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Süleyman Hekim

Home : Türkiye

Email: suleymanahekim@gmail.com

ID: 38822288900 **Work permit:** Turkish **Gender:** Male **Nationality:** Turkish

EDUCATION AND TRAINING

[18/09/2020 – 13/02/2025]

Ph.D. in Biology (Major: Molecular Biology)

Karadeniz Technical University https://ktu.edu.tr/

City: Trabzon | **Country:** Türkiye

[01/09/2018 – 10/08/2020]

M.Sc. in Biology (Major: Molecular Biology)

Karadeniz Technical University https://ktu.edu.tr/

City: Trabzon | **Country:** Türkiye

[01/09/2008 – 01/07/2013]

B.Sc. in Biological Science

Xinjiang University https://www.xju.edu.cn/

City: Urumqi | **Country:** China

WORK EXPERIENCE

Eryiğit Medical Devices Inc.

City: Ankara | **Country:** Türkiye

[07/05/2025 – Current]

Deputy R&D Center Coordinator, Biotechnology department

- Led and contributed to end-to-end R&D in molecular diagnostics and synthetic biology.
- Served as PI in 3 TÜBİTAK projects and Researcher in 4 projects.
- Developed RT-LAMP platforms and produced recombinant Bst DNA polymerase.
- Worked on methylation-based cancer diagnostics (lung, colorectal, pancreatic): primer/probe design, qPCR, clinical samples.
- Hands-on experience in mammalian cell culture, nucleic acid workflows, and assay optimization.

Thompson Rivers University

City: Kamloops | **Country:** Canada

[01/10/2024 – 30/03/2025]

Visiting Researcher

- Worked at the interface of bioinformatics and cancer biology within the Digital Health Laboratory.
- Applied machine learning approaches for cancer classification and participated in computational oncology research.
- Contributed to research on HOX genes in glioblastoma and supported manuscript revision for peer-review publication.
- Participated in interdisciplinary academic activities including research writing, data analysis, and scientific dissemination

ERYIĞIT Medical Devices Inc.

City: Ankara | **Country:** Türkiye

[02/08/2021 – 01/10/2024] **R&D Personnel (Ph.D.),**

- Expert in genome engineering via homologous recombination (knock-in/knock-out) with epigenetic editing systems.
- Led TÜBİTAK TEYDEB 1501 project on synthetic enzyme production, managing design, execution, and reporting.
- Developed recombinant enzymes and nucleic acid diagnostic platforms including methylation-specific qPCR and LAMP systems.
- Experienced in mammalian cell workflows, nucleic acid extraction, and translational diagnostic assay development.

LANGUAGE SKILLS

Other language(s):

English

LISTENING C1 **READING** C1 **WRITING** B2

SPOKEN PRODUCTION B2 **SPOKEN INTERACTION** B2

Chinese

LISTENING C2 **READING** C2 **WRITING** C1

SPOKEN PRODUCTION C1 **SPOKEN INTERACTION** C1

Arabic

LISTENING C1 **READING** C1 **WRITING** B2

SPOKEN PRODUCTION B2 **SPOKEN INTERACTION** B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

SKILLS

Microsoft Office | laboratory skills | Project writing, project development &project management | Data Science | Data Collection, Data Processing, Data Analysis, Data Visualization | Molecular Biology | Molecular and Cellular Biology techniques | Microsoft Excel | Gene Cloning and Expression

PUBLICATIONS

[2025] **Biochemical characterization and activity enhancement of a GH13 thermostable oligo-α-1,6-glucosidase from Geobacillus stearothermophilus.**

Authors: Suleyman Hekim, Arife Kaçıran, Ayşe Nur Akmehmet, Ali Osman Belduz, Kadriye İnan Bektaş, Yasin Mamatjan, Halil ibrahim Guler, Sabriye Canakci | **Journal Name**: International journal of biological macromolecules.

[2025] **Point mutations enhance catalytic efficiency of Geobacillus stearothermophilus α-glucosidase: A biochemical characterization study**

Authors: Suleyman Hekim, Arife Kaçıran, Ayşe Nur Akmehmet, Ali Osman Belduz, Kadriye İnan Bektaş, Yasin Mamatjan, Sabriye Canakci | **Journal Name**: International Journal of Biological Macromolecules

[2025] **HOX gene dysregulation in glioblastoma: a narrative review of current advances**

Authors: Suleyman Hekim, Severa Bunda, Shaliman Dilibaerguli, Maierdan Palihati, Yasin Mamatjan | **Journal Name**: Discover Oncology

[2025] **MGMT Promoter Methylation Predicts Survival in Lung Adenocarcinoma**

Authors: Suleyman Hekim; Yasin Mamatjan | **Journal Name**: IEEE Symposium on Computational Intelligence in Health and Medicine Companion (CIHM Companion)

[2021] **Comparison of the potential activities of viral and bacterial chitinases**

Authors: Suleiman Abulikemu, Aydin Yesilyurt, Donus Gencer, Mehtap Usta, Remziye Nalcacioglu | **Journal Name**: Egypt J Biol Pest Control

[2025] **A Novel and Friendly Expression Method of Taq DNA Polymerase and Utilization of Diagnostic Kits**

Authors: Suleyman Hekim, Arife Kaçıran, Ayşe Nur Akmehmet, Çağrı Şakalar, Sabriye Çanakçı, Ali Osman Belduz | **Journal Name**: Journal of Apitherapy and Nature

CONFERENCES AND SEMINARS

[10/12/2025 – 14/12/2025] **Improving Biological Indicators by Increasing Alpha-Glucosidase Activity**
Marmaris - Türkiye

[10/12/2025 – 14/12/2025] **Improving the biological indicator by enhancing the catalytic activity of GDSL lipase.**
Marmaris - Türkiye

[27/08/2024 – 29/08/2024] **Computational Identification of Point Mutations to Enhance the Catalytic Efficiency of Geobacillus Stearothermophilus α-Glucosidase**
Natal – Brazil

[27/08/2024 – 29/08/2024] **Integrative Survival Risk Prediction in Lung Cancer Using CoxPH and Machine Learning Approaches**
Natal – Brazil

[20/10/2023 – 22/10/2023] **Recombinant Production of Taq DNA Polymerase Enzyme, Stability Tests, and Use in QPCR-Based Pathogen Diagnostic Kits**
Ankara-Türkiye

[20/10/2023 – 22/10/2023] **Recombinant Synthesis of Reverse Transcriptase Enzyme and Its Mutants and Use in a qPCR-Based SARS-CoV-2 Diagnostic Kit**
Ankara - Türkiye

[23/11/2022 – 25/11/2022] **Cloning, Expression, Production and Activity Test of Taq Polymerase** Online

[23/11/2022 – 25/11/2022] **Cloning, Expression, and Production of Wild Type and Mutant Versions of HIV Reverse Transcriptase**
Online

[23/11/2022 – 25/11/2022] **Development of New Generation Fluorescent In Situ Hybridization Probes by PCR**
Online

[23/11/2022 – 25/11/2022] **Development of In-house Viral Nucleic Acid Extraction Media for COVID-19 Testing by RT-qPCR**
Online

[08/12/2021 – 09/12/2021] **Enzyme Synthesis Using Synthetic Biology Methods** Online

[08/12/2021 – 09/12/2021] **Determination of Germination with Measurement of DPA Amount** Online

[19/09/2019 – 21/09/2019] **Insecticidal activities of bacterial and viral chitinase proteins** Trabzon - Türkiye

PROJECTS

[01/09/2023 – 01/09/2024] **Improvement of Biological Indicator by Increasing Alpha Glucosidase Activity**

The scope of this project, in which I worked as a coordinator, was aimed at cloning the alpha-glucosidase genes of bacteria, expression in *E. coli*, purification, increasing the activity by changing more than one amino acid with point mutations and making mutations for short response time, comparing the activities of mutant enzymes and selecting the most active enzyme and then retransfer this active glucosidase gene to *G.*

stearothermophilus to ensure the integration of the gene into the genome by homologous recombination.

[01/01/2022 – 30/06/2023]

Development of Enzyme Synthesis Using Synthetic Biology Methods

I worked as a lead researcher in this project, Taq polymerase and Reverse Transcriptase enzymes were produced recombinantly, and point mutations were made on the gene encoding the HIV-derived reverse transcriptase enzyme.

[14/07/2020 – Current]

Development of Novel and Rapid Biological Indicators for Sterilization Systems and Training of Qualified Researchers in This Field

I participated in protein engineering studies on enzymes such as glucosidase, lipase, esterase, and phosphatase, as well as in chromosomal DNA modification and microbiological characterization of *G. stearothermophilus*.

[01/01/2026 – Current]

Development of an RT-LAMP Platform Using Recombinant Reverse Transcriptase and Bst Enzymes for Rapid Field-Deployable Molecular Diagnostics

As the Principal Investigator (PI), I lead the development of an integrated RT-LAMP diagnostic platform designed for decentralized, field-deployable molecular testing. My work centers on the in-house production and characterization of recombinant enzymes to provide a cost-effective, high-sensitivity alternative to traditional lab-based qPCR.

[07/05/2025 – Current]

Development of a Methylation-Specific qPCR Kit for Non-Invasive Early Detection of Lung Cancer

Led the development of a novel, methylation-specific quantitative PCR (qPCR) diagnostic kit targeting epigenetic biomarkers in early-stage Lung Cancer. The project focused on analyzing hypermethylated CpG islands of tumor genes from non-invasive samples.

[01/11/2025 – Current]

Development of a High-Sensitivity Methylation-Specific qPCR Kit for Colorectal Cancer (CRC) Screening

Engineered an epigenetic diagnostic tool for Colorectal Cancer screening by targeting hypermethylated tumor suppressor genes (e.g., *BMP3*, *SFRP2*) in blood and stool samples. The project successfully transitioned from computational primer-probe design to wet-lab validation using human colorectal cancer cell lines.

HONOURS AND AWARDS

[07/05/2026] **Recipient of the 2025 Graduate Thesis Award Awarding institution:** Karadeniz Technical University

[10/06/2024] **Study in Canada Scholarships Program Awarding institution:** Global Affairs Canada

[16/11/2020] **Development of New and Rapid Biological Indicators for Sterilization Systems and Training of Qualified Researchers in This Field**
Awarding institution: The Scientific and Technological Research Council of Türkiye

Write here the description...

[01/11/2017] **Türkiye Scholarship Awarding institution:** Presidency for Turks Abroad and Related Communities

[10/09/2010] **National Encouragement scholarship Awarding institution:** Xin Jiang University