

## Res. Asst. PhD SEMİH ÇALAMAK

### Personal Information

Office Phone: [+90 312 305 4018](tel:+903123054018)

Email: [semihcalamak@hacettepe.edu.tr](mailto:semihcalamak@hacettepe.edu.tr)

### Education Information

Doctorate, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Nanoteknoloji Ve Nanotıp, Turkey 2012 - 2018

Doctorate, Stanford University, School Of Medicine, Radiology Department, Canary Center At Stanford For Cancer Early Detection, United States Of America 2014 - 2015

Postgraduate, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Nanoteknoloji Ve Nanotıp, Turkey 2010 - 2012

Undergraduate, Gazi Üniversitesi, Fen Edebiyat Fakültesi, Kimya, Turkey 2007 - 2010

Undergraduate, Gazi Üniversitesi, Fen Edebiyat Fakültesi, Biyoloji, Turkey 2006 - 2010

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, Prostat kanseri biyobelirteçlerinin tayini için nanoplazmonik platformların hassasiyetinin artırılması, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Nanoteknoloji Ve Nanotıp, 2018

Postgraduate, Yara örtüsü olarak ipek bazlı antibakteriyel biyonanotekstillerin üretimi, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Nanoteknoloji Ve Nanotıp Anabilim Dalı (Disiplinlerarası), 2012

### Research Areas

Life Sciences, Biochemistry, Biomolecules, Natural Sciences

### Academic Titles / Tasks

Research Assistant PhD, Hacettepe Üniversitesi, Eczacılık Fakültesi, Temel Eczacılık Bilimleri Bölümü, 2012 - Continues

### Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **In situ silver nanoparticle synthesis on 3D-printed polylactic acid scaffolds for biomedical applications**  
ÇALAMAK S., Ermis M.  
JOURNAL OF MATERIALS RESEARCH, 2021 (Journal Indexed in SCI)
- II. **Design of circulating microfluidic bioreactor for circulating tumor cells research and shear stress effects on breast cancer (MDA-MB-231) cell viability**  
ÇALAMAK S.

JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.36, no.1, pp.395-406, 2021 (Journal Indexed in SCI)

- III. **Development of besifloxacin HCl loaded nanofibrous ocular inserts for the treatment of bacterial keratitis: In vitro, ex vivo and in vivo evaluation**  
POLAT H. K. , Pehlivan S. B. , Ozkul C. , ÇALAMAK S., Ozturk N., AYTEKİN E., FIRAT A., ULUBAYRAM K., KOCABEYOĞLU S., Irkeç M., et al.  
INTERNATIONAL JOURNAL OF PHARMACEUTICS, vol.585, 2020 (Journal Indexed in SCI)
- IV. **Liposome-based combination therapy for acne treatment**  
EROĞLU İ., Aslan M., Yaman U., Gultekinoglu M., ÇALAMAK S., KART D., ULUBAYRAM K.  
JOURNAL OF LIPOSOME RESEARCH, vol.30, no.3, pp.263-273, 2020 (Journal Indexed in SCI)
- V. **Polyethylenimine-mediated gold nanoparticle arrays with tunable electric field enhancement for plasmonic applications**  
ÇALAMAK S., ULUBAYRAM K.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.30, no.10, pp.10013-10023, 2019 (Journal Indexed in SCI)
- VI. **Controlled synthesis of multi-branched gold nanodendrites by dynamic microfluidic flow system**  
ÇALAMAK S., ULUBAYRAM K.  
JOURNAL OF MATERIALS SCIENCE, vol.54, no.10, pp.7541-7552, 2019 (Journal Indexed in SCI)
- VII. **Gold nano-decorated aligned polyurethane nanofibers for enhancement of neurite outgrowth and elongation**  
DEMİR U. S. , SHAHBAZI R., ÇALAMAK S., ÖZTÜRK Ş., GÜLTEKİNOĞLU M., ULUBAYRAM K.  
JOURNAL OF BIOMEDICAL MATERIALS RESEARCH PART A, vol.106, no.6, pp.1604-1613, 2018 (Journal Indexed in SCI)
- VIII. **Curcumin-loaded electrospun PHBV nanofibers as potential wound-dressing material**  
MUTLU G., ÇALAMAK S., ULUBAYRAM K., GÜVEN E.  
JOURNAL OF DRUG DELIVERY SCIENCE AND TECHNOLOGY, vol.43, pp.185-193, 2018 (Journal Indexed in SCI)
- IX. **Hydrogels as a New Platform to Recapitulate the Tumor Microenvironment**  
Ermis M., Calamak S., Kocal G. C. , Guven S., Durmus N. G. , Rizvi I., Hasan T., HASIRCI N., Hasirci V., Demirci U.  
HANDBOOK OF NANOMATERIALS FOR CANCER THERANOSTICS, pp.463-494, 2018 (Journal Indexed in SCI)
- X. **An overview of nanofiber-based antibacterial drug design**  
ÇALAMAK S., SHAHBAZI R., EROĞLU İ., Gultekinoglu M., ULUBAYRAM K.  
EXPERT OPINION ON DRUG DISCOVERY, vol.12, no.4, pp.391-406, 2017 (Journal Indexed in SCI)
- XI. **In vivo tissue distribution and efficacy studies for cyclosporin A loaded nano-decorated subconjunctival implants**  
Yavuz B., Pehlivan S., Kaffashi A., ÇALAMAK S., ULUBAYRAM K., PALASKA E., Cakmak H. B. , Unlu N.  
DRUG DELIVERY, vol.23, no.9, pp.3279-3284, 2016 (Journal Indexed in SCI)
- XII. **Integrating Cell Phone Imaging with Magnetic Levitation (i-LEV) for Label-Free Blood Analysis at the Point-of-Living**  
Baday M., Calamak S., Durmus N. G. , Davis R. W. , Steinmetz L. M. , Demirci U.  
SMALL, vol.12, no.9, pp.1222-1229, 2016 (Journal Indexed in SCI)
- XIII. **Immobilization of heparin on chitosan-grafted polyurethane films to enhance anti-adhesive and antibacterial properties**  
Kara F., AKSOY E. A. , ÇALAMAK S., HASIRCI N., Aksoy S.  
JOURNAL OF BIOACTIVE AND COMPATIBLE POLYMERS, vol.31, no.1, pp.72-90, 2016 (Journal Indexed in SCI)
- XIV. **Preparation and in vitro/in vivo evaluation of cyclosporin A-loaded nanodecorated ocular implants for subconjunctival application**  
PEHLIVAN S., Yavuz B., ÇALAMAK S., ULUBAYRAM K., KAFFASHI A., VURAL İ., Cakmak H. B. , DURGUN M. E. , DENKBAŞ E. B. , UNLU N.  
Journal of Pharmaceutical Sciences, vol.104, no.5, pp.1709-1720, 2015 (Journal Indexed in SCI Expanded)
- XV. **Bioprinted Microfluidic 3 D Cancer Microenvironments for Detection of Histone Modification and Cell Migration**

ÇALAMAK S., DEMİRTAŞ T. T. , GÜVEN S., ÖZEN M. O. , İNCİ F., SEKAR T., MALLICK P., PAULMURUGAN R., DEMİRÇİ U.

TISSUE ENGINEERING PART A, vol.21, pp.1-413, 2015 (Journal Indexed in SCI)

- XVI. **Multitarget, quantitative nanoplasmonic electrical field-enhanced resonating device ((NERD)-R-2) for diagnostics**  
Inci F., Filippini C., Baday M., Ozen M. O. , Calamak S., Durmus N. G. , Wang S., Hanhauser E., Hobbs K. S. , Juillard F., et al.  
PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, vol.112, no.32, 2015 (Journal Indexed in SCI)
- XVII. **Remote control CPAs delivery via cryonanoliposomes**  
TESSIER S. N. , ÇALAMAK S., ARAMPATZİDOU M., FİŞHER D., EİSENBERG D. P.  
Cryobiology, vol.71, pp.178-179, 2015 (Journal Indexed in SCI Expanded)
- XVIII. **Ag/silk fibroin nanofibers: Effect of fibroin morphology on Ag+ release and antibacterial activity**  
ÇALAMAK S., AKSOY E. A. , Ertas N., ERDOĞDU C., SAĞIROĞLU M., ULUBAYRAM K.  
EUROPEAN POLYMER JOURNAL, vol.67, pp.99-112, 2015 (Journal Indexed in SCI)
- XIX. **Silver nanoparticle containing silk fibroin bionanotextiles**  
ÇALAMAK S., AKSOY E. A. , ERDOĞDU C., SAĞIROĞLU M., ULUBAYRAM K.  
JOURNAL OF NANOPARTICLE RESEARCH, vol.17, no.2, 2015 (Journal Indexed in SCI)
- XX. **Nanofibers Based Antibacterial Drug Design, Delivery and Applications**  
ULUBAYRAM K., ÇALAMAK S., SHAHBAZI R., Eroglu İ.  
CURRENT PHARMACEUTICAL DESIGN, vol.21, no.15, pp.1930-1943, 2015 (Journal Indexed in SCI)
- XXI. **Silk fibroin based antibacterial bionanotextiles as wound dressing materials**  
ÇALAMAK S., Erdogdu C., Ozalp M., ULUBAYRAM K.  
MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS, vol.43, pp.11-20, 2014 (Journal Indexed in SCI)

## Articles Published in Other Journals

- I. **A Circulating Bioreactor Reprograms Cancer Cells Toward a More Mesenchymal Niche**  
Calamak S., Ermis M., Sun H., Islam S., Sikora M., Nguyen M., Hasirci V., Steinmetz L. M. , Demirci U.  
ADVANCED BIOSYSTEMS, vol.4, no.2, 2020 (Journal Indexed in ESCI)

## Books & Book Chapters

- I. **Hydrogels as a New Platform to Recapitulate the Tumor Microenvironment**  
Çalamak S.  
in: Handbook of Nanomaterials for Cancer Theranostics, Jao Conde, Editor, Elsevier Science, Oxford/Amsterdam , Amsterdam, pp.463-494, 2018
- II. **Antibakteriyel Biyomalzemeler**  
ÇALAMAK S., GÜLTEKİNOĞLU M., ULUBAYRAM K.  
in: İLERİ BİYOMALZEMELER: BİYOMALZEME VE NANOMALZEME UYGULAMALARI, Filiz Kuralay, Editor, Palme, 2018

## Refereed Congress / Symposium Publications in Proceedings

- I. **Development of Besifloxacin HCl Loaded Insert Formulations for the Treatment of Bacterial Keratitis**  
POLAT H. K. , ÇALAMAK S., AYTEKİN E., PEHLİVAN S., ULUBAYRAM K., ÇALIŞ S.  
8th BBBB International Conference on Pharmaceutical Sciences, Turkey, 14 - 16 October 2019

- II. **In Vitro Evaluation of Ocular Insert Formulations Containing Besifloxacin HCl**  
POLAT H. K. , ÇALAMAK S., AYTEKİN E., PEHLİVAN S., ULUBAYRAM K., ÇALIŞ S.  
8th BBBB International Conference on Pharmaceutical Sciences, Turkey, 14 - 16 October 2019
- III. **DETECTION OF PROSTATE CANCER BIOMARKERS VIA IN-SITU GOLD NANOPARTICLE GROWTH ON LSPR SURFACES**  
ÇALAMAK S., ULUBAYRAM K.  
International Pharmaceutical Technology Symposium (IPTS-2018), 17 - 19 September 2018
- IV. **Silk Fibroin Based Antibacterial Bionanotextiles**  
ÇALAMAK S., ULUBAYRAM K.  
22. International Biomedical Sciences and Technologies Symposium (BIOMED), 12 - 14 May 2017
- V. **Development of Electrospun Nanofiber-Based Implants Coated with Different Polymers for Topical Ocular Therapy**  
POLAT H. K. , ÇALAMAK S., AYTEKİN E., PEHLİVAN S., ULUBAYRAM K., ÇALIŞ S.  
The 22nd Biomedical Science and Technology Symposium, 12 - 14 May 2017
- VI. **In vivo evaluation of cyclosporin a loaded nano-decorated subconjunctival implants**  
YAVUZ B., PEHLİVAN S., KAFFASİ A., ÇALAMAK S., ULUBAYRAM K., PALASKA E., ÜNLÜ N.  
22. International Biomedical Sciences and Technologies Symposium (BIOMED), 12 - 15 May 2017
- VII. **Polyelectrolyte Microstructured Scaffolds Modified with Hyaluronic Acid**  
MANAP G., YAĞCI B. S. , ÇALAMAK S., AKSOY E. A. , ULUBAYRAM K.  
22nd International Biomedical Science and Technology Symposium, 12 - 14 May 2017
- VIII. **Strontium and Zinc Decorated Polysaccharide Composite Gel Fibers**  
YAĞCI B. S. , MANAP G., ÇALAMAK S., AKSOY E. A. , ULUBAYRAM K.  
22 International Biomedical Science and Technology Symposium, 12 - 14 May 2017
- IX. **Dexamethasone Loaded Electrospun Nanofiber Based Implants for Topical Ocular Therapy**  
POLAT H. K. , ÇALAMAK S., AYTEKİN E., PEHLİVAN S., ULUBAYRAM K., ÇALIŞ S.  
18th International Pharmaceutical Technology Symposium, 18 - 21 September 2016
- X. **Monitoring drug responses of blood cells using cellphone based magnetic levitation system**  
SAYLAN Y., BADAY M., SAHAN A., ÇALAMAK S., DURMUŞ N. G. , İNCİ F., DAVIS R. W. , STEINMETZ L., DEMİRCİ U.  
Canary Summit 2016, 04 May 2016
- XI. **Micropatterned Substrates for Cell Cycle Synchronization in MDA MB 231 Breast Carcinoma Cell Line**  
ERMİŞ ŞEN M., ÇALAMAK S., CHEN P., ULUBAYRAM K., HASIRCI V. N. , DEMİRCİ U.  
21st International Biomedical Science and Technology Symposium, 22 - 24 October 2015
- XII. **Enhancement of Neuronal Outgrowth By Gold Nanoparticles Decorated Polyurethane Nanofiber Scaffolds**  
DEMİR Ü. S. , SHAHBAZI R., ÇALAMAK S., ÖZTÜRK Ş., ULUBAYRAM K.  
Tissue Engineering and Regenerative Medicine (TERMIS 2015), 8 - 11 September 2015
- XIII. **Genomic Analysis of Flow Induced EMT in Colorectal Cancer Cells**  
ÇALIBAŞI G., GÜVEN S., DURMUŞ N. G. , ÇALAMAK S., CHEN P., BASKIN Y., DEMİRCİ U.  
Canary Symposium, 5 - 07 May 2015
- XIV. **A rapid quantitative device for monitoring oncogenic viral load and circulating tumor cells in a multiplexed manner**  
İNCİ F., İNAN H., ÖZEN M. Ö. , ÇALAMAK S., DEMİRCİ U.  
Canary Symposium, 5 - 07 May 2015
- XV. **Effects of Different Stimulating Factors on Axonal Elongation of PC12 Cells Seeded on Gold Nanoparticle Modified Scaffolds**  
DEMİR Ü. S. , SHAHBAZI R., ÇALAMAK S., ÖZTÜRK Ş., ULUBAYRAM K.  
21st International Biomedical Science and Technology, 22 - 24 October 2015

## Supported Projects

EROĐLU İ., ULUBAYRAM K., AKSOY E. A. , GÜLTEKİNOĐLU BAYRAM M., ÇALAMAK S., Project Supported by Higher Education Institutions, Kombine Etkili Nanolipozomların Geliştirilmesi, 2017 - 2018

### **Scientific Refereeing**

Materials Science and Engineering C, SCI Journal, March 2016

### **Citations**

Total Citations (WOS):454

h-index (WOS):13