# C.V.

# Prof. Dr. Salem Ne'ma Saleh

## General information:

- Place and Date of Birth: Al-Maimouna District, Maysan Governorate, Iraq – 1976
- Religion: Muslim
- Nationality: Iraqi
- Academic Rank: Professor
- Degree: Ph.D.
- General Specialization: Public Health
- Specific Specialization: Nanobiotechnology

## Contact Information:


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- Google Scholar: https://scholar.google.com/citations?user=_zBwmJAAAAAJ&hl=en
- ResearchGate: https://www.researchgate.net/profile/Salim-Albukhaty
- Scopus: https://www.scopus.com/authid/detail.uri?authorId=55628883500

## Academic Qualifications:

- **B.Sc. in Veterinary Medicine – University of Basrah (1999)**
- **M.Sc. in Public Health – University of Baghdad (2002)**
- **Ph.D. in Nanobiotechnology – Tarbiat Modares University, Tehran (2012)**

## Scientific Grades:

- **Promoted to Full Professor in 2020**

## Professional and Teaching Experience:

**Currently a professor at University of Manara, teaching the following subjects:**

- **Nanotechnology**
- **Biotechnology**
- **Public Health**
- **Pharmacology**
- **Antibiotics and Diagnostic Instruments**

**Supervised master's and doctoral theses in the field of nanobiotechnology.**

## Administrative Experience:

1. **Head of Scientific Products Marketing Division – University of Maysan (Jan 17, 2013)**
2. **Director of Continuing Education Department – University of Maysan (May 7, 2013)**

3. Assistant Dean for Scientific Affairs, College of Science – University of Maysan (Dec 12, 2013)
4. Assistant Dean for Scientific Affairs, College of Nursing – University of Maysan (Sep 20, 2015)
5. Acting Dean, College of Nursing – University of Maysan (University Order No. M.R./1353 – Apr 11, 2017)
6. Vice President of University of Manara for Scientific Affairs – 2025

## Scientific Awards and Patents:

- Al-Warith Al-Anbiyaa University Award – Second Place in Medical Sciences (2021)
- Medal of Creativity and Scientific Excellence – University of Babylon (2020)
- Al-Ain University Award – First Place at University of Maysan (2023)
- Al-Ain University "Senior" Award (2024)
- Al-Khwarizmi Award for Distinguished Scientific Research (2024)
- Al-Ain University Award – First Place at University of Maysan (2024)
- Al-Ain University Award – Distinguished Researchers in Iraq (2024)

## Training Courses Attended:

Academic Training: "Polymer Composites and Nanotechnology", Mahatma Gandhi University, Kerala, India (July 15–30, 2014)

## Conferences Attended:

- Iranian Congress of Biochemistry & 4th International Congress of Biochemistry & Molecular Biology, Mashhad, Iran (Sept 6–9, 2011)
- International Twin Congress on Reproductive Biomedicine & Stem Cell Biology & Technology, Razi Conference Center, Tehran (2012)

- TUMS Neuroscience Congress, Tehran (2012) http://bcnc.tums.ac.ir
- 2nd International Conference of Chemistry, College of Science, University of Basrah (2014)
- 5th International Scientific Conference for Nanotechnology, Advanced Materials and Applications (ICNAMA 2015), University of Technology, Baghdad (2015)
- 3rd Middle East Molecular Biology Congress and Exhibition, Doha (2016)
- 4th Middle East Molecular Biology Congress and Exhibition, Abu Dhabi (2017)
- 2nd International Conference on Displacement and Migration, Kufa, Iraq (2017)
- Alexandria University International Conference on Biochemistry, Pathology, and Hematology, Egypt (2018)
- 1st International Conference on Innovation Research in Materials and Nanotechnology, Ghardaia, Algeria (2023)

## Supervision of Undergraduate and Postgraduate Students:

- Ph.D. Students: Co-supervision with Prof. Dr. Kazem Al-Sumidaie, Al-Nahrain University, College of Biotechnology (2021)
- M.Sc. Students: Two students from the College of Science, University of Maysan (Academic Years 2022 & 2023)

## University and ministerial committees:

- Committee of Deans of Nursing Colleges in Iraq (2017)
- Continuing Education Committee – Department of Research and Development (2013)
- University of Manara Council

## Courses Taught:

- Nanotechnology
- Biotechnology
- Public Health
- Pharmacology
- Antibiotics and Diagnostic Instruments

## Published research:

1- Albukhaty, S., Naderi-Manesh, H., & Tiraihi, T. (2013). In vitro labeling of neural stem cells with poly-L-lysine coated super paramagnetic nanoparticles for green fluorescent protein transfection. Iranian biomedical journal, 17(2), 71–76. https://doi.org/10.6091/ibj.1114.2013

2- Aziz, Z. S., Albukhaty, S., & Abbood, H. K. (2017). Prevalence and antibiotic resistance pattern of certain types of bacterial flora in uterine ewe's samples. Karbala International Journal of Modern Science, 3(4), 259-266.

3- Albukhaty, S., Naderi-Manesh, H., Tiraihi, T., & Sakhi Jabir, M. (2018). Poly-llysine-coated superparamagnetic nanoparticles: a novel method for the transfection

of pro-BDNF into neural stem cells. Artificial cells, nanomedicine, and biotechnology, 46(sup3), S125–S132. https://doi.org/10.1080/21691401.2018.1489272

4- Albukhaty, S., Al-Musawi, S., Abdul Mahdi, S., Sulaiman, G. M., Alwahibi, M. S., Dewir, Y. H., Soliman, D. A., & Rizwana, H. (2020). Investigation of Dextran-Coated Superparamagnetic Nanoparticles for Targeted Vinblastine Controlled Release, Delivery, Apoptosis Induction, and Gene Expression in Pancreatic Cancer Cells. Molecules (Basel, Switzerland), 25(20), 4721. https://doi.org/10.3390/molecules25204721

5- Albukhaty, S.; Al-Karagoly, H.; Dragh, M.A. Synthesis of zinc oxide nanoparticles and evaluated its activity against bacterial isolates. J. Biotech Res. 2020, 11, 47–53.

6- Albukhaty, S., Al-Karagoly, H., Al-Musawi, S., & Abood, H. (2020). Current therapeutic protocols for COVID-19 and promising nanotechnology solution. Misan Journal of Academic Studies, 19( .(٣٨ ملحق–الأول المؤتمر الافتراضي

7- Al-Musawi, S., Albukhaty, S., Al-Karagoly, H., Sulaiman, G. M., Alwahibi, M. S., Dewir, Y. H., Soliman, D. A., & Rizwana, H. (2020). Antibacterial Activity of

Honey/Chitosan Nanofibers Loaded with Capsaicin and Gold Nanoparticles for Wound Dressing. Molecules (Basel, Switzerland), 25(20), 4770. https://doi.org/10.3390/molecules25204770

8- Jabir M, Sahib UI, Taqi Z, Taha A, Sulaiman G, Albukhaty S, Al-Shammari A, Alwahibi M, Soliman D, Dewir YH, Rizwana H. Linalool-Loaded Glutathione-Modified Gold Nanoparticles Conjugated with CALNN Peptide as Apoptosis Inducer and NF-κB Translocation Inhibitor in SKOV-3 Cell Line. Int J Nanomedicine. 2020;15:9025-9047 https://doi.org/10.2147/IJN.S276714

9- Albukhaty, S.; Al-Bayati, L.; Al-Karagoly, H.; Al-Musawi, S. Preparation and characterization of titanium dioxide nanoparticles and in vitro investigation of their cytotoxicity and antibacterial activity against Staphylococcus aureus and Escherichia coli. Anim. Biotechnol. 2020, 1–7.

10- Al-Musawi, S.; Albukhaty, S.; Al-Karagoly, H.; Sulaiman, G.M.; Jabir, M.S.; Naderi-Manesh, H. Dextran-coated superparamagnetic nanoparticles modified with folate for targeted drug delivery of camptothecin. Adv. Nat. Sci. Nanosci. Nanotechnol. 2020, 11, 045009

11- Al-Musawi, S., Albukhaty, S., Al-Karagoly, H., & Almalki, F. (2020). Design and

Synthesis of Multi-Functional Superparamagnetic Core-Gold Shell Coated with Chitosan and Folate Nanoparticles for Targeted Antitumor Therapy. Nanomaterials (Basel, Switzerland), 11(1), 32. https://doi.org/10.3390/nano11010032

12- Al-Aqbi, Z. T., Albukhaty, S., Zarzoor, A. M., Sulaiman, G. M., Khalil, K. A. A., Belali, T., & Soliman, M. T. A. (2021). A Novel Microfluidic Device for Blood Plasma Filtration. Micromachines, 12(3), 336. https://doi.org/10.3390/mi12030336

13- Abdul Mahdi S, Ali Kadhim A, Albukhaty S, Nikzad S, Haider AJ, Ibraheem S, et al. Gene expression and apoptosis response in hepatocellular carcinoma cells induced by biocompatible polymer/magnetic nanoparticles containing 5-Fluorouracil. Electron. J. Biotechnol. 52, 21–28. https://doi.org/10.1016/j.ejbt.2021.04.001 (2021).

14- Al-Kaabi, W.J.; Albukhaty, S.; Al-Fartosy, A.J.M.; Al-Karagoly, H.K.; Al-Musawi, S.; Sulaiman, G.M.; Dewir, Y.H.; Alwahibi, M.S.; Soliman, D.A. Development of Inula graveolens (L.) Plant Extract Electrospun/Polycaprolactone Nanofibers: A Novel Material for Biomedical Application. Appl. Sci. 2021, 11, 828. https://doi.org/10.3390/app11020828

15- Al-Musawi, S., Ibraheem, S., Abdul Mahdi, S., Albukhaty, S., Haider, A. J., Kadhim, A. A., Kadhim, K. A., Kadhim, H. A., & Al-Karagoly, H. (2021). Smart Nanoformulation Based on Polymeric Magnetic Nanoparticles and Vincristine Drug: A Novel Therapy for Apoptotic Gene Expression in Tumors. Life (Basel, Switzerland), 11(1), 71. https://doi.org/10.3390/life11010071

16- Khashan, K.S.; Sulaiman, G.M.; Abdulameer, F.A.; Albukhaty, S.; Ibrahem, M.A.; Al-Muhimeed, T.; AlObaid, A.A. Antibacterial Activity of TiO2 Nanoparticles Prepared by One-Step Laser Ablation in Liquid. Appl. Sci. 2021, 11, 4623. https://doi.org/10.3390/app11104623

17- Jihad, M.A.; Noori, F.T.M.; Jabir, M.S.; Albukhaty, S.; AlMalki, F.A.; Alyamani, A.A. Polyethylene Glycol Functionalized Graphene Oxide Nanoparticles Loaded with Nigella sativa Extract: A Smart Antibacterial Therapeutic Drug Delivery System. Molecules 2021, 26, 3067. https://doi.org/10.3390/molecules26113067

18- Ibrahim, A.A.; Kareem, M.M.; Al-Noor, T.H.; Al-Muhimeed, T.; AlObaid, A.A.; Albukhaty, S.; Sulaiman, G.M.; Jabir, M.; Taqi, Z.J.; Sahib, U.I. Pt(II)-Thiocarbohydrazone Complex as Cytotoxic Agent and Apoptosis Inducer in Caov-3 and HT-29 Cells through the P53 and Caspase-8 Pathways. Pharmaceuticals 2021, 14, 509. https://doi.org/10.3390/ph14060509

19- Safat, S., Buazar, F., Albukhaty, S. et al. Enhanced sunlight photocatalytic activity and biosafety of marine-driven synthesized cerium oxide nanoparticles. Sci Rep 11, 14734 (2021). https://doi.org/10.1038/s41598-021-94327-w

20- Alyamani, A. A., Albukhaty, S., Aloufi, S., AlMalki, F. A., Al-Karagoly, H., & Sulaiman, G. M. (2021). Green Fabrication of Zinc Oxide Nanoparticles Using Phlomis Leaf Extract: Characterization and In Vitro Evaluation of Cytotoxicity and Antibacterial Properties. Molecules (Basel, Switzerland), 26(20), 6140. https://doi.org/10.3390/molecules26206140

21- Albukhaty, S., Al-Karagoly, H., Allafchian, A. R., Jalali, S. A. H., Al-Kelabi, T., & Muhannad, M. (2021). Production and characterization of biocompatible nanofibrous scaffolds made ofβ-sitosterolloaded polyvinyl alcohol/tragacanth gum composites. Nanotechnology, 33(8), 10.1088/1361-6528/ac3789. https://doi.org/10.1088/1361-6528/ac3789

22- AlMalki, F.A.; Khashan, K.S.; Jabir, M.S.; Hadi, A.A.; Sulaiman, G.M.; Abdulameer, F.A.; Albukhaty, S.; Al-Karagoly, H.; Albaqami, J. Eco-Friendly Synthesis of Carbon Nanoparticles by Laser Ablation in Water and Evaluation of

Their Antibacterial Activity. J. Nanomater. 2022, 7, 2022.

23- Jabir, M. S., Rashid, T. M., Nayef, U. M., Albukhaty, S., AlMalki, F. A., Albaqami, J., AlYamani, A. A., Taqi, Z. J., & Sulaiman, G. M. (2022). Inhibition of Staphylococcus aureus α-Hemolysin Production Using Nanocurcumin Capped Au@ZnO Nanocomposite. Bioinorganic chemistry and applications, 2022, 2663812. https://doi.org/10.1155/2022/2663812

24- Al-Musawi, M. H., Ibrahim, K. M., & Albukhaty, S. (2022). In vitro study of antioxidant, antibacterial, and cytotoxicity properties of Cordia myxa fruit extract. Iranian journal of microbiology, 14(1), 97–103. https://doi.org/10.18502/ijm.v14i1.8810

25- AlMalki, F. A., Albukhaty, S., Alyamani, A. A., Khalaf, M. N., & Thomas, S. (2023). The relevant information about the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) using the five-question approach (when, where, what, why, and how) and its impact on the environment. Environmental science and pollution research international, 30(22), 61430–61454. https://doi.org/10.1007/s11356-022-18868-x

26- Sulaiman G., Al-ansari R., Al-Gebori A. et al.: Serum Levels of Interleukin 10, Interleukin 17A, and Calcitriol in Different Groups of Colorectal Cancer Patients. Jordan J. Biol. Sci., 2022; 15: 75–81. doi: 10.54319/jjbs/150110

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27- Karagoly, H.; Rhyaf, A.; Naji, H.; Albukhaty, S.; AlMalki, F.A.; Alyamani, A.A.; Albaqami, J.; Aloufi, S. Green synthesis, characterization, cytotoxicity, and antimicrobial activity of iron oxide nanoparticles using Nigella sativa seed extract. Green Process. Synth. 2022, 11, 254–265.

28- Ali, E. T., Sajid Jabbar, A., Al Ali, H. S., Shaheen Hamadi, S., Jabir, M. S., & Albukhaty, S. (2022). Extensive Study on Hematological, Immunological, Inflammatory Markers, and Biochemical Profile to Identify the Risk Factors in COVID-19 Patients. International journal of inflammation, 2022, 5735546. https://doi.org/10.1155/2022/5735546

29- Abdelmigid, H. M., Morsi, M. M., Hussien, N. A., Alyamani, A. A., Alhuthal, N. A., & Albukhaty, S. (2022). Green Synthesis of Phosphorous-Containing Hydroxyapatite Nanoparticles (nHAP) as a Novel Nano-Fertilizer: Preliminary Assessment on Pomegranate (Punica granatum L.). Nanomaterials (Basel,

Switzerland), 12(9), 1527. https://doi.org/10.3390/nano12091527

30- Khane, Y., Benouis, K., Albukhaty, S., Sulaiman, G. M., Abomughaid, M. M., Al Ali, A., Aouf, D., Fenniche, F., Khane, S., Chaibi, W., Henni, A., Bouras, H. D., & Dizge, N. (2022). Green Synthesis of Silver Nanoparticles Using Aqueous Citrus limon Zest Extract: Characterization and Evaluation of Their Antioxidant and Antimicrobial Properties. Nanomaterials (Basel, Switzerland), 12(12), 2013. https://doi.org/10.3390/nano12122013

31- Benouis, K., Khane, Y., Ahmed, T., Albukhaty, S., & Banoon, S. R. (2022). Valorization of diatomaceous earth as a sustainable eco-coagulant for wastewater treatment: optimization by response surface methodology. Egyptian Journal of Chemistry, 65(9), 777-788.

32- Mahmood, R. I., Kadhim, A. A., Ibraheem, S., Albukhaty, S., Mohammed-Salih, H. S., Abbas, R. H., Jabir, M. S., Mohammed, M. K. A., Nayef, U. M., AlMalki, F. A., Sulaiman, G. M., & Al-Karagoly, H. (2022). Biosynthesis of copper oxide nanoparticles mediated Annona muricata as cytotoxic and apoptosis inducer factor in breast cancer cell lines. Scientific reports, 12(1), 16165. https://doi.org/10.1038/s41598-022-20360-y

33- Alhujaily, M., Albukhaty, S., Yusuf, M., Mohammed, M. K. A., Sulaiman, G. M., Al-Karagoly, H., Alyamani, A. A., Albaqami, J., & AlMalki, F. A. (2022). Recent Advances in Plant-Mediated Zinc Oxide Nanoparticles with Their Significant Biomedical Properties. Bioengineering (Basel, Switzerland), 9(10), 541. https://doi.org/10.3390/bioengineering9100541

34- Jabir, M.S.; Abood, N.A.; Jawad, M.H.; Öztürk, K.; Kadhim, H.; Albukhaty, S.; Al-Shammari, A.; AlMalki, F.A.; Albaqami, J.; Sulaiman, G.M. Gold nanoparticles loaded TNF-α and CALNN peptide as a drug delivery system and promising therapeutic agent for breast cancer cells. Mater. Technol. 2022, 37, 3152–3166.

35- Radhi, A., Al-Hilfi, J. A., & Albukhaty, S. (2023). Synthesis and Characterization of TiO2-(MoO3)/Al2O3 Nanocomposite Using Hydrothermal Method for Environmental Application. Journal of Nanostructures, 13(1), 104-109. doi: 10.22052/JNS.2023.01.012

36- Alzubaidi, A.K.; Al-Kaabi, W.J.; Ali, A.A.; Albukhaty, S.; Al-Karagoly, H.; Sulaiman, G.M.; Asiri, M.; Khane, Y. Green Synthesis and Characterization of Silver Nanoparticles Using Flaxseed Extract and Evaluation of Their Antibacterial and Antioxidant Activities. Appl. Sci. 2023, 13, 2182.

https://doi.org/10.3390/app13042182

37- Kahdim, Q.S.; Abdelmoula, N.; Al-Karagoly, H.; Albukhaty, S.; Al-Saaidi, J. Fabrication of a Polycaprolactone/Chitosan Nanofibrous Scaffold Loaded with Nigella sativa Extract for Biomedical Applications. BioTech 2023, 12, 19. https://doi.org/10.3390/biotech12010019

38- Mohammed, H., Khan, R., Singh, V., Yusuf, M., Akhtar, N., Sulaiman, G., Albukhaty, S., Abdellatif, A., Khan, M., Mohammed, S. & Al-Subaiyel, A. (2023). Solid lipid nanoparticles for targeted natural and synthetic drugs delivery in high-incidence cancers, and other diseases: Roles of preparation methods, lipid composition, transitional stability, and release profiles in nanocarriers' development. Nanotechnology Reviews, 12(1), 20220517. https://doi.org/10.1515/ntrev-2022-0517

39- Alyamani, A.A.; Al-Musawi, M.H.; Albukhaty, S.; Sulaiman, G.M.; Ibrahim, K.M.; Ahmed, E.M.; Jabir, M.S.; Al-Karagoly, H.; Aljahmany, A.A.; Mohammed, M.K.A. Electrospun Polycaprolactone/Chitosan Nanofibers Containing Cordia myxa Fruit Extract as Potential Biocompatible Antibacterial Wound Dressings. Molecules 2023, 28, 2501. https://doi.org/10.3390/molecules28062501

40- Tamilarasan, R., Subramani, A., Sasikumar, G. et al. Catalytic response and

molecular simulation studies in the development of synthetic routes in trimeric triaryl pyridinium type ionic liquids. Sci Rep 13, 4453 (2023). https://doi.org/10.1038/s41598-023-31476-0

41- Sasikumar, G.; Subramani, A.; Tamilarasan, R.; Rajesh, P.; Sasikumar, P.; Albukhaty, S.; Mohammed, M.K.A.; Karthikeyan, S.; Al-aqbi, Z.T.; Al-Doghachi, F.A.J.; et al. Catalytic, Theoretical, and Biological Investigations of Ternary Metal (II) Complexes Derived from L-Valine-Based Schiff Bases and Heterocyclic Bases. Molecules 2023, 28, 2931. https://doi.org/10.3390/molecules28072931

42- Souidia, R., Khanea, Y., Benouisc, K., Belarbia, L., Albukhatyd, S., Mohammede, M. K., & Bousalema, S. (2023). Grapevine wood biomass as a new bio-adsorbent for methylene blue: equilibrium, thermodynamic, kinetic, and isotherm analyses, both linear and non-linear. DESALINATION AND WATER TREATMENT, 290, 128-146.

43- Radhi, A., Al-Hilfi, J. A., & Albukhaty, S. (2023). Comparison of the Efficiency of Titanium and Molybdenum Nanometal Oxides as Adsorbents for Sulfur Compounds in Crude Oil. Journal of Nanostructures, 13(2), 373-379.

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45- Rhyaf, A.; Naji, H.; Al-Karagoly, H.; Albukhaty, S.; Sulaiman, G.M.; Alshammari, A.A.A.; Mohammed, H.A.; Jabir, M.; Khan, R.A. In Vitro and In Vivo Functional Viability, and Biocompatibility Evaluation of Bovine Serum Albumin-Ingrained Microemulsion: A Model Based on Sesame Oil as the Payload for Developing an Efficient Drug Delivery Platform. Pharmaceuticals 2023, 16, 582. https://doi.org/10.3390/ph16040582

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Characterization, Biocompatibility, and Antioxidant Activity. Appl. Sci. 2023, 13, 6604. https://doi.org/10.3390/app13116604

48- Haj Mustafa, M., Soleimanian-Zad, S. & Albukhaty, S. Whey Protein Concentrate Hydrolyzed by Microbial Protease: Process Optimization and Evaluation of Its Dipeptidyl Peptidase Inhibitory Activity. Waste Biomass Valor 15, 2259–2271 (2024). https://doi.org/10.1007/s12649-023-02306-1

49- Nadhiya, D. et al. Influence of Cu2+ substitution on the structural, optical, magnetic, and antibacterial behavior of zinc ferrite nanoparticles. J. Saudi Chem. Soc. 27, 101696–101715 (2023).

50- Kadhim, A.A., Abbas, N.R., Kadhum, H.H. et al. Investigating the Effects of Biogenic Zinc Oxide Nanoparticles Produced Using Papaver somniferum Extract on Oxidative Stress, Cytotoxicity, and the Induction of Apoptosis in the THP-1 Cell Line. Biol Trace Elem Res 201, 4697–4709 (2023). https://doi.org/10.1007/s12011-023-03574-7

51- Kalaivani P., Amudha P., Chandramohan A., Vidya R., Prabhaharan M., Sasikumar P., Albukhaty S., Sulaiman G.M., Abomughaid M.M., Abu-Alghayth M.H. Evaluation of

cytotoxic activity of Syringodium isoetifolium against human breast cancer cell line-an in silico and in vitro study. Arab. J. Chem. 2023;16:105179. doi: 10.1016/j.arabjc.2023.105179.

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Abomughaid, M. & Abu-Alghayth, M. (2023). Investigation of structural properties and antibacterial activity of AgO nanoparticle extract from Solanum nigrum/Mentha leaf extracts by green synthesis method. Green Processing and Synthesis, 12(1), 20230080. https://doi.org/10.1515/gps-2023-0080

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