

Visualizing and Quantifying Drug Distribution in Tissue

Saturday 28 January 2017

Conference Sessions At A Glance

[SHOW](#) | [HIDE](#)

1: Vibrational Spectroscopic Tracking of Drugs
 2: Visualizing and Quantifying Drugs via Fluorescence
 3: Advanced Imaging Tools for Quantifying Drug Uptake and Distribution
 4: Multimodal, Light Scattering, Mass Spectrometry, and RNA-based Methods for Analyzing Drug Uptake and Effect
 BIOS Hot Topics

Important Dates

[SHOW](#) | [HIDE](#)

Abstract Due:
18 July 2016

Author Notification:
26 September 2016

Manuscript Due Date:
3 January 2017

Conference Committee

[SHOW](#) | [HIDE](#)

Conference Chairs

[Kin Foong Chan](#), BioPharmX, Inc. (United States)
[Conor L. Evans](#), Wellman Ctr. for Photomedicine (United States)

Program Committee

[Melissa L. Mather](#), Keele Univ. (United Kingdom)
[Wei Min](#), Columbia Univ. (United States)
 Kurt R. Zinn, The Univ. of Alabama at Birmingham (United States)

SATURDAY 28 JANUARY
[Show All Abstracts](#)

Session 1: Vibrational Spectroscopic Tracking of Drugs

Saturday 28 January 2017

8:00 AM - 10:10 AM

Location: Room 2018 (West Level 2)


 Session Chairs: [Kin Foong Chan](#), BioPharmX, Inc. (United States) ; [Conor L. Evans](#), Wellman Ctr. for Photomedicine (United States)

Imaging and quantifying drugs with coherent Raman scattering *(Invited Paper)*

Paper 10046-1

Time: 8:00 AM - 8:30 AM

 Author(s): [Conor L. Evans](#), Wellman Ctr. for Photomedicine, Massachusetts General Hospital (United States)


[Add To My Schedule](#) 

Imaging subcellular distribution of ferroptosis inhibitor in living cells with stimulated Raman scattering microscopy

Paper 10046-2

Time: 8:30 AM - 8:50 AM

 Author(s): [Fanghao Hu](#), [Michael M. Gaschler](#), [Brent R. Stockwell](#), [Wei Min](#), Columbia Univ. (United States)


[Add To My Schedule](#) 

Towards noninvasive assessment of drug distribution in tissue: coherent Raman scattering from chiral molecules

Paper 10046-3

Time: 8:50 AM - 9:10 AM

 Author(s): [Vladislav V. Yakovlev](#), Texas A&M Univ. (United States)

[Add To My Schedule](#) 

Noninvasive label-free monitoring of cosmetics and pharmaceuticals in human skin using nonlinear optical microscopy

Paper 10046-4

Time: 9:10 AM - 9:30 AM

 Author(s): [Sam Osseiran](#), [Hequn Wang](#), [Conor L. Evans](#), Massachusetts General Hospital (United States)

[Add To My Schedule](#) 

Surface-enhanced Raman scattering (SERS) imaging of alkyne-tagged small molecule drug in live cells with endocytosed gold nanoparticles

Paper 10046-5

Time: 9:30 AM - 9:50 AM

Author(s): Jun Ando, Takumasa Sekiya, Den Ka, Osaka Univ. (Japan); Hiroyuki Yamakoshi, Kosuke Dodo, Mikiko Sodeoka, RIKEN (Japan); Satoshi Kawata, Katsumasa Fujita, Osaka Univ. (Japan)

[Add To My Schedule](#) 

Advanced imaging approaches for characterizing nanoparticle delivery and dispersion in skin

Paper 10046-6

Time: 9:50 AM - 10:10 AM

Author(s): Tarl W. Prow, Miko Yamada, Nhung Dang, The Univ. of Queensland (Australia); Conor L. Evans, Wellman Ctr. for Photomedicine, Massachusetts General Hospital (United States)

[Add To My Schedule](#) 

Coffee Break 10:10 AM - 10:40 AM

Session 2: Visualizing and Quantifying Drugs via Fluorescence

Saturday 28 January 2017

10:40 AM - 12:20 PM

Location: Room 2018 (West Level 2)

Session Chairs: [Kin Foong Chan](#), BioPharmX, Inc. (United States) ; [Wei Min](#), Columbia Univ. (United States)

Combining imaging with microbiopsy enables a more comprehensive approach for topical drug research *(Invited Paper)*

Paper 10046-7

Time: 10:40 AM - 11:10 AM

Author(s): Tarl W. Prow, The Univ. of Queensland (Australia)

[Add To My Schedule](#) 

Targeting tumour with theranostic nanoconstructs for selective PDT *(Invited Paper)*

Paper 10046-8

Time: 11:10 AM - 11:40 AM

Author(s): Huang Chiao Huang, Joyce Liu, Sriram R. Anbil, Girgis Obaid, Imran Rizvi, Tayyaba Hasan, Massachusetts General Hospital (United States)


[Add To My Schedule](#) 

Visualization of drug distribution of topical minocycline in human facial skin with fluorescence microscopy

Paper 10046-9

Time: 11:40 AM - 12:00 PM

Author(s): Maiko Hermsmeier, Tanvee Sawant, Diana Lac, Akira Yamamoto, Xin Chen, Usha Nagavarapu, BioPharmX, Inc. (United States); Conor L. Evans, Wellman Ctr. for Photomedicine, Massachusetts General Hospital (United States); Kin Foong Chan, BioPharmX, Inc. (United States)

[Add To My Schedule](#) 

Quantitative imaging of intracellular signaling for personalized pancreatic cancer therapy in an in ovo avatar

Paper 10046-10

Time: 12:00 PM - 12:20 PM

Author(s): Kimberley S. Samkoe, Geisel School of Medicine, Dartmouth College (United States), Dartmouth College (United States); Emily Schultz, Oregon Health & Science Univ. (United States); Yeonjae Park, Dartmouth College (United States); Dawn Fischer, Geisel School of Medicine, Dartmouth College (United States); Brian W. Pogue, Thayer School of Engineering at Dartmouth (United States); Kerrington Smith, Geisel School of Medicine, Dartmouth College (United States); Kenneth M. Tichauer, Illinois Institute of Technology (United States); Summer L. Gibbs, Oregon Health & Science Univ. (United States)

[Add To My Schedule](#) 

Lunch/Exhibition Break 12:20 PM - 1:50 PM

Session 3: Advanced Imaging Tools for Quantifying Drug Uptake and Distribution

Saturday 28 January 2017

1:50 PM - 3:00 PM

Location: Room 2018 (West Level 2)


Session Chairs: [Conor L. Evans](#), Wellman Ctr. for Photomedicine (United States) ; [Wei Min](#), Columbia Univ. (United States)

Direct visualization of functional heterogeneity in hepatobiliary metabolism *(Invited Paper)*

Paper 10046-11

Time: 1:50 PM - 2:20 PM

Author(s): Chih-Jui Lin, Feng-Chieh Li, Yu-Yang Lee, Te-Yu Tseng, Wei-Liang Chen, Vladimir A. Hovhannisyan, Ning Kang, National Taiwan Univ. (Taiwan); Nicholas G. Horton, Cornell Univ. (United States); Shu-Jen Chiang, National Taiwan Univ. (Taiwan); Chris Xu, Cornell Univ. (United States); Hsuan-Shu Lee, National Taiwan Univ. Hospital (Taiwan); Chen-Yuan Dong, National Taiwan Univ. (Taiwan)


[Add To My Schedule](#) 

Comparison of corneal riboflavin gradients using dextran and HPMC solutions

Paper 10046-12

Time: 2:20 PM - 2:40 PM

Author(s): Tobias Ehmke, Laser Zentrum Hannover e.V. (Germany); Theo G. Seiler, Isaak Fischinger, Inselspital, Univ. Bern (Switzerland), IROC AG (Switzerland); Tammo Ripken, Laser Zentrum Hannover e.V. (Germany); Beatrice E. Frueh, Inselspital, Univ. Bern (Switzerland); Alexander Heisterkamp, Leibniz Univ. Hannover (Germany), Laser Zentrum Hannover e.V. (Germany)

[Add To My Schedule](#) 

Imaging bio-distribution of a topically applied dermatological cream on minipig skin using fluorescence lifetime imaging microscopy

Paper 10046-13

Time: 2:40 PM - 3:00 PM

Author(s): Aneesh Alex, GlaxoSmithKline (United States); Eric J. Chaney, Jennifer M. Criley, Darold R. Spillman, Phaedra B. Hutchison, Joanne Li, Marina Marjanovic, Univ. of Illinois at Urbana-Champaign (United States); Steve Frey, Steven Cook, GlaxoSmithKline (United States); Stephen A. Boppart, Univ. of Illinois at Urbana-Champaign (United States); Zane A. Arp, GlaxoSmithKline (United States)

[Add To My Schedule](#) 

Coffee Break 3:00 PM - 3:30 PM

Session 4: Multimodal, Light Scattering, Mass Spectrometry, and RNA-based Methods for Analyzing Drug Uptake and Effect

Saturday 28 January 2017

3:30 PM - 5:50 PM

Location: Room 2018 (West Level 2)

Session Chairs: [Wei Min](#), Columbia Univ. (United States) ; [Tarl W. Prow](#), The Univ. of Queensland (Australia)

Mass spectrometry imaging applications to characterize and quantify drug distribution in tissue from animal models and clinical trials *(Invited Paper)*

Paper 10046-14

Time: 3:30 PM - 4:00 PM

Author(s): Nathalie Agar, Brigham and Women's Hospital (United States)

[Add To My Schedule](#) 

Identification and localization of trauma-related biomarkers using matrix assisted laser desorption/ionization imaging mass spectrometry

Paper 10046-15

Time: 4:00 PM - 4:20 PM

Author(s): Kirstin Jones, The Univ. of Texas Health Science Ctr. at San Antonio (United States); Matthew A. Reilly, The Ohio State Univ. (United States); Randolph D. Glickman, The Univ. of Texas Health Science Ctr. at San Antonio (United States)

[Add To My Schedule](#) 

Miniaturizing 3D assay for high-throughput drug and genetic screens for small patient-derived tumor samples *(Invited Paper)*

Paper 10046-16

Time: 4:20 PM - 4:50 PM

Author(s): Asaf Rotem, Levi Garraway, Mei-Ju Su, Dana-Farber/Harvard Cancer Ctr. (United States); Anindita Basu, Aviv Regev, Broad Institute of MIT and Harvard (United States); Kevin Struhl, Harvard Medical School (United States)

[Add To My Schedule](#) 

In vivo optical coherence tomography imaging of penetration and dissolution characteristics of hyaluronic acid microneedles in human skin

Paper 10046-17

Time: 4:50 PM - 5:10 PM

Author(s): Seungri Song, Yonsei Univ. (Korea, Republic of); Jung Dong Kim, Jung-hyun Bae, Raphas Co., Ltd. (Korea, Republic of); Sooho Chang, Soocheol Kim, Hyungsuk Lee, Yonsei Univ. (Korea, Republic of); Dohyeon Jeong, Raphas Co., Ltd (Korea, Republic of); Hong Kee Kim, Raphas Co., Ltd. (Korea, Republic of); Chulmin Joo, Yonsei Univ. (Korea, Republic of)


[Add To My Schedule](#) 

Label-free measurement of spatiotemporal drug distributions in mucosal tissue with co-localized confocal Raman spectroscopy and optical coherence tomography (CRS-OCT)

Paper 10046-18

Time: 5:10 PM - 5:30 PM

Author(s): Jason R. Maher, Oranat Chuchuen, Michael DeSoto, Marcus H. Henderson, Adam Wax, David F. Katz, Duke Univ. (United States)


[Add To My Schedule](#) 

Beyond autoradiography: innovations in preclinical tissue distribution methods to solve problems in drug discovery and development

Paper 10046-19

Time: 5:30 PM - 5:50 PM

Author(s): Marissa Vavrek, Carol Freddo, Carol Kertesz, Merck Research Labs. (United States); Gary Van Berkel, Oak Ridge National Lab. (United States)

[Add To My Schedule](#) 

BiOS Hot Topics

Saturday 28 January 2017

7:00 PM - 9:00 PM

Location: Room 3009 (West Level 3)
