

## CURRICULUM VITAE

### PERSONAL DATA

<b>Name</b>	Hassan Ahmed Rudayni
<b>Nationality</b>	Saudi
<b>Position</b>	Head of biological department
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### EDUCATION

Year	Academic Degree	Institution
2015	PhD degree in science	La Trobe University - Australia
2007	Master Science in Zoology	king Saud University - Saudi Arabia
1999	Bachelor of Science in Zoology	king Saud University - Saudi Arabia

### WORK EXPERIENCE

Period	Position	Address
2018 till Now	Head of biological department	Faculty of Science at IMSIU University
2022 till Now	Associate professor	Biology department. Faculty of Science at IMSIU University
2018-2022	Assistant professor	Biology department. Faculty of Science at IMSIU University
2005-2007	Scientific Researcher	Faculty of Science at King Saud University
2004-2005	Research Assistant	Faculty of Science at King Saud University
2001-2004	Laboratory technician	Faculty of Science at King Saud University

### RESEARCH INTERESTS

Biological and Environmental Sciences

### PUBLICATIONS

Google scholar link: <https://scholar.google.com/citations?user=6T-TEA4AAAAJ&hl=en>

- Improved mineral nutrient absorption and targeted tissue deposition via nano-fertilizers boost drought tolerance in maize (*Zea mays* L.). AM Abdulmajeed, AM Abu-Elsaoud, SM Al-Balawi, H Khalaf Anazi , ...
- State-of-the-art mean centering of ratio spectra and HPLC methodologies for comprehensive analysis of some dry eyes drugs: investigation of white and green practices. MA Alwaili, FM Alminderej, BR Alsehli, HA Rudayni, AA Allam, SM Saleh
- Quantitative analysis of quaternary mixtures in topical creams using cutting-edge HPLC technique: environmental impact and sigma methodology. MA Alwaili, OA Mahmoud, SM Mahgoub, MA Almalki, HA Rudayni... ,
- Phenolic-based allosteric inhibition of PTP1B: unlocking new therapeutic potential for metabolic disorders. EM Kamel, AA Allam, HA Rudayni, FM Alshabrm, FF Aba Alkhayl,
- Are chrysene and manganese ecotoxic to meiobenthic copepods? Assessment through integrated quantitative/taxonomic tools and in silico modeling. JS Alfawzan, AE Alotaibi, AA Albaqmi, S Ishak, F Boufahja, N Al-Hoshani... ,
- Effect of samarium doping on the structural, morphological, optical, magnetic, and antibacterial traits of CuFe<sub>2</sub>O<sub>4</sub> nanomaterials. R Jasrotia, AA Chaudhary, B Lal, S Kumari, M Ramya, HA Rudayni... ,
- Glucosinolate-Mediated Inhibition of Carbonic Anhydrase IX: A Study on Turnip (*Brassica rapa*) and its Potential in Cancer Prevention. EM Kamel, AA Allam, HA Rudayni, S Alkhedhairi, FFA Alkhayl... ,
- Tailored Magnetic Nanoparticles for High-Performance Detection and Remediation of Heavy Metal Pollutants in Aquatic Environments. H Rudayni, AA Allam, D Sur, S Ballal, SM Shukri, D Tantawi, S Ray... ,
- Effect of a Mixture of Peppermint and Clove Oils on Growth Performance, Carcass Traits, Blood Parameters, and Gut Microbiota in Broiler Chickens. FM Reda, M Kamal, HK Mahmoud, HA Rudayni, AA Allam, AF Khafaga... ,
- Nanotechnology-Enhanced Sunscreens: Balancing Efficacy, Safety, and Environmental Impact. R Khobragade, AA Chaudhary, MAM Ali, M Kale, N Raut, P Ghive... ,
- Boosting green hydrogen generation using Zn-substituted CoFe<sub>2</sub>O<sub>4</sub> catalysts prepared by sol-gel technique for water splitting applications. J Prakash, AA Chaudhary, A Somvanshi, B Lal, Suman, M Ramya... ,
- Breaking the CREB-CBP Alliance: Progress, Challenges, and Therapeutic Promise of Small-Molecule and Peptide Disruptors of the pKID-KIX Interaction. HA Rudayni
- Clay-Based Adsorbents for Uranium (VI) Remediation from Aqueous Media: A Comprehensive Review of Structure, Mechanisms, and Modification Strategies. AS Diab, HA Rudayni, RA Mohamed, AA Allam, MR Abukhadra
- Glyphosate in poultry production: health risks, toxicity, and environmental impact. MA Fathi, AA Allam, HA Rudayni, AS Alawam, AE Taha, SS Elnesr
- Addressing the environmental threat of antifungal agents: persistence, ecological effects, and removal techniques. OY Bakather, SM Khadrawy, MA Qamar, HA Rudayni, MT Alotaibi... ,
- Upcycled ilmenite/glass-derived FeTiO<sub>3</sub>-SiO<sub>2</sub> nanoflowers for sustainable, highly effective integrated adsorptive-photocatalytic detoxification of 4-Nitrophenol and Cr (VI). M Mostafa, HA Rudayni, AA Allam, AA Abdel-Khalek, MR Abukhadr
- Emerging Electrochemical Approaches for the Early Detection of Programmed Cell Death. H Abd El-Raheem, AS Alawam, HA Rudayni, AA Allam, R Helim, S Fafa,
- Recent Advances in *Polygonatum sibiricum* Polysaccharides: Structural Insights, Bioactivities in Vitro

and In Vivo, and Therapeutic Potential in Human and Animal Models–A Review. ME Abd El–Hack, HA Rudayni, AK Aldhalimi, AS Alawam, AA Allam ,

- Computational investigation of potential natural compounds as inhibitors of monkeypox virus cysteine proteinase R Nalwa, AA Chaudhary, M Chouhan, PK Tiwari, S Gupta, HA Rudayni,
- Potential of green nanotechnology for air pollution and microplastic remediation in China: evidence by ARDL panel data analysis. MF Sardar, M Bin–Jumah, HA Rudayni, AA Allam,
- Sol–gel developed spinel  $MgFe_2O_4$  magnetic nanomaterials: impact of samarium doping on the structural, morphological, optical, magnetic, and antibacterial traits. R Jasrotia, AA Chaudhary, S Kumari, B Lal, A Sharma, Suman... ,
- Bifidobacterium, Spirulina, and Yeast extracts in low–energy diets for rabbits: effects on performance, hematology, lipid metabolism, hepatorenal function, immunity and hormones. MS Shaheen, AA Allam, UMA Monem, SM Bassiony, BA Khalil, AS Salah... ,
- Promising effects and therapeutic applications of Dunaliella salina algae as a functional food in humans and animals: Toward sustainable animal production and food security. M Alagawany, HA Rudayni, MS El–Kholy, AS Alawam, AA Allam... ,
- Uncoupling Toxic NO Signaling: Progress, Challenges, and Therapeutic Promise of Disrupting the PSD–95/nNOS Protein–Protein Interaction. EM Kamel, AA Allam, HA Rudayni, NA Ahmed, FFA Alkhayl... ,
- Advanced photocatalytic degradation of Ibuprofen using CuO–Polypyrrole/activated carbon hydrogel for sustainable water purification: characterization and application. MD Alqahtani, AM Farhan, MNB Jumah, HA Rudayni, AA Allam... ,
- Photocatalytic oxidation of ammonia using copper–mediated phosphotungstic acid intercalated sulfonated bentonite for sustainable eutrophication control: A case study from Lake... . MG Refaai, HA Rudayni, AA Allam, MR Abukhadra, MSMA Wahed
- Modulating UDP–glucuronosyltransferase activity: Mechanisms, clinical implications, therapeutic strategies, and future directions in drug development. AA Allam, HA Rudayni, NA Ahmed, FFA Alkhayl, AM Lamsabhi... ,
- Biodegradable nanocomposite surgical screw containing bone nanoparticles. ABMS Hossain, HA Rudayni, MS Aleissa, MM Zahrany, A Alhudhaibi... ,
- Hydrothermally Tailored Hematite Nanorods for Photo–Fenton Degradation of 4–Nitrophenol: Influence of Morphology on Catalytic Mechanism and Environmental Safety. MD Alqahtani, D Mostafa, N Shehata, MNB Jumah, NM Alotaibi... ,
- Application of Green Cobalt Nanoparticles in the Diet of Broiler Chickens to Improve Sustainable Production and Health. FM Reda, AS Alawam, HK Mahmoud, MT El–Saadony, AS Salah... ,
- Effects of antibiotics and metals on meiofauna assessed through taxon/functional and modeling tools: a case study of amoxicillin and copper. S Ishak, S Ghannem, RM Alotaibi, RS Alkatheri, MF Alharbi, AM Almutrif... ,
- Probiotics in Nanotechnology–Driven Wound Healing: From Mechanistic Insight to Clinical Promise. M Umekar, AA Chaudhary, M Manghani, S Shidhaye, P Khajone... ,
- Watercress–derived glucosinolates as potential allosteric PTP1B inhibitors: a dual in silico and in vitro study on insulin signaling modulation. NA Ahmed, AA Allam, HA Rudayni, FM Alshabrimi, FFA Alkhayl... ,
- Natural food preservative AAA Allam, HA Rudayni, RK Mahmoud, NS Hafez, NG Altoom, KI Khalil , ...
- Multidimensional insights into squalene epoxidase drug development: in vitro mechanisms, in silico modeling, and in vivo implications. AA Allam, HA Rudayni, NA Ahmed, FF Aba Alkhayl, AM

Lamsabhi... ,

- Efficiency of Nanodelivery Systems for Encapsulation of Pomegranate and Onion Peel Extracts: Evaluation of Their Antimicrobial and Antioxidant Properties on Coated Chicken Burger. AA El-Halim, N Hafez, K Khalil, S Abd El-Tawab, AA Allam, Z E Eldin... ,
- $\beta$ -Glucuronidase Inhibition in Drug Development: Emerging Strategies for Mitigating Drug-Induced Toxicity and Enhancing Therapeutic Outcomes. AA Allam, HA Rudayni, NA Ahmed, FFA Alkhayl, AM Lamsabhi... ,
- Realistic and effective degradation of petroleum related contaminants in seawater using ecofriendly NiO and ZnO nanocomposites with ca-MCM-41: Assessment and remediation. MD Alqahtani, A Sayed, MNB Jumah, NM Alotaibi, HA Rudayni, AA Allam... ,
- Berberine and Cyperus rotundus extract nanoformulations protect the rats against Staphylococcus-induced mastitis via antioxidant and anti-inflammatory activities: role of MAPK... . HA Edres, IH Elmassry, MA Lebda, SI Othman, DRS El-Karim... ,
- Alternative feed ingredients for yellow corn and soybean meal in poultry. AA Saleh, AS Alawam, TA Ebeid, B Nusairat, MS El-Kholy, HA Rudayni... ,
- Mechanistic Insights into Polyphenols-mediated Squalene Epoxidase Inhibition: Computational Models and Experimental Validation for Targeting Cholesterol Biosynthesis. EM Kamel, AA Allam, HA Rudayni, S Alkhedhairi, FFA Alkhayl, MA Alwaili... ,
- Mpox 2022 to 2025 Update: A Comprehensive Review on Its Complications, Transmission, Diagnosis, and Treatment. R Yadav, AA Chaudhary, U Srivastava, S Gupta, S Rustagi, HA Rudayni... ,
- Biosynthesis of Fe<sub>3</sub>O<sub>4</sub> Nanoparticles Using Egg Albumin: Antifungal, Dielectric Analysis and Photocatalytic Activity. A Raza, SM Khadrawy, I Ahmad, M Imran, G Khuwaja, H Parveen... ,
- Integrating metabolomics for precision nutrition in poultry: optimizing growth, feed efficiency, and health. ME Abd El-Hack, AA Allam, AK Aldhalmi, M Kamal, M Arif, AS Alawam... ,
- In what ways do the toxic effects of chrysene and zinc affect one another? Answers from laboratory bioassays using meiofauna from Jeddah shores, Saudi Arabia. N Ababtain, S Ababtain, S Ishak, S Ghannem, F Boufahja, N Al-Hoshani... ,
- Steric and energetic studies on adsorption of toxic arsenic ions by hematite nano-rods from laterite highlighting the impact of modification periods. D Mostafa, N Shehata, MD Alqahtani, MN Bin Jumah, NM Alotaibi... ,
- Caspase Activation, Upregulation of Bax and P53, Downregulation of Bcl-2 and Enhanced Generation of Reactive Oxygen Species Mediate the Anti-proliferative and Anti-migratory... . MM AlZharani, EA Almuqri, MM Ahmed, SA Albatli, NH Aljarba... ,
- Beyond traditional uses: Unveiling the epigenetic, microbiome-modulating, metabolic, and nutraceutical benefits of Salvia officinalis in human and livestock nutrition. ME Abd El-Hack, HA Rudayni, AK Aldhalmi, IM Youssef, M Arif... ,
- Delafloxacin and Mercury adsorption via a triple-layered metallic hydroxide nanocomposite: Insights into the adsorption mechanism, sustainability, and eco-friendliness studies. SM Mahgoub, AS Alawam, HA Rudayni, AA Allam, AM Radalla... ,
- Lycopene Supplement Restores the Oxidation/Antioxidation Balance Through Efficient Antioxidant Activities in Wistar Rats with Cadmium-induced Oxidative Stress.. M Al-Zharani, M Mubarak, H Rudayni, NH Aljarba, S Alkahtani, F A Nasr... ,
- Mechanism-based Inhibition of aldose reductase by natural xanthenes: computational and experimental insights for diabetic complications. EM Kamel, AA Allam, HA Rudayni, SI Othman, FM Alshabrm, FFA Alkhayl... ,
- Acid treatment method for making bioderived wearable film. ABMS Hossain, MS Aleissa, HA Rudayni,

NMA Alotaibi, MI Alghonaim

- Nutritional value and therapeutic applications of *Chenopodium album* for human and livestock health: A comprehensive review. ME Abd El-Hack, AA Allam, AK Aldhalmi, M Kamal, M Arif, AS Alawam... ,
- Comprehensive insights into carbonic anhydrase inhibition: A triad of In vitro, In silico, and In vivo perspectives. AA Allam, HA Rudayni, NA Ahmed, FFA Alkhayl, AM Lamsabhi... ,
- Biocomposite dental crown and method of making. ABMS Hossain, HA Rudayni, MS Aleissa, MM Zahran, A Alhudhaibi... ,
- Steric and Energetic Characterization of Advanced Glaucanite Based Silicate Nanosheets and Nano-Rods as Deliveries of Cisplatin Chemotherapy: Loading, Release, and Anticancer... . HE Alfassam, N Nasser, SI Othman, HM Alharbi, HA Rudayni, AA Allam... ,
- Mechanistic insights into alkaloid-based inhibition of squalene epoxidase: a combined in silico and experimental approach for targeting cholesterol biosynthesis. EM Kamel, SI Othman, FFA Alkhayl, HA Rudayni, AA Allam, AM Lamsabhi
- Galangin prevents gentamicin-induced nephrotoxicity by modulating oxidative damage, inflammation and apoptosis in rats. MH Abukhalil, Z Al-Alami, HAA Altaie, SH Aladaileh, SI Othman... ,
- Cancer treatment method with nanocomposite. HA Rudayni, AA Allam, AFA Mohamed, MR Abukhadra, NNA Ahmed
- Future-proofing RP-HPLC method for quantification of beta-sitosterol in Pygeum extract and cholecalciferol: Promising approaches for prostate health and dietary supplementation. SM Mahgoub, MA Alwaili, BR Alsehli, HA Rudayni, AA Allam... ,
- Eco-friendly features in molecularly imprinted polymers for applications in electrochemical and optical sensing. H Abd El-Raheem, AS Alawam, HA Rudayni, AA Allam, R Helim... ,
- Hydroxyapatite-enclosed zinc phosphate nanocomposite. AA Allam, HA Rudayni, MR Abukhadra, IR Sayed
- Impact of adding zeolite to broilers' diet and litter on growth, blood parameters, immunity, and ammonia emission (vol 103, 103981, 2024). AI Elsherbeni, IM Youssef, M Kamal, MAM Youssif, GM El-Gendi... ,
- Micellar HPLC and UV Methods with Time Programming for Synchronically Quantifying Gatifloxacin and Its Preservative in Eye Drops: Appraisal of Ecological Impact. MA Alwaili, F M. Alminderej, BR Alsehli, HA Rudayni, AA Allam... ,
- Insight into the impact of the calcination on the catalytic performance of synthetic hematite nano-rods during the photo-Fenton's oxidation of 4-chlorophenol toxic residuals. D Mostafa, MD Alqahtani, N Shehata, MNB Jumah, NM Alotaibi... ,

- Mechanistic insights into  $\beta$ -glucuronidase inhibition by isoprenylated flavonoids from *Centaurea scoparia*: bridging experimental and computational approaches. MA Alwaili, FFA Alkhayl, HA Rudayni, AA Allam, AM Lamsabhi, EM Kamel
- Corrigendum to "Impact of adding zeolite to broilers' diet and litter on growth, blood parameters, immunity, and ammonia emission"[Poultry Science, Volume 103, Issue 9... . AI Elsherbeni, IM Youssef, M Kamal, MAM Youssif, GM El-Gendi... ,
- Organic dental crown and method of fabricating the dental crown. ABMS Hossain, HA Rudayni, MS Aleissa, MM Zahrary, A Alhudhaibi... ,
- Transformation behavior and toxicity assessment of beaytlmethodeyammonNium chbride (BAC-12) disinfectant during hospital wastewater treatment. R Guo, J Zhang, J Liu, HE Alfassam, HA Rudayni, AA Allam, R Qu, Z Huo... ,
- Lipoic acid improves wound healing through its immunomodulatory and anti-inflammatory effects in a diabetic mouse model. KMA Zoheir, NI Ali, AE Ashour, MS Kishta, SI Othman, HA Rudayni... ,
- The Antioxidant Properties Of Resveratrol Effectively Mitigate Cadmium-Induced Oxidative Stress By Enhancing The Endogenous Antioxidant Capacity In Wistar Rats. M Al-Zharani, M Mubarak, H Rudayni, E Almuqri, Kh Yaseen... ,
- Correction: Green, innovative oral capsules of three anti-Parkinson's drugs: formulation, in vitro evaluation, and robust RP-HPLC validation. SM Mahgoub, AS Alawam, HA Rudayni, AA Allam, KH Ezzat... ,
- Correction: Multi-pronged molecular insights into flavonoid-mediated inhibition of squalene epoxidase: a pathway to novel therapeutics. EM Kamel, SI Othman, HA Rudayni, AA Allam, AM Lamsabhi
- Lysozyme-dequalinium encapsulation in a Zn-Fe LDH-chia seed matrix for enhanced antimicrobial dental therapeutics. SM Mahgoub, AS Alawam, HA Rudayni, AA Allam, SAAA Aziz, AA Eweis... ,
- Breaking the oncogenic alliance: advances in disrupting the MTDH-SND1 complex for cancer therapy. NA Ahmed, AA Allam, HA Rudayni, FFA Alkhayl, AM Lamsabhi... ,
- Green, innovative oral capsules of three anti-Parkinson's drugs: formulation, in vitro evaluation, and robust RP-HPLC validation. SM Mahgoub, AS Alawam, HA Rudayni, AA Allam, KH Ezzat... ,
- OPEN ACCESS REVIEW ARTICLE N Bouzenad, N Ammouchi, A Abdennouri, A Bouzana, HA Rudayni... ,
- Encapsulation of progesterone in reishi mushroom composite for optimized hormone replacement and targeted anticancer therapy. SM Mahgoub, AS Alawam, HA Rudayni, AA Allam, A Shaban, E Khaled... ,



- Multi-pronged molecular insights into flavonoid-mediated inhibition of squalene epoxidase: a pathway to novel therapeutics. EM Kamel, SI Othman, HA Rudayni, AA Allam, AM Lamsabhi
- Synthesis and characterization of glauconite-based silicate nanorods as anticancer agent. HA Rudayni, AA Allam, AFA Mohamed, MR Abukhadra, NNA Ahmed
- Transformation behavior and toxicity assessment of beaythmethodeyammonNium chbride (BAC-12) disinfectant during hospital wastewater treatment. FZ Ruixue Guo , Jingjing Zhang , Jiaoqin Liu , Haifa E. Alfassam , Hassan A...
- Degradation of 2-(2H-benzotriazol-2-yl)-4, 6-di-tert-pentylphenol (UV328) in soil by FeS activated persulfate: Kinetics, mechanism, and theoretical calculations. X Li, Y Bu, J Xu, HE Alfassam, HA Rudayni, AA Allam, X Pan, Z Wang... ,
- Comparison between the Antioxidant Properties of Quercetin and Combined Vitamin E and Selenium to Ameliorate the Oxidative Stress Induced by Cadmium Toxicity. M Al-Zharani, E Almuqri, M Mubarak, H Rudayni, N Aljarba, K Yasee
- Rosmarinic Acid Supplementation Acts as an Effective Antioxidant for Restoring the Antioxidation/Oxidation Balance in Wistar Rats with Cadmium-Induced Toxicity. MSA Mohammed Al-Zharani, Eman Almuqri, Mohammed Mubarak, Hassan Rudayni...
- Method for making biodegradable wearable film. ABMS Hossain, MS Aleissa, HA Rudayni, NMA Alotaibi, MI Alghonaim
- Chitosan-hybridized zinc phosphate/hydroxyapatite nanostructure-based drug delivery system. AA Allam, HA Rudayni, MR Abukhadra, IR Sayed
- Nanocellulose X-ray film and method of making. ABMS Hossain, MS Aleissa, HA Rudayni, SAS Alyami, MM Zahran... ,
- Antioxidant and antidiabetic potential of Cystoseira myrica-mediated green metallic zinc nanoparticles using the algal extract: synthesis and characterization. AS Diab, HA Alqhtani, M Bin-Jumah, HA Rudayni, KNM Elsayed... ,
- Eco-friendly RP-HPLC approach for simultaneously estimating the promising combination of Pentoxifylline and Simvastatin in therapeutic potential for breast cancer: appraisal of... . SM Mahgoub, MA Alwaili, HA Rudayni, MA Almalki, AA Allam... ,
- Multifaceted Synergism of Dual Active Sites in Oxygen Vacancies Enriched Plasmonic Ag-BiOI Nanosheets for Enhanced Piezo- Photocatalytic Degradation of Trimethoprim. CW Atif Sial, Ting Gao, Fei Li, Haitao Ren, Abdelkader Labidi, Sarah I...
- Synergetic studies on the influence of the integrated cellulose on the adsorption of selenite and selenite by cellulose/phillipsite composite: Steric and energetic assessments. MR Abukhadra, N Talha, M Shaban, NA Alenazi, HA Alqhtani... ,

- **Cost-effective eggshell-modified LDH composite for caffeine adsorption, cytotoxicity and antimicrobial activity: exploring the synergy and economic viability in search processes.** SSRM Asmaa Elrafeya, Ahmed A. Farghalib, W. Kamalc, Ahmed A. Allamde, Zienab...
- **Impact of Rumex nepalensis on Performance, Blood Markers, Immunity, Intestinal Microbiology and Histomorphology in Broiler Chicken.** MT Banday, MA Wani, SI Othman, HA Rudayni, AA Allam, MY Alshahrani... ,