

Curriculum Vitae

Personal Details

Name	Sa'ad Al-Lahham	Citizenship	Palestinian and Dutch
Date of birth	15/01/1980	Address	Abdul Raheem Mahmoud street
Gender	Male		Nablus, Palestine.
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Education And Research Experience

- 2020-present** **Associate professor**, Division of Anatomy, Molecular Biochemistry and Genetics, Department of Biomedical Sciences, Faculty of Medicine and Health Sciences, An-Najah National University, Nablus, Palestine.
- 2022-present** **Associate professor**, Molecular Genetics Laboratory, Istishari Arab Hospital, Rammallah, Palestine. The service of this lab includes PGD, PGS, prenatal diagnosis, NGS for rare diseases (WES and WGS) and for cancer (targeted panels), molecular diagnosis of genetic disorders and cytogenetics.
- 2019-2021** **Head of Molecular Genetics Laboratory**, Department of laboratory medicine, An-Najah National University Hospital, Nablus, Palestine.
We established this lab to focuss on diagnosing hematology diseases, leukemia and solid cancer employing molecular genetics and cytogenetic tools such as Q-PCR, Sanger sequencing and FISH.
- 2018-2019** **Fellowship** at San Raffaele hospital, Milan, Italy. Title of the fellowship was molecular genomics and cytogenetics diagnosis of clinical oncology and rare genetic diseases.
- 2014-2018** **Director of Central Research Laboratory**, Faculty of Medicine and Health Sciences, An-Najah National University, Nablus, Palestine. We established a lab, which is now composed of 5 units to serve the research at our faculty. The units are cell culture, molecular biology and genetics, physiology, microbiology and animal units.
- 2014-2020** **Assistant professor**, Division of Anatomy, Molecular Biochemistry and Genetics, Department of Biomedical Sciences, Faculty of Medicine and Health Sciences, An-Najah National University, Nablus, Palestine.
- 2010-2014** **Postdoctoral research fellow**, University Medical Centre Groningen, Groningen, the Netherlands.
- 2006-2010** **PhD in Medical Sciences**, Groningen University, Groningen, the Netherlands.
- 2004-2006** **Master in Medical and Pharmaceutical Drug Innovation**, Groningen University, Groningen, the Netherlands.
- 2003-2004** Research Assistant, Department of Biology, Al-Quds University, Abu Dees, Palestine. Research title: Genetic Diversity Studies on local Wheat Landraces.
Internship: Alamani Center–Palestine: Human in Vitro Fertilization (IVF).
- 1999-2003** **Bachelor in Biotechnology and Genetic Engineering**, Jordan University of Science and Technology, Irbid, Jordan.
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Teaching Experience

- 2014-present** **PhD courses:** Molecular diagnostic techniques and advanced Molecular diagnostics.
Master courses: Nutritional Physiology and Metabolism.
Undergraduate major courses: Medical Genetics, laboratory of medical genetics, Molecular biology for medical and health sciences students, laboratory of molecular biology for medical

and health sciences students, Biochemistry for medical and health sciences students, Clinical Biochemistry for nursing students, General Biology for medical and health sciences students.
Supervisor for undergraduate and graduate students and laboratory technicians.

2007-present **Supervisor** for undergraduate and graduate students and laboratory technicians.
2003-2004 **Teaching Assistant**, Department of Biology and Biotechnology, Arab American University, Jenin, Palestine.
Major lab-courses: molecular biology, cell and tissue culturing, genetics and general biology courses.

Career development

2023: continuing education: familial cancer counselling online courses at the University of Connecticut-school of medicine.

2023: the head of medical laboratory students' society. To develop medical laboratory students and broaden their horizon in their field. We organize many activities inside and outside the University.

Member of scientific committees for multiple international conferences.

July, 2019: DNA sequencing and fragment analysis workshop. ThermoFisher scientific, Dubai, UAE.

October, 2018: workshop on VinnaLab diagnostic products. ViennaLab diagnostics company, Vienna, Austria.

2018 - 2019: a fellowship in molecular genomics and cytogenetics diagnosis of clinical oncology and rare genetic diseases. San Raffaele hospital, Milan, Italy.

December, 2017: molecular diagnostics of cancer, King Hussein Cancer Center, Amman, Jordan.

December, 2016: cytogenetics analysis. MedLabs, Amman, Jordan.

December, 2015: cytogenetics analysis. MedLabs, Amman, Jordan

2014-November, 2016: circulating free DNA as a source of diagnostic biomarkers for pancreatic cancer. fellowship at Augusta Victoria Hospital, Jerusalem, Palestine

2014-2016: the head of International Federation of Medical Students Associations (IFMSA)

2010-2014: Postdoctoral research fellow, University Medical Centre Groningen, Groningen, the Netherlands. Research project title ' development of Bioartificial kidney'.

Significant Achievements

- **2017** Establishing the molecular diagnostic laboratory at the University hospital according to the international guidelines.
- **2014** Establishing central research laboratory according to the international guidelines. This lab is composed of 4 units; cell and tissue culture unit, molecular biology unit, microbiology unit and animal house.
- An oral presentation was selected as **one of the top talks** presented at the American Society of Nephrology conference, kidney week 2012, San Diego, California, USA. Hypertonicity Maintains a Differentiated Renal Epithelial Monolayer: a Promising Approach for Bioartificial Kidney.
- **Fellowship-2018** at San Raffaele hospital, Milan, Italy. Title of the fellowship was molecular genomics and cytogenetics diagnosis of clinical oncology and rare genetic diseases.
- **PALGER2017 grant:** Bilateral German-Palestinian Cooperation in Science & Research. In collaboration with Prof. Dr. Anke Hinney, University Duisburg, Essen, Germany
- **An-Najah National University first call grant, 2017**, An-Najah National University, Nablus, Palestine.
- **Postdoctoral fellowship**, University Medical Centre Groningen, Groningen University, Groningen, the Netherlands.
- **Ubbo Emmius Fellowship**, University Medical Centre Groningen, Groningen University, Groningen, the Netherlands.
- **GUIDE Beleidsruimte 2006 grant**, Graduate School for Drug Exploration, University Medical Centre Groningen, Groningen University, Groningen, the Netherlands.

- **Invited speaker** for the Conference of Biotechnology - Research and applications, Jerusalem, Israel, 2012. Hypertonicity Maintains a Differentiated Renal Epithelial Monolayer: a Promising Approach for Bioartificial Kidney.

Selected Publications (Citations > 2037, h index=15 and i10-index=18)

1. Yiran Zheng, Luisa Sophie Rajcsanyi, Manuela Kowalczyk, Johanna Giuranna, Beate Herpertz-Dahlmann, Jochen Seitz, Martina de Zwaan, Wolfgang Herzog, Stefan Ehrlich, Stephan Zipfel, Katrin Giel, Karin Egberts, Roland Burghardt, Manuel Föcker, Saad Al-Lahham, Johannes Hebebrand, Dagmar Fuhrer, Susanne Tan, Denise Zwanziger, Triinu Peters, Anke Hinney. Lipocalin 2—mutation screen and serum levels in patients with anorexia nervosa or obesity and in lean individuals. *Frontiers in Endocrinology*, Volume 14 - 2023 | <https://doi.org/10.3389/fendo.2023.1137308>
2. Yiran Zheng, Luisa Sophie Rajcsanyi, Beate Herpertz-Dahlmann, Jochen Seitz, Martina de Zwaan, Wolfgang Herzog, Stefan Ehrlich, Stephan Zipfel, Katrin Giel, Karin Egberts, Roland Burghardt, Manuel Föcker, Saad Al-Lahham, Triinu Peters, Lars Libuda, Jochen Antel, Johannes Hebebrand, Anke Hinney. PTBP2 – a gene with relevance for both Anorexia nervosa and body weight regulation. *Translational Psychiatry* 12 (1), 1-9.
3. Saad Al-Lahham, Zaher Nazzal, Ahmad Massarweh, Diana Saymeh, Sojoud Al-Abed, Donia Muhammad, Raghda Alawni, Noor Bouzya, Malik Alqub, Mustafa Ghanim, Nael Ellahham. Prevalence and associated risk factors of tinnitus among adult Palestinians: a cross-sectional study. *Sci Rep* 12, 20617 (2022). <https://doi.org/10.1038/s41598-022-24015-w>
4. Nawaf Al-Maharik, Nidal Jaradat, Mohammed Hawash, Saad Al-Lahham, Mohammad Qadi, Izzeddin Shoman, Shatha Jaber, Raghda Abdel Rahem, Fatimah Hussein, Linda Issa. Chemical Composition, Antioxidant, Antimicrobial and Anti-Proliferative Activities of Essential Oils of *Rosmarinus officinalis* from five Different Sites in Palestine. *Separations* 2022, 9(11), 339; <https://doi.org/10.3390/separations9110339>.
5. Saad Al-Lahham, Nidal Jaradat, Mohammad Altamimi, Ola Anabtawi, Alma Irshid, Malik AlQub, Majdi Dwikat, Fouad Nafaa, Lama Badran, Rawan Mohareb, Reema Haji, Tareq Aqqad, Sadeq Jayyab, Budour Abu Ghosh, Rina Taher and Hamzeh Al Zabadi. Prevalence of Underweight, Overweight and Obesity among Palestinian School-Age Children and the Associated Risk Factors: A Cross Sectional Study. *BMC Pediatr* 19, 483 (2019).
6. Sa'ad Al-Lahham and F. Rezaee. Propionic Acid Counteracts the inflammation of Human Subcutaneous Adipose Tissue: a new avenue for drug development. *DARU Journal of Pharmaceutical Sciences*. Daru. 2019 Dec;27(2):645-652.
7. Mohammad Qadi, Nidal Jaradat, Saad Al-Lahham, Iyad Ali, Murad N Abualhasan, Naser Shraim, Fatima Hussein, Linda Issa, Ahmed Mousa, Abdalraziq Zarour, Amani Badrasawi, Aseel M Baarah, Reem Al-Omari. [Antibacterial, Anticandidal, Phytochemical, and Biological Evaluations of Pellitory Plant](#). *BioMed Research International*, vol. 2020.
8. Saad Al-Lahham, Reem Sbieh, Nidal Jaradat, Motasem Almasri, Ahmed Mosa, Abdallah Hamayel, Faris Hammad. Antioxidant, antimicrobial and cytotoxic properties of four different extracts derived from the roots of *Nicotiana tabacum* L. *European Journal of Integrative Medicine*, Volume 33, January 2020, 101039.
9. Saad Al-Lahham, Nidal Jaradat, Mohammad Altamimi, Ola Anabtawi, Alma Irshid, Malik AlQub, Majdi Dwikat, Fouad Nafaa, Lama Badran, Rawan Mohareb, Reema Haji, Tareq Aqqad, Sadeq Jayyab, Budour Abu Ghosh, Rina Taher & Hamzeh Al Zabadi. Prevalence of underweight, overweight and obesity among Palestinian school-age children and the associated risk factors: a cross sectional study. *BMC Pediatrics* volume 19, Article number: 483 (2019)
10. Sa'ad Al-Lahham and F. Rezaee. Propionic Acid Counteracts the inflammation of Human Subcutaneous Adipose Tissue: a new avenue for drug development. *DARU Journal of Pharmaceutical Sciences* volume 27, pages645–652(2019).

11. Sa'ad Al-Lahham, Nidal Jaradat, Malik Al-Qub, Abdallah Hamayel, Abdalrahman Assaassa, Faris Hammad, Ahmed Mosa, Fouad Nafaa, Abdelkarem Barqawi, Ziad Abdeen. Lipopolysaccharide Influence on Leptin Hormone and TNF- α Release from Human Adipose Tissue. *Eur J. Infl.* 2018 May; 16, 1-5
12. Sa'ad Al-Lahham, Ashraf Sawafta, Nidal Jaradat, Fouad Nafaa, Abdelkarem Barqawi, Maha Nasir, Malek Al-Qub. Polar *Curcuma Longa* Extract Inhibits Leptin Release by Adipose Tissue Derived from Overweight and Obese People. *Eur J Inf.* 2017 Sep; 15(3):244-249
13. Sanjabi B, Dashty M, Özcan B, Akbarkhanzadeh V, Rahimi M, Vinciguerra M, van Rooij F, Al-Lahham S, Sheedfar F, van Kooten TG, Spek CA, Rowshani AT, van der Want J, Klaassen R, Sijbrands E, Peppelenbosch MP, Rezaee F. Lipid droplets hypertrophy: a crucial determining factor in insulin regulation by adipocytes. *Sci Rep.* 2015 Mar 6;5:8816.
14. Al-Lahham SH, Peppelenbosch MP, Roelofsen H, Vonk RJ, Venema K. Biological Effects of Propionic Acid in Humans; Metabolism, Potential Applications and Underlying Mechanisms. *Biochim Biophys Acta.* 2010 Nov;1801(11):1175-83.
15. Al-Lahham S, Roelofsen H, Rezaee F, Weening D, Hoek A, Vonk R, Venema K. Propionic Acid Affects Immune Status and Metabolism in Adipose Tissue From Overweight Subjects. *Eur J Clin Invest.* 2012 Apr; 42(4):357-64.
16. Meijer K, de Vries M, Al-Lahham S, Bruinenberg M, Weening D, Dijkstra M, Kloosterhuis N, van der Leij RJ, van der Want H, Kroesen BJ, Vonk R, Rezaee F. Human Primary Adipocytes Exhibit Immune Cell Function: Adipocytes Prime Inflammation Independent of Macrophages. *PLoS One.* 2011 Mar; 23;6(3):e17154.
17. Al-Lahham SH, Roelofsen H, Priebe M, Weening D, Dijkstra M, Hoek A, Rezaee F, Venema K, Vonk RJ. Regulation of Adipokine Production in Human Adipose Tissue by Propionic Acid. *Eur J Clin Invest.* 2010 May;40(5):401-7.
18. Alex S, Lange K, ..., Al-Lahham S, Roelofsen H, Houtman R, van der Burg B, Mandrup S, Bonvin A, Kalkhoven E, Müller M, Hooiveld G, Kersten S. Short Chain Fatty Acids Stimulate Angiopoietin-Like 4 Syntheses in Human Colonocytes by Selective PPAR γ Modulation. *Mol Cell Biol.* 2013 Apr;33(7):1303-16.
19. Jansen J, Schophuizen CM, Wilmer MJ, Lahham SH, Mutsaers HA, Wetzels JF, Bank RA, van den Heuvel LP, Hoenderop JG, Masereeuw R. A morphological and functional comparison of proximal tubule cell lines established from human urine and kidney tissue. *Exp Cell Res.* 2014 Apr 15;323(1):87-99. 1
20. Yuvaraj S, Al-Lahham SH, Somasundaram R, Figaroa PA, Peppelenbosch MP, Bos NA. E. coli-Produced BMP-2 as a Chemopreventive Strategy for Colon Cancer: A Proof-of-Concept Study. *Gastroenterol Res Pract.* 2012;2012:895462.
21. Yuvaraj S, Al-Lahham S, Marreddy RK, Dijkstra G, Wolken WA, Lolkema JS, Helfrich W, Johansen FE, Peppelenbosch MP, Bos NA. Human scFv SigA Expressed on *Lactococcus lactis* as a Vector for the Treatment of Mucosal Disease. *Mol. Nutr. Food Res.* 2008; 52, 913 – 920.

Computer Skills

Microsoft Office, GraphPad Prism, Genorm, In-Silico PCR, Roche Universal Primer Design, DAVID, STRING, TissueQuest, CellQuest, Kaluza, Winlist, SDS, IKAROS, ISIS, Chromas, SeqA, ViiA7 RUO, Varsome, franklin, illumina variant studio, Alamut, HGMD, GVG D, SIFT, mutation taster, IGV and polyphen-2 Softwares. In addition to online bioinformatic tools and databases.

Selected Oral Presentations in Conferences

1. Propionic Acid Counteracts the inflammation of Human Adipose Tissue and macrophages. S. Al-Lahham and Farhad Rezaee. First national conference on applied biomedical sciences, Arab American University, Jenin, Palestine, 2015.
2. Hypertonicity Maintains a Differentiated Renal Epithelial Monolayer: a Promising Approach for Bioartificial Kidney. The Palestinian Forum for Medical Research (PFMR), Nablus, Palestine, 2015.
3. Hypertonicity Maintains a Differentiated Renal Epithelial Monolayer: a Promising Approach for Bioartificial Kidney. American Society of Nephrology, kidney week 2012, San Diego, California, USA, 2012.
4. Optimizing Proximal Tubular Cells for Biological Kidney. European Tissue Repair Society ETRS, Amsterdam, the Netherlands, 2011.
5. Propionic Acid Stimulates Leptin Production in Human Adipose Tissue Through G-Protein Coupled Receptor(s). Annual Gut Day (Darmendag), Utrecht, the Netherlands, 2008.

Selected Poster Presentations in Conferences

1. Lipopolysaccharide Influence on Leptin Hormone and TNF- α Release from Human Adipose Tissue. S. Al-Lahham, Abdallah Hamayel, Abdalrahman Assaassa and Faris Hammad. The 10th International Palestinian Conference of Laboratory Medicine and The 15th Arab Conference of Clinical Biology, Ramallah, Palestine, 2017.
2. S. Al-Lahham and M. Nasir Polar *Curcuma Longa* Extract Inhibits Leptin Release by Adipose Tissue Derived from Overweight and Obese People. The 10th International Palestinian Conference of Laboratory Medicine and The 15th Arab Conference of Clinical Biology, Ramallah, Palestine, 2017.
3. The Influence of Extracellular Matrix Components on Conditionally Immortalized Human Proximal Tubule Cell Line 14.4. **S. Al-Lahham**, Saskia de Rond and Ruud Bank. BMM annual meeting, Ermelo, the Netherlands, 2011
4. Propionic Acid Stimulates Leptin Production In Human Adipose Tissue Through G-Protein Coupled Receptor(s). **S. Al-Lahham**, D. Weening, F. Rezaee, H. Roelofsen, K. Venema and R.J. Vonk. European Congress on Obesity, Amsterdam, the Netherlands, 2009.
5. Propionic Acid Stimulates Leptin Production In Human Adipose Tissue Through G-Protein Coupled Receptor(s). **S. Al-Lahham**, D. Weening, F. Rezaee, H. Roelofsen, K. Venema and R.J. Vonk. Keystone symposia Type 2 Diabetes, Insulin Resistance and Obesity: Novel Aspects of the Regulation of Body Weight, Banff, AB, Canada, 2009.
6. Apoptosis Induction to Colon Cancer Cell by Recombinant BMP-2. **S. Al-Lahham**, S. Yuvaraj, W. Helfrich, L.F.M.H de Leij, M.P. Peppelenbosch, and N. A. Bos. GUIDE early summer meeting, Groningen, the Netherlands, 2005.

Papers under preparation

1. Determining prevalence and landscape of JAK2 mutations and its risk factors among essential Polycythemia Vera cancer patients in the north of Palestine.
2. Determining prevalence and landscape of Calreticulin mutations and its risk factors among essential thrombocythemia and primary myelofibrosis cancer patients in the north of Palestine.
3. The effect of Ramadan fasting on body composition and components of metabolic syndrome among apparently healthy university students: a quasi experimental study. in preparation
4. Phytochemical screening and pharmacological activities of various fractions derived from *Ephedra foeminea* aerial parts. In preparation
5. Antioxidant, Antimicrobial and Cytotoxic Properties of Four Different Fractions Derived from the Aerial Parts of *Urginea maritime*. In preparation
6. The relation between Birth Weight and BMI in Adult Palestinians. In preparation

Research projects in progress

1. Association of Genetic Variants of MC4R Gene with Obesity and Metabolic Syndrome among School-Age Palestinian Children.
2. Screening for MPL gene mutations among essential thrombocythemia and primary myelofibrosis cancer patients in the north of Palestine.

3. Determining prevalence and landscape of EGFR mutations and its risk factors among lung cancer patients in the north of Palestine.
4. Determining prevalence and landscape of EGFR mutations and its risk factors among lung and colorectal cancer patients in the north of Palestine.
5. Epidemiology of Multiple Myeloma in the West Bank of Palestine