



## Selected references

# Publications featuring the UltraMicroscope

Azevedo, H. *et al.* (2020) Brain-wide mapping of c-fos expression in the single prolonged stress model and the effects of pretreatment with ACH-000029 or prazosin. *Neurobiol. Stress.* 13: 100226.

<https://dx.doi.org/10.1016%2Fj.ynstr.2020.100226>

Blutke, A. *et al.* (2020) Light sheet fluorescence microscopy guided MALDI-imaging mass spectrometry of cleared tissue samples. *Sci. Rep.* 10: 14461

<https://dx.doi.org/10.1038%2Fs41598-020-71465-1>

Buglak, N. E. *et al.* (2020) Light sheet fluorescence microscopy as a new method for unbiased three-dimensional analysis of vascular injury. *Cardiovasc. Res. cvaa037*: Epub ahead of print, Feb. 13.

<https://doi.org/10.1093/cvr/cvaa037>

Hahn, A. *et al.* (2020) Gibbs point field model quantifies disorder in microvasculature of U87-glioblastoma. *J. Theor. Biol.* 494: 110230.

<https://doi.org/10.1016/j.jtbi.2020.110230>

Godefroy, D. *et al.* (2020) Three-dimensional mapping of tyrosine hydroxylase in the transparent brain and adrenal of prenatal and pre-weaning mice: Comprehensive methodological flowchart and quantitative aspects of 3D mapping. *J. Neurosci. Methods* 335: 108596.

<https://doi.org/10.1016/j.jneumeth.2020.108596>

Kimbrough, A. *et al.* (2020) Brain-wide functional architecture remodeling by alcohol dependence and abstinence. *Proc. Natl. Acad. Sci. USA.* 117: 2149–2159.

<https://doi.org/10.1073/pnas.1909915117>

Ghoubay, D. *et al.* (2020) Corneal stromal stem cells restore transparency after N2 injury in mice. *Stem Cells Transl. Med.* 9: 917–935.

<https://dx.doi.org/10.1002%2Fscrm.19-0306>

Houssari, M. *et al.* (2020) Lymphatic and immune cell cross-talk regulates cardiac recovery after experimental myocardial infarction. *Arterioscler. Thromb. Vasc. Biol.* 40: 1722–1737.

<https://dx.doi.org/10.1161%2FATVBAHA.120.314370>

Kang, G.-Y. *et al.* (2020) 3D Imaging of the transparent Mycobacterium tuberculosis-infected lung verifies the localization of innate immune cells with granuloma. *Front. Cell Infect. Microbiol.* 10: 226.

<https://dx.doi.org/10.3389%2Ffcimb.2020.00226>

Kirst, C. *et al.* (2020) Mapping the fine-scale organization and plasticity of the brain vasculature. *Cell* 180: 780–795.e25.

<https://doi.org/10.1016/j.cell.2020.01.028>

Kullmann, J. A. *et al.* (2020) Oxygen tension and the VHL-Hif1 $\alpha$  pathway determine onset of neuronal polarization and cerebellar germinal zone exit. *Neuron*: S0896-6273(20)30148-3: Epub ahead of print, Mar 16.

<https://doi.org/10.1016/j.neuron.2020.02.025>

Merz, S. F. *et al.* (2020) High-resolution 3-D imaging for precise staging in malignant melanoma. *MedRxiv*, 2020

<https://doi.org/10.1101/2020.07.22.20159103>

Nie, J. *et al.* (2020) Fast, 3D isotropic imaging of whole mouse brain using multiangle-resolved subvoxel SPIM. *Adv. Sci. (Weinh)* 7: 1901891.

<https://doi.org/10.1002/advs.201901891>

Nimmo, J. *et al.* (2020) Peri-arterial pathways for clearance of  $\alpha$ -synuclein and tau from the brain: Implications for the pathogenesis of dementias and for immunotherapy. *Alzheimers Dement.* 12: e12070.

<https://doi.org/10.1002/dad2.12070>

Sjöstedt, E. *et al.* (2020) An atlas of the protein-coding genes in the human, pig, and mouse brain. *Science* 367: eaay5947.

<https://doi.org/10.1126/science.aay5947>

Todorov, M. I. *et al.* (2020) Machine learning analysis of whole mouse brain vasculature. *Nat. Methods.* 17: 442–449.

<https://doi.org/10.1038/s41592-020-0792-1>

Ueda, H. R. *et al.* (2020) Tissue clearing and its applications in neuroscience. *Nat. Rev. Neurosci.* 21: 61–79.

<https://doi.org/10.1038/s41583-019-0250-1>

- Wang, X. *et al.* (2020) An ocular glymphatic clearance system removes  $\beta$ -amyloid from the rodent eye. *Sci. Transl. Med.* 12: eaaw3210.  
<https://doi.org/10.1126%2Fscitranslmed.aaw3210>
- Zakariassen, H. L. *et al.* (2020) Salmon calcitonin distributes into the arcuate nucleus to a subset of NPY neurons in mice. *Neuropharmacology* 167: 107987.  
<https://doi.org/10.1016/j.neuropharm.2020.107987>
- Zhao, S. *et al.* (2020) Cellular and molecular probing of intact human organs. *Cell* 180:796–812.e19.  
<https://doi.org/10.1016/j.cell.2020.01.030>
- Claser, C. *et al.* (2019) Lung endothelial cell antigen cross-presentation to CD8<sup>+</sup> T cells drives malaria-associated lung injury. *Nat. Commun.* 10: 4241.  
<https://doi.org/10.1038/s41467-019-12017-8>
- Culemann, S. *et al.* (2019) Locally renewing resident synovial macrophages provide a protective barrier for the joint. *Nature* 572: 670–675.  
<https://doi.org/10.1038/s41586-019-1471-1>
- Esterházy, D. *et al.* (2019) Compartmentalized gut lymph node drainage dictates adaptive immune responses. *Nature* 569: 126–130.  
<https://doi.org/10.1038/s41586-019-1125-3>
- Hong, S.-M. *et al.* (2019) Three-dimensional visualization of cleared human pancreas cancer reveals that sustained epithelial-to-mesenchymal transition is not required for venous invasion. *Mod. Pathol.* 33: 639–647.  
<https://doi.org/10.1038/s41379-019-0409-3>
- Levy, R. B. *et al.* (2019) Circuit asymmetries underlie functional lateralization in the mouse auditory cortex. *Nat. Commun.* 10: 2783.  
<https://doi.org/10.1038/s41467-019-10690-3>
- Pan, C. *et al.* (2019) Deep learning reveals cancer metastasis and therapeutic antibody targeting in the entire body. *Cell* 179:1661–1676.e19.  
<https://doi.org/10.1016/j.cell.2019.11.013>
- Schmid, B. *et al.* (2019) 3Dscript: animating 3D/4D microscopy data using a natural-language-based syntax. *Nat. Methods.* 16: 278–280.  
<https://doi.org/10.1038/s41592-019-0359-1>
- Wan, Y. *et al.* (2019) Light-sheet microscopy and its potential for understanding developmental processes. *Annu. Rev. Cell Dev. Biol.* 35: 655–681.  
<https://doi.org/10.1146/annurev-cellbio-100818-125311>
- Lozovaya, N. *et al.* (2018) GABAergic inhibition in dual-transmission cholinergic and GABAergic striatal interneurons is abolished in Parkinson disease. *Nat. Commun.* 9: 1422.  
<https://doi.org/10.1038/s41467-018-03802-y>
- Belle, M. *et al.* (2017) Tridimensional visualization and analysis of early human development. *Cell* 169: 161–173.e12.  
<https://doi.org/10.1016/j.cell.2017.03.008>
- Zundler, S. *et al.* (2017) Three-dimensional cross-sectional light-sheet microscopy imaging of the inflamed mouse gut. *Gastroenterology* 153: 898–900.  
<https://doi.org/10.1053/j.gastro.2017.07.022>
- Fu, H. *et al.* (2016) 3D visualization of the temporal and spatial spread of tau pathology reveals extensive sites of tau accumulation associated with neuronal loss and recognition memory deficit in aged tau transgenic mice. *PLoS One* 11: e0159463.  
<https://doi.org/10.1371/journal.pone.0159463>
- Pan, C. *et al.* (2016) Shrinkage-mediated imaging of entire organs and organisms using uDISCO. *Nat. Methods* 13: 859–867.  
<https://doi.org/10.1038/nmeth.3964>
- Renier, N. *et al.* (2016) Mapping of brain activity by automated volume analysis of immediate early genes. *Cell* 165: 1789–1802.  
<https://doi.org/10.1016/j.cell.2016.05.007>
- Ye, L. *et al.* (2016) Wiring and molecular features of prefrontal ensembles representing distinct experiences. *Cell* 165: 1776–1788.  
<https://doi.org/10.1016/j.cell.2016.05.010>
- Epp, J. R. *et al.* (2015) Optimization of CLARITY for clearing whole-brain and other intact organs. *eNeuro* 2: ENEURO.0022-15.2015.  
<https://doi.org/10.1523/ENEURO.0022-15.2015>
- Soderblom, C. *et al.* (2015) 3D imaging of axons in transparent spinal cords from rodents and nonhuman primates. *eNeuro* 2: ENEURO.0001-15.2015.  
<https://doi.org/10.1523/ENEURO.0001-15.2015>
- Susaki, E.A. *et al.* (2015) Advanced CUBIC protocols for whole-brain and whole-body clearing and imaging. *Nat. Protoc.* 10: 1709–1727.  
<https://doi.org/10.1038/nprot.2015.085>
- Renier, N. *et al.* (2014) iDISCO: A simple, rapid method to immunolabel large tissue samples for volume imaging. *Cell* 159: 896–910.  
<https://doi.org/10.1016/j.cell.2014.10.010>
- Susaki, E. A. *et al.* (2014) Whole-brain imaging with single-cell resolution using chemical cocktails and computational analysis. *Cell* 157: 726–739.  
<https://doi.org/10.1016/j.cell.2014.03.042>
- Tainaka, K. *et al.* (2014) Whole-body imaging with single-cell resolution by tissue decolorization. *Cell* 159: 911–924.  
<https://doi.org/10.1016/j.cell.2014.10.034>
- Hägerling, R. *et al.* (2013) A novel multistep mechanism for initial lymphangiogenesis in mouse embryos based on ultramicroscopy. *EMBO J.* 32: 629–644.  
<https://doi.org/10.1038/emboj.2012.340>
- Ertürk, A. *et al.* (2012) Three-dimensional imaging of solvent-cleared organs using 3DISCO. *Nat. Protoc.* 7: 1983–1995.  
<https://doi.org/10.1038/nprot.2012.119>

Miltenyi Biotec provides products and services worldwide. Visit [www.miltenyibiotec.com/local](http://www.miltenyibiotec.com/local) to find your nearest Miltenyi Biotec contact.

Unless otherwise specifically indicated, Miltenyi Biotec products and services are for research use only and not for therapeutic or diagnostic use. The Miltenyi Biotec logo is a registered trademark or trademark of Miltenyi Biotec and/or its affiliates in various countries worldwide. Copyright © 2020 Miltenyi Biotec and/or its affiliates. All rights reserved.