

Assoc. Prof. Memed DUMAN

Graduate School of Science and Engineering
Hacettepe University
Beytepe, 06800 Ankara, Turkey
Phone: +90(312)297-6266 Mobile: +90(532)700-8829
memi@hacettepe.edu.tr

EDUCATION

Philosophy of Doctorate in Bioengineering, 2001-2007.

Hacettepe University, Faculty of Engineering, Department of Chemical Engineering, Bioengineering Division, Ankara, Turkey.

Title: "Design and Application of SPR (Surface Plasmon Resonance) Based DNA-chips for Detection of Pathogenic Microorganisms".

Master of Science in Bioengineering, 1999-2001.

Hacettepe University, Faculty of Engineering, Department of Chemical Engineering, Bioengineering Division, Ankara, Turkey.

Title: "Following of Hybridization with Oligonucleotide Immobilized Piezosensor".

Bachelor of Science in Biology, 1994-1998.

Middle East Technical University, Faculty of Science, Department of Biology, Ankara, Turkey.

EXPERIENCE

Research and Teaching Experience

Associated Professor, Hacettepe University, Graduate School of Science and Engineering, Nanotechnology and Nanomedicine Division (2015-present)

- Teaching NNT610 "Nano-bio Molecular Structures and Interactions" course
- Teaching NNT739 "Advances in Nanotechnology and Nanomedicine I" course

Assistant Professor, Hacettepe University, Graduate School of Science and Engineering, Nanotechnology and Nanomedicine Division (2011-2015)

- Teaching NNT702 "Micro- and Nano-patterning techniques" course
- Teaching NNT638 "Characterization of Nanostructures" course.
- Teaching NNT741 "Nano and Microfluidics for Biological Applications" course.
- Teaching NNT745 "Seminars on Nanotechnology and Nanomedicine"

Academic Consultant, Agilent Technologies UK, (2011-2012)

Post Doctoral Marie Curie Fellow, Johannes Kepler University of Linz, Institute for Biophysics, (2008-2011)

- Working on single molecule microscopy techniques in biophysics, nanobiotechnology and cell biology.
- By using atomic force microscopy (AFM) to explore the nanolandscape of surface receptors of the Immune system.

- Studying the organization of antigen presentation receptors and stimulation of NKT cells.
- Performing simultaneous topography and recognition imaging (AFM-TREC) technique to detect density, distribution and localization of receptor proteins, channels and transporters on cell membrane.
- Working on developing a new platform to sense fluorescence, topography and recognitions of receptors binding site on cellular surfaces under physiological conditions with an nanometer resolutions by combining fluorescence and simultaneous topography and recognition imaging.
- Managing €300,000 Marie Curie project budget and preparing midterm reports and audits.
- Supervised and guided a Marie Curie doctoral fellow and undergraduate students' work.

Post Doctoral Research Associate, University of Florida, College of Dentistry, Department of Periodontology, (2007-2008)

- Focused on understanding the different anti-apoptotic pathway(s) of primary cultures of GECs (Gingival Epithelial Cells) when they are infected by *P. gingivalis* and the intercellular spreading mechanisms of *P. gingivalis*.
- Examined bacterial trafficking mechanisms in GECs.
- Utilized and developed protein and DNA arrays to determine specific pathways important for bacterial survival and later dissemination in gingival epithelium.
- Checked the actin associated signaling/structural proteins by proteome microarray (Luminex technology).
- Worked on q-dots to label cellular and bacterial membrane.
- Growth anaerobic and aerobic bacteria.
- Managed \$270,000 project budget, which includes, equipments, lab supplies, and miscellaneous expenses.
- Supervised and guided master's, doctoral and undergraduate students' work.

Teaching Assistant, Hacettepe University, Department of Chemistry, (2005-2006)

- Instructor of record for the course "General Chemistry Laboratory I."

Research Assistant, Hacettepe University, Faculty of Engineering, Department of Chemical Engineering, Bioengineering Division, (2000-2007)

- Designed and developed Surface Plasmon Resonance (SPR) and Quartz Crystal Microbalance (QCM) based DNA-chips for detection of pathogenic microorganisms.
- Worked on different application of Cantilever Sensors (AFM).
- Applied different surface modification, biomolecule immobilization and nanopatterning techniques.
- Taught Nanopatterning Techniques and Biosensors chapters in Biomedical Engineering Applications Course.
- Supervised and guided master's students' thesis work.
- Managed different amount of projects budgets, which includes, equipments, lab supplies, and miscellaneous expenses.
- Organized seminars, meetings, courses and workshops which are related with projects.

Research Assistant, University of Washington, Department of Materials Science and Engineering, (2002-2004)

- Focused on understanding Protein-inorganic interactions and their binding kinetic analysis (QCM, SPR, AFM, STM, TEM, SEM)
- Analyzed Peptide directed assembly and material synthesis with self assembled monolayers

- Prepared 2D-3D molecular templates (DNA-Protein, mimic of DNA, DNA stretching, Recrystallization of Self-assembled S-layer Protein).
- Synthesized and characterized different size and type of nanoparticles.
- Supervise and guide master's and undergraduate students' work.

Project Assitant, Hacettepe University, Faculty of Engineering, Department of Chemical Engineering, Bioengineering Division, (1999-2001)

- Prepared and analyzed cell- ϵ -caprolactone/lactic acid composites as a soft tissue filling materials:

PUBLICATIONS

2016

- 1- Erdogan H., Yilmaz M., Babur E., Duman M., Aydin H.A., Demirel G., (2016). Fabrication of Plasmonic Nanorod-Embedded Dipeptide Microspheres via the Freeze Quenching Method for Near- Infrared Laser-Triggered Drug-Delivery Applications. **BioMacromolecules**, doi:10.1021/acs.biomac.6b00214.
- 2- Gultekinoglu M., Oh Y.J., Hinterdorfer P., Duman M., Catcat D., Ulubayram K., (2016). Nanoscale characteristics of antibacterial cationic polymeric brushes and single bacterium interactions probed by force microscopy. **RSC Advance**, 6: 17092-17099.

2015

- 3- Sari E., Uzek R., Duman M., Denizli A., (2015). Fabrication of surface plasmon resonance nanosensor for the selective determination of erythromycin via molecular imprinted nanoparticles. **Talanta**, 127: 607-614.

2014

- 4- Duman M., (2014). Probing and Mapping the Binding Sites on Streptavidin Imprinted Polymer Surface. **Material Science and Engineering C**, 43: 214-220.
- 5- Korpe D.A., Malekghasemi S., Aydin U., Duman M., (2014). Fabrication of monodisperse nanoscale alginate-chitosan core-shell particulate systems for controlled release studies. **Journal of Nanoparticle Research**, 16: 2754.

2013

- 6- Duman M., Chtcheglova L.A., Zhu R., Bozna B.L., Polzella P., Cerundolo V., Hinterdorfer P., (2013). Nanomapping of CD1d-glycolipid complexes on THP1 cells by using simultaneous topography and recognition imaging. **Journal of Molecular Recognition**, 26: 408-414.
- 7- Oh Y.J., Sekot G., Duman M., Chtcheglova L.A., Messner P., Peterlik H., Schäffer C., Hinterdorfer P., (2013). Characterizing the S-layer structure and anti-S-layer antibody recognition on intact *Tannerella forsythia* cells by scanning probe microscopy and small angle X-ray scattering. **Journal of Molecular Recognition**, 26: 542-549.

2011

- 8- Bozna B.L., Rankl C., Zhu R, Salio M., Shepherd D., Duman M., Polzella P., Cerundolo V., Hinterdorfer P., Binding strength and dynamics of iNKT TCR/CD1d-glycosphingolipids interaction on living cells by single molecule force spectroscopy. **Journal of Biological Chemistry** 286: 15973-15979.
- 9- Oh Y.J., Hochleitner M., Huber H.P., Duman M., Bozna B., Kastner M., Rangl M., Kienberger F., Hinterdorfer P., High-frequency electromagnetic dynamics properties of THP1 cells using scanning microwave microscopy. **Ultramicroscopy**, 111, 1625-1629.

2010

- 10- Duman M., Piskin E., (2010) Detection of Mycobacterium tuberculosis complex and Mycobacterium gordonae on the same portable surface plasmon resonance sensor. **Biosensors and Bioelectronics**, 26:2, 908-912.
- 11- Duman M., Pflieger M., Zhu R., Rankl C., Chtcheglova L. A., Neundlinger I., Bozna B. L., Mayer B., Salio M., Shepherd D., Polzella P., Moertelmaier M., Kada G., Ebner A., Dieudonne M., Schutz G. J., Cerundolo V., Kienberger F., Hinterdorfer P., (2010). Improved localization of cellular membrane receptors using combined fluorescence microscopy and simultaneous topography and recognition imaging. **Nanotechnology**, 21: 115504-115510.
- 12- Hofer M, Adamsmaier S, van Zanten TS, Chtcheglova LA, Manzo C, Duman M, Mayer B, Ebner A, Moertelmaier M, Kada G, Garcia-Parajo MF, Hinterdorfer P, Kienberger F., (2010). Molecular recognition imaging using tuning fork-based transverse dynamic force microscopy. **Ultramicroscopy**, 110: 605-611.

2009

- 13- Duman M., Caglayan M.O., Demirel G., Piskin E., (2009). Detection of Mycobacterium tuberculosis Complex Using Surface Plasmon Resonance Based Sensors Carrying Self-Assembled Nano-Overlayers of Probe Oligonucleotide. **Sensor Letters**, 7: 535-542.
- 14- Duman M., Caglayan M.O., Demirel G., Piskin E., (2009). Detection of Mycobacterium tuberculosis complex using SPR based oligonucleotide sensors. **Abstracts of papers of the American Chemical Society** Volume: 237 Meeting Abstract: 23-NANO .

2008

- 15- Yilmaz O., Yao L., Maeda K., Rose T.M., Lewis E.L., Duman M., Lamont R.J., Ojcius D.M., (2008). ATP Scavenging by the Intracellular Pathogen *Porphyromonas gingivalis* Inhibits P2X7-mediated Host-Cell Apoptosis. **Cellular Microbiology**, 10: 863-875.

2007

- 16- Demirel G., Caglayan M.O., Garipcan B., Duman M., Piskin E., (2007). Formation and organization of amino terminated self-assembled layers on Si(001) surface. **Nanoscale Research Letters**, 2: 350-354.

- 17- Cetin M., Aktas Y., Vural I., Capan Y., Dogan A.L., Duman M., Dalkara T., (2007). Preparation and In Vitro Evaluation of bFGF-Loaded Chitosan Nanoparticles. **Drug Delivery**, 14: 525-529.
- 18- Demirel G., Caglayan M.O., Garipcan B., Duman M., Piskin E. (2007). Oriented immobilization of IgG on hydroxylated Si(001) surfaces via protein-A by a multiple-step process based on a self-assembly approach. **Journal of Materials Science**, 42: 9402-9408.

2006

- 19- Tamerler C., Oren E.E., Duman M., Venkatasubramanian E., Sarikaya M. (2006). Adsorption Kinetics of an Engineered Gold Binding Peptide by Surface Plasmon Resonance Spectroscopy and a Quartz Crystal Microbalance. **Langmuir**, 22: 7712-7718.
- 20- Tamerler C., Duman M., Oren E.E., Gungormus M., Xiong X., Kacar T., Parviz B.A., Sarikaya M. (2006). Materials Specificity and Directed Assembly of a Gold-Binding Peptide. **Small**, 2: 1372-1378.

2003

- 21- Duman M., Saber R., Piskin E., (2003). A new approach for immobilization of oligonucleotides onto piezoelectric quartz crystal for preparation of a nucleic acid sensor for following hybridization. **Biosensors and Bioelectronics**, 18: 1355-1363.

Sum of the Times Cited: 526 (Accord. Google Scholar); 385 (Web of Science)

Sum of Times Cited without self-citations: 520 (Accord. Google Scholar); 379 (Web of Science)

h-index: 10 (Accord. Google Scholar); 9 (Web of Science)

BOOK CHAPTERS

- 1- Duman M.,Okan M.,(2016). Development of Molecularly Imprinted Polymer Based Cantilever Sensor System for the Selective Determination of Pharmaceutical Emerging Contaminants in Water Sources. Advance Imprinted Materials. (Ongoing the stages of production.)
- 2- Kayım Çatçat D.,Duman M.,(2016).Kantilever tabanlı biyosensörler. Adil Denizli(Ed.).Afinite Temelli Biyosensörler. ISBN:978-605-88783-1-0.
- 3- Özgürbüz M, Kutlu NH, Denkbaş EB, Duman M, Bayram C., (2013). Biyoteknoloji sektörel inovasyon sistemi: Kavramlar dünyadan örnekler türkiye’de durum ve çıkarımlar.. Mahmut Kipler(Ed.). Sağlık Biyoteknolojisi: Türkiye’de durum. TTGV-T/2012/004.
- 4- Duman M; Ebner A; Rankl C; Tang J; Chtcheglova L.A; Wildling L; Gruber H.J; Hinterdorfer P, (2013). Encyclopedia of Biophysics. Springer(Ed.). Atomic Force Microscopy for Topography and Recognition Imaging at Single Molecule Level.
- 5- Duman M., Preiner J., Chtcheglova L.A., Ebner A., Hinterdorfer P., (2013). Encyclopedia of Biophysics, Single Molecule Methods.. Gordon C.K. Roberts(Ed.). Simultaneous topography and recognition imaging. ISBN 978-3-642-16711-9.

- 6- Bozna LB., Duman M., Hinterdorfer P., (2013). Single Molecule Studies of Proteins.. Oberhauser AF(Ed.). Force Spectroscopy and Recognition Imaging of Cells from the Immune System. Springer Science New York. ISBN 978-1-4614-4921-8
- 7- Duman M., Neundlinger I., Zhu R., Preiner J., Lamprecht C., Chtcheglova L.A., Puntheeranurak T., Ebner A., Hinterdorfer P., (2012). Comprehensive Biophysics. Egelman E., Kent C.(Ed.). Elucidating Cellular Structures. Elsevier Ltd, Oxford, UK. ISBN 978-0-080-95718-0.
- 8- Piskin E., Garipcan B., Duman M., (2009). Detection of Highly Dangerous Pathogens: Microarray Methods for BSL3 and BSL4 Agents.. Kostic T., Butaye P., Schrenzel J.(Ed.). Probe Immobilization Techniques in Array Technologies. Wiley-Blackwell, Germany. ISBN 978-3-527-62669-4.
- 9- Ozdemir N., Tuncel A., Duman M., Engin D., Denkbaz E.B., (2008). Functionalized Nanoscale Materials, Devices and Systems. A. Vaseashta, I.N. Mihailescu(Ed.). Poly(n-isopropylacrylamide) (PNIPAM) Based Nanoparticles for In Vitro Plasmid DNA Delivery. Springer, The Netherlands. ISBN 978-1-4020-8903-9.

THESES/DISSERTATIONS

Master of Science

1. Design and Development of Paper-Based Biosensor, Soheil Malekghasemi (Completed).
2. Development and Characterization of Gold Nanoparticle Labeled Synthetic Hemoglobin Molecule for Detection of Fecal Occult Blood in Molecular Imprinted Polymer based Point of Care Test Kit, Ugur Aydin (Completed).
3. Preparation Of Molecularly Imprinted Polymer Based Cantilever Sensor System For The Determination Of Erythromycin And Cipsofloxacin Antibiotics In Water, Meltem Okan (Continue).
4. Development And Investigation Of Nanoparticle Modified Paper Based Sample Platforms For Effective Detection Of Biomolecules In MalDI-MS Applications, Gülgün Aylaz (Continue).
5. Improvement Of Quantitative Fecal Occult Blood Test Kit, Hatice Kübra Aşçı (Continue).

Philosophy of Doctorate

1. Detection And Characterization Of Biomolecules With Atomic Force Microscope In Their Native Environments, Demet Çatçat Kayım (Completed).
2. Nanoparticle Based Capacitive Sensor Array System for Biomedical Sensing, Emre Kazancı (Continue).
3. Development of hydrogel composite with nanoparticle for cartilage tissue engineering, Didem Aksoy Körpe (Continue).

4. Development Of Portable, Highly Sensitive And Multi-Channel Spr Device And Methods For Detection Of Biomoleculer Interactions, Selim Sülek (Continue).

GRANTS

1. A Surface Plasmon Resonance (SPR) Sensor System using Molecular Imprinted Polymer-Nanoparticle Composites for Ultrasensitive detection of Pharmaceutical Emerging Contaminants in Fresh Water Sources. Royal Society, Advance Newton Fund, NA140378. **Manager**. Started at February 2015.
2. Design and Development of Microfluidic based Platelet Rich plasma Separation Kit. SAN-TEZ, 0815.STZ.2014. **Manager**. Started at April 2015.
3. Nanoparticle Based Capacitive Sensor Array System for Biomedical Sensing. Hacettepe University, Scientific Research Project Coordination Unit, Project No: FHD-2015-5270. **Manager**. Started at September 2012.
4. Development of molecular imprinted polimer based cantilever sensor system for detection of pharmaceutical emerging contaminants in water sources. COST TD1002, 113Z222 (24 months). **Manager**. Completed at September 2015.
5. Development and production of Point of Care Test Kit for detection of fecal occult blood. TUBITAK 1003, TC0101-113S076. **Manager**. Started at October 2013.
6. Preparation of Alginate Coated Chitosan Nanoparticles for Multiple Layer Delivery System. Hacettepe University, Scientific Research Project Coordination Unit, Project No: 1188. **Manager**. Completed at September 2014.
7. Polyethylene Glycol Modification for Atomic Force Spectroscopy, Hacettepe University, Scientific Research Project Coordination Unit, Project No: 012D09604001. **Manager**. Completed at March 2013.
8. Development of Rapid Urease Test Kit. Ankara Development Agency, TR51/11/YEN 2012-2013. **Advisor**. Completed at February 2013.
9. Alternative Nanochips for Pathogenic Bacteria, TUBITAK 104T551. **Researcher**. Completed at January 2007.

AWARDS

- Best oral presentation award at 1st Biosensor Congress, June 2014, Tekirdag, Turkey.
- Best poster award at 2nd International Biophysics Congress and Biotechnology at GAP & 21st National Congress, October 2009, Diyarbakir, Turkey.
- Post Doctoral Marie Curie Fellowship, Johannes Kepler University of Linz, Institute for Biophysics, (2008-2011).
- Postdoctoral Research Fellowship, College of Dentistry, Department of Periodontology, University of Florida, 2007-2008.
- Best poster award at Biomed-8 an International Symposium on Biomedical Science and Technology, September, 2001, Ankara, Turkey.

INSTRUMENTAL & EXPERIMENTAL TECHNIQUES

- Fluorescence, Differential Interference Contrast (DIC) and Confocal Microscope
- Force spectroscopy and Simultaneous topography and recognition imaging by using Atomic Force Microscopy (TREC)
- Transmission Electron Microscope (TEM) and Scanning Electron Microscope (SEM)
- Quartz Crystal Microbalance System (QCM), Ellipsometry/Surface Plasmon Resonance (SPR)
- Atomic Force Microscope (AFM) and Scanning Tunneling Microscope (STM)
- Luminex Microarray Technology, Spectrofluorophotometer, Flowcytometer
- Enzyme-Linked Immunosorbent Assay (ELISA), Western Blotting, Real-Time Polymerase Chain Reaction (RT-PCR), Immunofluorescence Assay, Small Interfering RNA (siRNA)
- Cell Culture Techniques

LOCAL and INTERNATIONAL SERVICES

- *Ad Hoc* Reviewer: Journal of Biomedical Nanotechnology
- *Ad Hoc* Reviewer: Turkish Journal of Biochemistry
- *Ad Hoc* Reviewer: Journal of Biomedical Materials Research: Part B - Applied Biomaterials
- *Ad Hoc* Reviewer: RSC Advance
- Congress Chair of 3rd International Congress on Biosensor, October 2016.
- Congress Secretary of NanoTR8 – 8th Nanotechnology and Nanoscience Congress, June 2012

SCIENTIFIC EVENTS

1. Sari E; Okan M; Suzek R; Denizli A; Duman M., "Preparation of Molecular Imprinted Nanoparticle for the Selective Determination of Erythromycin with Surface Plasmon Resonance Sensor", Sayfa 1-6, 2015.
2. Oh, YJ; Sekot, G; Duman, M; Chtcheglova, L; Messner, P; Peterlik, H; Schaffer, C; Hinterdorfer, P, "Characterizing the Cell Surface Structure and Antibody Recognition Forces on Intact Microbial Cells using Scanning Probe Microscopy", BIOPHYS J, Sayfa 511-512, 2014.
3. Oh, YJ; Huber, HP; Hochleitner, M; Duman, M; Bozna, B; Kastner, M; Kienberger, F; Hinterdorfer, P, "High-Frequency Electromagnetic Dynamics Properties of THP1 Cells Using Scanning Microwave Microscopy", BIOPHYS J, Sayfa 161-161, 2011.
4. Duman, M; Caglayan, MO; Demirel, G; Piskin, E, "Detection of Mycobacterium tuberculosis complex using SPR based oligonucleotide sensors", ABS PAP ACS, Sayfa 0-0, 2009.
5. Malekghasemi S; Kahveci E; Aydın Uğur; Duman M, "Novel and Rapid Fabrication Method for Paper-Based Microfluidics", International Bioprinting Congress, Sayfa 8-8.
6. Korpe D.A; Malekghasemi S; Aydın U; Duman M, "Control Released Studies of Alginate Coated Chitosan Nanoparticles", 10th Nanoscience and Nanotechnology Conference (NanoTR10), Sayfa 214-214.
7. Duman M, "Core-Shell Nanoparticles as Dual Drug Delivery System", 10th Nanoscience and Nanotechnology Conference (NanoTR10), Sayfa 37-37.
8. Malekghasemi S; Kahveci E; Aydın Uğur; Duman M, "Fabrication of Paper Based Lateral Flow Test Strip by Using Inkjet Printing Techniques", International Workshop on Flexible Bio- and Organic Printed Electronics (IWOBOE-2014), Sayfa 73-73.
9. Oh Y.J; Sekot G; Duman M; Chtcheglova L.A; Messner P; Peterlik H; Schäffer C; Hinterdorfer P, "Characterizing the cell surface and antibody recognition forces on intact microbial cells using Scanning Probe Microscopy", , Sayfa 511-512.
10. Korpe D.A; Malekghasemi S; Duman M, "Preparation of Alginate Coated Chitosan Nanoparticles for Dual Delivery System", 16. Annual Linz Winter Workshop, Sayfa 7-7.
11. Oh Y.J; Sekot G; Duman M; Chtcheglova L.A; Messner P; Peterlik H; Schäffer C.C; Hinterdorfer P, "Nanoscale observation of Tannerella forsythia S-layer structure and antibody recognition by scanning probe microscopy", 16. Annual Linz Winter Workshop, Sayfa 13-13.
12. Duman M, "Revealing Dynamics Properties of CD1d-glycolipid complexes on THP1 Cells using Simultaneous Topography and Recognition Imaging", Nanomeasure 2013, Sayfa 5-5.

13. Duman M; Yilmaz E; Ozgur E; Denizli A; Hinterdorfer P, "Streptavidin recognition via molecularly imprinted polymer chip surface", *Microfluidics* 2012, Sayfa 113-113.
14. Kada G; Xie J; Rankl C; Kienberger F; Huber H.P; Duman M; Hinterdorfer P, "A versatile toolset for nanometer scale research in life science", *NANOBIO Europe* 2012, Sayfa 36-36.
15. Yılmaz E; Şener G; Ozgur E; Uzun L; Duman M; Denizli A, "MIP Nanosensors for Detection of Streptavidin", 14. Annual Linz Winter Workshop, Sayfa 11-11.
16. B.L.Bozna, P.Polzella, C.Rankl,Zhu R; Salio M; Shepherd D; Duman M; Cerundolo V; Hinterdorfer P, "Probing iNKT T cell receptor and CD1d-GSL interaction on live cells by AFM", *Molecular and Applied Biosciences Austria* 2010, Sayfa 58-59.
17. Duman M; Pflieger M; Zhu R; Rankl C; Chtcheglova L.A; Neundlinger I; Bozna B.L; Mayer B; Salio M; Shepherd D; Polzella P; Moertelmaier M; Kada G; Ebner A; Dieudonne M; Scheutz G.J; Cerundolo V; Kienberger F; Hinterdorfer P, "Combined fluorescence microscopy and simultaneous topography and recognition imaging to determine cellular membrane receptors", *Epithelial Transport Workshop*, Sayfa 16-16.
18. Duman M; Piskin E, "Detection of Mycobacterium tuberculosis complex and Mycobacterium gordonae on the same portable surface plasmon resonance sensor", 6th Nanoscience and Nanotechnology Conference, Sayfa 90-90.
19. Duman M; Bozna B; Polzella P; Cerundolo V; Hinterdorfer P, "Detection of α GalCer-CD1d Complexes on THP1 Cells via Simultaneous Topography and Recognition Imaging", 20th Anniversary World Congress on Biosensors, Sayfa 72-72.
20. Duman M; Pflieger M; Zhu R; Rankl C; Chtcheglova L.A, Neundlinger I; Bozna B.L; Mayer B; Salio M; D.Shepherd, P.Polzella, M.Moertelmaier, G.Kada, A.Ebner, Dieudonne M; Scheutz G.J; Cerundolo V; Kienberger F; Hinterdorfer P, "Improved localization of cellular membrane receptors using combined fluorescence microscopy and simultaneous topography and recognition imaging", *The 12th International Scanning Probe Microscopy Conference*, Sayfa 5-5.
21. Bozna B.L; Rankl C; Zhu R; Duman M; Polzella P; Shepherd D; Salio M; Cerundolo V; Hinterdorfer P, "Recognition of invariant natural killer T (iNKT) cell agonist by iNKT T cell receptor using single molecule force spectroscopy", *The 12th International Scanning Probe Microscopy Conference*, Sayfa 75-75.
22. Plochberger B; Madl J; Weghuber J; Brameshuber M; Röhl C; Lamprecht C; Zhu R; Duman M; Stangl H; Hinterdorfer P; Hermetter A; Schütz G.J, "Combined Single Molecule Fluorescence and Force Microscopy", 12. Annual Linz Winter Workshop, Sayfa 10-10.
23. Duman M; Bozna B; Polzella P; Cerundolo V; Hinterdorfer P, "Simultaneous topography and recognition imaging of α GalCer-CD1d complex on THP1 cells", 2nd International Biophysics Congress and Biotechnology at GAP, Sayfa 111-111.
24. Barbeta B; Duman M; Yao L; Koutouzis T; Yilmaz O., "Akt Inhibition by RNAi reverses P. gingivalis-induced-survival of epithelial cells", *BIOMED* 2008, Sayfa 55-55.

25. Nazlı K.Ö; Demirel G; Çağlayan M.O; Garipcan B; Duman M; Pişkin E, "Formation of self-assembled monolayers with aminosiloxane molecules (TPDA) on Si(001) surface", BIOMED 2008 konferansı, Sayfa 136-136.
26. Yılmaz O; Duman M; Yao L; Pettengill M; Sater A.A; Ojcius D.M, "Role of an Inflammasome in Secretion of IL-1 β by Gingival Epithelial Cells Infected With Porphyromonas gingivalis", AADR 37th Annual Meeting and Exhibition, Sayfa 22-22.
27. Ozdemir N; Tuncel S.A; Duman M; Misirli Y; Denkbaz E.B., "Invitro Transfection Studies of HeLa Cells with Polymeric Nanoparticles", 13th International Pharmaceutical Technology Symposium, Sayfa 133-134.
28. Duman M;Caglayan M.O; Piskin E., "Development of a nucleic acid-sensor based on Surface Plasmon Resonance for the detection of Mycobacterium tuberculosis", NANOMAT 2006, Antalya,Turkey, Sayfa 197-197.
29. Garipcan B; Duman M; Çağlayan M.O; Bişkin E., "Novel Silicon Nanowire Nanochips for the Determination of Pathogenic Bacteria", Nanoscience and Nanotechnology,2006, Sayfa 64-64.
30. Gürkaynak O; Bilensoy E; Şen M; Duman M; Salih B, "Paclitaxel complexation to 6-O-CAPRO- β -CD and its stability in a nanoparticulate system", XIII International Cyclodextrin Symposium, Sayfa 23-23.
31. Duman M; March J.M; Zareie M.H; Sarikaya M., "DNA Stretching – DNA as a Molecular Template", Biomimetics-III, An International Workshop on Nature of Protein/ Inorganic Interfaces, Sayfa 29-29.
32. Duman M; Saber R; Koçum İ.C; Piskin E, "A Piezoelectric Crystal Based Nucleic Acid Biosensor", Biomed-8 An International Symposium on Biomedical Science and Technology, Sayfa 33-33.
33. Duman M; Zareie M.H; Smit J; Sarikaya M., "Self-assembled S-layer Protein as a Molecular Templates San Juan Island, USA", Biomimetics-III, An International Workshop on Nature of Protein/ Inorganic Interfaces, Sayfa 32-32.