IVIM TECHNOLOGY

Scintica:

IVIM Technology IntraVital Microscopy (IVM)

References

1. Ahn, S., Yoon, J., & Kim, P. (2024). Intravital imaging of cardiac tissue utilizing tissue-stabilized heart window chamber in live animal model. European Heart Journal - Imaging Methods and Practice, 2(1). https://doi.org/10.1093/EHJIMP/QYAE062

2. Chen, S., Li, K., Chen, X., Lei, S., Lin, J., & Huang, P. (2024). Reversibly photoswitchable protein assemblies with collagen affinity for in vivo photoacoustic imaging of tumors. Science Advances, 10(35). https://doi.org/10.1126/SCIADV.ADN8274/SUPPL_FILE/SCIADV.ADN8274_SM.PDF

3. Jeon, J., Park, Y. S., Kim, S.-H., Kong, E., Kim, J., Yang, J. M., Lee, J. Y., Kim, Y.-M., Kim, I.-B., & Kim, P. (2024). Deciphering perivascular macrophages and microglia in the retinal ganglion cell layers. Frontiers in Cell and Developmental Biology, 12, 1368021. https://doi.org/10.3389/FCELL.2024.1368021

4. Li, X., Zhong, H., Zheng, S., Mu, J., Yu, N., & Guo, S. (2024). Tumor-penetrating iRGD facilitates penetration of poly(floxuridine-ketal)-based nanomedicine for enhanced pancreatic cancer therapy. Journal of Controlled Release, 369, 444–457. https://doi.org/10.1016/J.JCONREL.2024.04.004

5. Ni, Q., Zhen, L., Zeng, Z., Yang, J., Wang, Y., Xu, H., Zhang, Q., Zhu, Y., Tao, Y., Wang, J., Liu, Q., Yi, K., Chen, Y., Chen, Q., Wang, G., Zhou, F., & Shan, Y. (2024). Mesenchymal stromal cells restrain the Th17 cell response via L-amino-acid oxidase within lymph nodes. Cell Death & Disease 2024 15:9, 15(9), 1–14. https://doi.org/10.1038/s41419-024-07024-7

6. Zi, S.-F., Wu, X.-J., Tang, Y., Liang, Y.-P., Liu, X., Wang, L., Li, S.-L., Wu, C.-D., Xu, J.-Y., Liu, T., Huang, W., Xie, J.-F., Liu, L., Chao, J., Qiu, H.-B., Zi, S.-F., Wu, X.-J., Tang, Y., Liang, Y.-P., … Qiu, H.-B. (2024). Endothelial Cell-Derived Extracellular Vesicles Promote Aberrant Neutrophil Trafficking and Subsequent Remote Lung Injury. Advanced Science, 11(38), 2400647. https://doi.org/10.1002/ADVS.202400647

7. Choi, J., Choi, J., Choi, M.-S., Choi, M.-S., Jeon, J., Jeon, J., Moon, J., Moon, J., Lee, J., Lee, J., Kong, E., Kong, E., Lucia, S. E., Lucia, S. E., Hong, S., Hong, S., Lee, J.-H., Lee, E. Y., Lee, E. Y., … Kim, P. (2023). In vivo longitudinal 920 nm two-photon intravital kidney imaging of a dynamic 2,8-DHA crystal formation and tubular deterioration in the adenine-induced chronic kidney disease mouse model. Biomedical Optics Express, Vol. 14, Issue 4, Pp. 1647-1658, 14(4), 1647–1658. https://doi.org/10.1364/BOE.485187

8. Eom, M., Han, S., Park, P., Kim, G., Cho, E. S., Sim, J., Lee, K. H., Kim, S., Tian, H., Böhm, U. L., Lowet, E., Tseng, H. an, Choi, J., Lucia, S. E., Ryu, S. H., Rózsa, M., Chang, S., Kim, P., Han, X., … Yoon, Y. G. (2023). Statistically unbiased prediction enables accurate denoising of voltage imaging data. Nature Methods 2023 20:10, 20(10), 1581–1592. https://doi.org/10.1038/s41592-023-02005-8

9. Quan, Y., He, J., Zou, Q., Zhang, L., Sun, Q., Huang, H., Li, W., Xie, K., & Wei, F. (2023). Low molecular weight heparin synergistically enhances the efficacy of adoptive and anti-PD-1-based immunotherapy by increasing lymphocyte infiltration in colorectal cancer. Journal for ImmunoTherapy of Cancer, 11(8), e007080. https://doi.org/10.1136/JITC-2023-007080

10. Shin, M. J., Im, S. H., Kim, B., Choi, J., Lucia, S. E., Kim, W., Park, J. G., Kim, P., Chung, H. J., & Yoon, D. K. (2023). Fabrication of Scratched Nanogrooves for Highly Oriented Cell Alignment and Application as a Wound Healing Dressing. ACS Applied Materials and Interfaces. https://doi.org/10.1021/ACSAMI.3C00530/SUPPL_FILE/AM3C00530_SI_001.PDF

11. Vinas-Pena, M., Cho, S., Hwang, Y., & Yun, S.-H. (2023). Fluorescence lifetimes of scleral tissues after riboflavin-mediated crosslinking. Investigative Ophthalmology & Visual Science, 64(8), 3356–3356.

12. Zhao, G., Ho, W., Chu, J., Xiong, X., Hu, B., Boakye-Yiadom, K. O., Xu, X., & Zhang, X. Q. (2023). Inhalable siRNA Nanoparticles for Enhanced Tumor-Targeting Treatment of KRAS-Mutant Non-Small-Cell Lung Cancer. ACS Applied Materials and Interfaces, 15(26), 31273–31284. https://doi.org/10.1021/ACSAMI.3C05007/SUPPL_FILE/AM3C05007_SI_001.PDF

13. Ahn, S., Koh, B. I., Lee, J., Hong, S., Kim, I., & Kim, P. (2022). In vivo observation of multi-phase spatiotemporal cellular dynamics of transplanted HSPCs during early engraftment. FASEB BioAdvances, 4(8), 547. https://doi.org/10.1096/FBA.2021-00164

14. Kim, J. H., Lee, E. S., Yun, J., Ryu, H. S., Kim, H. K., Ju, Y. W., Kim, K., Kim, J. Il, & Moon, H. G. (2022). Calsequestrin 2 overexpression in breast cancer increases tumorigenesis and metastasis by modulating the tumor microenvironment. Molecular Oncology, 16(2), 466–484. https://doi.org/10.1002/1878-0261.13136

15. Kim, Y., Cho, M., Paulson, B., Kim, S. H., & Kim, J. K. (2022). Minimizing Motion Artifacts in Intravital Microscopy Using the Sedative Effect of Dexmedetomidine. Microscopy and Microanalysis, 28(5), 1679–1686. https://doi.org/10.1017/S1431927622000708

16. Kim, Y. R., Kim, Y. M., Lee, J., Park, J., Lee, J. E., & Hyun, Y. M. (2020). Neutrophils Return to Bloodstream Through the Brain Blood Vessel After Crosstalk With Microglia During LPS-Induced Neuroinflammation. Frontiers in Cell and Developmental Biology, 8(December), 1–12. https://doi.org/10.3389/fcell.2020.613733

17. Ko, Y. K., Hong, S., Kim, H. M., Liu, M., Moon, E., Kim, P., & Choi, Y. (2022). Characterization of junctional structures in the gingival epithelium as barriers against bacterial invasion. Journal of Periodontal Research, 57(4), 799–810. https://doi.org/10.1111/JRE.13003

18. Shin, J. W., An, S., Kim, D., Kim, H., Ahn, J., Eom, J., You, W. K., Yun, H., Lee, B., Sung, B., Jung, J., Kim, S., Son, Y., Sung, E., Lee, H., Lee, S., Song, D., Pak, Y., Sandhu, J. K., … Lee, S. H. (2022). Grabody B, an IGF1 receptor-based shuttle, mediates efficient delivery of biologics across the blood-brain barrier. Cell Reports Methods, 2(11), 100338. https://doi.org/10.1016/J.CRMETH.2022.100338

19. Trzeciak, A., Mongre, R. K., Kim, M. R., Lim, K., Madero, R. A., Parkhurst, C. N., Pietropaoli, A. P., & Kim, M. (2022). Neutrophil heterogeneity in complement C1q expression associated with sepsis mortality. Frontiers in Immunology, 13. https://doi.org/10.3389/FIMMU.2022.965305/FULL

20. Yu, H. Y., Lee, S., Ju, H., Kim, Y., Shin, J. H., Yun, H. D., Ryu, C. M., Heo, J., Lim, J., Song, S., Lee, S., Hong, K. S., Chung, H. M., Kim, J. K., Choo, M. S., & Shin, D. M. (2022). Intravital imaging and single cell transcriptomic analysis for engraftment of mesenchymal stem cells in an animal model of interstitial

cystitis/bladder pain syndrome. Biomaterials, 280, 121277. https://doi.org/10.1016/J.BIOMATERIALS.2021.121277

21. Zhao, J., Jung, S., Li, X., Li, L., Kasinath, V., Zhang, H., Movahedi, S. N., Mardini, A., Sabiu, G., Hwang, Y., Saxena, V., Song, Y., Ma, B., Acton, S. E., Kim, P., Madsen, J. C., Sage, P. T., Tullius, S. G., Tsokos, G. C., … Abdi, R. (2022). Delivery of costimulatory blockade to lymph nodes promotes transplant acceptance in mice. The Journal of Clinical Investigation, 132(24). https://doi.org/10.1172/JCI159672

22. Kim, K. H., Dannenberg, P. H., Yan, H., Cho, S., & Yun, S. H. (2021). Compact Quantum-Dot Microbeads with Sub-Nanometer Emission Linewidth. Advanced Functional Materials, 31(48), 2103413. https://doi.org/10.1002/ADFM.202103413

23. Ahn, J., Kim, K. H., Choe, K., Lim, J. H., Lee, S. K., Kim, Y. S., & Kim, P. (2020). Quantitative two-photon microscopy imaging analysis of human skin to evaluate enhanced transdermal delivery by hybrid-type multi-lamellar nanostructure: retraction. Biomedical Optics Express, 11(10), 5871. https://doi.org/10.1364/boe.410469

24. Choi, H., Kim, Y., Mirzaaghasi, A., Heo, J., Kim, Y. N., Shin, J. H., Kim, S., Kim, N. H., Cho, E. S., Yook, J. I., Yoo, T. H., Song, E., Kim, P., Shin, E. C., Chung, K., Choi, K., & Choi, C. (2020). Exosome-based delivery of super-repressor IκBα relieves sepsis-associated organ damage and mortality. Science Advances, 6(15), 1–10. https://doi.org/10.1126/sciadv.aaz6980

25. Ha, J. Y., Choi, S. Y., Lee, J. H., Hong, S. H., & Lee, H. J. (2020). Delivery of Periodontopathogenic Extracellular Vesicles to Brain Monocytes and Microglial IL-6 Promotion by RNA Cargo. Frontiers in Molecular Biosciences, 7(November), 1–11. https://doi.org/10.3389/fmolb.2020.596366

26. Lee, J., Kong, E., Hong, S., Moon, J., & Kim, P. (2020). In vivo longitudinal visualization of the brain neuroinflammatory response at the cellular level in LysM-GFP mice induced by 3-nitropropionic acid. Biomedical Optics Express, 11(8), 4835. https://doi.org/10.1364/boe.393690

27. Moon, J., Kong, E., Lee, J., Jung, J., Kim, E., Park, S. B., & Kim, P. (2020). Intravital longitudinal imaging of hepatic lipid droplet accumulation in a murine model for nonalcoholic fatty liver disease. Biomedical Optics Express, 11(9), 5132. https://doi.org/10.1364/boe.395890

28. Park, I., Hong, S., Hwang, Y., & Kim, P. (2020). A novel pancreatic imaging window for stabilized longitudinal in vivo observation of pancreatic islets in murine model. Diabetes and Metabolism Journal, 44(1), 193–198. https://doi.org/10.4093/dmj.2018.0268

29. Ahn, J., Kong, E., Choe, K., Song, E., Hwang, Y., Seo, H., Park, I., & Kim, P. (2019). In vivo longitudinal depth-wise visualization of tumorigenesis by needle-shaped side-view confocal endomicroscopy. Biomedical Optics Express, 10(6), 2719. https://doi.org/10.1364/boe.10.002719

30. Hong, S., Lee, J., Kim, J. M., Kim, S. Y., Kim, H. R., & Kim, P. (2019). 3D cellular visualization of intact mouse tooth using optical clearing without decalcification. International Journal of Oral Science, 11(3). https://doi.org/10.1038/s41368-019-0056-z

31. Kim, D. Y., Hwang, K., Ahn, J., Seo, Y. H., Kim, J. B., Lee, S., Yoon, J. H., Kong, E., Jeong, Y., Jon, S., Kim, P., & Jeong, K. H. (2019). Lissajous Scanning Two-photon Endomicroscope for In vivo Tissue Imaging. Scientific Reports, 9(1), 1–8. https://doi.org/10.1038/s41598-019-38762-w

32. Kim, J., Park, J. R., Choi, J., Park, I., Hwang, Y., Bae, H., Kim, Y., Choi, W. J., Yang, J. M., Han, S., Chung, T. Y., Kim, P., Kubota, Y., Augustin, H. G., Oh, W. Y., & Koh, G. Y. (2019). Tie2 activation promotes choriocapillary regeneration for alleviating neovascular age-related macular degeneration. Science Advances, 5(2), 1–17. https://doi.org/10.1126/sciadv.aau6732

33. Kwak, H. W., Park, H. J., Ko, H. L., Park, H., Cha, M. H., Lee, S. M., Kang, K. W., Kim, R. H., Ryu, S. R., Kim, H. J., Kim, J. O., Song, M., Kim, H., Jeong, D. G., Shin, E. C., & Nam, J. H. (2019). Cricket paralysis virus internal ribosome entry site-derived RNA promotes conventional vaccine efficacy by enhancing a balanced Th1/Th2 response. Vaccine, 37(36), 5191–5202. https://doi.org/10.1016/j.vaccine.2019.07.070

34. Park, I., Kim, M., Choe, K., Song, E., Seo, H., Hwang, Y., Ahn, J., Lee, S. H., Lee, J. H., Jo, Y. H., Kim, K., Koh, G. Y., & Kim, P. (2019). Neutrophils disturb pulmonary microcirculation in sepsis-induced acute lung injury. European Respiratory Journal, 53(3). https://doi.org/10.1183/13993003.00786-2018

35. Kim, J. Y., Ahn, J., Kim, J., Choi, M., Jeon, H., Choe, K., Lee, D. Y., Kim, P., & Jon, S. (2018). Nanoparticle-Assisted Transcutaneous Delivery of a Signal Transducer and Activator of Transcription 3-Inhibiting Peptide Ameliorates Psoriasis-like Skin Inflammation. ACS Nano, 12(7), 6904–6916. https://doi.org/10.1021/acsnano.8b02330

36. Lee, E. M., Park, I., Lee, Y. J., You, Y. H., Kim, J. W., Kim, M. J., Ahn, Y. B., Kim, P., & Ko, S. H. (2018). Effect of resveratrol treatment on graft revascularization after islet transplantation in streptozotocin-induced diabetic mice. Islets, 10(1), 25–39. https://doi.org/10.1080/19382014.2017.1414764

37. Oh, B. J., Jin, S. M., Hwang, Y., Choi, J. M., Lee, H. S., Kim, G., Kim, G., Park, H. J., Kim, P., Kim, S. J., & Kim, J. H. (2018). Highly angiogenic, nonthrombogenic bone marrow mononuclear cell-derived spheroids in intraportal islettransplantation. Diabetes, 67(3), 473–485. https://doi.org/10.2337/db17-0705

38. Park, I., Choe, K., Seo, H., Hwang, Y., Song, E., Ahn, J., Hwan Jo, Y., & Kim, P. (2018). Intravital imaging of a pulmonary endothelial surface layer in a murine sepsis model. Biomedical Optics Express, 9(5), 2383. https://doi.org/10.1364/boe.9.002383

39. Xu, J., Lee, S. S. Y., Seo, H., Pang, L., Jun, Y., Zhang, R. Y., Zhang, Z. Y., Kim, P., Lee, W., Kron, S. J., & Yeo, Y. (2018). Quinic Acid-Conjugated Nanoparticles Enhance Drug Delivery to Solid Tumors via Interactions with Endothelial Selectins. Small, 14(50), 1–16. https://doi.org/10.1002/smll.201803601

40. Ahn, S., Choe, K., Lee, S., Kim, K., Song, E., Seo, H., Kim, I., & Kim, P. (2017). Intravital longitudinal wide-area imaging of dynamic bone marrow engraftment and multilineage differentiation through nuclear-cytoplasmic labeling. PLoS ONE, 12(11), 1–16. https://doi.org/10.1371/journal.pone.0187660

41. Hwang, Y., Yoon, H., Choe, K., Ahn, J., Jung, J. H., Park, J.-H., & Kim, P. (2017). In vivo cellular-level real-time pharmacokinetic imaging of free-form and liposomal indocyanine green in liver. Biomedical Optics Express, 8(10), 4706. https://doi.org/10.1364/boe.8.004706

42. Jang, J. Y., Choi, S. Y., Park, I., Park, D. Y., Choe, K., Kim, P., Kim, Y. K., Lee, B., Hirashima, M., Kubota, Y., Park, J., Cheng, S., Nagy, A., Park, Y. J., Alitalo, K., Shong, M., & Koh, G. Y. (2017). VEGFR2 but not VEGFR3 governs integrity and remodeling of thyroid angiofollicular unit in normal state and during goitrogenesis. EMBO Molecular Medicine, 9(6), 750–769. https://doi.org/10.15252/emmm.201607341

43. Kim, S. B., Kim, H. R., Park, M. C., Cho, S., Goughnour, P. C., Han, D., Yoon, I., Kim, Y. H., Kang, T., Song, E., Kim, P., Choi, H., Mun, J. Y., Song, C., Lee, S., Jung, H. S., & Kim, S. (2017). Caspase-8 controls the secretion of inflammatory lysyl-tRNA synthetase in exosomes from cancer cells. Journal of Cell Biology, 216(7), 2201–2216. https://doi.org/10.1083/jcb.201605118

44. Ogura, S., Kurata, K., Hattori, Y., Takase, H., Ishiguro-Oonuma, T., Hwang, Y., Ahn, S., Park, I., Ikeda, W., Kusuhara, S., Fukushima, Y., Nara, H., Sakai, H., Fujiwara, T., Matsushita, J., Ema, M., Hirashima, M., Minami, T., Shibuya, M., … Uemura, A. (2017). Sustained inflammation after pericyte depletion induces irreversible blood-retina barrier breakdown. JCI Insight, 2(3), 1–22. https://doi.org/10.1172/jci.insight.90905

45. Ahn, Y. H., Park, S., Choi, J. J., Park, B. K., Rhee, K. H., Kang, E., Ahn, S., Lee, C. H., Lee, J. S., Inn, K. S., Cho, M. La, Park, S. H., Park, K., Park, H. J., Lee, J. H., Park, J. W., Kwon, N. H., Shim, H., Han, B. W., … Kim, S. (2016). Secreted tryptophanyl-tRNA synthetase as a primary defence system against infection. Nature Microbiology, 2(October). https://doi.org/10.1038/nmicrobiol.2016.191

46. Han, S., Lee, S. J., Kim, K. E., Lee, H. S., Oh, N., Park, I., Ko, E., Oh, S. J., Lee, Y. S., Kim, D., Lee, S., Lee, D. H., Lee, K. H., Chae, S. Y., Lee, J. H., Kim, S. J., Kim, H. C., Kim, S., Kim, S. H., … Koh, G. Y. (2016). Amelioration of sepsis by TIE2 activation-induced vascular protection. Science Translational Medicine, 8(335), 1–12. https://doi.org/10.1126/scitranslmed.aad9260

47. Kim, K., Choe, K., Park, I., Kim, P., & Park, Y. (2016). Holographic intravital microscopy for 2-D and 3-D imaging intact circulating blood cells in microcapillaries of live mice. Scientific Reports, 6(August), 1–9. https://doi.org/10.1038/srep33084

48. Lee, J. Y., Hwang, Y., Kim, J. H., Kim, Y. S., Jung, B. K., Kim, P., & Lee, H. (2016). In vivo fluorescence retinal imaging following AAV2-mediated gene delivery in the rat retina. Investigative Ophthalmology and Visual Science, 57(7), 3390–3396. https://doi.org/10.1167/iovs.15-18862

49. Park, J. R., Choi, W., Hong, H. K., Kim, Y., Park, S. J., Hwang, Y., Kim, P., Woo, S., Park, K. H., & Oh, W. Y. (2016). Imaging laser-induced choroidal neovascularization in the rodent retina using optical coherence tomography angiography. Investigative Ophthalmology and Visual Science, 57(9), OCT331–OCT340. https://doi.org/10.1167/iovs.15-18946

50. Ahn, J., Choe, K., Wang, T., Hwang, Y., Kim, K. H., & Kim, P. (2015). In vivo longitudinal cellular imaging of small intestine by side-view confocal endomicroscopy. Conference on Lasers and Electro-Optics Europe - Technical Digest, 2015-Augus(10), 3963–3972. https://doi.org/10.1364/boe.6.003963

51. Choe, K., Jang, J. Y., Park, I., Kim, Y., Ahn, S., Park, D. Y., Hong, Y. K., Alitalo, K., Koh, G. Y., & Kim, P. (2015). Intravital imaging of intestinal lacteals unveils lipid drainage through contractility. Journal of Clinical Investigation, 125(11), 4042–4052. https://doi.org/10.1172/JCI76509

52. Choi, J. W., Kim, J. K., Yang, Y. J., Kim, P., Yoon, K. H., & Yun, S. H. (2015). Urokinase exerts antimetastatic effects by dissociating clusters of circulating tumor cells. Cancer Research, 75(21), 4474–4482. https://doi.org/10.1158/0008-5472.CAN-15-0684

53. Choi, J. W., Kim, P., Kim, J. K., Kim, Y. R., Fukumura, D., & Yun, S. H. (2015). Longitudinal tracing of spontaneous regression and anti-angiogenic response of individual microadenomas during colon tumorigenesis. Theranostics, 5(7), 724–732. https://doi.org/10.7150/thno.10734

54. Lee, D., Na, J., Ryu, J., Kim, H. J., Nam, S. H., Kang, M., Jung, J. W., Lee, M. S., Song, H. E., Choi, J., Lee, G. H., Kim, T. Y., Chung, J. K., Park, K. H., Kim, S. H., Kim, H., Seo, H., Kim, P., Youn, H., & Lee, J. W. (2015). Interaction of tetraspan(in) TM4SF5 with CD44 promotes self-renewal and circulating capacities of hepatocarcinoma cells. Hepatology, 61(6), 1978–1997. https://doi.org/10.1002/hep.27721

55. Seo, H., Hwang, Y., Choe, K., & Kim, P. (2015). In vivo quantitation of injected circulating tumor cells from great saphenous vein based on video-rate confocal microscopy. Biomedical Optics Express, 6(6), 2158. https://doi.org/10.1364/boe.6.002158

56. Song, E., Ahn, Y., Ahn, J., Ahn, S., Kim, C., Choi, S., Boutilier, R. M., Lee, Y., Kim, P., & Lee, H. (2015). Optical clearing assisted confocal microscopy of ex vivo transgenic mouse skin. Optics and Laser Technology, 73, 69–76. https://doi.org/10.1016/j.optlastec.2015.03.020

57. Song, E., Seo, H., Choe, K., Hwang, Y., Ahn, J., Ahn, S., & Kim, P. (2015). Optical clearing based cellular-level 3D visualization of intact lymph node cortex. Biomedical Optics Express, 6(10), 4154. https://doi.org/10.1364/boe.6.004154

58. Hwang, Y., Ahn, J., Mun, J., Bae, S., Jeong, Y. U., Vinokurov, N. A., & Kim, P. (2014). In vivo analysis of THz wave irradiation induced acute inflammatory response in skin by laser-scanning confocal microscopy. Optics Express, 22(10), 11465. https://doi.org/10.1364/oe.22.011465

59. Park, D. Y., Lee, J., Park, I., Choi, D., Lee, S., Song, S., Hwang, Y., Hong, K. Y., Nakaoka, Y., Makinen, T., Kim, P., Alitalo, K., Hong, Y. K., & Koh, G. Y. (2014). Lymphatic regulator PROX1 determines Schlemm's canal integrity and identity. Journal of Clinical Investigation, 124(9), 3960–3974. https://doi.org/10.1172/JCI75392

60. Choe, K., Hwang, Y., Seo, H., & Kim, P. (2013). In vivo high spatiotemporal resolution visualization of circulating T lymphocytes in high endothelial venules of lymph nodes. Journal of Biomedical Optics, 18(03), 1. https://doi.org/10.1117/1.jbo.18.3.036005

61. Jung, K., Kim, P., Leuschner, F., Gorbatov, R., Kim, J. K., Ueno, T., Nahrendorf, M., & Yun, S. H. (2013). Endoscopic time-lapse imaging of immune cells in infarcted mouse hearts. Circulation Research, 112(6), 891–899. https://doi.org/10.1161/CIRCRESAHA.111.300484

62. Kim, J. K., Lee, W. M., Kim, P., Choi, M., Jung, K., Kim, S., & Yun, S. H. (2012). Fabrication and operation of GRIN probes for in vivo fluorescence cellular imaging of internal organs in small animals. Nature Protocols, 7(8), 1456–1469. https://doi.org/10.1038/nprot.2012.078

63. Van De Ven, A. L., Kim, P., Haley, O., Fakhoury, J. R., Adriani, G., Schmulen, J., Moloney, P., Hussain, F., Ferrari, M., Liu, X., Yun, S. H., & Decuzzi, P. (2012). Rapid tumoritropic accumulation of systemically injected plateloid particles and their biodistribution. Journal of Controlled Release, 158(1), 148–155. https://doi.org/10.1016/j.jconrel.2011.10.021

64. Zhi, L., Kim, P., Thompson, B. D., Pitsillides, C., Bankovich, A. J., Yun, S.-H., Lin, C. P., Cyster, J. G., & Wu, M. X. (2011). FTY720 Blocks Egress of T Cells in Part by Abrogation of Their Adhesion on the Lymph Node Sinus. The Journal of Immunology, 187(5), 2244–2251. https://doi.org/10.4049/jimmunol.1100670

65. Chen, X., Kim, P., Farinelli, B., Doukas, A., Yun, S. H., Gelfand, J. A., Anderson, R. R., & Wu, M. X. (2010). A novel laser vaccine adjuvant increases the motility of antigen presenting cells. PLoS ONE, 5(10). https://doi.org/10.1371/journal.pone.0013776

66. Fan, Z., Spencer, J. A., Lu, Y., Pitsillides, C. M., Singh, G., Kim, P., Yun, S. H., Toxavidis, V., Strom, T. B., Lin, C. P., & Koulmanda, M. (2010). In vivo tracking of "color-coded" effector, natural and induced regulatory T cells in the allograft response. Nature Medicine, 16(6), 718–722. https://doi.org/10.1038/nm.2155

67. Ghosh, S. K., Kim, P., Zhang, X. A., Yun, S. H., Moore, A., Lippard, S. J., & Medarova, Z. (2010). A novel imaging approach for early detection of prostate cancer based on endogenous zinc sensing. Cancer Research, 70(15), 6119–6127. https://doi.org/10.1158/0008-5472.CAN-10-1008

68. Lee, J. Y., Park, C., Pil Cho, Y., Lee, E., Kim, H., Kim, P., Yun, S. H., & Yoon, Y. S. (2010). Podoplanin-expressing cells derived from bone marrow play a crucial role in postnatal lymphatic neovascularization. Circulation, 122(14), 1413–1425. https://doi.org/10.1161/CIRCULATIONAHA.110.941468