

Publications

1. K. Gupta, I. C. Ng, G. M. Balachander, B. P. Nguyen, L. Tucker-Kellogg, B. C. Low and H. Yu, "Bile canaliculi contract autonomously by releasing calcium into hepatocytes via mechanosensitive calcium channel", 259 (2020) 120283
2. Y. Zhang, R. De Mets, C. Monzel, V. Acharya, P. Toh, J. F. L. Chin, N. Van Hul, I. C. Ng, H. Yu, S. S. Ng, S. T. Rashid and V. Viasnoff, "Biomimetic niches reveal the minimal cues to trigger apical lumen formation in single hepatocytes", *Nature Materials*, 19 (2020) 1026-1035
3. Y. N. Gao, Z. H. Li, Y. Hong, T. T. Li, X. Y. Hu, L. Y. Sun, Z. C. Chen, Z. J. Chen, Z. H. Luo, X. Wang, J. Kong, G. L. Li, H. L. Wang, H. L. Leo, H. Yu, L. Xi and Q. Y. Guo, "Decellularized liver as a translucent ex vivo model for vascular embolization evaluation", *Biomaterials*, 240 (2020) 119855
4. F. Yu, Y. T. Goh, H. Li, B. C. Narmada, M. Ni, G. L. Xu, T. -M. Hsieh, Y. -C. Toh, C. Cheung, C. Iliescu and H. Yu, "A vascular-liver chip for sensitive detection of nutraceutical metabolites from human pluripotent stem cell derivatives", *Biomicrofluidics*, 14 (2020) 034108
5. G. Sun, Y. Teng, Z. Zhao, L. F. Cheow, H. Yu and C. -H. Chen, "Functional Stem Cell Sorting via Integrative Droplet Synchronization", *Analytical Chemistry*, 92 (2020) 7915-7923
6. F. Tasnim, N. H. Singh, E. K. F. Tan, J. Xing, H. Li, S. Hissette, S. Manesh, J. Fulwood, K. Gupta, C. W. Ng, S. Xu, J. Hill and H. Yu, "Tethered primary hepatocyte spheroids on polystyrene multi-well plates for high-throughput drug safety testing", *Scientific Reports*, 10 (2020) 4768
7. L. D. Low, L. Lu, C. Y. Chan, J. Chen, H. H. Yang, H. Yu, C. G. L. Lee, K. H. Ng and H. K. Yap, "IL-13-driven alterations in hepatic cholesterol handling contributes to hypercholesterolemia in a rat model of minimal change disease", *Clinical science*, 134 (2020) 225-237
8. X. Huang, F. Lee, Y. Teng, C. B. Lingam, Z. Chen, M. Sun, Z. Song, G. M. Balachander, H. L. Leo, Q. Guo, I. Shan and H. Yu, "Sequential Drug Delivery of Liver Diseases", *Advanced Drug Delivery Reviews*, 149-150 (2019) 72-84
9. Z. Liu, F. Tasnim, S. Ong, S. Shen, X. Z. Huang, E. L. S. Fong and H. Yu, "Cost-effective robust synthesis of methacrylic cellulosic sponge for organoid culture", *Cellulose*, (2019), 1-14
10. M. Ni, S. Zhuo, C. Iliescu, P. T. C. So, J. S. Mehta, H. Yu and C. A. E. Hauser, "Self-assembling amyloid-like peptides as exogenous second harmonic probes for bioimaging applications", *Journal of Biophotonics*, (2019) e201900065
11. V. R. Singh, Y. A. Yang, H. Yu, R. D. Kamm, Z. Yaqoob and P. T. C. So, "Studying nuclei and plasma membrane mechanics of eukaryotic cells using confocal reflectance interferometric microscopy", *Nature Communications*, 10 (2019) 3652
12. C. Y. Chua, A. Ananthanarayanan, J. J. Y. Ong, J. Y. Wong, A. Yip, N. H. Singh, Y. Qu, L. Demele, M. McMillian, R. Ubalee, S. Davidson, A. Tungtaeng, R. Imerbsin, K. Gupta, C. Andolina, F. Lee, K. S. -W. Tan, F. Nosten, B. Russell, A. Lange, T. T. Diagana, L. Renia, B. K. S. Yeung, H. Yu and P. Bifani, "Hepatic spheroids used as an in vitro model to study malaria relapse", *Biomaterials*, 2016 (2019) 119221
13. M. Sun, J. Y. Wong, B. Nugraha, A. Ananthanarayanan, Z. Liu, F. Lee, K. Gupta, E. L. S. Fong, X. Huang and Harry Yu, "Cleavable Cellulosic Sponge for Functional Hepatic Cell Culture and Retrieval", *Biomaterials*, 2019; DOI:10.1016/j.biomaterials.2019.01.046 201 (2019), 16-32
14. Tasnim, J. Xing, X. Huang, S. Mo, X. Wei, M.-H. Tan and Harry Yu, "Generation of Mature Kupffer Cells from Human Induced Pluripotent Stem Cells", *Biomaterials*, 192 (2019), 377-391

15. Yu, J. Wang, C. W. Ng, Y. Ma, S. Mo, L. S. E. Fong, J. Xing, Z. Song, Y. Xie, K. Si, A. Wee, R. E. Welsch, P. T. C. So and H. Yu, "Deep learning enhances automated scoring of liver fibrosis stages", *Scientific Reports*, 8 (2018) 16016
16. M. J. Caldez, N. V. Hul, H. W. L. Koh, X. Q. Teo, J. J. Fan, P. Y. Tan, M. R. Dewhurst, P. G. Too, S. Z. A. Talib, B. E. Chiang, T. Fuhrer, U. Sauer, W. Stunkel, H. Yu, P. Lee, H. Choi, M. Björklund, P. Kaldis, "Metabolic remodeling during liver regeneration", *Developmental Cell*, 47 [4] (2018) 425-438
17. Y. Yu, A. Ananthanarayanan N. H. Singh, X. Hong, R. Sakban, N. Mittal, X. Luo, J. Robens, L. Xia, M. McMillian and H. Yu, "TGF β 1-mediated suppression of Cytochrome P450(CYP) induction responses in rat hepatocyte-fibroblast co-cultures", *Toxicology In Vitro*, 50 (2018) 47-53
18. L. S. E. Fong, T. B. Toh, Q. X. X. Lin, Z. Liu, L. Hooi, M. Mohd Abdul Rashid, T. Benoukraf, E. K. H. Chow, T. H. Huynh and H. Yu, "Datasets describing the growth and molecular features of hepatocellular carcinoma patient-derived xenograft cells grown in a three-dimensional macroporous hydrogel", *Data in Brief*, 18 (2018) 594-606
19. X. Luo, K. Gupta, A. Ananthanarayanan, Z. Wang, L. Xia, A. Li, R. Sakban, S. Liu and H. Yu, "Directed Differentiation of Adult Liver Derived Mesenchymal Like Stem Cells into Functional Hepatocytes", *Scientific Reports*, 8 (2018) 2818
20. S. E. Fong, T. H. Huynh, T. Benoukraf, T. B. Toh, T.B., X. Lin, Z. J. Liu, L. Hooi, M. Mohd Abdul Rashid, E. K. H. Chow and H. Yu, "Generation of Matched Patient-Derived Xenograft In Vitro-In Vivo Models Using 3D Macroporous Hydrogels for the Study of Liver Cancer", *Biomaterials*, 159 (2018) 229-240
21. Wang, Y. -L. Cho, Y. Tang, J. Wang, J. -E. Park, Y. Wu, C. Wang, Y. Tong, R. Chawla, J. Zhang, Y. Shi, S. Deng, G. Lu, Y. Wu, H. W. -S. Tan, P. Pawijit, G. G. -Y. Lim, H. -Y. Chan, J. Zhang, L. Fang, H. Yu, Y. -C. Liou, M. Karthik, B. -H. Bay, K. -L. Lim, S. -K. Sze, C. T. Yap and H. -M. Shen, "PTEN-L is a novel protein phosphatase for ubiquitindependent phosphorylation to inhibit PINK1–Parkin-mediated mitophagy", *Cell Research*, 28 (2018) 787-802
22. Y. C. Toh, A. Raja, H. Yu and D. van Noort, "A 3D microfluidic model to recapitulate cancer cell migration and invasion", *Bioengineering*, 5 (2018), 29
23. J. Xing, Y. Cao, Y. Yu, H. Li, Z. Song and H. Yu, "In Vitro Micropatterned Human Pluripotent Stem Cell Test (?P-hPST) for Morphometric-Based Teratogen Screening," *Scientific Reports*, 7 (2017) 8491
24. Z. Song, K. Gupta, I. C. Ng, J. Xing, Y. A. Yang and H. Yu, "Mechanosensing in Liver Regeneration," *Seminars in Cell and Developmental Biology*, 71 (2017) 153-167
25. L. J. Y. Ong, L. H. Chong, L. Jin, P. K. Singh, P. S. Lee, H. Yu, A. Ananthanarayanan, H. L. Leo and Y.-C. Toh, "A Pump-Free Microfluidic 3D Perfusion Platform for the Efficient Differentiation of Human Hepatocyte-Like Cells," *Bioengineering & Biotechnology*, 114 (2017) 2360-2370
26. J. Yan, Y. Yu, J. W. Kang, Z. Y. Tam, S. Xu, L. S. E. Fong, S. P. Singh, Z. Song, L. Tucker-Kellogg, P.T. C. So and H. Yu, "Development of a Classification Model for Non-Alcoholic Steatohepatitis (NASH) Using Confocal Raman Micro-Spectroscopy," *Journal of Biophotonics*, 10 (2017) 1702-1713
27. L. S. E. Fong and H. Yu, "Organs-on-Chips: Filtration Enabled by Differentiation," *Nature Biomedical Engineering*, 1 (2017) 0074
28. Y. Fang, S. Zhuo, Y. Qu, D. Choudhury, Z. Wang, C. Iliescu and H. Yu, "On Chip Two-Photon Metabolic Imaging for Drug Toxicity Testing," *Biomicrofluidics*, 11 (2017) 034108
29. L. S. E. Fong, T. B. Toh, E. Chow and H. Yu, "3D Culture as a Clinically Relevant Model for Personalized Medicine," *SLAS Technology*, 22 (2017) 245-253
30. Y. R. Lou, T. C. Toh, Y. H Tee and H. Yu, "25-Hydroxyvitamin D3 Induces Osteogenic Differentiation of Human Mesenchymal Stem Cells," *Scientific Reports*, 7 (2017) 42816

31. Y. Choudhury, Y. C Toh, J. Xing, Y. Qu, J. Poh, L. Huan, H. S. Tan, R. Kanavesaran, H. Yu and M-H. Tan, "Patient-Specific Hepatocyte-Like Cells Derived from Induced Pluripotent Stem Cells Model Pazopanib-Mediated Hepatotoxicity," *Scientific Reports*, 7 (2017) 41238
32. H. Li, L. Venkatraman, B.C. Narmada, J. K. White, L. Tucker-Kellogg and H. Yu, "Computational modeling of bistable TGF- β 1 activation: the switch between two steady states is accompanied by a switch between positive and negative feedback", *BMC Systems Biology*, 11 [Suppl 7] (2017) 136
33. Fang, R. S. Deng, W. H. Tong, H. Li, C. W. Ng, A. Islam Badhan, C. Iliescu and H. Yu, "A Perfusion Incubator Liver Chip for 3D Cell Culture with Application on Chronic Hepatotoxicity Testing", *Scientific Reports*, 7 (2017) 14528.
34. K. Gupta, Q. Li, J. J. Fan, E. L. S. Fong, Z. Song, S. Mo, H. Tang, I. C. Ng, C. W. Ng, S. Zhuo, C. – Y. Dong, B. C. Low, A. Wee, Y. Y. Dan, P. Kanchanawong, P. So, V. Viasnoff and H. Yu, "Actomyosin Contractility Drives Bile Regurgitation as an Early Response During Obstructive Cholestasis", *Journal of Hepatology*, S0168-8278 [17] (2017) 30061-30062
35. B. C. Narmada, Y. T. Goh, H. Li, S. Sinha, H. Yu and C. Cheung, "Human stem cell-derived endothelial-hepatic platform for efficacy testing of vascular-protective metabolites from nutraceuticals", *Stem Cells Translational Medicine*, 6 [3] (2017) 851-863
36. M. Ni, S. Zhuo, P. T. C. So and H. Yu, "Fluorescent Probes for Nanoscopy: Four Categories and Multiple Possibilities", *Journal of Biophotonics*, 10 [1] (2017) 11-23
37. Z. Song, M. K. Shanmugam, H. Yu and G. Sethi, "Butein and Its Role in Chronic Diseases," *Advances in Experimental Medicine and Biology*, 928 (2016) 419-433
38. J. Domian, H. Yu, and N. Mittal, "On Materials for Cardiac Tissue Engineering," *Adv. Healthcare Mater.*, (2016) DOI: 10.1002/adhm.201600768 6 (2017), 1600768
39. Q. Li, Y. Zhang, P. Pluchon, J. Robens, K. Herr, M. Mercade, J.-P. Thiery, H. Yu, V. Viasnoff, "Extracellular Matrix Scaffolding Guides Lumen Elongation by Inducing Anisotropic Intercellular Mechanical Tension," *Nature Cell Biology*, 18 (2016) 311-318
40. L. Zhu, H. Xia, Z. Wang, L. S. E. Fong, J. Fan, W. H. Tong, Y. P. D. Seah, W. Zhang, Q. Li and H. Yu, "A vertical-flow Bioreactor Array Compacts Hepatocytes for Enhanced Polarity and Functions", *Lab on a Chip*, 16 [20] (2016) 3898-3908
41. L. S. E. Fong, D. A. Harrington, M. C. Farach-Carson and H. Yu, "Heralding a New Paradigm in 3D Tumor Modeling", *Biomaterials*, 108 (2016) 197-213
42. N. Mittal, F. Tasnim, Y. Cao, Y. Qu, D. Phan, Y. Choudhury, M. –H. Tan and H. Yu, "Substrate stiffness modulates the maturation of human pluripotent stem cell derived hepatocytes", *ACS Biomaterials Science & Engineering*, 2 [9] (2016) 1649-1657
43. W. L. Koh, P. H. Tham, H. Yu, H. L. Leo and J. C. Y. Kah, "Aggregation and Protein Corona on Gold Nanoparticles Affect Viability and Liver Functions of Primary Rat Hepatocytes", *Nanomedicine*, 11 [17] (2016) 2275-2287
44. C. Ng, P. Pawijit, L. Y. Teo, H. P. Li, S. Y. Lee and H. Yu, "Kinectin-dependent endoplasmic reticulum transport supports focal complex maturation for chemotaxis in shallow gradients", *Journal of Cell Science*, 129 [13] (2016) 2660-2672
45. F. Tasnim, Y. –C. Toh, Y. Qu, H. Li, D. Phan, B. C. Narmada, A. Anantharayanan, N. Mittal, R. Q. Meng and H. Yu, "Functionally enhanced human stem cell derived hepatocytes in galactosylated cellulosic sponges for hepatotoxicity testing", *Molecular Pharmaceutics*, 13 [6] (2016) 1947-1957
46. H. Li, H. Yang, X. Xue, X. Liu, F. Tian, Y. Poh, H. Cai, Y. H. Lee, H. Yu, S. P. Ong and B. Cai, "A Metabolomics Approach to Study the Dual Modulation by Characterization of Chemical Alteration during Processing of *Gardeniae Fructus* using UPLC-ESI-QTOF", *Analytical Methods*, 8 [17] (2016) 3629-3635
47. W. H. Tong, Y. Fang, J. Yan, X. Hong, N. H. Singh, S. R. Wang, B. Nugraha, L. Xia, E. L. S. Fong, C. Iliescu and H. Yu, "Constrained spheroids for prolonged hepatocyte culture", *Biomaterials*, 80 (2016) 106-120

48. L. Xia, X. Hong, R. B. Sakban, Y. Qu, N. H. Singh, M. McMillian, S. Dallas, J. Silva, C. Sensenhauser, S. Zhao, H. K. Lim and H. Yu, "Cytochrome P450 induction response in tethered spheroids as a three-dimensional human hepatocyte in vitro model", *Journal of Applied Toxicology*, 36 [2] (2016) 320-329
49. F. Tasnim, D. Phan, Y.-C. Toh, H. Yu, "Cost-Effective Differentiation of Hepatocyte-Like Cells from Human Pluripotent Stem Cells using Small Molecules," *Biomaterials*, 70 (2015) 115-125
50. Y.-C. Toh, J. Xing, H. Yu, "Modulation of Integrin and E-Cadherin-Mediated Adhesions to Spatially Control Heterogeneity in Human Pluripotent Stem Cell Differentiation," *Biomaterials*, 50 (2015) 87-97
51. J. Xing, Y.-C. Toh, S. Xu, H. Yu, "A Method for Human Teratogen Detection by Geometrically Confined Cell Differentiation and Migration," *Scientific Reports*, 5 (2015) 10038
52. S. Xu, C. H. Kang, X. Gou, Q. Peng, J. Yan, S. Zhuo, C. L. Cheng, Y. He, Y. Kang, W. Xia, P. T. C. So, R. Welsch, J. C. Rajapakse and H. Yu, "Quantification of liver fibrosis via second harmonic imaging of the Glisson's capsule from liver surface", *Journal of Biophotonics*, 9 [4] (2016) 351-363
53. W. H. Tong, Y. Fang, J. Yan, X. Hong, N. H. Singh, S. R. Wang, B. Nugraha, L. Xia, E. L. S. Fong, C. Iliescu and H. Yu, "Constrained spheroids for prolonged hepatocyte culture", *Biomaterials*, 80 (2016) 106-120
54. L. Xia, X. Hong, R. B. Sakban, Y. Qu, N. H. Singh, M. McMillian, S. Dallas, J. Silva, C. Sensenhauser, S. Zhao, H. K. Lim and H. Yu, "Cytochrome P450 induction response in tethered spheroids as a three-dimensional human hepatocyte in vitro model", *Journal of Applied Toxicology*, 36 [2] (2016) 320-329
55. W. J. Tan, J. Yan, S. Xu, A. A. Thike, B. H. Bay, H. Yu, M. -H. Tan and P. H. Tan, "Second harmonic generation microscopy is a novel technique for differential diagnosis of breast fibroepithelial lesions", *Journal of Clinical Pathology*, 68 [12] (2015) 1033-1035
56. H. Kathuria, J. S. Kochhar, M. H. M. Fong, M. Hashimoto, C. Iliescu, H. Yu and L. Kang, "Polymeric Microneedle Array Fabrication by Photolithography", *Journal of Visualized Experiments*, (2015) e52914
57. L. Qiu, H. Yu and F. Liang, "Multiple C2 domains transmembrane protein 1 is expressed in CNS neurons and possibly regulates cellular vesicle retrieval and oxidative stress", *Journal of Neurochemistry*, 135 [3] (2015) 492-507
58. M. Raja, S. Xu, S. Zhuo, D. C. S. Tai, W. Sun, P. T. C. So, R. E. Welsh, C. -S. Chen and H. Yu, "Differential Remodeling of Extracellular Matrices by Breast Cancer Initiating Cells", *Journal of Biophotonics*, 8 [10] (2015) 804-815
59. Iliescu, G. Xu, W. H. Tong, Y. Fang, C. M. Balan, G. Tresset and H. Yu, "Cell patterning using a dielectrophoretic-hydrodynamic trap", *Microfluidics and Nanofluidics*, 19 [2] (2015) 363-373
60. Z. Wang, X. Luo, C. Anene-Nzelu, Y. Yu, X. Hong, N. H. Singh, L. Xia, S. Liu and H. Yu, "HepaRG Culture in Tethered Spheroids as an in vitro Three-dimensional Model for Drug Safety Screening", *Journal of Applied Toxicology*, 35 [7] (2015) 909-917
61. Q. Peng, S. Zhuo, P. So and H. Yu, "Improving liver fibrosis diagnosis based on forward and backward second harmonic generation signals", *Applied Physics Letters*, 106 [8] (2015) 083701
62. J. Yan, Y. Kang, S. Xu, S. L. L. Ong, S. Zhuo, R. M. Bunte, N. Chen, H. H. Asada, P. So, I. R. Wanless and H. Yu, "In vivo label-free quantification of liver microcirculation using dual modality microscopy", *Journal of Biomedical Optics*, 19 [11] (2014) 116006
63. C. Iliescu, C. Marculescu, S. Venkataraman, B. Languille, H. Yu and G. Tresset, "On-Chip Controlled Surfactant-DNA Coil-Globule Transition by Rapid Solvent Exchange Using Hydrodynamic Flow Focusing", *Langmuir*, 30 [44] (2014) 13125-13136

64. L. Yin, D. Zheng, G. V. Limmon, N. H. N. Leung, S. Xu, J. C. Rajapakse, H. Yu, V. T. K. Chow and J. Chen, "Aging Exacerbates Damage and Delays Repair of Alveolar Epithelia following Influenza Viral Pneumonia", *Respiratory Research*, 15 [1] (2014) 116
65. S. K. Venkatesh, S. Xu, D. Tai, H. Yu and A. Wee, "Correlation of MR elastography with morphometric quantification of liver fibrosis (Fibro-C-Index) in chronic hepatitis B", *Magnetic Resonance in Medicine*, 72 [4] (2014) 1123-1129
66. S. Xu, Y. Wang, D. C. S. Tai, S. Wang, C. L. Cheng, Q. Peng, J. Yan, Y. Chen, J. Sun, X. Liang, Y. Zhu, J. C. Rajapakse, R. Welsch, P. T. C. So, A. Wee, J. Hou and H. Yu, "qFibrosis: A fully-quantitative innovative method incorporating histological features to facilitate accurate fibrosis scoring in animal model and chronic hepatitis B patients", *Journal of Hepatology*, 61 [2] (2014) 260-269
67. S. Zhuo, J. Yan, Y. Kang, S. Xu, Q. Peng, P. T. C. So and H. Yu, "In vivo, label-free, three-dimensional quantitative imaging of liver surface using multi-photon microscopy", *Applied Physics Letters*, 105 [2] (2014) 023701
68. Ananthanarayanan, B. Nugraha, M. Triyatni, S. Hart, S. Sankuratri and H. Yu, "Scalable spheroid model of human hepatocytes for hepatitis C infection and replication", *Molecular Pharmaceutics*, 11 [7] (2014) 2106-2114
69. J. W. Cha, V. R. Singh, K. H. Kim, J. Subramanian, Q. Peng, H. Yu, E. Nedivi and P. T. C. So, "Reassignment of Scattered Emission Photons in Multifocal Multiphoton Microscopy", *Scientific Reports*, 4 (2014) 5153
70. J. Wang, L. Tucker-Kellogg, I. C. Ng, R. Jia, P. S. Thiagarajan, J. K. White and H. Yu, "The Self-Limiting Dynamics of TGF- β Signaling In Silico and In Vitro, with Negative Feedback through PPM1A Upregulation", *PLoS Computational Biology*, 10 [6] (2014) e1003573
71. S. G. Stanciu, S. Xu, Q. Peng, J. Yan, G. A. Stanciu, R. E. Welsch, P. T. C. So, G. Csucs and H. Yu, "Experimenting Liver Fibrosis Diagnostic by Two Photon Excitation Microscopy and Bag-of-Features Image Classification", *Scientific Reports*, 4 (2014) 4636
72. D. P. Poenar, C. Iliescu, J. Boulaire and H. Yu, "Label-Free Virus Identification and Characterization Using Electrochemical Impedance Spectroscopy", *Electrophoresis*, 35 (2013) 433-440 DOI: 10.1002/elps.201300368
73. B. C. Narmada, Y. Kang, L. Venkatraman, Q. Peng, R. B. Sakban, B. Nugraha, X. Jiang, R. M. Bunte, P. T. C. So, L. Tucker-Kellogg, H.-Q. Mao and H. Yu, "HSC-Targeted Delivery of HGF Transgene via Bile Duct Infusion Enhances Its Expression at Fibrotic Foci to Regress DMN-Induced Liver Fibrosis," *Human Gene Therapy*, 24 [5] (2013) 508-519 DOI: 10.1089/hum.2012.158
74. Y. Li, D. Ho, H. Meng, T. R. Chan, B. An, H. Yu, B. Brodsky, A. Jun and M. Yu, "Direct Detection of Collagenous Proteins by Fluorescently Labeled Collagen Mimetic Peptides," *Bioconjugate Chemistry*, 24 (2013) 9-16
75. L. Yin, S. Xu, J. Chen, D. Zheng, G. V. Limmon, N. H. N. Leung, J. C. Rajapakse, V. T. K. Chow, J. Chen and H. Yu, "Spatiotemporal Quantification of Cell Dynamics in the Lung Following Influenza Virus Infection," *Journal of Biomedical Optics*, 18 (2013) 046001
76. C. G. Anene-Nzelu, D. Choudhury, H. Li, A. Fraiszudeen, K. Y. Peh, Y.-C. Toh, S. H. Ng, H. L. Leo and H. Yu, "Scalable Cell Alignment on Optical Media Substrates," *Biomaterials*, 34 (2013) 5078-5087
77. C. G. Anene-Nzelu, K. Y. Peh, A. Fraiszudeen, Y. H. Kuan, S. H. Ng, Y. C. Toh, H. L. Leo and H. Yu, "Scalable Alignment of Three-Dimensional Cellular Constructs in a Microfluidic Chip," *Lab Chip*, 13 (2013) 4124
78. B. C. Narmada, S. M. Chia, L. Tucker-Kellogg and H. Yu, "HGF Regulates the Activation of TGF- β 1 in Rat Hepatocytes and Hepatic Stellate Cells," *Journal of Cellular Physiology*, 228 (2013) 393-401

79. Y. Wang, Y. C. Toh, Q. Li, B. Nugraha, B. Zheng, T. B. Lu, Y. Gao, M. M. L. Ng and H. Yu, "Mechanical Compaction Directly Modulates the Dynamics of Bile Canaliculi Formation," *Integrative Biology*, (2012) DOI: 10.1039/c2ib20229h
80. D. Zheng, G. Limmon, L. Yin, V. T. K. Chow, H. Yu and J. Chen, "Regeneration of Alveolar Type I and II Cells from Scgb1a1-Expressing Cells Following Severe Pulmonary Damage Induced by Bleomycin and Influenza," *PLoS One*, 7 (2012) e48451
81. L. Venkatraman, S. M. Chia, B. C. Narmada, J. White, S. S. Bhowmick, C. F. Dewey, Jr., P. T. Soh, L. Tucker-Kellogg and H. Yu, "Plasmin Triggers a Switch-Like Decrease in Thrombospondin-Dependent Activation of TGF- β 1," *Biophysical Journal*, 103 (2012) 1060-1068
82. X. Wang, R. Magalhães, Y. Wu, F. Wen, S. S. Gouk, P. F. Watson, H. Yu and L. L. Kuleshova, "Development of a Modified Vitrification Strategy Suitable for Subsequent Scale-Up for Hepatocyte Preservation," *Cryobiology*, 65 (2012) 289-300
83. T. Huang, J. Wang, Y. D. Cai, H. Yu and K. C. Chou, "Hepatitis C Virus Network Based Classification of Hepatocellular Cirrhosis and Carcinoma," *PLoS ONE*, 7 (2012) e34460
84. L. Xia, T. Arooz, S. Zhang, X. Tuo, G. Xiao, T. A. K. Susanto, J. Sundararajan, T. Cheng, Y. Kang, H. J. Poh, H. L. Leo, H. Yu, "Hepatocyte Function Within A Stacked Double Sandwich Culture Plate Cylindrical Bioreactor Bioartificial Liver System," *Biomaterials*, 33 (2012) 7925-7932
85. D. Choudhury, D. van Noort, C. Iliescu, B. Zheng, K. L. Poon, S. Korzh, V. Korzh, H. Yu, "Fish and Chips: A Microfluidic Perfusion Platform for Monitoring Zebrafish Development," *Lab on a Chip*, 12 (2012) 892-900
86. L. Xia, R. Binte Sakban, Y. Qu, X. Hong, W. Zhang, B. Nugraha, W. H. Tong, A. Ananthanarayanan, B. Zheng, I. Y.-Y. Chau, R. Jia, M. McMillian, J. Silva, S. Dallas, H. Yu, "Tethered Spheroids as an In Vitro Hepatocyte Model for Drug Safety Screening," *Biomaterials*, (2011) DOI:10.1016/j.biomaterials.2011.12.006
87. B. Nugraha, X. Hong, X. Mo, L. Tan, W. Zhang, P.-M. Chan, C. H. Kang, Y. Wang, L. T. Beng, W. Sun, D. Choudhury, J. M. Robens, M. McMillian, J. Silva, S. Dallas, C.-H. Tan, Z. Yue, H. Yu, "Galactosylated Cellulosic Sponge for Multi-Well Drug Safety Testing," *Biomaterials*, (2011) DOI:10.1016/j.biomaterials.2011.05.087
88. D. Choudhury, X. Mo, C. Iliescu, L. L. Tan, W. H. Tong, and H. Yu, "Exploitation of Physical and Chemical Constraints for Three-Dimensional Microtissue Construction in Microfluidics," *Biomicrofluidics*, (2011) DOI: 10.1063/1.3593407
89. Ananthanarayanan, B. C. Narmada, X. Mo, M. McMillian and H. Yu, "Purpose-Driven Biomaterials Research in Liver Tissue Engineering," *Trends in Biotechnology*, 29 (2011) 110-118
90. M. Raja, S. Xu, W. Sun, J. Zhou, D. C. S. Tai, C. S. Chen, J. C. Rajapakse, P. T. C. So and H. Yu, "Pulse-Modulated Second Harmonic Imaging Microscope Imaging Quantitatively Demonstrates Marked Increase of Collagen in Tumor After Chemotherapy," *Journal of Biomedical Optics*, 15 [5] (2010) 056016
91. X. Mo, Q. Li, L. W. Y. Lui, B. Zheng, C. H. Kang, B. Nugraha, Z. Yue, R. R. Jia, H. X. Fu, D. Choudhury, T. Arooz, J. Yan, C. T. Lim, S. Shen, C. H. Tan and H. Yu, "Rapid Construction of Mechanically-Confined Multi-Cellular Structures Using Dendrimeric Intercellular Linker," *Biomaterials*, 31 [29] (2010) 7455-7467
92. X. Zhang, Y. H. Tee, J. K. Heng, Y. Zhu, X. Hu, F. Margadant, C. Ballestrem, A. Bershadsky, G. Griffiths and H. Yu, "Kinectin-Mediated Endoplasmic Reticulum Dynamics Supports Focal Adhesion Growth in the Cellular Lamella," *Journal of Cell Science*, 123 [22] (2010) 3901-3912
93. Y. He, C. H. Kang, S. Xu, X. Tuo, S. L. Trasti, D. C. S. Tai, A. M. Raja, Q. Peng, P. T. C. So, J. C. Rajapakse, R. Welsch and H. Yu, "Towards Surface Quantification of Liver Fibrosis Progression," *Journal of Biomedical Optics*, 15 [5] (2010) 056007

94. Z. Yue, F. Wen, S. Gao, M. Y. Ang, P. K. Pallathadka, L. Liu and H. Yu, "Preparation of Three-Dimensional Interconnected Macroporous Cellulosic Hydrogels for Soft Tissue Engineering," *Biomaterials*, 31 [32] (2010) 8141-8152
95. R. Magalhaes, P. R. Anil Kumar, F. Wen, X. Zhao, H. Yu and L. L. Kuleshova, "The Use of Vitrification to Preserve Primary Rat Hepatocyte Monolayer on Collagen-Coated Poly(ethylene-terephthalate) Surfaces for a Hybrid Liver Support System," *Biomaterials*, 30 [25] (2009) 4136-4142
96. Y.-C. Toh, T. C. Lim, D. Tai, G. Xiao, D. van Noort and H. Yu, "A Microfluidic 3D Hepatocyte Chip for Drug Toxicity Testing," *Lab on a Chip*, 9 [14] (2009) 2026-2035
97. D. Tai, N. Tan, S. Y. Xu, C. H. Kang, S. M. Chia, C. L. Cheng, A. Wee, L. W. Chiang, A. M. Raja, G. F. Xiao, J. C. Rajapakse, P. So and H. Yu, "Fibro-C-Index - A Comprehensive, Morphology-based Quantification of Liver Fibrosis Using Second Harmonic Generation and Two-Photon Microscopy," *Journal of Biomedical Optics*, 14 [4] (2009) 044013/1-10
98. L. Xia, S. Ng, R. Han, X. Tuo, H. L. Leo and H. Yu, "Laminar-Flow Immediate-Overlay Hepatocyte Sandwich Perfusion System for Drug Hepatotoxicity Testing," *Biomaterials*, 30 [30] (2009) 5927-5936
99. Zhang, S. M. Chia, S. M. Ong, S. Zhang, Y. C. Toh, D. van Noort and H. Yu, "The Controlled Presentation of TGF- β 1 to Hepatocytes in a 3D Microfluidic Cell Culture System," *Biomaterials*, 30 (2009) 3847-3853
100. X. Pan, X. Shi, V. Korzh, H. Yu and T. Wohland, "Line Scan Fluorescence Correlation Spectroscopy for 3D Microfluidic Flow Velocity Measurements," *Journal of Biomedical Optics*, 14 [2] (2009) 024049
101. Zhang, D. Zhao, N. A. Abdul Rahim, D. van Noort and H. Yu, "Towards a Human-on-Chip: Culturing Multiple Cell Types on a Chip with Compartmentalized Microenvironments," *Lab on a Chip*, 9 [22] (2009) 3185-3192h
102. S. M. Ong, Z. Zhao, T. Arooz, D. Zhao, S. Zhang, T. Du, M. Wasser, D. van Noort and H. Yu, "Engineering a Scaffold-Free 3D In Vitro Tumor Model for In Vitro Drug Penetration Studies," *Biomaterials*, (2009) DOI: 10.1016/j.biomaterials.2009.10.049
103. P. Liu, Y. W. Zang, H. Yu, X. Zhang, Q. H. Cheng, C. Lu and W. Bonfield, "Spreading of an Anchorage-Dependent Cell on a Selectively Ligand-Coated Substrate Mediated by Receptor-Ligand Binding," *Journal of Biomedical Materials Research Part A*, 91 [3] (2009) 806-813
104. M. Ni, W.H. Tong, D. Choudhury, C. Iliescu and H. Yu, "Cell Culture on MEMS Platforms: A Review," *International Journal of Molecular Sciences*, 10 (2009) 5411-5441
105. J. Zhou, C. Bi, J. Janakaumara, S. C. Liu, W. J. Chng, K. G. Tay, L. F. Poon, Z. Xie, P. Senthilnathan, H. Yu, K. B. Glaser, D. Albert, S. Davidsen, C. S. Chen, "Enhanced activation of STAT pathways and overexpression of survivin confer resistance to FLT3 inhibitors and could be therapeutic targets in AML," *Blod* (2009) in press Epub: 14 January 2009
106. van Noort, S. M. Ong, C. Zhang, S. Zhang, T. Arooz, H. Yu, "Stem cells in microfluidics," *Biotechnology Progress*, 25[1] (2009) 52-60
107. W. X. Sun, S. Chang, D. C. S. Tai, N. Tan, G. Xiao, H. H. Tang, H. Yu, "Non-linear optical microscopy: use of second harmonic generation and two-photon microscopy for automated quantitative liver fibrosis studies," *Journal of Biomedical Optics*, 13[6] (2008) 064010
108. S. Zhang, L. Xia, C. H. Kang, G. Xiao, S. M. Ong, Y. C. Toh, H. L. Leo, D. van Noort, S. H. Kan, H. H. Tang, H. Yu, "Microfabricated silicon nitride membranes for hepatocyte sandwich culture," *Biomaterials*, 29[29] (2008) 3993-4002
109. Zhao, S. M. Ong, Z. Yue, Z. Jiang, Y. C. Toh, M. Khan, J. Shi, C. H. Tan, J. P. Chen, H. Yu, "Dendrimer Hydrazides as Multivalent Transient Inter Cellular Linkers," *Biomaterials*, 29[27] (2008) 3693-3702

110. Z. C. Chen, A. K. Ekaputra, K. Gauthaman, P. G. Adaikan, H. Yu, D. W. Hutmacher, "In vitro and in vivo analysis of co-electrospun scaffolds made of medical grade poly(epsilon-caprolactone) and porcine collagen," *Journal of Biomaterials Science. Polymer edition*, 19[5] (2008) 693-707
111. S. M. Ong, C. Zhang, Y. C. Toh, S. H. Kim, H. L. Foo, C. H. Tan, D. van Noort, S. Park, H. Yu, "A gel-free 3D microfluidic cell culture system," *Biomaterials*, 29[22] (2008) 3237-3244
112. Y. C. Toh, J. Z. Zhang, Y. M. Khong, Y. Du, W. Sun, H. Yu, "Integrating sensitive quantification of hepatic metabolic functions by capillary electrophoresis with laser-induced fluorescence detection," *The Analyst*, 133[3] (2008) 326-330
113. Wen, S. Chang, Y. C. Toh, T. Arooz, L. Zhuo, S. H. Teoh, H. Yu, "Development of dual-compartment perfusion bioreactor for serial coculture of hepatocytes and stellate cells in poly (lactic-co-glycolic acid)-collagen scaffolds," *Journal of Biomedical Materials Research Part B: Applied Biomaterials*, 87[1] (2008) 154-162
114. J. Zhou, J. Khng, V. J. Jasinghe, C. Bi, C. H. Neo, M. Pan, L. F. Poon, Z. Xie, H. Yu, A. E. Yeoh, Y. Lu, K. B. Glaser, D. H. Albert, S. K. Davidsen, C. S. Chen, "In vivo activity of ABT-869, a multi-target kinase inhibitor, against acute myeloid leukemia with wild-type FLT3 receptor," *Leukemia Research*, 32[7] (2008) 1091-1100
115. Y. Du, R. Han, F. Wen, S.S.S. Ng, L. Xia, T. Wohland, H.L. Leo, H. Yu, "Synthetic Sandwich culture of 3D Hepatocyte Monolayer," *Biomaterials*, 29[3] (2008) 290-301
116. Y. Du, R. Han, S. Ng, J. Ni, W. Sun, T. Wohland, S. H. Ong, L. Kuleshova, H. Yu, "Identification and Characterization of a Novel Prespheroid 3-Dimensional Hepatocyte Monolayer on Galactosylated Substratum," *Tissue Engineering*, 13[7] (2007) 1455-1468
117. Y. M. Khong, J. Zhang, S. Zhou, C. Cheung, K. Doberstein, V. Samper, H. Yu, "Novel Intra-Tissue Perfusion System for Culturing Thick Liver Tissue," *Tissue Engineering*, 13[9] (2007) 2345-2356
118. S. M. Ong, L. He, N. T. T. Linh, Y. H. Tee, T. Arooz, G. Tang, C. H. Tan, H. Yu, "Transient Inter-Cellular Polymeric Linker," *Biomaterials*, 28[25] (2007) 3656-3667
119. X. Pan, W. Foo, W. Lim, M.H. Fok, P. Liu, H. Yu, I. Maruyama, T. Wohland, "Multifunctional fluorescence correlation microscope for intracellular and microfluidic measurements," *Review of Scientific Instruments*, 78[5] (2007) 053711
120. L. Kim, Y. C. Toh, J. Voldman, H. Yu, "A practical guide to microfluidic perfusion culture of adherent mammalian cells," *Lab on a Chip*, 7 (2007) 681-694
121. X. Pan, H. Yu, X. Shi, V. Korzh, T. Wohland, "Characterization of flow direction in microchannels and zebrafish blood vessels by scanning fluorescence correlation spectroscopy," *Journal of Biomedical Optics*, 12[1] (2007) 014034
122. Y. Wu, H. Yu, S. Chang, R. Magalhães, L. L. Kuleshova, "Vitreous cryopreservation of cell-biomaterial constructs involving encapsulated hepatocytes," *Tissue Engineering*, 13[3] (2007) 649-658
123. Y.C. Toh, C. Zhang, J. Zhang, Y. M. Khong, S. Chang, V. D. Samper, D. van Noort, D. W. Hutmacher, H. Yu, "A novel 3D mammalian cell perfusion-culture system in microfluidic channels," *Lab on a Chip*, 7[3] (2007) 302-309
124. K. Schumacher, Y. M. Khong, S. Chang, J. Ni, W. Sun, H. Yu, "Perfusion culture improves the maintenance of cultured liver tissue slices," *Tissue Engineering*, 13[1] (2007) 197-205
125. L. Foo, A. Taniguchi, H. Yu, T. Okano, S. H. Teoh, "Catalytic surface modification of roll-milled poly(?-caprolactone) biaxially stretched to ultra-thin dimension," *Materials Science and Engineering: C*, 27[2] (2007) 299-303
126. F. Wen, S. Chang, Y. C. Toh, S. H. Teoh, H. Yu, "Development of poly (lactic-co-glycolic acid)-collagen scaffolds for tissue engineering," *Materials Science and Engineering: C*, 27[2] (2007) 285-292

127. X. Pan, C. Aw, Y. Du, H. Yu, T. Wohland, (2006) "Characterization of poly(acrylic acid) diffusion dynamics on the grafted surface of poly(ethylene terephthalate) films by fluorescence correlation spectroscopy," *Biophysical Review and Letters*, 1[4] (2006) 433-441
128. L. L. Ong, P. C. Lin, X. Zhang, S. M. Chia, H. Yu, "Kinectin-dependent assembly of translation elongation factor-1 complex on endoplasmic reticulum regulates protein synthesis," *Journal of Biological Chemistry*, 281[44] (2006) 33621-33634
129. Y.C. Toh, S. Ng, Y. M. Khong, X. Zhang, Y. Zhu, P.C. Lin, C. M. Te, W. Sun, H. Yu, "Cellular responses to a nanofibrous environment," *Nano Today*, 1[3] (2006) 34-43
130. S. Ng, R. Han, S. Chang, J. Ni, W. Hunziker, A. B. Goryachev, S. H. Ong, H. Yu, "Improved hepatocyte excretory function by immediate presentation of polarity cues," *Tissue Engineering*, 12[8] (2006) 2181-2191
131. S. C. Wong, H. Yu, J. B. So, "Detection of telomerase activity in gastric lavage fluid: a novel method to detect gastric cancer," *Journal of Surgical Research*, 131[2] (2006) 252-255
132. Y. Du, S. M. Chia, R. Han, S. Chang, H. Tang, H. Yu, "3D Hepatocyte monolayer on hybrid RGD/Galactose substratum," *Biomaterials*, 27[33] (2006) 5669-5680
133. P. C. Lin, P. C. Cheng, H. Yu, "An engineered microenvironment for multi-dimensional microscopy of live cells," *Scanning*, 27[6] (2005) 284-292
134. F. Lu, W. S. Lim, P. C. Zhang, S. M. Chia, H. Yu, H. Q. Mao, K. W. Leong, "Galactosylated Poly (vinylidene difluoride) hollow fiber bioreactor for hepatocyte culture," *Tissue Engineering*, 11[11-12] (2005) 1667-1677
135. S. M. Chia, P.C. Lin, C. H. Quek, C. Yin, H. Q. Mao, K. W. Leong, X. Xu, C. H. Goh, M. L. Ng, H. Yu, "Engineering microenvironment for expansion of sensitive anchorage-dependent mammalian cells," *Journal of Biotechnology*, 118[4] (2005) 434-447
136. Y. C. Toh, S. S. S. Ng, Y. M. Khong, V. Samper, H. Yu, "A configurable 3D microenvironment in a micro-fluidic channel for primary hepatocytes culture," *Assay and Drug Development Technologies*, 3[2] (2005) 169-176
137. H. Zhu, B. Zhang, W. W. Fang, X. J. Lao, H. Yu, "Characterization of amphoteric multilayered thin films by means of zeta potential measurements," *Colloids and Surfaces B: Biointerfaces*, 43[1] (2005) 1-6
138. H. Zhu, X. W. Wang, X. J. Lao, S. Ng, C. H. Quek, H. T. Ho, H. Yu, "Encapsulating live cells with water-soluble chitosan in physiological conditions," *Journal of Biotechnology*, 117[4] (2005) 355-365
139. Y. Zhou, T. Sun, M. Chan, J. Zhang, Z. Han, X. Wang, Y. Toh, J. P. Chen, H. Yu, "Scalable Encapsulation of Hepatocytes by Electrostatic Spraying," *Journal of Biotechnology*, 117[1] (2005) 99-109
140. Y. C. Toh, et al. S. T. Ho, Y. Zhou, D. W. Hutmacher, H. Yu, "Application of a Polyelectrolyte complex coacervation method to improve seeding efficiency of bone marrow stromal cells in a 3D culture system," *Biomaterials*, 26[19] (2005) 4149-4160
141. S. M. Chia, P. C. Lin, H. Yu, "TGF β 1 regulation in hepatocyte-NIH3T3 co-culture is important for the enhanced hepatocyte function in 3D environment," *Biotechnology and Bioengineering*, 89[5] (2005) 565-573
142. S. S. S. Ng, Y. N. Wu, H. Yu, "Optimization of 3-D Hepatocyte Culture by Controlling the Physical and Chemical Properties of the Extra-cellular Matrices," *Biomaterials*, 26[16] (2005) 3153-3163
143. B. C. Heng, H. Yu, S. G. Lim, Y. J. Yin, T. Cao, "Factors Influencing Stem Cell Differentiation into the Hepatic Lineage In Vitro," *Journal of Gastroenterology and Hepatology*, 20[7] (2005) 957-987
144. S. C. Ng, B. C. Heng, H. Yu, "Slow-cooling protocols for microcapsule cryopreservation," *Journal of Microencapsulation*, 21[4] (2004) 455-467

145. Zhang, H. P. Wei, C. H. Quek, S. M. Chia, H. Yu, "Quantitative Measurement of Collagen Methylation by Capillary Electrophoresis," *Electrophoresis*, 25[20] (2004) 3416-3421
146. N. Santama, P. N. Er, L. L. Ong, H. Yu, "Kinectin Isoforms Exhibit Developmental, Cell-type and Organelle Specific Functions," *J. Cell Sciences*, 117(Pt 19) (2004) 4537-4549
147. L. Kuleshova, X. W. Wang, Y. N. Wu, Y. Zhou, H. Yu, "Vitrification of Encapsulated Hepatocytes with Reduced Cooling/Warming Rates," *CryoLetters*, 25[4] (2004) 241-254
148. T. Sun, L. H. Chan, C. H. Quek, H. Yu, "Improving Mechanical Stability and Density Distribution of Hepatocyte Microcapsules by Fibrin Clot and Gold Nano-particles," *J. of Biotechnology*, 111[2] (2004) 169-177
149. J. Wang, I. L. Lee, W. S. Lim, S. M. Chia, H. Yu, K. W. Leong, H. Q. Mao, "Evaluation of collagen and methylated collagen as gene carriers," *International Journal of Pharmaceutics*, 279[1-2] (2004) 115-126
150. C. H. Quek, J. Li, T. Sun, M. L. H. Chan, H. Q. Mao, L. M. Gan, K. W. Leong, H. Yu, "Photo-crosslinkable Microcapsules Formed by Polyelectrolyte Copolymer and Modified Collagen with Enhanced Mechanical Strength and Cellular Functions for Rat Hepatocyte Encapsulation," *Biomaterials*, 25[16] (2004) 3531-3540
151. B. C. Heng, H. Yu, S. C. Ng, "Strategies for the cryopreservation of microencapsulated cells," *Biotechnology and Bioengineering*, 85[2] (2004) 202-213
152. Y. Li, J. Wang, C. Lee, C. Y. Wang, S. J. Gao, G. P. Tong, Y. X. Ma, B. Soon, C. T. Lim, H. Yu, H. Q. Mao, K. W. Leong, S. Wang, "CNS Gene Transfer Facilitated by A Novel Controlled Release System Based on DNA Complexes of Degradable Polycation PPE-EA: A Comparison with Polyethylenimine/DNA Complexes," *GeneTherapy*, 11[1] (2004) 109-114
153. H. F. Lu, W. S. Lim, J. Wang, Z. Q. Tang, P. C. Zhang, K. W. Leong, S. M. Chia, H. Yu, H. -Q. Mao, "Galactosylated PVDF Membrane Promotes Hepatocyte Attachment and Functional Maintenance," *Biomaterials*, 24[27] (2003)4893-4903
154. L. Ong, P. N. Er, A. Ho, H. T. Aung, H. Yu, "Kinectin Anchors Eukaryotic Elongation Factor, Delta to Endoplasmic Reticulum," *J. Biol. Chem.*, 278(2003)32115 - 32123
155. S. C. H. Wong, L. L. Ong, P. N. Er, S. J. Gao, H. Yu, and B. Y. So, "Cloning of rat telomerase catalytic subunit functional domains, reconstitution of telomerase activity and enzymatic profile of pig and chicken tissues," *Life Sciences*, 73[21] (2003)2749-2760
156. T. Sun, L. H. Chan, Y. Zhou, X. Xu, J. Zhang, X. J. Lao, X. W. Wang, C. H. Quek, J. P. Chen, K. W. Leong, and H. Yu, "Use of ultrathin shell microcapsules of hepatocytes in a bioartificial liver-assist device," *Tissue Engineering*, 9 Supplement 1[4] (2003) 65-75
157. S. C. H. Wong, H. Yu, S. M. Mochhala, and B. Y. So, "Antisense telomerase induced cell growth inhibition, cell cycle arrest and telomerase activity down-regulation in gastric and colon cancer cells," (2003 Jan-Feb) *Anticancer Research*, 23:465-469
158. C. Yin, S. M. Chia, C. H. Quek, H. Yu, R. X. Zhuo, K. W. Leong, and H. Q. Mao, "Microcapsules With Improved Mechanical Stability For Hepatocyte Culture," *Biomaterials*, 24[10] (2003) 1771-1780
159. X. Xu, W. C. Yee, P. Y. K. Hwang, H. Yu, A. Wan, S. J. Gao, K. L. Boon, H. Q. Mao, K. W. Leong, and S. Wang, "Peripheral Nerve Regeneration with Sustained Release of Poly(phosphoester) Microencapsulated Nerve Growth Factor within Nerve Guide Conduits," *Biomaterials*, 24[13] (2003) 2405-2412
160. Xu, X, Yu, H, Gao, SJ, Mao, HQ, Leong, KW, Wang, S. (2002) "Polyphosphoester Microspheres For Sustained Release Of Biologically Active Nerve Growth Factor." *Biomaterials*, 23(17) (2002) 3765-72
161. Zhang, L, Yu, H. (2002) "Trends In Multi-Dimensional Microscopy." *Annals of Microscopy*, 2 (2002) 34-45

162. Chia, SM, Wan, CAA, Quek, CH, Chan, MLH, Mao, HQ, Xu, X, Lu, S, Ng, ML, Leong, KW, Yu, H. (2001) "Multi-layered Live Cell Microcapsule For Tissue Engineering." *Biomaterials*, 23(3) (2001) 849-56
163. Hadad, AA, Shon, MA, Redlich, B, Blocker, A, Burkhardt, JK, Yu, H, Hammer, JA, Weiss, DG, Steffen, W, Griffiths, G, Kuznetsov, SA. (2001) "Myosin Va Bound To Phagosomes Binds To F-Actin And Delays Microtubule-Dependent Motility." *Molecular Biology Of The Cell*, 12(9) (2001) 2742-55
164. Wang, S, Ma, N, Yu, H, Leong, KW. (2001) "Transgene Expression In The Brainstem Affected By Intramuscular Injection Of Polyethylenimine/DNA complexes." *Molecular Therapy*, 3(5pt1) (2001) 658-64
165. Wan, CAA, Mao, HQ, Wang, S, Leong, KW, Ong, LKLL, Yu, H. (2001) "Fabrication Of Polyphosphoester Nerve Guides By Immersion Precipitation And The Control Of Microporosity." *Biomaterials*, 22(10) (2001) 1147-56
166. Wang, S, Wan, CAA, Xu, X, Gao, SJ, Mao, HQ, Leong, KW, Yu, H. (2001) "A New Nerve Guide Conduit Material Composed Of A Biodegradable Poly(phosphoester)." *Biomaterials*, 22(10) (2001) 1157-69
167. Ong, LL, Lim, PC, Er, PN, Yu, H. (2000) "Kinectin-Kinesin Binding Domains And Their Effects On Organelle Motility." *The Journal Of Biological Chemistry*, 275(42) (2000) 32854-60
168. Chia, SM, Leong, KW, Li, J, Xu, X, Zeng, KY, Er, PN, Gao, SJ, Yu, H. "Hepatocyte Encapsulation For Enhanced Cellular Functions." *Tissue Engineering*, 6(5) (2000) 481-95
169. Cai, YD, Yu, H, Chou, KC. (1998). A "rtificial Neural Network Method For Predicting HIV Protease Cleavage Sites In Protein." *Journal Of Protein Chemistry*, 17(7):607-15
170. Cai, YD, Yu, H, Chou, KC. (1998) "Prediction Of Beta-Turns. *Journal Of Protein Chemistry*," 17(4):363-76.
171. Cai, YD, Yu, H, Chou, KC. (1997) "Artificial Neural Network Method For Predicting The Specificity Of GalNAc-transferase." *Journal Of Protein Chemistry*, 16(7):689-700
172. Rao, PN, Yu, H, Hodge, R, Pettenati, MJ, Sheetz, MP. (1997) "Assignment Of the Human Kinectin Gene (KTN1), Encoding A Kinesin-Binding Protein, "To Chromosome 14 Band q22.1 By In Situ Hybridization Cytogenet Cell Genet 1997, 79(3-4):196-7
173. Blocker, A, Severin, FF, Burkhardt, JK, Bingham, JB, Yu, H, Olivo, JC, Schroer, TA, Hyman, AA, Griffiths, G. (1997) Molecular Requirements For Bi-Directional Movement Of Phagosomes Along Microtubules. *Journal Of Cell Biology*, 137:113-29
174. Sheetz, MP, Yu, H. (1996) "Regulation Of The Kinesin And Cytoplasmic Dynein Driven Organelle Motility." *Seminar In Cell & Development Biology*, 7:329-334
175. Kumar, J, Yu, H, Sheetz, MP. (1995) "Kinectin, An Essential Anchor For Kinesin-Driven Vesicle Motility." *Science*, 267:1834-7
176. Yu, H, Nicchitta, CV, Kumar, J, Toyoshima, I, Sheetz, MP. (1995) "Characterization Of Kinectin, A Kinesin Binding Protein: Primary Sequence And N-Terminal Topogenic Signal Analysis." *Molecular Biology Of The Cell*, 6:171-83
177. Toyoshima, I, Yu, H, Steuer, ER, Sheetz, MP. (1992) "Kinectin, A Major Kinesin-Binding Protein On ER." *Journal Of Cell Biology*, 118(5):1121-31
178. Yu, H, Toyoshima, I, Steuer, ER, Sheetz, MP. (1992) "Kinesin And Cytoplasmic Dynein Binding To Brain Microsomes." *The Journal Of Biological Chemistry*, 267(28):20457-64

Book Chapters

1. Yu, Y., Wang, J., Chun, H.E., Wee, A., and Yu, H. (2020) Implementation of machine learning tools/methods for histopathological image analysis. In Wolkenhauer, O. (editors), *System Medicine: Integrative, Quantitative and Computational Approaches* (First Edition), pages TBA-TBA; The Netherlands: Elsevier, ISBN# 9780128160770.
2. Yu, H., Chong, S., Hassanbhai, A., Teng, Y., Balachander, G., Muthukumar, P., Wen, F., Teoh, S., Chapter 11: Principles of bioreactor design for tissue engineering In book: *Principles of Tissue Engineering*, pp.179-203. DOI: 10.1016/B978-0-12-818422-6.00012-5.
3. Lee, F., Ilescu, C., Fang, Y., and Yu, H. (2018) Chapter 3 - Constrained spheroids/organoids in perfusion culture. In Wilson, L., and Tran, P. (editors), *Methods in Cell Biology*, Volume 146; The Netherlands: Elsevier, ISBN: 0091-679X.
4. Sheetz, M., and Yu, H. (2018) *The Cell as a Machine*, Cambridge University Press, ISBN: 9781107052734.
5. Gupta, K., Song, Z., Tang, H., Fong, E.L.S., Ng, I.C., and Yu, H. (2017) 6.28 Liver Tissue Engineering. In Ducheyne, P., Healy, K., Hutmacher, D.E., Grainger, D.W., Kirkpatrick, C.J. (editors), *Comprehensive Biomaterials* (Second Edition), Volume 6, pages 491-512; The Netherlands: Elsevier, ISBN# 978-0-08-100692-4.
6. Song, Z., Shanmugam, M.K., Yu, H., and Sethi, G. (2016) Chapter 17: Butein and Its Role in Chronic Diseases. In Gupta, C. S., Prasad, S., and Aggarwal, B.B. (editors), *Anti-inflammatory Nutraceuticals And Chronic diseases*; Springer, ISBN# 978-3-319-41334-1.
7. Yu, H., and Ananthanarayanan, A. (2013) Introduction to Cellular and Tissue Engineering (CTE). In Yu, H., Abdul Rahim, N.A. (editors), *Imaging in Cellular and Tissue Engineering*, (Chapter 1), CRC Press-Taylor & Francis Group, ISBN: 9781439848036.
8. Yu, H., and Abdul Rahim, N.A. (2013) *Imaging in Cellular and Tissue Engineering*, CRC Press-Taylor & Francis Group, ISBN: 9781439848036.
9. Ananthanarayanan, A., Tucker-Kellogg, L., Narmada, B.C., Venkatraman, L., Abdul Rahim, N.A., Wang, Y., Kang, A.C.H., and Yu, H. (2011) Systems Biology in Biomaterials and Tissue Engineering. In Ducheyne, P., Healy, K.E., Hutmacher, D.W., Grainger, C.J., Kirkpatrick, J. (editors) *Comprehensive Biomaterials*, volume 5, pages 178-187. Elsevier. ISBN: 978-0-08-055302-3.
10. Yue, Z.L., Lou, Y.R., Rahim, N.A.A. and Yu, H. (2009) Controlling Cellular Niche in Scaffold Designs for Epithelial Tissue Engineering. In Khang, G. (editor) *Handbook of Intelligent Scaffold for Tissue Engineering and Regenerative Medicine*, Singapore: Pan Stanford Publishing, in press. Publishing date: 15 August 2011. ISBN 13: 9789814267854. ISBN 10: 9814267856.
11. Khong, Y.M., Zhang, J., Zhou, S., Cheung, C., Doberstein, K., Samper, V., and Yu, H. (2010) Novel Intra-Tissue Perfusion System for Culturing Thick Liver Tissue. In Johnson, P.C., and Mikos, A.G. (editors), *Advances in Tissue Engineering Volume 1 – Angiogenesis*, (Chapter 28); New York: Mary Ann Liebert, Inc. publishers, ISBN13 978-1-934854-16-7.
12. Yu, H., Cheng, P.C., Kao, F.J., Lin, P.C. (Editors). (2005). *Multi-modality microscopy*. Singapore: Hackensack, N.J.: World Scientific Publishing, ISBN# 981-256-533-7.
13. Zhu, Y.J., Ng, S.S.S., Khong, Y.M., He, L.J., Toh, Y.C., Pan, X.T., Chia, S.M., Lin, P.C., Sun, W.X., Yu, H. (2005) Multi-dimensional imaging of cell- and tissue-engineered constructs. In Yu, H., Cheng, P.C., Kao, F.J., Lin, P.C. (editors), *Multi-modality Microscopy*, (Chapter 14); Singapore: Hackensack, N.J.: World Scientific Publishing, ISBN# 981-256-533-7.

Conference Publications

1. H. Yu, A. Karau, "Scaffold – Biomaterials guiding tissue growth and regeneration", Evonik Meets Science, Singapore, 25-26 September 2019
2. H. Yu, "Mechanobiology Framework for Translational Biomedical Research", 9thWACBE World Congress on Biomedical Engineering (WACBE 2019), Taipei, Taiwan, 16-19 August 2019
3. E. Fong, T. B. Toh, H. Yu, "Development of Patient-Derived Hepatocellular Carcinoma Organoids with Incorporated Stroma for Personalized Drug Testing", Society For Biomaterials 2019 Annual Meeting and Exposition, Seattle, Washington, USA, 3-6 April 2019
4. H. Yu, "Developing a robust digital pathology approach for liver fibrosis classification", 5th Digital Pathology & AI Congress Asia 2019, Tokyo, Japan, 2-3 April 2019
5. H. Yu, "Microphysiological systems for modeling biological functions and diseases", Nature Conference on In vitro diagnostic, Nanchang, China, 22-23 March 2019
6. K. Gupta, I.C. Ng, B. C. Low, H. Yu, Bile Canaliculi Contractility Is Regulated by Canalicular Pressure Sensing via PIEZO1. *Biophysical Journal*, 15 February 2019; 116(3 supplement 1): 376a-377a.
7. H. Yu, "Heterogeneity in 3D in vitro toxicity testing models", Nanotechnology Toxicology Awareness Workshop, Singapore, 8 January 2019
8. H. Yu, "Biomaterials Engineering of Organoid Models", *Frontiers in Cancer Science (FCS)* 2018, Singapore, 12-14 November
9. H. Yu, "Heterogeneity and solutions in cell-based models for in vitro toxicity testing applications", *Toxicological Alternatives and Translational Toxicology Conference*, Guangzhou, China, 10-11 October 2018
10. H. Yu, "Development of macroporous hydrogel sponges for soft tissue organoid culture and applications", *The 21st International Conference of Molecular Engineering of Polymers (MEP-2 or MEP2018)*, Shanghai, China, 21-23 September 2018
11. H. Yu, "Data analytics in biomedical applications", *BIGHEART Symposium* 2018, Singapore, 23-24 July 2018
12. K. Gupta, Q. Li, Z. Song, E. L. S. Fong, H. Yu, "Regulation of bile canaliculi dynamics in physiological and cholestatic conditions", *Mechanobiology in Health and Disease Symposium*, Singapore, 31 May 2018
13. Y. Ma, D. Bhattacharya, V. R. Singh, H. Yu, P. So, "Confocal Reflective Phase Microscope to Probe Membrane Dynamics", *Focus on Microscopy Conference*, Singapore, 25-28 March 2018
14. H. Yu, "Process Analytics for Tissue Engineering and Regenerative Medicine", *IISc Bioengineering Symposium*, India, 24-25 January 2018
15. Z. Song, K. Gupta, H. Yu, "Mesoscale Mechanobiology of liver homeostatic regeneration", *2nd International Workshop on Molecular, Cell, Tissue Mechanobiology*, Shanghai Jiatong University, China, 6-7 November 2017.
16. H. Yu, "Local cytoskeleton dynamics in liver homeostasis and regeneration", *TERMIS-AP* 2017, Nantong, China, 21-24 September 2017.

17. F. Tasnim, J. Xing, S. Mo, H. Yu, "Generation of Stem Cell-Derived Kupffer Cells for Human in vitro Inflammatory Liver Model," 2017 International Symposium of Materials on Regenerative Medicine (2017 ISOMRM), Taoyuan, Taiwan, 23-26 August 2017
18. Y. Yu, J. Wang, C. W. Ng, S. Xu, J. Xing, A. Wee, R. Welsch, P. T. C. So, H. Yu, "sqFibrosis: a fully quantitative classification method of facilitate fibrosis scoring using collagen stains," 2017 International Symposium of Materials on Regenerative Medicine (2017 ISOMRM), Taoyuan, Taiwan, 23-26 August 2017
19. H. Yu, "Porous scaffolds for in vitro organoid culture," 8th WACBE World Congress on Bioengineering, Hong Kong, 30 July – 2 August 2017
20. H. Yu, "Chips and systems for more complex drug testing applications," 7th International Multidisciplinary Conference on Optofluidics (Optofluidics 2017) , Singapore, 25-28 July 2017
21. H. Yu, "Porous scaffolds for in vitro organoid culture," 8th WACBE World Congress on Bioengineering, Hong Kong, 30 July – 2 August 2017
22. N. Hari Singh, M. McMillian, Y. Qu, C. W. Ng, Y. Zhou, H. Yu, and A. Ananthanarayanan, "Evaluating Reactive Acyl Glucuronides Formation from Diclofenac using a Resazurin/ Resorufin Assay with Primary Rat Hepatocytes," Society of Toxicology, Baltimore, Maryland, USA, 12-16 March 2017
23. A. Ananthanarayanan, Y. Qu, N. H. Singh, B. Nugraha, M. McMillian, H. Yu, "Hepatocyte Spheroid Cultures in Galactosylated Cellulosic Sponge for Drug DMPK and Efficacy Testing," Society of Toxicology, Baltimore, Maryland, USA, 12-16 March 2017
24. L. J. Y. Ong, L. H. Chong, L. Jin, H. Yu, A. Ananthanarayanan, H. L. Leo, and Y. – C. Toh, "A Pump-Free Microfluidic 3D Perfusion Platform For The Efficient Differentiation Of Human Hepatocyte-Like Cells," The 26th Conference of Asian Pacific Association for the Study of the Liver: APASL Annual Meeting 2017, Shanghai, China, 15-19 February 2017
25. J. Yan, Y. Yu, J. W. Kang, Z. Y. Tam, S. Xu, E. L. S. Fong, Z. Song, L. Tucker Kellogg, P. T. C. So, H. Yu, "A Classification Model for Non-alcoholic Steatohepatitis (NASH) Using Confocal Raman Micro-spectroscopy," The 26th Conference of Asian Pacific Association for the Study of the Liver: APASL Annual Meeting 2017, Shanghai, China, 15-19 February 2017
26. Y. Yu, J. Wang, C. W. Ng, S. Xu, J. Xing, A. Wee, R. E. Welsch, P. T. C. So, P.T.C., H. Yu, "sqFibrosis: A Fully Quantitative Classification Method to Facilitate Fibrosis Scoring Using Collagen Stains," The 26th Conference of Asian Pacific Association for the Study of the Liver: APASL Annual Meeting 2017, Shanghai, China, 15-19 February 2017
27. E. Fong, T. B. Toh, T. H. Huynh, E. Chow, H. Yu, "Development of an In Vitro Biobank of Patient-Derived Xenografts for Hepatocellular Carcinoma," The 26th Conference of Asian Pacific Association for the Study of the Liver: APASL Annual Meeting 2017, Shanghai, China, 15-19 February 2017
28. Z. Song, J. Fan, J. Teo, Y. Yu, Y. Jie, Y. Ma, Y. Fang, S. Mo, L. Tucker-Kellogg, P. So, H. Yu, "Imaging the liver regeneration process in Lifeact-GFP mice," The 26th Conference of Asian Pacific Association for the Study of the Liver: APASL Annual Meeting 2017, Shanghai, China, 15-19 February 2017
29. P. Pawijit, Y. Zhou, H. Yu, "Involvement of kinectin in drug induced liver injury," The 26th Conference of Asian Pacific Association for the Study of the Liver: APASL Annual Meeting 2017, Shanghai, China, 15-19 February 2017

30. K. Gupta, Q. Li, Z. Song, E. L. S. Fong, H. Yu, "Blebbing and budding: Early canalicular response to altered canalicular pressure in obstructive cholestasis," The 26th Conference of Asian Pacific Association for the Study of the Liver: APASL Annual Meeting 2017, Shanghai, China, 15-19 February 2017
31. N. H. Singh, J. Y. Wong, W. H. Yan, V. S. Mettu, Y. Qu, Q. Ngo, P. Koh, Y. Zhou, H. Yu, A. Ananthanarayanan, M. K. McMillian, "A resazurin to resorufin assay for reactive acyl glucuronides reveals a bromfenac metabolite glucuronide," The 26th Conference of Asian Pacific Association for the Study of the Liver: APASL Annual Meeting 2017, Shanghai, China, 15-19 February 2017
32. Q. Ngo, Y. Qu, M. K. McMillian, A. Ananthanarayanan, N. H. Singh, J. Y. Wong, C. W. Ng, H. Yu, "Inhibition of efferocytosis by mild hepatotoxicants," The 26th Conference of Asian Pacific Association for the Study of the Liver: APASL Annual Meeting 2017, Shanghai, China, 15-19 February 2017
33. N. H. Singh, J. Y. Wong, W. H. Yan, V. S. Mettu, Y. Qu, Q. Ngo, P. Koh, Y. Zhou, H. Yu, A. Ananthanarayanan, M. K. McMillian, "A resazurin to resorufin assay for reactive acyl glucuronides reveals a bromfenac metabolite glucuronide," The 26th Conference of Asian Pacific Association for the Study of the Liver: APASL Annual Meeting 2017, Shanghai, China, 15-19 February 2017
34. X. Qi, S. Xu, J. Dong, L. Wang, C. Liu, J. Zhao, F. Liu, G. Li, H. Yu, A. Wee, J. Hou, "Sampling variability of liver fibrosis for assessment of cirrhotic portal hypertension: A qFibrosis approach," The 26th Conference of Asian Pacific Association for the Study of the Liver: APASL Annual Meeting 2017, Shanghai, China, 15-19 February 2017
35. H. Yu, "Materiomic Screening of Topographical Cues That Bias Migration and Differentiation of Liver Progenitor Cells," 2016 Tissue Engineering and Regenerative Medicine International Society- Asia Pacific Meeting (TERMIS-AP 2016), Taipei, Taiwan, 3-6 September 2016
36. H. Yu, Y. Fang, "Cellular and engineering issues for liver-vasculature chip for drug testing applications," SIMTech EAC Annual Conference 2016, Singapore, 25 August 2016
37. H. Yu, "Mechanobiology perspective of obstructive cholestasis: opens the black box of intrahepatic bile canaliculi dynamics," 2016 Southern Digestive Disease And Endoscopy Forum, Guangzhou, China, 8-10 July 2016
38. H. Yu, K. Gupta, Q. Li, E. L. S. Fong, H. Tang, J. Fan, S. Mo, Y. Yu, Z. Song, "Mechanobiology opens the black boxes of cell responses to biomaterials," Talk at Xiamen University, China, 6 July 2016
39. H. Yu, K. Gupta, Q. Li, E. L. S. Fong, H. Tang, J. Fan, S. Mo, Y. Yu, Z. Song, "Mechanobiology approach to understanding causative mechanism of cellular responses to biomaterials: an example of bile canaliculi dynamics in collagen sandwich culture of hepatocytes and in vivo," 10th World Biomaterials Congress, Montreal, Canada, 17-22 May 2016
40. H. Yu, "Acute and Sub-Acute Hepatotoxicity Testing in vitro Models," Symposium on Non-animal Approaches to Safety & Efficacy Testing, Singapore, 25 January 2016
41. H. Yu, "What Grant Reviewers Look Out for When Reviewing a Grant," NHG's Grant Preparatory Seminar, Singapore, 15 October 2015
42. C. W. Ng, Y. Yu, L. Xia, H. Yu, "Predicting hepatic clearance of slow metabolized compound using hepatocyte sandwich perfusion system". Drug Metabolism Review, November 2015; 47(Supplement 1 Special Issue SI): 50-51. 19th North American Meeting of the International-Society-for-the-Study-of-Xenobiotics (ISSX) / 29th Meeting of the Japanese-Society-for-the-Study-of-Xenobiotics (JSSX), San Francisco, USA, 19-23 October 2014.

43. Y. Yu, N. H. Singh, R. B. Sakban, L. Xia, H. Yu, "Investigating drug-inflammation interaction of acetaminophen in hepatocytes and kupffer cells co-culture system for in vitro drug screening application. *Drug Metabolism Review*, November 2015; 47(Supplement 1 Special Issue SI): 154-155. 19th North American Meeting of the International-Society-for-the-Study-of-Xenobiotics (ISSX) / 29th Meeting of the Japanese-Society-for-the-Study-of-Xenobiotics (JSSX), San Francisco, USA, 19-23 October 2014.
44. P. Pawijit, Y. Yu, Y. Zhou, H. Yu, "Kinectin regulates GAP junction proteins in hepatocyte-implications in response to hepatotoxicity". *Drug Metabolism Review*, November 2015; 47(Supplement 1 Special Issue SI): 178-178. 19th North American Meeting of the International-Society-for-the-Study-of-Xenobiotics (ISSX) / 29th Meeting of the Japanese-Society-for-the-Study-of-Xenobiotics (JSSX), San Francisco, USA, 19-23 October 2014.
45. C. Iiescu, F. Yu, H. Yu, "Microfluidic platforms for drug screening," presented at 38th International Semiconductor Conference, Sinaia, Romania, 12-14 October 2015
46. X. Xing, H. Yu, "Geometrically confined cell differentiation and migration model for human teratogen detection," 19th European Congress on Alternatives to Animal Testing – Linz 2015, 16th Annual Congress of EUSAAT, Austria, 20-23 September 2015
47. Q. Li, Z. Song, J. Fan, S. Mo, V. Viasnoff, P. So, H. Yu, "Mechanobiology studies of the tissue dynamics for engineering long bile canaliculi," 7th Models of Physiology and Disease - Physiology Symposium 2015, Singapore, 21-22 September 2015
48. Q. Li, Z. Song, J. Fan, S. Mo, V. Viasnoff, P. So, H. Yu, "Mechanobiology studies of the tissue dynamics for engineering long bile canaliculi," The 8th Asian-Pacific Conference on Biomechanics (AP Biomech 2015), Sapporo, Japan, 16-19 September 2015
49. H. Yu, "Challenges and innovations for compound safety testing applications with scalable perfusion-based cell-culture devices," *Microfluidics and Diagnostics – Moving Microfluidic Applications from Lab to Market: Challenges & Solutions*, Singapore, 14 July 2015
50. H. Yu, "Spatial and temporal morphological markers for liver regeneration and chronic liver diseases," 7th WACBE World Congress on Bioengineering (WACBE2015), Singapore, 6-8 July 2015
51. H. Yu, "Progress in identifying image-based markers of liver cancer derived from non-alcoholic fatty liver diseases", SMART BioSyM Workshop – Workshop on Metastatic Cancer, Singapore, 25 June 2015
52. H. Yu, "Seeing is believing: imaging the dynamic processes in liver regeneration", MBI Weekly Meeting, Singapore, 24 June 2015 (Invited talk)
53. A. Ananthanarayanan, B. Nugraha, Y. Qu, H. Yu, "Cleavable cellulosic sponge for 3D culture and harvest of liver cells," The 5th Asian Biomaterials Congress (ABMC5), Taipei, Taiwan, 6-9 May 2015.
54. H. Yu, "Biomaterials and devices for controlling the mesoscale dynamics of cellular and intercellular tissue structures for biomedical applications," Institute of Functional Nano and Soft Materials, Soochow University, Shanghai, China, 10 April 2015 (did not deliver the invited talk, Invited talk)
55. H. Yu, "Tissue engineered in vitro liver models for testing of drugs, pathogens, and prospects for testing food, TCM drugs, environmental toxins and cosmetics," NUS Research Institute in Soochow Industry Park for industry audiences, Shanghai, China, 9 April 2015

56. H. Yu, "Controlling cell-cell and cell matrix interaction for engineering in vitro toxicity testing models and bioartificial liver support system," Chinese Academic of Science, Institute of Biochemistry and Cell Biology, Shanghai, China, 8 April 2015
57. H. Yu, "Reconstitution of cell dynamics or biomolecular networks in vitro/in silico", the A*STAR-JST Joint Workshop on "Development of fundamental technology for biodevices enabling dynamic analysis and control of cells", Singapore, 12-13 January 2015
58. L. Low, C. Y. Chan, J. Chen, H. Yang, C. Lee, H. Yu, M. Wenk, H. K. Yap, "IL13-induced hepatic cholesterol transport defect in rat model of minimal change nephrotic syndrome (MCNS)", The American Society of Nephrology (ASN) Kidney week 2014, Philadelphia, USA, 11-16 November 2014
59. H. Yu, "Mechanobiology study of bile excretion enables innovative strategy for engineering bile collection device for drug testing applications", The 1st International Workshop on Multiscale Mechanobiology (IWMM 2014), Hong Kong, 15-18 May 2014
60. H. Yu, "Interface structures and functions for Organs-on-Chip", Lab-on-a-Chip Asia, Singapore, 12-13 November 2013
61. Y. C. Toh, J. Xing, S. Xu, H. Yu, "A micropatterned human embryonic stem cell model for in vitro human developmental toxicity testing", MicroTAS 2013, Freiburg, Germany, 27-31 October 2013.
62. H. Yu, "大学与科技创新" Chinese Studies in Chinese Enrichment Lecture (中国通识深广讲堂), Hwa Chong Institution, Singapore, 15 August 2013
63. H. Yu, "Academic-Industry Partnership to Support Drug Development", Temasek Polytechnic Annual Industry Networking Event Seminar, Partners-in-Science: Achieving Commercial Success through Better Quality, Safety & Efficacy, Singapore, 23 July 2013
64. H. Yu, "Optical detection of inflammation and disease", Research Innovation in Infectious and Inflammatory Diseases, Singapore, 8-9 July 2013
65. C. G. Anene-Nzelu, D. Choudhury, H. Li, Y. -C. Toh, S. H. Ng, H. L. Leo, H. Yu, "Gratings on a dish: a scalable cell alignment substrate on optical media", ASME 2013 Summer Bioengineering Conference, Sunriver, Oregon, United States of America, 26-29 June 2013.
66. S. Xu, A. Wee, H. Yu, "qFibrosis – a New Tool for Quantitative Characterization of Liver Fibrosis or Tissue Regeneration", TERMIS-EU, Istanbul, Turkey, 17-20 June 2013.
67. H. Yu, "Quantitative Phenotypic Markers to Monitor Liver Regeneration Failure", TERMIS-EU, Istanbul, Turkey, 17-20 June 2013.
68. Xu, S., and Yu, H. (2013) "Capsule Index: morphology and texture based quantification of liver fibrosis from the Glisson's capsule", 23rd Conference for Asian Pacific Association for the Study of the Liver (APSAL 2013), Singapore, 6-9 June 2013.
69. S. Xu, Y. Wang, A. Wee, J. Hou, H. Yu, "Quantitative characterization of changes in collagen patterns for liver fibrosis assessment", 23rd Conference for Asian Pacific Association for the Study of the Liver (APSAL 2013), Singapore, 6-9 June 2013.
70. Y. C-. Toh, J. Xing, H. Yu, "Spatially-patterned human embryonic stem cell differentiation and migration for developmental toxicity testing", AsiaCord 2013, Kobe, Japan, 19-20 April 2013.
71. H. Yu, "Organ-on-Chip: a biologist's perspective," SIMTech Microfluidics Seminar 2013, Singapore, 6 March 2013.

72. H. Yu, "Translating fundamental liver biology and pathology into applications", International Conference Cellular & Molecular Bioengineering (ICCMB3), 10-12 December 2012, Singapore
73. K. F. Chooi, G. S. S. Phang, A. H. H. Toh, S. Rashidah, D. Tai, H. Yu, "Assessment of Liver Fibrosis in the Rat", 63rd AALAS National Meeting, American Association of Lab Animal Science meeting, Minneapolis, USA, 4-8 November 2012 (Poster Presentation)
74. H. Yu, "Tissue Informatics on Liver Fibrosis." The 1st Singapore-Korea Joint Workshop for Innovative Biomedicine, Singapore, 22 June 2012
75. H. Yu, Sheetz, M. (2012) "Nanomedicine roadmap." West China Medical School of Sichuan University, Sichuan, China, 8 June 2012
76. Y. Wang, Y. C. Toh, Q. Li, B. Zheng, B. Nugraha, H. Yu, "Accelerated repolarization of hepatocytes population with mechanical compaction." The 9th World Biomaterials Congress, Chengdu, China, 1-5 June 2012.
77. A. Ananthanarayanan, H. Yu, "Spheroid model of liver cells for Hepatitis C infections." The 9th World Biomaterials Congress, Chengdu, China, 1-5 June 2012.
78. V. U. Hemant, H. Yu "Braille for cells: deciphering topographic cues for cell behavior." The 9th World Biomaterials Congress, Chengdu, China, 1-5 June 2012.
79. J. Xing, Y. C. Toh, J. Poh, H. Yu, "Development of stem cell-based models for in vitro toxicity of xenobiotics." The 9th World Biomaterials Congress, Chengdu, China, 1-5 June 2012.
80. Q. Li, J. M. Robens, H. Yu, "Micro pillar array maintains primary hepatocyte's polarity through constraining cell spreading." The 9th World Biomaterials Congress, Chengdu, China, 1-5 June 2012
81. B. Nugraha, H. Yu "Cellulosic hydrogel Sponge for cell-dense 3D culture platform." The 9th World Biomaterials Congress, Chengdu, China, 1-5 June 2012.
82. I. C. Ng, H. Yu "Kinectin facilitates chemotactic migration of mesenchymal-like cells by stabilizing leading protrusions." The 9th World Biomaterials Congress, Chengdu, China, 1-5 June 2012.
83. Q. Peng, C. H. Kang, J. W. Cha, P. T. C. So, H. Yu, "Integration of Multi-Focal Multi-Photon Microscope and Second Harmonic Generation for 3D High-Resolution Imaging of Liver Fibrosis." The 9th World Biomaterials Congress, Chengdu, China, 1-5 June 2012.
84. Y. H. Tee, J. K. Heng, X. Zhang, S. H. Yeap, I. C. Ng, M. A. Shazib, H. Yu, "Physical and chemical cues elicit a unified endoplasmic reticulum response to govern cell attachment." The 9th World Biomaterials Congress, Chengdu, China, 1-5 June 2012.
85. W. H. Tong, S. Zhang, C. Iliescu, H. Yu, "Mechanically Improved RoboTox – A Robust and high throughput hepatotoxicity drug testing platform with hepatocytes spheroids." The 9th World Biomaterials Congress, Chengdu, China, 1-5 June 2012.
86. L. Venkatraman, H. Yu, L. Tucker-Kellogg, "Thrombospondin-1 induces sinusoidal endothelial cell defenestration." The 9th World Biomaterials Congress, Chengdu, China, 1-5 June 2012.
87. L. Xia, R. B. Sakban, X. Hong, Y. Qu, H. Yu, "3D in vitro hepatocyte model on RGD-galactose hybrid membrane for drug hepatotoxicity screening." The 9th World Biomaterials Congress, Chengdu, China, 1-5 June 2012.

88. S. Xu, P. So, J. Rajapakse, H. Yu, "Surface Quantification of Liver Fibrosis: From Microscopy to Endoscopy." The 9th World Biomaterials Congress, Chengdu, China, 1-5 June 2012.
89. W. Zhang, R. Sakban, B. Nugraha, X. Hong, R. Jia, L. Xia, H. Yu, "Modulation of cryochrome P450 enzyme function and expression by piperine in cellulosic sponge system." The 9th World Biomaterials Congress, Chengdu, China, 1-5 June 2012.
90. L. Zhu, W. H. Tong, Y. C. Toh, D. Choudhury, Z. C. Wang, C. Iliescu, H. Yu, "Enhanced micro-feature on glass silicon microfluidic channel of 3D hepatocyte culture device." The 9th World Biomaterials Congress, Chengdu, China, 1-5 June 2012.
91. H. Yu, "Trend Analysis for Modern Higher Education (In Chinese)." Tsinghua University, Beijing, China 30th May 2012.
92. H. Yu, "Mechanobiology in Liver Tissue Engineering." International Workshop on Tissue Engineering 2012, Tsinghua University, Beijing, China 30th May 2012.
93. H. Yu, "Novel Technique of Liver Biopsy – Surface Quantification." 5th FuRui Liver Fibrosis Forum, Guangzhou, China 25-26 May 2012
94. J. Wang, L. Tucker-Kellogg, I. C. Ng, R. Jia, P. S. Thiagarajan, J. White, H. Yu, "The Self-Limiting Dynamics of TGF- β Signaling In Silico and In Vitro: A Novel Mechanism of PPM1A Feedback." 16th Annual International Conference on Research in Computational Molecular Biology RECOMB 2012, Barcelona, Spain, 21-24 April 2012.
95. L. Venkatraman, S. M. Chia, B. C. Narmada, L. S. Poh, J. K. White, S. S. Bhowmick, C. F. Dewey, P. T. So, H. Yu, L. Tucker-Kellogg, "Plasmin antagonizes positive feedback between TGF- β 1 and TSP1: Steady states and dynamics." Biophysical Society The 56th Annual Meeting, San Diego, California, USA, 25-29 February 2012.
96. H. E. Chua, S. S. Bhowmick, L. Tucker-Kellogg, Y. Wang, C. F. Dewey Jr., H. Yu, "PANI: An Interactive Data-driven Tool for Target Prioritization in Signaling Networks." IHI 2012 : 2nd ACM SIGHT International Health Informatics Symposium, Miami, USA, 28-30 January 2012. Proceedings of the 2nd ACM SIGHT International Informatics Symposium, 2012:851-854.
97. H. E. Chua, S. S. Bhowmick, L. Tucker-Kellogg, Q. C. Zhao, C. F. Dewey Jr., H. Yu, "In Silico Identification of Endo 16 Regulators in the Sea Urchin Endomesoderm Gene Regulatory Network." IHI 2012: 2nd ACM SIGHT International Health Informatics Symposium, Miami, USA, 28-30 January 2012. Proceedings of the 2nd ACM SIGHT International Informatics Symposium, 2012:131-140.
98. B. -S. Seah, S. S. Bhowmick, C. F. Dewey Jr., H. Yu, "FUSE: A system for data-driven multi-level functional summarization of protein interaction networks." IHI 2012: 2nd ACM SIGHT International Health Informatics Symposium, Miami, USA, 28-30 January 2012. Proceedings of the 2nd ACM SIGHT International Informatics Symposium, 2012:847-850.
99. J. Lin, F. Lu, W. Zheng, H. Yu, C. Sheppard, Z. Huang, "An integrated coherent anti-Stokes Raman scattering and multiphoton imaging technique for liver disease diagnosis." Multiphoton Microscopy in the Biomedical Sciences, San Francisco, USA, 22-24 January 2012. Published in Progress in Biomedical Optics and Imaging – Proceedings of SPIE, 8226:-, article number 822625.
100. H. Yu, "Trends in liver engineering for complex tissue regeneration applications." The 4th International Conference on The Development of Biomedical Engineering – Regenerative Medicine Conference, Ho Chi Minh City, Vietnam, 8-12 January 2012. (Distinguished keynote speaker)

101. M. A. Shazib, Y. H. Tee, H. Yu, "Induction of endoplasmic reticulum response by bio-physical cues govern cell attachment." The 4th International Conference on The Development of Biomedical Engineering, Ho Chi Minh City, Vietnam, 8-12 January 2012.
102. L. Venkatraman, S. M. Chia, B. Narmada, L. Poh, J. White, S. Bhowmick, C. Dewey, P. So, H. Yu, L. Tucker-Kellogg, "Modeling the Interplay of Plasmin and Thrombospondin-1 in TGF-beta 1 Activation: A Bistable Switch in Silico and in Vitro." Annual Meeting of the American Society for Cell Biology (ASCB), 3-7 December 2011.
103. H. Yu, "Advances in Biomedical Engineering – Liver." Testicular Toxicology in vitro models, Baltimore, USA, 26-27 October 2011. 104. L. Venkatraman, S. S. Bhowmick, C. F. Dewey, H. Yu, L. Tucker-Kellogg, "Plasmin antagonizes positive feedback loop between TGF- β 1 and TSP1: implications in liver fibrosis." EMBO – Structure and Dynamics of Protein Networks, Heidelberg, Germany, 13-16 October 2011.
105. Y. C. Toh, "Differential Environmental Spatial Patterning (DESP) recreates proximal-distal axial patterns in embryonic stem cell colonies." MicoTAS 2011: The 15th International Conference on Miniaturized Systems for Chemistry and Life Sciences, Seattle, USA, 2-6 October 2011. (Oral presentation)
106. S. Xu, D. Tai, A. Wee, R. Welsh, P. So, H. Yu, J. Rajapakse, J. "Automated Scoring of Liver Fibrosis through Combined Features from Different Collagen Groups." 33rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC '11), Boston Marriott Copley Place Hotel, Boston, Massachusetts, USA, 30 August – 3 September 2011. Published in Conference proceedings: ... Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEE Engineering in Medicine and Biology Society Conference, 2011: 4503-4506, article number 6091116.
107. H. E. Chua, S. S. Bhowmick, C. F. Jr. Dewey, H. Yu "PANI: A Novel Algorithm for Fast Discovery of Putative Target Nodes in Signaling Networks." ACM Conference on Bioinformatics, Computational Biology and Biomedicine 2011 (ACM-BCB), Chicago, USA, 1-3 August 2011. (Short paper) Published in 2011 ACM Conference on Bioinformatics, Computational Biology and Biomedicine, BCB 2011, 2011:284-288.
108. H. E. Chua, S. S. Bhowmick, C. F. Jr. Dewey, H. Yu FUSE: Towards Multi-Level Functional Summarization of Protein Interaction Networks." ACM Conference on Bioinformatics, Computational Biology and Biomedicine 2011 (ACM-BCB), Chicago, USA, 1-3 August 2011. (Regular paper) (awarded Best Paper Award). Published in 2011 ACM Conference on Bioinformatics, Computational Biology and Biomedicine, BCB 2011, 2011:2-11.
109. B. –S. Seah, S. S. Bhowmick, C. F. Jr. Dewey, H. Yu "FUSE: a profit maximization approach for functional summarization of biological networks." ACM Conference on Bioinformatics, Computational Biology and Biomedicine 2011 (ACM-BCB), Chicago, USA, 1-3 August 2011. Published in BMC Informatics, 13(supplement 3):-, article number S10.
110. B. Nugraha, H. Yu "Cellulosic Sponge Accelerates Hepatocyte Repolarization." TERMIS EU Meeting 2011, Granada, Spain, 7-10 June 2011. (Conference proceedings, poster presentation)
111. B. Nugraha, H. Yu "Galactosylated Cellulosic Sponge Accelerates Hepatocyte Repolarization." The 29th Annual Conference of the Canadian Biomaterials Society (CBS2011), Vancouver, Canada, 1-4 June 2011. Bramasta Nugraha was awarded CBS2011 Travel Award. (Oral presentation).
112. H. Yu "TGFb signaling in liver fibrosis and regression." 2nd Mini-Symposium on "Cell Fate Signaling" in Health and Disease, CeLS, NUS, 3 March 2011 (Invited speaker)

113. H. Yu "Systems approach to study liver injury." BioComplexity Symposium/Workshop, Singapore, 14-15 February 2011. (Invited speaker)
114. J. Lin, F. Lu, W. Zheng, D. C. S. Tai, H. Yu, C. Sheppard, Z. Huang, "Multimodal nonlinear optical imaging of obesity-induced liver steatosis and fibrosis." Multiphoton Microscopy in the Biomedical Sciences, San Francisco, USA, 23-25 January 2011. Published in Progress in Biomedical Optics and Imaging – Proceedings of SPIE, 7903:-, article number 79031V.
115. V. R. Singh, J. C. Rajapakse, H. Yu and P. T. C. So, "Intensity normalization of two-photon microscopy images for liver fibrosis analysis." Multiphoton Microscopy in the Biomedical Sciences, San Francisco, USA, 23-25 January 2011. Published in Progress in Biomedical Optics and Imaging – Proceedings of SPIE, 7903:-, article number 79030P.
116. Choudhury, D., van Noort, D., Iliescu, C., and Yu, H. (2011) "Fish on Chip: A Microfluidic Platform for In Vivo Drug Studies in Developing Fish Embryo." The Second Conference on Advances in Microfluidics and Nanofluidics & Asia-Pacific International Symposium on Lab on Chip, Singapore, 5-7 January 2011. (Oral presentation)
117. H. Yu "Controlling Extracellular Environmental Cues for Cell Shape and Functions for Applications." The Second Conference on Advances in Microfluidics and Nanofluidics (AMN 2011) and Asian-Pacific International Symposium on Lab on Chip (APLOC 2011), Singapore, 5-7 January 2011.
118. B. C. Narmada, L. Venkatraman, L. Tucker-Kellogg, H. Yu, "Multi-step regulation of transforming growth factor beta 1 in liver fibrosis by hepatocyte growth factor." Keystone Symposia on Molecular and Cell Biology - TGF-beta in Immune Response: From Bench to Beside (A2), Utah, USA, 5-12 January 2011.
119. D. Choudhury, D. van Noort, C. Iliescu, H. Yu, "Fish on Chip: A Microfluidic Platform for In Vivo Drug Studies in Developing Fish Embryo." 4th East Asian Pacific Student Workshop on Nano-Biomedical Engineering, Singapore, 15-16 December 2010.
120. X. Mo, C. H. Tan, H. Yu, "Rapid Construction of Mechanically-confined Multi-cellular Structures using Dendrimeric Intercellular Linker." TERMIS North America Meeting 2010, Orlando, USA, 5-8 December 2010
121. B. Nugraha, H. Yu, "Macroporous Cellulosic Hydrogel Scaffold as 3D Hepatocyte Culture Platform." TERMIS North America Meeting 2010, Orlando, USA, 5-8 December 2010
122. B. X. Zheng, H. Yu, "Liver fibrosis drug discovery using high content analysis", 4th Asian Young Researchers Conference on Computational and Omics Biology (AYRCOB 2010), Singapore, 1-3 December 2010.
123. B. Nugraha, H. Yu, "Macroporous Cellulosic Hydrogel Scaffold as 3D Hepatocyte Culture Platform." 32nd Meeting of Japanese Society for Biomaterials, Hiroshima, Japan, 29-30 November 2010
124. M. A. Shazib, H. Yu, "Human Embryonic Stem (hES) Cells and Induced Pluripotent Stem (iPS) Cells: a Tissue Engineer's Perspective." 9th Asian Congress on Oral and Maxillofacial Surgery, Kuala Lumpur, Malaysia, 25-28 November 2010 (Invited talk)
125. H. Yu, "Hepatotoxicity testing platforms for in vitro screening of xenobiotics." Chinano Forum, Suzhou, China, 13-15 November 2010. (Invited talk)
126. H. Yu, "Biomaterials & Imaging Technologies in Liver Tissue Engineering." Seminar at John Hopkins University, Baltimore, United States, 27 October 2010. (Invited talk)

127. H. Yu, "Microscale engineering of in vitro hepatocyte-based models." Seminar and Round Table at Roche, Nutley, United States, 26 October 2010. (Invited talk)
128. H. Yu, "Adapting micro-engineered 3D hepatocyte models for drug testing applications." Seminar at Johnson & Johnson, Raritan, United States, 25 October 2010. (Invited talk)
129. H. Yu, "Liver models for hepatotoxicity testing of drugs and fibrosis studies." Physiology Symposium – "Models in Physiology and Disease", National University of Singapore, Singapore, 2-3 August 2010.
130. Y. H. Tee, Q. Li, H. Yu, "Impact of Substrate-mediated Cell Shape Control on Liver Cell Functions and Applications." RCE Symposium on Mechanobiology at World Congress on Biomechanics 2010, Singapore Suntec Convention Centre, Singapore, 1-6 August 2010.
131. B. Nugraha, H. Yu, "Macroporous Cellulosic Hydrogel Scaffold for Liver Tissue Engineering." 6th World Congress on Biomechanics, Singapore Suntec Convention Centre, Singapore, 1-6 August 2010.
132. B. Nugraha, H. Yu, "Cellulosic Hydrogel Scaffold for Liver Tissue Engineering Application." The 5th SBE International Conference on Bioengineering and Nanotechnology, Biopolis, Singapore, 1-4 August 2010.
133. Y. H. Tee, X. Zhang, J. K. Heng, H. Yu, "Kinectin-mediated endoplasmic reticulum dynamics supports focal adhesion growth in the cellular lamella." Gordon Research Conferences, Davidson, United States, 11-16 July 2010. (Oral presentation and poster presentation)
134. I. C. Ng, L. Y. Teo, S. Y. Lee, H. Yu, "Upregulation of kinectin during epithelial-mesenchymal transition promotes cell migration and invasion." Gordon Research Conferences 'Signaling By Adhesion Receptors', Waterville, United States, 10-16 July 2010.
135. Y. He, H. Yu, P. T. C. So, "Non-linear optical microscopy in liver fibrosis surface assessment." 14th International Conference "Laser Optics 2010", St. Petersburg, Russia, 28 June – 2 July 2010.
136. Y. He, H. Yu, P. So, "Quantitative assessment of liver fibrosis using non-linear optical microscope across liver surface." 43rd Annual Meeting of the European Society for Paediatric Gastroenterology, Hepatology and Nutrition (ESPGHAN 2010), Istanbul, Turkey, 9-12 June 2010. Published in Journal of Pediatric Gastroenterology and Nutrition, 50(supplement 2): E151-E151.
137. D. Choudhury, C. Zhang, D. Noort, H. Yu, "Development of a predictive physiologically based pharmacokinetic (PBPK) microfluidics chip." International Symposium on Microchemistry and Microsystems (ISMM) 2010, Hong Kong, 28-30 May 2010
138. D. Choudhury, D. van Noort, H. Yu, "Fish on a chip: A microfluidic platform for in vitro drug studies in developing fish embryo." International Symposium on Microchemistry and Microsystems (ISMM) 2010, Hong Kong, 28-30 May 2010.
139. H. E. Chua, S. S. Bhowmick, C. D. Forbes, H. Yu, L. Tucker-Kellogg, "In Silico Approach for Identifying Sensitive Nodes in Biological Network." RECOMB 2010 Fourteenth International Conference on Research in Computational Molecular Biology, Lisbon, Portugal, 25-28 April 2010.
140. H. Yu, P. So, D. Tai, Y. He, S. Xu, Q. Peng, E. Yew, C. Sheppard, "Liver fibrosis research with non-linear optics." Focus on Microscopy Conference, Shanghai, China, 28-31 March 2010
141. H. Yu, "Liver Tissue Engineering: Basic Research and their Translation into the Therapies of the Future." The 20th Conference of the APASL, Beijing, China, 27 March 2010.

142. H. Yu, "Microfabricated perfusion cell-based drug testing platforms." 1st International Conference on MedTech Manufacturing Technologies (MedTech 2010), Singapore, 18-19 March 2010
143. I. C. Ng, L. Y. Teo, S.Y. Lee, H. Yu, "Upregulation of 160-kDa kinectin during epithelial-mesenchymal transition promotes cell migration and invasion." 2nd NGS Student Symposium, Singapore, 5 February 2010.
144. B. Nugraha, Z. Yue, H. Yu, "Novel Cellulosic Hydrogel Scaffold for Liver Tissue Engineering", 2nd NGS Student Symposium, Singapore, 5 February 2010
145. F. Lu, W. Zheng, D. C. S. Tai, J. Lin, H. Yu, Z. Huang, "Assessment of fibrotic liver disease with multimodal nonlinear optical microscopy." Multiphoton Microscopy in the Biomedical Sciences, San Francisco, USA, 24-26 January 2010. Published in Progress in Biomedical Optics and Imaging – Proceedings of SPIE, 7569:–, article number 75691W.
146. L. Venkatraman, H. Yu, S. S. Bhowmick, D. Jr. Forbes, L. Tucker-Kellogg, "The steady states and dynamics of urokinase mediated plasmin activation." Pacific Symposium on Biocomputing 2010, The Big Island of Hawaii, 4-8 January 2010
147. X. Mo, B. Nugraha, C. Zhang, Y. C. Toh, C. H. Tan, Y. Wang, H. Yu, "Micro-Fabrication Factory of Complex Tissues." 3rd East-Asian Pacific Student Workshop on Nano-Biomedical Engineering, Singapore, 21-22 December 2009
148. B. Nugraha, Z. Yue, H. Yu, "Novel Cellulosic Hydrogel Scaffold for Liver Tissue Engineering", 3rd East Asian Pacific Student Workshop on Nano-biomedical Engineering, Singapore, 21-22 December 2009
149. B. Nugraha, Z. Yue, H. Yu, "3D Cellulosic Gel for Hepatotoxicity Screening." 31st Annual Meeting of Japanese Society for Biomaterials, Kyoto, Japan, 16-17 November 2009
150. D. Van Noort, H. Yu, "In vivo drug testing in microfluidics on Medaka fish embryo." uTAS 2009, ICC Jeju, Jeju, Korea, 1-5 November 2009
151. D. C. S. Tai, N. Tan, C. H. Kang, C. L. Cheng, S. M. Chia, G. F. Xiao, W. X. Sun, A. Wee, H. Yu, "Fibro-C-index – A standardized quantification of liver fibrosis using second harmonic generation and two-photon microscopy." The Liver Meeting, Boston, 30 October – 3 November 2009. Published in Hepatology, 50(4 supplement S):815A-816A.
152. Y. Y. Dan, L. Amer, S. F. Zhang, H. Yu, P. C. Wong, S. G. Lim, "Fetal Liver Progenitor Niche." The 60th Annual Meeting of the American Association for the Study of Liver Diseases 2009, Hynes Convention Center, Boston, USA, 29 October – 3 November 2009. Published in Hepatology, 50(4 supplement S):900A-900A. (Poster)
153. H. E. Chua, S. S. Bhowmick, H. Yu, C. F. Forbes Jr., "In silico approach to identify sensitive molecules as potential drug targets." BMES 2009 Annual Fall Scientific Meeting, Pittsburgh, United States, 7-10 October 2009
154. N. A. Abdul Rahim, C. Iliescu, R. Kamm, H. Yu, "Microfluidic device captures correlation between human mesenchymal stem cell differentiation capacity and migration activity." 2009 World Stem Cell Summit, Baltimore, Maryland, USA, 21-23 September 2009
155. H. Yu, "Engineering in vitro drug testing platforms." ICMAT Symposium A - Advanced Biomaterials and Regenerative Medicine (In Conjunction with 2nd Asian Biomaterials Congress), Singapore, 28 June – 3 July 2009

156. Z. Yue, X. Mo, B. Nugraha, C. H. Tan, H. Yu, "Biomaterials to Facilitate Controls of Cell-Matrix and Cell-Cell Interactions in Soft Tissue Construction." 2nd Asian Biomaterials Congress (ABMC), Singapore, 26 - 27 June 2009 (Keynote presentation)
157. L. Xia, H. L. Leo, H. Yu, "Development of a novel hepatocyte sandwich culture based bioreactor for bioartificial liver assist device." Advances in Synthetic Biology, London, England, 28-29 April 2009 (Poster)
158. N. A. Abdul Rahim, R. D. Kamm, H. Yu, "Effects of rigidity sensing on fibrotic cellular activity." Biomaterials Asia 2009, Hong Kong, 5-8 April 2009 (Poster presentation)
159. C. Zhang, S. M. Chia, S. M. Ong, S. Zhang, D. van Noort, H. Yu, "Incorporation of TGF- β 1 in a microfluidic device to enhance primary heptocyte functions," The 5th International Conference on Microtechnologies in Medicine and Biology, Quebec City, Canada, 1-3 April 2009
160. D. C. S. Tai, N. Tan, C. H. Kang, C. L. Cheng, S. M. Chia, G. F. Xiao, W. X. Sun, A. Wee, H. Yu, "Fibro-Index: Automated, 1-step system to assess liver fibrosis stage." Biomedical Asia 2009, Singapore, 16-19 March 2009
161. D. van Noort, Y. C. Toh, H. Yu, "A Microfluidics Device for Cellular Drug Screening". IEEE International Conference on Micro Electro Mechanical Systems (MEMS) 2009, Hilton Sorrento Palace, Sorrento, Italy, 25-29 January 2009
131. H. Yu, "Precision engineering of complex internal organs: design parameters for biomaterials and device developments," A*STAR CCO Workshop on Biomaterials: Materials in Biology and Medicine, Breakthrough and Discovery Theatrettes, Biopolis, Singapore, 15 December 2008
132. H. Yu, "Functional Systems Biology and Engineering: a process-centered approach to the solutions for liver diseases," GPBE-Tohoku Graduate Student Conference in Bioengineering, Centre for Life Sciences (CeLS), NUS, Singapore, 9-10 December 2008
133. B. Nugraha, Z. Yue, H. Yu, "Cellulosic Scaffold for 3D Hepatocyte Culture," NUS-Tohoku Graduate Student Conference in Bioengineering, Centre for Life Sciences (CeLS), Singapore, 9-10 December 2008
134. D. C. S. Tai, N. Tan, S. M. Chia, S. Y. Xu, A. C. H. Kang, H. Yu, "Automated Algorithm for Standard Quantification on Liver Fibrosis using Second Harmonic Generation Microscopy," IEEE PhotonicsGlobal@Singapore 2008, SMU Conference Centre, Singapore, 8-11 December 2008
135. S. Zhang, L. Xia, H. L. Leo, H. Yu, "Primary sandwich perfusion culture based on microfabricated silicon nitride membranes," The TERMIS North America 2008 Annual Conference and Exposition, Hyatt Regency La Jolla, San Diego, California, USA, 7-10 December 2008
136. J. Zhou, C. Bi, S. C. Liu, W. J. Chng, K. G. Tay, H. Yu, K. B. Glaser, D. H. Albert, S. K. Davidsen, C. S. Chen, "Identification of core gene signature associated with synergism between ABT-869, a FLT3 inhibitor and SAHA, a HDAC inhibitor in AML with FLT3-ITD mutation," 50th Annual Meeting of American Society of Hematology (ASH), Moscone Centre, San Francisco, CA, 6-9 December 2008
137. H. L. Leo, L. Xia, S. Zhang, T. Cheng, G. Xiao, X. Tuo, H. Yu, "Computational fluid dynamics investigation of the effect of the fluid-induced shear stress on hepatocyte sandwich perfusion culture," The 13th International Conference on Biomedical Engineering (ICBME 2008), Suntec Singapore International Convention and Exhibition Centre, Singapore, 3-6 December 2008

138. B. X. Zheng, S. M. Chia, D. C. S. Tai, H. Yu, "Image-based multi-dimensional and multi-variate profiling system of anti-fibrotic compounds," High Content Cellular Screening Workshop. Genome Institute of Singapore. Human Genome Organization, Singapore, 12-14 November 2008
139. H. Yu, "Cross-scale imaging opportunities and challenges in Singapore," 2nd Mechanobiology Workshop 2008, Centre of Life Sciences, Auditorium 1, National University of Singapore, Singapore, 3-6 November 2008
140. S. Y. Xu, Y. T. He, D. C. S. Tai, S. Chang, J. C. Rajapakse, H. Yu, "Quantification of liver fibrosis from liver surface with second harmonic generation," 2nd Mechanobiology Workshop 2008, Centre of Life Sciences, Singapore, 3-5 November 2008
141. A. M. Raja, W. Sun, D. C. S. Tai, C. S. Chen, H. Yu, "Collagen visualized using Second Harmonic Generation Microscopy as a Breast Cancer Staging tool," 2nd Mechanobiology Workshop, Centre of Life Sciences, Singapore, 3-5 November 2008
142. D. Tai, S. Xu, C. H. Kang, N. Tan, S. M. Chia, C. L. Cheng, H. Yu, "Standardized Quantification for Liver Fibrosis Assessment Using Second Harmonic Generation Microscopy," 2008 Frontiers in Optics (FiO)/Laser Science XXIV (LS) Conference, Rochester Riverside Convention Centre, Rochester, New York, USA, 19-23 October 2008
143. H. Yu, "3D Cellular Models for Hepatotoxicity" Session 8: The 3D Cell Models and Supporting Technologies for Hepatotoxicity Testing of Drugs. BIT's 6th Annual Congress of International Drug Discovery Science and Technology (IDDST), Loong Palace Hotel & Resort, Beijing, China, 18-22 October 2008
144. E. H. Chua, A. J. A. Koo, S. S. Bhowmick, H. Yu, C. F. Jr. Dewey, "Quantitative modeling of ischemia/reperfusion injury in heart and liver," Biomedical Engineering Society (BMES), St. Louis, USA, 2-4 October 2008
145. D. van Noort, Y. C. Toh, T. C. Lim, H. Yu, "3D cell cultures in multi-channel microfluidics for drug screening," SBE's 4th International Conference on Bioengineering and Nanotechnology, University College Dublin, Ireland, 22-24 August 2008
146. S. M. Chia, F. Y. Kuan, N. Tan, S. T. Teo, L. Venkatraman, S. Bhowmick, H. Yu, "TGF β 1 Homeostasis is Important for Liver Fibrosis Resolution," World Congress of Pediatric Gastroenterology, Hepatology and Nutrition, Iguassu Falls, Brazil, 16-20 August 2008
147. N. Tan, S. M. Chia, S. T. Teo, D. C. S. Tai, A. C. H. Kang, C. L. Cheng, L. W. Chiang, G. F. Xiao, H. Yu, "Effects of Phytosomal Silybin (Siliphos) on Bile Duct Ligation-Induced Liver Fibrosis in Rats - Is Cirrhosis Really Reversible?" World Congress of Pediatric Gastroenterology, Hepatology and Nutrition, Iguassu Falls, Brazil, 16-20 August 2008
148. D. C. S. Tai, N. Tan, S. M. Chia, G. F. Xiao, C. H. Kang, W. X. Sun, H. Yu, "Quantification of Liver Fibrosis using Second Harmonic Generation Laser Microscopy," World Congress of Pediatric Gastroenterology, Hepatology and Nutrition, Iguassu Falls, Brazil, 16-20 August 2008
149. B. Nugraha, Z. Yue, H. Yu, "Mitochondrial Drug Delivery System for Cancer Treatment: A Preliminary Study," Tohoku-NUS Student Joint Symposium, Tokyo & Sendai, Japan, 10-12 May 2008
150. L. Xia, Y. Du, H. L. Leo, H. Yu, "Maintenance of hepatocyte polarity in synthetic sandwich culture," 5th Tampere Tissue Engineering Symposium, Tampere, Finland, 23-25 April 2008

151. D. C. S. Tai, N. Tan, C. L. Chen, S. M. Chia, G. F. Xiao, W. X. Sun, H. Yu, "Standardized quantification on liver fibrosis using second harmonic generation and two-photon microscopy," Focus on Microscopy, Osaka-Awaji, Japan, 13-16 April 2008
152. C. H. Kang, D. C. S. Tai, S. Xu, N. Tan, S. M. Chia, H. Yu, "Quantification of collagen in second harmonic imaging of liver fibrosis," Focus on Microscopy, Osaka, Japan, 13-16 April 2008
153. H. L. Leo, A. L. W. Lim, D. A. M. Yi, X. Lei, T. Arooz, Z. Yue, H. Yu, "Perfusion based 3D culture for in vitro drug testing," 3rd Materials Research Society of Singapore Conference on Advanced Materials (ICAM), Singapore, 18-21 February 2008
154. Z. Yue, A. T. E. Der, H. Yu, "Therapeutic nanocarriers for controlled intracellular drug release," 3rd Materials Research Society of Singapore Conference on Advanced Materials (ICAM), Singapore, 18-21 February 2008
155. S. M. Chia, F. Y. Kuan, N. Tan, L. Venkatraman, S. Bhowmick, H. Yu, "TGF- β ? homeostasis is important for liver fibrosis resolution," Keystone Symposium on TGF- β ? Family in Homeostasis and Disease, Santa Fe, New Mexico, USA, 3-8 February 2008
156. D. van Noort, C. Zhang, Y. C. Toh, S. M. Ong, H. Yu, "3D cell cultures in microfluidics for drug discovery," SBE's 1st International Conference on Stem Cell Engineering, Coronado Island, CA, USA, 20-23 January 2008
157. A. Kumar PR, T. Prasad, G. Xiao, T. V. Kumary, H. Yu, "Three dimensional in vitro tissue models for toxicity studies," International Conference on Advances in Bioresorbable Biomaterials for Tissue Engineering, Singapore, 5-6 January 2008
158. F. Wen, Y. M. Khong, Y. Du, Z. Yue, S. H. Teoh, H. Yu, "Surface modification of bulky tissue engineering scaffold through gamma irradiation," International Conference on Advances in Bioresorbable Biomaterials for Tissue Engineering, Singapore, 5-6 January 2008
159. S. M. Chia, H. Q. Mao, H. Yu, "Sustained presentation of transforming growth factor β 1 (TGF- β 1) to encapsulated hepatocytes mimicking the stimulatory effects of 3D co-culture," International Conference on Advances in Bioresorbable Biomaterials for Tissue Engineering, Singapore, 5-6 January 2008
160. D. C. S. Tai, C. H. Kang, S. M. Chia, N. Tan, G. Xiao, H. Yu, "Quantification of liver fibrosis using second harmonic generation laser microscopy," International Conference on Advances in Bioresorbable Biomaterials for Tissue Engineering, Singapore, 5-6 January 2008
161. D. Zhao, H. Yu, "Rapid engineering of multi-cellular aggregates with novel polymeric intercellular linker," International Conference on Advances in Bioresorbable Biomaterials for Tissue Engineering, Singapore, 5-6 January 2008
162. Y. C. Toh, C. Zhang, D. W. Hutmacher, H. Yu, "A 3D microfluidic cell culture system (3D- μ FCCS) for probing osteogenic differentiation of mesenchymal stem cells," International Conference on Advances in Bioresorbable Biomaterials for Tissue Engineering, Singapore, 5-6 January 2008
163. L. Xia, Y. Du, H. L. Leo, H. Yu, "The relationship between hepatocyte density and polarity in synthetic sandwich culture," International conference on Advances in Bioresorbable Biomaterials for Tissue Engineering, Singapore, 5-6 January 2008
164. X. Zhang, J. K. Heng, H. Yu, "Endoplasmic Reticulum at Cell Leading Edge Is Essential to Regulate Cell Migration," The 47th American Society of Cell Biology (ASCB) Annual Conference, Washington Convention Center, Washington, DC, 1-5 December 2007

165. J. Zhou, C. Bi, L. F. Poon, J. V. Janakakumara, J. Khng, H. Yu, K. B. Glaser, D. Albert, S. K. Davidsen, C. C. Chen, "Overactivation of STAT pathways and overexpression of survivin confer resistance to FLT3 inhibitors and could be therapeutic targets in AML," Annual Meeting of American Society of Hematology (ASH), Atlanta, USA, 8-11 December 2007
166. Z. Yue, S. B. M. Usuludn, H. Yu, "Bio-inspired multifunctional nanoassemblies for intracellular drug delivery," International Conference on Cellular & Molecular Bioengineering, Singapore, 10-12 December 2007
167. Y. C. Toh, D. van Noort, J. Zhang, H. Yu, "A microfluidic 3D in vitro model for hepatotoxicity testing," 3rd SBE International Conference on Bioengineering and Nanotechnology, Singapore, 12-15 August 2007
168. D. van Noort, C. Zhang, Y. C. Toh, S. M. Ong, H. Yu, "3D cell cultures in microfluidics for drug discovery," CELLutions Summit, Boston, USA, 20-23 August 2007
169. S. M. Ong, L. He, D. Zhou, C. H. Tan, H. Yu, "Transient inter-cellular polymeric linkers for cell-dense 3D culture," CELLutions Summit, Boston, USA, 20-23 August 2007
170. S. Zhang, Y. Du, S. H. Kan, H. Yu, "A micro-fabricated collagen free sandwich hepatocyte culture for drug screening application," CELLutions Summit, Boston, USA, 20-23 August 2007
171. S. M. Ong, L. J. He, D. Zhao, C. H. Tan, H. Yu, "Transient inter-cellular polymeric linker for 3D cell culture," International Conference on Bioengineering and Nanotechnology (ICBN), Biopolis, Singapore, 12-15 August 2007
172. F. Wen, Y. Khong, Y. Du, Z. Yue, S. Teoh, H. Yu, "Surface Modification of Bulky Tissue Engineering Scaffold through Gamma Irradiation," International Conference on Bioengineering and Nanotechnology (ICBN), Biopolis, Singapore, 12-15 August 2007
173. Y. M. Khong, J. Zhang, S. Zhou, C. Cheung, K. Dobersteini, V. Samper, H. Yu, "Novel intra-tissue perfusion system for culturing thick liver tissue," International Conference on Bioengineering and Nanotechnology (ICBN), Biopolis, Singapore, 12-15 August 2007
174. Z. Yue, S. B. M. Usuludn, H. Yu, "Bio-inspired multifunctional nanoassemblies for intracellular drug delivery," International Conference on Bioengineering and Nanotechnology (ICBN), Biopolis, Singapore, 12-15 August 2007
175. S. M. Chia, H. Yu, "Novel cell culture supplements for sustained high level of hepatocyte functions in culture," International Conference on Bioengineering and Nanotechnology (ICBN), Biopolis, Singapore, 12-15 August 2007
176. Y. C. Toh, C. Zhang, J. Zhang, D. van Noort, V. D. Samper, D. W. Hutmacher, H. Yu, "Maintaining 3D cellular phenotypes in microfluidic channels," International Conference on Bioengineering and Nanotechnology (ICBN), Biopolis, Singapore, 12-15 August 2007
177. D. van Noort, C. Zhang, Y. C. Toh, S. M. Ong, H. Yu, "Cells in microfluidics: 3D-constructs for drug testing," International Conference on Bioengineering and Nanotechnology (ICBN), Biopolis, Singapore, 12-15 August 2007
178. Z. Jing, Y. C. Toh, Y. M. Khong, Y. Du, W. Sun, H. Yu, "Capillary electrophoresis with laser induced fluorescence (CE-LIF) for sensitive detection of phase I and II metabolic functions in hepatocytes," International Conference on Bioengineering and Nanotechnology (ICBN), Biopolis, Singapore, 12-15 August 2007

179. S. Zhang, Y. Du, S. H. Kan, H. Yu, "A micro-fabricated collagen free sandwich hepatocyte culture for drug screening application," International Conference on Bioengineering and Nanotechnology (ICBN), Biopolis, Singapore, 12-15 August 2007
180. A. Mythreyi Raja, H. Yu, "Characterization of cancer microenvironment," Asia Pacific Rim University "Doctoral Students' Conference" Keio University, Tokyo, Japan, 30 July - 3 August 2007
181. K. H. Lee, R. Magalhaes, S. S. Gouk, H. Yu, L. Kuleshova, "Evaluative study of non-penetrating cryoprotective additives: Effects of sugars on the attachment ability of freshly isolated rat hepatocytes," 44th meeting of Cryobiology, Lake Louise, Canada, 28 July - 1 August 2007
182. H. Yu, "Multi-dimensional live tissue constructs imaging," The 3rd Asian and Pacific Rim Symposium on Biophotonics (APBP) in conjunction with Biophotonics Downunder II, Cairns, Australia, 10 July 2007
183. S. H. Lau, W. Feng, H. Yu, "Virtual non invasive 3D imaging of biomaterials and soft tissue with a novel high contrast CT, with resolution from mm to sub 30 nm," International Conference on Materials for Advanced Technologies (ICMAT), Singapore, 1-6 July 2007
184. T. Wohland, X. Pan, H. Yu, "Diffusion and flow in micro- and nano-structures measured by fluorescence correlation spectroscopy," International Conference on Materials for Advanced Technologies (ICMAT), Singapore, 1-6 July 2007
185. H. Yu, "Introduction to cell biology," The 2nd Global Enterprise for Micro-Mechanics and Molecular Medicine (GEM4, <http://www.gem4.org>) Summer School, Singapore, 26 June 2007
186. Y. N. Du, R. B. Han, H. Yu, "A novel synthetic sandwich configuration for stabilizing and culturing 'Pre-spheroid Hepatocyte Monolayer,'" Keystone symposium "Tissue Engineering and Developmental Biology", Snowbird, USA, 12-17 April 2007
187. F. Wen, Y. M. Khong, Y. N. Du, Z. L. Yue, S. H. Teoh, H. Yu, "Surface modification of bulky tissue engineering scaffold through gamma irradiation," Keystone symposium "Tissue Engineering and Developmental Biology", Snowbird, USA, 12-17 April 2007
188. H. Yu, "Engineering and probing extra-cellular microenvironment in tissue engineering," IV Tampere Tissue Engineering symposium, Institute for Regenerative Medicine University of Tampere, Finland, 12-14 March 2007
189. S. M. Chia, F. Y. Kuan, H. Yu, "Thrombospondin-1 is a Key TGF- β 1 activator for hepatic stellate cells in liver fibrosis," Keystone symposium "Fibrosis", Tahoe City, USA, 11-15 March 2007
190. X. Pan, Y. C. Toh, Y. M. Khong, H. Yu, X. Shi, V. Korzh, T. Wohland, "Flow profile in microchannels and microvessels," Biophysical Journal (2007). Bethesda: Biophysical Society. 51st National Meeting of the Biophysical Society, Convention Center, Baltimore, MD, United States, 3-7 March 2007
191. R. Magalhaes, L. Kuleshova, X. Wang, S. S. Gouk, C. M. Ten, K. H. Lee, H. Yu, "Study on low temperature preservation of self-assembled cellular spheroids by vitrification," UT Symposium on Nanobio Integration. Nano-Bio, Tokyo, Japan, 4-7 December 2006
192. Y. C. Toh, Y. M. Khong, S. Chang, V. D. Samper, D. W. Hutmacher, H. Yu, "Maintaining 3D cellular phenotypes in microfluidic channels," UT Symposium on Nanobio Integration. Nano-Bio, Tokyo, Japan, 4-7 December 2006

193. S. S. S. Ng, R. B. Han, H. L. Leo, H. Yu, "Perfusion with excretory function promotes the long-term functional maintenance of hepatocytes," UT Symposium on Nanobio Integration. Nano-Bio, Tokyo, Japan, 4-7 December 2006
194. H. Yu, "Engineering and imaging extra-cellular environment," UT Symposium on Nanobio Integration. Nano-Bio, Tokyo, Japan, 4-7 December 2006
195. H. Yu, "Imaging cellular niche," 9th International Conference on Optics Within Life Science (OWLS9), National Yang-Ming University, Taipei, Taiwan, 26-29 November 2006
196. Y. C. Toh, Y. M. Khong, S. Chang, V. D. Samper, D. W. Hutmacher, H. Yu, "Maintaining 3D cellular phenotypes in microfluidic channels," A*STAR Graduate Academy student symposium, Singapore, 11 October 2006
197. S. S. S. Ng, R. B. Han, H. L. Leo, H. Yu, "Perfusion with excretory function promotes the long-term functional maintenance of hepatocytes," A*STAR Graduate Academy student symposium (Best Poster Award), Singapore, 11 October 2006
198. S. S. S. Ng, R.B. Han, H. Yu, "Immediate-overlay sandwich perfusion sustains hepatocyte polarity and functions," Asian Symposium for Biomedical Materials, Jeju Island, Korea, 20-23 August 2006
199. S. M. Ong, H. Yu, "Engineering 3-D cellular constructs using inter-cellular polymeric linkers," 7th Asian Symposium for Biomedical Materials, Jeju Island, Korea, 20-23 August 2006
200. Y. N. Du, R. B. Han, S. S. Ng, S. M. Chia, H. Yu, "Identification and stabilization of a novel 3D hepatocyte monolayer configuration for hepatocyte-based applications," CHI conference on "Tissue Models for Therapeutic Development", Boston, USA, 14-17 August 2006
201. X. Wang, Y. N. Wu, S. Chang, R. Magalhaes, H. Yu, H. H. Tang, L. Kuleshova, "Porcine model: Vitrication of microencapsulated hepatocytes following an optimized isolation procedure," CRYO2006, Hamburg, Germany, 24-27 July 2006
202. X. Pan, H. Yu, T. Wohland, "Flow profile measurements in microchannels using scanning fluorescence correlation spectroscopy," Asia Pacific Workshop on biological Physics, NUS, Singapore, 3-5 July 2006
203. Y. M. Khong, S. Chang, V. Samper, H. Yu, "A novel intra-tissue perfusion culture of thick liver slices," Regenerate World Congress on Tissue Engineering and Regenerative Medicine, Pittsburgh, USA, 24-27 April 2006
204. S. M. Chia, C. M. Ten, H. Yu, "Novel cell culture supplements for enhanced hepatocyte functions," Regenerate World Congress on Tissue Engineering and Regenerative Medicine, Pittsburgh, USA, 24-27 April 2006
205. S. Kumar, S. H. Kan. S.H., S. Ng, H. Yu "Automated cell based high throughput screening via image analysis," Nanobio conference, San Francisco, USA, 19-21 June 2006 H. Yu, "Cell and tissue imaging using ultra-short lasers," IEICE Ultra-fast Photonics Meeting, Sophia University, Tokyo, Japan, 17 March 2006
206. Y. N. Wu, S. Chang, H. Yu, L. Kuleshova, "Study on cryopreservation of cell-biomaterial constructs by vitrification," 42nd Annual Meeting of Society for Cryobiology, Minneapolis, USA, 24-27 July 2005
207. R. B. Han, S. S. S. Ng, H. Yu, "Effect of mass transport process across the top layer of sandwich construct to hepatocytes in perfusion sandwich culture," Tissue Engineering Society International, Shanghai, China, 22-26 October 2005

208. S. S. S. Ng, R. B. Han, W. Hunziker, H. Yu, "Controlled presentation of extracellular polarity cues enhances hepatocyte repolarization and function," Tissue Models for Therapeutics, Cambridge, USA, 29-30 September 2005
209. Y. C. Toh, H. Yu, "A 3D in vitro model for hepatocytes culture in a physiological micro-environment," Tissue Models for Therapeutics, Cambridge, USA, 29-30 September 2005
210. X. Pan, H. Yu, T. Wohland, "Analysis of flow speeds and directions in a microchannel by scanning fluorescence correlation spectroscopy (sFCS)." International Biophysics Congress (by European Biophysical Societies' Association), Montpellier, France, 27 August - 1 September 2005
211. C. Z. C. Chen, G. Kalamegam, P. G. Adaikan, H. Yu, D. W. Hutmacher, "Double-sided cell seeding on an electrospun PCL-collagen nanofiber sheet," The 2005 European Society for Biomaterials Conference, Sorrento, Italy, 11-15 September 2005
212. H. Yu, "Challenges in liver tissue engineering?" Symposium on "New trends in biomaterials-tissue engineering," Pan Pacific Hotel, Singapore, 9 July 2005
213. S. M. Chia, C. M. Ten, H. Yu, "Novel cell culture supplements for sustained high level of hepatocyte functions in culture," 8th International Conference on Drug-Drug Interactions: New Technologies, Clinical Approaches, Prediction and Mechanisms for the Evaluation of Drug-Drug Interactions, Seattle, USA, 15-17 June 2005
214. C. Z. C. Chen, G. Kalamegam, P. G. Adaikan, H. Yu, D. W. Hutmacher, "Biocompatibility of electrospun PCL-collagen nanofiber scaffolds with corporal smooth-muscle cells," The Regenerate International Conference and Exposition, Atlanta, USA, 1-4 June 2005
215. S. S. S. Ng, Y. C. Toh, Y. M. Khong, V. Samper, H. Yu, "Complex Coacervating Microfluidics for the immobilization of cells within micropatterned matrices," Conference on Tissue Models for Drug Delivery, Boston, USA, 8-9 November 2004
216. Y. C. Toh, S. S. S. Ng, Y. M. Khong, V. Samper, H. Yu, "3D immobilization of primary rat hepatocytes in microfluidic channels by polyelectrolyte complex coacervation under laminar flow conditions," Conference on Tissue Models for Drug Delivery, Boston, USA, 8-9 November 2004
217. Y. M. Khong, V. Samper, H. Yu, "Novel Intra Tissue Perfusion Systems of Liver Slices," Conference on Tissue Models for Drug Delivery, Boston, USA, 8-9 November 2004
218. S. M. Chia, P. C. Lin, X. Y. Koh, H. Q. Mao, H. Yu, "Sustained presence of transforming growth factor b1 to encapsulated hepatocytes mimicking the stimulatory effects of 3D co-culture," The First International SBE Conference on Bioengineering and Nanotechnology (ICBN), Biopolis, 27-29 September 2004
219. Y. C. Toh, H. Yu, "Polyelectrolyte complex coacervation as a means of improving seeding efficiency of bone marrow stromal cells in a 3D culture system," The First International SBE Conference on Bioengineering and Nanotechnology (ICBN), Biopolis, 27-29 September 2004
220. K. M. Schumacher, H. Yu, "From the renal stem cell niche to functional tubules," The First International SBE Conference on Bioengineering and Nanotechnology (ICBN), Biopolis, 27-29 September 2004
221. H. T. Ho, J. Zhang, H. Yu, "Apparatus for Encapsulating Cells," The First International SBE Conference on Bioengineering and Nanotechnology (ICBN), Biopolis, 27-29 September 2004

222. L. L. Kuleshova, A. Ono, X. W. Wang, H. Yu, "Current Progress in Vitrification of Tissue-engineered Constructs," World Congress of Cryobiology and Cryomedicine "Cryo' 2004", International Convention Center, Beijing, China, 15-19 July 2004
223. S. S. S. Ng, H. Yu, "Engineering Extra-Cellular Matrices for Modulation of Cell Behaviors," 7th World Biomaterials Congress, Sydney, Australia, 16-22 May 2004
224. Y. N. Wu, X. W. Wang, H. -Q. Mao, H. Yu, "Galactosylated Collagen Enhanced Cell Functions of Hepatocytes in Microcapsules," 7th World Biomaterials Congress, Sydney, Australia, 16-22 May 2004
225. S. M. Chia, P. C. Lin, X. Y. Koh, H. -Q. Mao, H. Yu, "Sustained Present of Transforming Growth Factor b1 (TGF-b1) to Encapsulated Hepatocytes Mimicking the Stimulatory Effects of 3D Co-culture," 7th World Biomaterials Congress, Sydney, Australia, 16-22 May 2004
226. J. H. Zhu, X. J. Lao, S. M. Chia, S. Ng, H. Yu, "Fabrication of Positively Charged 3-Dimensional Cell-Compatible Supports for Tissue Engineering," International Symposium on bioprocess and Biomolecular Engineering, ECUST, Shanghai, Dec 15-17, 2003
227. L. L. Ong, H. Yu, "Assembly of Translation Elongation Factor-1 Complex on Kinectin," 43rd Annual Meeting of The American Society for Cell Biology, San Francisco, California, Dec 13-17, 2003
228. S. M. Chia, P. C. Lin, C. H. Quek, H. Q. Mao, H. Yu, "Co-Encapsulation of Transforming Growth Factor- β 1 to Prolong Functions of Encapsulated Hepatocytes," Tissue Engineering Society International (TESI) Annual Meeting, Orlando, Florida, USA, Dec 10-13, 2003
229. S. M. Chia, P. C. Lin, C. H. Quek, K. W. Leong, H. Yu, "TGF- β 1 Regulation in Hepatocyte-NIH3T3 Co-culture is Important for the Enhanced Hepatocyte Functions," Tissue Engineering Society International (TESI) Annual Meeting, Orlando, Florida, USA, Dec 10-13, 2003
230. L. L. Kuleshova, X. W. Wang, H. Yu, "Long Term Preservation of Microcapsulated Hepatocytes," Tissue Engineering Society International (TESI) Annual Meeting, Orlando, Florida, USA, Dec 10-13, 2003
231. L. S. E. Tan, H. Yu, "Influences of Extracellular Microenvironment on Cell Behaviour: A Comparative Approach," The 4th Sino-Singapore Conference on Biotechnology, National University of Singapore, Singapore, Nov 11-13, 2003
232. L. L. Ong, H. Yu, "Assembly of Translation Elongation Factor-1 Complex on Kinectin," The 4th Sino-Singapore Conference on Biotechnology, National University of Singapore, Singapore, Nov 11-13, 2003
233. L. L. Kuleshova, X. W. Wang, A. Chua, Y. Wu, H. Yu, "Vitreous Cryopreservation of Tissue-Engineered Constructs," International Conference of Cryobiomol 2003, Coimbra, Portugal, Sept 14-18, 2003 (Conference's proceeding Cryobiomol 2003, p.70)
234. Invited Lectures/Conference Presentations
235. "Precision engineering of complex internal organs: design parameters for biomaterials and device developments". A*STAR CCO Workshop on Biomaterials: Materials in Biology and Medicine, Breakthrough and Discovery Theatrettes, Biopolis, Singapore, 15 December 2008
236. "Functional Systems Biology and Engineering: a process-centered on approach to the solutions for liver diseases". GPBE-Tohoku Graduate Student Conference in Bioengineering 2008, Centre for Life Sciences (CeLS) NUS, 9-10 December 2008

237. "Cross-scale imaging opportunities and challenges in Singapore". Session 2: Bioimaging. Second Mechanobiology Workshop 2008, Centre of Life Sciences NUS, Singapore, 3-6 November 2008
238. "Functional systems biology: examples in liver research". Department of Gastroenterology, 1st Military Medical University, Southern Hospital, Guangzhou, China, 31 October 2008.
239. "Functional Systems Biology: a process-centered approach to the study of liver fibrosis regression". Seminar for SMA in Tsinghua University, Beijing Normal University and Nan Kai University, Beijing, China, 20-21 October 2008
240. "3D Cellular Models for Hepatotoxicity". Session 8: The 3D Cell Models and Supporting Technologies for Hepatotoxicity Testing of Drugs. BIT's 6th Annual Congress of International Drug Discovery Science and Technology (IDDST), Beijing, China, 18-22 October 2008
241. Guest Lecturer, "Functional Systems Biology", CS6280 Computational Systems Biology, COM1, NUS, 7 October 2008
242. "Trends in Liver Tissue Engineering" Focus Group Meeting of NUS Tissue Engineering Program (NUSTEP), Hippocrates seminar room, DSO building, Singapore, 16 September 2008
243. "Engineered liver cell/tissue constructs, possible in vitro models for infectious agents" SMART Infectious Disease Retreat, Bintan Lagoon Resort, Lagoi, Riau, Indonesia, 3-5 August 2008
244. "3D Cellular Models for Hepatotoxicity" BIT Life Sciences' 1st Annual World Congress of ibio2008, Hangzhou, China: New Starting Line for Decision Makers in Bio-economy Era, 18-22 May 2008
245. "Cell responses to micro- and nano- featured environments." Engineered Surfaces for Regulating Cell Behaviour. Thursday, Biopolis, Singapore, 28 February 2008
246. "Confocal microscopy and its applications." Science and Technology Fest 2008, Biopolis, Singapore, 31 January 2008
247. "New Development in Multi-Modal Imaging for Evaluation of Cells in 3D Bioresorbable Scaffolds", the International Conference on Advances in Bioresorbable Biomaterials for Tissue Engineering - from Research to Clinical Applications. Marina Mandarin Hotel, Singapore, 5-6 January 2008
248. "Endoplasmic Reticulum Dynamics in Cell Migration" National Taiwan University, Taipei, Taiwan, 14 November 2007
249. "Micro-/Nano-Scale Tissue Engineering in Regenerative Medicine", National Taiwan University, Taipei, Taiwan, 12 November 2007
250. "ER dynamics in Cell Motility and Engineering Extra-Cellular Micro-environmental Cues" The 1st Mechanobiology Workshop, National University of Singapore, Singapore, 16-18 October 2007
251. "Nanotechnology and Tissue Engineering", keynote address, Graduate Program in Bioengineering Graduate Student Conference (GPBE) National University of Singapore, Singapore, 14 September 2007
252. "Multi-dimensional live tissue constructs imaging", The 3rd Asian and Pacific Rim Symposium on Biophotonics (APBP) in conjunction with Biophotonics Downunder II, Cairns, Australia, 10 July 2007

253. "Introduction to Cell Biology", the 2nd Global Enterprise for Micro-Mechanics and Molecular Medicine (GEM4, <http://www.gem4.org>) Summer School, Singapore, 26 June 2007
254. "Endoplasmic Reticulum Dynamics and Liver Fibrosis Resolution", The Centre for Reproduction, Development and Growth, University of Hong Kong, Hong Kong, 10 April 2007
255. "Challenges in Micro-/Nano-Scale Tissue Engineering in Regenerative Medicine", Department of Mechanical Engineering, University of Hong Kong, Hong Kong, 3 April 2007
256. "Engineering and probing extra-cellular microenvironment in tissue engineering", IV Tampere Tissue Engineering symposium, Institute for Regenerative Medicine University of Tampere, Finland, 12-14 March 2007
257. "Engineering and imaging extra-cellular environments", Nanobio-Tokyo, University of Tokyo, Japan, 4-7 December 2006
258. "Imaging Cellular Niche", 9th International Conference on Optics Within Life Science (OWLS9), National Yang-Ming University, Taipei, Taiwan, 26-29 November 2006
259. "Engineering Extra-Cellular (EC) Environments", EWHA Woman University, Division of Nano Science & Department of Life Science, Seoul, Korea, 24 August 2006
260. "Immediate- Overlay Sandwich Perfusion Sustains Hepatocyte Polarity and Functions", ASBM 7, JeJu Island, Korea, 20 August 2006
261. "Cell and Tissue Imaging Using Ultra-short Lasers", IEICE Ultra-fast Photonics Meeting, Sophia University, Tokyo, Japan, 17 March 2006
262. "Liver cell and tissue engineering: systematic approaches to applications". NUS Tissue Engineering Program (NUSTEP) workshop on Regenerative Medicine and Tissue Engineering, Singapore, 5-6 December 2005
263. "Applications of Fluorescence Microscopy in Biomedical Research", Biophysical Technology and Methods Frontiers Forum and 4th Chinese Biophysical Technologies Symposium. Tsing Hua University, China. 24 November 2005
264. "Nanotechnologies in biomedical applications". Macau Biotechnology Research Institute, Macau, China, 22 November 2005
265. "Some applications in Multi-dimensional Microscopy", 3rd Olympus Laser Confocal Microscope's User Club Meeting, Shanghai, P.R. China, 19-20 September 2005
266. "Challenges in Liver Tissue Engineering?", Symposium on "New Trends in Biomaterials-Tissue Engineering", Pan Pacific Hotel, Singapore, 9 July 2005
267. "Perfusion Culture of Liver Tissue Constructs", ICMAT - ICAM 2005, Suntec Singapore International Convention and Exhibition Centre, Singapore, 4-8 July 2005
268. Focus on Microscopy 2005, Jena, Germany, 20-23 March 2005 "Engineering In Vitro Models for Metabolism Analysis of Drug Candidates", Weekly Seminar for Division of Bioengineering, Nanyang Technological University, Singapore, 17 March 2005
269. "3-D Microscopy", BMRC-EMBO Practical Course on Advanced Optical Methods in Cell and Developmental Biology, Biopolis, Singapore, 17-28 January 2005
270. "Overview of Stem Cell-Tissue Flagship programme", SMA Symposium: Technical Parallel session for Computation and Systems Biology, Orchard Hotel, Singapore, 19-20 January 2005

271. "Tissue Engineering", IBN Workshop for Science Teachers, Biopolis, December 3, 2004
"Multidimensional Imaging Applications in Complex Tissue Engineering", The Third International Conference on Structural Biology and Functional Genomics, National University of Singapore, December 2-4, 2004
272. "In vitro Liver Tissue Models", Medical Year 1 Foundation In Research Skills (FRS) AY2004/05, NUS, December 1-13, 2004
273. "Development of Innovative Cell Technologies through engineering EC Microenvironment", 2nd Shenzhen Forum in Biomedicine, Shenzhen, P.R. China, November 3-7, 2004
274. "Multidimensional Imaging Applications in Complex Tissue Engineering", Bioimaging Symposium: Emerging Technologies and Novel Techniques in Bioimaging, NUS, October 11, 2004
275. "Tissue Engineering: An overview", Invitation lecture to graduate students in NUS, Faculty of Science (BL5204), October 7, 2004
276. "Building Liver Tissue Structure and Functions from Scratch?", The First International SBE Conference on Bioengineering and Nanotechnology (ICBN), Biopolis, September 27-29, 2004
277. "Precision engineering of Liver tissue Micro -Architecture AND Functions: Enabling Technologies", Seminar at SBS-NTU, School of Biological Sciences, Nanyang Technological University, August 25, 2004
278. "Precision engineering of Liver tissue Micro -Architecture AND Functions: Enabling Technologies", 1st Nanoengineering and Nanoscience Congress, July 7-9, 2004, Singapore BMRC presenter (IBN), BMRC Bioimaging Workshop, Biopolis, Singapore, April 16, 2004
279. "Re-look at Support for Hepatocytes Functions Ex Vivo", Joint India-U.S. workshop on "Tissue Engineering and Stem Cell Technology", Trivandrum, India, February 2-4, 2004
280. Session Co-chair, Liver and Pancreas section: Tissue Engineering Society International Annual Meeting, Orlando, Florida, USA, December 10-13, 2003
281. "Microenvironment for hepatocyte culture", 2nd BMRC Symposium on Liver Research, Biopolis, Singapore, Nov 28, 2003
282. "Multidimensional Imaging of Cellular Dynamics in Engineered Microenvironment", #217 XiangShan Forum: Bio- and Molecular Optical Imaging, HUST, Wuhan, P.R. China, November 3-7, 2003
283. "Confocal microscopy applications" AND "Live Imaging", 2nd Olympus Laser Confocal Microscope's User Club Meeting, Shanghai, P.R. China, November 3-4, 2003
284. "Kinectin functions: graduate students' contributions", The Graduate Students' Society-Faculty of Medicine (GSS-FOM) 3rd Annual Scientific Conference
285. "A Look Into The Future", April 2003, Singapore "Regenerative Medicine in Singapore" and "Liver Tissue Engineering", kTi workshop and the second meeting of the Japanese Society of Regenerative Medicine", March 10-12, 2003, Kobe, Japan

Patents

1. D. Choudhury, C. Anene-Nzelu, H. Yu, Y.-C. Toh, H. L. Leo, S. H. Ng, "Methods Of Culturing Cells Or Tissues And Devices For Cell Or Tissue Culture," Singapore Patent Granted in August 2017
2. H. Yu, Y.-C. Toh, J. Xing, "Method And System For In Vitro Developmental Toxicity Testing," Europe Patent Granted in July 2017, UK Patent Granted in July 2017, Germany Patent Granted in July 2017, France Patent Granted in July 2017, Switzerland Patent Granted in July 2017
3. H. Yu, R. Han, Y. Du, "Bioactive Surface For Hepatocyte-Based Applications," US Patent Granted in June 2017
4. B. Nurgaha and H. Yu, "Cleavable cellulosic sponge development for 3 dimensional cell culture and spheroids retrieval", Singapore Patent granted May 2016
5. H. Yu, L. Xia and H. L. Leo, "Apparatus for Culturing Anchorage Dependent Cells," US Patent Granted February 2016
6. C. Zhang, D. Van Noort and H. Yu, "Microfluidic Continuous Flow Device," US Patent Granted August 2015
7. H. Yu, S. Zhang, H. L. Leo, "Apparatus for Cell or Tissue Culture," US Patent Granted on December 31, 2013, Chinese Patent Granted on July 9, 2014; France, Germany, Switzerland and UK Patents Granted August 2015
8. Z. Yue, F. Wen, H. Yu, "Forming Porous Scaffold from Cellulose Derivatives," Japan Patent Granted on November 29, 2013; US Patent Granted March 2015
9. D. van Noort, H. Yu, "Linear and Logarithmic Concentration Gradient Generators," Singapore Patent Granted on April 22, 2014
10. H. Yu, Y. M. Khong, F. Wen, "Manufacturing and Use of Composite Scaffolds," Singapore Patent Granted on September 30, 2013
11. H. Yu, S. M. Ong, "Engineering 3D Micro-Scale Cellular Constructs with Transient Inter-Cellular Linker and Micropillar Array for Maximal Mass Transport Properties," US Patent Granted on March 5, 2013; Chinese Patent Granted on September 18, 2013
12. H. Yu, Y.-C. Toh, "Encapsulation of Cells in Biologic Compatible Scaffolds by Coacervation of Charged Polymers," US Patent Granted on January 1, 2013
13. S. H. Kan, H. Yu, S. S. S. Ng, W. Sun, K. M. Schumacher, J. Y. Ying, "High-Throughput Cell Based Assays Fabricated with Integrated Silicon and Cell Culture Technologies," European Patent Granted on September 19, 2012
14. W. Sun, H. Yu, "SHG Quantification of Matrix-Related Tissue Dynamic and Disease," US Patent Granted on June 5, 2012
15. S. S. S. Ng, H. Yu, "Immobilization of Cells in a Matrix Formed by Biocompatible Charged Polymers Under Laminar Flow Conditions," Japan Patent Granted on March 16, 2012
16. S. S. S. Ng, H. Yu, "Immobilization of Cells in Matrix Formed by Biocompatible Charged Polymers under Laminar Flow Conditions," Singapore Patent Granted on March 16, 2012
17. S. S. S. Ng, H. Yu, "Immobilization of Cells in a Matrix Formed by Biocompatible Charged Polymers Under Laminar Flow Conditions," Europe Patent Granted on January 11, 2012
18. S. H. Kan, H. Yu, S. S. S. Ng, W. Sun, K. M. Schumacher, "High-Throughput Cell Based Assays Fabricated with Integrated Silicon and Cell Culture Technologies," US Patent Granted on August 23, 2011
19. H. Yu, R. Han, Y. Du, "Bioactive Surface for Hepatocyte-Based Applications," Singapore Patent Granted on July 15, 2011
20. H. Yu, Y.M. Khong and H.L. Leo, "Imaging Chamber with Window and Micro-needle Platform Magnetically Biased Toward Each Other", Singapore Patent Granted on February 28, 2011

21. W. Sun, H. Yu, "SHG Quantification of Matrix-Related Tissue Dynamic and Disease," Singapore Patent Granted on August 13, 2010
22. H. Yu, Y.C. Toh and S.S.S. Ng, "Cell Culture Device," Singapore Patent Granted in August 2008
23. H. Yu, H. Ho and J. Zhang, "Apparatus for Encapsulating Cells," Singapore Patent Granted in December 2007
24. S. Ng, H. Yu, "Immobilization of Cells in Matrix Formed by Biocompatible Charged Polymers under Laminar Flow Conditions," Singapore Patent Granted on March 30, 2007
25. S. Wang, A.C.A. Wan, H. Yu, and K.W. Leong, "A Polymer And Nerve Guide Conduits Formed Thereof," Singapore Patent Granted on December 29, 2006
26. H. Yu, K.W. Leong, S.M. Chia, A.C.A Wan, "Multi-layer cell encapsulation for tissue engineering," U.S. Patent Granted on July 12, 2005
27. H. Yu, K.W. Leong, S.M. Chia, A.C.A. Wan, "A Non-Disruptive 3D Culture and Harvest System for Anchorage-Dependent Mammalian Cells," Singapore Patent Granted on May 31, 2005; US Patent Granted on June 14, 2005; EP Patent Granted on April 18, 2007