

# Abbas Salihi

*Molecular Physiologist*

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## PROFILE

Name: **Abbas Burhan Qadir**  
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Nationality: **Iraqi**  
Date and Place of Birth: **December 29, 1977–Erbil**  
Gender: **Male**  
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Scientific Address: Biology Department, College of Science,  
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Scientific Title: **Assistant Professor**  
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## EDUCATION

**Doctor of Philosophy, Molecular Physiology**, Zakho University, Duhok, Kurdistan, Iraq in collaboration with Institute of Biophysics, CNR, Genoa, Italy

- 2008-2012 (Excellent- 92.3)
- Thesis title: Modulation of Aortic Potassium Channels Activity by Gasotransmitters Signaling

**Master of Science, Animal Physiology**, Salahaddin University-Erbil, Erbil, Kurdistan, Iraq

- 2003-2005 (V.Good- 89.04)
- Thesis title: Effect of omega-3 and ubiquinone on some hypertensive parameters in male albino rats

**Bachelor of Science, Biology**, Salahaddin University-Erbil, Erbil, Kurdistan, Iraq

- 1996-2000 (Good-73.28)

## ADMINISTRATIVE POSTS

Director of Scientific affairs: Salahaddin University, (February 1, 2016- May 6, 2016).  
Journal manager: Zanco journals, Salahaddin University, (February 1, 2016-February, 2018).

## RESEARCH INTERESTS

I am interesting in performing studies related to **ion channels function**; and the role of **Nanoparticles** and **gasotransmitters** in the modulation of **angiogenesis in colorectal cancer**.

## RESEARCH PROFILE

### Electrophysiology

- Voltage clamp recordings and Patch clamp recordings (Institute of Biophysics, CNR, Genova, Italy).

### Tissue culture

- Maintenance of cell line

### Cardiovascular studies

- *In vitro* studies: Myographical study (Organ bath), Invasive blood pressure recordings
- *In vivo* studies: Tail cuff blood pressure, Biochemical and Immunological Techniques

## SKILLS

**Data analysis:** SPSS, GraphPad, Ana program

**Electrophysiological programs:** Labchart, LabTutor, Igor, GePulse software

**Article writing programs:** Endnote, Scrivener

## TEACHING EXPERIENCE

### Undergraduate studies

- Animal physiology, 2005-2008, Salahaddin University-Erbil; 2009-2017, Zakho University
- Research methods, 2014-2015, Salahaddin University-Erbil
- Chordates and Comparative anatomy, 2012-2013, Zakho University
- Biostatistics and Experimental design, 2012-2013, Zakho University

### Postgraduate studies:

- M.Sc: Physiological Laboratory Techniques, 2012-2013, Zakho University; 2013-present, Salahaddin University-Erbil
- M.Sc: Advanced Cardiovascular Physiology, 2014-2015, Salahaddin University-Erbil
- M.Sc: Research Methods and Thesis Writing, 2014-2015, Zakho University; 2013-present, Salahaddin University-Erbil
- Ph.D: Molecular Physiology, 2017-2018, Salahaddin University-Erbil
- Ph.D: Statistical packages and Experimental design, 2012-2018.

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## PUBLICATIONS AND PRESENTATIONS

### 1. Published articles

- Falahati, M., Attar, F., Sharifi, M., Saboury, A. A., **Salihi, A.**, Aziz, F. M., Kostova, I., Burda, C., Prielcel, P., Lopez-Sanchez, J. A., Laurent, S., Hooshmand, N. and El-Sayed, M. A. 2019. Gold nanomaterials as key suppliers in biological and chemical sensing, catalysis, and medicine. ***Biochimica et Biophysica Acta (BBA)*** - General Subjects, 129435.
- Zand, Z., Afarinesh Khaki, P., **Salihi, A.**, Sharifi, M., Qadir Nanakali, N. M., Alasady, A. A. B., Mohammad Aziz, F., Shahpasand, K., Hasan, A. and Falahati, M. 2019. Cerium oxide NPs mitigate the amyloid formation of  $\alpha$ -synuclein and associated cytotoxicity. ***International journal of nanomedicine***, 14, 6989-7000.
- Tahaei Gilan, S. S., Yahya Rayat, D., Mustafa, T. A., Aziz, F. M., Shahpasand, K., Akhtari, K., **Salihi A.**, Abou-Zied, O. K. and Falahati, M. 2019 alpha-synuclein interaction with zero-valent iron nanoparticles accelerates structural rearrangement into amyloid-susceptible structure with increased cytotoxic tendency. ***International journal of nanomedicine*** 14, 4637-4648.
- Mousavi, M., Hakimian, S., Mustafa, T. A., Aziz, F. M., **Salihi, A.**, Ale-Ebrahim, M., Mirpour, M., Rasti, B., Akhtari, K., Shahpasand, K., Abou-Zied, O. K. and Falahati, M. 2019. The interaction of silica nanoparticles with catalase and human mesenchymal stem cells: biophysical, theoretical and cellular studies. ***International journal of nanomedicine***, 14, 5355-5368.
- Kahbasi, S., Samadbin, M., Attar, F., Heshmati, M., Danaei, D., Rasti, B., **Salihi, A.**, Nanakali, N. M. Q., Aziz, F. M., Akhtari, K., Hasan, A. and Falahati, M. 2019. The effect of aluminum oxide on red blood cell integrity and hemoglobin structure at nanoscale. ***International Journal of Biological Macromolecules***.138: 800-809.
- Gamasae, N. A., Muhammad, H. A., Tadayon, E., Ale-Ebrahim, M., Mirpour, M., sharifi, M., **Salihi, A.**, Shekha, M. S., Alasady, A. A. B., Aziz, F. M., Akhtari, K., Hasan, A. and Falahati, M. 2019. The Effects of Nickel Oxide Nanoparticles on Structural Changes, Heme Degradation, Aggregation of Hemoglobin and Expression of Apoptotic Genes in Lymphocyte Cells. ***Journal of Biomolecular Structure and Dynamics***, 1-15.
- Salihi, A.**, Shekha, M. S., Hamadamin, P. S., Maulood, I. M., Rasul, K. H., Salim, M. A., Qadir, F. A., Othman, G. Q., Mahmud, A. M. R. and Al-Habib, O. A. M. 2017. *In vivo* cardiac electrical activity of nitric oxide in barium chloride treated male rats. ***AIP Conference Proceedings***, 1888, 020048.
- Salihi A.** 2016. Activation of Inward Rectifier Potassium Channels in High Salt Impairment of Hydrogen Sulfide-Induced Aortic Relaxation in Rats. ***Physiology and Pharmacology***.19(4):263-73.
- Salihi A.**, Shekha M, Maulood I, Mahmud A and Al-Habib O. 2016. Nitric Oxide Donor Dilates Aorta in Salt Loaded Rats via Activation of Inward-Rectifier Potassium Channels. ***ZJPAS***. 28(5):69-77.
- Hamadamin P, **Salihi A.**, Abdoulrahman K, Qadir F, Khasro R, Najdat J, Hamad N, and Najmaddin H. 2016. Screening of Oxidative Stress and Prostate Cancer Biomarkers among Rural and Urban Elderly People in Erbil Governorate-Kurdistan Region. ***ZJPAS***. 28(5):202-208.
- Salihi, A.**, Al-Habib, O., Moran, O., Picco, C. and Baroni, D. 2013. 250 Modulation Of Aortic Inward Rectifier Potassium<sup>2</sup>. 1 Channel Activity By Sulfur Dioxide. ***Heart***, 99, A133.

- Salihi A**, Shekha M and Al-Habib M. 2015. Time-dependent interaction between hydrogen sulfide, nitric oxide and sulfur dioxide in the relation of rat aorta. *Nitric oxide*. 47. S18-S19.
- Al-Habib O and **Salihi A**. 2013. Endothelium derived relaxation factors reduce sulfur dioxide-induced aortic relaxation. *OJMIP*, 03(04): 181-185.
- Salihi A** and Al-Habib O. 2013. The Role of Endothelium and Endothelium-Derived Relaxation Factors in Nitric Oxide-Induced Aortic Relaxation. *UoZ Journal*. Special issue. J Zak Uni. 1 (1).
- Al-Habib, O and **Salihi A**. 2010. Role of K<sup>+</sup> Channels in Vasodilation Induced by Nitric Oxide in Rat Aorta. *J Duh Uni*. 13 (1).
- Salihi A**, Shekha M and Al-Habib O. 2010. Effects of Ginkgo biloba and  $\alpha$ -tocopherol on carbon tetrachloride-Induced Liver Fibrosis and Thrombosis in Male Albino Rats. *J Duh Uni*. 13 (1).
- Salihi A**. 2009. Combined Effects of Olive Oil and Omega-3 on Ethanol-induced Hypertension and Atherohrombosis in Female Albino Rats. *J Duh Uni*. 12(2).
- Maulood I , **Salihi A** and Majeed Z. 2009. Effects of omega-3 and L-carnitine on some hematological parameters in sucrose treated male albino rats. *J Duh Uni*. 12 (1) (special issue).
- Mahmud A and **Salihi A**. 2008.Effect of ubiquinone and omega-3 on plasma angiotensin II level in male albino rats. *ZJPAS*. 20 (3).
- Salihi A**. 2008. Effect of omega-3 and ubiquinone on some thrombotic indices in uninephrectomized-high salt diet and hypercholesterolemic male albino rats. *ZJPAS*. 20 (3).

## 2. Book and Articles under publication

### Book

Writing an international research paper at a glance

### Review article

The era of cancer chemotherapy before and after gasotransmitters.

### Research article

The relationship between breast, colon and prostate cancer with liver and renal dysfunction among Kurdish patients

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## CONFERENCES, WORKSHOPS AND COURSES

### TRAINER

- Trainer of international research papers, data analysis and reference management system.

### COURSES:

- Online Databases and their role in advancing scientific research in higher education by Elsevier**. March 18-19, 2017. College of Science, Salahaddin University.
- IBRO Course in Neuroscience**. March 11-19, 2014. College of Science, Salahaddin University.
- Nano-Porous Silicon Based Metal Semiconductor Metal Photo Detector (MSM-PD) device**. March 3rd–7th, 2013. University of Zakho in collaboration with *University Sains Malaysia*.
- Training course: Voltage Clamp Technique, Patch Clamp Technique and Cell Culture Technique. April, 30th-September 30, 2011. *Institute of Biophysics, CNR, Genoa, Italy*.
- 5<sup>th</sup> annual distributor workshop. June 13–14, 2013. AD instruments center, Kuala Lumpur, *Malaysia*.
- Training course: Professional development for teachers in Kurdistan region of Iraq: Pedagogical training. November, 1 to December 15, 2018. *HAMK University, Finland*.

### CONFERENCES, WORKSHOPS

- The 2<sup>nd</sup> Kurdistan Conference on Biological Science. May 6-8, 2008. University of Duhok.
- The Kurdistan 3<sup>rd</sup> Conference on Biological Science. May 4-6, 2010. University of Duhok.
- Training course: Human Stem Cells Culture Techniques. December 16-18, 2008. Scientific Research Center, University of Duhok.
- Training course: Teaching Methods for University Lecturers. September 6, 2008-March 17, 2009. University of Salahaddin.
- Workshop (tutor): The Use of PowerLab, LabChart and LabTutor as an Efficient Practical Teaching System. October 27-28, 2010. University of Zakho.
- Workshop (tutor): The Use of ADInstruments Data Acquisition Systems in teaching and research. October 26-27, 2011. University of Zakho
- Workshop (tutor and practical speaker): PowerLab Data Acquisition Systems as Modern and Advanced High Tech Instruments for teaching and research. February 22-23, 2012. Medical

- Research center- Hawler Medical University in collaboration with University of Zakho
- Workshop (tutor and practical speaker): The Use of PowerLabs in Advanced Physiology Education and Research May 23– 24, 2012. University of Zakho in collaboration with the University of Sulaimani.
  - Training course: Easy thesis and papers writing with Endnote X4 program. April 14-15, 2013. University of Duhok.
  - 1<sup>st</sup> International Conference – UOZ. April 23 -25, 2013. University of Zakho.
  - Training course (tutor): Endnote X5 program. November 20–2, 2013. College of Science, Salahaddin University.
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