

Curriculum Vitae

| Profile

Name : Wedam Mohammad Alghazzawi
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| Academic positions

January 2021 Assistant Professor at the at the Department of Biochemistry, Faculty of Sciences, King Abdulaziz University, Jeddah, KSA.

May 2010 Lecturer at the Department of Biochemistry, Faculty of Sciences, King Abdulaziz University, Jeddah, KSA.

May 2007 Teacher Assistant at the Department of Biochemistry, Faculty of Sciences, King Abdulaziz University, Jeddah, KSA.

| Educational qualifications

June 2020 Ph.D. in the nanobiotechnology field, Department of Biochemistry, Faculty of Sciences, King Abdulaziz University, Jeddah, KSA. (GPA: 5/5)

March 2019 Postgraduate certificate in nanotechnology, Department for Continuing Education, Oxford University, UK, 2019. Distinction Award

July 2009 M.Sc. in the genetics field, Department of Biochemistry, Faculty of Sciences, King Abdulaziz University, Jeddah, KSA.

January 2004 B.Sc. in the biochemistry, Department of Biochemistry, Faculty of Sciences, King Abdulaziz University, Jeddah, KSA.

| Personal skills

- Ability to speak, read, and write in English
- Using the computer and surfing the internet
- Designing websites
- Hard working

- High teamwork spirit
- Excellent communication
- Time management

| Academic teaching

- Undergraduate courses and labs:
 - Computer applications in biochemistry, physical biochemistry, biochemistry of nutrition, medical terminology, research project in biochemistry, and Field training.
 - General biochemistry lab, general metabolism 1 lab, enzymes lab, general metabolism 2 lab, biochemistry of nutrition lab, Physical biochemistry lab, natural products lab, analytical biochemistry lab, immunochemistry lab, molecular biochemistry lab, clinical biochemistry lab, and applied biochemistry lab.
- Postgraduate course: Computer applications in biochemistry.

| Research interests

- Synthesis and characterization of nanomaterials
- Electrochemical sensors
- Molecular genetics

| Committees

- Member of the biochemistry club committee, Department of Biochemistry, KAU, 2023 - now
- Member of alumni committee, Department of Biochemistry, KAU, 2023 - now
- Chairperson of the Information technology in the Department of Biochemistry, KAU, 2020 - now
- Leader of the social activities' subcommittee at the Faculty of Science, 2021 – 2023
- Member of the community service committee, Department of Biochemistry, KAU, 2020 – 2023
- Head of the Biochemistry club, KAU, 2020 – 2023
- Member of the Guidance and Registration Committee, Department of Biochemistry, KAU, 2020 – 2023.
- Coordinator of alumni committee, Department of Biochemistry, KAU, 2020 - 2022
- Member of the community service committee, Department of Biochemistry, KAU, 2020 – now.
- Member of the student advisory committee, graduate and postgraduate student representative of the Faculty of Science, KAU, 2017-2018.
- Reviewer committee member in “red light” event that organized by the scientific endowment at King Abdulaziz University, 2016.
- Member in the students tumble and special needs committee, Department of Biochemistry, KAU, 2013-2014.

- Member of the exhibitions and scientific activities committee, Department of Biochemistry, KAU, 2013-2014.
- Chairperson of the academic advising committee, Department of Biochemistry, KAU, 2013-2014.
- Member of the development and quality committee, Department of Biochemistry, KAU, 2012.
- Member of the academic advising committee, Department of Biochemistry, KAU, 2012.
- Member of the supervision of biochemistry labs for Postgraduate Students, Department of Biochemistry, KAU, 2012.
- Member of the activation of the Faculty of Sciences website, KAU, 2009-2010.
- Chairperson of the modernization and development of Faculty of Sciences website committee, KAU, 2007-2010.
- Chairperson of the consolidation of information between males and females sections committee for the Faculty of Sciences, KAU, 2007-2010.
- Chairperson of the media committee, Department of Biochemistry, KAU, 2007-2010.
- Supervision of staff websites, Faculty of Sciences, KAU, 2007-2010.
- Member of developing the faculty of sciences website committee, KAU, 2009.
- Member of the work systems and procedures to qualify them for faculty and work in accordance with the requirements of international standard (2000-9000 ISO), 2008.
- Member of the information technology committee, Faculty of Sciences, KAU, 2007.
- Member of the development committee, Department of Biochemistry, KAU, 2007.
- Member of the academic advising committee, Department of Biochemistry, KAU, 2007.



| Other experiences

- Head of Student Activities Unit, Faculty of Science, KAU, 2022-now
- Making the procedural guide for the Student Activities Unit at the Faculty of Science, KAU, 2022-now
- Making the guiding manual for the Student Activities, KAU, 2022-now
- Making the procedural guide for the Biochemistry club at the Faculty of Science, KAU, 2016-2023.
- Participation in Mawhiba Academic Enrichment Summer Program, as trainer in Biotechnology unit with 90 training hours at the King Abdulaziz University - The program is affiliated with King Abdulaziz & His Companions Foundations for Giftedness and creativity, 2021.
- Training of postgraduate students in the Department of Chemistry on the voltmeter instrument at the King Fahd Medical Research Center, 2021- now.
- Supervision of the club student at the Department of Biochemistry, KAU, 2020 - now ▪ Making an orientation manual for bachelor students, Faculty of Sciences, 2016.
- Establishment and manage the biochemistry club, Department of Biochemistry, KAU, 2014 – 2017.

- Updating the Biochemistry website, KAU, 2013.
- Supervision of the computer labs, Department of Biochemistry, KAU, 2008-2010.
- Coordinator of the Faculty of Sciences for entering and updating the data of Faculty's website, Faculty of Sciences, KAU, 2007-2010.
- Design the Biochemistry department" website and updating the data, KAU, 2006-2010.

| Workshops

- Activating the Institutionalizing Social Responsibility in Saudi universities, the General Administration for Social Responsibility in cooperation with the Forum of Heads and Supervisors of Scientific Departments
- JoVE: Bringing Text to Life, 2021
- Structure based design and explicit molecular dynamics, Center of Artificial Intelligence in Precision Medicine, KAU, 2020.
- Principles & Applications of Cell Culture, Center of Excellence in Genomic Medicine Research, KAU, 2019.
- Culturing Mesenchymal Stem cells workshop, King Fahd Medical Research Center, KAU, 2019.
- Power of Bioinformatics, Consultant Office for Medical services in cooperation with Center of Excellence in Genomic Medicine Research, KAU, 2019.
- From bench to bedside translating micro- and nanotechnology into medicine, Center of Nanotechnology, KAU, 2016.
- How do we build a leading team?, A forum for volunteer work and social responsibility, Deanship of Students' Affairs, KAU, 2017.
- Students' advising, Center for Teaching & Learning Development, KAU, 2012.
- Scientific poster - technique and professionalism, Center for Teaching & Learning Development, KAU, 2012.
- Scientific research and patents, Center for Teaching & Learning Development, KAU, 2012.
- Plagiarism program workshop, Deanship of Scientific Research, KAU, 2012.
- ODUS Plus workshop, Deanship of Information Technology, KAU, 2012.
- Website development workshop, Deanship of Information Technology, KAU, 2010.
- The definition of HTML and CSS workshop, Deanship of Information Technology, KAU, 2010.
- Gate of the university management system workshop, Deanship of Information Technology, KAU, 2010.
- Doctor Portal workshop, Deanship of Information Technology, KAU, 2007.

| Training courses, lectures and programs

- Crossing into the future (artificial intelligence): applications in research, education, and leadership empowerment, Center for Teaching & Learning Development, KAU, 2023.
- The future of learning and assessment graduations with the use of generative artificial intelligence techniques: ChatGPT as an applied model lecture (online), Forum heads and supervisors of scientific departments, 2023.

- Artificial intelligence in education and scientific research: ChatGPT as an applied model meeting (online), Forum heads and supervisors of scientific departments, 2023.
- Co-reviewing with a mentor course (online), Web of Science Academy, 2023.
- An introductory overview of the products and programs of the Social Development Bank, The Social Development Bank, Jeddah, 2023.
- Business model, Entrepreneurship unit at Faculty of Science, KAU, 2023.
- Concept of a start-up company, Entrepreneurship unit at Faculty of Science, KAU, 2023.
- Monshaat support centers services, Entrepreneurship unit at Faculty of Science, KAU, 2023.
- Concept of a start-up company (online), Entrepreneurship unit at Faculty of Science, KAU, 2023.
- Marketing strategies (online), Entrepreneurship unit at Faculty of Science, KAU, 2023.
- Entrepreneurship and problem-solving course (online), Entrepreneurship unit at Faculty of Science, KAU, 2023.
- Entrepreneurship Personal Qualities Course (online), Entrepreneurship unit at Faculty of Science, KAU, 2023.
- Goals of the United Nations, sustainable development and entrepreneurship course (online), Entrepreneurship unit at Faculty of Science, KAU, 2023.
- Entrepreneurship course (online), Entrepreneurship unit at Faculty of Science, KAU, 2023.
- Reviewing in the Sciences (online), Web of Science Academy, 2023.
- An introduction to peer review (online), Web of Science Academy, 2023.
- Classroom evaluation methods (online), King Abdulaziz & His Companions Foundations for Giftedness and creativity, 2021.
- Effective strategies for teaching gifted students (online), King Abdulaziz & His Companions Foundations for Giftedness and creativity, 2021.
- Structure based drug design and explicit molecular dynamics (online), Center of Artificial Intelligence in Precision Medicine – KAU and Schrödinger, 2020.
- Professional leader, KAU Endowment (waqf), 2020.
- Live Demo on ICPMS and Microwave Digestion, Tips and Tricks to Achieve Lowest Detection Limit, Gulf Bio Analytical Group, KAU, 2020.
- Applications of Nanotechnology in Cancer Therapy and Diagnosis (online), Research and Innovation Unit at Faculty of Science, KAU, 2020
- Characterization of nanomaterials (online), Research and Innovation Unit at Faculty of Science, KAU, 2020.
- Artificial intelligence & disruptive technologies shaping the future of materials design webinar, Center of Artificial Intelligence in Precision Medicine – KAU and Schrödinger, 2020.
- Introduction to bionanotechnology, Oxford University, UK, 2020.
- Molecular designing of RNA vaccines for COVID-19 from the desktop, Eterna in collaboration with King Abdulaziz University, 2020
- Advanced laboratory testing and molecular equipments, Energies of the future, 2020.
- Principle of drugs' pharmacokinetics optimization (online), Saudi Chemical Society, 2020.

- Gas chromatography (online), Saudi Chemical Society, 2020.
- Polymers and carbon nanofibers and their environmental applications (online), Saudi Chemical Society, 2020.
- Clinical translation and the commercialisation of nanomedicine, Oxford University, UK, 2020.
- Qualitative and quantitative analysis in chromatography, and analysis method validation webinar, Saudi Chemical Society, 2020.
- Fundamental aspects on genetic sequencing (online), king Faisal Specialist Hospital & Research center, Jeddah, 2020.
- A guide for successful literature review webinar, A clarivate Analytics Company, 2020.
- The latest coronavirus developments (online), Health promotion center, KAU, 2020.
- Publishing journals between real and fake, Saudi Digital Library, KAU, 2020.
- Computer skills to prepare for scientific research, Saudi Digital Library, KAU, 2020.
- Postgraduate certificate in nanotechnology, Department for Continuing Education, Oxford University, UK, 2019.
- Chemical hazards, Online course, Faculty of Science, KAU, 2019.
- Infographic design in e-learning, Committee of e-learning Distance Education Deans in Saudi Universities, KAU, 2019.
- Recent Applications in Micro and Nanotechnology, Deanship of Scientific Research, KAU, 2017.
- An overview of bibliometrics and post-publication activities, Saudi Digital Library, KAU, 2017.
- SciFinder; your first step in the scientific research, Saudi Digital Library, KAU, 2017.
- Elements of scientific research, Saudi Digital Library, KAU, 2017.
- Scientific citation of references, Saudi Digital Library, KAU, 2017.
- Scientific publishing skills, Saudi Digital Library, KAU, 2017.
- Scientific research skills, Saudi Digital Library, KAU, 2017.
- How to judge scientific research? Scientific Research Unit, Faculty of Science, 2017.
- Bioinformatics Methods II on Coursera, University of Toronto, 2017.
- Bioinformatics Methods I on Coursera, University of Toronto, 2017.
- Graphene Science and Technology, Chalmers University of Technology, 2016.
- Quantum mechanics of molecular structures, University of Tokyo, 2016.
- Application of nanotechnology in medicine, Biochemistry Club, 2016.
- Introduction to nanotechnology: Synthesis and fabrication techniques, Saudi Physical Society. Citation and documentation for scientific research, Saudi Digital Library, KAU, 2016.
- Rules of writing scientific research, Saudi Digital Library, KAU, 2016.
- Understanding open access publishing, Saudi Digital Library, KAU, 2016.
- Publishing in academic journals: tips to help you succeed, Saudi Digital Library, KAU, 2016.
- ProQuest Databases, Saudi Digital Library, KAU, 2016.

- Recognize the academic community and scientific journals indexed in digital libraries Journey in Oxford journals on the Internet, Saudi Digital Library, KAU, 2016.
- Designing a survey, Saudi Digital Library, KAU, 2016.
- Oxford scholarship online, Saudi Digital Library, KAU, 2016.
- Saudi Digital Library ... Gateway to the world of knowledge, Saudi Digital Library, KAU, 2016.
- Methods and techniques of scientific research, Saudi Digital Library, KAU, 2016.
- Nanotechnology program, Nano club, Deanship of Students' Affairs, KAU, 2016.
- X-ray diffraction course, XRD, Deanship of Community Service & Continuing Education, KAU, 2015. ▪ Raman spectroscopy course, Deanship of Community Service & Continuing Education ▪ Toastmaster international communication program - English language club, KAU, 2015.
- Avoiding plagiarism in scientific research course, Deanship of Scientific Research, KAU, 2015
- An introduction to gene expression analysis by microarray technique course, Research and Innovation Unit at Faculty of Science KAU, 2015.
- IELTS writing course, British Council, KSA, 2013.
- Students' orientation course, Center for Teaching & Learning Development, KAU, 2013.
- Foundations of Nanoscience & Nanotechnology, Delivered by Prof. M.S. Al-Shall, Virginia Commonwealth University, Faculty of Science, KAU, 2012.
- Preparing a scientific paper for publication excellence Deanship of Scientific Research, KAU, 2011.
- How protect yourself from the scientific plagiarism, Department of Biochemistry, KAU, 2011.
- Research methods, Deanship of Community Service and Continuing Education, 2011.
- Mega stat course, Center for Teaching & Learning Development, KAU, 2011.
- The art of writing management reports, Deanship of Community Service & Continuing Education, KAU, 2011.
- Graduate preparation program: English course and research method, Center for Teaching & Learning Development at KAU, 2011.
- Graduated preparation program: English course, research methods, SPSS, and EndNote programs, Center for Teaching & Learning Development, KAU, 2010-2011.
- MS Access 2007 course, Al-Alamiah Institute for Computer & Technology, KAU, 2010.
- MS Excel 2007 course, Al-Alamiah Institute for Computer & Technology, KAU, 2010. ▪ TOFEL course, Center for Teaching & Learning Development, KAU, 2010
- FrontPage course, Al-Alamiah Institute for Computer & Technology, KAU, 2010.
- First Aid during ecological crisis. Center of Excellence in Environment Studies, KAU, 2010.
- Bioinformatics Level-2, Computing & Info. Technology Club - Deanship of Students Affairs, KAU, 2010.
- Bioinformatics Level-1, Computing & Info. Technology Club - Deanship of Students Affairs, KAU, 2009.

- Preparation for scholarship course, Computing & Info. Technology Club - Deanship of Students Affairs, KAU, 2009.
- SPSS course, Center for Teaching & Learning Development, KAU, 2009.
- Skill of academic research in the web course, Center for Teaching & Learning Development KAU, 2009.
- Flash program course, Al-Alamiah Institute for Computer & Technology, KAU, 2007.
- Basics of flash program, Committee of Short Courses, Faculty of Computing and Information Technology, 2006.
- Your guide to buying your own PC, Computer Center, KAU, 2007.
- Modern education techniques using digital camera, Computer Center, KAU, 2007.
- Designing local area networks, Computer Center, KAU, 2007. ▪ Windows Vista + Office 2007, Computer Center, KAU, 2007.
- Design your page step by step, Computer Center, KAU, 2007.
- Analysis of the interaction in the classroom course, Deanship of Community Service & Continuing Education, KAU, 2007.
- Teaching strategy course, Deanship of Community Service & Continuing Education, KAU, 2007.
- Nanotechnology lecture, Saudi Science Club for Outstanding Students and Excelling, KAU, 2005. ▪ English course, Deanship of Community Services and Continuing Education, KAU, 1999.



Activities & events

- Establishing and organizing the Faculty of Science Inventors and Innovators Competition in its first edition, Student Activities unit, Faculty of Science, KAU, 2024.
- Supervision of the competition entitled “Mural painting” organized by the Dean of Student Affairs for Activities and Skills, KAU, 2023. Won the third place
- Establishing the “Excellence Award for the Distinguished Student” in its first edition, Student Activities unit, Faculty of Science, KAU, 2023.
- Establishing the “Fingerprint in the Faculty of Science” exhibition, Student Activities unit, Faculty of Science, KAU, 2023.
- Supervision of the competition entitled “Mural painting” organized by the Dean of Student Affairs for Activities and Skills, KAU, 2023. Won the first place
- organize the activities of the entrepreneurial researcher program, second edition, 2023.
- Supervision of the competition entitled “Mural painting” organized by the Dean of Student Affairs for Activities and Skills, KAU, 2021.
- Supervision of the competition entitled “sustainable model” organized by the Dean of Student Affairs for Activities and Skills, KAU, 2021.
- Supervision of “Corona Crisis Made Us Stronger” activity at the 15th Made with My Hand exhibition organized by the Dean of Student Affairs for Activities and Skills, KAU, 2021.
- Supervision of the social activities’ subcommittee at the Faculty of Science, 2021 – now

- Supervision of the club student at the Department of Biochemistry, KAU, 2020 – now
- Establishment of Journal club at the Biochemistry department, Faculty of Sciences, 2016.
- Coordination of a visit to AlBir Society Jeddah, 2017.
- Participation in the seventh healthy walking initiative, KAU Endowment (waqf), 2017.
- Participation in the red light event, KAU Endowment (waqf), 2016.
- Participation in the world is grateful to your hands ceremony, KAU Endowment (waqf), 2016.
- Attending the Fanar event, Faculty of Applied Medical Sciences, KAU, 2015.
- Establishment of a "volunteer with us" team at the club of biochemistry, 2015.
- Establishment "Biochemistry club" pages on the KAU website, 2014-2020
- Participation in the organization of the first scientific meeting at the Department of Biochemistry, KAU, 2006.
- Establishment "we support you" program" program within club activities, 2014.
- Participated in activities and programs of KAU Endowment (waqf) in the second semester, 2014-2015.
- Participation in the first exhibition of the biochemistry club, Department of Biochemistry, Faculty of Sciences, KAU, 2014-2015.
- Participation in the first scientific meeting at the Faculty of Sciences, KAU, 2007.
- Establishment "Biochemistry and Computer Science" website, 2008 - present.
- Participation in the culture competition award for the best website designing, Deanship of Information Technology, KAU, 2007.
- Participation in the exhibition of the Faculty of Sciences, KAU, 2004.

| Awards & Honors

- Postgraduate certificate in nanotechnology, Distinction Award, Department for Continuing Education, Oxford University, UK, 2019.
- The biochemistry club wins in Afaq competition for getting the highest percentage among students' clubs at KAU, 2018.
- Getting the first place in the 7th Health Walk Initiative under the logo "my Food is my medicine", KAU, 2017.
- Getting the creative certificate in the computer field (branch of websites design) in the Kingdom of Saudi Arabia and getting the fourth position in the website design entitled "Department of Biochemistry" at the National Competition for Computer Skills, Riyadh, 2007.
- Getting award for scientific excellence for B.Sc. degree in biochemistry, Faculty of Sciences, KAU, 2002-2003.

| Grants

- Research Grants from the Deanship of the Scientific Research at King Abdulaziz University for PhD thesis project, 2020.
- Research Grants from King Abdulaziz City for Science and Technology for Master thesis project, 2011.

A. Publications:

Book chapters:

W. M. Alghazzawi (2023) Graphene-based Nanocomposites for Sensing: In book entitled “Graphene-based Nanocomposite Sensors: Detection to Diagnosis” Eds; Sarat Kumar Swain and Swapnita Patra published by the Royal Society of Chemistry.
<https://doi.org/10.1039/BK9781837671847-00047>; Hardback ISBN: 978-1-83767-067-3, PDF ISBN: 978-1-83767-184-7, and EPUB ISBN: 978-1-83767-185-4.

Journal papers

1. Alghazzawi, W., Danish, E., Alnahdi, H. and Salam, M., 2020. Rapid microwave-assisted hydrothermal green synthesis of rGO/NiO nanocomposite for glucose detection in diabetes. *Synthetic Metals*, Elsevier, 267, 1-10.
2. Rowyda N. Al-Harithy and Wedam M. Al-Ghazzawi (2011) Polymorphisms of the deoxyribonucleic acid (DNA) repair gene XRCC1 and risk of colon cancer in Saudi patients. *International Journal of Medicine and Medical Sciences*, 3(9), 282 – 288.

B. Conferences:

1. Ahmed Abushomi and Wedam Alghazzawi (2022), Advances in nanotechnology and AI-enabled solutions for biodiversity monitoring: An outlook on the future of monitoring and measurement beyond carbon emissions, Abstract (1183240) presented at 2022 American Geophysical Union Fall Meeting, 12-16 Dec.
2. Wedam M Alghazzawi, Hanan S, Ekram Y Danish, Mohamed A Salam (2019), Facile synthesis of reduced graphene oxide/nickel oxide nanocomposite by microwave-assisted hydrothermal method, Nanomedicine and Drug Delivery conference, London, UK (Oral presentation).
3. Attending the Second International Genomic Medicine conference in Saudi Arabia at Center of Excellence in Genomic Medicine Research, KAU, 2013.
4. Attending the First International Genomic Medicine conference in Saudi Arabia at Center of Excellence in Genomic Medicine Research, KAU, 2011.

C. Supervision of miscellaneous projects

1. Interactive simulation of CD reuse to produce electricity from sunlight, Rozana Bahasan, 2023. Website: <https://ddl-g-elil.kau.edu.sa/Pages-projects.aspx>
2. Design a mobile application prototype: Recycle your paper. Shmoukh Almualad and Sahar alzahrani, 2023.

D. Research Awards

1. Undergraduate research project

Title: Comparison of the amounts of caffeine in Arabic coffee, Turkish coffee and black tea and their relation to diabetes.

Aseel Alamoudi, Ohood Ageeli, Raghda Yamani, and Reem Alharbi

Won Best Scientific Poster in the Biochemistry department at KAU, third semester, 2023.

2. Scientific publishing awards from Deanship of Scientific Research, 2020.

The research entitled “Rapid microwave-assisted hydrothermal green synthesis of rGO/NiO nanocomposite for glucose detection in diabetes”. *Synthetic Metals*, Elsevier, 267, 1-10.

3. Participation in the competition of scientific research and winning the second position for the translated research into Arabic entitled “SARS Disease”, Vice Deanship of Students Affairs, KAU, 2003-2004.