***AYFER CALIS***

**ayfer@ucla.edu**

**EDUCATION**

PostDoc UCLA, Electrical Engineering Department School of Engineering and Applied Science University of California, USA, PI: **Prof. Dr. Aydogan OZCAN,** 2016-

Phd Bioengineering Division, Faculty of Engineering, Hacettepe University, 2008-2012

M.Sc. Department of Biology, (Microbiology), Nigde University, 2004-2007

BSc Department of Biology, Faculty of Arts and Science, Nigde University, 2000-2004

**MAJOR RESEARCH INTERESTS**

* Point of care diagnostics, label free detection
* Imaging, Mobile Health Technologies
* Nano/Biophotonics

**MAJOR RESEARCH EXPERIENCES**

* Biosensors, Nanoparticles, Detection kits, Array platforms
* Immobilization Techniques, Surface Chemistry, Labeling Techniques, Polymer Science
* Microbiology, Biotechnology, Bio/Green Synthesis

**PUBLICATIONS**

**Calis, A**. Ekinci, F.Y., Pişkin, E., *‘’ ’Development of Detection Kits and Suspension Array Platform for E. coli identification in Dairy Products’’*, (Paper in progress).

***Calis A****, Celik G.Y., Katircioglu H., “Antimicrobial effect of natural dyes on some pathogenic bacteria”, African Journal of Biotechnology, Vol. 8 (2), pp. 291–293, 2009*

***Calis A****, Yucel D., “Antimicrobial Activity of Some Natural Dyes”, International Journal of Natural and Enginering Sciences, Vol. 3(2), pp.58-60, 2009*

**PROCEEDINGS**

***Calis A****., “Bryophyta Mediated Green Synthesis of Gold Nanoparticles, Nanomed§ Nanobiotech 2015, Köyceğiz, Muğla*

***Calis A***., Ekinci F.Y., “Spion-based suspension arrays for rapid detecton of toxigenic E. coli strains” 1st NanoBioTechnology Symposium, (NanoBioTech 2014), 27-29 August 2014

***Calis A****., Ekinci F., Piskin E., “Nanomarkers for Detection of E. coli Species in Milk”, 8th Nanoscience and Nanotechnology Congress, Ankara, Turkey, 25-29 June 2012, poster presentation*

*Dizaji, A.N.,* ***Calis A****., Piskin E., Moghtader F., Turk M., “Properties of Silver Nanoparticles Produced by Using Rhodopseudomunas palustris”, 8th Nanoscience and Nanotechnology Congress, Ankara, Turkey, 25-29 June 2012, poster presentation*

*Dizaji, A.N., Moghtader F.,* ***Calis A****., Turk M., Kutsal T., Piskin E., “Properties of silver nanoparticles produced by using Rhodopseudomunas palustris”, 18th International Biomedical Science and Technology Symposium, Tokat, Turkey, 10-13 September 2012, poster presentation*

*Ozkan E.,* ***Calis, A.****, Akbulut A., Piskin A., “Nanodesign of Nature: Coscinodiscus wailesii (Diatom) and Optimization of growth conditions”, 8th Nanoscience and Nanotechnology Congress, Ankara, Turkey, 25-29 June 2012, poster presentation*

***Calis A****., Ozturk A., Piskin E., “Microbial Synthesis of Gold Nanoparticles Using Rhodopseudomonas palustris NU51 Strain’’, 6th Nanoscience & Nanotechnology Conference, İzmir, June 15-18, 2010, poster presentation*

***Calis A.,*** *Sayar F., Ekinci Y., Piskin E., ‘’Development of Detection Kits for E. coli in Dairy Products Based on Immunomagnetic Nanoparticles’’, Cost B-28 action, Workshop on Array Technologies, İstanbul, May 5-6, 2010, pp 10, poster presentation*

***Calis A****., Yucel D., Celik Y.G., “Antimicrobial Activity of Natural Dyes”, IV. National Bioengineering Congress (International Attendance), İzmir, October 15-18, 2008, poster presentation*

***Calis A.,*** *Celik Y.G., Katircioglu H., “Antimicrobial Activity of Some Natural Dyes”, XV. National Biotechnology Congress, Antalya, Turkey, October 28-31, 2007, pp 33, poster presentation*

**PROJECTS PARTICIPATED**

“Field portable and Cost-effective Mobile Sensor Development for Toxin Analysis”, TUBITAK 2219 Postdoctoral Research Programme, **Principal Investigator,** PI: Aydogan Ozcan

“Development of Spectral-Surface Plasmon Resonance Biosensor and Biosensor chip for Aflatoxin B1 detection”, **Project Coordinator**, Republic of Turkey Ministry of Science, Industry and Technology, 2012-2013 (Completed)

“Development of Detection Kits for Pathogenic Bacteria (E. coli) in Dairy Products and Environmental Water”, **Research assistant,** TAGEM/ 09 / AR-GE-15, Republic of Turkey Ministry of Food, Agriculture and Livestock R&D project, 01.09.2009 - 01.10.2011 (Completed)

“CRANIRARE: An integrated clinical and scientific approach for craniofacial malformations”, **Research assistant**, Project Number:108S419, EU- FP6-ERare-JTC-2007, 2010 - 2012 (Completed)

**PROFESSIONAL EXPERIENCE**

***Assistant Professor***, Genetic and Bioengineering Department, 2014-, Faculty of Engineering, Giresun University

***Project Coordinator***, CEO, Nanospekt R&D Ind.Trade.Co.Ltd (Software Biotech. Engineering Energy Product. Training Consultancy Manifacturing) 2012-

***Teaching Assistant***, Microbiology Lab.I-II, 2005-2007, Department of Biology, Nigde University, Turkey

***Teaching Assistant***, Algae (Cryptogamae Plant) Systematic Lab.I-II, 2005-2007, Department of Biology, Nigde University, Turkey

***Process Control Specialist***, Kızıklı Food Industry and Trade Inc., 2005-2007

***Microbiologist***, Kızıklı Food Industry and Trade Inc., 2005-2007

**RESEARCH**

Phd Bioengineering Division, Faculty of Engineering, Hacettepe University,Ankara,2008-2012

Supervisor Prof.Dr. Erhan Piskin

Dissertation “Development of Diagnostic Test Kits and Suspension Arrays Based on NP’s for Detection of Pathogenic Bacteria (*E. coli*) in Food and Environmental Water”

M.Sc. Department of Biology, (Microbiology), Faculty of Arts and Science, Nigde University, 2004-2007

Supervisor Prof.Dr. Gokcen Yuvalı Celik

Thesis Sub. “Antimicrobial Activity of Some Natural Dyes”

**WORKSHOPS AND COURSES ATTENDED**

* **BSL 3- BSL 4** Training School, Institute of Virology, University Medicine, George-August University of Goettingen, May 25-28, 2010 / Germany (Cost B28 Action) (Principal Instructors: Manfred Weidman)

**(Training course for highly pathogenic microorganisms: which can cause serious and potentially fatal disease. Biosafety level 4 (BSL-4) is the highest level of biosafety precautions!)**

* SCAN 2010 Workshop and School on the Synthesis, Characterization and Applications of Nanomaterials, Bilkent University, September 30-October 6, 2010 / Ankara, Turkey
* COST Action, Workshop on ‘Array Technologies’, Yeditepe University / Hacettepe University, May 5-6, 2010 / Istanbul, Turkey
* Training Course on ‘Cranio-Maxillofacial Animal Models’, Hacettepe University, Bioengineering Dept. Expertissues, July 28-31, 2010 / Ankara, Turkey
* Porous Hydrogels for Biomedical Applications from Cytapheresis to Tissue Engineering, Lund University / University of Brighton / Hacettepe / Biomedtek FP7 Marie Curie, Monaco-Extra Summer School, September 29 - October 2, 2009 / Antalya, Turkey
* TUBA I. Stem Cell Course and V. Stem Cell Symposium, Turkish Academy of Science, TUBA, June 25-26, 2010 / Ankara, Turkey
* *Tissue Engineering Applications: Biomaterial-Tissue Compatibility Course,* Hacettepe Uni. Medical Faculty / Continuing Medical Training Activities, March 27, 2009 / Ankara, Turkey
* International Workshop on Nano-biotechnology § Genome Technologies (NANOMAT 2007), METU Central Laboratory, October 31-November 03, 2007 / Antalya, Turkey

**ORGANISATIONS**

* ***BIYOMUHUAM***- Hacettepe University Bioengineering Research and Application Center, National Advisory Board, ([http://www.biyomuhuam.hacettepe.edu.tr](http://www.biyomuhuam.hacettepe.edu.tr/))
* National Advisory Board and Program Committee, Tissue Engineering and Regenerative Medicine International Society (TERMIS-EU 2013), June 17-21, 2013
* Local Organization Committee; Biomed 2012, 18th International Biomedical Science & Technology Symposium, September 10-13, 2012, Tokat, Turkey
* Local Organization Committee; Biomed 2010, 16th International Biomedical Science & Technology Symposium, September 28- Oct 2, 2010, Sultanahmet, Istanbul, Turkey
* Organizing and Advisory Committee: “Expertissues” Training Course On Cranio‐ Maxillofacial Animal Models July 28‐31, 2010 (FP6-NoE: "EXPERTISSUES" "Novel Therapeutic Strategies for Tissue Engineering of Bone and Cartilage Using Second Generation Biomimetic Scaffolds", Hacettepe University, Ankara

**CERTIFICATES**

* ISO 14001 Environmental Management System, CPA Consulting Firm, 02/19/2011, Ankara, Turkey
* ISO 9001:2008 Internal Assessor, CPA Consulting Firm, 02/19/2011, Ankara, Turkey
* Strategic Management, CPA Consulting Firm, February 02/20/2011/Ankara, Turkey
* ISO 22000 Food Safety Management System, CPA Consulting Firm, 02/20/2011, Ankara, Turkey
* OHSAS 18001 Occupational Health and Safety, CPA Consulting Firm, 02/19-21/2011, Ankara, Turkey
* ISO 9001:2008 Quality Management System, CPA Consulting Firm, 02/19-21/2011, Ankara, Turkey

**CONGRESS**

* BIOMED 2012: 18th International Biomedical Science and Technology Symposium, Hacettepe University, Bioengineering Dept., September 9-13, 2012 / Tokat, Turkey
* BIOMED 2010: 16th International Biomedical Science and Technology Symposium, Hacettepe University, Bioengineering Dept., September 28 - October 2, 2010 / Istanbul, Turkey
* Novel Approaches on Biological Engineering Workshop, Hacettepe University, Bioengineering Dept., September 8, 2011 / Ankara, Turkey
* NANOTR VIII - 8th Nanoscience- Nanotechnology Congress § IANM 3rd World Congress, Hacettepe University, Bioengineering Dept., June 25-29, 2012 / Ankara, Turkey
* NANOTR VI - 6th Nanoscience § Nanotechnology Conference, Izmir Institute of Technology, June 15- 18, 2010 / Izmir, Turkey
* XV Biotechnology Congress, Biotechnology Association, October 28-31, 2007 / Antalya, Turkey
* IV National Bioengineering Congress, Ege University Bioengineering Dep. / TMMOB The Union of Turkish Chemical Engineers, October 15-18, 2008 / İzmir, Turkey
* Bentley IBC-M Somatic Cell and Bacteria Detection, Bentley Merkim Ltd/ Egetek Vet. and Lab. Services, 2007 / Izmir, Turkey
* *8th Management Committee and WG1, WG2, WG3, WG4 and WG5 Meetings*, Cost B- 28 Action, Yeditepe University / Hacettepe University, May 3-5, 2010 / Istanbul, Turkey

**AFFILIATIONS**

* Member of *Europian Federation of Biotechnology*
* *European Association of Pharma Biotechnology (EAPB)*