICROBIAL RESISTANCE GUARDIANS THROUGH COMMUNITY-BASED PARTICIPATORY RESEARCH: PROTECTING THE OLD AND THE YOUNG THROUGH ONEHEALTH APPROACH

2024 GERAN ANTARABANGSA ON GOING MAIN RESEARCHER

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

2024 GERAN PENYELIDIKAN USIM RACER ON GOING CO-RESEARCHER

5. DEVELOPING SOCIO-ECOLOGICAL TRADE-OFF MODEL FOR
COMMUNITY SOCIETAL WELLNESS AND IMPROVEMENT OF
HEALTH STATUS THROUGH DIGITALIZATION AMONG
VULNERABLE COMMUNITIES IN A PROTECTED AREA IN
MALAYSIA

2023 GERAN SEPADAN AGENSI KERAJAAN ON GOING CO-RESEARCHER

RESEARCH

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

2023 GERAN PENYELIDIKAN USIM ON GOING CO-RESEARCHER

7. DECIPHERING THE ROLE OF ACETYLATION IN ENTEROHAEMORRHAGIC E.COLI VIRULENCE THROUGH THE MODULATION OF THE PROTEIN DEACETYLASE COBB

2022 GERAN ANTARABANGSA COMPLETED MAIN RESEARCHER

8. ANTICIPATING THE NEXT COVID-19 WAVE THROUGH STRUCTURAL AND PHYLOGENETIC ANALYSIS OF SARS-COV-2 S PROTEIN MUTATIONS IN NEGERI SEMBILAN

2022 GERAN PENYELIDIKAN USIM COMPLETED MAIN RESEARCHER

9. FORECASTING THE FACTORS DRIVING MUTATIONS IN SARS-COV-2 THROUGH A PREDICTIVE MODEL IN INFECTED MALAYSIAN PATIENTS

2022 GERAN PENYELIDIKAN USIM ON GOING CO-RESEARCHER

10. USIM-21 YEARS: IMPACT STUDY ON NATION AND SOCIETY

2022 GERAN PENYELIDIKAN USIM COMPLETED CO-RESEARCHER

11. FIRST AID TRAINING AND CERTIFICATION FOR CHILDCARE PROVIDER (FAT4CP)🔗 AT CHILDCARE CENTER IN NEGERI SEMBILAN

2022 GERAN PENYELIDIKAN AGENSI KERAJAAN COMPLETED CO-RESEARCHER

12. FAKTOR YANG MEMPENGARUHI KESEJAHTERAAN KENDIRI TERHADAP TEKanan PSIKOLOGI SEMASA WABAK COVID19

2020 GERAN PENYELIDIKAN COVID-19 COMPLETED CO-RESEARCHER

PUBLICATION

1. NAVIGATING THE NEW NORM: REVIEW OF HEALTH RISKS ASSOCIATED WITH WIDESPREAD DISINFECTANT AND HAND SANITIZER USE

INTERNATIONAL JOURNAL OF COMMUNITY MEDICINE AND PUBLIC HEALTH

2025 JOURNAL OTHER DATABASE MAIN AUTHOR

2. COMPUTATIONAL INSIGHTS INTO THE MODULATION OF SARS-COV-2 SPIKE-ACE2 INTERACTIONS BY ACE2 POLYMORPHISMS, VIRAL MUTATIONS, AND EICOSAPENTAENOIC ACID

WORLD SOCIETY FOR VIROLOGY (WSV) 3RD INTERNATIONAL CONFERENCE

2025 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

3. STUDY OF BIOPHYSICAL MECHANISMS OF APTAMER-BASED BIOSENSOR FOR DETECTION OF ESCHERICHIA COLI O157:H7

INTERNATIONAL CONFERENCE AND INNOVATION ON EDUCATION, SCIENCE & TECHNOLOGY 2025

2025 PROCEEDING OTHER DATABASE CORRESPONDING AUTHOR

4. 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

5. REVIEW OF BUKAK API (2000): PERSPECTIVES OF EDUCATIONAL HEALTH FILM IN INCREASING HIV/AIDS LITERACY IN TRANS- AND CIS-GENDER SEXUAL WORKERS AND DRUG USERS

JURNAL PENGAJIAN MEDIA MALAYSIA

2024 JOURNAL MYCITE CORRESPONDING AUTHOR

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

PLOS ONE

2024 JOURNAL ISI, SCOPUS AND ERA CORRESPONDING AUTHOR

7. ENHANCING MICROBIOTA-RELATED GUT HEALTH AWARENESS ACROSS AGE GROUPS: OUTCOMES OF INTERACTIVE EDUCATIONAL ACTIVITIES AT A SCIENCE FAIR

MALAYSIAN ONLINE JOURNAL OF EDUCATIONAL SCIENCES (MOJES)

2024 JOURNAL OTHER DATABASE MAIN AUTHOR

8. PORTRAYALS OF CANCER IN HINGGA JUMPA LAGI (2018): UNDERSTANDING AND ENHANCING HEALTH LITERACY IN THE SCREEN MEDIA

JURNAL PENGAJIAN MEDIA MALAYSIA

2024 JOURNAL OTHER DATABASE CORRESPONDING AUTHOR

9. ASSOCIATION OF SARS-COV-2 SPIKE PROTEIN MUTATIONS WITH DYSLIPIDEMIA AND CHRONIC HEART DISEASE: INSIGHTS FROM CLINICAL AND GENOMIC ANALYSIS AT UNIVERSITI KEBANGSAAN MALAYSIA MEDICAL CENTRE

7TH INTERNATIONAL CONFERENCE ON MOLECULAR BIOLOGY AND BIOTECHNOLOGY 2024

2024 PROCEEDING SCOPUS CO-AUTHOR

10. 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 CORRESPONDING AUTHOR

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

MALAYSIAN JOURNAL OF BIOCHEMISTRY AND MOLECULAR BIOLOGY

2023 JOURNAL SCOPUS CORRESPONDING AUTHOR

12. PHYSICAL PARAMETERS INFLUENCE THE MICROBIAL QUALITY OF INDOOR AIR IN RESEARCH LABORATORIES: A REPORT FROM MALAYSIA

KUWAIT JOURNAL OF SCIENCE

2023 JOURNAL ISI CO-AUTHOR

13. EFFECT OF CIRCADIAN RHYTHM DISTURBANCE ON THE HUMAN MUSCULOSKELETAL SYSTEM AND THE IMPORTANCE OF NUTRITIONAL STRATEGIES.

NUTRIENTS

2023 JOURNAL ISI AND SCOPUS CO-AUTHOR

PUBLICATION

14. ANTIMICROBIAL ACTIVITY OF EEL MUCUS: A REVIEW

MALAYSIAN JOURNAL OF SCIENCE, HEALTH & TECHNOLOGY (MJOSHT)

2023 JOURNAL OTHER DATABASE CORRESPONDING AUTHOR

15. VARIANTS EMERGENCE OF SARS-COV-2 BASED ON EVOLUTION AND STRUCTURAL ANALYSES

25TH MEDICAL & HEALTH RESEARCH WEEK

2023 PROCEEDING WOS CORRESPONDING AUTHOR

16. COMPARISON OF COVID-19 VACCINES IN MALAYSIA: A NARRATIVE REVIEW

5TH USIM INTERNATIONAL HEALTH CONFERENCE 2022

2022 PROCEEDING SCOPUS CORRESPONDING AUTHOR

17. THE INTRODUCTION OF ONE HEALTH APPROACH THROUGH FIELD TRIP EXPERIENTIAL LEARNING IN KUALA TAHAH, PAHANG

INTERNATIONAL PUTRA INNOCREATIVE CARNIVAL IN TEACHING AND LEARNING INNOCREATIVE BEYOND LIMIT: SHAPING FUTURE-PROOF EDUCATION

2022 PROCEEDING NON-INDEX CO-AUTHOR

18. THE ASSESSMENT ON THE AWARENESS OF ZOO NOTIC DISEASES AND ITS ENVIRONMENTAL ASSOCIATION AMONG MEDICAL STUDENTS

SEA OHUN (SOUTHEAST ASIA ONE HEALTH UNIVERSITY NETWORK) 2022 INTERNATIONAL CONFERENCE

2022 PROCEEDING NON-INDEX CO-AUTHOR

19. THE INTRODUCTION OF ONE HEALTH APPROACH THROUGH FIELD TRIP EXPERIENTIAL LEARNING IN KUALA TAHAH, PAHANG

INTERNATIONAL PUTRA INNOCREATIVE IN TEACHING AND LEARNING: "INNOVATIVE BEYOND LIMIT - SHAPING FUTURE-PROOF EDUCATION"

2022 PROCEEDING NON-INDEX CO-AUTHOR

20. SOAL JAWAB VAKSIN COVID-19

2022 BOOK EDITOR

21. PROSES PENDAFTARAN VAKSIN

SOAL JAWAB VAKSIN COVID-19

2022 CHAPTER IN BOOK CO-AUTHOR & CO-EDITOR

22. 5G-EMPOWERED HEALTHCARE-TOWARDS A SMART MEDICAL SYSTEM

NATIONAL HEALTH SEMINAR 2021

2021 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

23. THE POTENTIALS OF SMARTWATCHES FOR SELF HEALTH MONITORING

NATIONAL HEALTH SEMINAR 2021

2021 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

24. PHONE APPS ? HOPE FOR MENTAL HEALTH MANAGEMENT AMONGST STUDENTS DURING LOCKDOWNS

NATIONAL HEALTH SEMINAR 2021

2021 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

25. ADVANCEMENT OF TELEMEDICINE IN SOUTHEAST ASIA DURING COVID-19 PANDEMIC: A REVIEW

NATIONAL HEALTH SEMINAR 2021

2021 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

26. THE MAGIC OF MYSEJAHTERA ? CONTACT TRACING AND COVID-19 VACCINATION MANAGEMENT IN MALAYSIA

NATIONAL HEALTH SEMINAR 2021

2021 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

PUBLICATION

27. DIGITAL HEALTH LITERACY AND ONLINE INFORMATION SEEKING DURING COVID-19: ARE WE DIGITALLY LITERATE?

NATIONAL HEALTH SEMINAR 2021

2021 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

28. TELEMEDICINE MODEL OF ONLINE PSYCHOTHERAPY: AN ALTERNATIVE TREATMENT FOR MENTAL HEALTH WELLBEING

NATIONAL HEALTH SEMINAR 2021

2021 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

29. BRIDGING SCIENCE AND RELIGION ? TREATMENT OF DEPRESSED MUSLIM PATIENTS USING ISLAMIC INTEGRATED COGNITIVE BEHAVIOURAL THERAPY

MALAYSIAN JOURNAL OF SCIENCE HEALTH & TECHNOLOGY

2020 JOURNAL OTHERS DATABASE CORRESPONDING AUTHOR

30. HIGH-RESOLUTION STRUCTURE OF THE ALCOHOL DEHYDROGENASE DOMAIN OF THE BIFUNCTIONAL BACTERIAL ENZYME ADHE

ACTA CRYSTALLOGRAPHICA SECTION F-STRUCTURAL BIOLOGY COMMUNICATIONS

2020 JOURNAL ISI MAIN AUTHOR

31. THE ANNALS OF BIOMEDICAL ENGINEERING ON CRITICAL SIZE BONE DEFECT: A REVIEW

MALAYSIAN JOURNAL OF SCIENCE HEALTH & TECHNOLOGY

2020 JOURNAL OTHERS DATABASE CO-AUTHOR

32. THE ROAD TO A SAFE AND EFFECTIVE PEPTIDE-BASED COVID-19 VACCINE

4TH USIM INTERNATIONAL HEALTH E-CONFERENCE 2020 (IHEC 2020) IN CONJUNCTION WITH THE 3RD INTERNATIONAL CONFERENCE ON MEDICINE AND HEALTH SCIENCES

2020 PROCEEDING NON-INDEX MAIN AUTHOR

33. THE UPSHOT OF COVID-19 ON MALAYSIAN RESEARCH

SAIS (INTERNATIONAL SEMINAR ON ISLAM AND SCIENCE) COVID-19: IMPLICATION, PROSPECT AND SOLUTION

2020 PROCEEDING NON-INDEX MAIN AUTHOR

34. ROLE OF DATA AND SAFETY MONITORING BOARDS (DSMBS) IN PROTECTING PARTICIPANTS: PRELIMINARY REVIEW OF SUSPENDED AND TERMINATED COVID-19 TRIALS

4TH USIM INTERNATIONAL HEALTH E-CONFERENCE 2020 (IHEC 2020) IN CONJUNCTION WITH THE 3RD INTERNATIONAL CONFERENCE ON MEDICINE AND HEALTH SCIENCES (ICMHS)

2020 PROCEEDING NON-INDEX CO-AUTHOR

35. CHALLENGES FACED BY RESEARCHERS WHEN CONDUCTING RESEARCH DURING COVID-19 PANDEMIC

4TH USIM INTERNATIONAL HEALTH E-CONFERENCE 2020 (IHEC 2020) IN CONJUNCTION WITH THE 3RD INTERNATIONAL CONFERENCE ON MEDICINE AND HEALTH SCIENCES (ICMHS)

2020 PROCEEDING NON-INDEX CORRESPONDING AUTHOR

36. ALDEHYDE-ALCOHOL DEHYDROGENASE FORMS A HIGH-ORDER SPIROSOME ARCHITECTURE CRITICAL FOR ITS ACTIVITY

NATURE COMMUNICATIONS

2019 JOURNAL ERA CO-AUTHOR

37. CALICIVIRUS VP2 FORMS A PORTAL-LIKE ASSEMBLY FOLLOWING RECEPTOR ENGAGEMENT

NATURE

2019 JOURNAL ERA CO-AUTHOR

38. STRUCTURAL CHARACTERISATION OF BACTERIAL ADHE, A POTENTIAL NOVEL ANTI-VIRULENCE TARGET

19TH IUPAB AND 11TH EBSA CONGRESS

2017 PROCEEDING NON-INDEX MAIN AUTHOR

CONSULTATION

1. COMPUTING

USIM

2023

UNIVERSITY

AWARDS/RECOGNITION

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. ANUGERAH LIBAT SAMA KOMUNITI (PROJEK)

2025 UNIVERSITY

3. RESEARCHER FPSK WITH HIGHEST INTERNATIONAL GRANT

2025 UNIVERSITY

4. VISITING RESEARCHER

SAKURA SCIENCE FUNDED BY JAPAN SCIENCE TECHNOLOGY AGENCY

2025 INTERNATIONAL

5. ACADEMIC ADVISOR

FPSK

2025 UNIVERSITY

6. JOURNAL PEER REVIEWER (PEWASIT ARTIKEL JURNAL)

TROPICAL BIOMEDICINE

2025 INTERNATIONAL

7. LEPTOSCOPE

9TH INTERNATIONAL MEDICAL INNOVATION COMPETITION 2025 (IMIC25)

2025 ANTARABANGSA SILVER

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

MALAYSIA INVENTION & INNOVATION EXPO 2025

2025 KEBANGSAAN GOLD

9. IUBMB TRAVEL FELLOWSHIP

2024 INTERNATIONAL

10. ANUGERAH PERKHIDMATAN CEMERLANG

2024 UNIVERSITY

11. ACADEMIC ADVISOR

FPSK USIM

2024 UNIVERSITY

12. ACADEMIC ADVISOR

FPSK

2024 UNIVERSITY

13. ACADEMIC ADVISOR

FPSK, USIM

2024 UNIVERSITY

14. 3M: MICROBE MINIATURE MODEL

4TH INNOVATION BANK CHALLENGE 2024 (IBC 2024)

2024 UNIVERSITI GOLD

AWARDS/RECOGNITION

15. YOUNG SCIENTIST FOR 72ND LINDAU NOBEL LAUREATE MEETING IN PHYSIOLOGY AND MEDICINE

2023

INTERNATIONAL

16. ACADEMIC ADVISOR

FPSK, USIM

2023

UNIVERSITY

17. ACADEMIC ADVISOR

FPSK, USIM

2023

UNIVERSITY

18. ACADEMIC ADVISOR

USIM

2022

UNIVERSITY

19. ACADEMIC ADVISOR

USIM

2022

UNIVERSITY

20. ACADEMIC ADVISOR

FPSK, USIM

2022

UNIVERSITY

21. ACADEMIC ADVISOR

FPSK, USIM

2022

UNIVERSITY

22. THE INTRODUCTION ONE HEALTH APPROACH THROUGH FIELD TRIP EXPERIENTIAL LEARNING IN KUALA TAHAH, PAHANG

INTERNATIONAL PUTRA INNOCREATIVE CARNIVAL IN TEACHING AND LEARNING 2022 (PICTL 2022)

2022

ANTARABANGSA

SILVER

23. MICROBE MELODIES

INOVAS 2022: Human Well-being & Sustainable Community

2022

UNIVERSITI

GOLD

24. BEST PRESENTER AWARD

2020

UNIVERSITY