

## Assoc. Prof. ŞÜKRAN ŞEKER

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: JBJ-8120-2023

ScopusID: 55180958200

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### Education Information

Doctorate, Ankara University, Fen Bilimleri Enstitüsü, Biyokimya, Turkey 2005 - 2011

Postgraduate, Ankara University, Biyoteknoloji Enstitüsü, Temel Biyoteknoloji, Turkey 2003 - 2005

Undergraduate, Ankara University, Fen Fakültesi, Kimya Bölümü, Turkey 1999 - 2003

### Dissertations

Doctorate, Memeli Hücrelerinin Farklı Substrat Yüzeyler Üzerine Adezyonunun Kuartz Kristal Mikrobalans Sistemi İle Eş-Zamanlı Belirlenmesi, Ankara University, Fen Bilimleri Enstitüsü, Biyokimya, 2011

Postgraduate, Piezoelektrik Kuartz Kristal Mikrobalans Sistemine Dayalı Glikonik Asit Biyosensörünün Geliştirilmesi, Ankara University, Biyoteknoloji Enstitüsü, 2005

### Research Areas

Biomedical Engineering, Tissue Engineering, Stem Cell Engineering, Polymeric Materials, Nanomaterials, Biochemistry, Biotechnology, Biosensor, Sensors, nanocomposites, Medical Applications of Polymers, nanoclusters

### Academic Titles / Tasks

Associate Professor, Ankara University, Kök Hücre Enstitüsü, Kök Hücre ve Yenileyici Tıp Anabilim Dalı, 2023 - Continues

Researcher, Ankara University, Kök Hücre Enstitüsü, Kök Hücre ve Yenileyici Tıp Anabilim Dalı, 2011 - 2023

Research Assistant, Ankara University, Fen Fakültesi, Kimya Bölümü, 2005 - 2011

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

1. **Albumin-capped gold nanocluster-integrated human albumin scaffolds: A traceable, xeno-free and customizable template for autogenic tissue engineering applications**  
Elçin Y. M., Şeker Ş.

PROCESS BIOCHEMISTRY, vol.143, pp.256-265, 2024 (SCI-Expanded)

- II. **Biomimetic mineralization of platelet lysate/oxidized dextran cryogel as a macroporous 3D composite scaffold for bone repair**  
Şeker Ş., Aral D., Elçin A. E., Elçin Y. M.  
BIOMEDICAL MATERIALS (BRISTOL, ENGLAND), vol.19, no.2, pp.1-12, 2024 (SCI-Expanded)
- III. **Evaluation of Human Osteoblasts on NIPS Micro-Patterned PCL Carriers Containing Nanohydroxyapatite and Reduced Graphene Oxide Using PS $\mu$ M**  
Tüzün-Antepli B., Şeker Ş., Elçin A. E., Khang G., Elçin Y. M.  
Molecules, vol.27, no.20, 2022 (SCI-Expanded)
- IV. **Development of a multicellular 3D-bioprinted microtissue model of human periodontal ligament-alveolar bone biointerface: Towards a pre-clinical model of periodontal diseases and personalized periodontal tissue engineering**  
Vurat M. T., Şeker Ş., Lalegül Ülker Ö., Parmaksız M., Elçin A. E., Elçin Y. M.  
GENES & DISEASES, vol.9, no.4, pp.1008-1023, 2022 (SCI-Expanded)
- V. **Macroporous elastic cryogels based on platelet lysate and oxidized dextran as tissue engineering scaffold: In vitro and in vivo evaluations**  
Şeker Ş., Elçin A. E., Elçin Y. M.  
MATERIALS SCIENCE AND ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS, vol.110, 2020 (SCI-Expanded)
- VI. **Autologous protein-based scaffold composed of platelet lysate and aminated hyaluronic acid**  
Şeker Ş., Elçin A. E., Elçin Y. M.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN MEDICINE, vol.30, no.12, 2019 (SCI-Expanded)
- VII. **A CD34+Cell Enrichment Protocol of Hematopoietic Stem Cells in a Well-Established Quality Management System**  
Kılıç P., Bay M., Yildirim Y., Coskun Ö., Şeker Ş., Baydın P., Ulker O. L., Parmaksız M., Çubukçuoğlu Deniz G., Yilmazer Aktuna A., et al.  
CELLS TISSUES ORGANS, vol.207, no.1, pp.15-20, 2019 (SCI-Expanded)
- VIII. **Encapsulation of bone marrow-MSCs in PRP-derived fibrin microbeads and preliminary evaluation in a volumetric muscle loss injury rat model: modular muscle tissue engineering**  
Lalegül Ülker Ö., Şeker Ş., Elçin A. E., Elçin Y. M.  
ARTIFICIAL CELLS NANOMEDICINE AND BIOTECHNOLOGY, vol.47, no.1, pp.10-21, 2019 (SCI-Expanded)
- IX. **Mesenchymal Stem Cell Infusion in Haploidentical Hematopoietic Stem Cell Transplantation in Patients with Hematological Malignancies**  
Arslan O., Elcin A. E., Atilla E., Şeker Ş., Baydın P., Gunduz M., Ozen M., Bayraktar U. D., İlhan O., Beksac M., et al.  
BIOLOGY OF BLOOD AND MARROW TRANSPLANTATION, vol.24, pp.1-2, 2018 (SCI-Expanded)
- X. **Comparative evaluation of nano and bulk tin dioxide cytotoxicity on dermal fibroblasts by real-time impedance-based and conventional methods**  
Şeker Ş.  
TURKISH JOURNAL OF BIOLOGY, vol.42, no.5, pp.435-446, 2018 (SCI-Expanded)
- XI. **Osteogenic differentiation of mesenchymal stem cells using hybrid nanofibers with different configurations and dimensionality**  
Gugutkov D., Awaja F., Belemzova K., Keremidarska M., Krasteva N., Kyurkchiev S., Gallego-Ferrer G., Şeker Ş., Elçin A. E., Elçin Y. M., et al.  
JOURNAL OF BIOMEDICAL MATERIALS RESEARCH PART A, vol.105, no.7, pp.2065-2074, 2017 (SCI-Expanded)
- XII. **Differential gene expression profiling of human adipose stem cells differentiating into smooth muscle-like cells by TGF beta 1/BMP4**  
Elçin A. E., Parmaksız M., Dogan A., Şeker Ş., Durkut S., Dalva K., Elçin Y. M.  
EXPERIMENTAL CELL RESEARCH, vol.352, no.2, pp.207-217, 2017 (SCI-Expanded)
- XIII. **A comparative study on the in vitro cytotoxic responses of two mammalian cell types to fullerenes, carbon nanotubes and iron oxide nanoparticles**  
Dönmez Güngüneş Ç., Şeker Ş., Elçin A. E., Elçin Y. M.

DRUG AND CHEMICAL TOXICOLOGY, vol.40, no.2, pp.215-227, 2017 (SCI-Expanded)

- XIV. **Real-time monitoring of mesenchymal stem cell responses to biomaterial surfaces and to a model drug by using quartz crystal microbalance**  
Seker Ş., Elçin A. E., Elçin Y. M.  
ARTIFICIAL CELLS NANOMEDICINE AND BIOTECHNOLOGY, vol.44, no.7, pp.1722-1732, 2016 (SCI-Expanded)
- XV. **In vitro cytotoxicity of hydrothermally synthesized ZnO nanoparticles on human periodontal ligament fibroblast and mouse dermal fibroblast cells**  
Seker Ş., Elçin A. E., Yumak T., Sınağ A., Elçin Y. M.  
TOXICOLOGY IN VITRO, vol.28, no.8, pp.1349-1358, 2014 (SCI-Expanded)
- XVI. **Encapsulation of human adipose mesenchymal stem cells in fibrin microbeads from platelet rich plasma and their in vitro evaluation**  
Lalegül O., Seker Ş., Elcin A. E., GÜRMAN G., Elcin Y. M.  
JOURNAL OF TISSUE ENGINEERING AND REGENERATIVE MEDICINE, vol.6, pp.160, 2012 (SCI-Expanded)
- XVII. **Regenerative and angiogenic capacity of rat bone marrow MSCs encapsulated in fibrin microbeads in a rat muscle injury model: preliminary study**  
Seker Ş., Lalegül O., Elcin A. E., GÜRMAN G., Elcin Y. M.  
JOURNAL OF TISSUE ENGINEERING AND REGENERATIVE MEDICINE, vol.6, pp.158, 2012 (SCI-Expanded)
- XVIII. **Electrospun Nanofibrous PLGA/Fullerene-C60 Coated Quartz Crystal Microbalance for Real-Time Gluconic Acid Monitoring**  
Seker Ş., Arslan Y. E., Elçin Y. M.  
IEEE SENSORS JOURNAL, vol.10, no.8, pp.1342-1348, 2010 (SCI-Expanded)
- XIX. **Periodontal ligament cellular structures engineered with electrospun poly(DL-lactide-co-glycolide) nanofibrous membrane scaffolds**  
Inanc B., Arslan Y. E., Seker Ş., Elçin A. E., Elçin Y. M.  
JOURNAL OF BIOMEDICAL MATERIALS RESEARCH PART A, vol.90A, no.1, pp.186-195, 2009 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Utility investigation of automated techniques in hematopoietic progenitor cell count and viability assessment in the Good Manufacturing Practice (GMP) setting**  
Kılıç P., Bay M., Baydın P., Şeker Ş., Coşkun Ö., Ülker O. L., Parmaksız M., Bitirim C. V., Cevheroğlu O., Deniz G. C., et al.  
Experimental Biomedical Research, vol.3, no.4, pp.231-238, 2020 (Peer-Reviewed Journal)
- II. **Cytotoxic Effects of Zinc Oxide on Human Periodontal Ligament Fibroblasts In Vitro**  
ŞEKER Ş.  
Hittite Journal of Science and Engineering, vol.5, no.1, pp.1-5, 2018 (Peer-Reviewed Journal)
- III. **Determination and Evaluation of Metal Oxide Toxicity on Dermal Fibroblasts by Using the Impedance-Based Assay System**  
Şeker Ş.  
PROCEEDINGS (MDPI), vol.2, no.25, pp.1-4, 2018 (Conference Book)
- IV. **Alpha-fetoprotein genosensor based on quartz crystal microbalance**  
Şeker Ş., Durkut S.  
Communications Series:B Chemistry and Chemical Engineering, vol.58, pp.9-17, 2016 (Peer-Reviewed Journal)
- V. **Piezoelectric resonance sensor for the determination of ammonium in aqueous environment.**  
Durdut S., Şeker Ş.  
Communications Series:B Chemistry and Chemical Engineering, vol.58, pp.1-8, 2016 (Peer-Reviewed Journal)
- VI. **Sensor Systems for Monitoring Mammalian Cell Behavior**  
Şeker Ş.  
Global Journal of Control Engineering and Technology, vol.2, pp.1-7, 2016 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **Encapsulation of MSCs in PRP-Derived Fibrin Microbeads**  
Lalegül Ülker Ö., Şeker Ş., Elçin A. E., Elçin Y. M.  
in: Stem Cells and Lineage Commitment: Methods and Protocols, Kursad Turksen, Editor, Springer Nature, New York, pp.1-10, 2023
- II. **Advances in Regenerative Medicine and Biomaterials**  
Şeker Ş., Elçin A. E., Elçin Y. M.  
in: Gene, Drug, and Tissue Engineering. Methods in Molecular Biology, Glauca C. Pereira, Editor, Humana Press, Inc. , New York, pp.127-152, 2022
- III. **Quartz crystal microbalance (QCM) and surface plasmon resonance (SPR)**  
Şeker Ş., Vurat M. T., Doğan A., Elçin A. E., Elçin Y. M.  
in: Sensors for Diagnostics and Monitoring: Devices, Circuits, & Systems, Yallup K, Basiricò L, Editor, CRC, New York, Florida, pp.179-215, 2019
- IV. **Bioanalytical applications of piezoelectric sensors**  
Şeker Ş., Elçin Y. M.  
in: Nanopatterning and Nanoscale Devices for Biological Applications, Seila Selimovic, Editor, CRC, New York, Florida, pp.261-287, 2014
- V. **Nanotechnology in tissue engineering and regenerative medicine**  
Şeker Ş., Arslan Y. E., Durkut S., Elçin A. E., Elçin Y. M.  
in: Nanopatterning and Nanoscale Devices for Biological Applications, Seila Selimovic, Editor, CRC, New York, Florida, pp.343-371, 2014
- VI. **Quartz Crystal Microbalance-Based Biosensors**  
Şeker Ş., Elçin Y. M.  
in: Biological and Medical Sensor Technologies, Krzysztof Iniewski, Editor, CRC, New York, Florida, pp.105-124, 2012

## Refereed Congress / Symposium Publications in Proceedings

- I. **Gold nanocluster-integrated albumin scaffolds: a traceable, xeno-free and customizable template for autogenic regenerative applications**  
Şeker Ş., Elçin Y. M.  
SupraLife Second School – “Bioinspired Supramolecular Self-Assemblies”, Aveiro, Portugal, 10 - 15 March 2024, pp.120
- II. **Evaluation of a PCL-nHAp-rGO ternary blend, micro-grooved membrane scaffold for osteoblasts.**  
Tüzün Antepli B., Şeker Ş., Elçin A. E., Khang G., Elçin Y. M.  
26th International Biomedical Science & Technology Symposium, 25 - 27 November 2022, pp.44-45
- III. **Kemik yenilenmesine yönelik otolog bileşenli yapı iskelelerinin geliştirilmesi ve karakterizasyonu**  
Aral D., Şeker Ş., Elçin A. E., Elçin Y. M.  
25. Ulusal Biyomedikal Bilim ve Teknoloji Sempozyumu, 18 - 19 December 2021, pp.24
- IV. **3-Boyutlu biyobasım ile in vitro perio/osteo biyoarayüzünün geliştirilmesi ve mikroakışkan çipte kültürü.**  
Vurat M. T., Şeker Ş., Parmaksız M., Lalegül Ülker Ö., Elçin A. E., Elçin Y. M.  
25. Ulusal Biyomedikal Bilim ve Teknoloji Sempozyumu, Ankara, 18 - 19 December 2021, pp.2
- V. **Advances in microphysiological systems: Focus on a 3D-bioprinted perio/osteo tissue-on-a-chip platform.**  
Elçin Y. M., Vurat M. T., Şeker Ş., Lalegül Ülker Ö., Parmaksız M., Elçin A. E.  
24th International Biomedical Science & Technology Symposium, İzmir, Turkey, 17 - 20 October 2019, pp.1
- VI. **Development of an in-vitro perio/osteo micro-tissue using 3D-bioprinting.**  
Parmaksız M., Vurat M. T., Şeker Ş., Elçin A. E., Lalegül Ülker Ö., Elçin Y. M.

3rd CellFit Annual Meeting, Athens, Greece, 10 - 12 October 2019, pp.64

- VII. **Tetrasiklinin İnsan Osteoblast Hücreleri Üzerindeki Sitotoksik Etkisinin Gerçek-Zamanlı İmpedans Analizi**  
Şeker Ş.  
IV. Türkiye in vitro Diyagnostik (IVD) Sempozyumu, İzmir, Turkey, 20 - 22 February 2019, pp.40
- VIII. **Cytotoxic Effects of Magnetite Nanoparticles on Human Periodontal Ligament Fibroblast Cells.**  
Güngüneş Ç. D., Şeker Ş., Güngüneş H., Elçin A. E., Elçin Y. M.  
NanoBio&Med2018 International Conference, Barcelona, Spain, 20 - 22 November 2018, pp.49
- IX. **Printable Composite Bioink for Periodontal Tissue Engineering.**  
Elçin Y. M., Vurat M. T., Elçin A. E., Parmaksız M., Şeker Ş., Lalegül Ülker Ö.  
COST 16119 CellFit Annual Meeting, Chakovec, Croatia, 2 - 03 October 2018, pp.28-29
- X. **Development and Characterization of a Novel Bioconjugated Hydrogel Scaffold Composed of Plasma Proteins and Aminated Hyaluronic Acid.**  
Şeker Ş., Elçin Y. M.  
29th Annual Meeting of the European Society for Biomaterials, Maastricht, Netherlands, 9 - 13 September 2018, pp.1-2
- XI. **Mesenchymal Stem Cell Infusion in Haploidentical Hematopoietic Stem Cell Transplantation in Patients with Hematological Malignancies**  
Arslan Ö., Elçin A. E., Atilla E., Seker Ş., Baydın P., Gunduz M., Ozen M., Bayraktar U. D., İlhan O., Beksaç M., et al.  
Blood and Marrow Transplantation Tandem Meetings of the Center-for-International-Blood-and-Marrow-Transplant-Research (CIBMTR) / American-Society-for-Blood-and-Marrow-Transplantation (ASBMT), Utah, United States Of America, 21 - 25 February 2018, vol.24
- XII. **Determination and Evaluation of Metal Oxide Toxicity on Dermal Fibroblasts by Using the Impedance-Based Assay System**  
Şeker Ş.  
2nd 11 International Cell Death Research Congress, İzmir, Turkey, 1 - 04 November 2018, pp.1-4
- XIII. **Mössbauer Spectroscopy of Magnetite Nanoparticles for Applications in Biotechnology and Biomedicine.**  
Güngüneş Ç. D., Şeker Ş., Elçin A. E., Güngüneş H., Elçin Y. M.  
International Turkish Congress on Molecular Spectroscopy 2017 (TURCMOS2017), Muğla, Turkey, 26 - 29 August 2017, pp.84
- XIV. **Encapsulation and osteogenic differentiation of human periodontal ligament fibroblasts in PRP/hydroxyapatite microbeads.**  
Şeker Ş., Elçin A. E., Elçin Y. M.  
European Chapter Meeting of the Tissue Engineering and Regenerative Medicine International Society 2017 (Termis-EU 2017), Zürich, Switzerland, 26 - 30 June 2017, pp.188
- XV. **Isolation and Culture of Good Manufacturing Practice Grade Human Bone Marrow Derived Mesenchymal Stem Cells for Clinical Applications.**  
Şeker Ş., Elçin Y. M., Elçin A. E.  
22th International Biomedical Science & Technology Symposium (BIOMED 22), Ankara, Turkey, 12 - 14 May 2017, pp.1
- XVI. **Effects of Platelet Rich Plasma on the Proliferation and Differentiation of Human Adipose Stem Cells.**  
Şeker Ş., Elçin A. E., Elçin Y. M.  
22th International Biomedical Science & Technology Symposium (BIOMED 22), Ankara, Turkey, 12 - 14 May 2017, pp.1
- XVII. **In-Vitro Adipogenic Differentiation of Human Adipose Stem Cells Under Simulated Microgravity.**  
Subak E., Şeker Ş., Elçin A. E., Elçin Y. M.  
Annual Meeting of The International Society for Stem Cell Research (ISSCR 2016), California, United States Of America, 22 - 25 June 2016, pp.1
- XVIII. **Nanotoxicity of SnO<sub>2</sub> and ZnO Nanoparticles in Human Periodontal Ligament Fibroblast and Mouse Dermal Fibroblast Cells.**

Şeker Ş., Elçin A. E., Yumak T., Sınağ A., Elçin Y. M.

19th International Biomedical Science & Technology Symposium (BIOMED XIX), İzmir, Turkey, 12 - 15 November 2013, pp.30

- XIX. **Regenerative and Angiogenic Capacity of Rat Bone Marrow MSCs Encapsulated in Fibrin Microbeads in a Rat Muscle Injury Model: Preliminary Study.**  
Şeker Ş., Lalegül Ülker Ö., Elçin A. E., Gürman G., Elçin Y. M.  
3rd World Congress of the Tissue Engineering & Regenerative Medicine International Society (TERMIS), Vienna, Austria, 5 - 08 September 2012, pp.158
- XX. **Encapsulation of Human 12 Adipose Mesenchymal Stem Cells in Fibrin Microbeads from Platelet Rich Plasma and Their In Vitro Evaluation.**  
Lalegül Ülker Ö., Şeker Ş., Elçin A. E., Gürman G., Elçin Y. M.  
3rd World Congress of the Tissue Engineering & Regenerative Medicine International Society (TERMIS), Vienna, Austria, 5 - 08 September 2012, pp.160
- XXI. **Real-Time Detection of Mesenchymal Stem Cell Responses to Anti-Microtubule Drugs Using Quartz Crystal Microbalance Cell Biosensor.**  
Şeker Ş., Elçin A. E., Elçin Y. M.  
17th International Biomedical Science & Technology Symposium (BIOMED XVII), Ankara, Turkey, 23 - 25 November 2011, pp.1
- XXII. **Fibrin Microbeads Using Platelet Rich Plasma for Encapsulation of Mesenchymal Stem Cells.**  
Lalegül Ülker Ö., Şeker Ş., Elçin A. E., Gürman G., Elçin Y. M.  
17th International Biomedical Science & Technology Symposium (BIOMED XVII), Ankara, Turkey, 23 - 25 November 2011, pp.1
- XXIII. **Cytotoxic Effects of Metal and Carbon Nanoparticles In Vitro.**  
Güngüneş Ç. D., Şeker Ş., Elçin A. E., Elçin Y. M.  
17th International Biomedical Science & Technology Symposium (BIOMED XVII), Ankara, Turkey, 23 - 25 November 2011, pp.33
- XXIV. **Effect of Mouse Embryonic Fibroblast-Conditioned Medium on Human Adipose-Derived Mesenchymal Stem Cells.**  
Kurman Y., Şeker Ş., Ercan H., Elçin A. E., Elçin Y. M.  
17th International Biomedical Science & Technology Symposium (BIOMED XVII), Ankara, Turkey, 23 - 25 November 2011, pp.1
- XXV. **In Vitro Cytotoxicity of Metal Oxide Nanoparticles on Mesenchymal Stem Cells.**  
Şeker Ş., Yumak T., Sınağ A., Elçin Y. M.  
7th Nanoscience and Nanotechnology Conference, İstanbul, Turkey, 27 June - 01 July 2011, pp.1
- XXVI. **Detection of Mesenchymal Stem Cell Response to Microtubule Binding Drugs by Using QCM Cell Biosensor**  
Şeker Ş., Elçin A. E., Elçin Y. M.  
XVIth International Biomedical Science & Technology Symposium (BIOMED XVI), İstanbul, Turkey, 29 September - 01 October 2010, pp.1
- XXVII. **Real-Time Monitoring of Mesenchymal Stem Cell Adhesion onto Substrates by Using Quartz Crystal Microbalance.**  
Şeker Ş., Elçin A. E., Elçin Y. M.  
XVth International Biomedical Science & Technology Symposium (BIOMED XV), Girne, Cyprus (Kktc), 16 - 19 August 2009, pp.50
- XXVIII. **Development of a QCM genosensor for the determination of alpha-fetoprotein mRNA**  
Şeker Ş., Elçin A. E., Elçin Y. M.  
XIIIth Biomedical Science & Technology Symposium (BIOMED XIII), İstanbul, Turkey, 26 - 28 August 2007, pp.1
- XXIX. **Electrospun PLGA nanofiber membranes as substrate for human periodontal ligament fibroblasts.**  
Arslan Y. E., İnanç B., Şeker Ş., Elçin A. E., Elçin Y. M.  
XIIIth Biomedical Science & Technology Symposium (BIOMED XIII), İstanbul, Turkey, 26 - 28 August 2007, pp.1
- XXX. **Engineering of periodontal tissues**

Elçin Y. M., İnanç B., Elçin A. E., Arslan Y. E., Şeker Ş.

Stem Cells and Tissue Engineering Symposium of Plastic, Reconstructive and Aesthetic Surgery, Samsun, Turkey, 10  
- 12 May 2007, pp.1

## Supported Projects

Akçalı K. C., Yılmaz Aktuna A., Ünal M. A., Bitirim C. V., Kiran F., Kaya B., Oto Ç., Kiliç P., Özkan S. A., Kıyan Z., et al.,  
TUBITAK Project, Regenerative and Restorative Medicine Research and Practice, 2022 - 2025

Şeker Ş., Elçin Y. M., TUBITAK Project, Albümin-Takılı Altın Nanoküme İçeren Albümin Doku İskelelerinin Kemik Doku  
Mühendisliği Uygulamalarına Yönelik Olarak Geliştirilmesi, 2021 - 2022

Şeker Ş., Elçin Y. M., EU Supported Other Project, Faz ayrımı yöntemleriyle poli( $\epsilon$ -kaprolakton), hidroksiapatit ve  
indirgenmiş grafen oksit temelli mikro-desenli ve mikro-poröz kompozit yapıların sert doku onarımına yönelik olarak  
geliştirilmesi, 2020 - 2022

Şeker Ş., Elçin Y. M., PARMAKSIZ M., TUBITAK Project, Üç-Boyutlu Biyobasım ile Canlı Perio/Osteo Mikroakışkan Doku Çip  
Sisteminin Geliştirilmesi ve Model İlaç Etkileşiminin İncelenmesi, 2017 - 2019

Şeker Ş., TUBITAK Project, Doku Mühendisliğine Yönelik Trombositten Zengin Plazma Temelli Biyomalzemelerin  
Geliştirilmesi, 2017 - 2018

Şeker Ş., TUBITAK Project, Ankara Üniversitesi Ar-Ge Strateji Belgesi (Rejeneratif ve Restoratif Tıp), 2016 - 2017

Şeker Ş., Elçin A. E., Project Supported by Other Official Institutions, İnsan Adipoz Mezenkimal Kök Hücrelerinin Damar  
Düz Kas Hücrelerine Farklaşmasının Moleküler Düzeyde İncelenmesi, 2014 - 2016

Şeker Ş., Elçin Y. M., EU Supported Other Project, Nanoyapılı Jellerde Adipoz Mezenkimal Kök Hücre Farklaşmasının  
İncelenmesi, 2011 - 2014

Şeker Ş., Elçin Y. M., EU Supported Other Project, Nanoyapılı Fibrojel Yapı İskelelerinin Biyoyumluluğunun ve İskelet  
Hastalıklarında Kullanımının İncelenmesi: In-Vivo Deneysel Çalışmalar, 2011 - 2014

Şeker Ş., Elçin Y. M., TUBITAK Project, Elektroegirme Tekniğiyle Hazırlanmış Polimer Nanolif İskeleler Üzerinde  
Periodontal Ligament Fibroblast Tabakalarının Oluşturulması ve Yeni Doku Tabakalarının Karakterizasyonu, 2007 -  
2009

Şeker Ş., Elçin Y. M., Project Supported by Other Official Institutions, Piezoelektrik Kuartz Kristal Mikrobalans Sistemine  
Dayalı Sıçan  $\alpha$ -Fetoprotein Gen Sensörünün Geliştirilmesi, 2004 - 2005

## Patent

Şeker Ş., Elçin Y. M., Trombositten Zengin Plazma Kaynaklı Biyomalzeme ve Üretim Yöntem, Patent, CHAPTER A Human  
Needs, The Invention Registration Number: TR 2016/07980 B , Standard Registration, 2018

Şeker Ş., Elçin Y. M., Trombositten Zengin Plazma, Alginat ve Trombin Kullanılarak Fibrin Mikrokürelerin Hazırlanması  
Yöntem, Patent, CHAPTER A Human Needs, The Invention Registration Number: TR 2012/01068 B , Standard  
Registration, 2016

## Memberships / Tasks in Scientific Organizations

European Society for Biomaterials, Member, 2018 - Continues, Netherlands

Biyomalzeme ve Doku Mühendisliği Derneği, Member, 2009 - Continues, Turkey

## Scientific Refereeing

BIOMEDICAL MATERIALS, SCI Journal, May 2024

TURKISH JOURNAL OF BIOLOGY, Journal Indexed in SCI-E, September 2023

TISSUE AND CELL, Journal Indexed in SCI-E, August 2023

STEM CELL REVIEWS AND REPORTS, SCI Journal, February 2023  
International Journal of 3D Printing Technologies and Digital Industry, Other Indexed Journal, July 2021  
Bioactive Materials, Journal Indexed in SCI-E, June 2021  
Osteoarthritis and Cartilage Open, Other Indexed Journal, July 2020  
IEEE SENSORS JOURNAL, Journal Indexed in SCI-E, June 2019  
METHODS, Journal Indexed in SCI-E, February 2019  
POLYMER COMPOSITES, Journal Indexed in SCI-E, August 2018  
TURKISH JOURNAL OF HAEMATOLOGY, Journal Indexed in SCI-E, July 2018  
IEEE SENSORS JOURNAL, Journal Indexed in SCI-E, April 2018  
TRANSACTIONS OF NONFERROUS METALS SOCIETY OF CHINA (ENGLISH EDITION), National Scientific Refreed Journal, April 2018  
Stem Cell Reviews and Reports, Journal Indexed in SCI-E, February 2018  
TURKISH JOURNAL OF HAEMATOLOGY, Journal Indexed in SCI-E, February 2018  
IEEE SENSORS JOURNAL, Journal Indexed in SCI-E, November 2017  
TURKISH JOURNAL OF HAEMATOLOGY, Journal Indexed in SCI-E, February 2017  
JOURNAL OF HAZARDOUS MATERIALS MANAGEMENT - HANDLING - DISPOSAL - RISK - ASSESSMENT, Journal Indexed in SCI-E, April 2015

### **Tasks In Event Organizations**

Şeker Ş., 26th International Biomedical Science & Technology Symposium, Scientific Congress, Turkey, Kasım 2022  
Şeker Ş., 25. Ulusal Biyomedikal Bilim ve Teknoloji Sempozyumu, Scientific Congress, Turkey, Aralık 2021  
Şeker Ş., 22th International Biomedical Science & Technology Symposium (BIOMED 22), Scientific Congress, Turkey, Mayıs 2017  
Şeker Ş., 17th International Biomedical Science & Technology Symposium (BIOMED XVII), Scientific Congress, Turkey, Kasım 2011

### **Congress and Symposium Activities**

TÜBA-Kök Hücre Tedavilerine Güncel Yaklaşımlar Sempozyumu, Attendee, Ankara, Turkey, 2015  
Tüba Kök Hücre Araştırmaları ve Biyoetik Sempozyumu, Attendee, Ankara, Turkey, 2015  
5. Ulusal Lenfoma-Myeloma Kongresi ve TÜBA-1. Kök Hücre Üretiminde Yeni Teknikler Kursu, Attendee, Antalya, Turkey, 2014  
II. Kök Hücre Kursu ve VI. Kök Hücre Sempozyumu, Attendee, Ankara, Turkey, 2011  
I. Kök Hücre Kursu ve V. Kök Hücre Sempozyumu, Attendee, Ankara, Turkey, 2010  
II. Biyomalzeme ve Doku Mühendisliği Çalıştayı, Attendee, Ankara, Turkey, 2010  
IV. Kök Hücre Sempozyumu, Attendee, Ankara, Turkey, 2009  
Xth Biomedical Science&Technology Symposium, Attendee, Girne, Cyprus (Kktc), 2003

### **Scholarships**

Hayatboyu Öğrenme / Erasmus Programı, Other International Organizations, 2005 - 2006

### **Awards**

Şeker Ş., Young Investigator Travel Award, 3Rd World Congress Of The Tissue Engineering & Regenerative Medicine International Society (Termıs), September 2012