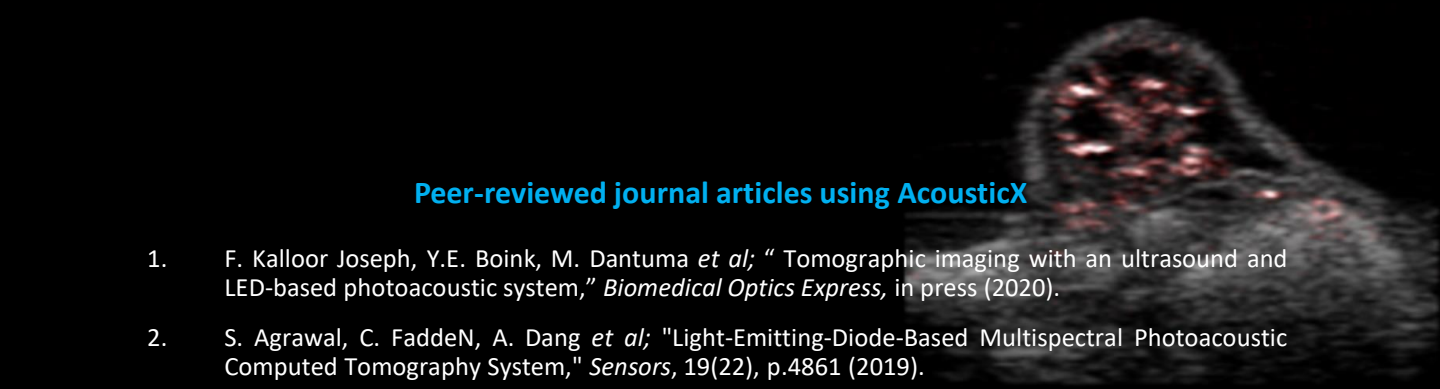
List of oral presentations and posters using AcousticX

Oral presentations (Location: Moscone Center, Room 201, Level 2 South)

1. *LED-based photoacoustic imaging for early detection of joint inflammation in rodents: towards achieving 3Rs in rheumatoid arthritis research*
   Paper 11240-20, Date: 2nd February 2020, Time: 3:45 PM -4:00 PM.
   Author(s): Francis Kalloor Joseph, Univ. of Twente (Netherlands); Marvin Xavierselvan, Tufts Univ. (United States); Mithun Kuniyil Ajith Singh, Cyberdyne, Inc. (Netherlands); Srivalleesha Mallidi, Tufts Univ. (United States), Wellman Center for Photomedicine, Harvard Medical School (United States); Conny van der Laken, Amsterdam UMC (Netherlands); Fons van de Loo, Radboud Univ. Medical Center (Netherlands); Wiendelt Steenbergen, Univ. of Twente (Netherlands)
2. *Light emitting diode based photoacoustic/ultrasound imaging reveals fast dynamic contrast in liver and changes in blood oxygenation*
   Paper 11240-25, Date: 2nd February 2020, Time: 4:45 PM -5:00 PM.
   Author(s): James Joseph, Univ. of Cambridge (United Kingdom); Mithun Kuniyil Ajith Singh, Cyberdyne, Inc. (Netherlands); Naoto Sato, Cyberdyne, Inc. (Japan); Sarah E. Bohndiek, Univ. of Cambridge (United Kingdom)
3. *Mapping tumor vasculature and oxygenation in vivo with LED-based photoacoustic imaging system and validation with histology*
   Paper 11240-26, Date: 2nd February 2020, Time: 5:00 PM -5:15 PM.
   Author(s): Marvin Xavierselvan, Tufts Univ. (United States); Mithun Kuniyil Ajith Singh, Cyberdyne, Inc. (Netherlands); Srivalleesha Mallidi, Tufts Univ. (United States), Wellman Center for Photomedicine, Harvard Medical School (United States)
4. *LED-based photoacoustic imaging system: why it achieves the same signal to noise ratio as solid-state-laser-based system: A review*
   Paper 11240-69, Date: 4th February 2020, Time: 11:45 AM -12:00 PM.
   Author(s): Toshitaka Agano, Osaka Univ. (Japan); Naoto Sato, Cyberdyne, Inc. (Japan); Kunio Awazu, Osaka Univ. (Japan)
5. *Tomographic imaging with an LED-based photoacoustic-ultrasound system*
   Paper 11240-71, Date: 4th February 2020, Time: 12:00 PM -12:15 PM.
   Author(s): Francis Kalloor Joseph, Univ. of Twente (Netherlands); Mithun Kuniyil Ajith Singh, Cyberdyne, Inc. (Netherlands); Wiendelt Steenbergen, Univ. of Twente (Netherlands)

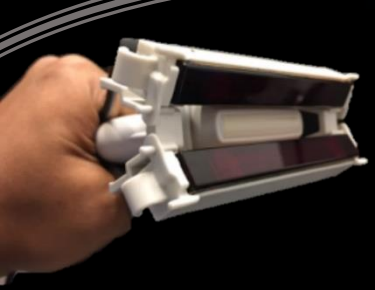
Poster presentations (Location: Moscone Center, Level 3 West)

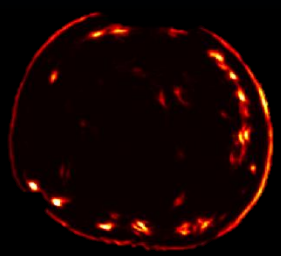
1. *Deep learning-enhanced LED-based photoacoustic imaging*
   Paper 11240-116, Date: 2nd February 2020, Time: 5:30 PM -7:00 PM
   Author(s): Mithun Kuniyil Ajith Singh, Cyberdyne, Inc. (Netherlands); Kathyayini Sivasubramanian, Stanford University School of Medicine (United States); Naoto Sato, Fumiyuki Ichihashi, Yoshiyuki Sankai, Cyberdyne, Inc. (Japan); Lei Xing, Stanford University School of Medicine (United States)
2. *Improvement of LED-based photoacoustic image quality using intermittent pulse echo acquisitions*
   Paper 11240-179, Date: 4th February 2020, Time: 6:00 PM -8:00 PM
   Author(s): Mithun Kuniyil Ajith Singh, Cyberdyne, Inc. (Netherlands); Naoto Sato, Fumiyuki Ichihashi, Yoshiyuki Sankai, Cyberdyne, Inc. (Japan)
3. *Low-cost photoacoustic computed tomography system using light-emitting-diodes*
   Paper 11240-186, Date: 4th February 2020, Time: 6:00 PM -8:00 PM
   Author(s): Sumit Agrawal, Xinyi Yang, Hussain Albahrani, Christopher Fadden, Ajay Dangi, The Pennsylvania State Univ. (United States); Mithun KuniyilAjith Singh, Cyberdyne, Inc. (Netherlands); Sri-Rajasekhar Kothapalli, The Pennsylvania State Univ. (United States)
4. *Photoacoustic imaging capabilities of light emitting diodes (LED) and laser sources: a comparison study*
   Paper 11240-187, Date: 4th February2020, Time: 6:00 PM -8:00 PM
   Author(s): Sumit Agrawal, The Pennsylvania State Univ. (United States); Mithun Kuniyil Ajith Singh, Cyberdyne, Inc. (Netherlands); Xinyi Yang, Hussain Albahrani, Ajay Dangi, Sri-Rajasekhar Kothapalli, The Pennsylvania State Univ. (United States
5. *Functional, molecular and structural imaging using LED-based photoacoustic and ultrasound imaging system*
   Paper 11240-188, Date: 4th February 2020, Time: 6:00 PM -8:00 PM
   Author(s): Sumit Agrawal, The Pennsylvania State Univ. (United States); Mithun Kuniyil Ajith Singh, Cyberdyne, Inc. (Netherlands); Xinyi Yang, Hussain Albahrani, Ajay Dangi, Sri-Rajasekhar Kothapalli, The Pennsylvania State Univ. (United States)



Peer-reviewed journal articles using AcousticX

1. F. Kalloor Joseph, Y.E. Boink, M. Dantuma *et al;* " Tomographic imaging with an ultrasound and LED-based photoacoustic system," *Biomedical Optics Express,* in press (2020).
2. S. Agrawal, C. FaddeN, A. Dang *et al;* "Light-Emitting-Diode-Based Multispectral Photoacoustic Computed Tomography System," *Sensors*, 19(22), p.4861 (2019).
3. E. Maneas, R. Aughwane, N. Huynh *et al*; " Photoacoustic imaging of the human placental vasculature," *Journal of Biophotonics*, e201900167 (2019).
4. A. Hariri, E. Zhao, A.S. Jeevarathinam *et al,* "Molecular imaging of oxidative stress using an LED-based photoacoustic imaging system," *Scientific Reports,9*, 11378 (2019).
5. A. Hariri, F. Chen, C. Moore, C *et al*; "Noninvasive staging of pressure ulcers using photoacoustic imaging," *Wound Rep Reg*, 27: 488-496 (2019).
6. Y. Zhu, X. Lu, X. Dong *et al*; "LED-Based Photoacoustic Imaging for Monitoring Angiogenesis in Fibrin Scaffolds," *Tissue Engineering Part C:* Methods, 25:9, 523-531 (2019).
7. S.R. Miri Rostami, M. Mozaffarzadeh, M. Ghaffari-Miab *et al*; "GPU-accelerated Double-stage Delay-multiply-and-sum Algorithm for Fast Photoacoustic Tomography Using LED Excitation and Linear Arrays," *Ultrasonic Imaging*, *41*(5), 301–316 (2019).
8. E.M.A. Anas, H.K. Zhang, J. Kang *et al*; "Enabling fast and high quality LED photoacoustic imaging: a recurrent neural networks based approach," Biomedical Optics Express, 9, 3852-3866 (2018).
9. M. Mozaffarzadeh, A. Hariri, C. Moore *et al;* "The double-stage delay-multiply-and-sum image reconstruction method improves imaging quality in a LED-based photoacoustic array scanner," *Photoacoustics*, 12, 22-29 (2018).
10. T. Agano, M. Kuniyil Ajith Singh, R. Nagaoka *et al;* "Effect of light pulse width on frequency characteristics of photoacoustic signal –an experimental study using a pulse-width tunable LED-based photoacoustic imaging system," *International Journal of Engineering and Technology,* 7(4), 4300-4303 (2018).
11. J. Jo, G. Xu, Y. Zhu *et al;* "Detecting joint inflammation by an LED-based photoacoustic imaging system: a feasibility study," Journal of Biomedical Optics, 23(11), 110501 (2018).
12. Y. Zhu, G. Xu, J. Yuan *et al*, "Light Emitting Diodes based Photoacoustic Imaging and Potential Clinical Applications," *Scientific Reports,* 8, 9885 (2018).
13. W. Xia, M. Kuniyil Ajith Singh, E. Maneas et al; "Handheld Real-Time LED-Based Photoacoustic and Ultrasound Imaging System for Accurate Visualization of Clinical Metal Needles and Superficial Vasculature to Guide Minimally Invasive Procedures," *Sensors*, 18(5), 1394 (2018).
14. A. Hariri, J. Lemaster, J. Wang *et al.*, "The characterization of an economic and portable LED-based photoacoustic imaging system to facilitate molecular imaging," *Photoacoustics,* 9, 10-20 (2018).





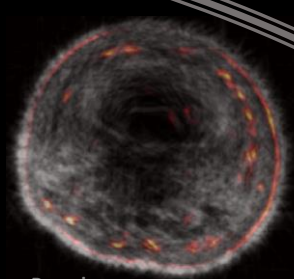


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Image courtesy: Prof. Wiendelt Steenbergen - University of Twente (the Netherlands), Dr. Srivalleesha Mallidi - Tufts University (USA)