



## Utkan Demirci

Professor of Radiology (Canary Cancer Center)

### CONTACT INFORMATION

- **Alternate Contact**

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### Bio

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#### BIO

Dr. Demirci is currently a Professor at Stanford University School of Medicine with tenure at the Canary Center for Early Cancer Detection. Prior to his Stanford appointment, he was an Associate Professor of Medicine at Brigham and Women's Hospital, Harvard Medical School and at Harvard-MIT Division of Health Sciences and Technology serving at the Division of Biomedical Engineering, Division of Infectious Diseases and Renal Division. He leads a group of 20+ researchers focusing on micro- and nano-scale technologies. He received his B.S. degree in Electrical Engineering in 1999 as a James B. Angell Scholar (summa cum laude) from University of Michigan, Ann Arbor. He received his M.S. degree in 2001 in Electrical Engineering, M.S. degree in Management Science and Engineering in 2005, and Ph.D. in Electrical Engineering in 2005, all from Stanford University.

The Demirci Bio-Acoustic MEMS in Medicine Lab (BAMM) specializes in applying micro- and nanoscale technologies to problems in medicine at the interface between micro/nanoscale engineering and medicine. Our goal is to apply innovative technologies to clinical problems. Our major research theme focuses on creating new microfluidic technology platforms targeting broad applications in medicine. In this interdisciplinary space at the convergence of engineering, biology and materials science, we create novel technologies for disposable point-of-care (POC) diagnostics and monitoring of infectious diseases, cancer and controlling cellular microenvironment in nanoliter droplets for biopreservation and microscale tissue engineering applications. These applications are unified around our expertise to test the limits of cell manipulation by establishing microfluidic platforms to provide solutions to real world problems at the clinic.

Our lab creates technologies to manipulate cells in nanoliter volumes to enable solutions for real world problems in medicine including applications in infectious disease diagnostics and monitoring for global health, cancer early detection, cell encapsulation in nanoliter droplets for cryobiology, and bottom-up tissue engineering.

Dr. Demirci has published over 120 peer reviewed publications in journals including PNAS, Nature Communications, Advanced Materials, Small, Trends in Biotechnology, Chemical Society Reviews and Lab-chip, over 150 conference abstracts and proceedings, 10+ book chapters, and an edited book. His work was highlighted in Wired Magazine, Nature Photonics, Nature Medicine, MIT Technology Review, Reuters Health News, Science Daily, AIP News, BioTechniques, and Biophotonics. He is fellow-elect of the American Institute of Biological and Medical Engineering (AIMBE, 2017). His scientific work has been recognized by numerous national and international awards including the NSF Faculty Early Career Development (CAREER) Award (2012), the IEEE-EMBS Early Career Achievement Award (2012), Scientist of the year award from Stanford radiology Department (2017). He was selected as one of the world's top 35 young innovators

under the age of 35 (TR-35) by the MIT Technology Review at the age of 28. In 2004, he led a team that won the Stanford University Entrepreneur's Challenge Competition and Global Start-up Competition in Singapore. His work has been translated to start-up companies including DxNow, KOEK Biotechnology and LEVITAS. There has been over 10,000 live births in the US, Europe and Turkey using the sperm selection technology that came out of Dr. Demirci's lab. He has been cited over 2500 times within the last two years (H index, 48).

## **ACADEMIC APPOINTMENTS**

- Professor, Radiology
- Member, Bio-X
- Member, Cardiovascular Institute
- Member, Stanford Cancer Institute
- Member, Wu Tsai Neurosciences Institute

## **HONORS AND AWARDS**

- Basic Scientist of the Year, Department of Radiology, Stanford School of Medicine (2017)
- Fellow-Elect, American Institute of Medical and Biomedical Engineers (AIMBE) (2017)
- 2nd Place Student and Investigator Section Oral Presentation, Tissue Engineering and Regenerative Medicine International Society (TERMIS)-Asia Pacific Meeting (2016)
- StarTURK Award, Assembly of Turkish American Association (2014)
- Bright Futures Award, Brigham and Women's Hospital, Brigham Research Institute (2013)
- Sharktank Competition, American Epilepsy Foundation (2013)
- Faculty Early Career Development Award, NSF (2012)
- Early Career Achievement Award, IEEE-EMBS (2012)
- Partners in Excellence Award, Partners Health Care (2011)
- Coulter Translational Research Award, Biomedical Engineering Society (BMES) (2011)
- Engineering in Medicine and Biology Research Award for Translational Research, IEEE-Wyss Institute (2011)
- Chinese Young Investigator Award, National Science Foundation of China (2010)
- The Outstanding Young Persons of the World, Junior Chamber International (JCI) (2009)
- Nano-Biotechnology Award, National Science Council of Turkey and The Turkish Industrialists' and Businessmen's Association (2007)
- TR-35 Award-MIT, MIT Technology Review (2006)
- Ministry of Education Award, Turkish Ministry of Education (2005)
- Winner of Accenture Grand Prize, Singapore Business Plan Competition (2004)
- 1st Place, BASES Entrepreneur's Challenge Business Plan Competition, Stanford University (2004)
- Outstanding Paper Award, Transactions on Ultrasonic, Ferroelectrics, and Frequency Control, IEEE (2003)
- Raymond William Barrow (RWB) Stephens Student Prize of Elsevier Science, Proceedings of Ultrasonic International (2001)
- Phi Kappa Phi, National Honor Society, University of Michigan (1999)
- Scholarship for Undergraduate Education, Turkish Ministry of Education (1996)
- James B. Angell Scholar, University of Michigan (1999)

## **BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS**

- Co-founder and Scientific Advisor, Levitas Inc (2017 - present)
- Co-founder and Scientific Advisor, DxNow Inc. (2013 - present)
- Co-founder and Scientific Advisor, Koek Biotech (2012 - present)

## PROFESSIONAL EDUCATION

- Ph.D., Stanford University, Stanford, CA , Electrical Engineering (2005)
- M.S., Stanford University, Stanford, CA , Management Science and Engineering (2005)
- M.S., Stanford University, Stanford, CA , Electrical Engineering (2001)
- B.S., University of Michigan, Ann Arbor, MI , Electrical Engineering (1999)

## LINKS

- "BAMM Lab Website": <https://bammlab.stanford.edu/home>

## Teaching

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### COURSES

#### 2017-18

- Senior Capstone Design I: BIOE 141A (Aut)

### STANFORD ADVISEES

#### Doctoral Dissertation Reader (AC)

Nurlybek Mursaliyev

#### Postdoctoral Faculty Sponsor

Rajib Ahmed, Mehmet Ozen, Tanchen Ren, Jie Wang

## Publications

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### PUBLICATIONS

- **Ultrastructural brain abnormalities and associated behavioral changes in mice after low-intensity blast exposure** *BEHAVIOURAL BRAIN RESEARCH*  
Song, H., Konan, L. M., Cui, J., Johnson, C. E., Langenderfer, M., Grant, D., Ndam, T., Simonyi, A., White, T., Demirci, U., Mott, D. R., Schwer, D., Hubler, et al  
2018; 347: 148–57
- **Scaffold-free, label-free and nozzle-free biofabrication technology using magnetic levitational assembly** *BIOFABRICATION*  
Parfenov, V. A., Koudan, E. V., Bulanova, E. A., Karalkin, P. A., Pereira, F. S., Norkin, N. E., Knyazeva, A. D., Gryadunova, A. A., Petrov, O. F., Vasiliev, M. M., Myasnikov, M. I., Chernikov, V. P., Kasyanov, et al  
2018; 10 (3): 034104
- **An Embryonic and Induced Pluripotent Stem Cell Model for Ovarian Granulosa Cell Development and Steroidogenesis** *REPRODUCTIVE SCIENCES*  
Lipskind, S., Lindsey, J. S., Gerami-Naini, B., Eaton, J. L., O'Connell, D., Kiezun, A., Ho, J. K., Ng, N., Parasar, P., Ng, M., Nickerson, M., Demirci, U., Maas, et al  
2018; 25 (5): 712–26
- **Evaluation of an ovary-on-a-chip in large mammalian models: Species specificity and influence of follicle isolation status** *JOURNAL OF TISSUE ENGINEERING AND REGENERATIVE MEDICINE*  
Nagashima, J. B., El Assal, R., Songsasen, N., Demirci, U.  
2018; 12 (4): E1926–E1935
- **A decade of progress in liver regenerative medicine** *BIOMATERIALS*  
Zhang, J., Zhao, X., Liang, L., Li, J., Demirci, U., Wang, S.  
2018; 157: 161–76
- **A MAGNETIC LEVITATION PLATFORM FOR THE ISOLATION OF MATURE SPERM FROM TESE/TESA SAMPLES**  
Durmus, G., Gupta, R., Badamjav, O., Reddy, V., Eisenberg, M. L., Behr, B., Demirci, U.  
ELSEVIER SCIENCE INC.2018: E26–E27

- **An Automated Microfluidic Assay for Photonic Crystal Enhanced Detection and Analysis of an Antiviral Antibody Cancer Biomarker in Serum** *IEEE Sensors Journal*  
Race, C. N.  
2018; 18 (4): 1464 - 1473
- **Bioacoustic-enabled patterning of human iPSC-derived cardiomyocytes into 3D cardiac tissue** *BIOMATERIALS*  
Serpooshan, V., Chen, P., Wu, H., Lee, S., Sharma, A., Hu, D. A., Venkatraman, S., Ganesan, A. V., Usta, O. B., Yarmush, M., Yang, F., Wu, J. C., Demirci, et al  
2017; 131: 47-57
- **The promise of organ and tissue preservation to transform medicine.** *Nature biotechnology*  
Giwa, S., Lewis, J. K., Alvarez, L., Langer, R., Roth, A. E., Church, G. M., Markmann, J. F., Sachs, D. H., Chandraker, A., Wertheim, J. A., Rothblatt, M., Boyden, E. S., Eidbo, et al  
2017; 35 (6): 530-542
- **Bio-inspired Solute Enables Preservation of Human Oocytes using Minimum Volume Vitrification.** *Journal of tissue engineering and regenerative medicine*  
Choi, J. K., El Assal, R., Ng, N., Ginsburg, E., Anchan, R. M., Demirci, U.  
2017
- **High-throughput Characterization of HIV-1 Reservoir Reactivation Using a Single-Cell-in-Droplet PCR Assay.** *EBioMedicine*  
Yucha, R. W., Hobbs, K. S., Hanhauser, E., Hogan, L. E., Nieves, W., Ozen, M. O., Inci, F., York, V., Gibson, E. A., Thanh, C., Shafiee, H., El Assal, R., Kiselinova, et al  
2017
- **An integrated double-filtration microfluidic device for isolation, enrichment and quantification of urinary extracellular vesicles for detection of bladder cancer** *SCIENTIFIC REPORTS*  
Liang, L., Kong, M., Zhou, S., Sheng, Y., Wang, P., Yu, T., Inci, F., Kuo, W. P., Li, L., Demirci, U., Wang, S.  
2017; 7
- **Photonic crystals: emerging biosensors and their promise for point-of-care applications.** *Chemical Society reviews*  
Inan, H., Poyraz, M., Inci, F., Lifson, M. A., Baday, M., Cunningham, B. T., Demirci, U.  
2017; 46 (2): 366-388
- **Paper-based analytical devices for clinical diagnosis: recent advances in the fabrication techniques and sensing mechanisms.** *Expert review of molecular diagnostics*  
Sher, M., Zhuang, R., Demirci, U., Asghar, W.  
2017
- **Monitoring Neutropenia for Cancer Patients at the Point of Care** *Small Methods*  
Inan, H., et al  
2017
- **An Integrated Double-Filtration Microfluidic Device for Detection of Extracellular Vesicles from Urine for Bladder Cancer Diagnosis** *EXTRACELLULAR VESICLES: METHODS AND PROTOCOLS*  
Liang, L., Sheng, Y., Zhou, S., Inci, F., Li, L., Demirci, U., Wang, S., Kuo, W. P., Jia, S.  
2017; 1660: 355-64
- **Guidance and Self-Sorting of Active Swimmers via 3-D Periodic Arrays** *Advanced Science*  
Chinnasamy, T., Kingsley, J. L., Inci, F., Turek, P. J., Rosen, M. P., Behr, B., Tuzel, E., Demirci, U.  
2017: 1700531
- **Magnetically Guided Self-Assembly and Coding of 3D Living Architectures.** *Advanced materials (Deerfield Beach, Fla.)*  
Tocchio, A., Durmus, N. G., Sridhar, K., Mani, V., Coskun, B., El Assal, R., Demirci, U.  
2017
- **The Exosome Total Isolation Chip.** *ACS nano*  
Liu, F., Vermesh, O., Mani, V., Ge, T. J., Madsen, S. J., Sabour, A., Hsu, E. C., Gowrishankar, G., Kanada, M., Jokerst, J. V., Sierra, R. G., Chang, E., Lau, et al  
2017
- **3-D Microwell Array System for Culturing Virus Infected Tumor Cells** *SCIENTIFIC REPORTS*  
El Assal, R., Gurkan, U. A., Chen, P., Juillard, F., Tocchio, A., Chinnasamy, T., Beauchemin, C., Unluisler, S., Canikyan, S., Holman, A., Srivatsa, S., Kaye, K. M., Demirci, et al

2016; 6

- **Dynamic Microenvironment Induces Phenotypic Plasticity of Esophageal Cancer Cells Under Flow** *SCIENTIFIC REPORTS*  
Kocal, G. C., Guven, S., Foygel, K., Goldman, A., Chen, P., Sengupta, S., Paulmurugan, R., Baskin, Y., Demirci, U.  
2016; 6
- **Quantification of Type, Timing, and Extent of Cell Body and Nucleus Deformations Caused by the Dimensions and Hydrophilicity of Square Prism Micropillars** *ADVANCED HEALTHCARE MATERIALS*  
Hasturk, O., Sivas, A., Karasozen, B., Demirci, U., Hasirci, N., Hasirci, V.  
2016; 5 (23): 2972-2982
- **A high throughput approach for analysis of cell nuclear deformability at single cell level** *SCIENTIFIC REPORTS*  
Ermis, M., Akkaynak, D., Chen, P., Demirci, U., Hasirci, V.  
2016; 6
- **Flexible Substrate-Based Devices for Point-of-Care Diagnostics.** *Trends in biotechnology*  
Wang, S., Chinnasamy, T., Lifson, M. A., Inci, F., Demirci, U.  
2016; 34 (11): 909-921
- **Microchip-based ultrafast serodiagnostic assay for tuberculosis** *SCIENTIFIC REPORTS*  
Mani, V., Paleja, B., Larbi, K., Kumar, P., Tay, J. A., Siew, J. Y., Inci, F., Wang, S., Chee, C., Wang, Y. T., Demirci, U., De Libero, G., Singhal, et al  
2016; 6
- **Advances in biosensing strategies for HIV-1 detection, diagnosis, and therapeutic monitoring** *ADVANCED DRUG DELIVERY REVIEWS*  
Lifson, M. A., Ozen, M. O., Inci, F., Wang, S., Inan, H., Baday, M., Henrich, T. J., Demirci, U.  
2016; 103: 90-104
- **Rapid Assembly of Heterogeneous 3D Cell Microenvironments in a Microgel Array** *ADVANCED MATERIALS*  
Li, Y., Chen, P., Wang, Y., Yan, S., Feng, X., Du, W., Koehler, S. A., Demirci, U., Liu, B.  
2016; 28 (18): 3543-?
- **Advances in addressing technical challenges of point-of-care diagnostics in resource-limited settings.** *Expert review of molecular diagnostics*  
Wang, S., Lifson, M. A., Inci, F., Liang, L., Sheng, Y., Demirci, U.  
2016; 16 (4): 449-459
- **Towards artificial tissue models: past, present, and future of 3D bioprinting** *BIOFABRICATION*  
Arslan-Yildiz, A., El Assal, R., Chen, P., Guven, S., Inci, F., Demirci, U.  
2016; 8 (1)
- **Integrating Cell Phone Imaging with Magnetic Levitation (i-LEV) for Label-Free Blood Analysis at the Point-of-Living.** *Small*  
Baday, M., Calamak, S., Durmus, N. G., Davis, R. W., Steinmetz, L. M., Demirci, U.  
2016; 12 (9): 1222-1229
- **Engineering long shelf life multilayer biologically active surfaces on microfluidic devices for point of care applications** *SCIENTIFIC REPORTS*  
Asghar, W., Yuksekkaya, M., Shafiee, H., Zhang, M., Ozen, M. O., Inci, F., Kocakulak, M., Demirci, U.  
2016; 6
- **Recapitulating cranial osteogenesis with neural crest cells in 3-D microenvironments.** *Acta biomaterialia*  
Namkoong, B., Güven, S., Ramesan, S., Liaudanskaya, V., Abzhanov, A., Demirci, U.  
2016; 31: 301-311
- **A Bio-Acoustic Levitational (BAL) Assembly Method for Engineering of Multilayered, 3D Brain-Like Constructs, Using Human Embryonic Stem Cell Derived Neuro-Progenitors** *ADVANCED MATERIALS*  
Bouyer, C., Chen, P., Gueven, S., Demirtas, T. T., Nieland, T. J., Padilla, F., Demirci, U.  
2016; 28 (1): 161-?
- **Toxicology Study of Single-walled Carbon Nanotubes and Reduced Graphene Oxide in Human Sperm.** *Scientific reports*  
Asghar, W., Shafiee, H., Velasco, V., Sah, V. R., Guo, S., El Assal, R., Inci, F., Rajagopalan, A., Jahangir, M., Anchan, R. M., Mutter, G. L., Ozkan, M., Ozkan, et al  
2016; 6: 30270-?

- **Engineering cancer microenvironments for in vitro 3-D tumor models** *MATERIALS TODAY*  
Asghar, W., El Assal, R., Shafiee, H., Pitteri, S., Paulmurugan, R., Demirci, U.  
2015; 18 (10): 539-553
- **3-D tumor models.** *Materials today*  
Asghar, W., El Assal, R., Shafiee, H., Pitteri, S., Paulmurugan, R., Demirci, U.  
2015; 18 (10): 539-553
- **Graphene-protein field effect biosensors: glucose sensing** *MATERIALS TODAY*  
Viswanathan, S., Narayanan, T. N., Aran, K., Fink, K. D., Paredes, J., Ajayan, P. M., Filipek, S., Miszta, P., Tekin, H. C., Inci, F., Demirci, U., Li, P., Bolotin, et al  
2015; 18 (9): 513-522
- **Deformation of a single mouse oocyte in a constricted microfluidic channel** *MICROFLUIDICS AND NANOFUIDICS*  
Luo, Z., Guven, S., Gozen, I., Chen, P., Tasoglu, S., Anchan, R. M., Bai, B., Demirci, U.  
2015; 19 (4): 883-890
- **Portable lensless wide-field microscopy imaging platform based on digital inline holography and multi-frame pixel super-resolution** *LIGHT-SCIENCE & APPLICATIONS*  
Sobieranski, A. C., Inci, F., Tekin, H. C., Yuksekkaya, M., Comunello, E., Cobra, D., von Wangenheim, A., Demirci, U.  
2015; 4
- **Biotunable Acoustic Node Assembly of Organoids.** *Advanced healthcare materials*  
Chen, P., Güven, S., Usta, O. B., Yarmush, M. L., Demirci, U.  
2015; 4 (13): 1937-1943
- **Multitarget, quantitative nanoplasmonic electrical field-enhanced resonating device (NE2RD) for diagnostics.** *Proceedings of the National Academy of Sciences of the United States of America*  
Inci, F., Filippini, C., Baday, M., Ozen, M. O., Calamak, S., Durmus, N. G., Wang, S., Hanhauser, E., Hobbs, K. S., Juillard, F., Kuang, P. P., Vetter, M. L., Carocci, et al  
2015; 112 (32): E4354-63
- **Hydrosoluble, UV-crosslinkable and injectable chitosan for patterned cell-laden microgel and rapid transdermal curing hydrogel in vivo** *ACTA BIOMATERIALIA*  
Li, B., Wang, L., Xu, F., Gang, X., Demirci, U., Wei, D., Li, Y., Feng, Y., Jia, D., Zhou, Y.  
2015; 22: 59-69
- **Magnetic Levitational Assembly for Living Material Fabrication** *ADVANCED HEALTHCARE MATERIALS*  
Tasoglu, S., Yu, C. H., Liaudanskaya, V., Guven, S., Migliaresi, C., Demirci, U.  
2015; 4 (10): 1469-1476
- **Magnetic levitation of single cells.** *Proceedings of the National Academy of Sciences of the United States of America*  
Durmus, N. G., Tekin, H. C., Guven, S., Sridhar, K., Arslan Yildiz, A., Calibasi, G., Ghiran, I., Davis, R. W., Steinmetz, L. M., Demirci, U.  
2015; 112 (28): E3661-8
- **Levitational Image Cytometry with Temporal Resolution** *ADVANCED MATERIALS*  
Tasoglu, S., Khoory, J. A., Tekin, H. C., Thomas, C., Karnoub, A. E., Ghiran, I. C., Demirci, U.  
2015; 27 (26): 3901-?
- **Cytometry: Levitational Image Cytometry with Temporal Resolution (Adv. Mater. 26/2015).** *Advanced materials*  
Tasoglu, S., Khoory, J. A., Tekin, H. C., Thomas, C., Karnoub, A. E., Ghiran, I. C., Demirci, U.  
2015; 27 (26): 3900-?
- **Biomaterials: Magnetic Levitational Assembly for Living Material Fabrication (Adv. Healthcare Mater. 10/2015).** *Advanced healthcare materials*  
Tasoglu, S., Yu, C. H., Liaudanskaya, V., Guven, S., Migliaresi, C., Demirci, U.  
2015; 4 (10): 1420-?
- **Printed Flexible Plastic Microchip for Viral Load Measurement through Quantitative Detection of Viruses in Plasma and Saliva** *SCIENTIFIC REPORTS*  
Shafiee, H., Kanakasabapathy, M. K., Juillard, F., Keser, M., Sadasivam, M., Yuksekkaya, M., Hanhauser, E., Henrich, T. J., Kuritzkes, D. R., Kaye, K. M., Demirci, U.  
2015; 5

- **Multiscale assembly for tissue engineering and regenerative medicine** *TRENDS IN BIOTECHNOLOGY*  
Guen, S., Chen, P., Inci, F., Tasoglu, S., Erkmen, B., Demirci, U.  
2015; 33 (5): 269-279
- **Portable Microfluidic Integrated Plasmonic Platform for Pathogen Detection** *SCIENTIFIC REPORTS*  
Tokel, O., Yildiz, U. H., Inci, F., Durmus, N. G., Ekiz, O. O., Turker, B., Cetin, C., Rao, S., Sridhar, K., Natarajan, N., Shafiee, H., Dana, A., Demirci, et al  
2015; 5
- **Functional maintenance of differentiated embryoid bodies in microfluidic systems: a platform for personalized medicine.** *Stem cells translational medicine*  
Guen, S., Lindsey, J. S., Poudel, I., Chinthala, S., Nickerson, M. D., Gerami-Naini, B., Gurkan, U. A., Anchan, R. M., Demirci, U.  
2015; 4 (3): 261-268
- **Highlights from the latest articles in advanced biomanufacturing at micro- and nano-scale.** *Nanomedicine*  
Assal, R. E., Chen, P., Demirci, U.  
2015; 10 (3): 347-350
- **Advances in Nanotechnology and Microfluidics for Human Papillomavirus Diagnostics** *PROCEEDINGS OF THE IEEE*  
Tasoglu, S., Tekin, H. C., Inci, F., Knowlton, S., Wang, S., Wang-Johanning, F., Johanning, G., Colevas, D., Demirci, U.  
2015; 103 (2): 161-178
- **Emerging Technologies for Point-of-Care Management of HIV Infection** *ANNUAL REVIEW OF MEDICINE, VOL 66*  
Shafiee, H., Wang, S., Inci, F., Toy, M., Henrich, T. J., Kuritzkes, D. R., Demirci, U.  
2015; 66: 387-405
- **Flexible Microwave Antenna Applicator for Chemo-Thermotherapy of the Breast** *IEEE ANTENNAS AND WIRELESS PROPAGATION LETTERS*  
Asili, M., Chen, P., Hood, A. Z., Purser, A., Hulsey, R., Johnson, L., Ganesan, A. V., Demirci, U., Topsakal, E.  
2015; 14: 1778-1781
- **Paper and flexible substrates as materials for biosensing platforms to detect multiple biotargets.** *Scientific reports*  
Shafiee, H., Asghar, W., Inci, F., Yuksekkaya, M., Jahangir, M., Zhang, M. H., Durmus, N. G., Gurkan, U. A., Kuritzkes, D. R., Demirci, U.  
2015; 5: 8719-?
- **Recent advances in micro/nanotechnologies for global control of hepatitis B infection** *BIOTECHNOLOGY ADVANCES*  
Yildiz, U. H., Inci, F., Wang, S., Toy, M., Tekin, H. C., Javaid, A., Lau, D. T., Demirci, U.  
2015; 33 (1): 178-190
- **Microchip ELISA Coupled with Cell Phone to Detect Ovarian Cancer HE4 Biomarker in Urine.** *Methods in molecular biology (Clifton, N.J.)*  
Wang, S., Akbas, R., Demirci, U.  
2015; 1256: 111-121
- **Emerging technologies for monitoring drug-resistant tuberculosis at the point-of-care** *ADVANCED DRUG DELIVERY REVIEWS*  
Mani, V., Wang, S., Inci, F., De Libero, G., Singhal, A., Demirci, U.  
2014; 78: 105-117
- **Two-dimensional numerical study of flow dynamics of a nucleated cell tethered under shear flow** *CHEMICAL ENGINEERING SCIENCE*  
Luo, Z. Y., He, L., Wang, S. Q., Tasoglu, S., Xu, F., Demirci, U., Bai, B. F.  
2014; 119: 236-244
- **Selection of Functional Human Sperm with Higher DNA Integrity and Fewer Reactive Oxygen Species** *ADVANCED HEALTHCARE MATERIALS*  
Asghar, W., Velasco, V., Kingsley, J. L., Shoukat, M. S., Shafiee, H., Anchan, R. M., Mutter, G. L., Tuetzel, E., Demirci, U.  
2014; 3 (10): 1671-1679
- **Nanomechanical motion of Escherichia coli adhered to a surface** *APPLIED PHYSICS LETTERS*  
Lissandrello, C., Inci, F., Francom, M., Paul, M. R., Demirci, U., Ekinici, K. L.  
2014; 105 (11)
- **Microscale Assembly Directed by Liquid-Based Template** *ADVANCED MATERIALS*  
Chen, P., Luo, Z., Gueven, S., Tasoglu, S., Ganesan, A. V., Weng, A., Demirci, U.  
2014; 26 (34): 5936-?

- **Bio-inspired cryo-ink preserves red blood cell phenotype and function during nanoliter vitrification.** *Advanced materials*  
El Assal, R., Guven, S., Gurkan, U. A., Gozen, I., Shafiee, H., Dalbeyler, S., Abdalla, N., Thomas, G., Fuld, W., Illigens, B. M., Estanislau, J., Khoory, J., Kaufman, et al  
2014; 26 (33): 5815-5822
- **Preserving human cells for regenerative, reproductive, and transfusion medicine.** *Biotechnology journal*  
Asghar, W., El Assal, R., Shafiee, H., Anchan, R. M., Demirci, U.  
2014; 9 (7): 895-903
- **Engineering Anisotropic Biomimetic Fibrocartilage Microenvironment by Bioprinting Mesenchymal Stem Cells in Nanoliter Gel Droplets** *MOLECULAR PHARMACEUTICS*  
Gurkan, U. A., El Assal, R., Yildiz, S. E., Sung, Y., Trachtenberg, A. J., Kuo, W. P., Demirci, U.  
2014; 11 (7): 2151-2159
- **Evaluation of Epithelial Chimerism After Bone Marrow Mesenchymal Stromal Cell Infusion in Intestinal Transplant Patients** *13th International Small Bowel Transplant Symposium*  
Kilinc, S., Gurkan, U. A., Guven, S., Koyuncu, G., Tan, S., Karaca, C., Ozdogan, O., Dogan, M., Tugmen, C., Pala, E. E., Bayol, U., Baran, M., Kurtulmus, et al  
ELSEVIER SCIENCE INC.2014: 2125–32
- **Advances in Plasmonic Technologies for Point of Care Applications** *CHEMICAL REVIEWS*  
Tokel, O., Inci, F., Demirci, U.  
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