

Curriculum Vitae

Irada KHALILOVA

Associate Research Professor

Email: ikhalilova@khazar.org
khalilovairada@yahoo.com

Tel.: 994 12 421 7927

[ORCID 0000-0002-4238-31](https://orcid.org/0000-0002-4238-31)



EDUCATION

- 03/1994 **Ph.D. in Biological Sciences - Allergology and Immunology**, Azerbaijan Medical University
- 09/1983 **M.Sc. in Biology - Molecular Biology and Biophysics**, Baku State University

ACADEMIC / RESEARCH EXPERIENCE

- 02/2019 - present **Rector**, Khazar University, Azerbaijan
- 11/2015 - present **Director**, Centre for Cell Pathology Research, Khazar University, Azerbaijan
- 09/2017 - 04/2019 **Vice-Rector for Research**, Khazar University, Azerbaijan
- 11/2014 - 05/2019 **Chair**, Department of Life Sciences, Khazar University, Azerbaijan
- 07/2007 - 08/2014 **Scientist**, Department of Pathology, University of Otago, Christchurch, New Zealand
- 09/2004 - 07/2007 **Researcher**, Christchurch Clinical Trials Trust, New Zealand
- 01/1995 - 09/2003 **Senior Scientist**, Centre for Biochemistry of Cellular Pathology, Azerbaijan Medical University
- 09/1993 - 09/1995 **Researcher**, Molecular Cardiology Lab., Research Centre of Cardiology, Baku, Azerbaijan

TEACHING / SUPERVISION EXPERIENCE

- 11/2014 - present **Lecturer**, Khazar University, Azerbaijan
- Biochemistry / Clinical Biochemistry
 - Immunology / Clinical Immunology
 - Medical Biology
- Ph.D. supervision**
- 2009 - 2014 **Laboratory Instructor**, Otago University, Christchurch, New Zealand
- 01/1995 - 09/2003 **Lecturer**, Azerbaijan Medical University, Baku, Azerbaijan
- Biochemistry
 - Immunology
 - Immunochemistry
- Ph.D. and Master student co-supervision**

CERTIFICATES

- 11/2013 **Comprehensive First Aid Course**, Red Cross, New Zealand
- 12/2000 **Clinical Laboratory Diagnostics Training**, Azerbaijan State Advanced Training Institute for Doctors, Azerbaijan

RESEARCH INTERESTS

- Regional One Health and Planetary Health research.
- Redox Biology - Investigation of reactive oxidant production during inflammation, its impact on biological damage, and the consequences for disease pathology.

R&D EXPERIENCE

Main Developed and Validated Assays:

- Micro-affine chromatography for isolating myeloperoxidase (MPO) from biological fluids.
- Affine chromatography column for Extracorporeal removal of pathogenic antibodies to insulin and immune complexes (during plasmapheresis) from blood circulation of patients with Diabetes Mellitus (animal model).

Several Enzyme-Linked Immunosorbent assays (ELISA):

- ELISA for MPO protein and its activity level in different biological fluids such as plasma, synovial fluid, bronchioalveolar fluid, urine, and saliva.
- ELISA for commercialization of the Protein Carbonyls (PC) assay (batch production and quality control).
- ELISA for platelet antibodies in beta-thalassemia patients.
- ELISA for antibodies to insulin in Diabetes Mellitus patients.

Current Research Projects:

Co-PI on the following projects:

- Khazar University (2019-present). Interdisciplinary research on the antibacterial properties of Azerbaijan clay minerals for water purification.
- Swedish university of Agricultural Sciences on Swedish Institute Baltic Sea Cooperation (2021- present). Happy ANIMAls for Sustainable Production and Consumption”

Completed Previous Projects:

- Health Research Council of New Zealand (2009-2012). Circulating Myeloperoxidase and its Function in Cardiovascular Disease. Role: Researcher
- Otago Innovation Proof of Concept Grant (2007). Oxidative Biomarker Kits - The Next Generation. Role: Investigator/Researcher on R&D
- The Committee of Science and Technology, Azerbaijan (1995-2000). Effect of metabolic alterations on functional activity of the platelets and erythrocytes in blood from patients with β -thalassemia. Role: Principal Co-investigator
- The Ministry of Health, Azerbaijan (10/1990-09/1995). Elaboration of the immunosorbent for the removing antibodies to insulin from circulation in patients with insulin dependent diabetes mellitus. Role: Researcher

PROFESSIONAL MEMBERSHIPS

Society for Free Radical Research (SFFR) Europe / Australasia

OTHER PROFESSIONAL ACTIVITIES

- Chair of the Annual International Conferences on One Health: Problems & Solutions in Azerbaijan.
- Leading the Regional Planetary Health Hub
- Managing Editor of the Khazar Journal of Science and Technology

SELECTED PUBLICATIONS:

1. Paumann-Page M, Ashby LV, **Khalilova I**, Magon NJ, Hofbauer S, Paton LN, Furtmüller PG, Obinger C, Kettle AJ. (2023). Hypochlorous acid inactivates myeloperoxidase inside phagocytosing neutrophils. *Redox Biochemistry and Chemistry*. Vol.5-6.
2. Liao W, Liu S, Chen Y, Kong Y, Wang D, Wang Y, Ling T, Xie Z, **Khalilova I**, Huang J. (2022). Effects of Keemun and dianhong black tea in alleviating excess lipid accumulation in the liver of obese mice: A comparative study. *Frontiers in Nutrition*.vol.9.

3. **Khalilova IS**, Dickerhof N, Mocatta TJ, Bhagra CJ, McClean DR, Obinger C, Kettle AJ. (2018). A myeloperoxidase precursor, pro-myeloperoxidase, is present in human plasma and elevated in cardiovascular disease patients. *PLOS One*.
4. Dickerhof N, Turner R, **Khalilova IS**, Fantino E., Sly PD, Kettle AJ. (2017). Oxidized glutathione and uric acid as biomarkers of early cystic fibrosis lung disease. *Journal of Cystic Fibrosis – Elsevier*. vol.16, issue 2, pp. 214-221.
5. Seidel A, Parker H, Turner R, Dickerhof N, **Khalilova IS**, Wilbanks SM, Kettle AJ, Jameson GNL. (2014). Uric acid and thiocyanate as competing substrates of lactoperoxidase. *J Biological Chemistry*, 289(32):21937-21949
6. Stamp LK, Turner R, **Khalilova IS**, Zhang M, Drake J, Forbes LV, Kettle AJ. (2014). Myeloperoxidase and oxidation of uric acid in gout: implications for the clinical consequences of hyperuricaemia. *J. Rheumatology (Oxford)*, pp. 266-273.
7. Kettle AJ, Turner R, Gangell CL, **Khalilova IS**, Harwood DT, Chapman AL, Winterbourn CC, Sly PD. (2014). Oxidation contributes to low glutathione in the airways of children with cystic fibrosis. *European Respiratory Journal*, 44:122-129.
8. Kettle AJ, Albrett AM, Chapman AL, Dickerhof N, Forbes LV, **Khalilova IS**, Turner R. (2014). Measuring chlorine bleach in biology and medicine. *Biochimica et Biophysica Acta*, vol. 1840, issue 2, pp. 781-793.