

Résumé / Curriculum Vitae

Personal Information

Contact Information

Name & Surname: Hasan Akbaba

Address: Dept. of Pharmaceutical Biotechnology, Faculty of Pharmacy,
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Personal: Born in 25/07/1984 in Sivas, Turkey; Married, Male; Turkish citizen



Education Information

Ph.D.	Pharmaceutical Biotechnology; 18/02/2016 Marmara University Institute of Health Sciences, Istanbul, Turkey. Thesis Title: A novel magnetic nanoparticle production method and magnetofection under magnetic field regulations
M.Sc.	Pharmaceutical Biotechnology; 25/08/2010 Ege University, Institute of Health Sciences, Izmir, Turkey. Thesis Title: Preparation of DNA loaded solid lipid nanoparticle (SLN) formulations for gene therapy
B.Sc.	Pharmacy; 07/09/2007 Ege University, Faculty of Pharmacy, Izmir, Turkey

Experience Information

Post-Doc	Massachusetts General Hospital, Center for Immunology and Inflammatory Diseases, Harvard Medical School , Boston, USA. Under supervision of Shannon K. Bromley, Ph.D. 01 February 2017 - 01 December 2017 (11 Months)
Visiting Research Fellow	Faculty of Pharmacy, Department of Pharmaceutical Biotechnology, University Degli Studi di Torino Under supervision of Prof. Roberta Cavalli. 01 February 2010 - 01 August 2010 (7 Months)
Research Assistant	Ege University, Faculty of Pharmacy, Department of Pharmaceutical Biotechnology, 01 January 2009 - 25 March 2021
Assistant Professor	Ege University, Faculty of Pharmacy, Department of Pharmaceutical Biotechnology, 25 March 2021 - Now
Associate Professor	In Pharmaceutical Biotechnology, Title Date: 29 September 2021
Internship	İbrahim Etem – Menarini Drug Company - 2006 Summer

Foreign Language Information	
English	Fluent, TOEFL-IBT:95 YOKDIL: 97,5/100 YDS: 83,5/100

Scientific Technological Activity Fields	
Keywords	Pharmaceutical Biotechnology, Immunology, Genetics, Targeted delivery, Nanoparticles
Areas of Interest	Immunotherapeutics, CRISPR/Cas9, Targeted cellular therapies, T-cell therapies, Drug delivery systems with a particular emphasis on nanotherapeutic strategy, Transfection and Gene delivery systems and devices, Recombinant DNA technology, Recombinant protein and enzyme production, biotech drugs
Competence/Techniques known	<ul style="list-style-type: none"> ▪ Laboratory animal care and use, (Rodents, Massachusetts General Hospital and Ege University certificates) ▪ Flow cytometer (Fortessa X20, FACS Aria, FACS Calibur, BD Accuri C5-6) ▪ Cell culture techniques, (Mammalian, tissue, primary) ▪ Main molecular cloning techniques, ▪ CRISPR/Cas9 System ▪ Drug and gene delivery systems (Microemulsion, Magnetic nanoparticles, Solid lipid nanoparticle formulations) <p>Other: Exosomes, Enzyme kinetics, Protein isolation and purification, Sample preparation for various instruments and analyzing the results (DSC, Raman and XRD, XPS, TEM, SEM, AFM, SPM Lyophilization, etc,</p> <p>Software: Prism, FlowJo, MS Office, SPSS, ImageJ, Photoshop, Minitab</p>

R&D Competency	
Research articles	<ol style="list-style-type: none"> 1) Rut Mora-Buch , Andrea Sama , Alexandra Chasse , Dr Hasan Akbaba , Dr Vinidhra Mani, IL-4 impairs skin-resident memory CD8+ T cell formation, Nature Immunology, (Under revision) 2) G. Erel-Akbaba, H. Akbaba, E. Keselik, S.A. Bahceci, Z. Senyigit, T.K. Temiz, Octaarginine functionalized nanoencapsulated system: In vitro and in vivo evaluation of bFGF loaded formulation for wound healing, J. Drug Deliv. Sci. Tec., 71 (2022), p. 103343, 3) Ekinci, M., Akbaba, H., Santos-Oliveira, R., & Ilem-Ozdemir, D. (2022, March 14). Development and validation of UV/VIS spectroscopy method for determination of atezolizumab in pharmaceutical products. Experimental Biomedical Research, 5(2), 175-182. 4) Akbaba, H. , Erel-Akbaba, G. & Kantarcı, A. G. (2022). Fabrication and Evaluation of Cationic Charged Magnetic Nanoparticles for Enhanced Gene Delivery . Fabad Journal of Pharmaceutical Sciences , 2 (47) , 184-193 .

- 5) Isar, S. , Şahin, H. Y. , Akbaba, H. , Nalbantsoy, A. , Erel Akbaba, G. & Başpınar, Y. (2022). Long-term Stability of Cationic Phytosphingosine Nanoemulsions as Delivery Systems for plasmid DNA . Celal Bayar University Journal of Science , 18 (1) , 107-118 . DOI: 10.18466/cbayarfbe.948114
- 6) S İsar, H Akbaba, Y Şahin, MA AltinÖz, A Nalbantsoy, G Erel-Akbaba, Design and Evaluation of Erucic Acid-Phytosphingosine Structured Cationic Nanoemulsions as a plasmid DNA Delivery System against Breast Cancer Cells. Pharmaceutical Development and Technology, 1-20
- 7) Erel-Akbaba, G., Akbaba, H. Investigation of the potential therapeutic effect of cationic lipoplex mediated fibroblast growth factor-2 encoding plasmid DNA delivery on wound healing. DARU J Pharm Sci 29, 329–340 (2021). <https://doi.org/10.1007/s40199-021-00410-y>
- 8) Erel-Akbaba G, İsar S, Akbaba H. Development and Evaluation of Solid Witepsol Nanoparticles for Gene Delivery. *Turk J Pharm Sci.* 2021;18(3):344-351. doi:10.4274/tjps.galenos.2020.68878
- 9) Erel-Akbaba G, Akbaba H. A comparative study of cationic liposomes for gene delivery. *J.Res.Pharm.* 2021; 25(4): 398-406. <http://dx.doi.org/10.29228/jrp.30>
- 10) İsar S, Akbaba H, Erel-Akbaba G, Başpınar Y. Development and characterization of cationic nanoemulsions as non-viral vectors for plasmid DNA delivery. *J Res Pharm.* 2020; 24(6): 952-960.
- 11) Akbaba, H., Özder, M. Optimization and screening of solid lipid nanoparticle production for gene delivery by factorial design and response surface methodology. *Experimental Biomedical Research*, 2021; 4(1): 23-37
- 12) Akbaba H, Erel-Akbaba G, Senturk S, Recruitment of solid lipid nanoparticles for the delivery of CRISPR/Cas9: primary evaluation of anticancer gene editing, *Nanomedicine*, 10.2217/nnm-2020-0412
- 13) Bromley SK, Akbaba H, Mani V, Mora-buch R, Chasse AY, Sama A, Luster AD,. CD49a Regulates Cutaneous Resident Memory CD8 + T Cell Persistence and Response, *CellReports*, 2020;32(9):108085.
- 14) Akbaba H, Erel-Akbaba G, Kotmakçı M, Başpınar Y. Enhanced Cellular Uptake and Gene Silencing Activity of Survivin-siRNA via Ultrasound-Mediated Nanobubbles in Lung Cancer Cells. *Pharm Res.* 2020;37(8).
- 15) Istanbul H., Bayraktar G., Akbaba H., Cavus İ., Coban G., Debelec-Butuner B., Kilimcioglu A.A., Ozbilgin A., Alptuzun V., Erciyas E., Design, synthesis and *in vitro* biological evaluation of novel thiazolopyrimidine derivatives as antileishmanial compounds. *Archiv der Pharmazie.* 2020;DOI: 10.1002/ardp.201900325
- 16) Baspınar Y., Erel-Akbaba G., Kotmakçı M., Akbaba H., Development and characterization of nanobubbles containing paclitaxel and survivin inhibitor YM155 against lung cancer. *Int J Pharm.*, 2019;566:149-156
- 17) Erel-Akbaba G, Carvalho LA, Tian T, Zinter M, Akbaba H, Obeid PJ, Chiocca EA., Weissleder R., Kantarcı A.G., Tannous B., Radiation-induced targeted nanoparticle-based gene delivery for brain tumor

	<p>therapy. ACS Nano. American Chemical Society. 2019;13(4):4028–40.</p> <p>18) Başpınar Y, Akbaba H, Bayraktar O. Encapsulation of paclitaxel in electrosprayed chitosan nanoparticles. J. Res. Pharm. 2019;23(5):886–96.</p> <p>19) Karagöz U., Kotmakçı M., Akbaba H., Çetintaş V.B., Kantarcı G., Preparation and characterization of non-viral gene delivery systems with pEGFP-C1 Plasmid DNA. Brazilian J. Pharm. Sci. 2018;54:1–11.</p> <p>20) Akbaba H., Erel-Akbaba G., Kantarcı A.G., Development and evaluation of antisense shRNA-encoding plasmid loaded solid lipid nanoparticles against 5-α reductase activity. J. Drug Deliv. Sci. Technol. 2018;44:270–277.</p> <p>21) Kotmakçı M., Akbaba H., Erel G., Ertan G., Kantarcı G., Improved Method for Solid Lipid Nanoparticle Preparation Based on Hot Microemulsions: Preparation, Characterization, Cytotoxicity, and Hemocompatibility Evaluation. AAPS PharmSciTech 2017;18:1355–1365</p> <p>22) Akbaba H., Demir Dora D., Kantarcı A.G., The effects of lyophilization and cryoprotectants on solid lipid nanoparticle-DNA systems. Rom. Biotechnol. Lett. 2017;22,:13186–13195.</p> <p>23) Akbaba H., Karagöz U., Selamet Y., Kantarcı A.G., Synthesis and characterization of cationic lipid coated magnetic nanoparticles using multiple emulsions as microreactors. J. Magn. Magn. Mater. 2017;426: 518–524.</p> <p>24) Erel G., Kotmakçı M., Akbaba H., Sözer Karadağlı S., Kantarcı A.G., Nanoencapsulated chitosan nanoparticles in emulsion-based oral delivery system: In vitro and in vivo evaluation of insulin loaded formulation. J. Drug Deliv. Sci. Technol. 2016;36:161–167.</p> <p>25) Erel Akbaba G., Akbaba H., Kantarcı A.G., Development and in vitro evaluation of positive-charged solid lipid nanoparticles as nucleic acid delivery system in glioblastoma treatment. Marmara Pharm. J.2018 Apr 6;22(2):299–306.</p> <p>26) Akbaba H., Selamet Y., Kantarcı A.G., In situ production of cationic lipid coated magnetic nanoparticles in multiple emulsions for gene delivery. Marmara Pharm. J. 2016;64–71.</p>
Book&Chapter	<ol style="list-style-type: none"> 1. Başpınar Y. , Akbaba H. Biosynthesis of Curcumin and Molecular Targets and the Biological Mechanism of Curcumin The Chemistry and Bioactive Components of Turmeric., Sreeraj Gopi, Sabu Thomas, Ajaikumar B Kunnumakkara, Bharat B Aggarwal, Augustine Amalraj, Editör, Royal Society of Chemistry , London, ss.196-220, 2021 2. Akbaba H., Resident Memory T Cells. Cells of the Immune System, 1st ed. InTechPoen; Croatia; 2020, http://dx.doi.org/10.5772/intechopen.90334 3. Türk Farmakopesi 2017, Bölüm adı:(Aşılar) (2018)., Şenel Sevdâ, Bozkır Asuman, Öner Ayşe Filiz, Karaağaoğlu Ahmet Ergun, Kantarcı Ayşe Gülten, Vural İmran, Alpar Celal Reha, Gürsoy Reyhan Neslihan, Bilge Dağalâp Seval, Gürhan Saime İsmet, Devrim Burcu, Döşkaya Mert, Debeleş Bütüner

	<p>Bilge, Demir Dora Devrim, Büyükköroğlu Gülay, Derici Mehmet Kürşat, Saka Ongun Mehmet, Gülçe İz Sultan, Aksöz Erkan, Bozyiğit İlhan, Kotmakçı Mustafa, Koç Filiz, Kutsal Canan, Akbaba Hasan, Çaplı Kara Aslı, Öztürk Naile, Becit Gökşen, Pirlepe Katılı Fulya, T.C. Sağlık Bakanlığı, Türkiye İlaç ve Tıbbi Cihaz Kurumu, Artı 6 Matbaa Ltd. Sti., Basım sayısı:1, ISBN:978-975-590-675-1, Türkçe(Bilimsel Kitap), (Yayın No: 4754305)</p> <p>4. Türk Farmakopesi 2017, Bölüm adı:(Majstral Ürünler) (2018)., Özkan Yalçın, Aydın Ahmet, Beşikci Arzu, Savaşer Ayhan, Karataş Ayşegül, Arıca Yegin Betül, Uslu Bengi, Sever Yılmaz Betül, Palaska Erhan, Saltan Hayriye Gülçin, Karasulu Hatice Yeşim, Çankaya İffet İrem, Gürbüz İlhan, Küçükgülzel İlkay, Vural İmran, Demirezer Lütfiye Ömür, Çetin Meltem, Güngör Sevgi, Eken Ayşe, Eraç Bayrı, Başaran Ebru, Nemutlu Emirhan, Gökçe Evren Homan, Armagan Güliz, Karadeniz Hakan, Ekizoğlu Melike, Üstündağ Okur Neslihan, Aksu Neşe Buket, Yabanoğlu Çiftçi Samiye, Karavana Sinem Yaprak, Şenyiğit Zeynep, Aktaş Yeşim, Eraç Yasemin, Derici Mehmet Kürşat, Çarçak Yılmaz Nihan, Evranos Aksöz Begüm, İlbars Hilal, Öncü Can Nazif, Kotmakçı Mustafa, Rençber Seda, Salgın Gökşen Umut, Yazıksız Yonca, Çetin Ceyhun, Erdem Fatma, Demirtaş Ayşedül, Akbaba Hasan, Bayrak Hüseyin Murat, T.C. Sağlık Bakanlığı Türkiye İlaç ve Tıbbi Cihaz Kurumu Artı 6 Reklam Matbaa Ltd. Şti., Basım sayısı:1, ISBN:978-975-590-675-1, Türkçe (Bilimsel Kitap), (Yayın No: 4765591)</p>
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<p>Oral Presentations</p>	<ol style="list-style-type: none"> 1) Akbaba, H. Erel-Akbaba G., Özder. M., Senturk S A Novel Concept for Immune Checkpoint Gene Knockout Via Lipid Based Non-Viral Delivery Systems, 13th World Meeting on Pharmaceuticals, Biopharmaceutics and Pharmaceutical Technology, 28-31 March 2022 2) Akbaba, H. Erel-Akbaba G., Rvg-Modified Targeted Gene Therapy For Alzheimer's Diseases, 3rd International Gazi Pharma Symposium Series, 8-10 September 2021, Ankara, Turkey. 3) Akbaba, H. Cationic lipoplex-mediated delivery of Fibroblast Growth Factor-2 encoding plasmid DNA for the accelerated treatment of wounds, 6th. International Medicine and Health Sciences Researches Congress, 10-11-April 2021, Ankara, Turkey. 4) Akbaba H., Özder M., Erel-Akbaba G., Senturk S., "A Novel Concept for Immune Checkpoint Gene Knockout Via Lipid Based Non-Viral Delivery Systems." BIO Turkey - International Biotechnology Convention, 5-7 March 2020, İstanbul, Turkey. 5) Akbaba, H. Doku Yerlesik Bellek T-hücresi Kavramı, Deride olusum mekanizmalarının HSV modeli ile araştırılması, Bağışık Yanıt ve Ası Çalışmalarındaki Rolü. 2. Uluslararası Ası Bilimi Kongresi & ISV Destekli DNA Asısı Çalistayı 6) Akbaba, H. Senturk S., Assessments of solid lipid nanoparticle formulations for the delivery of CRISPR / Cas9 Genome editing plasmids as an alternative to viral vectors, 2nd Functional Nanomaterials in Industrial Applications: Academic-Industry Meet UCLan, Online, 14th to 16th July 2020, Preston, UK.
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- 7) Erel-Akbaba G., **Akbaba H.**, Penetrating Peptide-Decorated Polymeric System For Improved Protein Delivery, 2nd Functional Nanomaterials in Industrial Applications: Academic-Industry Meet UCLan, Online, 14th to 16th July 2020, Preston, UK.
- 8) Başpınar Y., Erel-Akbaba G., Kotmakçı M., **Akbaba H.**, “Nanobubbles as Gene Carriers for the Therapy of Lung Cancer.” International IVEK Bio Congress, 26-28 November 2018, İstanbul, Turkey.
- 9) **Akbaba, H.**, Selamet, Y., Kantarcı, A.G., “A Novel Synthesis Method of Cationic Lipid Coated Magnetic Nanoparticles (MNPs); Characterization and Magnetofection.” Functional Nanomaterials in Industrial Applications: Academic-Industry Meet UCLan, 29-21 March 2016, Preston, UK.
- 10) **Akbaba, H.**, Erel Akbaba, G., Kantarcı, A.G., “shRNA-encoding plasmid loaded solid lipid nanoparticles against 5- α reductase activity for the treatment of androgenic alopecia: Topical delivery and in vitro evaluation.” 11th World Meeting on Pharmaceuticals, Biopharmaceutics and Pharmaceutical Technology, 19-22 March 2018, Granada, Spain.
- 11) **Akbaba, H.**, Bromley, S.K., The concept of tissue resident memory T-Cell, Investigation of mechanisms in skin by HSV model, role in immune response and vaccine studies, 2nd International Vaccinology Congress, 24-26 May 2018, Izmir, Turkey
- 12) **Akbaba, H.**, Erel Akbaba, G., Başpınar, Y., “Induction of apoptosis in the lung cancer cells using ultrasound-sensitive nanobubble formulations containing combination of survivin-siRNA and paclitaxel.” The international Conference on Nanomedicine, 18-20 June 2018, Rome, Italy
- 13) Baspınar Y., Erel-Akbaba G., Kotmakçı M., **Akbaba H.**, “Development and Characterization of Ultrasound Sensitive Paclitaxel, Survivin siRNA and YM155 Loaded Nanobubbles Against Lung Cancer.” International Summit of Innovation in Medicine IV- Innovation in Biological and Biomedical Sciences, 11-13 September 2018, Gaziantep, Turkey.
- 14) **Akbaba H.**, Bromley S.K., “Understanding the mechanisms that regulate cutaneous resident memory T cells on autoimmune skin diseases and preclinical studies in terms of vitiligo. “ International IVEK Bio Congress, 26-28 November 2018, İstanbul, Turkey.
- 15) Baspınar Y., Erel-Akbaba G., Kotmakçı M., **Akbaba H.**, “Ultrasound sensitive nanobubbles containing Paclitaxel, YM155 and siRNA as gene carriers for the therapy of lung cancer”, 2nd International Conference and Exhibition on Pharmaceutical Nanotechnology & Nanomedicine, 20-21 March 2019, New York, USA.
- 16) **Akbaba H.**, Özder M., Erel-Akbaba G., Senturk S., “A Novel Concept for Immune Checkpoint Gene Knockout Via Lipid Based Non-Viral Delivery Systems.” BIO Turkey - International Biotechnology Convention, 5-7 March 2020, İstanbul, Turkey.
- 17) İsar S., Erel-Akbaba G., **Akbaba H.**, Baspınar Y., “Development of a Cationic Nanoemulsion as Non-Viral Vector for pDNA Delivery.” BIO Turkey - International Biotechnology Convention, 5-7 March 2020, İstanbul, Turkey.

<p>Poster Presentations</p>	<ol style="list-style-type: none"> 1) Kantarcı A.G., Demir Dora D., Akbaba H., "Preparation and characterisation of cationic solid lipid nanoparticles as a potential DNA delivery system." 8th BBBB International Conference on Pharmaceutical Sciences, 26-28 October 2009, Antalya, Turkey. 2) Kantarcı A.G., Demir Dora D., Akbaba H., "DNA binding to cationic solid lipid nanoparticles for gene delivery." 7th World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, 8-11 March 2010, Valletta, Malta. 3) Akbaba H., Kantarcı A.G., Demir Dora D., "Determining complexation parameters of plasmid DNA and solid lipid nanoparticles to compose optimal complexes for in vitro transfection." 36th FEBS Congress Biochemistry for Tomorrow's medicine, Turin, Italy, 25-30 June 2011. 4) Akbaba H., Kotmakçı M., Demir Dora D., Korkmaz C., Kantarcı A.G., "Development of novel cationic solid lipid nanoparticles as gene delivery system: Characterization and transfection ability." European Biotechnology Congress 2011, 28 September -01 October 2011, Istanbul, Turkey. 5) Kotmakçı M., Akbaba H., Demir Dora D., Korkmaz C., Kantarcı A.G., "Development of novel precirol based cationic solid lipid nanoparticles by microemulsion dilution method as DNA delivery system." European Biotechnology Congress 2011, 28 September-01 October 2011, Istanbul, Turkey. 6) Akbaba H., Kantarcı A.G., Demir Dora D., "Investigating appropriate sterilization method for solid lipid nanoparticles: comparison of autoclave and filter sterilization." International Pharmaceutical Technology Symposium-IPTS, 10-12 September 2012, Antalya, Turkey. 7) Akbaba H., Demir Dora D., Kantarcı A.G., "The effect of lyophilization procedure and cryoprotectants on characteristics of SLN and SLN:DNA complexes." American Association of Pharmaceutical Scientists (AAPS) Annual Meeting and Exposition, 14-18 October 2012, Chicago, USA. 8) Akbaba H., Selamet Y., Kantarcı A.G., "Synthesis of magnetic nanoparticles (MNPs) using multiple emulsions as microreactors for gene targeting." 74th FIP World Congress Of Pharmacy and Pharmaceutical Sciences, 31 August - 04 September 2014, Bangkok, Taiwan. 9) Karagöz U., Akbaba H., Kantarcı A.G., "Preparation of DNA delivery systems for dermal gene delivery." 74th FIP World Congress Of Pharmacy and Pharmaceutical Sciences, 31 August -04 September 2014, Bangkok, Taiwan. 10) Akbaba H., Karagöz U., Selamet Y., Kantarcı A.G., "Development of nontoxic, cationic lipid coated, magnetic nanoparticles (MNPs) for gene delivery with a novel method." 1st European Conference on Pharmaceutics, 13-15 May 2015, Reims, France. 11) Akbaba, H., Selamet, Y., Kantarcı, A.G., "Multiple emulsion can be used as microreactors for synthesizing cationic lipid coated magnetic nanoparticles for gene targeting." ESGCT and FSGT collaborative congress, 17-20 September 2015, Helsinki, Finland. 12) Erel-Akbaba G., Akbaba H., Kantarcı A.G., "Non-viral shRNA delivery system; Gene silencing of 5α-reductase 2 for the treatment of androgenic alopecia."
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ESGCT and FSGT collaborative congress, 17-20 September 2015, Helsinki, Finland.

- 13) Akbaba H., Erel-Akbaba G., Kantarcı A.G., "Solid lipid nanoparticle mediated gene silencing of 5 alpha-reductase-2 for the treatment of androgenic alopecia." International multidisciplinary symposium on Drug Research & Development, 15-17 October 2015, Eskişehir, Turkey.
- 14) Erel-Akbaba G., Akbaba H., Kantarcı A.G., "Cytotoxicity evaluation of microemulsion formulations for oral insulin delivery." International multidisciplinary symposium on Drug Research & Development, 15-17 October 2015, Eskişehir, Turkey.
- 15) Bayraktar G., Akbaba H., Bütüner B., Alptuzun V., Erciyas, E., Istanbul H., "Synthesis, Characterization and Bioactivity Studies of Novel Thiazolopyrimidine Derivates as Potent Antileishmanial PTR1 Enzyme Inhibitors." Frontiers in Medicinal Chemistry, 14-16 September 2015, Antwerp, Belgium.
- 16) Bayraktar G., Akbaba H., Bütüner B., Istanbul H., Alptuzun V., Erciyas, E., "Synthesis and Biological Evaluation of Pyridinium-Hydrazone Derivates as Potent Antileishmanial PTR1 Inhibitors." EFMC Young Medicinal Chemist Symposium, 17 September 2015, Antwerp, Belgium.
- 17) Akbaba H., Baştürk O., Kantarcı A.G., "Development of a device for regulating magnetic field with electromagnets for the in-vitro delivery of nucleic acid- associated magnetic nanoparticles." 2017 CRS Annual Meeting and Exposition, 16-19 July 2017, Boston, USA.
- 18) Erel-Akbaba G., Kotmakçı, M., Akbaba, H., Kantarcı, A.G., "An optimized procedure to obtain extracellular vesicles for delivering stat3-suppressing short RNA molecules to NSCLC cells." 2017 CRS Annual Meeting and Exposition, 16-19 July 2017, Boston, USA.
- 19) Erel-Akbaba G., Kotmakçı M., Akbaba H., Kantarcı A.G., "Development of positive-charged solid lipid nanoparticles as siRNA delivery systems for treatment of glioblastoma." 2017 CRS Annual Meeting and Exposition, 16-19 July 2017, Boston, USA.
- 20) Erel-Akbaba G., Kotmakçı M., Akbaba H., Sozer-Karadağlı S., Kantarcı A.G., "Protein loaded encapsulated nanoparticles fabricated through emulsion-based system for controlled oral delivery." 11th World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, 19-23 March 2018, Granada, Spain.
- 21) Akbaba H., Kotmakchiev M., Demir Dora D., Korkmaz C., Kantarcı A.G., "Cytotoxicity study on cationic solid lipid nanoparticles as DNA delivery System." 8th Turkish Society of Toxicology Congress with international participation, 15-18 November 2012, Antalya Turkey.
- 22) Akbaba H., Kotmakchiev M., Demir Dora D., Korkmaz C., Kantarcı A.G., "Cytotoxicity study on cationic solid lipid nanoparticles as DNA delivery System." 8th Turkish Society of Toxicology Congress with international participation, 15-18 November 2012, Antalya Turkey.

Research Experience/ Projects	<ol style="list-style-type: none"> 1) Development of Novel Targetable Nanoparticulate Systems for CRISPR/Cas9 Mediated Gene Knockout of Immune Checkpoint Protein-PD-L1 and In vitro / In vivo Evaluation of Immuno-Oncological Efficiency in Breast Cancer Model, TUBITAK 218S682. 2) COST Action- CA20110 / RNA communication across kingdoms: new mechanisms and strategies in pathogen control (exRNA-PATH), Interfering strategies in exRNA communication: translational applications- Working Group Member 3) COVID-19'a Karşı Hızlı DNA Aşısı Geliştirilmesi" Tübitak COVID Platformu 4) Mechanisms of Cd49a Expression and Resident Memory T Cell Formation In Skin, Enforcing Institution: Harvard Medical School, Massachusetts General Hospital, Massachusetts General Hospital - Center for Immunology and Inflammatory Diseases, Postdoctoral researcher, 2017-2021, NIH R01 AI121546-01A1 5) Design, synthesis, characterization, PTR1 enzyme inhibition levels of thiazolopyrimidine derivatives small molecules and their <i>in vivo</i> - <i>in vitro</i> antileishmanial bioactivity, 03.15.2018 – 03.15.2021, Project Assistant, TUBITAK 117S041. 6) Development of ultrasound sensitive nanobubble formulations containing paclitaxel, survivin inhibitor and siRNA against lung cancer, 15.05.2017-15.05.2019, Project Assistant, TUBITAK 116S213. 7) Development of cell-derived exosomal formulations as anticancer shRNA delivery systems, 15.05.2015-15.05.2017, Project Assistant, TUBITAK 115S829. 8) Synthesis, characterization and bioactivity of thiazolopyrimidine derivatives as potential antileishmanial PTR1 enzyme inhibitors, 15.06.2015-15.06.2016, Project Assistant, TUBITAK 213S026. 9) A biophysical approach to DNA delivery systems; A novel magnetic nanoparticle production method and magnetofection under magnetic field regulations, 15.11.2012-15.05.2015, Project Assistant, TUBITAK 112S294. 10) Development of Cationic Solid Lipid Nanoparticles for Gene Delivery and Determination of their Transfection Efficiency, 15.07.2010-15.07.2011, Project Assistant, TUBITAK 110S020.
Patents	<p>Production method of magnetic nanoparticles by using multiple emulsions as a microreactor.</p> <p>Field of the invention : This invention regards the production of cationic lipid-coated magnetic nanoparticles that may be used as a DNA delivery system by using multiple emulsions as microreactors.</p>

Memberships	FARBID- Pharmaceutical Biotechnology Association of Turkey (Founder member) APV- Arbeitsgemeinschaft für Pharmazeutische Verfahrenstechnik e.V. International Association for Pharmaceutical Technology AAPS- American Association of Pharmaceutical Scientists, EACR- European Association for Cancer Research, FEBS- Federation of the Societies of Biochemistry and Molecular Biology TÜFTAD-Turkish Pharmaceutical Technology Scientist Association
Propagations	The International Biotechnology Leadership Camp (Novartis Biocamp) Program – “The interactive program brought 70 university students from 24 countries and territories to Novartis headquarters in Basel, Switzerland”, International, 04 May 2015. I. Farmasötik Biyoteknoloji Çalıştayı-biyoteknolojik İlaçlarda Üretim ve Uygulamalar, Workshop, National, 03 November 2017 - 04 November 2017. II.

References	
Shannon K. Bromley, PhD Harvard Medical School Massachusetts General Hospital, Center for Immunology and Inflammatory Diseases, 149 13th Street, Charlestown, MA 02129, USA E-mail: sbromley@mgh.harvard.edu shannon.bromley@gmail.com	Roberta Cavalli, Ph.D. University of Turin (Università degli Studi di Torino) Faculty of Pharmacy, Department of Pharmaceutical Technology Via P. Giuria, 15 - 10126 Torino, Italy E-mail: roberta.cavalli@unito.it
Zeki Topcu, Ph.D. Professor of Mol. Biol. & Biotechnol. Ege University Faculty of Pharmacy Izmir 35100 Turkey. E-mail: zeki.topcu@ege.edu.tr ztopcu@yahoo.com	A. Gülten Kantarcı, Ph.D. Professor of Pharmaceutical Biotechnology Ege University Faculty of Pharmacy Izmir 35100 Turkey. E-mail: gulten.kantarci@ege.edu.tr

DATA PROTECTION STATEMENT I hereby authorize the recipient of this document to use and process my personal data for administrative purposes. I confirm I am aware of my rights to request cancellation of my data at any time.

Hasan AKBABA, Ph.D.