

CANAN ZÖHRE KETRE

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Date of Birth : 01/04/1984

Education

PhD : 2011.02- Today ISTANBUL TECHNICAL UNIVERSITY, TURKEY (Thesis Period)

Faculty of Environmental Engineering -Environmental Biotechnology Department

Thesis Topic: Development of rapid and economical water-borne pathogen detection systems

MSc : 2008.03-2010.07 ISTANBUL TECHNICAL UNIVERSITY, TURKEY

M.Sc. Faculty of Environmental Engineering -Environmental Biotechnology Department

Thesis topic: Anaerobic BTEX degrading microorganism abundances in Marmara Sea sediments

2010.03-2010.04 MINES PARISTECH UNIVERSITY, FRANCE

Course: Health and Medicine: Social, Political and Ethical Issues at National and European Levels

2009.11-2009.12 UNIVERSIDAD POLITÉCNICA DE MADRID, SPAIN

Course: Industrial Utilization of Aromatic and Medicinal Plants

BSc : 2002.09-2006.07 MARMARA UNIVERSITY, TURKEY

Faculty of Arts and Sciences- Biology Department

Work Experiences

2014.01 – Today BIOEKSEN R&D TECHNOLOGIES LTD.

As a General Manager (Owner)

2011.03 – 2014.01 BIOEKSEN MEDICAL AND BIOTECHNOLOGICAL RESEARCH SYSTEMS

As a Research and Development Specialist

Responsibilities

- Develop and lead new projects in the field of molecular biology and biotechnology.
- Integration of molecular biology methods to the various biotechnology research projects.
- Application of molecular biology methods to customers' research projects.
- Analyze and report of the experimental results.

- Creation and development of the new product.
- Searching of novel biotechnology products in the world.

Actively Participated Research Projects

- Development of next generation sequencing based kit and software for the detection of BRCA1 and BRCA2 mutations.- 2015 Tubitak – 7150470 – Project Coordinator
- Development of a Multilocus Sequence Analysis (MLSA) Based Method for Definite Fungus Type Identification- 2015 Tubitak – 214Z008
- Development of molecular based kits for the fast detection of pathogens in food samples- 2014 KOSGEB – Project Coordinator
- A rapid method for the determination of zooplankton species in the Black Sea. -2013 – TÜBİTAK 113Y179
- Genetic Interaction and Variation Between Natural and Cultural Populations of Bream (*Sparus aurata*), sea bass (*Dicentrarchus labrax* L.) Dentex (*Dentex dentex*) and Sharpnose (*Diplodus puntazzo*) fish in the Aegean Sea and Determination of Molecular Markers and artificial neural networks of the future state estimated. 2013 – TÜBİTAK 113O167
- Investigating Molecular Diversity of Fungi in Refrigerators – Trakya University, TUBAP-2012-184
- Rapid detection of water-borne pathogens using Real-Time PCR - Trakya University, TUBAP-2012-181
- Quantification of *Aspergillus wentii* inulinase gene expression using Real-Time PCR - Trakya University, TUBAP-2013-01
- Enzymatic activities and gene expressions related to the salt-hydrogen peroxide interactions in *Triticum aestivum* - Mustafa Kemal University, MKU-BAP Project No 9883
- DNA Barcoding of butterflies in Antakya region via PCR and DNA Sequencing - Mustafa Kemal University, MKU-BAP Project No: 9912
- DNA Barcoding of Myxomycetes in Antakya region via PCR and DNA Sequencing - Mustafa Kemal University, MKU-BAP Project No: 9975
- DNA Barcoding of water fleas in Antakya region via PCR and DNA Sequencing - Mustafa Kemal University, MKU-BAP Project No: 9871
- Monitoring of microbial species responsible for solid waste stabilization using Fluorescence In Situ Hybridization – Sakarya University, Environmental Engineering Department BAP Project
- Investigating effect of antiseptic agents on the resistance and virulence gene expression in *Candida albicans* - Marmara University, Faculty of Dentistry, BAP Project
- Investigation of Microbial Diversity in Leather Tanning Industry, Çanakkale Onsekiz Mart University BAP Project
- Effect of ultrasound process on system dynamics of anaerobic treatment of olive oil mill effluents. TUBİTAK 111Y112.

2008.05 – Today MICROBIAL ECOLOGY GROUP

As a Researcher

Responsibilities

- Application of molecular techniques to on-going projects
- Control and lead of junior researchers and trainees.
- Organization of yearly workshops about 'DNA and RNA Based Molecular Methods'
- Being trainer in molecular methods workshops.

Actively Participated Research Projects

- A pilot scale trial of a Real Time PCR based detection kit for Group A β -hemolytic Streptococcus (2013 - On going, The Ministry of Health Project)
- Development of a fully automated molecular system for nosocomial infections, TUBITAK 113S621 (2013 – 2.Stage of ARDEB 1003 SB0102 Programme)
- Development of Mobile Early Pathogen Recognition System (METS), Under secretariat for Defense Industries, The Ministry of Defense (2013-Submitted)
- Development of a fast and economic qPCR-based method for meat species detection Istanbul Technical University Research Fund (05.2012-06.2013)
- Development of a fast and economical qPCR-based method for the detection of bar, fmv and nos , Istanbul Technical University Research Fund (05.2012-08.2013)
- Development of a Real Time PCR based detection kit for Group A β -hemolytic Streptococcus, Boğaziçi University Teknopark (02.2012-02.2013)
- Anaerobic Degradation of Petroleum Hydrocarbons in Anoxic Marine Environments. TUBITAK 105Y307. (2008-2010)
- Bioremediation potential of Marmara Sea Sediments for removal of petroleum hydrocarbons. "ITU BAP Project No: 32188 (2009-01.2010)

Applied Methods

- DNA and RNA Isolation from various types of samples
- Polymerase Chain Reaction (PCR)
- Quantitative Real Time PCR (qPCR)
- Reverse Transcription - Real Time PCR (q-RT-PCR)
- Gene Cloning and Expression
- DNA Sequencing
- Bioinformatics
- Agarose Gel Electrophoresis
- Denaturing Gradient Gel Electrophoresis (DGGE)
- Fluorescence In Situ Hybridization

2007.09-2008.03 - BIOMEKS PHARMACEUTICAL COMPANY

As a Medical Representative

Responsibilities

- Presenting new products to doctors and pharmacist

- Reporting information back to head office about customer needs and products
- Keeping up to date with the latest clinical data and research
- Organizing medical conferences

2006.06 - 2007.01 - ISTANBUL UNIVERSITY ÇAPA FACULTY OF MEDICINE DETAE GENETIC DEPARTMENT

Applied Methods

- RNA Isolation from human blood
- cDNA synthesis from RNA
- Reverse transcription polymerase chain reaction

Actively Participated Research Projects

- Monitoring of leukaemia translocations in leukaemia patients.
- Monitoring of COX gene expressions in mice brain tumours.

2005.06 - 2005.09 - ISTANBUL UNIVERSITY ÇAPA FACULTY OF MEDICINE DETAE GENETIC DEPARTMENT

Applied Methods

- DNA Isolation from Human Blood
- Polymerase Chain Reaction
- Restriction Enzyme Digestion
- Agarose Gel Electrophoresis
- Preparation of Molecular Genetics chemical solutions
- Sterilization of equipments used in Molecular Biology

Actively Participated Research Projects

- Glucocorticoid Receptor Gene Polymorphism Scanning in patients with metabolic syndrome
- Diverse gene polymorphism scanning in small cell lung cancer patients.

2004.06 - 2004.08 - OTA MEDICINE CENTER LABORATORY

Observed Methods

- Standard Method of complete blood count
 - Biochemical Analyses of blood (albumin, iron, glucose, cholesterol, creatinine, triglyceride .. etc)
 - Hormone Tests (TSH, T3, Progesterone.. etc)
 - Biochemical analyses of urine (bilirubin, ketone, protein, glucose.. etc)
 - Gaeta Tests (Blood, parasites)
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International Publications, Courses and Conferences

- 'Development of a fast and low-cost qPCR assay for diagnosis of acute gas pharyngitis' - Mustafa Kolukirik, Mesut Yılmaz , Orhan Ince, Canan Ketre, Ayşe Istanbulu Tosun, Bahar K. Ince – Anals of Clinical Microbiology and Antimicrobials
- 'Development of a Fast, Economical & Practical Method for the Molecular Detection of Bacterial Menengitidis Pathogens' - Canan Ketre, Volkan Demir, Gözde Girgin Özgümüş, Selin Nar Ötgün, Meral Turan, Selçuk Kılıç - Turkish Journal of Molecular Biology, 2017
- 'Real-Time PCR (qPCR) Based Method For Detection and Species Differentiation Of Bordetella Pertussis, Bordetella Parapertussis, Bordetella Holmesii ve Bordetella Bronchiseptica' - İbrahim Halil Miraloğlu, Canan Ketre, Selin Nar Ötgün, Volkan Demir, Meral Turan, Mustafa Kolukirik - Turkish Journal of Molecular Biology, 2017
- 'Development of A Rapid And High Resolution Brucella Genotyping Method Based On Mismatch Amplication' - Mehmet Genç, Selçuk Kılıç, Canan Ketre, Gözde Girgin, Mustafa Kolukirik- Turkish Journal of Molecular Biology, 2017
- 'Developing Next Generation Sequencing Based BRCA1/BRCA2 Mutations Diagnostic Assay and Bioinformatics Analysis Software' - Gözde Girgin Özgümüş, Canan Ketre, Volkan Demir, Mehmet Genç, İbrahim Halil Miraloğlu, A. İlter Güney - Turkish Journal of Molecular Biology, 2017
- 'Development of a New QPCR Based Method for Quantification of Viable Escherichia coli' Canan Ketre, Mustafa Kolukirik, Bahar Ince, Orhan Ince - Turkish Journal of Molecular Biology, 2017
- 'Chlorhexidine gluconate induces the resistance and virulence genes expression levels in *Candida albicans* sc5314', Banu Can Uygun, Canan Ketre, Mustafa Kolukirik, Tanju Kadir. FEMS2013 Conference - GERMANY
- 'Anaerobic BTEX degrading microorganism abundances in Marmara Sea sediments' Canan Ketre, Mustafa Kolukirik, Bahar İnce, Orhan İnce- Seattle USA ISME Microbial Ecology Conferences

National Courses and Conferences

- As a Lecturer and Lab. Assistant
 - Bioinformatic Analysis Of Metagenomic Data - Workshop- Turkish Microbiology Congress (November 2016) – Antalya
 - DNA and RNA Based Molecular Techniques –Workshops (June 2014) , International Biology Congress- Eskişehir

- Denaturing Gradient Gel Electrophoresis (DGGE) Practical Training Course, (10.2012)
- Fluorescence in situ Hybridization Practical Training Course (10.2012)
- Bioinformatics Practical Training (10.2012)
- Cloning and Sequencing Practical Training Course (10.2012)
- Western Blotting Practical Training Course (9.2012)
- 2-D SDS-PAGE Practical Training Course (9.2012)
- Determination and Quantification of RNA with Real-Time PCR (7.2012)
- Determination and Quantification of DNA with Real-Time PCR (7.2012)
- RNA Based Molecular Techniques (9.2011)
- DNA Based Molecular Techniques (6.2011)

- As a Participant
 - The Bioinformatics Roadshow European Bioinformatics Institute (EBI), İstanbul Technical University (05.2011)
 - Biotech Century and Turkey Congress, Sabancı University (06.2006)
 - Molecular Biology and Genetics Weekend, about Popular MBG, Diseases Genetics, Biology and Technology, Boğaziçi University (05.2006)
 - National Biology Student Congress, Marmara University (09.2003)

Language Skills

- English KPDS: 89 /100
- French Intermediate Certificate from French Consulate