

## **Asst. Prof. SEHER YAYLACI**

### **Personal Information**

**Email:** seher.yaylaci@lokmanhekim.edu.tr

**Web:** <https://avesis.lokmanhekim.edu.tr/seher.yaylaci>

### **International Researcher IDs**

ORCID: 0000-0003-3309-2303

Publons / Web Of Science ResearcherID: AAG-4927-2019

ScopusID: 55561942100

Yoksis Researcher ID: 282316

### **Education Information**

Doctorate, Ihsan Dogramaci Bilkent University, Institute Of Engineering And Natural Sciences, Malzeme Bilimi Ve Nanoteknoloji (Dr), Turkey 2010 - 2015

Undergraduate, Ihsan Dogramaci Bilkent University, Faculty Of Science, Department Of Molecular Biology And Genetics, Turkey 2004 - 2009

### **Dissertations**

Doctorate, Development and characterization of peptide nanofibers for cartilage regeneration, Ihsan Dogramaci Bilkent University, Institute Of Engineering And Natural Sciences, 2015

### **Research Areas**

Material science and engineering

### **Academic Titles / Tasks**

Assistant Professor, Lokman Hekim University, Tıp Fakültesi, Temel Tıp Bilimleri Bölümü, 2018 - Continues

### **Academic and Administrative Experience**

Ulusal ve Uluslararası İlişkiler ve Değişim Koordinatörlüğü Üyesi, Lokman Hekim University, Tıp Fakültesi, Temel Tıp Bilimleri Bölümü, 2022 - Continues

Bütünleşik TıpBilimsel Doktora Program Kurulu, Lokman Hekim University, Tıp Fakültesi, Temel Tıp Bilimleri Bölümü, 2022 - Continues

Mezuniyet Öncesi Eğitim Koordinatörlüğü, Lokman Hekim University, Tıp Fakültesi, Temel Tıp Bilimleri Bölümü, 2022 - Continues

Bölüm Kalite Komisyonu Üyesi, Lokman Hekim University, Tıp Fakültesi, Temel Tıp Bilimleri Bölümü, 2022 - Continues  
DÖNEM I KOORDİNATÖR YARDIMCISI, Lokman Hekim University, Tıp Fakültesi, Temel Tıp Bilimleri Bölümü, 2021 - Continues

Ölçme Değerlendirme Kurulu Üyesi, Lokman Hekim University, Tıp Fakültesi, Temel Tıp Bilimleri Bölümü, 2021 -

Continues

Rectorate Commissioner, Lokman Hekim University, Translasyonel Tıp Uygulama Ve Araştırma Merkezi, 2019 -

Continues

Erasmus Program Institutional Coordinator, Lokman Hekim University, 2019 - 2021

Head of Department, Lokman Hekim University, 2018 - 2021

## Courses

TİBBİ BİYOLOJİ, Undergraduate, 2022 - 2023, 2021 - 2022

MEDICAL BIOLOGY, Undergraduate, 2022 - 2023

MEDICAL BIOLOGY, Undergraduate, 2022 - 2023

Tıbbi biyoloji, Undergraduate, 2022 - 2023, 2021 - 2022

HÜCRELERARASI İLİŞKİLER, Postgraduate, 2022 - 2023

MEDICAL BIOLOGY, Undergraduate, 2022 - 2023, 2021 - 2022

MEDICAL BIOLOGY, Undergraduate, 2022 - 2023, 2021 - 2022

TİBBİ BİYOLOJİ, Undergraduate, 2022 - 2023, 2021 - 2022

SCIENTIFIC AND CLINICAL APPROACHES, Undergraduate, 2022 - 2023

MOLEKÜLER BİYOLOJİ VE GENETİK, Undergraduate, 2022 - 2023, 2021 - 2022

Tıbbi biyoloji, Undergraduate, 2022 - 2023, 2021 - 2022

MOLECULAR BIOLOGY AND GENETICS, Undergraduate, 2022 - 2023

MEDICAL BIOLOGY, Undergraduate, 2022 - 2023, 2021 - 2022

Tıbbi Biyoloji ve Genetik, Undergraduate, 2019 - 2020

Tıbbi Biyoloji, Undergraduate, 2019 - 2020, 2018 - 2019

Rejeneratif Tıp ve Doku Mühendisliği, Undergraduate, 2018 - 2019

## Jury Memberships

Post Graduate, Post Graduate, Lokman Hekim Üniversitesi, February, 2022

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Lokman Hekim Üniversitesi,

January, 2022

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

- I. An enzyme-free technique enables the isolation of a large number of adipose-derived stem cells at the bedside  
YAYLACI S., KAÇAROĞLU D., Hürkal Ö., ULAŞLI A. M.  
Scientific Reports, vol.13, no.1, 2023 (SCI-Expanded)
- II. Peptide Nanofiber System for Sustained Delivery of Anti-VEGF Proteins to the Eye Vitreous  
YAYLACI S., Dinç E., AYDIN B., Tekinay A. B., Guler M. O.  
Pharmaceutics, vol.15, no.4, 2023 (SCI-Expanded)
- III. Sulfated GAG mimetic peptide nanofibers enhance chondrogenic differentiation of mesenchymal stem cells in 3D in vitro models  
Yaylacı S., Guler M. O., Tekinay A. B.  
Regenerative Biomaterials, vol.10, pp.1, 2022 (SCI-Expanded)
- IV. SUSTAINED INTRAVITREAL ANTI-VEGF RELEASE FROM PEPTIDE NANOFIBER DELIVERY SYSTEMS  
Yaylacı S.  
TISSUE ENGINEERING - PART A, vol.28, no.S1, pp.456, 2022 (SCI-Expanded)
- V. Chondrogenic Differentiation of Mesenchymal Stem Cells on Glycosaminoglycan-Mimetic Peptide

### **Nanofibers**

YAYLACI S., Sen M., Bulut O., Arslan E., Guler M. O., Tekinay A. B.

ACS BIOMATERIALS SCIENCE & ENGINEERING, vol.2, no.5, pp.871-878, 2016 (SCI-Expanded)

**VI. Supramolecular GAG-like Self-Assembled Glycopeptide Nanofibers Induce Chondrogenesis and Cartilage Regeneration**

YAYLACI S., ŞARDAN EKİZ M., Arslan E., Can N., Kılıç E., Ozkan H., Orujalipoor I., İDE S., Tekinay A. B., Guler M. O.

BIOMACROMOLECULES, vol.17, no.2, pp.679-689, 2016 (SCI-Expanded)

**VII. Growth and Differentiation of Prechondrogenic Cells on Bioactive Self-Assembled Peptide Nanofibers**

Ustun S., Tombuloglu A., Kilinc M., Guler M. O., Tekinay A. B.

BIOMACROMOLECULES, vol.14, no.1, pp.17-26, 2013 (SCI-Expanded)

### **Articles Published in Other Journals**

**I. Peptide nanofibers for controlled growth factor release**

Tekinay A. B., Guler M. O., Mumcuoglu D., Ustun S.

Therapeutic Delivery, vol.4, no.6, pp.651-654, 2013 (ESCI)

### **Books & Book Chapters**

**I. Therapeutic Nanomaterials for Cartilage Regeneration**

YAYLACI S., Arslan E., Tekinay A. B., Güler M.

in: Therapeutic Nanomaterials, Guler MO, Tekinay AB, Editor, John Wiley Sons, pp.59-89, 2016

### **Refereed Congress / Symposium Publications in Proceedings**

**I. HAVDI Bioactive Sequence Modulates Immune Responses Of Adipose Derived Mesenchymal Stem Cells In 2D and 3D Cell Culture System**

Yüregir Y., Kaçaroğlu D., Yaylacı S.

INSAC International Researches Congress on Health and Life Sciences , Konya, Turkey, 18 - 19 March 2023, pp.1-2

**II. Peptide nanofibers as a delivery system for anti-vascular endothelial growth factor protein in the eye**

YAYLACI S., Güler M., Tekinay A. B., DİNÇ E., AYDIN B.

The 26th International Biomedical Science and Technology Symposium, 25 November 2022

**III. An Enzyme-Free Technique Enables the Isolation of a Large Number of Adipose-Derived Stem Cells at the Bedside**

Yaylacı S., Ulaşlı A. M., Kaçaroğlu D.

5TH INTERNATIONAL EURASIAN CONFERENCE ON BIOLOGICAL AND CHEMICAL SCIENCES, Ankara, Turkey, 23 - 25 November 2022, pp.1-3

**IV. Evaluation of the effects of TLR4 signaling on metabolic activity and regenerative capacity in adipose tissue-derived mesenchymal stem cells**

Kaçaroğlu D., Yaylacı S.

5th International Eurasian Conference on Biological and Chemical Sciences, Ankara, Turkey, 23 - 25 November 2022, pp.1-3

**V. Bioactive and antimicrobial dental implant interfaces for improved and rapid osseointegration**

YAYLACI S., CEYLAN H., ULUTÜRK H., ERGÜL ÜLGER Z.

International Advances in Molecular Biology Congress, 19 September 2022

**VI. ENHANCING CHONDROGENIC DIFFERENTIATION OF MOUSE MESENCHYMAL STEM CELLS IN THREE-**

## **DIMENSIONAL IN VITRO MODELS WITH GAG MIMICKING PEPTIDE NANOFIBERS**

YAYLACI S.

1<sup>st</sup> International Karatekin Science and Technology Conference, 02 September 2022

## **VII. Growth and differentiation of pre-chondrogenic ATDC5 cells on bioactive self-assembled peptide nanofibers**

YAYLACI S., Ekiz M. S., İDE S., Orujalipoor I., Özkan H., Kılıç E.

JOURNAL OF TISSUE ENGINEERING AND REGENERATIVE MEDICINE, 15 July 2014, vol.6, pp.54

## **VIII. Supramolecular glycopeptide nanosystems and their effect on the chondrogenic differentiation**

YAYLACI S., İDE S., Ekiz M. S.

ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY, Indianapolis, 8 - 12 September 2013, vol.246

## **IX. Hierarchical design of bone extracellular matrix mimetic nanofibers promote osteogenic differentiation of mesenchymal stem cells**

YAYLACI S.

JOURNAL OF TISSUE ENGINEERING AND REGENERATIVE MEDICINE, 16 May 2013, vol.6, pp.226

## **X. Sustained release of ranibizumab from self-assembled peptide amphiphile microgels**

YAYLACI S.

JOURNAL OF TISSUE ENGINEERING AND REGENERATIVE MEDICINE, 13 May 2013, vol.6, pp.226

## **Activities in Scientific Journals**

Frontiers in Nanotechnology, Assistant Editor/Section Editor, 2022 - Continues

## **Memberships / Tasks in Scientific Organizations**

European Cooperation in Technology and Science, Member, 2021 - Continues, Germany

European Cooperation in Science and Technology, Member, 2021 - Continues, Germany

## **Scientific Refereeing**

TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Lokman Hekim University, Turkey, February 2023

Frontiers in Nanotechnology, SCI Journal, January 2022

## **Metrics**

Publication: 26

Citation (WoS): 109

Citation (Scopus): 148

H-Index (WoS): 4

H-Index (Scopus): 4

## **Congress and Symposium Activities**

Biomedical Science and Technology Symposium, Attendee, İstanbul, Turkey, 2022

5. International Eurasian Conference on Biological and Chemical Sciences (5. Uluslararası Avrasya Biyolojik ve Kimya Bilimleri Konferansı), Attendee, Ankara, Turkey, 2022

AMB 22 I. International Advances in Molecular Biology Congress, Attendee, İstanbul, Turkey, 2022

## Representation and Promotion Activities

Institutional Promotion, Betülcan Anadolu Lisesi, Turkey, Ankara, 2022 - 2022  
Institutional Promotion, Lokman Hekim Üniversitesi , Turkey, Ankara, 2022 - 2022  
Institutional Promotion, Lokman Hekim Üniversitesi, Turkey, Ankara, 2022 - 2022  
Institutional Promotion, Lokman Hekim Üniversitesi , Turkey, Ankara, 2022 - 2022  
Institutional Promotion, Lokman Hekim Üniversitesi, Turkey, Ankara, 2022 - 2022  
Institutional Promotion, Lokman Hekim Üniversitesi, Turkey, Ankara, 2022 - 2022  
Institutional Promotion, LHÜ, Turkey, Ankara, 2021 - 2021  
Institutional Promotion, LHÜ, Turkey, Ankara, 2021 - 2021  
Institutional Promotion, LHÜ, Turkey, Ankara, 2021 - 2021  
Institutional Promotion, LHÜ, Turkey, Ankara, 2021 - 2021  
Institutional Promotion, LHÜ, Turkey, Ankara, 2021 - 2021

## Non Academic Experience

The European Cooperation in Science and Technology (COST)  
European Union, European Cooperation in Science and Technology, CorEuStem: The European Network for Stem Cell Core Facilities (CorEuStem)  
European Union, European Cooperation in Science and Technology, CorEuStem: The European Network for Stem Cell Core Facilities (CorEuStem)