Refat M. Nimer, Ph.D, SC (ASCP[i])
Clinical Biochemistry

PERSONAL INFORMATION

Name:	Refat M. Nimer
Date of Birth:	January 10, 1977
Nationality:	Jordanian
Marital Status:	Married with three children
Work Address:	Department of Medical Laboratory Sciences Faculty of Applied Medical Sciences Jordan University of Science and Technology (JUST) P.O. Box 3030-Irbid-22110-Jordan Telephone: +962-27201000
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Linkedin	https://www.linkedin.com/in/refat-nimer-b4851a36/
ResearchGate	https://www.researchgate.net/profile/Refat-Nimer
Google Scholar	https://scholar.google.com/citations?user=VLIT3VQAAAAJ&hl=en

SUMMARY STATEMENT

I'm currently an Associate Professor in the Department of Medical Laboratory Sciences at the Faculty of Applied Medical Sciences, Jordan University of Science and Technology (JUST). I hold certification as a Medical Laboratory Specialist (MLS) from the Ministry of Health in Jordan. I obtained my B.Sc. in Medical Technology from the Faculty of Medicine at JUST in 2001 and my master's degree in clinical Biochemistry in 2006 from JUST. From 2001 to 2012, my professional journey led me through various roles—from Medical Technologist to Laboratory Supervisor and Lab Director—in diagnostic labs, hospitals, and clinics across Jordan, Kuwait, and Saudi Arabia. In 2012, I was awarded a German **Academic Exchange Service (DAAD) scholarship** to pursue my Ph.D. at the University Medical Center Hamburg-Eppendorf in Germany. In 2018, I joined JUST as a faculty

member. I hold the American Society of Clinical Pathology board as **Specialist in Clinical Chemistry, SC (ASCP[i]).**

I **have published several papers in peer-reviewed journals (Q1 and Q2)** and successfully supervised and co-supervised the research projects of 10 master's students since 2019 with a total funding of USD 80,934. In my research, I focus on using multi-omics methods such as proteomics and metabolomics in biomarker discovery of several types of diseases, such as cystic fibrosis, renal failure, and neurodegenerative. In addition, I'm interested in applying state-of-the-art instruments and technologies to aid in understanding the pathophysiology of several diseases as well as the role of vitamins in such diseases. Many of my graduates and master's students have gone to work as lab assistants, teachers, researchers, or in other leading roles at reputable institutions, while others have pursued their Ph.D. I am passionate about teaching and have taught more than 1500 students since 2018 from different faculties, including Medicine, Veterinary Medicine, Science, and Applied Medical Sciences. My courses cover a range of subjects, such as clinical biochemistry, medical laboratory management, endocrinology, and scientific research. In the classroom, I like to engage my students using various teaching styles like discussion, problem-solving activities, and critical thinking. I believe that all students have the potential to succeed, and I am committed to helping them reach their full potential.

EDUCATION

April 2013– Feb. 2017 **Ph.D. in Clinical Biochemistry**
University Medical Center Hamburg-Eppendorf (UKE), Hamburg University (Germany)- Clinical Chemistry / Central Laboratories
Thesis Title: "Efficiency of tissue homogenization via picosecond infrared Laser (PIRL) and mechanical homogenization as sample preparation step for proteomics."

Feb. 2003– June 2006 **M.Sc. in Medical Laboratory Sciences/ Clinical Biochemistry**
Jordan University of Science & Technology, Jordan

Sep. 1996– June 2001 **B.Sc. in Medical Laboratory Sciences**
Jordan University of Science & Technology, Jordan

ACADEMIC/TEACHING EXPERIENCE

Sep. 2024 - Present	**Associate Professor** Department of Medical Laboratory Sciences Faculty of Applied Medical Sciences Jordan University of Science and Technology, Jordan
Oct. 2018- Sep. 2024	**Assistant Professor** Department of Medical Laboratory Sciences Faculty of Applied Medical Sciences Jordan University of Science and Technology, Jordan
Sep. 2017- Sep.2018	**Assistant Professor** Department of Medical Laboratories Faculty of Health Sciences American University of Madaba (AUM), Jordan
April 2010- May 2012	**Lecturer** Department of Medical Laboratory Technology Faculty of Applied Medical Sciences Tabuk University – Kingdom of Saudi Arabia (KSA)
Feb. 2003- June 2004	**Teacher Assistant (part-time)** Department of Medical Laboratory Sciences Faculty of Applied Medical Sciences Jordan University of Science and Technology, Jordan

ACADEMIC DUTIES

A) Teaching and conducting examinations.

B) Carrying out innovative research and studies.

C) Supervising graduate theses and scientific or social research, guiding students academically and ethically, and monitoring their activities and reports.

D) Providing academic advising.

E) Participating in university councils and committees, as well as in those in which the university is represented.

F) Undertaking any activity that promotes the university and contributes to its advancement.

G) Dedicating oneself to academic responsibilities within the university, striving to enhance its scientific mission, and maintaining the level befitting its status in research, teaching, guidance, and administration.

H) Serving the community and contributing to its development.

RESEARCH EXPERIENCE

Oct. 2018- Present	**Researcher** Department of Medical Laboratory Sciences Faculty of Applied Medical Sciences Jordan University of Science and Technology, Jordan
Sep. 2017- Sep.2018	**Researcher** Department of Medical Laboratories Faculty of Health Sciences American University of Madaba, Jordan
Oct. 2012- Feb. 2017	**PhD-scholar** Group of Mass Spectrometric Proteomics Department of Clinical Chemistry and Laboratory Medicine Faculty of Medicine University Medical Center Hamburg-Eppendorf (UKE), Hamburg University, Germany
April 2010-May 2012	**Lecturer** Department of Medical Laboratory Technology Faculty of Applied Medical Sciences Tabuk University – Kingdom of Saudi Arabia (KSA)
Feb. 2003-June 2006	**Graduate Student** MSc program in Medical Laboratory Sciences/ Clinical Biochemistry Faculty of Applied Medical Sciences Jordan University of Science and Technology, Jordan

CLINICAL LABORATORY EXPERIENCE

June 2006-Present	**Certified Medical Laboratory Specialist (MLS)** Ministry of Health, Jordan
Feb. 2007-April 2010	**Senior Medical Laboratory Technologist/ Endocrinology Specialists** Inaya German Medical Center, Salmiya, Kuwait
Sep. 2001-Feb. 2007	**Medical Laboratory Technologist (MLT)** Al-Khalidi Hospital, Amman- Jordan

April 2010-May 2012 **Medical Laboratory Technologist (MLT) (part-time)**
Ammoun Medical Laboratory, Amman- Jordan

COURSES TAUGHT AND SUPERVISED

Course title	Course number	Credit hours
Clinical Biochemistry I	LM311	2
Clinical Biochemistry II	LM312	2
Clinical Biochemistry I	LM321	4
Advanced Clinical Biochemistry I	LM723	3
Advanced Clinical Biochemistry II	LM724	3
Advanced Clinical Biochemistry III	LM725	3
Advanced Biochemistry	LM721	3
Advanced Clinical Chemistry Practical Training I	LM728	3
Advanced Clinical Chemistry Practical Training II	LM729	3
Biochemistry Hospital Laboratory Practice	LM474	4
Hormones and Endocrine Glands	LM212	2
Micro Techniques	LM200	2
Scientific Research Methods	LM491	1
Research Project	LM493	2
Field Training	LM460	17
Clinical Biochemistry (1)	0301331 at AUM	2
Clinical Biochemistry (2)	0301332 at AUM	2
Clinical Biochemistry Lab (1)	0301336 at AUM	1
Clinical Biochemistry Lab (2)	0301337 at AUM	1
Analysis of Body Fluids Lab	0301227 at AUM	1
Clinical Lab Orientation and Safety	0301281 at AUM	2
Clinical Immunology and Serology	0301451 at AUM	3
Clinical Immunology and Serology Lab	0301456 at AUM	1
Laboratory Management & Quality System	0301381 at AUM	2
Clinical Endocrinology	0301424 at AUM	2

COMMITTEE MEMBERSHIPS

2025	Chairperson of the Committee for Graduate Affairs Follow-up
2025	Member of the internship committee at the Department of Medical Laboratory Sciences.
2023-present	Member of the graduate studies committee at the Department of Medical Laboratory Sciences.
2022-2023	Member of the students' affairs committee at the Faculty of Applied Medical Sciences, Jordan University of Science and Technology.
2020-present	Member of the scientific research committee at the Department of Medical Laboratory Sciences.
2022-present	Member of the curriculum accreditation committee.
2020-2021	Member of the curriculum accreditation committee.
2018-2019	Member of the curriculum accreditation committee.
2022-2023	Department representative at the faculty council. Faculty of Applied Medical Sciences, Jordan University of Science and Technology.
2022-2023	Member of the field training committee. Faculty of Applied Medical Sciences, Jordan University of Science and Technology.
2018-2021	Member of scientific activities and community service committee at the Department of Medical Laboratory Sciences.
2019-2020	Member of the scientific research committee at the Department of Medical Laboratory Sciences.
2019-2020	Member of the curriculum accreditation committee at the Department of Medical Laboratory Sciences.
2017-2018	Member of the Website Committee & Yearbook at AUM

JOURNAL REVIEWER ACTIVITIES

- Jordan Journal of Biological Sciences (JJBS)

- Scientific Reports, Published by Nature Publishing Group
- Saudi Journal of Biological Sciences, Elsevier
- Journal of Physiology and Biochemistry, Springer
- Frontiers in Cellular and Infection Microbiology
- The European Journal of Pharmacology
- Diabetes, Obesity and Metabolism

RESEARCH INTERESTS

- Mass spectrometry-based proteomics, metabolomics, and lipidomics for biomarkers discovery.
- Using advanced analytical strategies such as mass spectrometry and infrared microspectroscopy to aid in the understanding of biomedical problems such as metabolic, genetic, cancer, and infectious diseases.
- Studying the mechanisms underlying the pathogenesis of several diseases by adopting different proteomic, metabolomic, and lipidomic approaches.
- LC-MS/MS for quantitative analysis of proteins (Label-free quantification, iTRAQ, TMT, SILAC, MRM, SRM).
- The role of hypoxia in cancer progression, angiogenesis, metastasis, and resistance to therapy.
- The role of inflammation and oxidative stress in diseases.
- Anticancer activity of certain natural products and drugs.
- *Other interests: vitamins, trace elements, newborn screening tests, Infection control, quality control, and management in clinical chemistry and laboratory medicine.*

TECHNICAL SKILLS

- Several routines (function tests: kidney, liver, cardiac, and pancreatic) and special tests (TDM, hormones, vitamins, trace elements, and tumor markers) in clinical chemistry using various instruments such as Cobas Integra, Cobas Mira, AVL, Siemens, and Elecsys.

- Ion selective electrode (ISE), Radioimmunoassay (RIA), Chemiluminescence Immunoassay (CLIA), Electrochemiluminescence immunoassay (ECLIA), and fluorescence polarization immunoassay (FPIA)

- Mass Spectrometry (MS) and Liquid Chromatography-Mass Spectrometry (targeted & untargeted analysis)
- Metabolomics
- Top-Down and Bottom-Up (Shotgun) Proteomics
- Quantitative Proteomics
    - Label-free quantification (data-dependent acquisition and data-independent acquisition)
    - Isobaric tags for relative and absolute quantitation (iTRAQ)
    - Tandem Mass Tags (TMT)
    - Stable Isotope Labelling by/with Amino acids in Cell culture (SILAC)
    - Multiple reaction monitoring (MRM)
    - Selective Reaction Monitoring (SRM)
    - Data-Independent Acquisition (DIA)
    - Data-Dependent Acquisition (DDA)
- Protein Separation
    - DIGE – Differential Gel Electrophoresis
    - Two-dimensional gel electrophoresis (2-DE)
    - SDS-PAGE
- Mass Spec Data Analysis using proteomic software and database search engines: Proteome Discoverer (Thermo Scientific), ProteinLynx Global (Waters Corporation), OpenMS, Mascot search algorithm, Sequest search algorithm (Thermo Scientific), and MaxQuant.
- Protein digestion (in-gel and in-solution)
- Phosphopeptides enrichment technique (i.e.: TiO2)
- Peptides Desalting
- Matrix-Assisted Laser Desorption Ionization (MALDI) and Electrospray Ionization (ESI) Mass Spectrometry (MS)
- LC-MS/MS using Q-TOF, Orbitrap Fusion, Orbitrap Q-Exactive mass spectrometry
- Protein Extraction
- Separation of peptides (i.e., reverse phase chromatography)
- High-performance liquid chromatography (HPLC)
- Database searching
- Proteomics data Processing, interpretation, and visualization
- Cell culture techniques

- Nephelometry & Turbidometry techniques
- Atomic absorption spectrometer
- IR spectroscopy and microspectroscopy
- Western Blot
- ELISA

LANGUAGES

Mother tongue	Arabic
Other language(s)	English (professional working proficiency)
	German (professional working proficiency)

AWARDS/HONORS

Oct. 2012- Sep. 2016	Doctoral scholarship funding grant German Academic Exchange Service (DAAD), Germany.

MEMBERSHIPS AND AFFILIATIONS

2024-Present	American Society of Clinical Pathology Board as Specialist in Clinical Chemistry, SC (ASCP[i])
2022- Present	Association of Jordanian Medical Laboratory Specialists (AJMLS)
2018-Present	Association for Diagnostics & Laboratory Medicine (ADLM, formerly the American Association for Clinical Chemistry (AACC)
2018-Present	Medical Technology and Laboratory Society (MTLS)
2018-2019	American Society for Biochemistry and Molecular Biology (ASBMB)
2016-2020	German Society for Mass Spectrometry (DGMS)

WORKSHOPS AND TRAINING COURSES

June. 2024	"Advances in Clinical Laboratory Quality Control Practices". **As a Lecturer.** Jordan University of Science and Technology.
July. 2024	"Application of Liquid Chromatography - Tandem Mass Spectrometry: (LC-MS/MS) in Clinical Diagnostic Laboratories". **As a Lecturer.** Trust Academy.
Sep. 2023	"Research Integrity Academic" Development and Quality Assurance Center. Jordan University of Science and Technology.
Sep. 2023	"Measuring and Analyzing Students' Outcomes" Academic Development and Quality Assurance Center. Jordan University of Science and Technology
March. 2022	12th Synchrotron-Light for Experimental Science and Applications in the Middle East (SESAME) Users' Meeting, Zarqa University, Attendee.
Feb. 2021	"CRITICAL THINKING AND CREATIVE THINKING" Academic Development and Quality Assurance Center. Jordan University of Science and Technology
Jan. 2021	"Introductory Liquid Chromatography-Mass Spectrometry for the Clinical Laboratory (online)". The American Association for Clinical Chemistry (AACC). USA
Sep. 2019	Successful completion of "Biorisk Management" online course administered by Frontline Healthcare Workers Safety Foundation, Fort Worth, TX, USA
Sep. 2019	"Statistical Package for Social Sciences" workshop; Academic Development and Quality Assurance Center. Jordan University of Science and Technology.
April 2018	"Horizon 2020 workshop" The Higher Council for Science and Technology. Jordan
Oct. 2015– Feb. 2016	"Proteomics and Mass Spectrometry Course" University Medical Center Hamburg-Eppendorf. Germany

Feb. 2015	"Statistics course" University Medical Center Hamburg-Eppendorf. Germany
Jan. 2015	"Managing Projects Successfully," University Medical Center Hamburg-Eppendorf. Germany
Oct. 2014	"Project management" University Medical Center Hamburg-Eppendorf. Germany
Oct. 2014	"Get writing! English for Science and Technology" Deutsches Elektronen-Synchrotron (DESY). Germany
Oct. 2014	"Proteomics and Mass Spectrometry," University Medical Center Hamburg-Eppendorf. Germany
Oct. 2014– Feb. 2015	"Applied Research Skills Course" University Medical Center Hamburg-Eppendorf. Germany
Sep. 2014	"Publishing Research Articles" University Medical Center Hamburg-Eppendorf. Germany
May 2014	Training course in Orbitrap Fusion and Q Exactive Operation; Thermo Scientific Sales Support Team. University Medical Center Hamburg-Eppendorf. Germany
April 2014	"Presentation Skills for Science and Research," University Medical Center Hamburg-Eppendorf. Germany
Oct. 2012– Feb. 2013	"Chromatography Course" University Medical Center Hamburg-Eppendorf. Germany
April 2012- May 2012	Molecular Biology, Immunology, and Chromatography Training Course Jordan Company for Antibody Production. Jordan
July 2006– Aug. 2006	"Quality Control Course" Al Khalidi Medical Center. Jordan
Feb. 2004	Molecular Diagnosis of Genetic and Viral Diseases, completed a 60 hours' workshop; Jordanian Genes Society in collaboration with the Ministry of Health. Jordan
March 2001– June 2001	Training course in Medical Laboratory Technologist (MLT) Princess Basma Hospital, medical laboratory. Jordan
Dec. 2000– Feb.	Training course in Medical Laboratory Technologist (MLT) at Al-

2001	Basheer Hospital, medical laboratory. Jordan
Oct. 2000– Nov. 2000	Training course in Medical Laboratory Technologist (MLT) Jordan University Hospital, medical laboratory. Jordan

PUBLICATIONS

1. **Nimer, R. M**.; Bani Ahmad, M. A.; Alhabbal, E. A.; Obeidat, M. A., Assessment of lipid peroxidation markers in type 2 diabetes patients with and without diabetic kidney disease. Journal of Medicinal and Pharmaceutical Chemistry Research 2026, 8 (2), 220-232. doi: 10.48309/jmpcr.2026.510326.1621 (**Scopus Q2)**

2. **Nimer, R. M.** and A. M. A. Rahman (2025). Mass Spectrometry-Based Proteomics in Precision Medicine. Diagnostic Advances in Precision Medicine and Drug Development, CRC Press: 25-35. (**Scopus Q1)**

3. **Nimer, R. M., et al. (2025).** Integrated Multi-omics Approaches for Studying Rare Genetic Diseases. Activity-Based Proteomics: Methods and Protocols. Z. Tao. New York, NY, Springer US: 31-56. (**Scopus Q1)**

4. **Nimer, R. M**.; Arjah, S.; Obeidat, M.; Jaradat, S. A.; Zenati, R. A.; Bustanji, Y.; Semreen, M. H.; Dahabiyeh, L. A., Untargeted LC-MS/MS- based metabolomics profiling of colorectal cancer cell lines reveals potential hypoxia-associated biomarkers. *Journal of Pharmaceutical and Biomedical Analysis* **2025,** *263*, 116912. doi: https://doi.org/10.1016/j.jpba.2025.116912. (**Scopus Q1)**

5. **Nimer, R. M**.; Nazazleh, H. A.; Al-Husein, B. A.; Abdelrazig, S.; Elsalem, L.; Dahabiyeh, L. A., LC-MS/MS-based proteomics and metabolomics of HCT-116 colorectal cancer cells: A potential anticancer activity of atorvastatin. PHARMACIA 2025, 72, 1-13. **(Scopus Q2)**

6. H. Benabdelkamel, **R.M. Nimer**, A. Masood, M. Al Mogren, A.M. Abdel Rahman, A.A. Alfadda, Multiple Reaction Monitoring–Mass Spectrometric Immunoassay Analysis of Parathyroid Hormone Fragments with Vitamin D Deficiency in Patients with Diabetes Mellitus, Proteomes, 12 (2024) 30. **(Scopus Q2)**

7. M. Mujammami, **R.M. Nimer**, M. Al Mogren, R. Almalki, M.S. Alabdaljabar, H. Benabdelkamel, A.M. Abdel Rahman, Metabolomics Panel Associated with Cystic Fibrosis-Related Diabetes toward Biomarker Discovery, ACS Omega, 9 (2024) 32873-32880. **(Scopus Q1)**

8. M. Alwahsh, **R.M. Nimer**, L.A. Dahabiyeh, L. Hamadneh, A. Hasan, R. Alejel, R. Hergenröder, NMR-based metabolomics identification of potential serum biomarkers of disease progression in patients with multiple sclerosis, Scientific Reports, 14 (2024) 14806. **(Scopus Q1)**

9. L.A. Dahabiyeh, **R.M. Nimer**, J.D. Wells, E.Y. Abu-Rish, O. Fiehn, Diagnosing Parkinson's disease and monitoring its progression: Biomarkers from combined GC-TOF MS and LC-MS/MS untargeted metabolomics, Heliyon, 10 (2024) e30452. **(Scopus Q1)**

10. **Nimer, R.M**., et al., Label-free quantitative proteomics analysis for type 2 diabetes mellitus early diagnostic marker discovery using data-independent acquisition mass spectrometry (DIA-MS). Scientific Reports, 2023. **13**(1): p. 20880. **(Scopus Q1)**

11. L.A. Dahabiyeh, **R.M. Nimer**, Metabolomics: A Pipeline for Biomarker Discovery in Genetic Diseases, in: A.M. Abdel Rahman (Ed.), Clinical Metabolomics Applications in Genetic Diseases, Springer Nature Singapore, Singapore, 2023, pp. 43-69. **(book chapter)**

12. **R.M. Nimer**, A.M. Abdel Rahman, Recent advances in proteomic-based diagnostics of cystic fibrosis, Expert Rev Proteomics 20(7-9) (2023) 151 169.10.1080/14789450.2023.2258282. **(Scopus Q2)**

13. H.M. Kofahi, B.R. Badran, **R.M. Nimer**, A.M. Atoom, S.M. Al Hersh, Exploring the Effects of Vitamin D and Vitamin A Levels on the Response to COVID-19 Vaccine, Vaccines (Basel) 11(9) (2023).10.3390/vaccines11091509. **(Scopus Q2)**

14. Dahabiyeh LA, **Nimer RM**, Rashed M, Wells JD, Fiehn O. Serum-Based Lipid Panels for Diagnosis of Idiopathic Parkinson's Disease. Metabolites, 13(9), 990 (2023). **(Scopus Q2)**

15. A. K. Malkawi, **R. M. Nimer**, M. Almogren, A. Masood, A. S. Alarfaj, H. Benabdelkamel, et al. Quantitative Analysis of Soluble Costimulatory Molecules as Potential Diagnostic Biomarkers for Rheumatoid Arthritis using LC-MS/MS in MRM Mode. Clinica Chimica Acta 2023 Pages 117501. DOI: https://doi.org/10.1016/j.cca.2023.117501. **(Scopus Q1)**

16. Dahabiyeh LA, **Nimer RM**, Sumaily KM, et al. Metabolomics profiling distinctively identified end-stage renal disease patients from chronic kidney disease patients. Scientific Reports. 2023;13(1):6161, doi:10.1038/s41598-023-33377-8. **(Scopus Q1)**

17. Alodaib AN, **Nimer RM**, Alhumaidy R, et al. Biomarker discovery in galactosemia:

Metabolomics with UPLC/HRMS in dried blood spots. Frontiers in Molecular Biosciences. 2023;10, doi:10.3389/fmolb.2023.1154149. **(Scopus Q1)**

18. Jacob, M.; **Nimer, R.M.;** Alabdaljabar, M.S.; Sabi, E.M.; Al-Ansari, M.M.; Housien, M.; Sumaily, K.M.; Dahabiyeh, L.A.; Abdel Rahman, A.M. Metabolomics Profiling of Nephrotic Syndrome towards Biomarker Discovery. *International Journal of Molecular Sciences* **2022**, *23*, 12614. **(Scopus Q1)**

19. Kofahi HM, Swedan SF, Khabour OF, **Nimer RM**. Predictors of COVID-19 severity and hospitalization: A survey-based study from Jordan. Informatics in Medicine Unlocked. 2022;31:100994, doi:https://doi.org/10.1016/j.imu.2022.100994. **(Scopus Q1)**

20. **Nimer, R.;** Khabour, O.; Swedan, S.; Kofahi, H., Effect of natural products use prior to infection with COVID-19 on disease severity and hospitalization: A self-reported cross-sectional survey study. F1000Research 2022, 11 (639). **(Scopus Q1)**

21. **Nimer, R. M.**; Sumaily, K. M.; Almuslat, A.; Abdel Jabar, M.; Sabi, E. M.; Al-Muhaizea, M. A.; Abdel Rahman, A. M., Dystrophin Protein Quantification as a Duchenne Muscular Dystrophy Diagnostic Biomarker in Dried Blood Spots Using Multiple Reaction Monitoring Tandem Mass Spectrometry: A Preliminary Study. Molecules 2022, 27 (12), 3662. **(Scopus Q1)**

22. Sumaily, K. M.; **Nimer, R**.; Alzahrani, M.; Abdel Jabar, M.; Alodib, A.; Sabi, E. M.; Nizami, I.; Abdel Rahman, A. M., CFTR protein quantification as a cystic fibrosis diagnostic biomarker in dried blood spots using multiple reaction monitoring tandem mass spectrometry. *Journal of Pharmaceutical and Biomedical Analysis* **2022,** *216*, 114801. **(Scopus Q1)**

23. **Nimer, R**.; Khabour, O.; Swedan, S.; Kofahi, H., The impact of vitamin and mineral supplements usage prior to COVID-19 infection on disease severity and hospitalization. Bosn J Basic Med Sci 2022. **(Scopus Q1)**

24. **Nimer, R.**; Kamel, G.; Obeidat, M. A.; Dahabiyeh, L. A., Investigating the molecular structure of plasma in type 2 diabetes mellitus and diabetic nephropathy by synchrotron Fourier-transform infrared microspectroscopy. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 2022, 264, 120259. **(Scopus Q1)**

25. W. J Al-Awaida, B. Jawabrah Al Hourani, S. Swedan, **R. Nimer**, F. Alzoughool, H. J Al-Ameer, et al. Correlates of SARS-CoV-2 Variants on Deaths, Case Incidence and Case Fatality Ratio among the Continents for the Period of 1 December 2020 to 15 March 2021. Genes 2021 Vol. 12 Issue 7 Pages 1061. **(Scopus Q2)**

26. **R. Nimer**, S. Swedan, H. Kofahi and O. Khabour. Increased Adherence to Infection Control Practices Among Medical Laboratory Technicians During the COVID-19

Pandemic: A Self-Reported Survey Study. Annals of Global Health 2021 Vol. 87 Issue 1. **(Scopus Q1)**

27. Alloubani A, **Nimer R**, Samara R. Relationship between Hyperlipidemia, Cardiovascular Disease and Stroke: a Systematic Review. Current Cardiology Reviews. 2020. **(Scopus Q2)**

28. AL-AWAIDA WJ, AL-AMEER HJ, ABOUSENNA MS, **NIMER R**, AL-ASASFEH HO, EVGENIEVICH SA, et al. SARS-Cov-2 Genomic Variations Among Isolates from Jordanian Patients. International Journal of Pharmaceutical Research. 2020;12(2).

29. Kwiatkowski M, Wurlitzer M, Krutilin A, Kiani P, **Nimer R**, Omidi M, et al. Homogenization of tissues via picosecond-infrared laser (PIRL) ablation: Giving a closer view on the in-vivo composition of protein species as compared to mechanical homogenization. Journal of proteomics. 2016;134:193-202. **(Scopus Q1)**

30. Kwiatkowski M, Wurlitzer M, Omidi M, Ren L, Kruber S, **Nimer R**, et al. Ultrafast extraction of proteins from tissues using desorption by impulsive vibrational excitation. Angewandte Chemie International Edition. 2015;54(1):285-8.

For the latest information on the status of publications, please access to my website:

http://www.just.edu.jo/eportfolio/Pages/Default.aspx?email=rmnimer

POSTERS/ABSTRACTS/CONFERENCES

2025 **Oral presentation:** " Label-free quantitative serum proteomics reveals candidate biomarkers associated with recently diagnosed, preclinical type 2 diabetes mellitus (T2DM)". The 3rd Qatar Proteomics Conference. Weill Cornell Medicine - Doha, Qatar.

2023 **Oral presentation:** "Analysis and Quantification of Diagnostic Protein Biomarkers in Dried Blood Spots Using Multiple Reaction Monitoring Tandem Mass Spectrometry (MRM-MS)". Association of Jordanian Medical Laboratory Specialists (AJMLS) Scientific Day (2) for Laboratorians. Amman, Jordan.

2023 **Poster:** Lina Dahabiyeh, Jeremiah D Wells, **Refat Nimer**, Oliver Fiehn. Combined GC-TOF-MS and LC-TOF-MS/MS Untargeted Metabolomics Yields Insight into Pathophysiology of Parkinson's Disease. 71st American Society for Mass Spectrometry Conference in Houston 2023, USA

2023 **Poster:** Ahmad Alodaib, **Refat Nimer**, Reem AlMalki, Rawan Alhumaidy, Alaa Alhenaky, Anas Abdel Rahman. METABOLOMICS AS A PROMISING TOOL FOR IMPROVING UNDERSTANDING OF GALACTOSEMIA. 44th Annual Meeting, SOCIETY FOR INHERITED METABOLIC DISORDERS, Utah-USA

2022 **Oral Presentation: Refat M. Nimer**, Heba A. Nazazleh, Belal A. Al Husein, Lina M. Elsalem. "Label-free Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)-Based Proteomics for Investigating the Effect of Statins in Colorectal Cancer Cells". International Conference of Applied Chemistry and Biotechnology, Amman, Jordan, May 2022.

2019 **Oral presentation:** "Closer towards the study of the native state of proteomics for discovery of diagnostic biomarkers ". Association of Jordanian Medical Laboratory Specialists (AJMLS) Scientific Day (1) for Laboratorians. Amman, Jordan.

2016 **Poster: Refat Nimer**, Marcel Kwiatkowski, Nils-Owe Hansen, R.J.Dwayne Miller, Hartmut Schlüter."Efficiency of tissue homogenization via picosecond- infrared Laser (PIRL) and classical homogenization as sample preparation step for proteomics". 49th Annual Meeting of the German Society for Mass Spectrometry (DGMS) in Hamburg, Germany, 28th February-2nd March 2016.

2015 **Poster**: H Schlueter, M Kwiatkowski, M Wurlitzer, **R Nimer**, H Petersen, S Kruber, R.J. Dwayne Miller. Cold vaporization of tissue with a pico-second infrared laser for protein species extraction.2015 August, AMINO ACIDS 47 (8), 1672-1673.

2015 **Poster:** Hartmut Schlüter; Marcel Kwiatkowski; **Refat Nimer**; Marcus Wurlitzer; Sebastian Kruber; Nils-Owe Hansen; R.J. Dwayne Miller." Closer towards the native state of proteomes via quantum mechanical protein extraction". 63rd American Society for Mass Spectrometry (ASMS) Conference, 31 May-4 June 2015, Saint Louis, USA.

2015 **Poster: Refat Nimer**, Marcel Kwiatkowski, Sebastian Kruber, R. J. Dwayne Miller, Hartmut Schlüter." Investigation of the composition of

protein mixtures extracted from muscle tissue with a picoseconds infrared laser" 48th Annual Meeting of the German Society for Mass Spectrometry (DGMS) in Wuppertal, Germany, March 1-4,2015.

2015 **Oral presentation: Refat Nimer**, R.J.Dwayne Miller, Hartmut Schluter. "Comparison by differential proteomics of protein extraction from muscle tissue by a picosecond-infrared-laser versus a classical method" University Medical Center Hamburg-Eppendorf Graduate Day, February 26th,2015.

FUNDED RESEARCH

The **16 research projects** included supervision and co-supervision of 10 MSc students from 2019 to 2023, and were funded a total of **80,934$**.

2024-present Association between Thyroid Hormones and Metabolic Alterations among Patients with Asthma, Chronic Obstructive Pulmonary Disease, and Asthma-Chronic Obstructive Pulmonary Disease Overlap. Deanship of Scientific Research, Jordan University of Science and Technology. **Principal investigator**; MSc thesis for Sara Irsheidat; 6,040.0$; Active

2024-present Characterizing Metabolomic Signatures Associated with Insulin Resistance and Type 2 Diabetes Mellitus in Ischemic Heart Disease. Deanship of Scientific Research, Jordan University of Science and Technology. **Principal investigator**; MSc thesis for Hanan Makableh ;6,000 $; Active

2023-present Assessment of Knowledge, Attitude, and Practices related to Routine Laboratory checkups in the Jordanian Society. Deanship of Scientific Research, Jordan University of Science and Technology. **Principal investigator**; non-thesis personal research; 3,385.0 $; Active

2023-present Comparative Metabolomic Profiling for Identification of Novel Biomarkers and Mechanisms Related to Primary Hypothyroidism. Deanship of Scientific Research, Jordan University of Science and Technology. **Principal investigator**; MSc thesis for Renad Al Haija ;7,757$; Active

2022-present Proteomic profiling of colorectal cancer cell lines for identification of hypoxia-associated biomarkers. Deanship of Scientific Research, Jordan University of Science and Technology. **Principal investigator**; MSc thesis for Randa Wael Ananzeh;

	7,757$; **Completed**
2022-present	Distinctive Metabolomic Profiles to differentiate High-Risk Basal Cell Carcinoma Subtype from Low-Risk Basal Cell Carcinoma. Deanship of Scientific Research, Jordan University of Science and Technology. **Principal investigator**; MSc thesis for Omaymah Bany Ahmad; 7,686$; Active
2022-present	Insights into the pathophysiology of Parkinson's disease: an investigation using integrated omics approaches and Synchrotron Fourier-transform infrared microspectroscopy. Deanship of Scientific Research, Jordan University. **Co-principal investigator;** 26,234$; Active
2022-present	TIMAP knockdown- mediated Proteomic and Phospho-proteomic profile of Burkitt's Lymphoma Cells. Deanship of Scientific Research, Jordan University. **Co-principal investigator;** 12,693$; Active
2022-present	Metabolomics profiling in colorectal cell lines for identification hypoxia-associated biomarkers. Deanship of Scientific Research, Jordan University of Science and Technology. Principal investigator; MSc thesis for Sara Amjad Arjah; 7,757 $; **Completed.**
2021-2022	Investigation of the effects of vitamin D and vitamin A levels on the immunogenicity of COVID-19 vaccine. Deanship of Scientific Research, Jordan University of Science and Technology. **Co-principal investigator**; MSc thesis for Baha'a Badran; 9,167$; **Completed.**
2021-2022	The impact of supplements and aspirin on the severity and persistence of COVID19 symptoms among COVID-19 survivals. Deanship of Scientific Research, Jordan University of Science and Technology. **Principal investigator**; non-thesis personal research; 4,231$; **Completed.**
2020-2023	The status of inflammasome and antioxidant vitamins in multiple sclerosis Patients. Deanship of Scientific Research, Jordan University of Science and Technology. **Principal investigator**; non-thesis personal research; 13,399$; **Completed.**
2020-2023	A Proteomic approach to investigate the statin effects in colorectal cancer cells. Deanship of Scientific Research, Jordan University of

Science and Technology. **Principal investigator**; MSc thesis for Heba Ayman Nazazleh; 9,167$; **Completed.**

2020-2022 Alterations in tryptophan-kynurenine metabolism and electrolytes levels in Parkinson disease patients. Deanship of Scientific Research, Jordan University of Science and Technology. **Principal investigator**; MSc thesis for Shayma Yasser Anani; 9,026$; **Completed.**

2019-2022 Diabetic nephropathy- related lipid peroxidation status as a possible future Biomarker. Deanship of Scientific Research, Jordan University of Science and Technology. **Principal investigator**; MSc thesis for Ezzat Abdul Karim Alhabbal; 9,167$; **Completed.**

2019-2022 A comparative 'Bottom-up' Proteomics Strategy for Studying Serum Proteins Alterations in Patients with Type 2 Diabetes and Non-Diabetic Individuals. Deanship of Scientific Research, Jordan University of Science and Technology. **Principal investigator**; MSc thesis for Eman Rakan Shehabat; 9,167$; **Completed.**

2019-2022 An investigation of the serum proteome of type 2 diabetes patients to Identify novel diagnostic biomarkers. Deanship of Scientific Research, Jordan University of Science and Technology. **Principal investigator**; non-thesis personal research 13,822$; **Completed.**

MASTERS THESIS COMMITTEE MEMBERSHIP

2025 **External Examiner** for Farouq Al Sheyyab, MSc Thesis entitled “Assessment of Irisin and Nesfatin-1 as Biomarkers of Multiple Sclerosis”. **Faculty of Applied Medical Science, Al-Ahliyya Amman University.**

2025 **External Examiner** for Mohammad Alziyadeh, MSc Thesis entitled “Assessment of Salusin-α and Salusin-ß as Biomarkers of Multiple Sclerosis”. **Faculty of Applied Medical Science, Al-Ahliyya Amman University.**

2025 **External Examiner** for Manar Khawaldeh, MSc Thesis entitled “Evaluating Copeptin as a Diagnosis and Prognosis Marker in Jordanian Acute Myocardial Infarction Patients”. **Faculty of**

Applied Medical Science, Zarqa University

2025 **External Examiner** for Osama Ahmed, MSc Thesis entitled "Maternal Blood Mitochondrial DNA Copy Number in Preeclampsia Patients: A Case-Control Study". **Faculty of Applied Medical Science, Al-Ahliyya Amman University.**

2025 **External Examiner** for Aseel Riziq, MSc Thesis entitled "The Association of Toll-like Receptor 4 (TLR-4) Gene Polymorphisms with Obsessive Compulsive Disorder (OCD) in the Jordanian Population". **Faculty of Applied Medical Science, Zarqa University**

2024 **External Examiner** for Mohammad Hab Alrumman, MSc Thesis entitled "Association of Prostate-Specific Antigen with Soluble CD163 in Subjects with Prostate Hyperplasia". **Faculty of Applied Medical Science, Zarqa University**

2024 **External Examiner** for Rahaf Khawaldeh, MSc Thesis entitled "Assessing the Effect of High Doses of Vitamin D3 on Warfarin-Induced High Values of International Normalized Ratio in Diabetic Rats Treated with Metformin". **Faculty of Applied Medical Science, Al-Ahliyya Amman University.**

2024 **External Examiner** for Rima El-Jouhari, MSc Thesis entitled "Assessing the Effect of the Different Doses of Omega-3 Supplements on Warfarin-Induced High Values of International Normalized Ratio in Diabetic Rats Treated with Metformin". **Faculty of Applied Medical Science, Al-Ahliyya Amman University.**

2024 **Internal Examiner** for Yasmin E. Ghanim, MSc Thesis entitled "Impairment of Oxidative Balance on Erythrocytes in Response to Overdose and Chronic Heroin Administration" **Medical Laboratory Sciences, Jordan University of Science and Technology.**

2024 **Internal Examiner** for Dua'a Ayed Aldmour, MSc Thesis entitled "The Extent of Oxidative Impacts on Hemoglobin in Response to Chronic and Overdosed Intravenous Heroin Administration" **Medical Laboratory Sciences, Jordan University of Science and Technology.**

2024 **Internal Examiner** for Rahaf Fayez AL Deqah, MSc Thesis entitled

"The Oxidative Impact of Chronic Heroin Addiction on Erythrocytic Ghost Constituents" **Medical Laboratory Sciences, Jordan University of Science and Technology.**

2023 **Internal Examiner** for Ahlam Algharaibeh, MSc Thesis entitled "HOMOCYSTEINE LEVEL IN EARLY DIAGNOSED PATIENTS WITH BLADDER CANCER". **Medical Laboratory Sciences, Jordan University of Science and Technology.**

2023 **Internal Examiner for** Rama Wreirdat "Exploring the Effects of Vitamin C and Vitamin E levels on the Immune Responses to COVID-19 Vaccine". **Medical Laboratory Sciences, Jordan University of Science and Technology.**

2023 **Internal Examiner** for Hebah Abdelrazeq, MSc Thesis entitled "Angiotensin-Converting Enzyme (ACE) and Angiotensin-Converting Enzyme-2 (ACE-2) in patients with multiple sclerosis". **Applied Biological Science, Jordan University of Science and Technology.**

2022 **Internal Examiner** for Mohammad Frewan, MSc Thesis entitled "Association of Stem Cell Factor Levels and Stem Cell Factor Polymorphisms with the Risk of Poor Glycemic Control in Type 2 Diabetes Mellitus". **Medical Laboratory Sciences, Jordan University of Science and Technology.**

2022 **Internal Examiner** for Dalya Abdulghafoor Saidi, MSc Thesis entitled "Investigating the Efficacy of Lyophilized AS1411- Gold Nanosphere Conjugated Aptamer in Breast Cancer". **Medical Laboratory Sciences, Jordan University of Science and Technology.**

2022 **External Examiner** for Duaa Hijazi, MSc Thesis entitled "Assessing the effects of micafungin as a potential quorum sensing inhibitor on Pseudomonas aeruginosa biofilm formation using metabolomics and confocal laser microscopy". **School of Pharmacy, Jordan University.**

2022 **Internal Examiner** for Saja Qatawneh, MSc Thesis entitled

"EFFECTS OF IN VIVO VITAMIN D DEFICIENCY AND IN VITRO VITAMIN D LEVEL ON T-LYMPHOCYTES FUNCTIONS". **Medical Laboratory Sciences, Jordan University of Science and Technology.**

2021 **External Examiner** for Farah Hudaib, MSc Thesis entitled "The application of mass spectrometry-based metabolomics approach to investigate the potential antiproliferative effect of Leukotriene Receptor Antagonists". **School of Pharmacy, Jordan University.**

2021 **Internal Examiner** for Roba Rafaat Ahmad, MSc Thesis entitled "Serum levels of leptin, resistin, adiponectin, and insulin and the development and progress of hematological malignancy associated hyperglycemia". **Medical Laboratory Sciences, Jordan University of Science and Technology.**

2019 **Internal Examiner** for Shefa Muneer Aljabali, MSc Thesis entitled "Seminal levels of vitamin B6 in Asthenozoospermic patients." **Medical Laboratory Sciences, Jordan University of Science and Technology.**

2019 **Internal Examiner** for Marah Hussein Yousef Ahmad MSc Thesis entitles "The impact of iron deficiency on cognitive ability markers in school-aged children." **Medical Laboratory Sciences, Jordan University of Science and Technology.**

COMMUNITY SERVICES

Nov. 2022 Medical day at Al-Hasan Sport City, Irbid, Jordan [Organized by Faculty of Applied Medical Sciences in association with Irbid Health Directorate].

May.2022 Blood Drive at Jordan University of Science and Technology, Irbid, Jordan [Participated in the event; Event organized by MLS department in association with the National Blood Bank of Jordan].

May. 2022 Participated in "Open Week of Activities for the Faculty of Medical Applied Sciences". Faculty of Applied Medical Sciences, Jordan University of Science and Technology.

May. 2018	Participation in the blood donation campaign at AUM- Madaba, Jordan

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