

High resolution in-vitro and in-vivo X-ray micro-CT imaging using synchrotron radiation

ID17 Biomedical Beamline, European Synchrotron Radiation Facility (Grenoble, France)

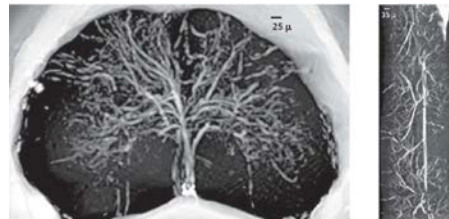
bravin@esrf.fr

Simultaneous submicrometric 3D imaging of the micro-vascular network and the neuronal system in a mouse spinal cord

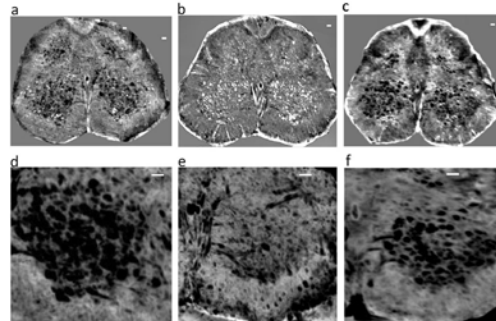
Michela Frasca^{1,2}, Inna Bukreeva¹, Gaetano Compi¹, Francesco Bruni^{1,2}, Giuliana Tromba¹, Peter Modregger¹, Damiano Bucci¹, Giuseppe Battaglia¹, Raffaele Spanò¹, Maddalena Morogio¹, Hervey Kervadec¹, Federico Giore^{1,2}, Alberto Bravin^{1,2} & Alessia Cedola¹

X-Ray Phase Contrast Tomography Reveals Early Vascular Alterations and Neuronal Loss in a Multiple Sclerosis Model

A. Cedola¹, A. Bravin^{1,2}, I. Bukreeva¹, M. Frasca^{1,2}, A. Piacentini^{1,2}, A. Morone¹, L. Masini¹, P. Cloetens¹, P. Coan^{1,2}, G. Campi¹, R. Spanò¹, F. Bruni¹, V. Grigorenko¹, V. Petrosino¹, C. Venturi¹, M. Mastrogiacomo¹, Nicole Kerker de Rosbo¹ & A. Uccelli^{1,2}



Mouse spinal cord



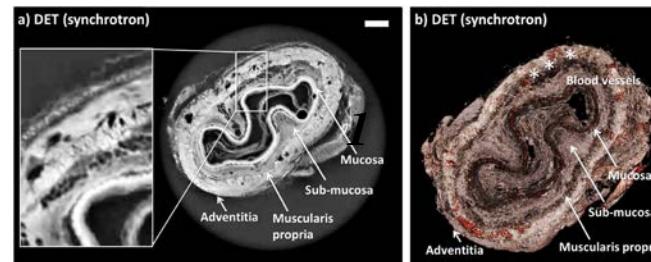
Scientific Reports / 5 : 8514

Scientific Reports / 7:41054

Scientific Reports / 7: 5890

High contrast microstructural visualization of natural acellular matrices by means of phase-based x-ray tomography

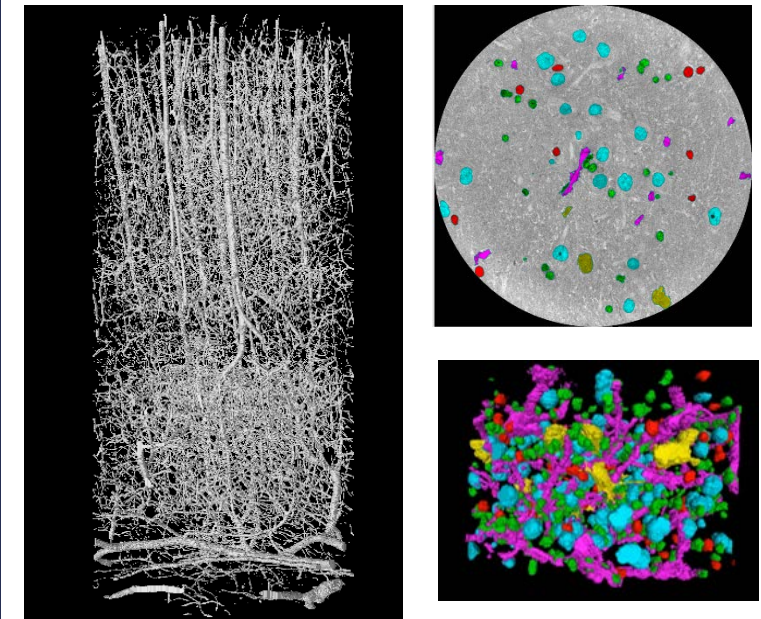
Charlotte K. Hagen¹, Panagiotis Maghsoudlou¹, Georgia Totonelli¹, Paul C. Diemaz¹, Marco Endrizzi¹, Luigi Rigon^{1,2}, Ralf-Hendrik Menk¹, Fulvia Arfelli¹, Diego Drossi¹, Emmanuel Brun¹, Paola Coan^{1,2}, Alberto Bravin¹, Paolo De Coppi¹ & Alessandro Olivo¹



Decellularized esophagus

Scientific Reports / 5:18156

Post-mortem
3D high resolution, high contrast
μCT imaging (0.7-10 μm) @ID17

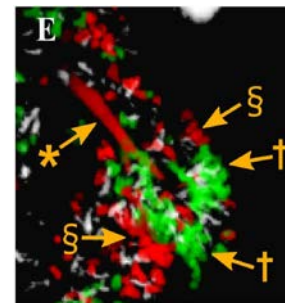
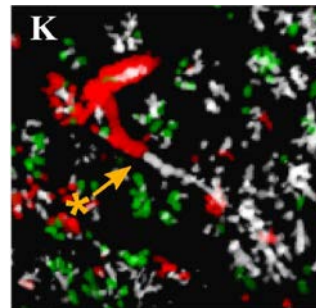
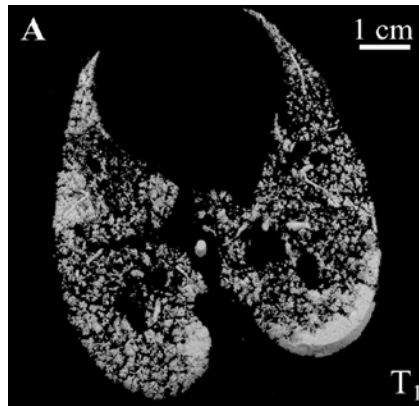


NanoCT imaging
(50-300 nm)
@ID16A

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bravin@esrf.fr



Rabbit lung

Critical Care Medicine 2017 Apr;45(4):687-694

In-vivo
3D high resolution,
high contrast
 μ CT imaging (3-10 μ m) @ID17