



ESAM BASHIR YAHYA

ASSISTANT PROFESSOR

H-INDEX: 31 | CITATIONS: OVER
3302



ALASMARYA ISLAMIC
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[https://scholar.google.com/citations?
user=HDdmpYIAAAAJ&hl=en](https://scholar.google.com/citations?user=HDdmpYIAAAAJ&hl=en)

SELECTED AWARDS

PERFECT STUDENT AWARD

Ibrahim al-Rifai Secondary School, Al
Khums, Libya
2008 – 2009

TEACHING EXCELLENCE AWARD

Alasmarya Islamic University, Zliten, Libya
2018 – 2019

SANGGAR SANJUNG AWARD (RESEARCH PUBLICATION)

University Science Malaysia, Penang,
Malaysia
2020 – 2021

SANGGAR SANJUNG AWARD (RESEARCH PUBLICATION)

University Science Malaysia, Penang,
Malaysia
2021– 2022

RESEARCH SUMMARY

Dedicated and results-driven researcher with a strong background in microbiology and biotechnology. Proven expertise in synthesizing and characterizing advanced materials for biomedical and environmental applications. Possesses excellent analytical, problem-solving, and communication skills, with a track record of successful project management and collaboration in academic and research settings. Eager to contribute to cutting-edge research and development in a dynamic academic/ researcher role.

EDUCATION

Jan 2020 – Jul 2022

PH.D. IN MICRIBIOLOGY & BIOTECHNOLOGY | UNIVERSITY
SCIENCE MALAYSIA, PENANG, MALAYSIA.

- Thesis: Preparation and Characterization of Antibacterial Nanocellulose/Chitosan Aerogels for Biomedical Applications
- PI: Prof. Abdul Khalil H.P.S.

Jun 2015 – Mar 2017

M.S. IN BIOTECHNOLOGY (GPA: 3.94/4.00) | LINCOLN
UNIVERSITY COLLEGE, PETALING JAYA, MALAYSIA

- Dissertation: Preparation and Characterization of Novel Hydrogels loaded with Cinnamon Essential Oil.
- PI: Prof. Satheesh Babu Natarajan.

Oct 2010 – May 2014

B.S. IN MICROBIOLOGY (GPA: 3.24/4.00) | AL-MERGIB
UNIVERSITY, AL KHUMS, LIBYA.

- Dissertation: Investigation the Mechanism of Antibiotic Resistance in Bacterial Species Isolated from Local Hospital.
- PI: Prof. Mustafa Ali.

SELECTED PUBLICATIONS

Yahya, E. B., F. Jummaat, A. Amirul, A. Adnan, N. Olaiya, C. Abdullah, S. Rizal, M. Mohamad Haafiz and H. Khalil (2020). "A review on revolutionary natural biopolymer-based aerogels for antibacterial delivery." *Antibiotics* 9(10): 648. (I.F. 4.8).

Abdul Khalil, H. P.S., **Yahya, E. B.**, Jummaat, F., Adnan, A. S., Olaiya, N. G., Rizal, S., & Thomas, S. (2022). Biopolymers based Aerogels: A review on revolutionary solutions for smart therapeutics delivery. *Progress in Materials Science*, 101014. (I.F. 37.4).

Yahya, E. B., Elarbash, S. S., Bairwan, R. D., Mohamed, M. M. I., Harlina, P. W., & Abdul Khalil, H. P. S. (2023). The Role of Microorganisms in the Isolation of Nanocellulose from Plant Biomass. *Forests*, 14(7), 1457. (I.F. 2.9).

EXPERTISE

Isolation of biopolymers from
bioresource precursors

Preparation of different biomaterials
ex, Hydrogels, Aerogels & Films., etc

Characterization of biomaterials;
FTIR, TGA, SEM, AFM., etc

Academic writing, expert in review
papers in high impact journals

Microbiology basic techniques, isolation
and identification of microorganisms

Molecular biology-based techniques,
PCR, Electrophoresis., etc

Project Management: Strong ability
to manage research projects

VOLUNTEER SERVICES

SCIENCE OUTREACH PROGRAMS

Volunteered with local schools and
community centers to conduct
science workshops and
demonstrations, inspiring and
educating young students about the
wonders of science and technology
2019 – 2020

COMMUNITY HEALTH WORKSHOPS

Collaborated with healthcare
professionals to conduct community
health workshops, focusing on the
importance of early disease detection
and preventive care.
2019 – 2020

STEM MENTORSHIP

Actively mentored undergraduate and high
school students interested in STEM fields,
providing guidance on academic and career
development.
2020 - 2022

PUBLICATIONS - CONTINUED -

Yahya, E. B., Khalil, H. A., Ahmad, M. I., Rizal, S., & Muhammad, S. (2023). Cleaner approach of preparing antibacterial bioaerogel scaffolds using oil palm waste nanocellulose. *Industrial Crops and Products*, 191, 115897. (I.F. 5.9).

Yahya, E.B. and A.M. Alqadhi, Recent trends in cancer therapy: A review on the current state of gene delivery. *Life Sciences*, 2021: p. 119087. (I.F. 6.1).

Iqbal, M. O., **Yahya, E. B.,** Andleeb, S., Ahmed, M. M., Javaid, M. U., Shakeel, W., & Iqbal, I. (2021). In vivo assessment of reversing Cisplatin-Induced nephrotoxicity using *Jatropha mollissima* crude extract and its potential cytotoxicity. *Saudi journal of biological sciences*, 28(12), 7373-7378. (I.F. 4.4).

Yahya, E. B., Amirul, A. A., HPS, A. K., Olaiya, N. G., Iqbal, M. O., Jummaat, F., ... & Adnan, A. S. (2021). Insights into the Role of Biopolymer Aerogel Scaffolds in Tissue Engineering and Regenerative Medicine. *Polymers*, 13(10), 1612. (I.F. 5.0).

Yahya, E. B., Khalil, H. A., Ahmad, M. I., Rizal, S., & Muhammad, S. (2023). Cleaner approach of preparing antibacterial bioaerogel scaffolds using oil palm waste nanocellulose. *Industrial Crops and Products*, 191, 115897. (I.F. 5.9).

Yahya, E. B., Amirul, A. A., HPS, A. K., Olaiya, N. G., Iqbal, M. O., Jummaat, F., ... & Adnan, A. S. (2021). Insights into the Role of Biopolymer Aerogel Scaffolds in Tissue Engineering and Regenerative Medicine. *Polymers*, 13(10), 1612. (I.F. 5.0).

RESEARCH EXPERIENCE

Jan 2020 – Jun 2021

GRADUATE RESEARCH ASSISTANT (PI: PROF. ABDUL KHALIL H.P.S.)

School of Industrial Technology, University Science Malaysia, Penang, Malaysia.

- Assisted in the isolation of cellulose nano fibers from kenaf bast using supercritical carbon dioxide treatment approach.
- Utilized the isolated nanocellulose in the fabrication of hydrophobic nanostructured aerogel for oil-spill applications.

Jul 2021 – Sep 2022

GRADUATE RESEARCH ASSISTANT (PI: PROF. ABDUL KHALIL H.P.S.)

School of Industrial Technology, University Science Malaysia, Penang, Malaysia.

- Fundamental study of the interaction between nanocellulose and seaweed in nanostructured bioaerogels.
- Assessing the potential applications of the prepared bioaerogels.

MEMBERSHIPS

MDPI
Reviewer
Switzerland
2020-current

HINDAWI
Reviewer
United Kingdom
2020-current

EXPERTISE

Sustainable Solutions

Commitment to developing eco-friendly and sustainable materials through innovative biotechnological approaches.

Interdisciplinary Collaboration

Adept at working within diverse research teams, fostering collaboration between different scientific disciplines.

Scientific Writing

Demonstrated excellence in authoring and reviewing scientific papers, grant proposals, and technical reports

Project Management

Strong ability to manage research projects, including planning, execution, and reporting, while maintaining adherence to timelines and budgets.

Biocompatibility Testing

Conducting in vitro and in vivo biocompatibility assays to evaluate the safety & efficacy of biomedical materials

INTERESTS

Scientific Reading and Research

Hands-On Experimentation

Travel and Cultural Exploration

Outdoor Activities

MENTORING EXPERIENCE

Jan 2017 – Mar 2020

GRADUATE STUDENT MENTOR

Faculty of Science, Alasmarya Islamic University, Zliten, Libya

- Serve as a mentor to incoming graduate students in Microbiology program.
- Provide advice and support on navigating coursework, research, and departmental resources.

Jan 2020 – Mar 2022

SENIOR RESEARCH MENTOR

School of Industrial Technology, University Science Malaysia, Penang, Malaysia.

- Supervise new students, including final year undergraduate and post graduate, in research projects.
- Provide training in laboratory techniques, experimental design, and data analysis.

PROFESSIONAL EXPERIENCE

Apr 2025 – Present.

Full time lecturer in Microbiology Department, Faculty of Science, Alasmarya Islamic University, Zliten, Libya.

Sep 2022 – Apr 2025

Full time lecturer in Bioprocess Technology Division, School of Industrial Technology, University Science Malaysia, Penang, Malaysia.

Jan 2020 – Sep 2022

Ph.D. researcher and graduate research assistance at School of industrial technology, University Science Malaysia, Penang, Malaysia.

Jun 2017 – Jan 2020

Full time lecturer in Microbiology Department, Faculty of Science, Alasmarya Islamic University, Zliten, Libya.

REFERENCES

MOHD RAFATULLAH, PH.D.

Professor, School of Industrial Technology, Universiti Sains Malaysia.

Email: mrafatullah@usm.my.

MATEUSZ KCIUK, PH.D.

Lecturer, Faculty of Biology and Environmental Protection, University of Lodz, Poland.

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mateusz.kciuk@biol.uni.lodz.pl

AKBAR JOHN, PH.D.

Assistant Professor, School of Industrial Technology, Universiti Sains Malaysia.

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NIYI GIDEON OLAIYA, PH.D.

Lecturer, Federal University of Technology Akure.

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