

## **Prof. SEDEF KIR**

### **Personal Information**

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### **Education Information**

Doctorate, Hacettepe University, Eczacılık Fakültesi, Analitik Kimya, Turkey 1983 - 1987

### **Foreign Languages**

English, B2 Upper Intermediate

### **Research Areas**

Basic Pharmaceutics Sciences, Health Sciences, Pharmacology and Therapeutics, Analytical Chemistry

### **Academic Titles / Tasks**

Professor, Hacettepe University, Eczacılık Fakültesi, Temel Eczacılık Bilimleri Bölümü, 1996 - Continues

### **Academic and Administrative Experience**

Hacettepe Üniversitesi, Eczacılık Fakültesi, Temel Eczacılık Bilimleri Bölümü, 2013 - Continues

Hacettepe Üniversitesi, Eczacılık Fakültesi, Eczacılık Meslek Bilimleri Bölümü, 2005 - 2010

Hacettepe Üniversitesi, Eczacılık Fakültesi, 2003 - 2006

Hacettepe Üniversitesi, Eczacılık Fakültesi, Temel Eczacılık Bilimleri Bölümü, 1997 - 2000

### **Courses**

FOTOLUMİNASANS ANALİZ YÖNTEMLERİ, Doctorate, 2016 - 2017

ATOMİK SPEKTROSKOPİ, Postgraduate, 2016 - 2017

ANALİTİK KİMYA II LABORATUVARI, Undergraduate, 2016 - 2017

Analitik Kimya I Lab, Undergraduate, 2016 - 2017

ANALİTİK KİMYA II, Undergraduate, 2016 - 2017

Analitik Kimya I, Undergraduate, 2016 - 2017

ANALİTİK YÖNTEM VALİDASYONU, Postgraduate, 2016 - 2017

### **Advising Theses**

KIR S., ERDEMLİ İ., Lipopolisakkarit ile indüklenen solunum yolları inflamasyonu modelinde yavaş ve hızlı hidrojen sülfür

donörlerinin fare trakeasında etkileri, Doctorate, Y.KAYA(Student), 2016

KIR S., ERDEMLİ İ., Hidrojen sülfürün damar ve damar-dışı düz kaslardaki gevşetici etkisinin diyabetik sıçanlarda incelenmesi, Postgraduate, M.DENİZALTI(Student), 2010

KIR S., ERDEMLİ İ., Sıçanda mesane kaynaklı düz kas gevşetici faktörün salıverilmesinin ve etki mekanizmasının araştırılması, Doctorate, T.EMRAH(Student), 2009

KIR S., ERDEMLİ İ., Solunum yolu inflamasyonunun kobay trakeasında epitel kaynaklı gevşetici faktör aracılı yanıtlar üzerine etkisi, Doctorate, U.BURÇİN(Student), 2002

KIR S., ERDEMLİ İ., Reaktif oksijen bileşiklerinin sıçan mesanesinden salıverilen gevşetici faktör yanıtlarına etkileri, Postgraduate, T.EMRAH(Student), 2002

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Optimization and normalization strategies for long term untargeted HILIC-LC-qTOF-MS based metabolomics analysis: Early diagnosis of breast cancer**  
REÇBER T., NEMUTLU E., Beksac K., CENNET Ö., Kaynaroglu V., AKSOY S., KIR S.  
MICROCHEMICAL JOURNAL, vol.179, 2022 (Journal Indexed in SCI)
- II. **A stability indicating RP-HPLC method for determination of the COVID-19 drug molnupiravir applied using nanoformulations in permeability studies**  
REÇBER T., TİMUR S. S. , ERDOĞAN KABLAN S., Yalcin F., Karabulut T. C. , GÜRSOY R. N. , EROĞLU H., KIR S., NEMUTLU E.  
JOURNAL OF PHARMACEUTICAL AND BIOMEDICAL ANALYSIS, vol.214, 2022 (Journal Indexed in SCI)
- III. **Liquid biopsy markers for early diagnosis of brain metastasis patients with breast cancer by metabolomics**  
Ozer O., NEMUTLU E., REÇBER T., Eylem C. C. , AKTAŞ B. Y. , KIR S., Kars A., AKSOY S.  
EUROPEAN JOURNAL OF MASS SPECTROMETRY, 2022 (Journal Indexed in SCI)
- IV. **GC-MS Based Metabolomics Analysis to Evaluate Short-Term Effect of Tumor Removal on Patients with Early-Stage Breast Cancer**  
Beksac K., REÇBER T., Cetin B., ALP O., Kaynaroglu V., KIR S., NEMUTLU E.  
JOURNAL OF CHROMATOGRAPHIC SCIENCE, 2022 (Journal Indexed in SCI)
- V. **Sensitive and cost-effective boron doped diamond and Fe<sub>2</sub>O<sub>3</sub>/Chitosan nanocomposite modified glassy carbon electrodes for the trace level quantification of anti-diabetic dapagliflozin drug**  
ÖZKAN E., Cetinkaya A., ÖZÇELİKAY G., NEMUTLU E., KIR S., Ozkan S. A.  
JOURNAL OF ELECTROANALYTICAL CHEMISTRY, vol.908, 2022 (Journal Indexed in SCI)
- VI. **Determination of Leflunomide in Tablets by Micellar Electrokinetic Capillary Chromatography**  
REÇBER T., KIR S.  
LATIN AMERICAN JOURNAL OF PHARMACY, vol.34, no.5, pp.934-940, 2015 (Journal Indexed in SCI)

## Books & Book Chapters

- I. **HILIC based LC/MS for metabolite analysis**  
NEMUTLU E., KIR S.  
in: Novel Developments in Pharmaceutical and Biomedical Analysis, , Editor, Bentham Science Publishers, pp.98-130, 2018

## Refereed Congress / Symposium Publications in Proceedings

- I. **Farelerde Tamoksifen ve Majör Metaboliti N-Desmetil-Tamoksifen'in LC- MS/MS Yöntemiyle Tayini**  
ERDOĞAR N., NEMUTLU E., KIR S., İSKİT A. B. , BİLENSOY E.

XVI. Ulusal Spektroskopi Kongresi, Turkey, 7 - 09 November 2019

- II. **Detection of brain metastasis by metabolomics methods in metastatic breast cancer patients.**  
Özer Ö., NEMUTLU E., Eylem C. C. , KIR S., REÇBER T., Aktas B. Y. , Kars A., AKSOY S.  
2019 ASCO Annual Meeting, United States Of America, 30 May - 03 June 2019, vol.37, pp.12572
- III. **Invasive Prediction of Fetal Structural Abnormalities Using Metabolomic Profiling**  
NEMUTLU E., REÇBER T., ÖZKAN E., AYDIN E., ÖRGÜL G., TANAÇAN A., KIR S., BEKSAÇ M. S.  
Perinatal Medicine 2017, Turkey, 28 - 29 April 2019
- IV. **Optimization of A HILIC Based LC-ESI-MS/MS Method for Quantification of Phosphonucleotides in Cancer Cell Lines**  
Eylem C. C. , DOĞAN A., ERİKÇİ A., YABANOĞLU ÇİFTÇİ S., KIR S., NEMUTLU E.  
18th INTERNATIONAL CHROMATOGRAPHY CONGRESS, 15 - 18 November 2018
- V. **Validation of an HPLC method for the determination of besifloxacin HCl from ocular insert based on polycaprolactone**  
POLAT H. K. , PEHLİVAN S., KIR S., ÇALIŞ S.  
12th International Symposium on Pharmaceutical Sciences, Turkey, 26 - 29 June 2018
- VI. **METABOLIC INFRASTRUCTURE OF PREGNANT WOMEN WITH METHYLENETETRAHYDROFOLATE REDUCTASE POLYMORPHISMS METABOLOMIC ANALYSIS**  
REÇBER T., ÖRGÜL G., AYDIN E., TANACAN A., NEMUTLU E., KIR S., BEKSAÇ M. S.  
12th International Symposium on Pharmaceutical Sciences (ISOPS), 26 - 29 June 2018
- VII. **METABOLOMIC PROFILING OF THE MOUSE PLASMA IN AIRWAY INFLAMMATION BY A GC-MS**  
REÇBER T., ABOHALAKA R., NEMUTLU E., BOZKURT T. E. , KIR S., ERDEMLİ İ.  
12th International Symposium on Pharmaceutical Sciences (ISOPS), 26 - 29 June 2018
- VIII. **Trace-Level Determination of 2-Amino Adipic Acid by LC-ESI-MS/MS for Early Diagnosis of Breast Cancer**  
REÇBER T., AKSOY S., NEMUTLU E., KIR S.  
International Trace Analysis Congress, 20 - 23 June 2018
- IX. **Metabolic Infrastructure of Pregnant Women with Down Syndrome**  
NEMUTLU E., ÖRGÜL G., Recber T., Aydın E., Özkan E., Turğal M., ALİKAŞİFOĞLU M., KIR S., BEKSAÇ M. S.  
Seventh Congress of the South East European Society of Perinatal Medicine, 10 May 2018 - 12 January 2019
- X. **Mass Spectrometry Based Targeted and Untargeted Metabolomic Analysis for Early Diagnosis of Breast Cancer Using LC-ESI-qTOF-MS and LC-ESI-MS/MS**  
REÇBER T., AKSOY S., BEKSAÇ K., CENNET Ö., KAYNAROĞLU Z. V. , NEMUTLU E., KIR S.  
8TH 8th BLACK SEA BASIN CONFERENCE ON ANALYTICAL CHEMISTRY, 9 - 11 May 2018
- XI. **Obez Çocukların Metabolik Profillerin Değerlendirilmesi**  
ÖZKEMAHLI K. G. , BALCI A., REÇBER T., NEMUTLU E., buluş d., ERKEKOĞLU Ü. P. , KIR S., GÜMÜŞEL B.  
UPEK-Ulusal Pediatrik Endokrinoloji ve Diyabet Kongresi, Antalya, Turkey, 18 - 22 April 2018
- XII. **Santral ve Puberte Prekokslu Çocuklarda Metabolomiks Çalışmaları**  
BALCI A., REÇBER T., NEMUTLU E., buluş a. d. , KIR S., GÜMÜŞEL B., ERKEKOĞLU Ü. P.  
22. Ulusal Pediatrik Endokrinoloji ve Diyabet Kongresi, Turkey, 18 - 22 April 2018
- XIII. **Ultrafiltration-Based Extraction and LC-MS/MS Analysis of Phenylalanine in Human Plasma Samples**  
REÇBER T., ÇELEBİER M., NEMUTLU E., ALTINÖZ S., KIR S.  
International Gazi Pharma Symposium Series (GPSS), 11 - 13 October 2017
- XIV. **Normalization Effects on the Repeatability of Long Term GC-MS Metabolomic Analysis**  
Özen G., REÇBER T., Eylem C. C. , KIR S., NEMUTLU E.  
Intenational Multidisciplinary Symposium on Drug Research and Development (DRD), 5 - 07 October 2017
- XV. **A LC-MS/MS Method for the Simultaneous Determination of Pronuciferine and Romerine in Some Papaver Species**  
EYLEM C. C. , BAYAZEID O., REÇBER T., NEMUTLU E., YALÇIN F. N. , KIR S.  
Intenational Multidisciplinary Symposium on Drug Research and Development (DRD), 5 - 07 October 2017
- XVI. **GC-MS Based Metabolomic Profile of Caco 2 Cell Lines**  
özen G., BAYSAL İ., Eylem C. C. , YABANOĞLU ÇİFTÇİ S., KIR S., NEMUTLU E.

3 rd International Multidisciplinary Symposium on Drug Research and Development - DRD 2017, 5 - 07 October 2017

- XVII. **A GC-MS Based Metabolomic Profiling of the Mouse Lung in Airway Inflammation**  
REÇBER T., ABOHALAKA R., NEMUTLU E., BOZKURT T. E., ERDEMLİ İ., KIR S.  
International Multidisciplinary Symposium on Drug Research and Development (DRD), 5 - 07 October 2017
- XVIII. **Optimization of Liquid Chromatography Quadrupole Time of Flight Mass Spectrometry for Metabolomic Profiling of Breast Cancer**  
REÇBER T., NEMUTLU E., Razzaghi M., Aksoy S., Sever A. R., Altundağ K., KIR S.  
10th Aegean Analytical Chemistry Days, 29 October - 02 November 2016
- XIX. **Meme Kanserinin Erken Tanısında Beş Aday Biyobelirtecin HILIC ESI MS MS Yöntemi ile Analizi**  
REÇBER T., NEMUTLU E., KIR S.  
16. Ulusal Kromatografi Kongresi, Turkey, 31 August - 02 September 2016
- XX. **GC MS Temelli Metabolomik Profillemeye Fetustaki Yapısal Anomalilerin Belirlenme Çalışmaları**  
REÇBER T., ÖZKAN E., AYDIN E., Tuğral M., MERAL D. G., NEMUTLU E., KIR S., BEKSAÇ M. S.  
Ulusal Analitik Kimya Kongresi, Turkey, 31 May - 03 June 2016
- XXI. **LC ESI MS MS Method for the Determination of Histidine Proline and Diethylaminomalonate**  
REÇBER T., NEMUTLU E., KIR S.  
International Multidisciplinary Symposium on Drug Research and Development- 2015, Turkey, 15 - 17 October 2015
- XXII. **GC MS Based Metabolomics Approaches for the Prenatal Screening Diagnosis of Down Syndrome**  
REÇBER T., ÖZKAN E., AYDIN E., Tuğral M., NEMUTLU E., KIR S., BEKSAÇ M. S.  
International Multidisciplinary Symposium on Drug Research and Development- 2015, Turkey, 15 - 17 October 2015
- XXIII. **Determination of Rivaroxaban in Human Plasma by Solid Phase Extraction High Performance Liquid Chromatography**  
ÇELEBİER M., REÇBER T., KOÇAK E., ALTINÖZ S., KIR S.  
International Eurasia Pharmacy Congress, 3 - 07 September 2015
- XXIV. **A Simple and Rapid HPLC RF Method for the Determination of Fluoxetine in Plasma Samples**  
REÇBER T., ÖZKAN E., Koçak E. E., Yılmaz M., NEMUTLU E., KIR S.  
11th International Symposium on Pharmaceutical Sciences, 9 - 12 June 2015
- XXV. **GC MS Based Metabolomic Profiling of Human Bone Marrow**  
Ayhan S., REÇBER T., ÖZKAN E., NEMUTLU E., ÖZGÜL R. K., ÇETİNKAYA F. D., KIR S.  
11th International Symposium on Pharmaceutical Sciences, 9 - 12 June 2015
- XXVI. **Effect Of Pregnancy On The Pharmacokinetic Profiles Of Cefixime Using Liquid Chromatographic Method**  
DOĞAN A., NEMUTLU E., EROĞLU H., Özek A., KIR S., BEKSAÇ M. S.  
9th Central European Symposium on Pharmaceutical Technology, 20 - 22 September 2012
- XXVII. **6 Effect of pregnancy on the pharmacokinetic profiles of cefepime using a fully validated ultrafast liquid chromatographic method**  
DOĞAN A., NEMUTLU E., REÇBER T., EROĞLU H., KIR S., BEKSAÇ M. S.  
International Symposium on Drug Research & Development "From Chemistry to Medicine" & New Horizons and Job Opportunities for Young Scientists", 27 - 29 May 2011
- XXVIII. **Determination of transplacental passage rate of cefixime by a fully validated HPLC method**  
NEMUTLU E., DOĞAN A., KIR S., BEKSAÇ M. S.  
NoSSS 2009, the 5th Conference by Nordic Separation Science Society, 26 August 2010 - 29 August 2009
- XXIX. **Determination of some Fluoroquinolone Antibiotics in Staphylococcus aureus Clinical Isolates By HPLC Fluorescence Method**  
NEMUTLU E., EKİZOĞLU M., Öztürk D., ÖZALP M., KIR S.  
9th International Symposium on Pharmaceutical Sciences (ISOPS), 23 - 26 June 2009

## Supported Projects

KIR S., TUBITAK Project, Meme Kanserinin Erken Tanısı için Kombine Kromatografik LC TOF MS ve LC MS MS Yöntemlerinin Geliştirilmesive Uygulanması, 2014 - Continues

ERKEKOĞLU Ü. P. , KIR S., GÜMÜŞEL B., NEMUTLU E., BALCI A., REÇBER T., BULUŞ A. D. , Project Supported by Higher Education Institutions, SANTRAL ve PERİFERAL PUBERTE PREKOKSLU ÇOCUKLARDA METABOLOMİKS ÇALIŞMALARI, 2017 - 2018

KIR S., ÖZKAN E., Project Supported by Higher Education Institutions, Down sendromunun tanısına yönelik seçilmiş metabolitlerin gaz kromatogarfisi kütle spektroskopisi ile miktar tayini, 2017 - 2017

KIR S., BEKSAÇ M. S. , NEMUTLU E., REÇBER T., ÖZKAN E., AYDIN E., Project Supported by Higher Education Institutions, Trizomi 21 Hastalığının Erken Dönem Tanısında Yer Alan Metabolitlerin Miktar Tayinleri için Yüksek Performanslı Sıvı Kromatografisi Kütle Spektrometrisi Yöntemi Geliştirilmesi, 2015 - 2017

KIR S., NEMUTLU E., REÇBER T., BEKSAÇ M. S. , Project Supported by Higher Education Institutions, DOWN SENDROMUNUN YÜKSEK SEÇİCİLİKTE TANISI İÇİN METABOLOMİK YAKLAŞIMLAR, 2014 - 2017

## Citations

Total Citations (WOS):268

h-index (WOS):8