Claudio Vinegoni, Ph.D.

Center for System Biology
MGH, Harvard University
vinegoni@gmail.com – cvinegoni@mgh.harvard.edu
Webpage - Google Scholar - ResearchID -
OrcID - PubMed - ResearchGate - LinkedIn

185 Cambridge Street
Boston, MA 02114
(857)891.4272

CITIZENSHIP

Dual Citizenship: **USA**, **Italy**.

EDUCATION

- **University of Geneva**, Geneva, Switzerland.
  Ph.D. in Physics, in the group of Prof. N. Gisin (2002).
  Thesis title: *Nonlinear Effects in Optical Fibers*.
- **University of Trento**, Trento, Italy.
  M.Sc. in Physics, October 1996.
  Thesis title: *Structure and Vibrational Properties of Electrochromic Materials*

PRESENT APPOINTMENT

- Assistant Professor at the *Center for Systems Biology* at MGH-Harvard University (Dir. Prof. R. Weissleder).
- Director of the In-vivo Microscopy Core at the *Center for Systems Biology* at MGH-Harvard University.
- Head Laboratory for Biooptics and Molecular Imaging at the *Center for Molecular Imaging Research* at MGH-Harvard University.

PREVIOUS APPOINTMENTS

- **05/2008–12/2010** Instructor of Radiology at the Center for Systems Biology at MGH-Harvard University (*prof. R. Weissleder*)
- **09/2007–04/2008** Post-Doc researcher at the Center for Systems Biology at MGH-Harvard University (*prof. R. Weissleder*)
- **09/2005–08/2007** Post-Doc researcher at the Center for Molecular Imaging Research CMIR at MGH-Harvard University in the Lab for Biooptics and Molecular Imaging (*prof. V. Ntziachristos*)
- **07/2003–08/2005** Post-Doc at the Beckman Institute at the University of Illinois Urbana-Champaign, in the Biophotonics Imaging Laboratory.
- **05/2002–06/2003** Guest Research Fellow at Chalmers University (Sweden)- Photonics Laboratory.
- **05/2001–09/2001** Guest researcher at EXFO (Quebec, CAN)
- **03/1999–01/2002** Research Assistant at the University of Geneva, CH
- **06/1998–03/1999** Research Assistant at the University of Pittsburgh, PA.
- **03/1997–06/1998** Technical Supervisor of the Ultrafast Spectroscopy Univ. of Trento (Italy).
- **10/1996–03/1997** Technical Supervisor in the Raman Spectroscopy Laboratory Univ. of Trento (Italy).

PERSONAL STATEMENT

Assistant Professor in Physics at Harvard Medical School and a faculty member of the Center for Systems Biology at Massachusetts General Hospital. 30 years of experience in optical imaging and the development of several novel optical microscopic and macroscopic

molecular imaging techniques for biomedical imaging. In particular, my work has been focused on cancer imaging, functional imaging of engineered tissue, neural imaging and cardiovascular imaging. Recent work involves the development of new imaging platforms and imaging processing techniques for motion compensation for *in vivo* heart imaging, development of high throughput high-resolution imaging systems for drug-target engagement, *in vivo* and *in vitro* studies of pharmacodynamics for different drugs, longitudinal microscopy imaging study of insulitis in mice, and the development of novel high content data analysis and visualization tool. The research background in the optical imaging field includes fluorescence, fluorescence polarization and time resolved measurements, multi-photon and confocal microscopy, Raman spectroscopy, Coherent anti-Stokes Raman Scattering (CARS) imaging, optical coherence microscopy and tomography, mesoscopic imaging, optical projection tomography, and fluorescence molecular tomography in diffusive regime for whole mouse imaging. My work focuses also on image processing and signal processing in combination with both machine learning and deep learning for image data analysis and segmentation, image data mining, and the design of software tools for microscopy image data collection and visualization.

SCIENTIFIC CONTRIBUTIONS

Author and coauthor of 187 scientific contributions. Among them, 3 Invited Review Chapters, 1 Patent, 114 articles, published in peer-reviewed international scientific journals, 35 oral presentations and poster sessions at international conferences, and 34 proceedings.

COMMITTEE SERVICES AND ACTIVITIES

- ◇ Editorial Board Member *"Discovery Imaging"* Springer Nature.
- ◇ Editorial Board *"Scientific Reports"* in the category Electronics, Photonics and Device Physics
- ◇ Associate Editor *"Frontiers in Physics"* in the category Medical Physics and Imaging
- ◇ Reviewer for the following journals: *Advanced Science, Applied Physics Letters Photonics, Biomedical Optics Express, Biotechnology Journal, Circulation: Cardiovascular Imaging, ACS Chemical and Biomedical Imaging, Cytometry, eLife, F1000research, Frontiers in Physics, Frontiers in Immunology, IEEE Access, IEEE Advances, IEEE Transactions on Information Technology in BioMedicine, IEEE Transaction on Biomedical Engineering, IEEE Transactions of Instrument and Measurements, IEEE Transactions on Med. Imaging, IEEE Journal of Biomedical and Health Informatics, Int. J. of Biochemistry, Int. J. of Biomedical Imaging, JACC: Cardiovascular Imaging, Journal of Biophotonics, J. Lightwave Technology, Journal of Mathematical Imaging and Vision, Journal of Microscopy, Journal of Molecular Imaging, Journal Nuclear Medicine, JOVE, Methods and Applications in Fluorescence, Micromachines, Molecular Imaging, Molecular Imaging and Biology, Nature Communications, Nature Methods, Nature Protocols, Optica, Optics Communications, Optics Express, Optics Letters, Photoacoustics, Photonics and Technology Letters, PhotoniX, Physical Review A, Physical Review E, PlosOne, Review of Scientific Instruments, Scientific Reports, SLAS Discovery.*
- ◇ Chair of the "Molecular Infrared and other novel imaging modalities" session at *IEEE Engineering Medicine and Biology, Boston USA (2011).*
- ◇ Technical Program Committee of the *IEEE Biomedical and Health Informatics*, Hong Kong (2012).
- ◇ Associate Editor, Biomedical Imaging and Image Processing, *IEEE Engineering Medicine and Biology* (2012-2025).

WEBPAGE

A copy of this curriculum vitae, a short resume, and a complete dowloadable bibliography with all the published articles and conference contributions, can be found at the following address:
https://cvinegoni.github.io

LAST UPDATED

January 24, 2025

† equal contribution
# corresponding author

PUBLICATIONS: BOOKS

1. Porous silicon microcavities.
C. Vinegoni#, M. Cazzanelli and L. Pavesi
in "Silicon-based Material and Devices", Vol. 2 (2001) pp. 123–92.
Academic Press
2. Novel fluorescent probes for intraoperative cholangiography.
C. Vinegoni#, C. Siegel, A. Mlynarchik, B.F. Sena, L.C. DeAbreu, J.L. Lima, J.L. Figueiredo.
in "Fluorescent Imaging", Frontiers of gastrointestinal research. Vol. 31 (2013) pp. 106–112.
Karger
3. Image processing technologies for motion compensation.
C. Vinegoni#, S. Lee, and R. Weissleder.
in "Imaging and visualization in the modern operating room", (2015) pp. 181–91.
Springer

PUBLICATIONS: ARTICLES

1. *Inaugural Editorial for Discover Imaging*
Prados Carrasco, F. and **Vinegoni, C.** and Ayesha Eduljee#, A.
"Discov. Imaging" Vol. 1 (2024) pp. 1
DOI: 10.1007/s44352-024-00002-x PMID: NA PMCID: NA
2. *FAP-Targeted Fluorescent Imaging Agents to Study Cancer-Associated Fibroblasts In Vivo*
Deutsch-Williams, R.J. and Schleyer, K.A. and Das, R. and Carrothers, J.E. and Kohler, R.H. and **Vinegoni, C.** and Weissleder#, R.
"Bioconjug. Chem." Vol. NA (2024) pp. NA
DOI: 10.1021/acs.bioconjchem.4c00426 PMID: 39667730 PMCID: NA
3. *Virus-Induced Acute Respiratory Distress Syndrome Causes Cardiomyopathy Through Eliciting Inflammatory Responses in the Heart*
Grune, J. and Bajpai, G. and Ocak, P.T. and Kaufmann, E. and Mentkowksi, K. and Pabel, S. and Kumowski, N. and Pulous, F.E. and Tran, K.A. and Rohde, D. and Zhang, S. and Iwamoto, Y. and Wojtkiewicz, G.R. and **Vinegoni, C.** and Green, U. and Swirski, F.K. and Stone, J.R. and Lennerz, J.K. and Divangahi, M. and Hulsmans, M. and Nahrendorf#, M.
"Cardiology" Vol. 150 (2024) pp. 49
DOI: 10.1161/CIRCULATIONAHA.123.0664336 PMID: 38506045 PMCID: PMC11216864
4. *Recruited macrophages elicit atrial fibrillation*
Hulsmans, M. and Schloss, M.J. and Lee, I.H. and Bapat, A. and Iwamoto, Y. and **Vinegoni, C.** and Paccalet, A. and M., Yamazoe and Grune, J. and Pabel, S. and Momin, N. and Seung, H. and Kumowski, N. and Pulous, F.E. and Keller, D., C. and Bening, B. and Green, U. and Lennerz, J.K. and Mitchell, R.N. and Lewis, A. and Casadei, B. and Iborra-Egea, O. and Bayes-Genis, A. and Sossalla, S. and Ong, C.S. and Pierson, R.N. and Aster, J.C. and Rohde, D. and Wojtkiewicz, G.R. and Weissleder, R. and Swirski, F.K. and Tellides, G. and Tolis, G. and Melnitchouk, S. and Milan, D.J. and Ellinor, P.T. and Naxerova, K. and Nahrendorf#, M.
"Science" Vol. 381 (2023) pp. 231–239.
DOI: 10.1126/science.abq3061 PMID: 37440641 PMCID: PMC10448807
5. *Neutrophils incite and macrophages avert electrical storm after myocardial infarction*
Grune, J. and Lewis, A.J.M. and Yamazoe, M. and Hulsmans, M. and Rohde, D. and Xiao, L. and Zhang, S. and Ott, C. and Calcagno, D.M. and Zhou, Y. and Timm, K. and Shanmuganathan, M. and Pulous, F.E. and Schloss, M.J. and Foy, B.H. and Capen, D. and **Vinegoni, C.** and Wojtkiewicz, G.R. and Iwamoto, I. and Grune, T. and Brown, D. and Higgins, J. and Ferreira, V.M. and Herring, N. and Channon, K.M. and Neubauer, S. and Oxford Acute Myocardial Infarction (OxAMI) Study and Sosnovik, D.E. and Milan, D.J. and Swirski, F.K. and King, K.R. and Aguirre, A.D. and Ellinor, P.T. and Nahrendorf#, M.
"Nature Cardiovascular Research" Vol. 1 (2022) pp. 649–664.
DOI: 10.1038/s44161-022-00094-w PMID: 36034743 PMCID: PMC9410341

6. *Spatiotemporal multiplexed immunofluorescence imaging of living cells and tissues with bioorthogonal cycling of fluorescent probes*
   Ko, J. A. and Wilkovitsch, M. and Oh, J. and Kohler, R. H. and Bolli, E. and Pittet, M. J. and **Vinegoni, C.** and Sykes, D. B. and Mikula, H. and Weissleder[#], R. and Carlson[#], J. C. T.
   "Nature Biotechnology" Vol. N/A (2022) pp. 16.
   DOI: 10.1038/s41587-022-01339-6 PMID: 35654978 PMCID: PMC9669087
7. *Cerebrospinal fluid can exit into the skull bone marrow and instruct cranial hematopoiesis in mice with bacterial meningitis*
   Pulous, F. E. and Cruz-Hernandez, J. C. and Yang, C. B. and Kaya, Z. and Paccalet, A. and Wojtkiewicz, G. and Capen, D. and Brown, D. and Wu, J. W. and Schloss, M. J. and **Vinegoni, C.** and Richter, D. and Yamazoe, M. and Hulsmans, M. and Momin, N. and Grune, J. and Rohde, D. and McAlpine, C. S. and Panizzi, P. and Weissleder, R. and Kim, D. E. and Swirski, F. K. and Lin, C. P. and Moskowitz, M. A. and Nahrendorf[#], M.
   "Nature Neuroscience" Vol. 25 (2022) pp. 567-+.
   DOI: 10.1038/s41593-022-01060-2 PMID: 35501382 PMCID: PMC9081225
8. *Bone marrow endothelial dysfunction promotes myeloid cell expansion in cardiovascular disease*
   Rohde, D. and Vandoorne, K. and Lee, I. H. and Grune, J. and Zhang, S. and McAlpine, C. S. and Schloss, M. J. and Nayar, R. and Courties, G. and Frodermann, V. and Wojtkiewicz, G. and Honold, L. and Chen, Q. and Schmidt, S. and Iwamoto, Y. and Sun, Y. and Cremer, S. and Hoyer, F. F. and Iborra-Egea, O. and Muñoz-Guijosa, C. and Ji, F. and Zhou, G. and Adams, R. H. and Wythe, J. D. and Hidalgo, J. and Watanabe, H. and Jung, Y. and van der Laan, A. M. and Piek, J. J. and Kfoury, Y. and Désogère, P. A. and **Vinegoni, C.** and Dutta, P. and Sadreyev, R. I. and Caravan, P. and Bayes-Genis, A. and Libby, P. and Scadden, D. T. and Lin, C. P. and Naxerova, K. and Swirski, F. K. and Nahrendorf[#], M.
   "Nature Cardiovascular Research" Vol. 1 (2022) pp. 28-44.
   DOI: 10.1038/s44161-021-00002-8 PMID: 35747128 PMCID: PMC9216333
9. *Astrocytic interleukin-3 programs microglia and limits Alzheimer's disease*
   McAlpine, C. S. and Park, J. and Griciuc, A. and Kim, E. and Choi, S. H. and Iwamoto, Y. and Kiss, M. G. and Christie, K. A. and **Vinegoni, C.** and Poller, W. C. and Mindur, J. E. and Chan, C. T. and He, S. and Janssen, H. and Wong, L. P. and Downey, J. and Singh, S. and Anzai, A. and Kahles, F. and Jorfi, M. and Feruglio, P. F. and Sadreyev, R. I. and Weissleder, R. and Kleinstiver, B. P. and Nahrendorf, M. and Tanzi, R. E. and Swirski[#], F. K.
   "Nature" Vol. 595 (2021) pp. 701-+.
   DOI: 10.1038/s41586-021-03734-6 PMID: 34262178 PMCID: PMC8934148
10. *CytoPAN-Portable cellular analyses for rapid point-of-care cancer diagnosis*
    Min, J. and Chin, L. K. and Oh, J. and Landeros, C. and **Vinegoni, C.** and Lee, J. and Lee, S. J. and Park, J. Y. and Liu, A. Q. and Castro, C. M. and Lee, H. and Im, H. and Weissleder[#], R.
    "Science Translational Medicine" Vol. 12 (2020) pp. 14.
    DOI: 10.1126/scitranslmed.aaz9746 PMID: 32759277 PMCID: PMC8217912
11. *Fluorescence microscopy tensor imaging representations for large-scale dataset analysis*
    Vinegoni[†#]**, C.** and Feruglio[†], P. F. and Courties, G. and Schmidt, S. and Hulsmans, M. and Lee, S. and Wang, R. and Sosnovik, D. and Nahrendorf, M. and Weissleder, R.
    "Scientific Reports" Vol. 10 (2020) pp. 15.
    DOI: 10.1038/s41598-020-62233-2 PMID: 32221334 PMCID: PMC7101442
12. *Extended dynamic range imaging for noise mitigation in fluorescence anisotropy imaging*
    Feruglio[†], P. F. and **Vinegoni**[†#]**, C.** and Weissleder, R.
    "Journal of Biomedical Optics" Vol. 25 (2020) pp. 13.
    DOI: 10.1117/1.Jbo.25.8.086003 PMID: 32820624 PMCID: PMC7439791
13. *Diminished Reactive Hematopoiesis and Cardiac Inflammation in a Mouse Model of Recurrent Myocardial Infarction*
    Cremer, S. and Schloss, M. J. and **Vinegoni, C.** and Foy, B. H. and Zhang, S. and Rohde, D. and Hulsmans, M. and Feruglio, P. F. and Schmidt, S. and Wojtkiewicz, G. and Higgins, J. M. and Weissleder, R. and Swirski, F. K. and Nahrendorf[#], M.
    "Journal of the American College of Cardiology" Vol. 75 (2020) pp. 901-915.
    DOI: 10.1016/j.jacc.2019.12.056 PMID: 32130926 PMCID: PMC7254576
14. *Characterization of single microvesicles in plasma from glioblastoma patients*
    Fraser, K. and Jo, A. and Giedt, J. and **Vinegoni, C.** and Yang, K. S. and Peruzzi, P. and Chiocca, E. A. and Breakefield, X. O. and Lee, H. and Weissleder[#], R.
    "Neuro-Oncology" Vol. 21 (2019) pp. 606-615.
    DOI: 10.1093/neuonc/noy187 PMID: 30561734 PMCID: 6502493
15. *High Dynamic Range Fluorescence Imaging*
    Vinegoni[#]**, C.** and Feruglio, P. F. and Weissleder, R.

"Ieee Journal of Selected Topics in Quantum Electronics" Vol. 25 (2019) pp. 7.
DOI: 10.1109/jstqe.2018.2881608 PMID: 31598059 PMCID: PMC6785194

16. *Fluorescence anisotropy imaging in drug discovery*
Vinegoni#, C. and Feruglio, P. F. and Gryczynski, I. and Mazitschek, R. and Weissleder, R.
"Advanced Drug Delivery Reviews" Vol. 151 (2019) pp. 262-288.
DOI: 10.1016/j.addr.2018.01.019 PMID: 29410158 PMCID: 6072632

17. *The anti-tumor diterpene oridonin is a direct inhibitor of Nucleolin in cancer cells*
Vasaturo, M. and Cotugno, R. and Fiengo, L. and **Vinegoni, C.** and Dal Piaz, F. and De Tommasi#, N.
"Scientific Reports" Vol. 8 (2018) pp. 13.
DOI: 10.1038/s41598-018-35088-x PMID: 30425290 PMCID: 6233161

18. *Direct vascular channels connect skull bone marrow and the brain surface enabling myeloid cell migration*
Herisson, F. and Frodermann, V. and Courties, G. and Rohde, D. and Sun, Y. and Vandoorne, K. and Wojtkiewicz, G. R. and Masson, G. S. and **Vinegoni, C.** and Kim, J. and Kim, D. E. and Weissleder, R. and Swirski, F. K. and Moskowitz, M. A. and Nahrendorf#, M.
"Nature Neuroscience" Vol. 21 (2018) pp. 1209-+.
DOI: 10.1038/s41593-018-0213-2 PMID: 30150661 PMCID: PMC6148759

19. *Cardiac macrophages promote diastolic dysfunction*
Hulsmans, M. and Sager, H. B. and Roh, J. D. and Valero-Munoz, M. and Houstis, N. E. and Iwamoto, Y. and Sun, Y. and Wilson, R. M. and Wojtkiewicz, G. and Tricot, B. and Osborne, M. T. and Hung, J. and **Vinegoni, C.** and Naxerova, K. and Sosnovik, D. E. and Zile, M. R. and Bradshaw, A. D. and Liao, R. and Tawakol, A. and Weissleder, R. and Rosenzweig, A. and Swirski, F. K. and Sam, F. and Nahrendorf#, M.
"Journal of Experimental Medicine" Vol. 215 (2018) pp. 423-440.
DOI: 10.1084/jem.20171274 PMID: 29339450 PMCID: PMC3366498

20. *Imaging the Vascular Bone Marrow Niche During Inflammatory Stress*
Vandoorne, K. and Rohde, D. and Kim, H. Y. and Courties, G. and Wojtkiewicz, G. and Honold, L. and Hoyer, F. F. and Frodermann, V. and Nayar, R. and Herisson, F. and Jung, Y. and Desogere, P. A. and **Vinegoni, C.** and Caravan, P. and Weissleder, R. and Sosnovik, D. E. and Lin, C. P. and Swirski, F. K. and Nahrendorf#, M.
"Circulation Research" Vol. 123 (2018) pp. 415-427.
DOI: 10.1161/circresaha.118.313302 PMID: 29980569 PMCID: 6202141

21. *Design and Development of Fluorescent Vemurafenib Analogs for In Vivo Imaging*
Mikula, H. and Stapleton, S. and Kohler, R. H. and **Vinegoni, C.** and Weissleder#, R.
"Theranostics" Vol. 7 (2017) pp. 1257-1265.
DOI: 10.7150/thno.18238 PMID: 28435463 PMCID: PMC5399591

22. *Measurement of drug-target engagement in live cells by two-photon fluorescence anisotropy imaging*
Vinegoni#, C. and Fumene Feruglio, P. and Brand, C. and Lee, S. and Nibbs, A. E. and Stapleton, S. and Shah, S. and Gryczynski, I. and Reiner, T. and Mazitschek, R. and Weissleder, R.
"Nature Protocols" Vol. 12 (2017) pp. 1472-1497.
DOI: 10.1038/nprot.2017.043 PMID: 28686582 PMCID: PMC5928516

23. *Quantitating drug-target engagement in single cells in vitro and in vivo*
Dubach, J. M. and Kim, E. and Yang, K. and Cuccarese, M. and Giedt, R. J. and Meirnetis, L. G. and **Vinegoni#, C.** and Weissleder#, R.
"Nature Chemical Biology" Vol. 13 (2017) pp. 168-173.
DOI: 10.1038/nchembio.2248 PMID: 27918558 PMCID: PMC5630128

24. *Motion characterization scheme to minimize motion artifacts in intravital microscopy*
Lee, S. and Courties, G. and Nahrendorf, M. and Weissleder, R. and **Vinegoni#, C.**
"Journal of Biomedical Optics" Vol. 22 (2017) pp. 7.
DOI: 10.1117/1.Jbo.22.3.036005 PMID: 28253383 PMCID: PMC5333764

25. *Macrophages Facilitate Electrical Conduction in the Heart*
Hulsmans, M. and Clauss, S. and Xiao, L. and Aguirre, A. D. and King, K. R. and Hanley, A. and Hucker, W. J. and Wulfers, E. M. and Seemann, G. and Courties, G. and Iwamoto, Y. and Sun, Y. and Savol, A. J. and Sager, H. B. and Lavine, K. J. and Fishbein, G. A. and Capen, D. E. and Da Silva, N. and Miquerol, L. and Wakimoto, H. and Seidman, C. E. and Seidman, J. G. and Sadreyev, R. I. and Naxerova, K. and Mitchell, R. N. and Brown, D. and Libby, P. and Weissleder, R. and Swirski, F. K. and Kohl, P. and **Vinegoni, C.** and Milan, D. J. and Ellinor, P. T. and Nahrendorf#, M.
"Cell" Vol. 169 (2017) pp. 510-+.
DOI: 10.1016/j.cell.2017.03.050 PMID: 28431249 PMCID: PMC5474950

26. *Transparent Electrophysiology Microelectrodes and Interconnects from Meta Nanomesh*
Seo, K. J. and Qiang, Y. and Bilgin, I. and Kar, S. and **Vinegoni, C.** and Weissleder, R. and Fang#, H.

"Acs Nano" Vol. 11 (2017) pp. 4365-4372.
DOI: 10.1021/acsnano.7b01995 PMID: 28391679 PMCID: N/A

27. *Two-photon imaging of pancreatic beta cells in real time in vivo*
Clardy, S. M. and Kohler, R. and **Vinegoni, C.** and Iwamoto, Y. and Keliher, E. and Weissleder#, R.
"Technology" Vol. 4 (2016) pp. 130-34.
DOI: 10.1142/S2339547816200028 PMID: N/A PMCID: N/A

28. *RNAi targeting multiple cell adhesion molecules reduces immune cell recruitment and vascular inflammation after myocardial infarction*
Sager, H. B. and Dutta, P. and Dahlman, J. E. and Hulsmans, M. and Courties, G. and Sun, Y. and Heidt, T. and **Vinegoni, C.** and Borodovsky, A. and Fitzgerald, K. and Wojtkiewicz, G. R. and Iwamoto, Y. and Tricot, B. and Khan, O. F. and Kauffman, K. J. and Xing, Y. P. and Shaw, T. E. and Libby, P. and Langer, R. and Weissleder, R. and Swirski, F. K. and Anderson, D. G. and Nahrendorf#, M.
"Science Translational Medicine" Vol. 8 (2016) pp. 11.
DOI: 10.1126/scitranslmed.aaf1435 PMID: 27280687 PMCID: PMC5125383

29. *Computational imaging reveals mitochondrial morphology as a biomarker of cancer phenotype and drug response*
Giedt, R. J. and Fumene Feruglio, P. and Pathania, D. and Yang, K. S. and Kilcoyne, A. and **Vinegoni, C.** and Mitchison, T. J. and Weissleder#, R.
"Scientific Reports" Vol. 6 (2016) pp. 10.
DOI: 10.1038/srep32985 PMID: 27609668 PMCID: PMC5017129

30. *Real-time high dynamic range laser scanning microscopy*
Vinegoni†#, C. and Swisher†, C. L. and Fumene Feruglio†, P. and Giedt, R. J. and Rousso, D. L. and Stapleton, S. and Weissleder, R.
"Nature Communications" Vol. 7 (2016) pp. 13.
DOI: 10.1038/ncomms11077 PMID: 27032979 PMCID: PMC4821995

31. *Tyrosine kinase-mediated axial motility of basal cells revealed by intravital imaging*
Roy, J. and Kim, B. and Hill, E. and Visconti, P. and Krapf, D. and **Vinegoni, C.** and Weissleder, R. and Brown, D. and Breton#, S.
"Nature Communications" Vol. 7 (2016) pp. 11.
DOI: 10.1038/ncomms10666 PMID: 26868824 PMCID: PMC4754344

32. *Two-Photon Fluorescence Anisotropy Microscopy for Imaging and Direct Measurement of Intracellular Drug Target Engagement*
Vinegoni#, C. and Dubach, J. M. and Feruglio, P. F. and Weissleder, R.
"Ieee Journal of Selected Topics in Quantum Electronics" Vol. 22 (2016) pp. 7.
DOI: 10.1109/jstqe.2015.2501384 PMID: 27440991 PMCID: PMC4946648

33. *Rapid, high efficiency isolation of pancreatic beta-cells*
Clardy, S. M. and Mohan, J. F. and **Vinegoni, C.** and Keliher, E. J. and Iwamoto, Y. and Benoist, C. and Mathis, D. and Weissleder#, R.
"Scientific Reports" Vol. 5 (2015) pp. 9.
DOI: 10.1038/srep13681 PMID: 26330153 PMCID: PMC4557033

34. *Imaging the beating heart in the mouse using intravital microscopy techniques*
Vinegoni†#, C. and Aguirre†, A. D. and Lee, S. and Weissleder, R.
"Nature Protocols" Vol. 10 (2015) pp. 1802-1819.
DOI: 10.1038/nprot.2015.119 PMID: 26492138 PMCID: PMC5380003

35. *New techniques for motion-artifact-free in vivo cardiac microscopy*
Vinegoni†#, C. and Lee†, S. and Aguirre, A. D. and Weissleder, R.
"Frontiers in Physiology" Vol. 6 (2015) pp. 12.
DOI: 10.3389/fphys.2015.00147 PMID: 26029116 PMCID: PMC4428079

36. *Advances in measuring single-cell pharmacology in vivo*
Vinegoni#, C. and Dubach, J. M. and Thurber, G. M. and Miller, M. A. and Mazitschek, R. and Weissleder, R.
"Drug Discovery Today" Vol. 20 (2015) pp. 1087-1092.
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