Publications

2021

1. Jayakumar Perumal, Yusong Wang, Amalina Binte Ebrahim Attia, Dinish U.S.*, Malini Olivo* (*joint corresponding authors). "Towards point-of-care SERS sensor for biomedical and food analysis applications: a review of recent advancements," ***Nanoscale***. 2021; 13(2): 553-580. DOI: 10.1039/D0NR06832B. Published on 8 Dec 2020.
2. Ghayathri Balasundaram, Christoph Krafft, Ruochong Zhang, Bi Renzhe, Mohesh Moothanchery, Jürgen Popp, Malini Olivo. "Biophotonic technologies for intraoperative assessment of breast tumor surgical margins – a review," ***Journal of Biophotonics***. 2021; 14(1): e202000280. DOI: 10.1002/jbio.202000280. Published on 20 Sep 2020.
3. Shuyan Zhang, Chi Lok Wong, Shuwen Zeng, Renzhe Bi, Kolvyn Tai, Kishan Dholakia, and Malini Olivo, "Metasurfaces for Biomedical Applications: Imaging and Sensing from a Nanophotonics Perspective", ***Nanophotonics*** (Special Issue: Frontiers in Optics & Photonics). 2021; 10(1): 259-293. DOI: 10.1515/nanoph-2020-0373. Published on 7 Sep 2020.
4. Yik Weng Yew*, Dinish U.S.*, Amanda Hui Yu Kuan, Xiuting Li, Kapil Dev, Amalina Binte Ebrahim Attia, Renzhe Bi, Mohesh Moothanchery, Ghayathri Balasundaram, Juan Aguirre, Vasilis Ntziachristos^, Malini Olivo^, Steven Tien Guan Thng^ (*joint first authors; ^joint corresponding authors), "Raster-scanning optoacoustic mesoscopy (RSOM) imaging as an objective disease severity tool in atopic dermatitis patients," **Journal of American Academy of Dermatology.** 2021; 84(4): 1121-1123. DOI: 10.1016/j.jaad.2020.06.045. Published on 16 Jun 2020.

2020

5. Flavien Beffera, Georges Humbert*, Jean-Louis Auguste, Jayakumar Perumal, Dinish U.S.*, **Malini Olivo** (*joint authors), "Optimization and performance analysis of SERS-active suspended core photonic crystal fiber," **Optics Express**, 2020; 28(16): 23609-23619. DOI: 10.1364/OE.393251. Published on 24 Jul 2020.
6. Xia Yu, Shuyan Zhang, Malini Olivo, Nanxi Li. "Micro- and nano-fiber probes for optical sensing, imaging, stimulation in biomedical applications," ***Photonics Research***. 2020; 8(11): 1703-1724. DOI: 10.1364/PRJ.387076. Published on 22 October 2020.
7. Amalina Binte Ebrahim Attia, Renzhe Bi, Kapil Dev, Yao Du, Malini Olivo. "Clinical noninvasive imaging and spectroscopic tools for dermatological applications: review of recent progress," **Translational Biophotonics**. 2020; 2(4): e202000010. DOI: 10.1002/tbio.202000010. Published on 22 July 2020. (with front cover art, https://www.onlinelibrary.wiley.com/toc/26271850/2020/2/4)
8. Francesca Mandino, Ling Yun Yeow, Renzhe Bi, Sejin Lee, Han Gyu Bae, Seung Hyun Baek, Chun Yao Lee, Hasan Mohammad, Chai Lean Teoh, Jasinda Lee, Mitchell Kim Peng Lai, Sangyong Jung, Fu Yu, **Malini Olivo**, John Gigg, Joanes Grandjean, "Local and global dichotomic dysfunction in resting and evoked functional connectivity precedes tauopathy," ***Nature Neuroscience***. DOI: 10.1101/2020.04.03.022590 (in press)
9. Gurpreet Singh, Augustine Tee, Thanawin Trakoolwilaiwan, Aza Abdulmawjood Taha and **Malini Olivo**. "Method of respiratory rate measurement using a unique wearable platform and an adaptive optical based approach," **Intensive Care Medicine Experimental**, 2020; 8: 15. DOI: 10.1186/s40635-020-00302-6. Published on 24 May 2020.
10. Weng-I Katherine Chio, Suresh Moorthy, Jayakumar Perumal, Dinish U.S., Ivan P. Parkin, **Malini Olivo**, Tung-Chun Lee. "Dual-triggered nanoaggregates of cucurbit[7]uril

and gold nanoparticles for multi-spectroscopic quantification of creatinine in urinalysis," **Journal of Materials Chemistry C**, 2020; 8(21): 7051-7058. DOI: 10.1039/D0TC00931H. Published on 7 Apr 2020.

11. Ghayathri Balasundaram, Yonggeng Goh, Mohesh Moothanchery, Amalina Attia, Hann Qian Lim, Neal C. Burton, Yi Qiu, Thomas Choudary Putti, Ching Wan Chan, Mikael Hartmann, Swee Tian Quek, **Malini Olivo**. "Optoacoustic characterization of breast conserving surgery specimens – A pilot study," **Photoacoustics**, 2020; 19: 100164. DOI: 10.1016/j.pacs.2020.100164. Published on Apr 27, 2020.
12. Chris Jun Hui Ho, Yik Weng Yew, U.S. Dinish, Amanda Hui Yu Kuan, Melvin Kai Weng Wong, Renzhe Bi, Kapil Dev, Xiuting Li, Gurpreet Singh, Mohesh Moothanchery, Jayakumar Perumal, Steven Tien Guan Thng, and **Malini Olivo**. "Handheld confocal Raman spectroscopy (CRS) for Objective assessment of skin barrier function and stratification of severity in atopic dermatitis (AD) patients," **Journal of Dermatological Science**, 2020; 98(1): 20-25. DOI: 10.1016/j.jdermsci.2020.02.001. Published on Feb 4th, 2020.
13. Flavien Beffara, Jayakumar Perumal, Aniza Puteri Mahyuddin, Mahesh Choolani, Saif A. Khan, Jean-Louis Auguste, Sylvain Vedraine, Georges Humbert, U. S Dinish, **Malini Olivo**. "Development of Highly Reliable and Sensitive SERS-active Photonic Crystal Fiber Probe, and its Application in the Detection of Ovarian Cancer Biomarker in Cyst Fluid," **Journal of Biophotonics**, 2020; 13(3): e201960120. DOI: 10.1002/jbio.201960120. Published on Dec 26th, 2019
14. Renzhe Bi, Yao Du, Gurpreet Singh, Chris Jun-Hui Ho, Shuyan Zhang, Amalina Binte Ebrahim Attia, Xiuting Li, **Malini Olivo**. "Fast pulsatile blood flow measurement in deep tissue through a multimode fiber," **Journal of Biomedical Optics**, 2020; 25(5): 055003. DOI: 10.1117/1.JBO.25.5.055003. Published on May 13th, 2020.
15. Yonggeng Goh, Ghayathri Balasundaram, Mohesh Moothanchery, Amalina Attia, Xiuting Li, Hann Qian Lim, Neal C. Burton, Yi Qiu, Thomas Choudary Putti, Ching Wan Chan, Philip Iau, Shaik Ahmad Buhari, Mikael Hartmann, Siau Wei Tang, Celene Wei Qi Ng, Yiong Huak Chan, Felicity Jane Pool, Premilla Pillay, Wynne Chua, Jeevesh Kapur, Pooja Jagmohan, Eide Sterling, Swee Tian Quek, **Malini Olivo.** "Ultrasound Guided Optoacoustic Tomography in Assessment of Tumor Margins for Lumpectomies," **Translational Oncology**, 2020; 13(2): 254-261. DOI: 10.1016/j.tranon.2019.11.005. Published on Dec 21st, 2019.
16. Suhanyaa Nitkunanantharajah, Guillaume Zahnd, **Malini Olivo**, Nassir Navab, Pouyan Mohajerani, Vasilis Ntziachristos. "Skin surface detection in 3D optoacoustic mesoscopy based on dynamic programming," **IEEE Transactions on Medical Imaging**. 2020; 39(2): 458-467. DOI: 10.1109/TMI.2019.2928393. Published on Jul 12, 2019.

2019

17. Amalina Binte Ebrahim Attia, Ghayathri Balasundaram, Mohesh Moothanchery, U.S. Dinish, Renzhe Bi, Vasilis Ntziachristos, **Malini Olivo**. "A Review of Clinical Photoacoustic Imaging: Current and Future Trends," **Photoacoustics**, 2019; 16: 100144. DOI: 10.1016/j.pacs.2019.100144. Published on Nov 7th, 2019
18. Mohesh Moothanchery, Kapil Dev, Ghayathri Balasundaram, Renzhe Bi, and **Malini Olivo**. "Acoustic resolution photoacoustic microscopy based on microelectromechanical systems scanner," **Journal of Biophotonics**, 2019; 13(2): e201960127. DOI: 10.1002/jbio.201960127. Published on Nov 4th, 2019
19. Chi Lok Wong, Jia Yee Chan, Li Xian Choo, Hann Qian Lim, Heather Mittman and **Malini Olivo**. "Plasmonic Contrast Imaging Biosensor for the Detection of H3N2

Influenza Protein-Antibody and DNA-DNA Molecular Binding," **IEEE Sensors Journal**, 2019; 19(24): 11828-11833. DOI: 10.1109/JSEN.2019.2936623. Published on Aug 21st, 2019.

20. Mohesh Moothanchery, Renzhe Bi, Jin Young Kim, Ghayathri Balasundaram, Chulhong Kim, **Malini Olivo**. "High-speed simultaneous multiscale photoacoustic microscopy," Journal of Biomedical Optics, 2019, 24(8), 086001. DOI: 10.1117/1.JBO.24.8.086001. Published on Aug 19, 2019.
21. Sung-Jin Park, Chris Jun Hui Ho, Satoshi Arai, Animesh Samanta, **Malini Olivo**, Young-Tae Chang. "Visualizing Alzheimer's disease mouse brain with multispectral optoacoustic tomography using a fluorescent probe, CDnir7," **Scientific Reports**, 2019, 9, Article 12052, DOI: 10.1038/s41598-019-48329-4. Published on Aug 19, 2019.
22. Wu Tingting, Li Kaiwei, Zhang Nan, Xia Juan, Zeng Qingsheng, Wen Xinglin, Dinish U.S., **Malini Olivo**, Shen Ze Xiang, Liu Zheng, Xiong Qihua, Luo Yu, Stefan A. Maier, Wei Lei. "Ultra-wideband Surface Enhanced Raman Scattering in Hybrid Graphene Fragmented-gold Substrates via Cold-etching," **Advanced Optical Materials,** 2019; 7(21): 1900905. DOI: 10.1002/adom.201900905. Published on Nov 4, 2019.
23. Yik Weng Yew, U.S. Dinish, Ellie Ci En Choi, Renzhe Bi, Chris Jun Hui Ho, Kapil Dev, Xiuting Li, Amalina Binte Ebrahim Attia, Melvin Kai Weng Wong, Ghayathri Balasundaram, Vasilis Ntziachristos, **Malini Olivo**, Steven Tien Guan Thng. "Investigation of morphological, vascular and biochemical changes in the skin of an atopic dermatitis (AD) patient in response to Dupilumab using Raster Scanning Optoacoustic Mesoscopy (RSOM) and Handheld Confocal Raman Spectroscopy (CRS)," **Journal of Dermatological Science**, 2019; 95(3): 123-5. DOI: 10.1016/j.jdermsci.2019.07.003. Published on Jul 12, 2019.
24. Francesca Mandino, Ling Yun Yeow, John Gigg, **Malini Olivo** and Joanes Grandjean. "Preserved functional networks in a hydrocephalic mouse," **ScienceMatters**, 2019. Published on Jun 10th, 2019. DOI: 10.19185/matters.201905000001
25. Xiuting Li, Dinish U.S, Juan Aguirre, Renzhe Bi, Kapil Dev, Amalina Binte Ebrahim Attia, Suhanyaa Nitkunanantharajah, Lim Hann Qian, Mathias Schwarz, Yik Weng Yew, Steven Thng Tien Guan, Vasilis Ntziachristos and **Malini Olivo**. "Optoacoustic Mesoscopy Analysis and Quantitative Estimation of Specific Imaging Metrics in Fitzpatrick skin phototypes II to V," **Journal of Biophotonics**, 2019; 12(9): e201800442. DOI: 10.1002/jbio.201800442. Published on Apr 23, 2019 (with front cover art, https://doi.org/10.1002/jbio.201970030)
26. Weng-I Katherine Chio, William J. Peveler, Khaleel I. Assaf, Suresh Moorthy, Werner M. Nau, Ivan P. Parkin, **Malini Olivo**, and Tung-Chun Lee. "Selective Detection of Nitroexplosives Using Molecular Recognition within Self-Assembled Plasmonic Nanojunctions," **Journal of Physical Chemistry C**, 2019, 123(25), pages 15769-15776. Published on Apr 23, 2019. DOI: 10.1021/acs.jpcc.9b02363 (with front cover art, https://pubs.acs.org/toc/jpccck/123/25)
27. Dinish U. S, Flavien Beffara, Georges Humbert, Jean-Louis Auguste and **Malini Olivo**. "SERS-active photonic crystal fiber probe: towards next generation liquid biopsy sensor with ultra high sensitivity," **Journal of Biophotonics**, 2019; 12(11): e201900027. DOI: 10.1002/jbio.201900027 (Review article) Published on Mar 20, 2019 (with front cover art, https://doi.org/10.1002/jbio.201970038)
28. Renzhe Bi, U. S Dinish, Chi Ching Goh, Toru Imai, Mohesh Moothanchery, Xiuting Li, Jin Young Kim, Seungwan Jeon, Yang Pu, Chulhong Kim, Lai Guan Ng, Lihong V. Wang, Malini Olivo, "In Vivo Label-free Functional Photoacoustic Monitoring of Ischemic Reperfusion," **Journal of Biophotonics**, 2019, 12(7), e201800454. Published

on Mar 13, 2019. DOI: 10.1002/jbio.201800454 (with front cover art, https://doi.org/10.1002/jbio.201970020)

29. Gavin Bell, Ghayathri Balasundaram, Amalina Binte Ebrahim Attia, Francesca Mandino, Malini Olivio and Ivan P. Parkin. "Functionalised iron oxide nanoparticles for multimodal optoacoustic and magnetic resonance imaging," **Journal of Materials Chemistry B**, 2019, 7, 2212-2219. Published on Feb 26th, 2019. DOI: 10.1039/C8TB02299B
30. Jayakumar Perumal, Aniza Mahyuddin, Ghayathri Balasundaram, Douglas Goh, Dinish U.S., Mahesh Choolani and **Malini Olivo**. "SERS-Based Detection of Haptoglobin in Ovarian Cyst Fluid as a Point-of-Care Diagnostic Assay for Epithelial Ovarian cancer," **Cancer Management and Research**, 2019, 2019(11), Pages 1115-1124. Published on Jan 31, 2019. DOI: 10.2147/CMAR.S185375
31. Sai Yee Chuah, Amalina Binte Ebrahim Attia, Chris Jun Hui Ho, Xiuting Li, Joyce Siong-See Lee, Melissa Wee Ping Tan, Angeline Anning Yong, Aaron Wei Min Tan, Daniel Razansky, **Malini Olivo** and Steven Tien Guan Thng. "Volumetric multispectral optoacoustic tomography for three-dimensional (3D) reconstruction of skin tumors – a further evaluation with histopathological correlation," **Journal of Investigative Dermatology**, 2019, 139(2), Pages 481-485. Published on Sep 15, 2018. DOI: 10.1016/j.jid.2018.08.014

2018

32. Renzhe Bi, Ghayathri Balasundaram, Seungwan Jeon, Hui Chien Tay, Yang Pu, Xiuting Li, Mohesh Moothanchery, Chulhong Kim, **Malini Olivo**. "Photoacoustic microscopy for evaluating combrestatin A4 phosphate induced vascular disruption in orthotopic glioma". **Journal of Biophotonics**, 2018, Volume 11, Issue 10, e201700327. Published on 8 Oct 2018 (with front cover art, https://doi.org/10.1002/jbio.201870161)
33. Yonggeng Goh, Ghayathri Balasundaram, Mohesh Moothanchery, Amalina Attia, Xiuting Li, Hann Qian Lim, Neal Burton, Qiu Yi, Thomas Choudary Putti, Ching Wan Chan, Philip Lau, Siau Wei Tan, Celene Wei Qi Ng, Felicity Jane Pool, Premilla Pillay, Wynne Chua, Eide Sterling, Swee Tian Quek, and **Malini Olivo**, "Multispectral optoacoutic tomography in assessment of breast tumor margins during breast-conserving surgery: a first-in-human case study," **Clinical Breast Cancer**, 2018, 18(6), e1247-e1250. Published online on Aug 16, 2018. DOI: 10.1016/j.clbc.2018.07.026
34. Kapil Dev, U. S Dinish, Smarajit Chakraborty, Bi Renzhe, Stefan Andersson-Engels, Shigeki Sugii, **Malini Olivo**, "Quantitative *In-vivo* detection of adipose tissue browning using diffuse reflectance spectroscopy in NIR II window," **Journal of Biophotonics**, (epub ahead of print) 10.1002/jbio.201800135. Published on Jul 5, 2018. DOI: 10.1002/jbio.201800135.
35. Ghayathri Balasundaram, Lu Ding, Li Xiuting, Amalina Binte Ebrahim Attia, Dean Ben Xose Luis, Chris Ho Jun Hui, Prashant Chandrasekaran, Tay Hui Chien, Lim Hann Qian, Chee Bing Ong, Ralph P. Mason, Daniel Razansky, **Malini Olivo**, "Noninvasive anatomical and functional imaging of orthotopic glioblastoma development and therapy using multispectral optoacoustic tomography," **Translational Oncology**, 2018, 11(5), 1251-1258. Published on Aug 10, 2018. DOI: 10.1016/j.tranon.2018.07.001
36. Jayakumar Perumal, Dinish U.S., Anne K. Bendt, Agne Kazakeviciute, Chit Yaw Fu, Irvine Lian Hao Ong, **Malini Olivo**, "Identification of mycolic acid forms using SERS as a fast detection method for Tuberculosis," **International Journal of Nanomedicine**, 2018, 6029-6038. Published on Oct 4, 2018. DOI: 10.2147/IJN.S171400.
37. Xin Hui Derryn Chan, Ghayathri Balasundaram, Amalina Binte Ebrahim Attia, Julian L. Goggi, Boominathan Ramasamy, Weiping Han, **Malini Olivo**, Shigeki Sugii,

"Multimodal Imaging Approach to Monitor Browning of Adipose Tissue In Vivo," **Journal of Lipid Research**, 2018, 59, 1071-1078. Published on Apr 13, 2018. DOI: 10.1194/jlr.D083410.

38. Kaiwei Li, Nan Zhang, Ting Zhang, Zhe Wang, Ming Chen, Tingting Wu, Shaoyang Ma, Mengying Zhang, Jing Zhang, U. S. Dinish, Perry Ping Shum, **Malini Olivo**, Lei Wei, "Formation of ultra-flexible, conformal, and nano-patterned photonic surfaces via polymer cold-drawing," **Journal of Materials Chemistry C**, 2018, 6, 4649-4657. Published on Mar 19, 2018. DOI: 10.1039/C8TC00884A.
39. Dongdong Su, Chai Lean Teoh, Sung-Jin Park, Jong-Jin Kim, Animesh Samanta, Renzhe Bi, U. S. Dinish, **Malini Olivo** and Young-Tae Chang, "Seeing Elastin: A Near-Infrared Zwitterionic Fluorescent Probe for In Vivo Elastin Imaging" **Chem**, 2018, 4(5), 1128-1138. Published on Mar 29, 2018. DOI: 10.1016/j.chempr.2018.02.016.
40. Renzhe Bi, Ghayathri Balasundaram, Seungwan Jeon, Hui Chien Tay, Yang Pu, Xiuting Li, Mohesh Moothanchery, Chulhong Kim, **Malini Olivo**, "Photoacoustic microscopy for evaluating combretastatin A4 phosphate induced vascular disruption in orthotopic glioma," **Journal of Biophotonics**, 2018, 11(10), e201700327. DOI: 10.1002/jbio.201700327. Published on Feb 8, 2018.
41. Mohesh Moothanchery, Bi Renzhe, Jin Young Kim, Suengwan Jeon, Chulhong Kim, **Malini Olivo** "Optical Resolution Photoacoustic Microscopy Based on Multimode Fibers" **Biomedical Optics Express**, 2018, 9(3), 1190-1197. DOI: 10.1364/BOE.9.001190. Published on Feb 15, 2018.

2017

42. Gurpreet Singh, Renzhe Bi, U. S. Dinish and **Malini Olivo**, "Generating Localized Plasmonic Fields on an Integrated Photonic Platform using Tapered Couplers for Biosensing Applications" **Scientific Reports**, 2017, 7, 15587. Published on Nov 14th, 2017.
43. Chi Lok Wong, Marissa Chau, Heather Mittman, Li Xian Choo, Hann Qian Lim and Malini Olivo, "Phase-intensity Surface Plasmon Resonance (SPR) Biosensor for Avian Influenza A (H5N1) Antibody Detection," **Sensors**, 2017, 17(10), 2363. DOI: 10.3390/s17102363. Published on Oct 16, 2017.
44. Amalina Binte Ebrahim Attia, Sai Yee Chuah, Daniel Razansky, Chris Jun Hui Ho, Pinky Malempati, Dinish U.S., Renzhe Bi, Chit Yaw Fu, Steven J. Ford, Joyce Siong See Lee, Wee Ping Tan, **Malini Olivo**, Steven Thng, "Noninvasive real-time characterization of non-melanoma skin cancers with handheld optoacoustic probes," **Photoacoustics**, 2017, 7, 20-26. DOI: 10.1016/j.pacs.2017.05.003. Published on 4 Jun 2017. **Selected as highlight by Elsevier Physics in 2017.**
45. Jayakumar Perumal, Tianxun Gong, Dinish U.S., Kavitha Devi Buddharaju, Patrick Lo Guo-Qiang, **Malini Olivo**, "Development of optimized nanogap plasmonic substrate for improved SERS enhancement," **AIP Advances**, 2017, 7(5), 055017. DOI: 10.1063/1.4984769. Published on 30 May 2017.
46. A. Kazakeviciute, V. Kazakevicius, M. Olivo, "Point separation in logistic regression on Hilbert space-valued variables," **Statistics and Probability Letters**, 2017, 128, 84-88. DOI: 10.1016/j.spl.2017.04.019. Available online May 4th, 2017.
47. A. Kazakeviciute, V. Kazakevicius, M. Olivo "Conditions for existence of uniformly consistent classifiers," **IEEE Transactions on Information Theory**, 2017, 63(6), 3425-3432. DOI: 10.1109/TIT.2017.2696961. Published on April 24th, 2017.

48. Vijay Raghavan, Cathal O'Flatharta, Roisin Dwyer, Aedán Breathnach, Haroon Zafar, Peter Dockery, Antony Wheatley, Ivan Keogh, Martin Leahy & Malini Olivo, "Dual plasmonic gold nanostars for photoacoustic imaging and photothermal therapy," **Nanomedicine**, 2017, 12(5), 457-471. Published on Feb 9th, 2017.
49. Gavin Bell, Lara K. Bogart, Paul Souther, **Malini Olivo**, Quentin A. Pankhurst and Ivan P. Parkin, "Enhancing the magnetic heating capacity of iron oxide nanoparticles through their post-production incorporation into iron oxide-gold nanocomposites," **European Journal of Inorganic Chemistry**, 2017, 2017(18), 2386-2395. DOI: 10.1002/ejic.201601432. **Selected for Front Page abstract.**
50. Douglas Goh, Kien Voon Kong, Jayakumar Perumal, Tianxun Gong, Dinish U.S. and Malini Olivo, "Quantification of protein biomarker using SERS nano-stress sensing with peak intensity ratiometry," **Journal of Molecular and Engineering Materials**, 2017, 4(3), 1640011. DOI: 10.1142/S2251237316400116
51. U. S Dinish, Chi Lok Wong, Sandhya Sriram, Ong Wee Kiat, Ghayathri Balasundaram, Shigeki Sugii and **Malini Olivo**, "Diffuse Optical Spectroscopy and Imaging to Detect and Quantify Adipose Tissue Browning," **Scientific Reports**, 2017, 7, 41357.

2016

52. Jayakumar Perumal, Sandhya Sriram, **Malini Olivo**, and Shigeki Sugii, "Retinoic acid exhibits depot-specific differences in adipose tissue and stem cells," **Adipocyte**, 2016, 5(4), 378-383.
53. Sai Yee Chuah, Amalina Binte Ebrahim Attia, Valencia Long, Chris Jun Hui Ho, Dinish U.S., Pinky Malempati, Renzhe Bi, Chit Yaw Fu, Steven Ford, Joyce Siong See Lee, Wee Ping Tan, **Malini Olivo**, Steven Thng, "Structural and functional 3D Mapping of Skin Tumors with non-invasive Multispectral Optoacoustic Tomography (MSOT)," **Skin Research and Technology**, 2016, 23(2), 221-226. DOI: 10.1111/srt.12326.
54. Vijay Raghavan, H.M. Fan, Eoin McCarthy, Peter Dockery, Antony Wheatley, Ivan Keogh, **Malini Olivo**, "Synthesis and Characterisation of Dual Plasmonic Gold Nanostars as High Performance Surface Enhanced Raman Spectroscopy Substrate," **Micro & Nano Letters**, 2016, 11(11), 769-774.
55. Agne Kazakeviciute, **Malini Olivo**, "A study of logistic classifier: uniform consistency in finite-dimensional linear spaces," **Journal of Mathematics, Statistics and Operations Research**, 2016, 3, 65. DOI: 10.5176/2251-1911_CMCGS16.8
56. Agne Kazakeviciute, Chris Jun Hui Ho and **Malini Olivo**, "Multispectral Photoacoustic Imaging Artifact Removal and Denoising Using Time Series Model-Based Spectral Noise Estimation," **IEEE Transactions on Medical Imaging**, 2016, 35(9), 2151-2163. DOI: 10.1109/TMI.2016.2550624.
57. Amalina E. Attia, Chris Jun Hui Ho, Prashant Chandrasekharan, Ghayathri Balasundaram, Hui Chien Tay, Neal C. Burton, Kai-Hsiang Chuang, Vasilis Ntziachristos and **Malini Olivo**, "Multispectral optoacoustic and MRI coregistration for molecular imaging of orthotopic glioblastoma," **Journal of Biophotonics**, 2016, 9, 701–708.
58. Zhiyong Lam, Kien Voon Kong, **Malini Olivo** and Weng Kee Leong, "The Vibrational Spectroscopy of Metal Carbonyls for Bio-Imaging and -Sensing," **Analyst,** 2016, 141, 1569-1586.

59. Zhiyong Lam, Ghayathri Balasundaram, Kien Voon Kong, Bo Yang Chor, Douglas Goh, Bahareh Khezri, Richard D. Webster, Weng Kee Leong and **Malini Olivo**, "High Nuclearity Carbonyl Clusters as Near-IR Contrast Agents for In Vivo Photoacoustic Imaging," **Materials Chemistry B,** 2016, 4, 3886-3891.

60. Steven J. Ford, Paul L. Bigliardi, Thomas C.P. Sardella, Alexander Urich, Neal C. Burton, Marcin Kacprowicz, Mei Bigliardi, **Malini Olivo**, Daniel Razansky, "Structural and Functional Analysis of Intact Hair Follicles and Pilosebaceous Units by Volumetric Multispectral Optoacoustic Tomography," **Journal of Investigative Dermatology**, 2016, 136, 753-761.

61. Kosuke Takeda, Sandhya Sriram, Xin Hui Derryn Chan, Wee Kiat Ong, Chia Rou Yeo, Betty Tan, Seung-Ah Lee, Kien Voon Kong, Shawn Hoon, Hongfeng Jiang, Jason J. Yuen, Jayakumar Perumal, Madhur Agrawal, Candida Vaz, Jimmy So, Asim Shabbir, William S. Blaner, **Malini Olivo**, Weiping Han, Vivek Tanavde, Sue-Anne Toh and Shigeki Sugii, "Retinoic Acid Mediates Visceral-Specific Adipogenic Defects of Human Adipose-Derived Stem Cells," **Diabetes**, 2016, 65(5), 1164-1178.

62. Nan Zhang, Georges Humbert, Tianxun Gong, Perry Ping Shum, Kaiwei Li, Jean-Louis Auguste, Zhifang Wu, Dora Juan Juan Hu, Feng Luan, Quyen Xuan Dinh, **Malini Olivo** and Lei Wei, "Side-channel photonic crystal fiber for surface enhanced Raman scattering sensing," **Sensors and Actuators B: Chemical**, 2016, 223, 195–201.

63. Xiangzhao Ai, Chris Jun Hui Ho, Junxin Aw, Amalina Binte Ebrahim Attia, Jing Mu, Yu Wang, Xiaoyong Wang, Yong Wang, Xiaogang Liu, Huabing Chen, Mingyuan Gao, Xiaoyuan Chen, Edwin K.L. Yeow, Gang Liu, **Malini Olivo** & Bengang Xing "In vivo covalent cross-linking of photon-converted rare-earth nanostructures for tumour localization and theranostics", **Nature Communications,** 2016**,** 7, 10432.

64. Jennifer M. Connolly, Karen Davies, Agne Kazakeviciute, Antony M. Wheatley, Peter Dockery, Ivan Keogh, Malini Olivo, "Non-invasive and label-free detection of oral squamous cell carcinoma using saliva surface-enhanced Raman spectroscopy and multivariate analysis," **Nanomedicine: Nanotechnology, Biology, and Medicine,** 2016, 12, 1593–1601.

65. Tianxun Gong, Nan Zhang, Kien Voon Kong, Douglas Goh, Cui Ying, Jean-Louis Auguste, Perry Ping Shum, Lei Wei, Georges Humbert, Ken-Tye Yong, and **Malini Olivo**. "Rapid SERS Monitoring of Lipid-Peroxidation-Derived Protein Modifications in Cells using Photonic Crystal Fiber Sensor," **Journal of Biophotonics**, 2016, 9, 32–37

2015

66. Chris Jun Hui Ho, **Malini Olivo,** "Photoacoustic imaging progresses toward medical diagnostic," **Laser Focus World,** 2015, 51 (12), 49-52.

67. K Davies, J.M Connolly, P Dockery, Wheatley AM, **Olivo M**, I. Keogh, "Point of care optical diagnostic technologies for the detection of oral and oropharyngeal squamous cell carcinoma (SCC)" (Review article), **The Surgeon**, Dec 2015, 13(6), 321–329.

68. Peter Owens, Nigel Phillipson, Jayakumar Perumal, Gerard M. O'Connor and **Malini Olivo**, "Sensing of p53 and EGFR Biomarkers Using High Efficiency SERS Substrates", **Biosensors**, Oct 2015 5(4), 664-667.

69. Raghavan V, Fan HM, Dockery P, Wheatley A, I. Keogh & **Olivo M,** "Multimodal Gold Nanoprobes for SERS Bioimaging," (review article) **Journal of Nanomedicine and Nanotechnology,** Oct 2015, 6, 2-8.

70. Jing Cai , Vijay Raghavan , Yu Jie Bai , Ming Hui Zhou , Xiao Li Liu , Chunyan Liao , Pei Ma , Lei Shi , Peter Dockery , Ivan Keogh , Haiming Fan and **Malini Olivo**, "Controllable synthesis of tetrapod gold nanocrystals with precisely tunable near-infrared plasmon resonance towards high efficient surface enhanced Raman spectroscopy bioimaging", J**ournal Of Materials Chemistry B**, 2015, **3**, 7377-7385.

71. Ricky WK Wu, Ellie SM Chu, Zheng Huang, Malini C Olivo, David CW Ip, Christine MN Yow, "An in vitro investigation of photodynamic efficacy of FosPeg® on human colon cancer cells," **Journal of Innovative Optical Health Sciences**, Sept 2015 8 (5) 1550027.

72. K Davies, J Connolly, Y Lang, P Owens, P Dockery, **M Ovo**, I. Keogh, "Point of care optical diagnostic technology; using saliva as a molecular fingerprint for the early detection of oral and oropharyngeal SCC," **Irish Journal Of Medical Science**, Jan 2015, 184.

73. Tianxun Gong, Nan Zhang, Kien Voon Kong, Douglas Goh, Cui Ying, Jean-Louis Auguste, Perry Ping Shum, Lei Wei, Georges Humbert, Ken-Tye Yong*, and **Malini Olivo***. "Rapid SERS Monitoring of Lipid-Peroxidation-Derived Protein Modifications in Cells using Photonic Crystal Fiber Sensor," **Journal of Biophotonics,** Sep 2015, DOI: 10.1002/jbio.201500168.

74. Tianxun Gong, Kien Voon Kong, Douglas Goh, **Malini Olivo** and Ken-Tye Yong. "Sensitive surface enhanced Raman scattering multiplexed detection of matrix metalloproteinase 2 and 7 cancer markers", **Biomed Opt Express,** 2015, 6 (6), 2076-2087.

75. U. S Dinish, Zhegang Song, Chris Jun Hui Ho, Ghayathri Balasundaram, Amalina Binte Ebrahim Attia, Xianmao Lu, Ben Zhong Tang, Bin Liu, **Malini Olivo**, "Single Molecule with Dual Function on Nano-gold: Biofunctionalized Construct for In vivo Photoacoustic Imaging and SERS Biosensing", **Advanced Functional Materials,** 2015, 25, 2316-2325.

76. Wong Chi Lok, Dinish U. S, **Malini Olivo**, "Recent advances in SPR and SERS for sensitive translational medical diagnosis," (review article) **Photonics & Lasers in Medicine**, 2015, 4, 119–149.

77. Jayakumar Perumal, Ghayathri Balasundaram, Aniza Mahyuddin, Mahesh Choolani, **Malini Olivo**. "SERS Based Quantitative Detection of Ovarian Cancer Prognostic Factor Haptoglobin". **International Journal of Nanomedicine,** 2015, 10, 1831-1840.

78. Amalina Bte Ebrahim Attia, Ghayathri Balasundaram, Wouter Driessen, Vasilis Ntziachristos, **Malini Olivo**. "Phthalocyanines as photoacoustic contrast agents for in vivo tumor imaging". **Biomed Opt Express**, 2015, 6 (2), 591-598.

79. Tianxun Gong, Ying Cui , Douglas Goh, Kong KienVoon, Perry Ping Shum, Georges Humbert, Jean-Louis Auguste, Xuan-Quyen Dinh, Ken-Tye Yong, **Malini Olivo**, "Highly sensitive SERS detection and quantification of sialic acid on single cell using photonic-crystal fiber with gold nanoparticles," **Biosensors and Bioelectronics**, 2015, 64, 227–233.

80. Ghayathri Balasundaram, Chris Jun Hui Ho, Kai Li, Wouter Driessen, Dinish U. S., Chi Lok Wong, Vasilis Ntziachristos, Bin Liu*, **Malini Olivo***. "Molecular Photoacoustic Imaging of Breast Cancer using an Actively Targeted Conjugated Polymer" **Int J Nanomedicine**. 2015, 10, 387–397.

2014

81. Connolly JM, Raghavan V, Owens P, Wheatley A, Keogh I, Dockery P, **Olivo M**., "Nanogold-based Photosensitizers Probes for Dual-model Bioimaging and Therapy of Cancer". **J Nanomed Nanotechnol,** 2014, 5, (6), 1000249.

82. Raghavan V, Connolly JM, Fan HM, Dockery P, Wheatley A, Keogh I, **Olivo M**. "Gold Nanosensitisers for Multimodal Optical Diagnostic Imaging and Therapy of Cancer". **J Nanomed Nanotechnol,** 2014, 5, (6), 1000238.

83. Dinish U. S, Ghayathri B, Young Tae Chang, **Malini Olivo**. "Sensitive Multiplex Detection of Serological Liver Cancer Biomarkers Using SERS Active Photonic Crystal Fiber Probe". **J Biophotonics**, 2014, 7, (11-12), 956–965.

84. Kien Voon Kong, Lun-De Liao, Douglas Goh, Nitish V Thakor and **Malini Olivo**. "Novel Biodegradable Polymer Tethered Platinum (II) for Photoacoustic Imaging", **J Nanomed Nanotechnol** 2014, 5(4), 1000223.

85. Kien Voon Kong, Douglas Goh and **Malini Olivo**. "Dual Trigger Crosslinked Micelles Based Polyamidoamine for Effective Paclitaxel Delivery", **J Nanomed Nanotechnol** 2014, 5(4), 1000212.

86. Chi Lok Wong, U. S. Dinish, Kavitha Devi Buddharaju, Michael Stenbæk Schmidt, **Malini Olivo**, "Surface-enhanced Raman scattering (SERS)-based volatile organic compounds (VOCs) detection using plasmonic bimetallic nanogap substrate," **Appl. Phys. A**, 2014, 117(2), 687-692.

87. Kien Voon Kong, Weng Kee Leong, Zhiyong Lam, Tianxun Gong, Douglas Goh, Weber Kam On Lau and **Malini Olivo**, "A Rapid and Label-free SERS Detection Method for Biomarkers in Clinical Biofluids," **Small**, 2014, 10(24), 5030–5034.

88. Chi Lok Wong, U.S. Dinish, Michael S Schmidt, **Malini Olivo**, "Non-labeling Multiplex Surface Enhanced Raman Scattering (SERS) Detection of Volatile Organic Compounds (VOCs)," **Analytica Chimica Acta**, 2014, 844, 54-60.

89. CJH Ho, G Balasundaram, W Driessen, R McLaren, CL Wong, Dinish, U. S, ABE Attia, V Ntziachristos, **M Olivo**, "Multifunctional photosensitizer-based contrast agents for photoacoustic imaging," **Scientific Reports**, 2014, 4, 5342.

90. Tianxun Gong, Douglas Goh, **Malini Olivo** and Ken-Tye Yong, "In vitro toxicity and bioimaging studies of gold nanorods formulations coated with biofunctional thiol-PEG molecules and Pluronic block copolymers," **Beilstein J Nanotechnol,** 2014, 5, 546–553.

91. Vassiliy Tsytsarev, Lun-De Liao, Kien Voon Kong, Yu-Hang Liu, Reha S Erzurumlu, Malini Olivo, Nitish V. Thakor, "Recent Progress in Voltage-Sensitive Dye Imaging for Neuroscience," (review article) **Journal of Nanoscience and Nanotechnology**, 2014, 14(7), 4733-4744.

92. Kien Voon Kong, Lun-de Liao, Zhiyong Lam, Nitish V. Thakor, Weng Kee Leong, **Malini Olivo**, "Organometallic Carbonyl Clusters: A New Class of Contrast Agents for Photoacoustic Cerebral Vascular Imaging," **Chemical Communications,** 2014, 50, 2601-2603.

93. Chi Lok Wong and **Malini Olivo**, "Surface Plasmon Resonance Imaging Sensors: A Review," (review article) **Plasmonics**, 2014, 9, 809-824.

94. Dinish U. S*, Ghayathri Balasundaram*, Young-Tae Chang, **Malini Olivo**, "Actively Targeted in vivo Multiplex Detection of Intrinsic Cancer Biomarkers in a Murine Model Using Biocompatible SERS Nanotags" **Scientific Reports**, 2014, 4, 4075.

95. Kien Voon Kong, Chris Jun Hui Ho, Tianxun Gong, Weber Kam On Lau, **Malini Olivo** "Sensitive SERS-Glucose Sensing in Biological Media Using Alkyne-Functionalized Boronic acid on Planar Substrates," **Biosensors and Bioelectronics,** 2014, 56, 186–191.

96. Jayakumar Perumal, Kien Voon Kong, U. S. Dinish, Reuben M. Bakker, **Malini Olivo**, "Design and fabrication of random silver films as substrate for SERS based nano-stress sensing of proteins," **RSC Advances**, 2014, 4, 12995-13000.

97. Yandong Gong, Banghong Zhang, Takashi Notake, Hiroaki Minamide, **Malini Olivo**, Shigeki Sugii, "Investigations on Polarimetric Terahertz Frequency Domain Spectroscopy," **Applied Physics A**, 2014, 115, 83-86.

98. Kong Kien Voon, Dinish U. S, Weber Laub, **Malini Olivo**. "Sensitive SERS-pH Sensing in Biological Media Using Metal Carbonyl Functionalized Planar Substrates". **Biosensors and Bioelectronics**, 2014, 54, 135–140.

2013

99. Kien Voon Kong, Zhiyong Lam, Weber Kam On Lau, Weng Kee Leong, **Malini Olivo**, "A Transition Metal Carbonyl Probe for Use in a Highly Specific and Sensitive SERS-based Assay for Glucose," **Journal of American Chemical Society**, 2013, 135, 18028−18031.

100. Stefano Vavassori, Anil Kumar, Gan Siok Wan, Gundimeda S Ramanjaneyulu, Marco Cavallari, Sary El Daker, Travis Beddoe, Alex Theodossis, Neal K Williams, Emma

Gostick, David A Price, Dinish U Soudamini, Kong Kien Voon, **Malini Olivo**, Jamie Rossjohn, Lucia Mori & Gennaro De Libero. "Butyrophilin 3A1 binds phosphorylated antigens and stimulates human gd T cells", **Nature Immunology**, 2013, 14, 908-916.

101. Chi Lok Wong, George Chung Kit Chen, Xiaochao Li, Beng Koon Ng, Ping Shum, Peng Chen, Zhiping Lin, Chinlon Linand **Malini Olivo**. "Colorimetric Surface Plasmon Resonance (SPR) Imaging Biosensor Array based on Polarization Orientation Rotation", **Biosensors and Bioelectronics**, 2013, 47, 545-552.

102. **Malini Olivo**, Jun Hui Ho, Chit Yaw Fu, "Advances in Fluorescence Diagnosis to Track Footprints of Cancer Progression In Vivo," (review article) **Laser and Photonics Reviews,** 2013, 7(5), 646-662.

103. Tian Xun Gong, **Malini Olivo**, U.S. Dinish, Douglas Goh, Kong Kien Voon, K. T. Yong. "Engineering bioconjugated gold nanospheres and gold nanorods as label-free plasmon scattering probes for ultrasensitive multiplex dark-field imaging of cancer cells". **Journal of Biomedical Nanotechnology**, 2013, 9(6), 985-991.

104. Ramaswamy Bhuvaneswari, Patricia Thong, Gan Yik Yuen, **Malini Olivo**, Soo Khee Chee, "Combined use of anti-VEGF and anti-EGFR Monoclonal Antibodies with Photodynamic Therapy Suppresses Tumor Growth in an In vivo Tumor Model," **Journal of Cancer Science and Therapy**, 2013, 5(2), 100-105.

105. Dinish U.S, Douglas Goh, Chit-yaw Fu, Ramaswamy Bhuvaneswari, Winston Sun, **Malini Olivo**. "Optimized Synthesis of PEG-Encapsulated Gold Nanorods for Improved Stability and Its Application in OCT Imaging with Enhanced Contrast," **Plasmonics**, 2013, 8(2), 591-598.

2012

106. Kien Voon Kong, Zhiyong Lam, Wenda Douglas Goh, Weng Kee Leong, **Malini Olivo**. "Metal Carbonyl/Gold Nanoparticle Conjugates for Live-Cell SERS Imaging". **Angew Chem Int Ed Engl.** 2012, 51(39), 9796-9.

107. Xu XL, Wang JX, Jing GY, Shen ZX, Zou BS, Fan HM, **Olivo M**, "Amplified spontaneous emission from single CdS nanoribbon with low symmetric cross sections," **Nanoscale,** 2012, 4(18), 5665-72.

108. Kho KW, Dinish U. S, Anil Kumar and **Olivo M**, "Frequency shifts in SERS Bio-sensing," **ACS Nano.** 2012, 6(6), 4892-902.

109. Thong PS, Tandjung SS, Movania MM, Chiew WM, **Olivo M**, Bhuvaneswari R, Seah HS, Lin F, Qian K, Soo KC, "Toward real-time virtual biopsy of oral lesions using confocal laser endomicroscopy interfaced with embedded computing," **Journal of Biomedical Optics.** 2012, 17(5): 056009.

110. Douglas Goh, Tianxun Gong, US Dinish, Maiti KK, Fu CY, Yong KT and **Olivo Malini**, "Pluronic Triblock copolymer encapsulated gold Nanorods as Biocompatible localized plasmon resonance enhanced scattering probes for imaging of cancer cells," **Plasmonics,** 2012, 7(4), 595-601.

111. Deng S, Tjoa V, Fan HM, Tan HR, Sayle DC, **Olivo M,** Mhaisalkar SG, Wei J, Sow CH. Reduced Graphene Oxide Conjugated Cu2O Nanowire Mesocrystals for High Performance NO2 Gas Sensor. **J. Am Chem Soc.** 2012, 134(10), 4905-17.

112. Dinish U. S, Chit Yaw Fu, Kiat Seng Soh, Ramaswamy Bhuvaneswari, Anil Kumar, **Malini Olivo**, "Highly sensitive SERS detection of cancer proteins in low sample volume using hollowcore photonic crystal fiber", **Biosensors and Bioelectronics, 2012,** 33(1), 293-298.

113. **Malini Olivo**, C.Y. Fu, Vijaya Raghavan, and Weber Kam On Lau, "New Frontier in Hypericin-mediated Diagnosis of Cancer with Current Optical Technologies" (review article) **Annals of Biomedical Engineering,** 2012**,** 40(2), 460-73.

114. Maiti KK, Dinish U. S, Animesh S, Vendrell M, Soh KS, Park SJ, **Olivo M** and YT Chang. "Multiplex targeted in vivo cancer detection using sensitive near-infrared SERS nanotags," **NanoToday,** 2012, 7, 85-93.

115. C.Y. Fu, K.W. Kho, U.S. Dinish, Z.Y. Koh and **Malini Olivo**, "Enhancement in SERS intensity with hierarchical nanostructures by bimetallic deposition approach" **Journal of Raman Spectroscopy**, 2012, 43(8), 977-985.

116. Kho KW, Shen ZX, **Olivo MC**, "Generation of Ultra-Large SERS-active Hot-Spot Volumes by an array of 2D Nano-Superlenses", **Analytical Chemistry**, 2012, 84(2), 908-16.

117. Ravi Kumar K, Dinish. U. S., Chit Yaw Fu, Gopalkrishna Hegde, **Malini Olivo**, Anand Asundi. "Nano-Sphere Templated Metallic Grating Assisted enhanced Fluorescence". **J Fluorescence**, 2012, 22, 609–614.

118. **Malini Olivo,** Sasidharan Swarnalatha Lucky, Kent Mancer, Weber Kam On Lau. "Altered expression of cell adhesion molecules leads to differential uptake of hypericin in urothelial cancer". **Urologic Oncology: Seminars and Original Investigations,** 2012, 30(5):624-634.

2011

119. Samanta A, Maiti KK, Soh KS, Liao X, Vendrell M, Dinish US, Yun SW, Bhuvaneswari R, Kim H, Rautela S, Chung J, **Olivo M**, Chang YT. Ultrasensitive Near-Infrared Raman Reporters for SERS-based in vivo Cancer Imaging". **Angew Chem Int Ed Engl.** Jun 27;50(27) 2011.

120. **Olivo M,** Bhuvaneswari R, Keogh I. "Advances in bio-optical imaging for the diagnosis of early oral cancer". **Pharmaceutics** (Special issue: Molecular Imaging, review article) *3*(3), 354-378**, 2011.**

121. K.W. Kho, C.Y. Fu, U.S. Dinish and **Malini Olivo,** "Clinical SERS: Are we there yet?" Topical Issue — Review Clinical Biophotonics**, J. Biophotonics**. 2011 Oct; 4(10):667-84.

122. U.S. Dinish, C.Y. Fu, Agarwal Ajay and **Malini Olivo**, "Development of highly reproducible nanogap SERS substrates: Comparative performance analysis and its application for glucose sensing". **Biosensors and Bioelectronics,** Vol. 26, 2011, pp. 1987-1992.

123. Mohamed Ali-Seyed, Ramaswamy Bhuvaneswari, **Malini Olivo,** "Photolon™-Photosensitization induces apoptosis via ROS-mediated cross-talk between mitochondria and lysosomes". **International Journal of Oncology** 2011, 39(4), pp. 821-31, 2011.

124. **Waseem K Jerjes**, **Tahwinder Upile**, **Brian J Wong**, **Christian S Betz**, **Henricus J Sterenborg**, **Max J Witjes**, **Kristian Berg**, **Robert van Veen**, **Merrill A Biel**, **Adel K El-Naggar**, **Charles A Mosse**, **Malini Olivo**,**Rebecca Richards-Kortum**, **Dominic J Robinson**, **Jennifer Rosen**, **Arjun G Yodh**, **Catherine Kendall**, **Justus F Ilgner**, **Arjen Amelink**, **Vanderlei Bagnato**, **Hugh Barr**, **Lina Bolotine**, **Irving Bigio**, **Zhongping Chen**, **Lin-Ping Choo-Smith**, **Anil K D'Cruz**, **Ann Gillenwater**, **Andreas Leunig**, **Alexander J MacRobert**, **Gordon McKenzie "**The future of medical diagnostics: review paper" **Head & Neck Oncology** 2011 Aug 23;3:38. Doi: 10.1186/1758-3284-3-38.

125. Tahwinder Upile; Waseem Jerjes; Henricus Sterenborg; Brian Wong; Adel El-Naggar; Justus Ilgner; Ann Sandison; Max Witjes; Merrill Biel; Robert van Veen; Zaid Hamdoon; Ann Gillenwater; Charles Mosse; Dominic Robinson; Christian Betz; Herbert Stepp; Lina Bolotine; Gordon McKenzie; Hugh Barr; Zhongping Chen; Kristian Berg; Anil D'Cruz; Holger Sudhoff; Nicholas Stone; Catherine Kendall; Sheila Fisher; Alexander MacRobert; Andreas Leunig; **Olivo, Malini**; Rebecca Richards-Kortum; Khee Soo; Vanderlei Bagnato; Lin-Ping Choo-Smith; Katarina Svanberg; I Bing Tan; Brian Wilson; Herbert Wolfsen; Irving Bigio; Arjun Yodh; Colin Hopper**; "At the Frontiers of Surgery: Review;" Head & Neck Oncology 2011, 3:7.**

126. Ramaswamy Bhuvaneswari**,** Gan Yik Yuen**,** Soo Khee Chee, **Malini Olivo, "Anti-angiogenesis agents Avastin and Erbitux enhancethe efficacyof photodynamic therapy in a murine bladder tumor model". Lasers in Surgery and Medicine** Sep;43(7):651-62 2011.

127. **Kho KW**, Shen ZX, **Olivo MC**, "Sub-micron Free-standing Metal Slabs with Dielectric Nano-voids of Arbitrary Shapes Embedded beneath Atomically-Smooth Surface", **Optics Express** 2011, Vol. 19, Issue 11, pp. 10518-10535, 2011.

128. Kho KW, Shen ZX, **Olivo MC**, "Broadband High-resolution Imaging via a 2D Plasmonic Super-lens Constructed with an Embedded Oblate Nanocavity" highlighted in **Nature Photonics,** Vol. 5 page 194, April 2011.

129. Xiaojing Mu, Winston Sun, Hanhua Feng, Aibin Yu, Kelvin Wei Sheng Chen, Chit Yaw Fu, and **Malini Olivo**, "MEMS Micromirror Integrated Endoscopic Probe for Optical Coherence Tomography Bioimaging". **Sensors and Actuators A** Vol. 168, 2011, pp. 202-212.

130. Kiang Wei Kho, Shen ZeXiang, **Olivo Malini**. Hyper-spectral confocal nano-imaging with a 2D super-lens". **Optics Express**: 2011 Jan 31: 19(3) 2502-2518.

131. Kaustabh Kumar Maiti, Animesh Samanta, Marc Vendrell, Kiat-Seng Soh, **Malini Olivo** and Young-Tae Chang, "Multiplex cancer cell detection by SERS nanotags with cyanine and triphenylmethine Raman reporters". **Chemical Communications,** 2011, 47, 3514-3516.

132. PSP Thong, **M Olivo**, HS Seah, F Lin, K Qian, KC Soo, "Hypericin fluorescence imaging of oral cancer: From endoscopy to real-time 3-dimensional endomicroscopy", **Journal of Medical Imaging and Health Informatics,** Vol. 1, 1-5, 2011.

2010

133. Lee LS, Thong PS, **Olivo M,** Chin WW, Ramaswamy B, Kho KW, Lim PL, Lau WK. Chlorin e6-polyvinylpyrrolidone mediated photodynamic therapy-A potential bladder sparing option for high risk non-muscle invasive bladder cancer. **Photodiagnosis Photodyn Ther.** Dec; 7 (4) 213-220, 2010.

134. H. M. Fan, **Malini Olivo,** B. Shuter, R. Bhuvaneswari, J. B. Yi, H. R. Tan, G. C. Xing, CT Ng, L. Liu, S. S. Lucky, Bay BH**,** J. Ding. "Quantum. Dot Capped Magnetite Nanoring as high performance nanoprobe for Multiphoton Fluorescence and Magnetic Resonance Imaging"**. J Am Chem Soc.** 2010, 132(42), pp 14803-14811.

135. Maiti KK, Dinish US, Fu CY, Jae-Jun Lee, Soh Kiat Seng, Bhuvana Ramaswamy, **Olivo M*,** Chang YT***. "**Development of Biocompatible SERS Nanotag with Increased Stability by Chemisorption of Reporter Molecule for in vivo Cancer Detection. **Biosens Bioelectron.** 2010;26(2):398-403.

136. Vasudevan S, Chen GC, Andika M, Agarwal S, Chen P, **Olivo M**. Dynamic quantitative photothermal monitoring of cell death of individual human red blood cells upon glucose depletion. **Journal of Biomedical Optics**. 2010; 15(5):057001.

137. Hui Dong, Yandong Gong, **Malini Olivo**. "Measurement of stokes parameters of terahertz radiation in terahertz timedomain spectroscopy". **Microwave and Optical Technology Letters.** 52(10); 2319-24, 2010.

138. Chin WW, Thoniyot P, Heng PWS**, Olivo M**. "Effect of polyvinylpyrrolidone on the interaction of chlorin e6 with plasma proteins and its subcellular localization**.". Eur J Pharm Biopharm.** 2010 Oct; 76(2):245-52. Epub 2010 Jun 15.

139. Han W, Chuang KH, Chang YT, Olivo M, Velan SS, Bhakoo K, Townsend D, Radda GK. Imaging metabolic syndrome. **EMBO molecular medicine,** 2(6):196-210, 2010 Review**.**

140. Cho SJ, Ahn YH, Maiti KK, Dinish US, Fu CY, Thoniyot P, **Olivo M***, Chang YT* Combinatorial synthesis of a triphenylmethine library and their application in the development of surface enhanced Raman scattering (SERS) probes. **Chem Comm. (Camb).** 7;46(5):722-4, 2010.

141. Y Xu, M F Wang, C S Premachandran, K W S Chen, N Chen, **M Olivo**. Platinum microheater integrated silicon optical bench assembly for endoscopic optical coherence tomography. **J of Micromechanics and Microengineering,** 20 (015008): 1-8, 2010.

142. **Malini Olivo**, Ramaswamy Bhuvaneswari, Sasidharan Swarnalatha Lucky, Nagamani Dendukuri, Patricia Soo-Ping Thong. Targeted Therapy of Cancer using Photodynamic Therapy in Combination with Multi-faceted Anti-tumor Modalities. **Pharmaceuticals.** 3(5), 1507-1529, 2010.

143. Bhuvaneswari R, Thong PSP, Gan YY, Soo KC, **Olivo M.** "Evaluation of photodynamic therapy in combination with angiogenesis inhibitor bevacizumab using in vivo fluorescence confocal endomicroscopy". **J Biomed Opt.** 2010 Jan-Feb;15(1):011114.

2009

144. Hai-Ming Fan, Jia-Bao Yi, Yi Yang, Kiang-Wei Kho, Hui-Ru Tan, Ze-Xiang Shen, Jun Ding, Xiao-Wei Sun, Yuan-Ping Feng and **Malini Carolene Olivo**, Single-Crystalline Mfe_2O_4 Nanotubes/Nanorings Synthesized by Thermal Transformation Process for Biological Applications. ***ACS Nano* 3(9): 2798–2808, 2009.**

145. Dong H, Gong YD, Paulose V, Shum P, **Olivo M.** Optimum input states of polarization for Mueller matrix measurement in a system having finite polarization-dependent loss or gain. **Optics Express.** 17(25):23044-57, 2009.

146. Bhuvaneswari R, Gan YY, Soo KC, **Olivo M.** "Targeting EGFR with photodynamic therapy in combination with Erbitux enhances in vivo bladder tumor response. **Mol Cancer.** 8(1):94,2009.

147. **Malini Olivo,** Patricia S.P. Thong, William W.L. Chin, Ramaswamy Bhuvaneswari, Kent Mancer, Khee-Chee Soo. "Clinical application of fluorescence endoscopic imaging using hypericin for the diagnosis of human oral cavity lesions" **Br J Cancer.** 101(9): 1580-4,2009.

148. Feng Lin & **Malini Olivo**. "The State-of-the-art Technologies for Medical and Biological Imaging, Guest Editors' Comments" (review article). **J Sign Process Syst** 54:1–6, 2009.

149. H. Dong, YD Gong, Varghese Paulose, P Shum, **Malini Olivo**. "Effect of input states of polarization on the measurement error of Mueller matrix in a system having small polarization-dependent loss or gain." **Optics Express** 17(15): 13017-30, 2009.

150. C. S. Premachandran, Ahmad Khairyanto, Kelvin Chen Wei Sheng, Janak Singh, Jason Teo, Xu Yingshun, Chen Nanguang, Colin Sheppard, and **Malini Olivo**. "Design, fabrication, and assembly of an optical biosensor probe package for OCT (Optical Coherence Tomography) application." **IEEE Transaction on Advanced Packaging**, 32(2): 417-422, 2009.

151. Tahwinder Upile, Waseem Jerjes, Henricus JCM Sterenborg, Adel K El-Naggar, Ann Sandison, Max JH Witjes, Merrill A Biel, Irving Bigio, Brian JF Wong, Ann Gillenwater, Alexander J MacRobert, Dominic J Robinson, Christian S Betz, Herbert Stepp, Lina Bolotine, Gordon McKenzie, Charles Alexander Mosse, Hugh Barr, Zhongping Chen, Kristian Berg, Anil K D'Cruz, Nicholas Stone, Catherine Kendall, Sheila Fisher, Andreas Leunig, **Malini Olivo**, Rebecca Richards-Kortum, Khee Chee Soo, Vanderlei Bagnato, Lin-Ping Choo-Smith, Katarina Svanberg, I Bing Tan, Brian C Wilson, Herbert Wolfsen, Arjun G Yodh and Colin Hopper. Meeting Report — "Head

& neck optical diagnostics: vision of the future of surgery". **Head & Neck Oncology** 2009, 1:25.

152. Bhuvaneswari R, Gan YY, Soo KC and **Olivo M.**, "The effect of photodynamic therapy on tumor angiogenesis". **Cellular and Molecular Life Sciences**, 66(14): 2275-83, 2009.

153. James Chen Yong Kah, Tzu Hao Chow, Beng Koon Ng, Sirajudeen Gulam Razul, **Malini Olivo** and Colin James Richard Sheppard, "Concentration dependence of gold nanoshells on the enhancement of optical coherence tomography images: A quantitative study." **Applied Optics**. 1; 48(10): D96-D108, 2009.

154. Kah JC, **Olivo M,** Chow TH, Song KS, Koh KZ, Mhaisalkar S, Sheppard CJ. Control of optical contrast using gold nanoshells for optical coherence tomography imaging of mouse xenograft tumor model in vivo. **J Biomed Opt.** 2009 Sep-Oct;14(5):054015.

155. Liu J, Saw CL, **Olivo M,** Sudhaharan T, Ahmed S, Heng PW, Wohland T. Study of interaction of hypericin and its pharmaceutical preparation by fluorescence techniques. **J of Biomedical Optics, Vol 14 (1), p. 014003, 2009.**

156. Feng Lin, **Malini Olivo**, Sun-Yuan Kung Ed. **Biomedical Imaging**. Published by Springer US, **2009**

157. Chin WW, Thong PSP, Bhuvaneswari R, Soo KC, Heng PW, **Olivo M**. "In-vivo optical detection of cancer using clorin e6-polyvinylpyrrolidone induced fluorescence imaging and spectroscopy". **BMC Medical Imaging, 9(1):1, 2009.**

158. Lee Sing Cheong, Feng Lin, Hock Soon Seah, Kemao Qian, Feng Zhao, Patricia S. P. Thong, Khee Chee Soo, **Malini Olivo** and Sun-Yuan Kung. "Embedded Computing for Fluorescence Confocal Endomicroscopy Imaging." **Journal of Signal Processing Systems 55:217-228, 2009.**

2008

159. Y Xu, J Singh, C S Premachandran, A Khairyanto, KW S Chen, N Chen, C J R Sheppard and **Olivo M**, "Design and development of a 3D scanning MEMS OCT probe using a novel SiOB package assembly. **J of Micromechanics and Microengineering. 18(125005): 1-8, 2008**.

160. J Singh, J H S Teo, Y Xu, C S Premachandran, N Chen, R Kotlanka**, M Olivo** and C J R Sheppard. A two axes scanning SOI MEMS micromirror for endoscopic bioimaging. **J of Micromechanics and Microengineering.18(025001): 1-9, 2008.**

161. Kah JC, Wan RC, Wong KY, Mhaisalkar S, Sheppard CJ, **Olivo M.** "Combinatorial treatment of photothermal therapy using gold nanoshells with conventional photodynamic therapy to improve treatment efficacy: an in vitro study." **Lasers Surg Med. Oct; 40(8): 584-9, 2008.**

162. Kah JC, Wong KY, Neoh KG, Song JH, Fu JW, Mhaisalkar S, **Olivo M**, Sheppard CJ., "Critical parameters in the pegylation of gold nanoshells for biomedical applications: An in vitro macrophage study". **J Drug Target. 17(3): 181-93.**

163. Kho KW, Qing KZ, Shen ZX, Ahmad IB, Lim SS, Mhaisalkar S, White TJ, Watt F, Soo KC, **Olivo M,** "Polymer-based microfluidics with surface-enhanced Raman-spectroscopy-active periodic metal nanostructures for biofluid analysis", **J. of Biomedical Optics, 13(5):054026, Sep-Oct, 2008.**

164. James Chen Yong Kah, Weber Kam On Lau, Phuay Hoon Tan, Colin James Richard Sheppard, and Malini Olivo "Endoscopic image analysis of photosensitizer fluorescence as a promising noninvasive approach for pathological grading of bladder cancer in situ." **J. Biomed Opt. 13(5):054022, Sep-Oct, 2008.**

165. Kah JC, Phonthammachai N, Wan RCY, Song J, White T, Mhaisalkar S, Ahmad I, Sheppard C, **Olivo M.** "Synthesis of gold nanoshells using precursor seed particles prepared from a deposition-precipitation process." **Gold Bulletin, 41(1): 23-36, 2008.**

166. Napphawan Phonthammachai, James CY Kah, Guo Jun, Colin JR Sheppard, **Malini C Olivo**, Subhodh G Mhaisalkar, Timothy J White. "Synthesis of Contiguous Silica-Gold Core-Shell Structures: Critical parameters and processes." **Langmuir 24(9): 5109-5112, 2008.**

167. Ramaswamy Bhuvaneswari, Yik Yuen Gan, Sasidharan Swarnalatha Lucky, William Wei Lim Chin, Mohamed Ali-Seyed, Khee Chee Soo and **Malini Olivo**. "Molecular profiling of angiogenesis in hypericin mediated photodynamic therapy". **Molecular Cancer 7(1): 56, 2008**.

168. William Wei Lim Chin, Paul Wan Sia Heng, Pei Li Lim, Weber Kam On Lau, **Malini Olivo, "**Membrane transport enhancement of chlorin e6-polyvinylpyrrolidone and its photodynamic efficacy on the chick chorioallantoic model". **Journal of Biophotonics, 1(5): 395–407, 2008.**

169. Thong PS, **Olivo M,** Kho KW, Bhuvaneswari R, Chin WW, Ong KW, Soo KC, "Immune response against angiosarcoma following lower fluence rate clinical photodynamic therapy". **Journal of Enivronmental Pathology, Toxicology and Oncology. 27(1): 35-42, 2008.**

170. Saw CL, Heng PW, **Olivo M**., "Potentiation of the Photodynamic Action of Hypericin." **Journal of Environmental Pathology, Toxicology and Oncology, 27(1): 23-33, 2008.**

171. James KC, **Olivo MC**, Caroline Lee SG, Sheppard CJR. "Molecular contrast of EGFR expression using gold nanoparticles as a reflectance-based imaging probe." **Mol Cell Probes. 22(1): 14-23, 2008.**

172. William Wei Lim Chin, Paul Wan Sia Heng, Patricia Soo Ping Thong, Ramaswamy Bhuvaneswari, Werner Hirt, Sebastian Kuenzel, Khee Chee Soo, **Malini Olivo**. "Improved formulation of photosensitizer chlorin e6–polyvinylpyrrolidone for fluorescence diagnostic imaging and photodynamic therapy of human cancer." **Eur. J. Pharm. Biopharm. Aug;69(3):1083-93, 2008.**

2007

173. Saw CLL, **Olivo M**, Wohland T, Fu CY, Kho KW, Soo KC, Heng PWS**. "**Effects of N-Methyl Pyrrolidone on the Uptake of Hypericin in Human Bladder Carcinoma and Co-

staining with DAPI Investigated by Confocal Microscopy." **Technology in Cancer Research and Treatment. 6(5): 383-394, 2007.**

174. **Olivo M**. "New endoscopic technology to detect cancer. The latest confocal endomicroscopy allows early cancer diagnosis at high resolution." **Innovation 7(1): 27-28, 2007.**

175. William Wei Lim Chin, Paul Wan Sia Heng and **Malini Olivo**. "Chlorin e6 — polyvinylpyrrolidone mediated photosensitization is effective against human non-small cell lung carcinoma compared to small cell lung carcinoma xenografts." **BMC Pharmacology 7(1): 15, 2007.**

176. Fu CY, Ng BK, Razul SG, Chin WW, Lau WK, Tan PH, **Olivo M**. "Fluorescence Diagnosis of Bladder Cancer using Urine Cytology." **International Journal of Oncology 31(3): 525-530,2007.**

177. Ramaswamy Bhuvaneswari, Gan Yik-Yuen Yap, Karen Yee Kar Lye, **Malini Olivo**. "Effect of hypericin-mediated Photodynamic therapy on the expression of vascular endothelial growth factor (VEGF) in a human nasopharyngeal carcinoma." **International Journal of Molecular Medicine 20(4): 421-428, 2007**.

178. Ramaswamy Bhuvaneswari, Gan Yik-Yuen Yap, Soo Khee Chee and **Malini Olivo**. "Hypericin-mediated photodynamic therapy in combination with Avastin (Bevacizumab) improves tumor response by downregulating angiogenic proteins." **Photochem. Photobiol. Sci. 6(12): 1275-1283, 2007.**

179. Patricia SP Thong, **Olivo M**, Kho KW, Zheng W, Mancer K, Harris M and Soo KC. "Laser confocal endomicroscopy as a novel technique for fluorescence diagnostic imaging of the oral cavity." **J Biomedical Optics12(1): 014007, 2007.**

180. James Chen Yong Kah, Kiang Wei Kho, Caroline Guat Leng Lee, Collin James Richard Sheppard, Ze Xiang Shen, Khee Chee Soo, **Malini Carolene Olivo**. "Early Diagnosis of Oral Cancer based on the Surface Plasmon Resonance of Gold Nanoparticles." **International Journal of Nanomedicine 2(4): 785-798, 2007.**

181. K. W. Kho, Z. X. Shen, Z. Lei, F. Watt, K. C. Soo, **M. Olivo**, "Investigation into Surface Plasmon Related Heating Effect in Surface Enhanced Raman Spectroscopy", **Analytical Chemistry, 79(23): 8870-8882, 2007.**

182. Du HY, **Olivo M**, Mahendran R, Huang Q, Shen H-M, Ong C-N, Bay BH. "Hypericin photoactivation triggers downregulation of Matrix metalloproteinase-9 expression in well-differentiated human nasopharyngeal cancer cells." **Cellular and Molecular Life Sciences, 64(7-8): 979-988, 2007.**

183. **Olivo M** and Mohamed Ali-Seyed. "Apoptosis signaling mechanisms in human cancer cells induced by Calphostin – PDT." **Int J Oncol 30: 537-548, 2007.**

184. Kho KW, James CY Kah, Lee CGL, Sheppard CJR, Shen ZX, Soo KC and **Olivo M**. "Applications of gold nanoparticles in the early detection of oral cancer." **Journal of Mechanics in Medicine and Biology 7(1): 1-7, 2007.**

185. Patricia SP Thong, Kho KW, Zheng W, Mancer K, Harris M, Soo KC, **Olivo M**.

"Development of a laser confocal endomicroscope for in vivo fluorescence imaging." **Journal of Mechanics in Medicine and Biology 7(1): 1-7, 2007.**

186. Saw CL, **Olivo M**, Chin WW, Soo KC, Heng PW. "Superiority of N-methyl pyrrolidone over albumin with hypericin for fluorescence diagnosis of human bladder cancer cells implanted in the chick chorioallantoic membrane model." **J Photochem Photobiol B. 86(3): 207-18, 2007.**

187. Patricia Soo-Ping Thong, Kong-Wee Ong, Nicholas Seng-Geok Goh, Kiang-Wei Kho, Vanaja Manivasager, Bhuvaneswari Ramaswamy, **Malini Carolene Olivo**, Khee-Chee Soo. "Photodynamic Therapy-Activated Immune Response Against Distant Untreated Lesions In Recurrent Angiosarcoma." **Lancet Oncology 8(10): 950-952, 2007.**

2006

188. Du H Y, Li Y H, **Olivo M**, Yip WCG and Bay B H. "Differential up-regulation of metallothionein isoforms in well differentiated nasopharyngeal cancer cells in vitro by photoactivated hypericin." **Oncology Reports. 16(6): 1397-1402, 2006.**

189. Chin WW, Heng PW, Lau WK, Bhuvaneswari R and **Olivo M.** "The potential application of chlorin e6-PVP in photodynamic therapy." **Photochem. Photobiol. Sci. 5, 1031-1037, 2006.**

190. Li YH, Du HY, Bay BH and **Olivo M**. "St John's Wort: a Precious Gift from the Saints? "In: Tan BKH, editor. **Novel Compounds from Natural Products in the New Millennium Potential and Challenges. Pp. 290-301, 2006.**

191. **Olivo M**, "Cancer Diagnosis using the novel photosensitizer hypericin. In: Tan BKH, editor." **Novel Compounds from Natural Products in the New Millennium Potential and Challenges. World Scientific, pp 227-236, 2006.**

192. Saw LLC, **Olivo M**, Soo KC and Heng WSP. "Spectroscopic characterization and photobleaching kinetics of hypericin-N-methyl pyrrolidone." **Photochem. Photobiol. Sci. 5: 1018-1023, 2006.**

193. Saw LLC, **Olivo M**, Soo KC and Heng WSP. "Use of Hypericin in photodynamic applications." In: Govil, J. N. (Eds.) **Recent Progress in Medicinal Plants. World Scientific. Volume 20, Phytopharmacology and Therapeutic Values II. 2006, Pp. 249-275.**

194. Chin WWL, Lau WKO, Heng PWS, Ramaswamy B and **Olivo M**. "Chlorin e6-polyvinylpyrrolidone as a fluorescent marker for fluorescence diagnosis of human bladder cancer implanted on the chick chorioallantoic membrane model." **Cancer Lett. 245(1-2): 127-133, 2006.**

195. Saw LLC, **Olivo M**, Soo KC and Heng WSP. "Delivery of hypericin for photodynamic applications." **Cancer Lett. 241: 23-30, 2006.**

196. Pervaiz Shazib and **Olivo M**. "The Art and science of photodynamic therapy: A review." **Clin Exp Pharmacol Physiol. 33(5-6): 551-556, 2006.**

197. **Olivo M**, Hong-Yan Du, and Boon-Huat Bay. "Hypericin lights up the way for the

potential treatment of nasopharyngeal cancer by photodynamic therapy**." Curr Clin Pharmacol. 1: 217-222, 2006**

198. Chin WWL, Lau WKO, Heng PWS, Ramaswamy B and **Olivo M**. "Fluorescence imaging and phototoxicity effects of new formulation of chlorin e6-polyvinypyrrolidone." **J Photochem Photobiol B. 84(2): 103-110, 2006.**

199. Saw LLC, Heng WSP, Chin WLC, Soo KC and **Olivo M**. "Enhanced photodynamic activity of hypericin by penetration enhancer N-methyl pyrrolidone formulations in the chick chorioallantoic membrane model." **Cancer Lett 238(1); 104-110, 2006.**

200. Patricia Soo-Ping Thong, Frank Watt, Min Qin Ren, Puay Hoon Tan, Khee Chee Soo, **Malini Olivo**. Hypericin-photodynamic therapy (PDT) using an alternative treatment regime suitable for multi-fraction PDT. **J. Photochem. Photobiol. B. 82(1): 1-8, 2006**.

201. **Olivo M** and Chin WWL. "Perelynequinone in photodynamic: Cellular versus vascular response." **J Environ Pathol Toxicol Oncol. 25(1-2): 223-227, 2006**.

202. Du Hong Yan, Boon Huat Bay, Ratha Mahendran and **Malini Olivo**. "Hypericin mediated photodynamic therapy elicits differential interleukin–6 response in nasopharyngeal cancer". **Cancer Lett 235(2): 202-208, 2006.**

2005

203. Yee KKL, Soo KC and **Olivo M**. "Anti-angiogenic effect of Hypericin-photodynamic therapy in combination with Celebrex® in the treatment of human nasopharyngeal carcinoma." **Int J Mol Med Dec; 16(6): 993-1002, 2005.**

204. Du HY, **M Olivo**, YJ Chen, G Yip, PH Tan, Matsumoto K, Tsujimoto M and BH Bay. "Expression of Y-Box binding protein-1 following hypericin-mediated photodynamic therapy in well differentiated nasopharyngeal cancer in vivo." **Int J Mol Med. 16(5): 865-8, 2005.**

205. Saw CL, **Olivo M**, Chin WW, Soo KC, Heng PW. "Transport of hypericin across chick chorioallantoic membrane and photodynamic therapy vasculature assessment." **Biol Pharm Bull. 28(6): 1054-60, 2005.**

206. Ramaswamy B, Manivasager V, Chin WWL, Soo KC, **Olivo M**. **"**Photodynamic diagnosis of a human nasopharyngeal carcinoma xenograft model using the novel chlorin e6 photosensitizer Fotolon." **Int J Oncology, 26(6): 1501-1506, 2005.**

207. Sim HG, Lau WKO, **Olivo M**, Tan PH, Cheng CWS. "Is photodynamic diagnosis using hypericin better then white light cystoscopy for the detection of superficial bladder carcinoma?" **Br J Urology, 95 (9): 1215-1218, 2005.**

208. PSP Thong, F Watt, MQ Ren, KC Soo and **M Olivo**. "Investigating the role of calcium and biological trace elements in hypericin photodynamic therapy induced tumor cell death using nuclear microscopy". **Nuclear Instruments and Methods B 231: (1-4), 315-320, 2005.**

209. Zhou QY, **Olivo M**, Yee KKL, Moore SXL, Sharma A, Chowbay B. "Enhancing the therapeutic responsiveness of photodynamic therapy with the anti-angiogenic agents SU

5416 and SU 6668 in murine nasopharyngeal carcinoma models." **Cancer Chemother Pharmacol; 56(6): 569-577, 2005.**

210. Kho KW, Shen ZX, Zeng HC, Soo KC, **Olivo M**. "Deposition Method for Preparing SERS-Active Gold Nanoparticle Substrates." **Anal Chem 77(22): 7462-7471, 2005.**

2004

211. Du H, **Olivo M**, Mahendran R, Bay BH. "Modulation of Matrix metalloproteinase-1 in nasopharyngeal cancer cells by photoactivation of hypericin." **Int J Oncol; 24(3): 657-62, 2004.**

212. Zheng W, Harris M, Kho KW, Thong PS, Hibbs A, **Olivo M**, Soo KC. "Confocal endomicroscopic imaging of normal and neoplastic human tongue tissue using ALA-induced-PPIX fluorescence: a preliminary study." **Oncol Rep; 12(2): 397-401, 2004.**

213. Zheng W, **Olivo M**, Soo KC. "The use of digitized endoscopic imaging of 5-ALA-induced PPIX fluorescence to detect and diagnose oral premalignant and malignant lesions in vivo." **Int J Cancer; 110(2): 295-300, 2004.**

214. Du HY, Bay BH, **Olivo M**. "Modulation of Hypericin-Based Phototoxicity in Nasopharyngeal Cancer." In: Zhu YZ, editor. Novel Compounds from Natural Products in the New Millennium Potential and Challenges. Singapore: **World Scientific; p. 290-301, 2004.**

215. **Olivo M**, Wilson BC. "Mapping ALA-induced PPIX fluorescence in normal brain and brain tumour using confocal fluorescence microscopy." **Int J Oncol., 25(1): 37-45, 2004.**

216. **Olivo M**. "Cancer Diagnosis Using the Novel Photosensitizer, Hypericin." In: Tan BKH, editor. Novel Compounds from Natural Products in the New Millennium Potential and Challenges. Singapore**: World Scientific; p. 227-236, 2004.**

217. Tammilmani V, Yee KK, Heng PW, Soo KC, **Olivo M**. "An Evaluation of Exogenous Application of Protoporphyrin IX and its Dimethyl Ester as a Photodynamic Diagnostic Agent in Poorly Differentiated Human Nasopharyngeal Carcinoma paragraph sign." **Photochem Photobiol; 80(3): 595-601, 2004.**

218. Chin W, Lau W, Cheng C, **Olivo M**. "Evaluation of Hypocrellin B in a human bladder tumor model in experimental photodynamic therapy: Biodistribution, light dose and drug-light interval effects." **Int J Oncol; 25(3): 623-9, 2004.**

219. Chin W, Lau W, Lay SL, Wei KK, **Olivo M**. "Photodynamic-induced vascular damage of the chick chorioallantoic membrane model using perylenequinones." **Int J Oncol; 25(4):887-91, 2004.**

220. Du HY, **Olivo M**, Tan BK, Bay BH. "Photoactivation of hypericin down-regulates glutathione S-transferase activity in nasopharyngeal cancer cells." **Cancer Lett; 207(2): 175-81, 2004.**

2003

221. **Olivo M**, Lau W, Manivasager V, Tan PH, Soo KC, Cheng C. "Macro-microscopic

fluorescence of human bladder cancer using hypericin fluorescence cystoscopy and laser confocal microscopy." **Int J Cancer; 23(4): 983-90, 2003**.

222. **Olivo M**, Lau W, Manivasager V, Bhuvaneswari R, Wei Z, Soo KC, Cheng C, Tan PH. "Novel photodynamic diagnosis of bladder cancer: ex vivo fluorescence cytology using hypericin**." Int J Oncol.; 23(6): 1501-4, 2003.**

223. Zheng W, Lau W, Cheng C, Soo KC, **Olivo M**. Optimal excitation-emission wavelengths for autofluorescence diagnosis of bladder tumors. **Int J Cancer; 104(4): 477-81, 2003.**

224. Ali SM, **Olivo M**. "Mechanisms of action of phenanthroperylenequinones in photodynamic therapy (review)." **Int J Oncol; 22(6): 1181-91, 2003.**

225. Ali SM, **Olivo M**. "Nitric oxide mediated photo-induced cell death in human malignant cells." **Int J Cancer; 22(4): 751-6, 2003**.

226. Du HY, Bay BH, **Olivo M**. "Biodistribution and photodynamic therapy with hypericin in a human NPC murine tumor model." **Int J Oncol; 22(5): 1019-24, 2003.**

227. Du HY, **Olivo M**, Tan BK, Bay BH. "Hypericin-mediated photodynamic therapy induces lipid peroxidation and necrosis in nasopharyngeal cancer." **Int J Oncol; 23(5): 1401-5, 2003.**

228. Manivasager V, Heng PW, Hao J, Zheng W, Soo KC, **Olivo M**. "A study of 5-aminolevulinic acid and its methyl ester used in in vitro and in vivo systems of human bladder cancer." **Int J Cancer; 22(2): 313-8, 2003.**

229. **Olivo M**, Lau W, Manivasager V, Hoon TP, Christopher C. "Fluorescence confocal microscopy and image analysis of bladder cancer using 5-aminolevulinic acid." **Int J Oncol; 22(3): 523-8, 2003.**

2002

230. Zheng W, Soo KC, Sivanandan R**, Olivo M.** "Detection of squamous cell carcinomas and pre-cancerous lesions in the oral cavity by quantification of 5-aminolevulinic acid induced fluorescence endoscopic images." **Lasers Surg Med.;31(3):151-7, 2002.**

231. Ali SM, **Olivo M**. "Efficacy of hypocrellin pharmacokinetics in phototherapy." **Int J Oncol; 21(6): 1229-37, 2002.**

232. Ali SM, **Olivo M**. "Bio-distribution and subcellular localization of Hypericin and its role in PDT induced apoptosis in cancer cells." **Int J Oncol; 21(3): 531-40, 2002.**

233. Ali SM, Chee SK, Yuen GY, **Olivo M**. "Hypericin induced death receptor-mediated apoptosis in photoactivated tumor cells." **Int J Mol Med; 9(6): 601-16, 2002.**

234. Ali SM, Chee SK, Yuen GY, **Olivo M**. "Hypocrellins and Hypericin induced apoptosis in human tumor cells: a possible role of hydrogen peroxide." **Int J Mol Med; 9(5): 461-72, 2002.**

235. Ali SM, Chee SK, Yuen GY, **Olivo M**. "Photodynamic therapy induced Fas-mediated apoptosis in human carcinoma cells." **Int J Mol Med; 9(3): 257-70, 2002.**

236.Ali SM, **Olivo M**, Gan YY, Soo KC. "Apoptosis Induced by Photosensitizers (Perylquinone Derivatives) in Human Carcinoma Cells: A Possible Relevance to Photodynamic Therapy." **Asian Journal of Surgery; 25(1): 18-26, 2002.**

237.Du H, Bay BH, Mahendran R, **Olivo M**. "Endogenous expression of interleukin-8 and interleukin-10 in nasopharyngeal carcinoma cells and the effect of photodynamic therapy." **Int J Mol Med; 10(1): 73-6, 2002.**

2001

238.Ali SM, **Olivo M**, Yuen GY, Chee SK. "Induction of apoptosis by Hypericin through activation of caspase-3 in human carcinoma cells." **Int J Mol Med;8(5): 521-30, 2001.**

239.**A**li SM, **Olivo M**, Yuen GY, Chee SK. "Photodynamic-induced apoptosis of human nasopharyngeal carcinoma cells using Hypocrellins." **Int J Oncol; 19(3): 633-43, 2001.**

240.**Olivo M**, Soo KC. "Photodynamic therapy comes of age." **SGH Proceedings; 9(3): 197-201, 2001.**

241.Ali SM, Chee SK, Yuen GY, **Olivo M**. "Hypericin and hypocrellin induced apoptosis in human mucosal carcinoma cells." **J Photochem Photobiol B; 65(1): 59-73, 2001.**

1986 to 2000

242.Cheng CW, Lau WK, Tan PH, **Olivo M**. "Cystoscopic diagnosis of bladder cancer by intravesical instillation of 5-aminolevulinic acid induced porphyrin fluorescence—the Singapore experience." **Ann Acad Med Singapore; 29(2): 153-8, 2000.**

243.**Olivo M**, Ali SM, Soo K. "Photodynamic induced apoptosis of nasopharyngeal cells using novel photosensitizers Hypericin, Hypocrellin A and B." **Royal Australian and New Zealand Journal of Surgery; 70:123-156, 2000.**

244.Farrell TJ, Wilson BC, Patterson MS, **Olivo M** "Comparison of the in vivo photodynamic threshold dose for photofrin, mono- and tetrasulfonated aluminum phthalocyanine using a rat liver model." **Photochem Photobiol; 68(3): 394-9, 1998.**

245.Hebeda KM, Saarnak AE, **Olivo M**, Sterenborg HJ, Wolbers JG. 5-"Aminolevulinic acid induced endogenous porphyrin fluorescence in 9L and C6 brain tumours and in the normal rat brain." **Acta Neurochir (Wien); 140(5): 503-12; discussion 512-3, 1998.**

246.Wilson BC, **Olivo M**, Singh G. "Subcellular localization of Photofrin and aminolevulinic acid and photodynamic cross-resistance in vitro in radiation-induced fibrosarcoma cells sensitive or resistant to photofrin-mediated photodynamic therapy." **Photochem Photobiol; 65(1): 166-76, 1997.**

247.Lilge L, **Olivo MC**, Schatz SW, MaGuire JA, Patterson MS, Wilson BC. "The sensitivity of normal brain and intracranially implanted VX2 tumour to interstitial photodynamic therapy." **Br J Cancer; 73(3): 332-43, 1996**.

248.Farrell TJ, **Olivo M**, Schatz S, Patterson MS, Wilson BC. "Investigation of the dependence of tissue necrosis on irradiation wavelength and time post injection using a photodynamic threshold dose model". **In Photodynamic therapy and biomedical lasers eds. Spinnelli**

P, Dalfnate M and Marchesini R. 830-834, 1992.

249. **Olivo M**, Low KS, Looi LM, Tan BC. "Investigation of immediate photodynamic therapy for cancer treatment." **IRCS Medical Science; 17:31, 1989.**

250. **Olivo M,** Low KS, Baskaran G, Looi LM, Ng KH, Jayalakshmi P, Sam CK, Khor HT, Oo KC, Tan BC. "Photoradiation therapy of carcinogen induced murine tumors using a simple light source**." IRCS Medical Science; 14: 1097-1102, 1986.**

Patents

1. SERS-Based Analyte Detection. Kho Kiang Wei, Malini Olivo. SG 180989 granted on 15 Apr 2013; US 9689801 granted on 27 Jun 2017; ZL 2010 80089252.1 granted on 3 Feb 2016; EP 2516995 granted on 26 Oct 2016; Germany 60 2010 037 539.0 granted on 26 Oct 2016; UK 18-04-8791 granted on 26 Oct 2016.
2. Method for the detection of an analyte by surface enhanced Raman spectroscopy (SERS). Praveen Thoniyot, Nagamani Praveen, Malini Olivo. WO2011/053247A1 granted on 5 May 2011.
3. Placement tracking system for objects in deep tissue. Malini Olivo, Bi Renzhe, Ho Jun Hui, Du Yao. PCT/SG2020/050230
4. Apparatus and method for non-invasively measuring blood flow in a deep tissue. Malini Olivo, Bi Renzhe, Gurpreet Singh, Ho Jun Hui, Zhang Shuyan, Du Yao. PCT/SG2020/050157
5. Optical Fiber For Sensing An Analyte, Methods Of Forming And Using The Same. Dinish U.S., Malini Olivo, Georges Humbert, Flavien Beffara, Jean-Louis Auguste. PCT/SG2020/050197
6. Tunable and non-tunable bio-metalens based ultrathin (micron) intraocular lens (IOL) for in vivo implantation. Zhang Shuyan, Malini Olivo. 10201806995R
7. Implantable metasurfaces for high-resolution deep-tissue imaging through scattering media. Zhang Shuyan, Malini Olivo. 10201806996P
8. Lens for use in a human or animal body, production methods thereof. Zhang Shuyan, Malini Olivo, Bi Renzhe. SG 11202101578W; US 17/269,179
9. Method and system for in vivo detection of adipose tissue browning. Dinish U.S., Malini Olivo, Bi Renzhe, Kapil Dev. SG 11202003809U; US 2020/0367756 A1 published on 26 Nov 2020; EP 3737280 published on 18 Nov 2020
10. Method for Human Respiratory Rate Measurement Using Direct-Contact Optical Diffuse Reflectance. Malini Olivo, Gurpreet Singh, Bi Renzhe. SG 11201909365Y; US 16/612,722; EP 3 624 690 published on 25 Mar 2020; CN110650682A published on 3 Jan 2020; JP 2020-520265 published on 9 Jul 2020
11. Multi-functional optical spectroscopy system. Dinish U.S., Bi Renzhe, Chit Yaw Fu, Malini Olivo. PCT/SG2018/050164
12. Optical Probe, Raman Spectroscopy System, And Method Of Using The Same. SG 11201908423R; US 2020/0103276A1 published on 2 Apr 2020; EP 3 601 968 published on 5 Feb 2020
13. SERS Active Opto-fluidic Photonic Crystal Fiber (PCF) probe as biopsy needle. Dinish U.S., Malini Olivo, Georges Humbert. SG 11201911779T; US 2020/0205667 A1 published on 2 Jul 2020; EP 3 646 012 published 6 May 2020
14. Method and System for multi-Modal Imaging of Tissue. Chris Ho Jun Hui, Bi Renzhe, Wong Chi Lok Dave, Malini Olivo Yang Tao, Lu Zhongkang, Huang Weimin. SG 11201911883Y; US-2020-0205664-A1 published on 2 Jul 2020; EP 3 648 661 published on 13 May 2020
15. Differential Plasmonic Contrast Sensor. Wong Chi Lok, Malini Olivo. CN 109791106 A published on 21 May 2019; 11201900291W granted on 30 Jan 2020
16. Optical Sensing Device, Method of Manufacturing the Same, and Optical Sensing Method. Wong Chi Lok, Malini Olivo. US 10,690,595, B2 granted on 23 Jun 2020.
17. SERS microfluidics for detection of different biomarkers by multiplexing approach. Malini Olivo, Jayakumar Perumal, Ghayathri Balasundaram. EP 17 770 724.7 granted on 24 Feb 2021; SG 11201807124P; US 2020/0292538 A1 published on 17 Sep 2020

18. SERS based quantitative detection of ovarian cancer prognostic factor haptoglobin. WO 2017/146647 A1 published on 31 Aug 2017; US 16/078,273; SG 11201807073X; EP 17 756 930.8
19. Rapid SERS Monitoring of Lipid-Peroxidation-Derived Protein Modifications in Cells using Photonic Crystal Fiber Sensor. Tianxun Gong, Malini Olivo. WO 2017/131583 A1 published on 3 Aug 2017; CN 201780008826.4; EP 17 744 653.1; US 16/071,728; SG 10201913138T
20. High Nuclearity Metal Carbonyl Clusters as Near-IR Contrast Agents for In Vivo Photoacoustic Imaging. Malini Olivio, Leong Weng Kee, Lam Zhiyong. US 62/268,006
21. Single Molecule with Dual Functions: Biofunctionalized Nano-Construct for In Vivo Photoacoustic Imaging and SERS Biosensing. Liu Bin, Tang Ben Zhong, Malini Olivo, Dinish U.S., Song Zhegang. US 62/177,388
22. Portable colorimetric surface plasmon resonance (SPR) imaging sensor based on polarization orientation and the differential measurement scheme. Wong Chi Lok, Malini Olivo. WO 2015/065292 published on 7 May 2015; SG 11201603225Y; US 10107748 granted on 23 Oct 2018; EP 3066455
23. Multifunctional photosensitizer-based photoacoustic contrast agents for imaging and therapy. Malini Olivo, Ho Jun Hui Chris, Dinish U.S., Wong Chi Lok Dave, Ghayathri Balasundaram. US 10,398,315 granted on 3 Sep 2019; SG 10201804772U published on 30 Jul 2018; EP 3076860 granted on 24 Apr 2019
24. Novel Biodegradable Nanoparticle Tethered Platinum (II) for Photoacoustic Brain Vascular Imaging. Malini Olivo, Kien Voon Kong. WO 2015/088444 granted on 18 Jun 2015; EP 3079728 published on 19 Oct 2016; SG 11201603315V; US2016/0287727A1 published on 6 Oct 2016.
25. Method of Detecting Analytes Having a Thiol Function Group. Malini Olivo, Kong Kien Voon, Leong Weng Kee. SG 11201601584R; US2016/0223465A1 published on 4 Aug 2016
26. Photoacoustic Imaging Contrast Agent Composition. Malini Olivo, Kong Kien Voon, Leong Kee. EP 3043829 granted on 19 Dec 2018; SG 11201601628V; US2016/0220709A1 published on 4 Aug 2016
27. Method of Detecting Hydrogen Peroxide. Malini Olivo, Kong Kien Voon, Leong Weng Kee. WO 2015 038077 published on 19 Mar 2015
28. Spectroscopic device, method of detecting surface-enhanced Raman scattering (SERS) signal, and method for multiplex detection of a plurality of volatile organic compounds using surface-enhanced Raman scattering (SERS). Malini Olivo, Wong Chi Lok, Dinish U.S. PCT/SG2014/000392
29. Method For Detecting Analyte Using Surface Enhanced Raman Spectroscopy, Biosensor, And Method of Manufacturing Thereof. Malini Olivo, Leong Weng Kee, Kong Kien Voon. WO 2014/137291 A1 published on 12 Sep 2014
30. Surface Enhanced Raman Spectroscopy (SERS) Marker Conjugates and Methods of their preparation. CN 104507871 A published on 8 Apr 2015; EP2855360 A1 published on 8 Apr 2015; SG 11201406729T; US2015-0126388 published on 7 May 2015
31. Surface enhanced Raman spectroscopy (SERS) compounds and methods of their preparation. Chang Young-Tae, Kaustabh Kumar Maiti, Dinish U.S., Fu Chit Yaw, Malini Olivo, Soh Kiat Seng Jason, Yun Seong-Wook. US 90006458 granted on 14 Apr 2015

32. Multimodality Optical Imaging of Cancer Using Targeted, Drug Loaded Colloidal Gold Particles and their Application in Photodynamic and/or Photo Thermal Therapy of Cancer. Nagamani Praveen, Praveen Thoniyot, Malini Olivo. US 61/385,977
33. Substrate For Optical Sensing By Surface Enhanced Raman Spectroscopy (SERS) And Methods For Forming The Same. Praveen Thoniyot, Nagamani Praveen, Malini Olivo. PCT/SG2011/000288; SG 187921 granted on 31 Oct 2013; US 2013/0242297 A1 published on 19 Sep 2013
34. A Nanoprobe Comprising Gold Colloid Nanoparticles for Multimodality Optical Imaging of Cancer and Targeted Drug Delivery for Cancer. Nagamani Praveen, Praveen Thoniyot, Malini Olivo. WO2012/039685A1 published on 29 Mar 2012; SG 189034 granted on 20 May 2014; US2013/0315834A1 published on 28 Nov 2013
35. Photonic crystal fiber sensor. Dinish U.S., Fu Chit Yaw, Malini Olivo, Soh Kiat Seng Jason. WO2011/155901 published on 15 Dec 2011; ZL 201180028645.0 granted on 15 Jul 2015; EP11792753.3; SG 186121 granted on 25 Jul 2015; US 13/702,927
36. Development of photostable near-IR cyanine dyes for in vivo imaging. Chang Young-Tae, Animesh Samanta, Marc Vendrell, Kan Nam-Young, Maiti Kaustabh Kumar, Soh Kiat Seng Jason, Dinish U.S., Malini Olivo. US9201014B2 granted on 1 Dec 2015; EP2550338A1; SG 10201502220Q
37. Method for the detection of an analyte by surface enhanced Raman spectroscopy (SERS). Praveen Thoniyot, Nagamani Praveen, Malini Olivo. WO2011/053247A1 published on 5 May 2011.
38. SERS-Based Analyte Detection. Kho Kiang Wei, Malini Olivo. SG 180989 granted on 15 Apr 2013; US 9689801 granted on 27 Jun 2017; ZL 2010 80059252.1 granted on 3 Feb 2016; EP 2516995 granted on 26 Oct 2016; US 15/604,342