

# Dr. Öğr. Üyesi Hasan Onur Keles

## Eğitim:

Post Doc., Psikiyatri, Harvard Tıp Okulu, 2017

Ph.D., Biyomedikal Mühendisliği, Houston Üniversitesi, 2015

## Araştırma Alanları:

Multimodal Beyin Görüntüleme

İşlevsel Yakın Kızılaltı Spektroskopi

Serebrovasküler Dolaşım Görüntüleme

Klinik Arastirma

Mikro-Nano Teknolojiler

## Yayınlar:

### Makaleler:

Moon, S., **Keles, H. O.**, Ozcan A., Haeggstrom E., Kuritzkes D., Khademhosseini A., Demirci, U., "Integrating microfluidics and Lens-less Imaging for point of care testing" *Biosensors and Bioelectronics*, 2009; 24, 3208-14. PMCID: PMC2733855

Alyassin, M.\*, Moon, S.\*., **Keles, H.O.**, Manzur, F., Lin R.L., Hasan, S. K., Hæggstrom E., Kuritzkes, D.R., Demirci, U., "Rapid automated cell quantification on HIV microfluidic devices" *Lab on a Chip*, 2009; 9, 3364-69. PMCID: PMC3839566

Hasan, S.K., Moon, S., Song, Y.S., **Keles, H. O.**, Manzur F., Mikkilineni, S., Nagatomi, J., J.W. Hong, Haeggstrom E., Khademhosseini A., Demirci, U., "Layer by layer 3D Tissue Epitaxy by Cell Laden Hydrogel Droplets" *Tissue Engineering*, 2009; Part C, 15. PMCID:PMC2818246

Samot, J., Sangjun, M., Shao, L., Xiaohui, X., Xu, F., Song, Y.S., **Keles, H.O.**, Matloff, L., Markel, J., and Demirci, U., "Blood banking in living droplets" *PLoS ONE* 2011; 6(3): e17530. PMCID: PMC3055869

Xu, F., Chung-an Max Wu, C.M., Rengarajan, V., Finley, T. D., **Keles, H.O.**, Sung, Y., Li, B., Gurkan, U.A., and Demirci, U., "Three-dimensional magnetic assembly of microscale hydrogels" *Advanced Materials* 2011; 23(37): 4254-4260. PMCID: PMC 3534971

Zhang, X., Khimji, P. I., **Keles, H. O.**, Gurkan, U. A., Kayaalp, E., Nureddin, A., Demirci, U., "Lensless imaging for simultaneous microfluidic sperm monitoring and sorting." *Lab on a Chip* 2011; 11: 2535. PMCID: PMC 3812937

Gurkan U. A., T. Anand, Tas H., Elkan D., Akay A., **Keles, H.O.** and Demirci U., Controlled viable release of selectively captured label-free cells in microchannels" Lab on a Chip 2011; 11(23):3979-89. PMCID: PMC 3814023

Zhang, X., Khimji, P. I., Shao, L., Safaee, H., Desai, K., **Keles, H. O.**, Gurkan, U. A., Kayaalp, E., Nureddin, A., Anchan, R., Maas, R., and Demirci U. "Nanoliter Droplet Vitrification for Oocyte Cryopreservation" Nanomedicine 2012; 7(4): 553-564. PMCID: PMC3319864

Buccino P. A., **Keles, H. O.**, Omurtag A., Hybrid EEG+fNIRS asynchronous brain-computer interface for multiple motor tasks. PLoS ONE 2015; 11(1): e0146610

**Keles, H. O.**, Barbour R.L., Omurtag A., Hemodynamic correlates of spontaneous neural activity measured by human whole head resting state EEG+fNIRS, Neuroimage 2016; 138: 76-87. PMID: 27236081

Omurtag A., Aghajani H, **Keles, H. O.**, Decoding human mental states by whole-head EEG+fNIRS during category fluency task performance. Journal of Neural Engineering, 14(6):066003. PMID: 28730995

**Keles, H. O.**, Radoman M., Pachas, G.N., Evins A.E., Gilman J., Using functional near infrared spectroscopy to measure the effects of oral Delta 9-tetrahydrocannabinol (THC) on prefrontal cortex activity and working memory performance in cannabis user. Frontiers in Human Neuroscience 2017; 11: 488. PMID: 29066964

### **Kitap ve Kitap Bölümleri:**

Wang S., Xu F., **Keles, H. O.**, Demirci, U. "Emerging microscale technologies for global health: CD4 counts. Bionanotechnology II : Global Prospects, Taylor & Francis Imprint 2010.

### **Konferans Bildirileri:**

Moon, S.J., **Keles, H. O.**, Kuritzkes D., Demirci, U. "Microfluidic Devices for Point-of-Care Testing". CIMIT: Center for Integration of Medicine and Innovative Technology Innovation Congress, Boston, MA 2008.

Moon, S.J., **Keles, H. O.**, Demirci, U. "CD4 T-lymphocyte Counting with a Lens-free Monitoring system", MIT-Deshpande Center Open-House Boston, MA 2008.

Song Y.S., Adler, D., **Keles, H.O.** S., Kayaalp, E., Nureddin, A., Anchan, R.M., Maas, R., Demirci, U. "Levitating Vitrified Droplets" 46th Annual Meeting of the Society for Cryobiology, Japan 2009.

Moon, S.J., **Keles, H.O.**, Khademhosseini, A., Kuritzkes D., Demirci, U. "Integrating microfluidic and lens-less imaging for point-of-care test", 41st Annual Oak Ridge Conference Frontiers in Clinical Diagnostics, Washington, DC 2009.

Moon, S., **Keles, H.O.**, Yun-Gon K., Kuritzkes D., Demirci, U. "Lensless Imaging for Point-of-care Testing" 31st Annual International Conference of the IEEE in Medicine and Biology Society (EMBC), Minneapolis, MN 2009

Moon, S.J., **Keles, H.O.**, Khademhosseini, A., Kuritzkes D., Demirci, U. "Integrating microfluidic and lens-less imaging for point-of-care test". "IEEE 35th Annual Northeast Bioengineering Conference, Boston, MA 2009.

Hasan, S.K., Moon, S., Song, Y.S., **Keles, H. O.**, Manzur F., Mikkilineni, S., Nagatomi, J., J.W. Hong, Haeggstrom E., Khademhosseini A., Demirci, U., " Layer by layer 3D Tissue Epitaxy by Cell Laden Hydrogel Droplets "IEEE 35th Annual Northeast Bioengineering Conference, Boston, MA 2009.

Xu, F., Max W. C., **Keles, H. O.**, Demirci, U., "Directed Assembly of Magnetic Microscale Hydrogels" 2010 International Conference of Biofabrication Philadelphia, 2010.

Xu, F., Rengarajan, V., Finley, T. D., Sung, Y., Sridharan, B., Wu, C. M., **Keles, H. O.**, Demirci, U., "Directed assembly of magnetic microscale hydrogels." BWH 2010 Poster Session Research Excellence Awards, 2010.

Finley, T. D., Sung, Y., Wu, C. M., Rengarajana, V., Sridharana, B., **Keles, H. O.**, Xu, F., Demirci, U., "Assembly of microscale hydrogels for tissue engineering." 6th Annual Merck/BE-BMES Undergraduate Research Poster Session, Cambridge, MA, USA, 2010.

Xu, F., Gurkan, U.A., Finley T.D., Turkaydin M., Yavuz A.S., **Keles, H. O.**, Demirci, U., "Directed Assembly of Microscale Particles by Acoustic Wave for Biomedical Applications", Society for Biomaterials, Orlando, FL 2011.

Rengarajan, V., Finley T.D., Sung, Y., Max W. C., Sridharan, B., **Keles, H. O.**, Xu, F., Demirci, U., "Directed Assembly of Microscale Hydrogels via Magnetics", Society for Biomaterials, Orlando, FL 2011.

Zhang X, Khimji I, Shao L., Safaee H., Desai K., **Keles H. O.**, Gurkan U. A., Kayaalp E., Nureddin A., Anchan R.M., Maas R., and Demirci U., "Nanoliter droplet vitrification for cell cryopreservation" SysCODE Consortium 2011, Waltham, MA, 2011

Zhang X, Khimji I, Shao L., Safaee H., Desai K., **Keles H. O.**, Gurkan U. A., Kayaalp E., Nureddin A., Anchan R.M., Maas R., and Demirci U., "Nanoliter droplet vitrification for cell cryopreservation", TERMIS NA Meeting Houston, TX, 2011

Zhang X, Khimji I, Shao L., Safaee H., Desai K., **Keles H. O.**, Gurkan U. A., Kayaalp E., Nureddin A., Anchan R.M., Maas R., Demirci U., "Nanoliter Droplet System for Cell Vitrification, Annual meeting of Biomedical Engineering Society(BMES 2011), Hartford, Connecticut 2011

**Keles, H. O.**, Barbour R.L., Aghajani H., Omurtag A., "Multimodality mapping approach for evolving functional brain connectivity patterns: A fNIRS-EEG study". The Optical Society, BIOMED2014 , April 2014, Miami, FL

**Keles, H. O.**, Barbour R.L., Aghajani H., Omurtag A., "Investigation of the neurovascular coupling from simultaneous fNIRS-EEG system using the triplet holder". The Society for Functional Near Infrared Spectroscopy, fNIRS2014, October 2014, Montreal, Canada

**Keles, H. O.**, Omurtag A., "EEG-fNIRS Investigation of Mental Status". 5Th Annual International Conference in Computational Surgery and Dual Training, NIH Campus, January 2015, Bethesda, MD

Omurtag A., Aghajani H., **Keles, H. O.**, Classifying the Brain's Functional Status in Verbal Fluency Task: EEG+fNIRS, The Society for Functional Near Infrared Spectroscopy, fNIRS2016, October 2016, Paris, France.

**Keles, H. O.**, Gilman J., Pachas, G.N., Omurtag A., Evins A.E., Graph based analysis of resting state fNIRS connectivity in Acute THC intoxication: Preliminary Results, MGH Clinical Research Days, October 2016, Boston

**Keles, H. O.**, Gilman J., Pachas, G.N., Evins A.E., Using Portable imaging to determine marijuana intoxication in human, the CPDD 79th Annual Scientific Meeting, NIH-NIDA International Forum, June 2017, Montreal, Canada.

Gilman J. **Keles, H.O.**, Radoman, M., Pachas, G.N., Evins A.E., Using fNIRS to detect cannabis intoxication: A future clinical target for CUD interventions, 2017 American College of Neuropsychopharmacology (ACNP 56th Annual Meeting) December 2017, Palm Desert, California

#### **Davetli Konuşmalar:**

**Kariyer Basamakları**, Burak Bora Anadolu Lisesi Kariyer Gunleri, 2017

**Functional near infrared spectroscopy to measure the brain activity**, Dankook University, Korea, 2017

**Introduction to Homer2 (fNIRS Analysis software)**, OBELAB, Korea, 2018

**Clinical Applications in fNIRS**, OBELAB, Korea, 2018