

## Assoc. Prof. EMİNE ŞALVA

### Personal Information

Email: emine.salva@inonu.edu.tr

### Education Information

Post Graduate, Inonu University, Sağlık Bilimleri Enstitüsü, Tıbbi Biyoloji Ve Genetik (Tıp Programı), Turkey 2015 - Continues

Doctorate, Marmara University, Sağlık Bilimleri Enstitüsü, Farmasötik Biyoteknoloji, Turkey 2003 - 2009

Post Graduate, Inonu University, Sağlık Bilimleri Enstitüsü, Biyokimya (Tıp Programı), Turkey 2001 - 2003

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, siRNA için uygun taşıyıcı sistem geliştirilmesi; in vitro ve in vivo çalışmalar, Marmara University, Sağlık Bilimleri Enstitüsü, Farmasötik Biyoteknoloji (Bütünleşik Dr), 2009

Post Graduate, Tip I ve Tip II Diabetes Mellituslu Hastalarda Serumda Ferritin ve Transferrin, İdrarda beta-2-mikroglobulin Düzeylerinin İncelenmesi, Inonu University, Sağlık Bilimleri Enstitüsü, Tıbbi Biyokimya (YI), 2003

### Research Areas

Health Sciences, Pharmacology and Therapeutics, Pharmaceutics Technology, Pharmaceutical Biotechnology

### Academic Titles / Tasks

Assistant Professor, Inonu University, Eczacılık Fakültesi, Eczacılık, 2018 - Continues

Assistant Professor, Inonu University, Eczacılık Fakültesi, Eczacılık, 2012 - 2018

Lecturer, Marmara University, Sağlık Hizmetleri Meslek Yüksekokulu, Patoloji Laboratuvar Bölümü, 2003 - 2012

Research Assistant, Marmara University, Sağlık Hizmetleri Meslek Yüksekokulu, Patoloji Laboratuvar Bölümü, 2001 - 2003

### Professional Experience

Head of Department, Inonu University, 2012 - Continues

Vice Dean, Inonu University, Eczacılık Fakültesi, 2013 - 2016

Head of Department, Inonu University, Eczacılık Teknoloji , 2013 - 2016

### Courses

Hücre Kültür Teknolojisi, Under Graduate, 2016 - 2017  
FARMASÖTİK BİYOTEKNOLOJİ, Under Graduate, 2016 - 2017  
SOSYAL SORUMLULUK PROJELERİ, Under Graduate, 2016 - 2017  
Araştırma Projesi I, Under Graduate, 2016 - 2017  
ENDÜSTRİYEL BİYOTEKNOLOJİ, Under Graduate, 2016 - 2017

## Advising Theses

ŞALVA E., Kitozanın Keratinositler Üzerine Etkisinin 3-Boyutlu Deri Hücre Kültürü Modelinde Araştırılması, Post Graduate, H.Merve(Student), Continues  
ŞALVA E., Doku Mühendisliği Uygulamaları İçin Kitozan-Aljinat-Protamin İçeren Destek Yapıların Hazırlanması ve Karakterizasyonu, Post Graduate, A.Sirkeci(Student), 2016  
ŞALVA E., MikroRNA (miR-200c ve miR-141) İÇİN MEME KANSERİ TEDAVİSİNDE KİTOZAN TEMELLİ TAŞIYICI SİSTEMLERİN GELİŞTİRİLMESİ, Post Graduate, K.Kaban(Student), 2015

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

- I. **p-Trifluoroacetophenone Oxime Ester Derivatives: Synthesis, Antimicrobial and Cytotoxic Evaluation and Molecular Modeling Studies**  
Bozbey I., SARI S., ŞALVA E., KART D., KARAKURT A.  
LETTERS IN DRUG DESIGN & DISCOVERY, vol.17, pp.169-183, 2020 (Journal Indexed in SCI)
- II. **Modulation of the dual-faced effects of miR-141 with chitosan/miR-141 nanoplexes in breast cancer cells**  
Kaban K., ŞALVA E., Akbuga J.  
JOURNAL OF GENE MEDICINE, vol.21, 2019 (Journal Indexed in SCI)
- III. **Synthesis and cytotoxicity studies on new pyrazole-containing oxime ester derivatives**  
KARAKURT A., Bozbey I., USLU H., SARI S., ÖZDEMİR Z., ŞALVA E.  
TROPICAL JOURNAL OF PHARMACEUTICAL RESEARCH, vol.18, pp.1315-1322, 2019 (Journal Indexed in SCI)
- IV. **Synthesis of triazolylmethyl-linked nucleoside analogs via combination of azidofuranoses with propargylated nucleobases and study on their cytotoxicity**  
HALAY E., AY E., ŞALVA E., AY K., KARAYILDIRIM T.  
CHEMISTRY OF HETEROCYCLIC COMPOUNDS, vol.54, pp.158-166, 2018 (Journal Indexed in SCI)
- V. **In Vitro Dose Studies on Chitosan Nanoplexes for microRNA Delivery in Breast Cancer Cells**  
Kaban K., ŞALVA E., Akbuga J.  
NUCLEIC ACID THERAPEUTICS, vol.27, pp.45-55, 2017 (Journal Indexed in SCI)
- VI. **Syntheses of 1,2,3-triazole-bridged pyranose sugars with purine and pyrimidine nucleobases and evaluation of their anticancer potential**  
HALAY E., AY E., ŞALVA E., AY K., KARAYILDIRIM T.  
NUCLEOSIDES NUCLEOTIDES & NUCLEIC ACIDS, vol.36, pp.598-619, 2017 (Journal Indexed in SCI)
- VII. **The effects of chitosan/miR-200c nanoplexes on different stages of cancers in breast cancer cell lines**  
Kaban K., ŞALVA E., Akbuga J.  
EUROPEAN JOURNAL OF PHARMACEUTICAL SCIENCES, vol.95, pp.103-110, 2016 (Journal Indexed in SCI)
- VIII. **Tocilizumab's effect on cognitive deficits induced by intracerebroventricular administration of streptozotocin in Alzheimer's model**  
Elcioglu H. K. , Aslan E., Ahmad S., ALAN S., ŞALVA E., Elcioglu O. H. , KABASAKAL L.  
MOLECULAR AND CELLULAR BIOCHEMISTRY, vol.420, pp.21-28, 2016 (Journal Indexed in SCI)
- IX. **Comparison of VEGF gene silencing efficiencies of chitosan and protamine complexes containing shRNA**

Erdem-Cakmak F., ÖZBAŞ S., ŞALVA E., Akbuga J.

CELL BIOLOGY INTERNATIONAL, vol.38, pp.1260-1270, 2014 (Journal Indexed in SCI)

- X. **Investigation of the Therapeutic Efficacy of Codelivery of psiRNA-Vascular Endothelial Growth Factor and pIL-4 into Chitosan Nanoparticles in the Breast Tumor Model**  
ŞALVA E., TURAN S. O. , Kabasakal L., ALAN S., Ozkan N., EREN F., Akbuga J.  
JOURNAL OF PHARMACEUTICAL SCIENCES, vol.103, pp.785-795, 2014 (Journal Indexed in SCI)
- XI. **The Development of Ternary Nanoplexes for Efficient Small Interfering RNA Delivery**  
ŞALVA E., Turan S. O. , Akbuga J.  
BIOLOGICAL & PHARMACEUTICAL BULLETIN, vol.36, pp.1907-1914, 2013 (Journal Indexed in SCI)
- XII. **Local delivery of chitosan/VEGF siRNA nanoplexes reduces angiogenesis and growth of breast cancer in vivo.**  
Salva E., KABASAKAL L., EREN F., ÖZKAN N., CAKALAĞAOĞLU F., AKBUGA J.  
Nucleic acid therapeutics, vol.22, pp.40-8, 2012 (Journal Indexed in SCI)
- XIII. **Honey as a substitute for formalin?**  
ÖZKAN N., Salva E., CAKALAĞAOĞLU F., TÜZÜNER B.  
Biotechnic & histochemistry : official publication of the Biological Stain Commission, vol.87, pp.148-53, 2012 (Journal Indexed in SCI)
- XIV. **Increased in vitro Cell Proliferation by Chitosan/pGM-CSF Complexes**  
Salva E., TURAN S., Akbuga J.  
INDIAN JOURNAL OF PHARMACEUTICAL SCIENCES, vol.73, pp.131-138, 2011 (Journal Indexed in SCI)
- XV. **In vitro silencing effect of chitosan nanoplexes containing siRNA expressing vector targeting VEGF in breast cancer cell lines**  
Salva E., Akbuga J.  
PHARMAZIE, vol.65, pp.896-902, 2010 (Journal Indexed in SCI)
- XVI. **Chitosan/short hairpin RNA complexes for vascular endothelial growth factor suppression invasive breast carcinoma.**  
Salva E., KABASAKAL L., EREN F., CAKALAĞAOĞLU F., ÖZKAN N., AKBUGA J.  
Oligonucleotides, vol.20, pp.183-90, 2010 (Journal Indexed in SCI)
- XVII. **Halofuginone, a specific inhibitor of collagen type 1 synthesis, ameliorates oxidant colonic damage in rats with experimental colitis.**  
KARAKOYUN B., YÜKSEL M., ERCAN F., Salva E., İŞİK I., YEĞEN B.  
Digestive diseases and sciences, vol.55, pp.607-16, 2010 (Journal Indexed in SCI)
- XVIII. **Significance of IL-6 and PAI-1 expression in nucleic-acid based therapy of breast cancer**  
Cakalagaoglu F., Salva E., Ozkan N., KAYA H., KABASAKAL L., Akbuga J.  
VIRCHOWS ARCHIV, vol.455, pp.103, 2009 (Journal Indexed in SCI)
- XIX. **Double immunostaining method. What is the significance?**  
OZKAN N., CAKALAGA OGLU F., Salva E.  
VIRCHOWS ARCHIV, vol.451, pp.565, 2007 (Journal Indexed in SCI)
- XX. **Effect of FK506 in experimental glomerulonephritis: Light microscopic and ultrastructural study**  
CAKALAPA OGLU F., OZKAN N., Salva E., ARBAK S., USLU B.  
VIRCHOWS ARCHIV, vol.451, pp.513-514, 2007 (Journal Indexed in SCI)
- XXI. **The effects in skin wound healing and cell proliferation of the plasmid DNA encoding GM-CSF and chitosan**  
Salva E., OZKAN N., CAKALAGA OGLU F., KARAKOYUN B., AKBUGA J.  
VIRCHOWS ARCHIV, vol.451, pp.565, 2007 (Journal Indexed in SCI)
- XXII. **The staining methods of chitosan as a natural biopolymer**  
Salva E., OZKAN N., CAKALAGA OGLU F., KARAKOYUN B., AKBUGA J.  
VIRCHOWS ARCHIV, vol.451, pp.539-540, 2007 (Journal Indexed in SCI)

## Articles Published in Other Journals

- I. **The Effects to GM-CSF Expression and Fibroblast Proliferation of pGM-CSF Containing Chitosan/PVP Hydrogels**  
ŞALVA E., Akbuga J.  
MARMARA PHARMACEUTICAL JOURNAL, vol.21, pp.228-234, 2017 (Journal Indexed in ESCI)
- II. **In Vitro PDGF-B Gene Silencing Studies and In Vivo Delivery of siRNA to the Rat Kidney Using Chitosan/siRNA Nanoplexes**  
ŞALVA E., Ozbas Turan S., ALAN S., Akbuga J.  
MARMARA PHARMACEUTICAL JOURNAL, vol.20, pp.263-268, 2016 (Journal Indexed in ESCI)

## Books & Book Chapters

- I. **Non viral siRNA and shRNA delivery systems in cancer therapy**  
ŞALVA E., EKENTOK C., OZBAS-TURAN S., AKBUGA F. J.  
in: RNA Interference, Ibrokhim Y. Abdurakmonov, Editor, Intech, Rijeka, pp.201-222, 2016
- II. **Hücre ve Moleküler Biyoloji Sözlüğü**  
GÜLSOY N., ALTINKUT UNCUOĞLU A., AYDIN Y., HASDEMİR M. U. , AKBUĞA F. J. , ŞALVA E.  
Nobel Tıp Kitapevi Yayınları, İstanbul, 2014
- III. **Physical and transfectional properties of aged pIL-2 loaded chitosan microspheres**  
OZBAS TURAN S., ŞALVA E., AKBUGA J.  
in: Advances in Chitin Science Vol XIII, Varlamov V., Bratskaya S., Yakovleva I., Senel S., Editor, Euchis, Saint Petersburg, pp.100-50, 2011
- IV. **Chitosan of nanoparticles containing siRNA targeting VEGF for anti-angiogenic gene therapy**  
ŞALVA E., OZBAS TURAN S., AKBUGA F. J.  
in: Advances in Chitin Science Vol XIII, Varlamov V., Bratskaya S., Yakovleva I., Senel S., Editor, Euchis, Saint Petersburg, pp.201-222, 2011
- V. **Sağlık Hizmetleri Meslek Yüksekokulu Eğitimcilerinde Olması Beklenen Özellikler**  
ÇAKALAĞAOĞLU F., ÖZKAN N., ŞALVA E.  
in: Geçmişten Geleceğe Sağlık Teknikerliği, GÖZİL R., Editor, Gazi Üniversitesi, Ankara, pp.100-120, 2008

## Refereed Congress / Symposium Publications in Proceedings

- I. **EVALUATION OF GUANOSINE TRIPHOSPHATE CYCLOHYDROLASE I AND ENDOTHELIAL NITRIC OXIDE SYNTHASE GENE EXPRESSIONS IN GESTATIONAL DIABETES MELLITUS**  
Yüce H., ŞALVA E., ACAR C., MELEKOĞLU R., ÜNÜVAR S.  
1. ULUSLARARASI MALATYA UYGULAMALI BİLİMLER KONGRESİ, Malatya, Turkey, 20 - 22 December 2019, pp.326-327
- II. **EVALUATION OF GUANOSINE TRIPHOSPHATE CYCLOHYDROLASE I AND ENDOTHELIAL NITRIC OXIDE SYNTHASE GENE EXPRESSIONS IN GESTATIONAL DIABETES MELLITUS**  
YÜCE H., ŞALVA E., ACAR C., MELEKOĞLU R., ÜNÜVAR S.  
1. ULUSLARARASI MALATYA UYGULAMALI BİLİMLER KONGRESİ, Malatya, Turkey, 20 - 22 December 2019, vol.1, pp.326-327
- III. **EVALUATION OF GUANOSINE TRIPHOSPHATE CYCLOHYDROLASE I AND ENDOTHELIAL NITRIC OXIDE SYNTHASE GENE EXPRESSIONS IN GESTATIONAL DIABETES MELLITUS**  
YÜCE H., ŞALVA E., ACAR C., MELEKOĞLU R., ÜNÜVAR S.  
1. ULUSLARARASI MALATYA UYGULAMALI BİLİMLER KONGRESİ, Malatya, Turkey, 20 - 22 December 2019, vol.1, pp.326-327
- IV. **IN VITRO ANTICANCER ACTIVITY OF NEW NAPHTHYL ETHANONE OXIME ESTER DERIVATIVES**

## **BEARING PYRAZOLE MOIETY**

BOZBEY İ., USLU H., ŞALVA E., KARAKURT A.

12th International Symposium on Pharmaceutical Sciences, ISOPS-12, Ankara, Turkey, 26 - 29 June 2018, pp.380

- V. **Comparison of short and long siVEGF/encapsulating chitosan nanoparticles in breast cancer cell lines**  
CÖMEZ B., Akbuga J., ŞALVA E.  
Conference on Changing the Face of Modern Medicine - Stem Cells and Gene Therapy, Florence, Italy, 18 - 21 October 2016, vol.27
- VI. **The investigation of effects to cell proliferation and adsorption of new ternary and binary scaffolds**  
Sirkeci A., ŞALVA E., TURAN S., Akbuga J.  
Conference on Changing the Face of Modern Medicine - Stem Cells and Gene Therapy, Florence, Italy, 18 - 21 October 2016, vol.27
- VII. **Tumor Inhibition by Using Chitosan: siRNA PDGFR-beta in Breast Cancer Model of Rat**  
Akbuga J., Turan S. O. , ŞALVA E., Ozkan N., KABASAKAL L., Alan S.  
19th Annual Meeting of the American-Society-of-Gene-and-Cell-Therapy (ASGCT), Washington, Kiribati, 4 - 07 May 2016, vol.24
- VIII. **The effect of tumor suppressive miR-200c and miR-141 optimization in breast cancer cell lines.**  
KABAN K., ŞALVA E., AKBUGA J.  
11th Annual Meeting of the Oligonucleotide Therapeutics Society, Leiden, Netherlands, 11 - 14 September 2015, pp.59
- IX. **PDGF-D Inhibition by Using Chitosan: siRNA Complexes in Breast Cancer Model of Rat**  
Akbuga J., Ozbas-Turan S., KABASAKAL L., Salva E., Ozkan N.  
18th Annual Meeting of the American-Society-of-Gene-and-Cell-Therapy (ASGCT), Louisiana, United States Of America, 13 - 16 May 2015, vol.23
- X. **Co-Delivery of VEGF siRNA and IL-4 into Chitosan Nanoparticles in Breast Tumor Model of Rat**  
ŞALVA E., Ozbas-Turan S., KABASAKAL L., EREN F., Alan S., Ozkan N., Akbuga J.  
16th Annual Meeting of the American-Society-of-Gene-and-Cell-Therapy (ASGCT), Utah, United States Of America, 15 - 18 May 2013, vol.21
- XI. **Protamine Containing Chitosan:shRNA Complexes for Silencing of VEGF Expression**  
Cakmak F. E. , Turan S. O. , Salva E., Akbuga J.  
15th Annual Meeting of the American-Society-of-Gene-and-Cell-Therapy (ASGCT), Pennsylvania, United States Of America, 16 - 19 May 2012, vol.20
- XII. **Chitosan Mediated VEGF shRNA Transfer for the Treatment of Breast Cancer**  
Salva E., KABASAKAL L., Ozkan N., EREN F., ÇAKALAGAĞLU F., Akbuga J.  
18th Annual Congress of the European-Society-of-Gene-and-Cell-Therapy, Milan, Italy, 22 - 25 October 2010, vol.21, pp.1411
- XIII. **Chitosan nanoparticles containing shRNA targeting VEGF as cancer therapeutic**  
Salva E., OZBAS-TURAN S., Akbuga J.  
18th Annual Congress of the European-Society-of-Gene-and-Cell-Therapy, Milan, Italy, 22 - 25 October 2010, vol.21, pp.1412-1413
- XIV. **Intramuscular Delivery of Antisense Oligonucleotides by Chitosan Nanoparticles**  
Ozbas-Turan S., Akbuga J., SEZER A., Salva E.  
18th Annual Congress of the European-Society-of-Gene-and-Cell-Therapy, Milan, Italy, 22 - 25 October 2010, vol.21, pp.1452-1453
- XV. **Expression of MMP2, HPV and ALPHA-1 antichymotrypsin as prognostic markers for squamous cell carcinoma of the larynx**  
ÇAKALAGAĞLU F., TUZUNER B., OZKAN N., Salva E., Gergin O., Sari M., KAYA H.  
27th International Congress of the International-Academy-of-Pathology, Athens, Greece, 12 - 17 October 2008, vol.53, pp.211
- XVI. **Characterization and in vitro silencing effect of chitosan/siRNA complexes**  
Salva E., Akbuga J.

16th Annual Congress of the European-Society-of-Gene-and-Cell-Therapy, Brugge, Belgium, 13 - 16 November 2008, vol.19, pp.1158

**XVII. Development of a novel delivery system for antisense oligonucleotides**

ENNELI B., Salva E., AKBUGA J.

31st Congress of the Federation-of-European-Biochemical-Societies (FEBS), İstanbul, Turkey, 24 - 29 June 2006, vol.273, pp.132

**XVIII. Delivery of GM-CSF gene using chitosan complexes**

Salva E., ENNELI B., AKBUGA J.

31st Congress of the Federation-of-European-Biochemical-Societies (FEBS), İstanbul, Turkey, 24 - 29 June 2006, vol.273, pp.132

## Supported Projects

ŞALVA E., TUBİTAK Project, Meme kanser hücreleri ve meme kanser kök hücrelerinde gen tedavisi: VEGF'in kitozan/CRISPR-Cas9/protamin nanopleksleri ile baskılanması, 2018 - Continues

ŞALVA E., TUBİTAK Project, Bcl-2 hedefli siRNA yüklü NK-kaynaklı eksozomların oluşturulması ve meme kanserinde etkinliğinin araştırılması, 2018 - Continues

ÜNÜVAR S., ACAR C., ŞALVA E., MELEKOĞLU R., Project Supported by Higher Education Institutions, Guanozin Trifosfat Yolağında Tetrahidrobiyopterin Bağımlı Nitrik Oksit Düzeylerindeki Değişikliklerin Gestasyonel Diabetes Mellitusta Değerlendirilmesi, 2018 - 2019

YILMAZ İ., ALAN S., ŞALVA E., TUBİTAK Project, Glomerulonefrit tedavisinde siRNA taşıyıcı sistem olarak kitozan nanoplekslerinin kullanılması, 2013 - 2016

ŞALVA E., TUBİTAK Project, shVEGF içeren kitozan nanoplekslerinin meme kanser hücre hatlarında hücre invazyonu proliferasyonu ve koloni oluşturma üzerine etkilerinin araştırılması, 2015 - 2015

ŞALVA E., Project Supported by Other Private Institutions, Kanser tedavisinde siRNA uygulamaları için taşıyıcı sistem geliştirilmesi, 2007 - 2009

ŞALVA E., TUBİTAK Project, GM CSF kodlayan gen taşıyıcı sistemler, 2007 - 2008

## Memberships / Tasks in Scientific Organizations

Farmasötik Biyoteknoloji Derneği, Board Member, 2014 - Continues

ESGCT, Member, 2008 - Continues

## Citations

Total Citations (WOS):121

h-index (WOS):7

## Awards

ŞALVA E., TUBİTAK Yayın Teşvik Ödülü, Tübitak, June 2012

ŞALVA E., En iyi poster ödülü, Perspectives in Cell and Gene Based Medicines, March 2012

ŞALVA E., TUBİTAK Yayın Teşvik Ödülü, Tübitak, June 2011

ŞALVA E., Novartis Farmasötik Teknoloji Proje Destek Ödülü, Novartis, April 2011

ŞALVA E., Marmara Üniversitesi Yayın Teşvik Ödülü, Marmara Üniversitesi, December 2010

ŞALVA E., TUBİTAK Yayın Teşvik Ödülü, Tübitak, June 2010

ŞALVA E., Bildiri Birincilik Ödülü, Akademik Geriatri Kongresi, May 2010

ŞALVA E., Terry Fox Kanser Araştırma Proje Grant, Terry Fox, March 2007