Real-Time Super Resolution Contextual Close-up of Clinical Volumetric Data

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Eighth Annual Eurographics/IEEE-VGTC Symposium on Visualization (EuroVis 2006)

Results using our System

Generated on an AMD Athlon 2500 with 1.25 GB of RAM and using OpenGL/ATI Radeon 9550 graphics card

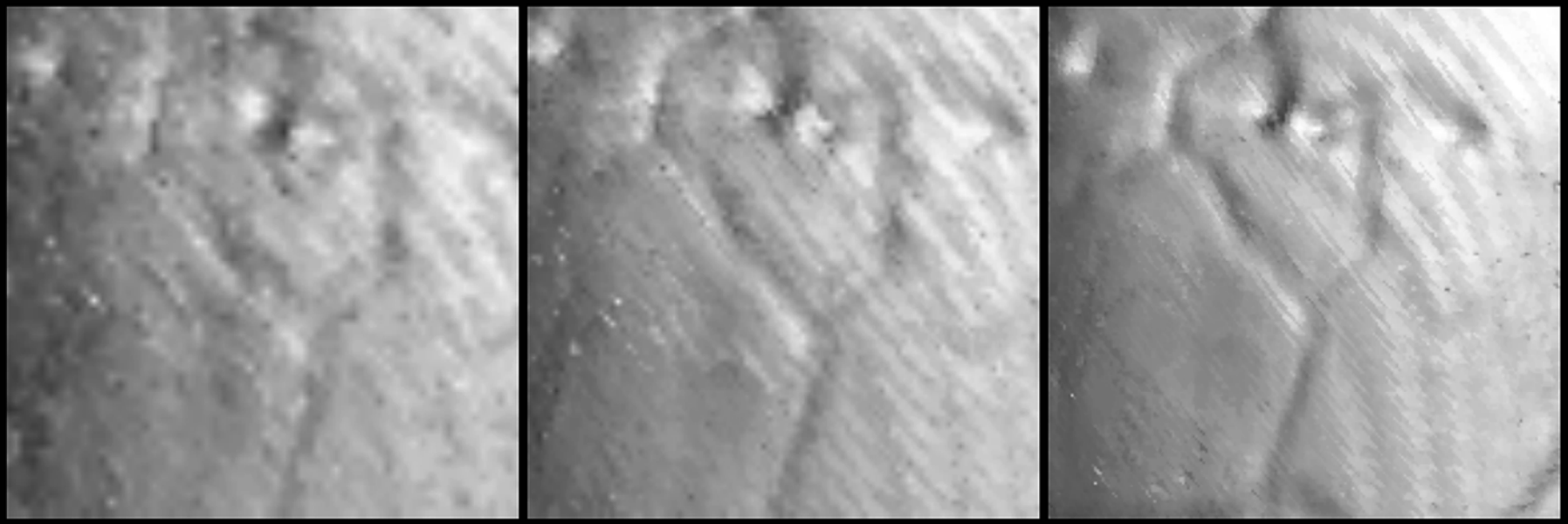
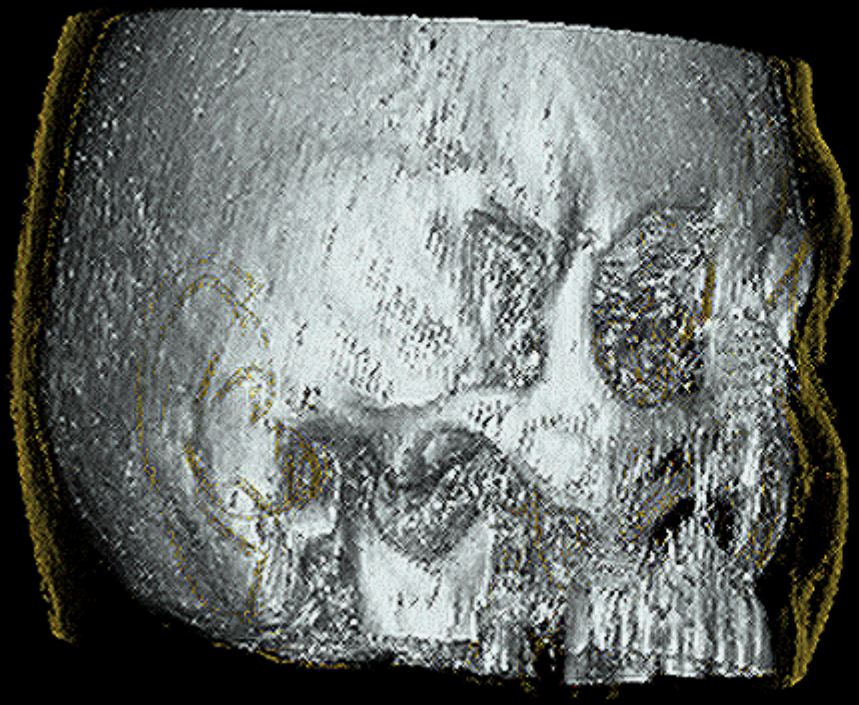
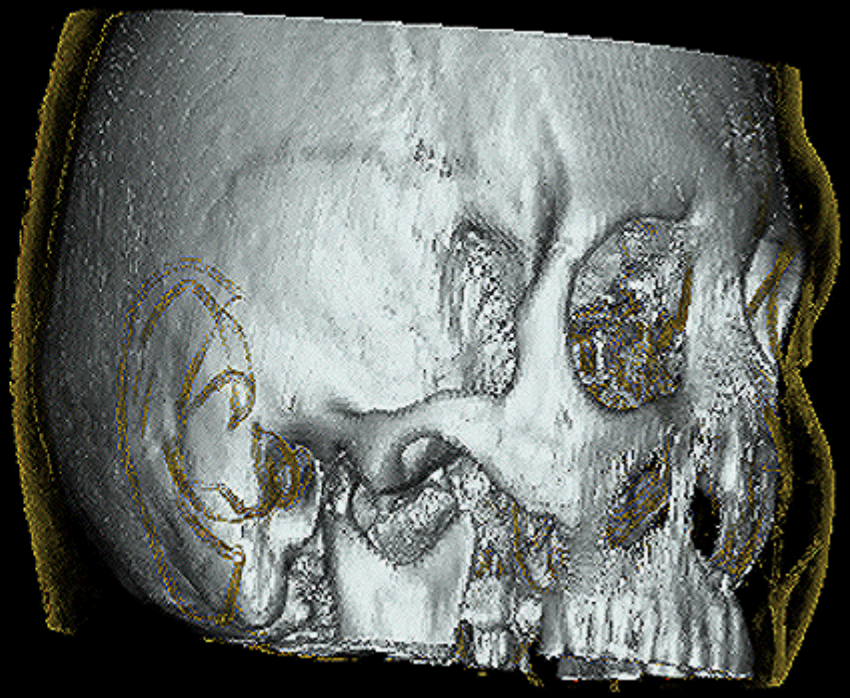


Figure 3 in the paper

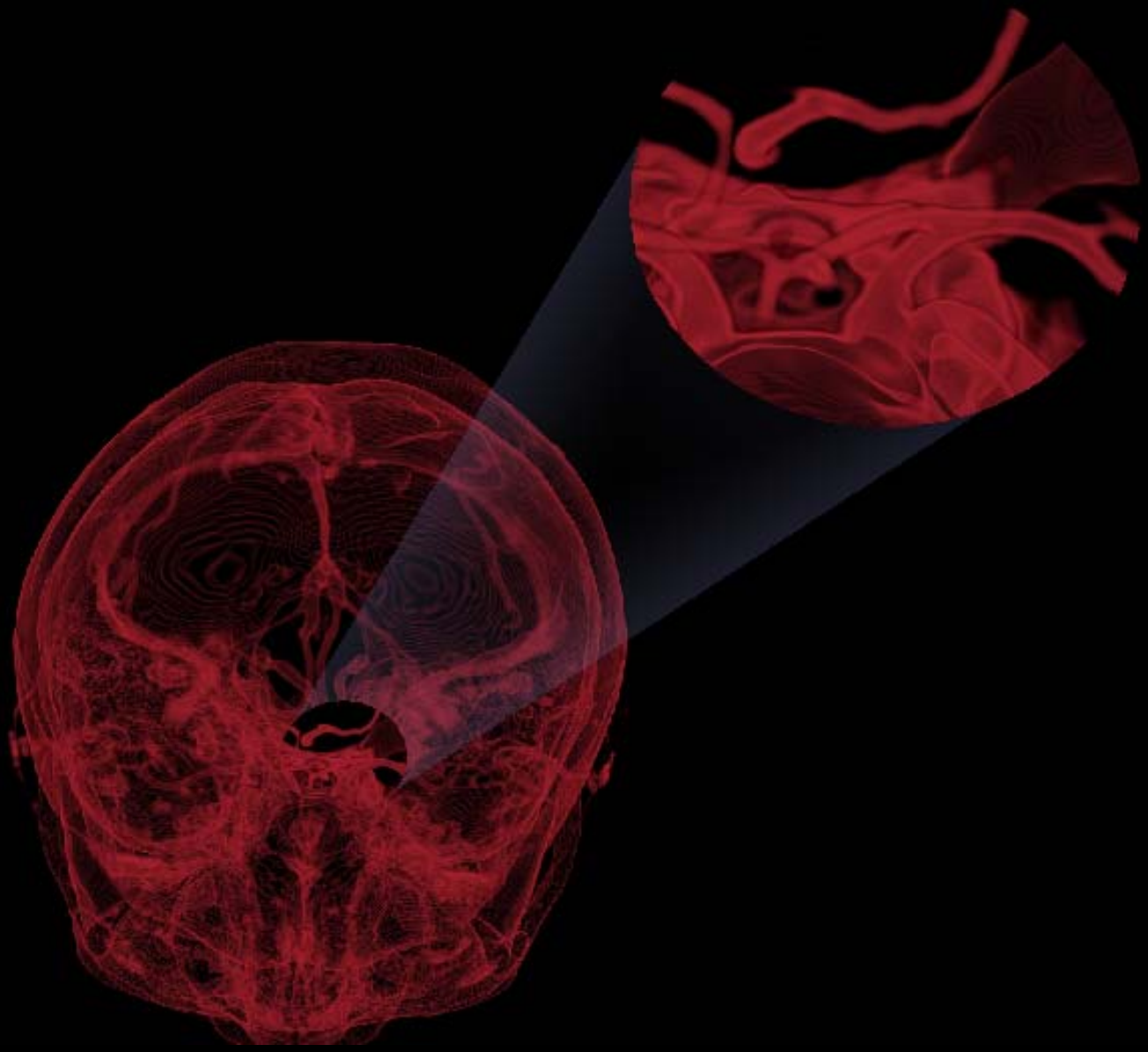


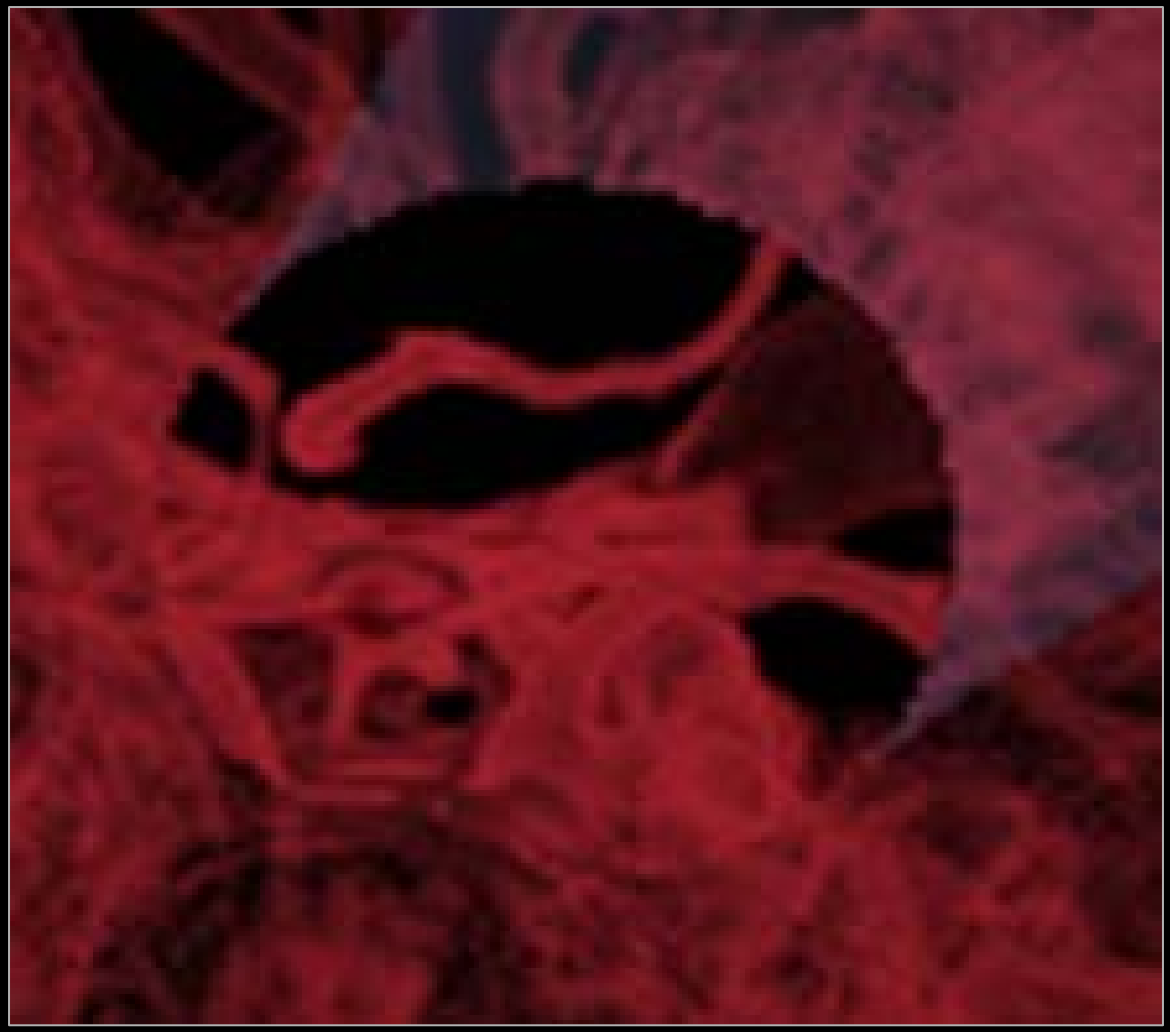
Low-resolution
(while interacting in real-time with volume)

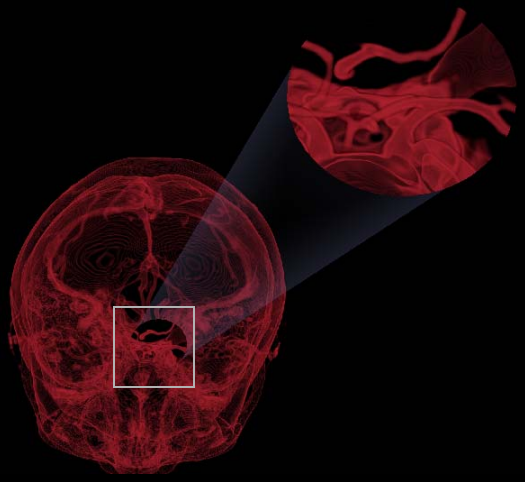


High-resolution
(after finishing interaction)

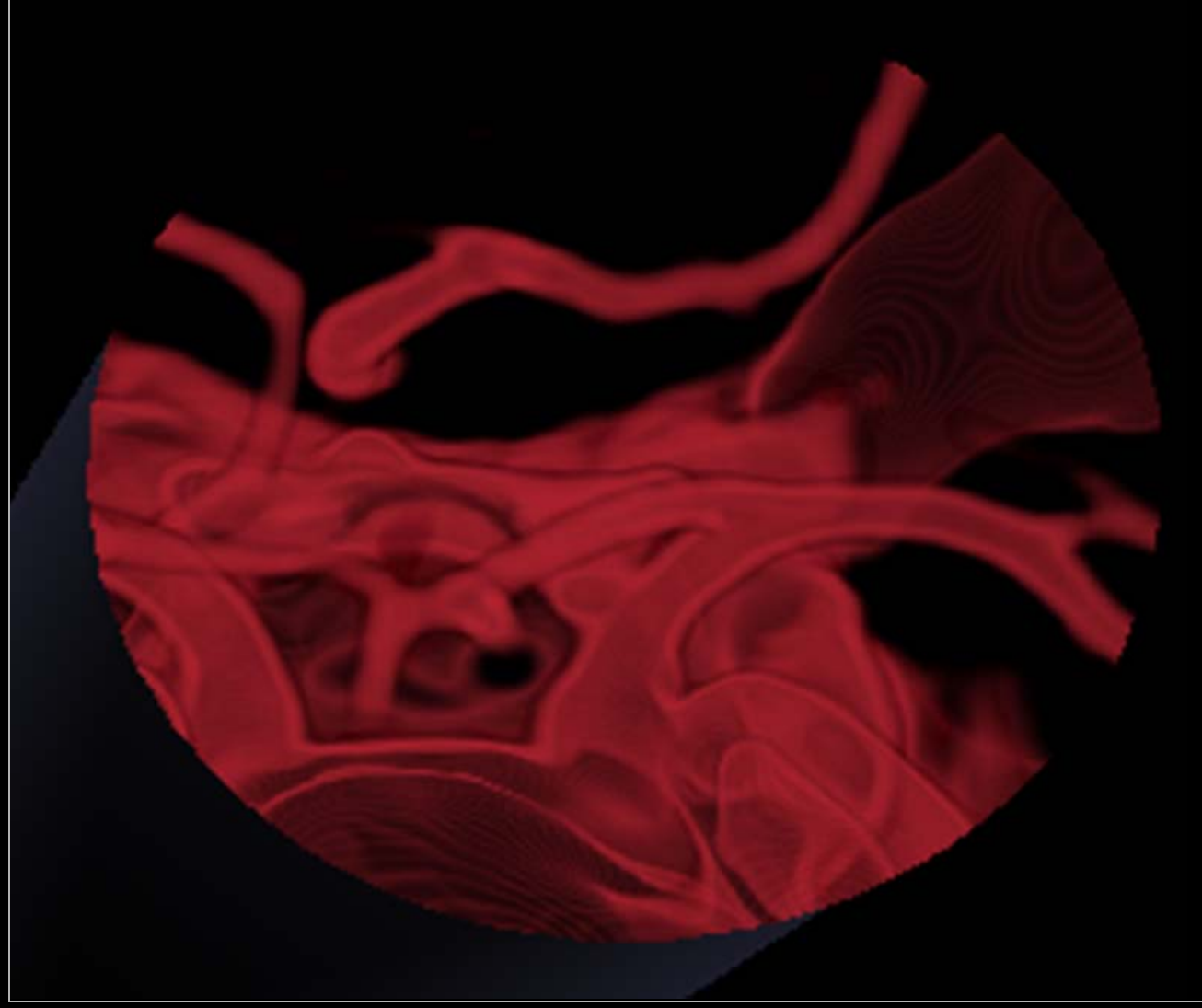
ROI: vessels

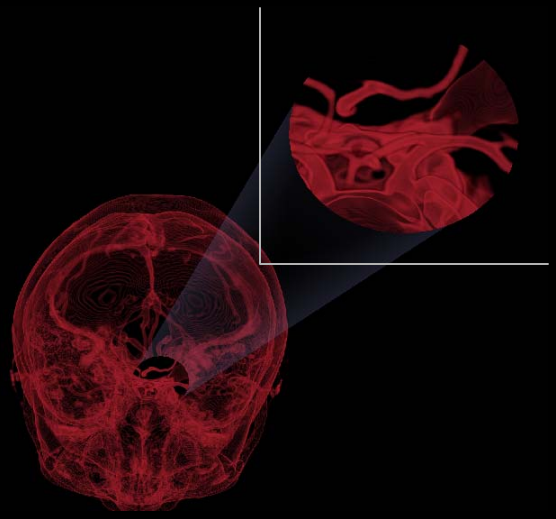






ROI sub-volume

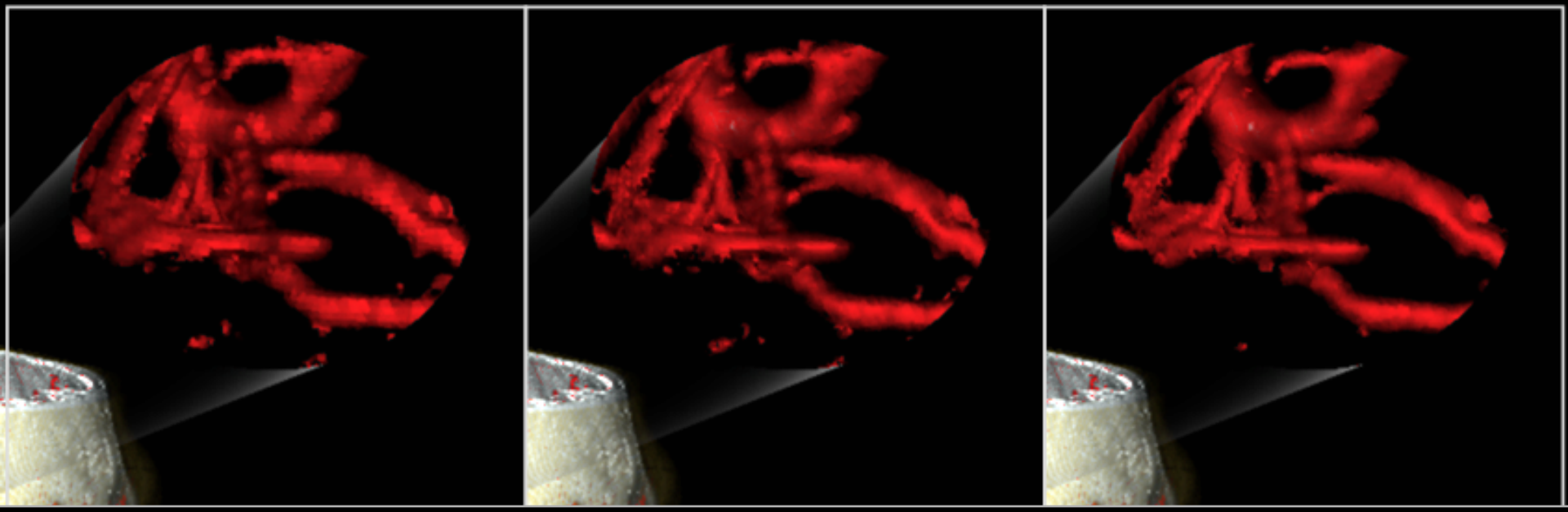




Super-resolution ROI

Video

- File “taerum-eurovis-06-video”
- Note that video play is not a precise representation of the actual fps performance during capture
- The video plays at 30 fps while system performance ranged from 3-15 fps



No subdivision

Order 3 subdivision

Order 4 subdivision

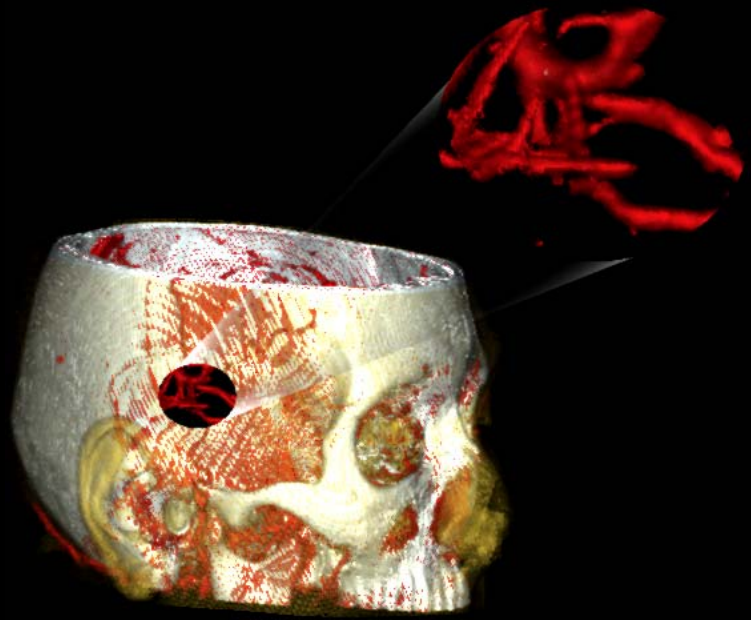
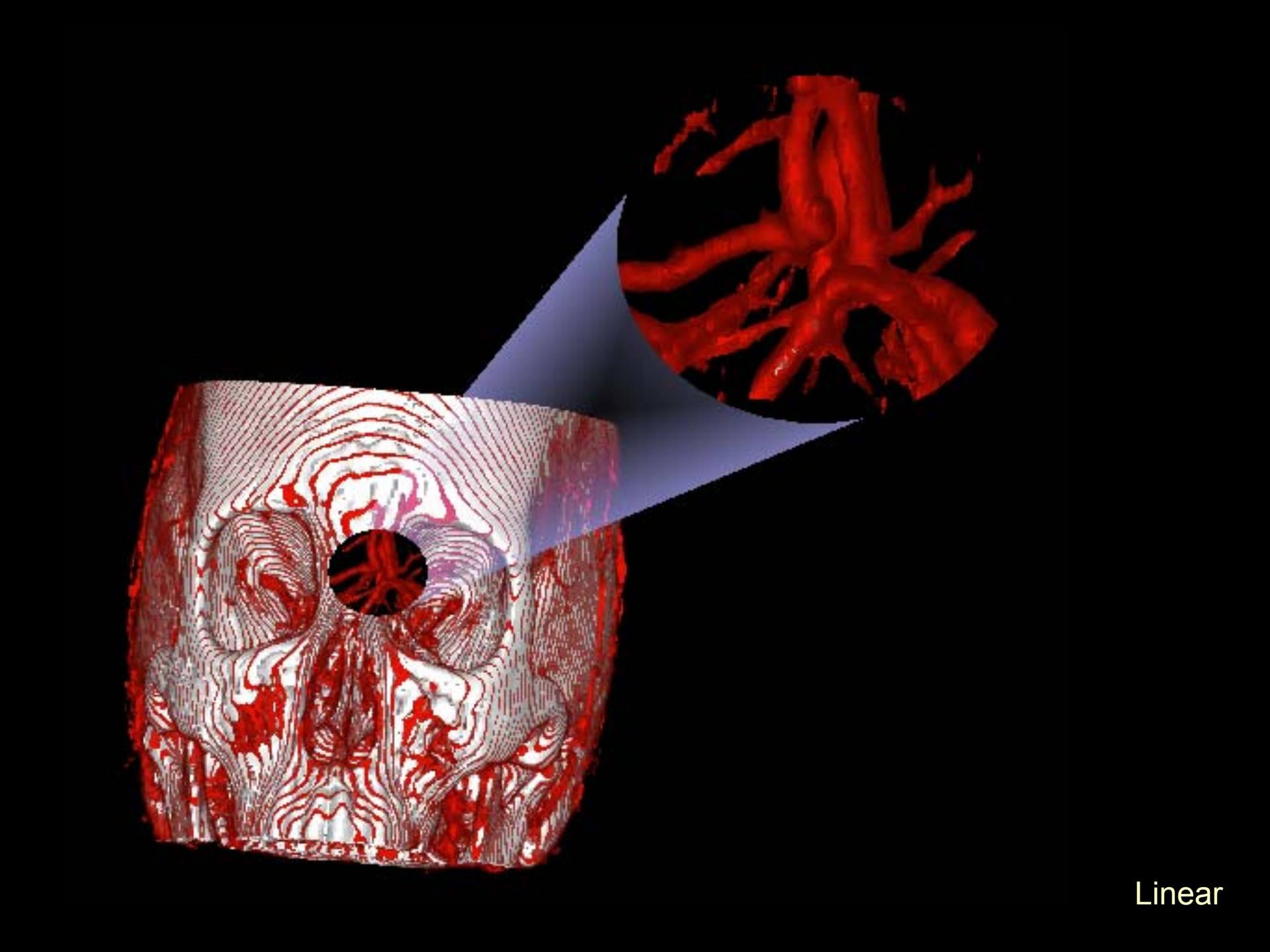
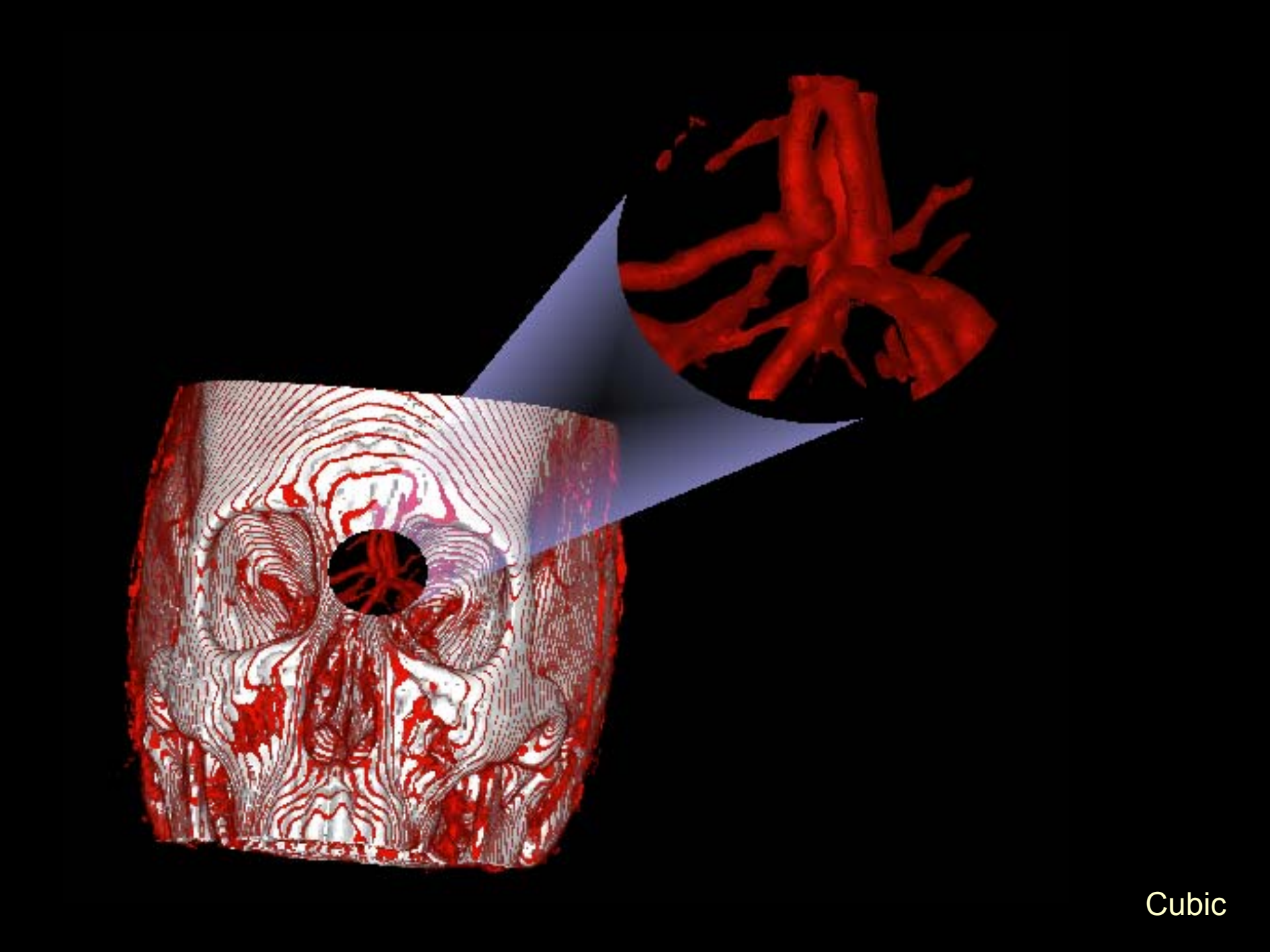
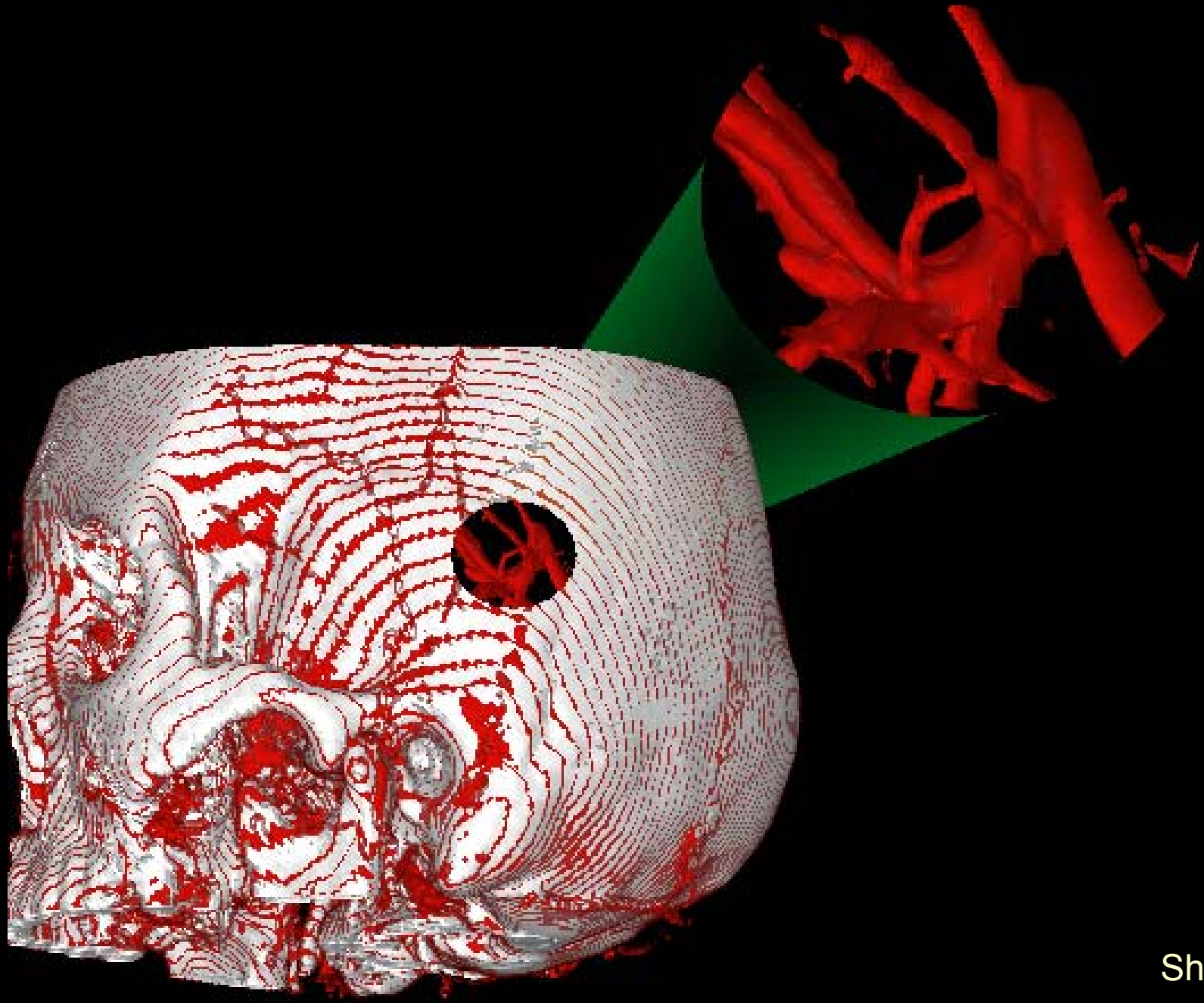
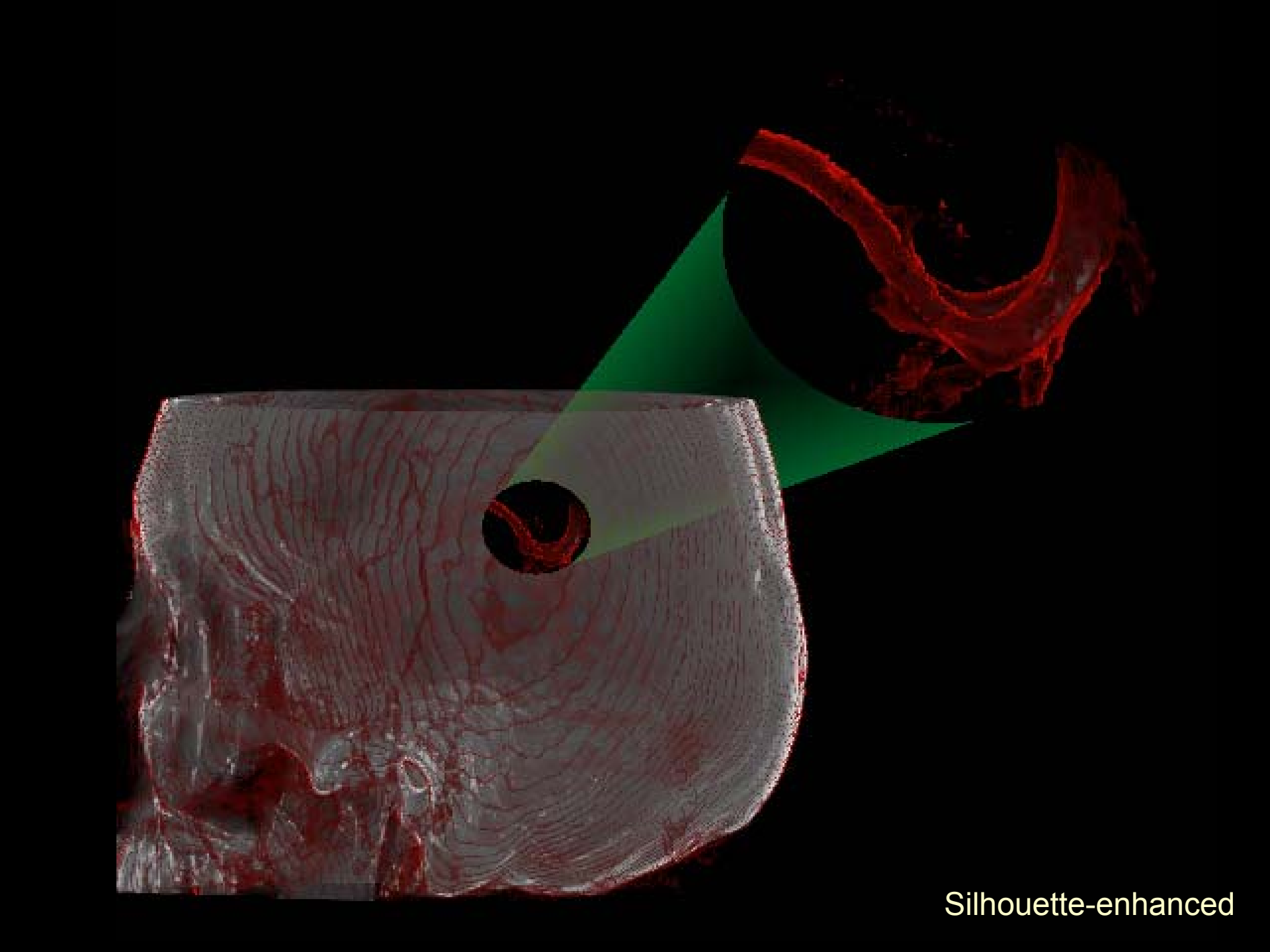


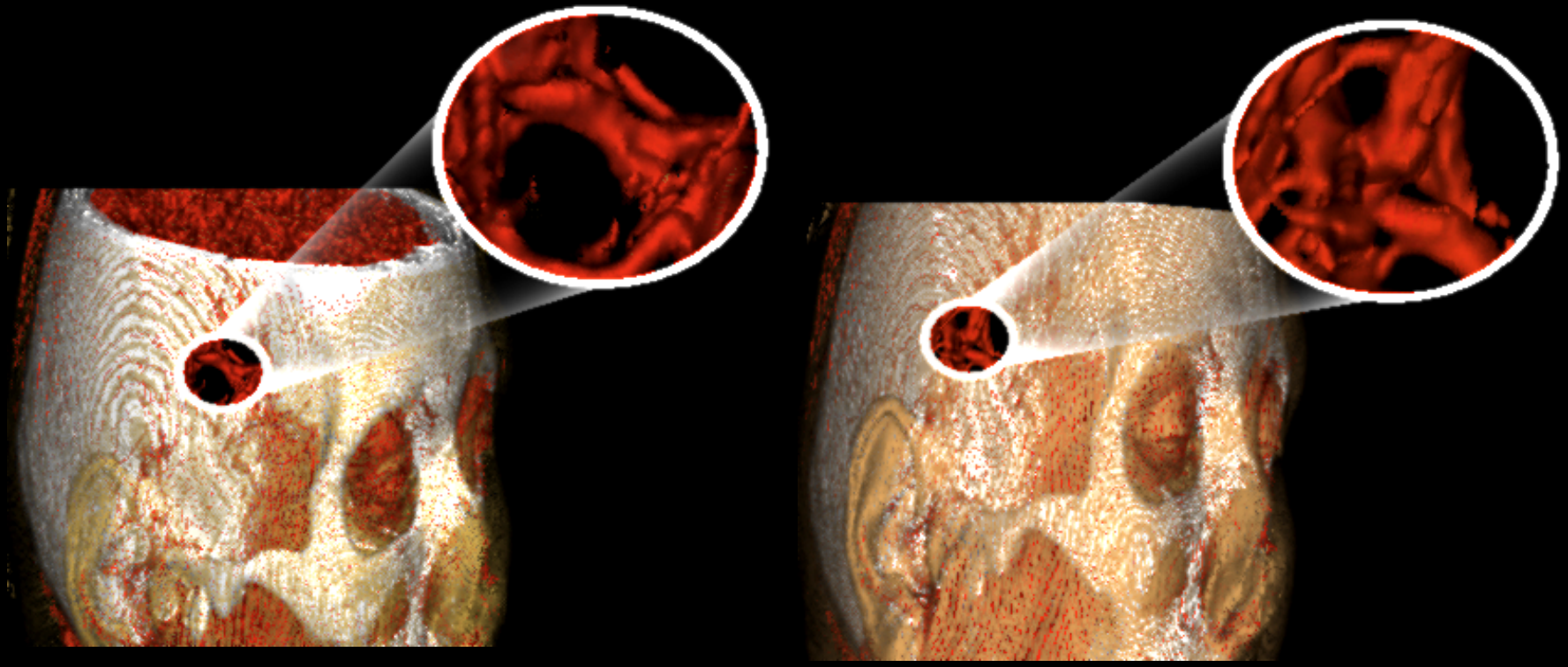
Figure 3 in the paper

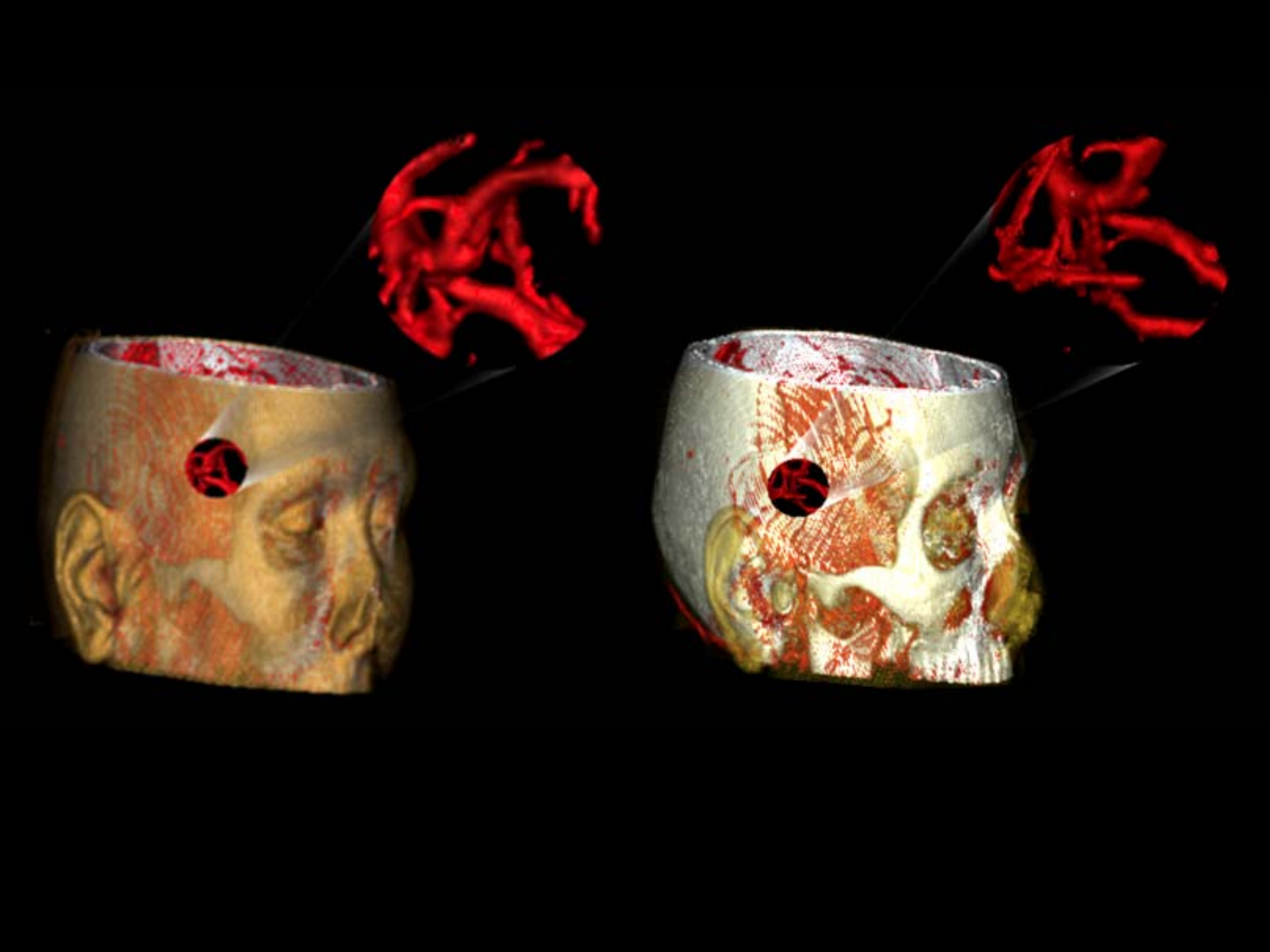

Linear

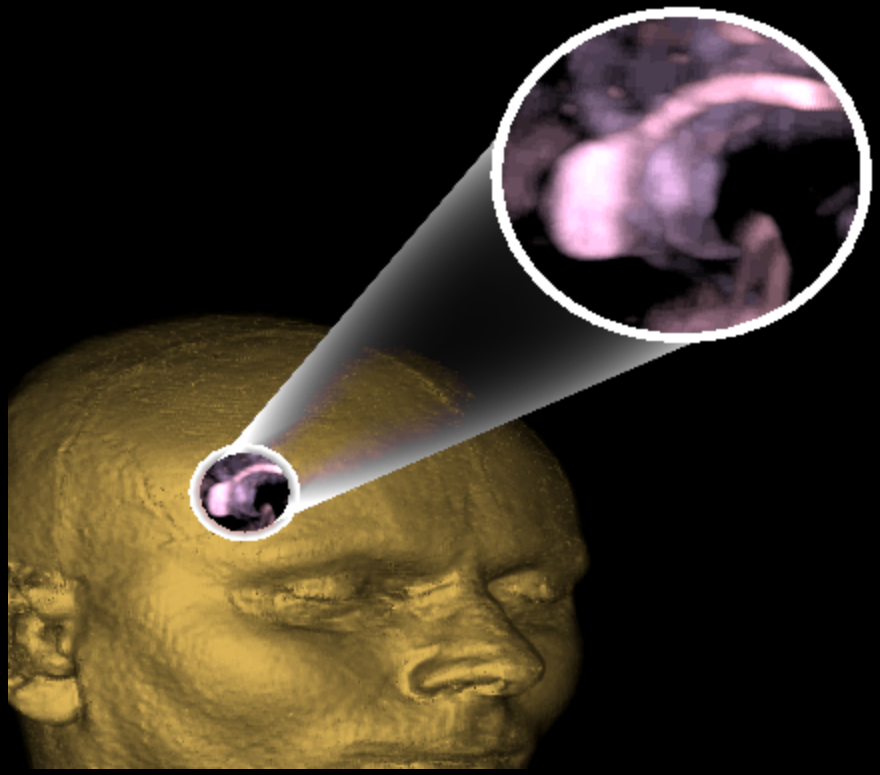

Cubic

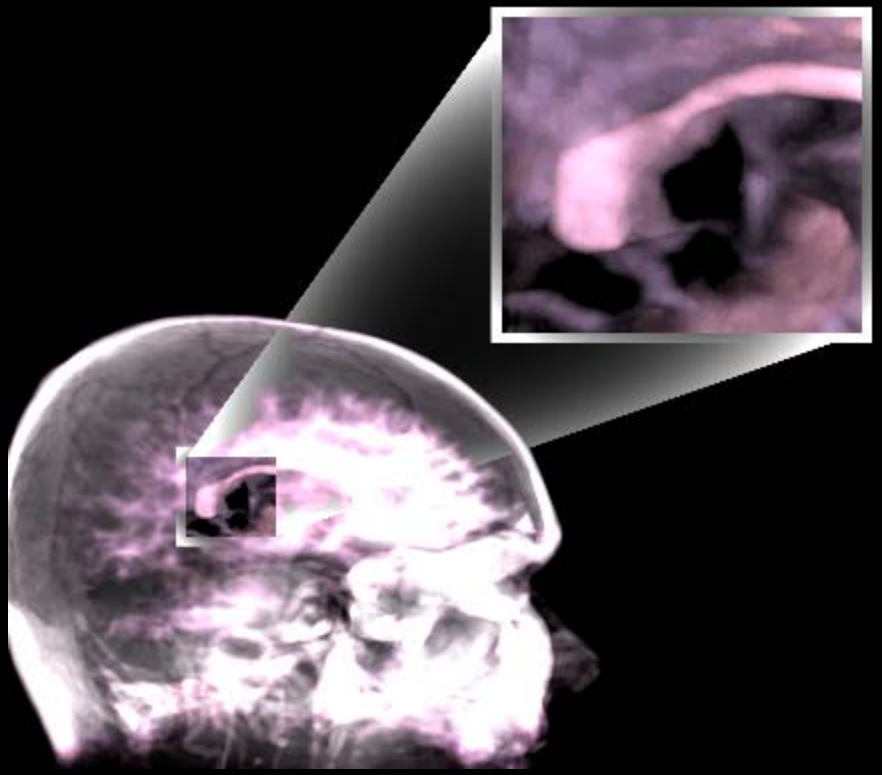

Shaded

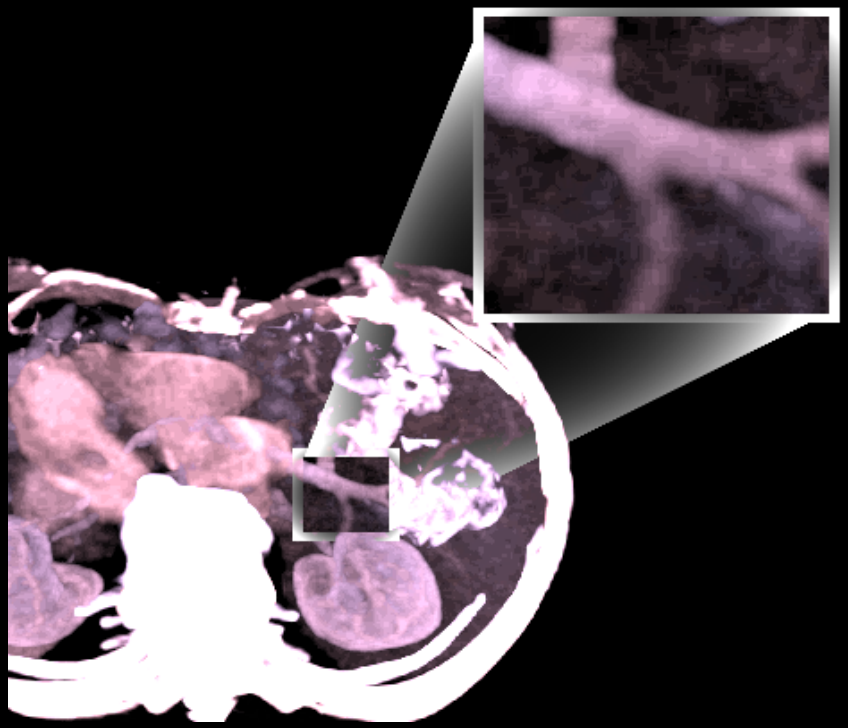

Silhouette-enhanced

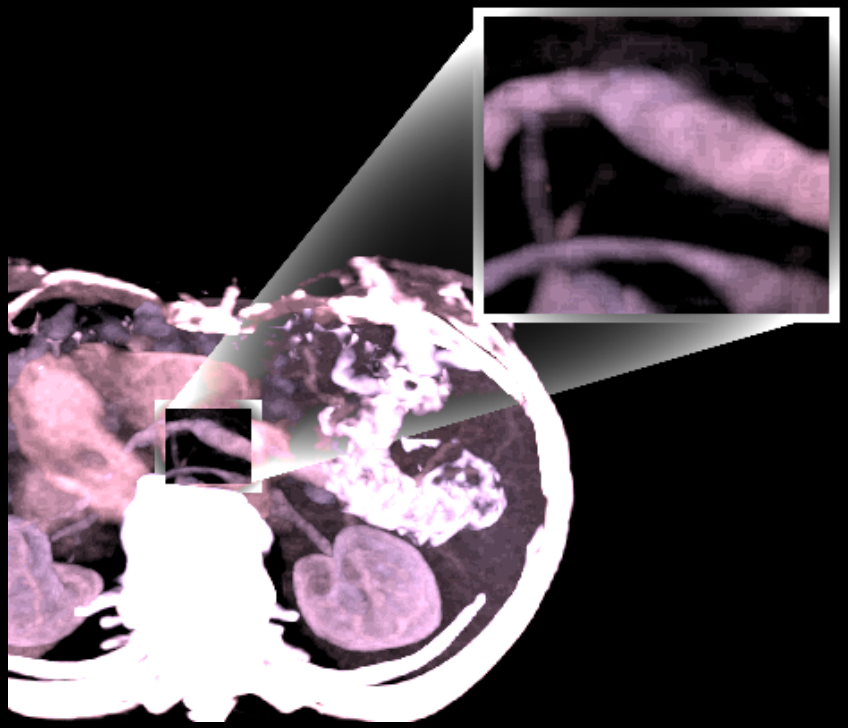


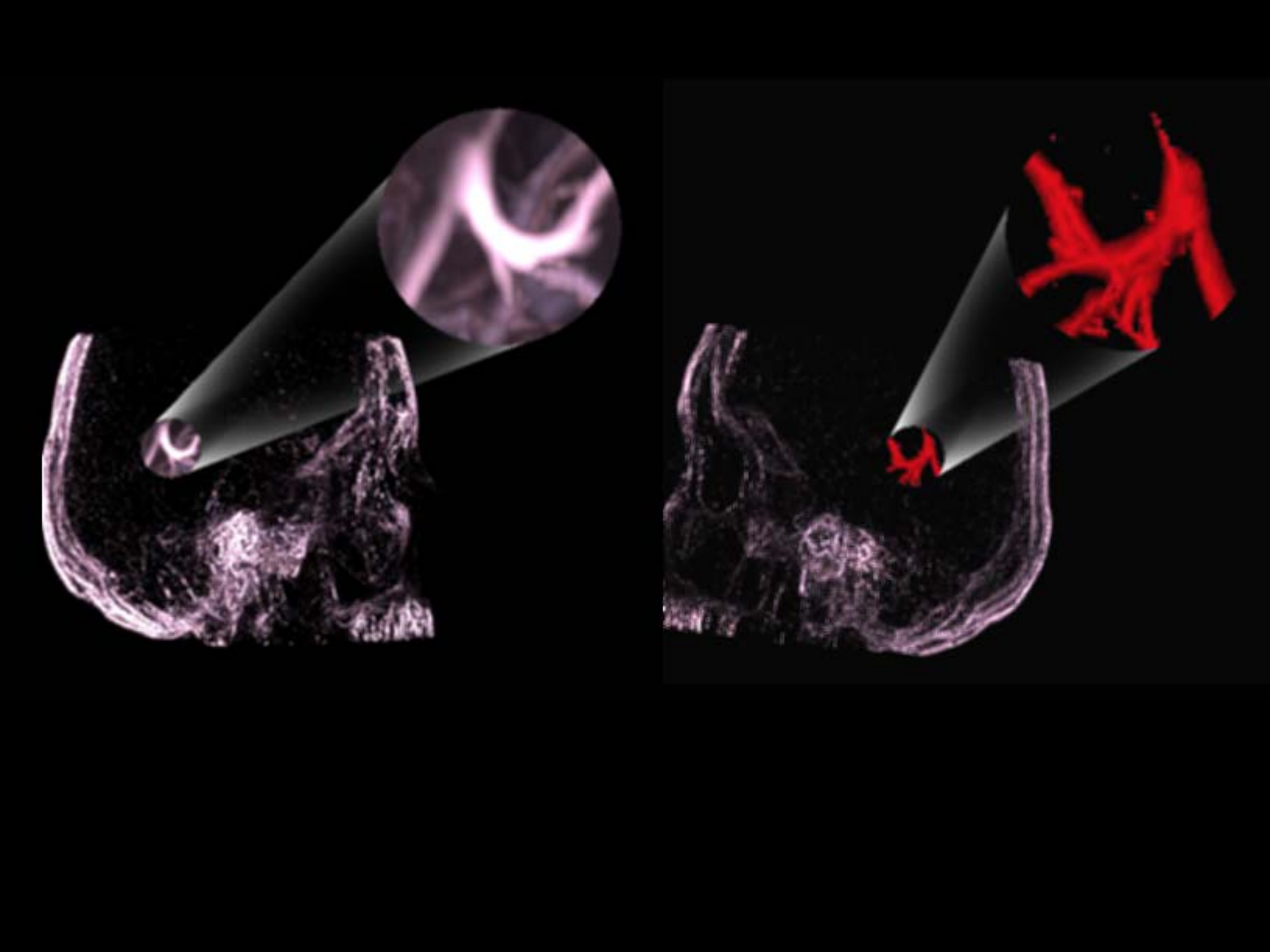


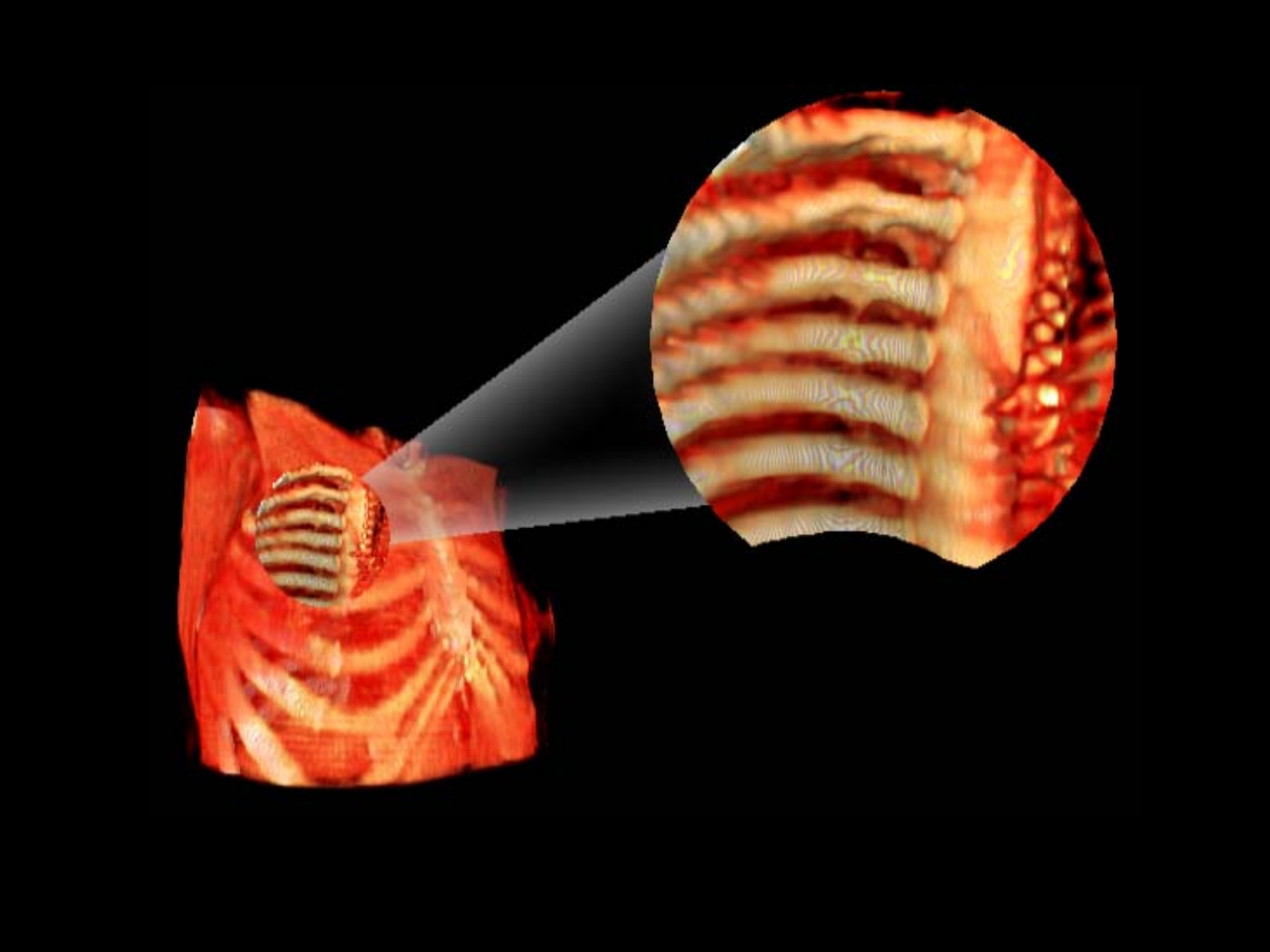


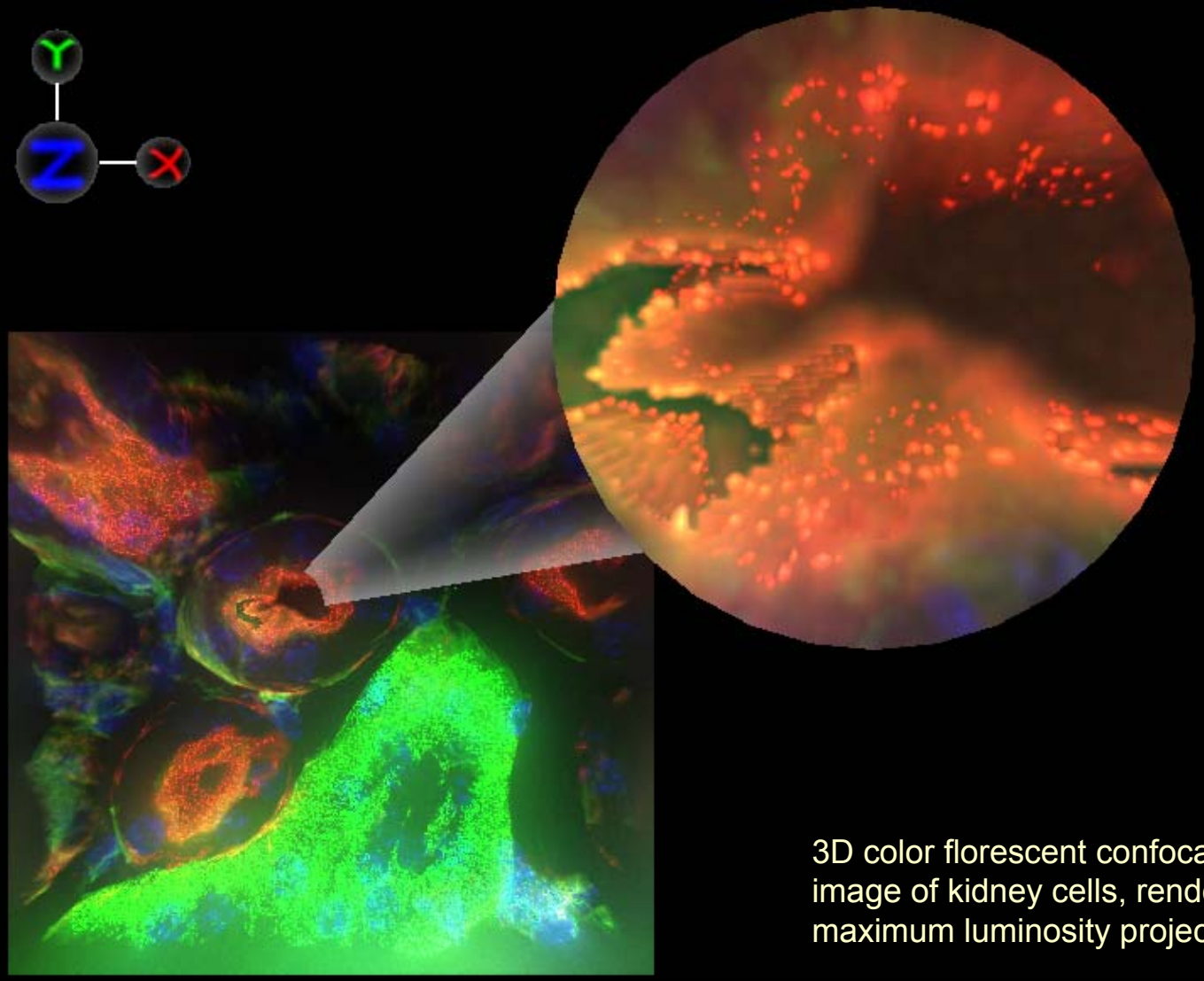






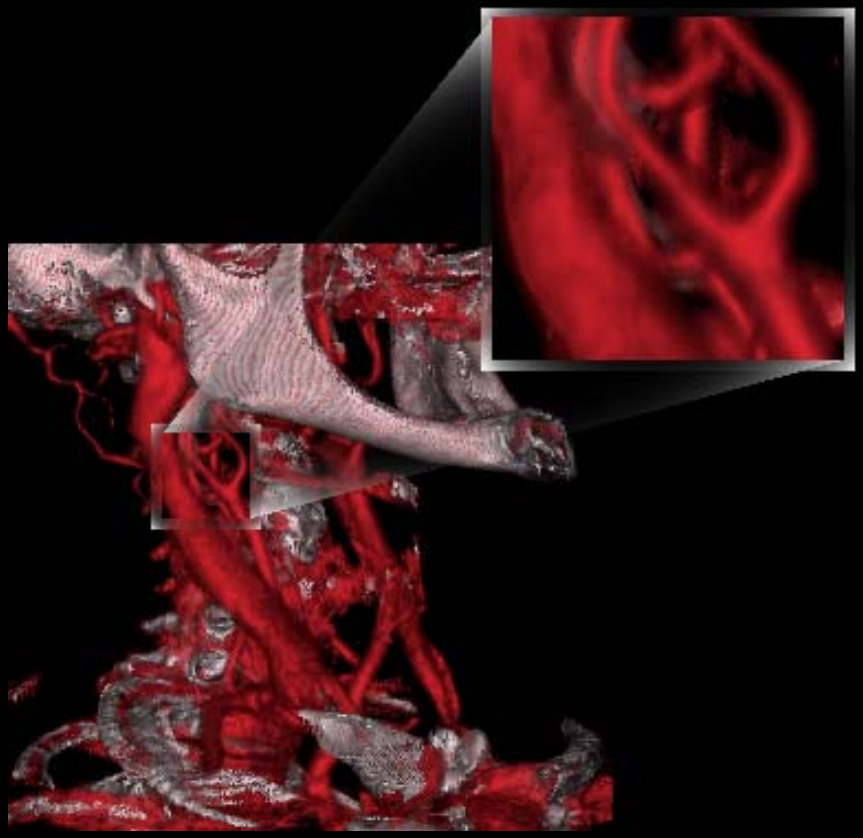


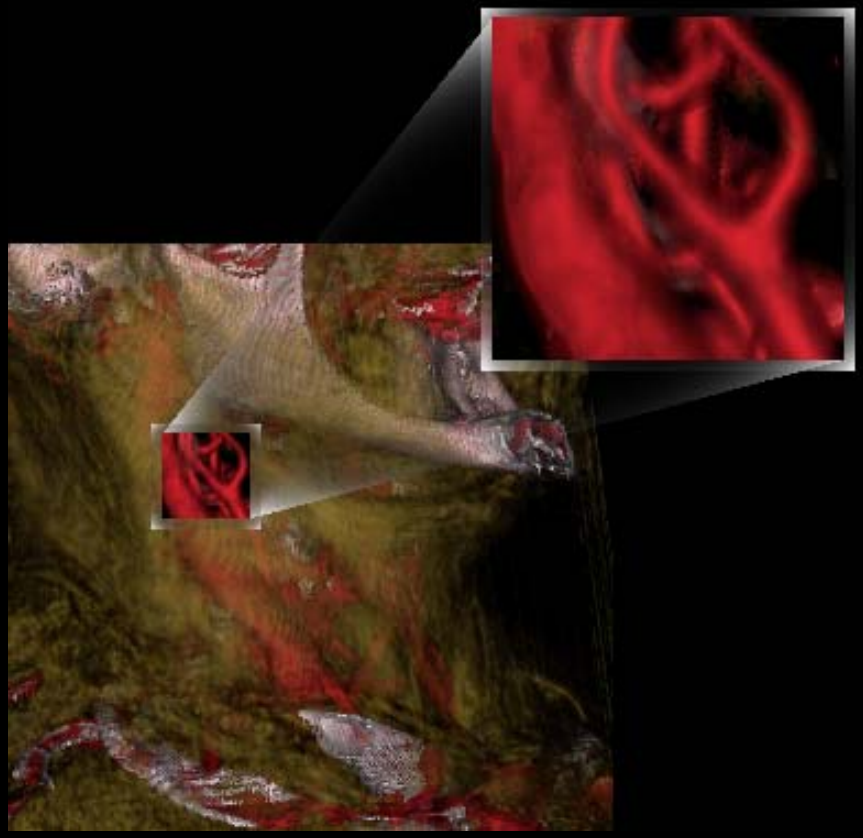


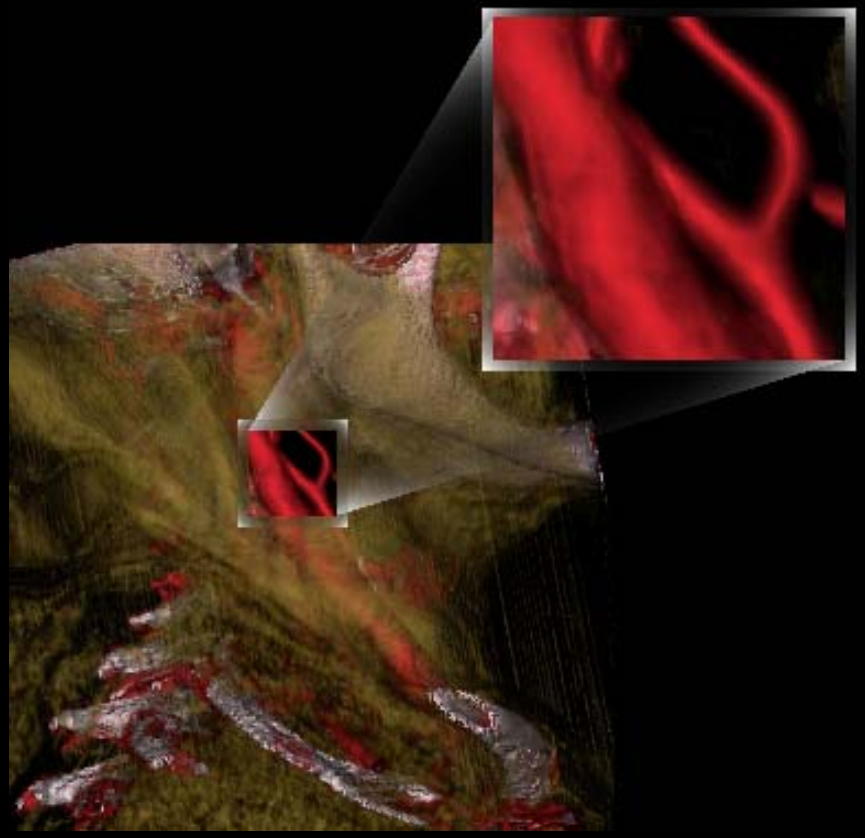


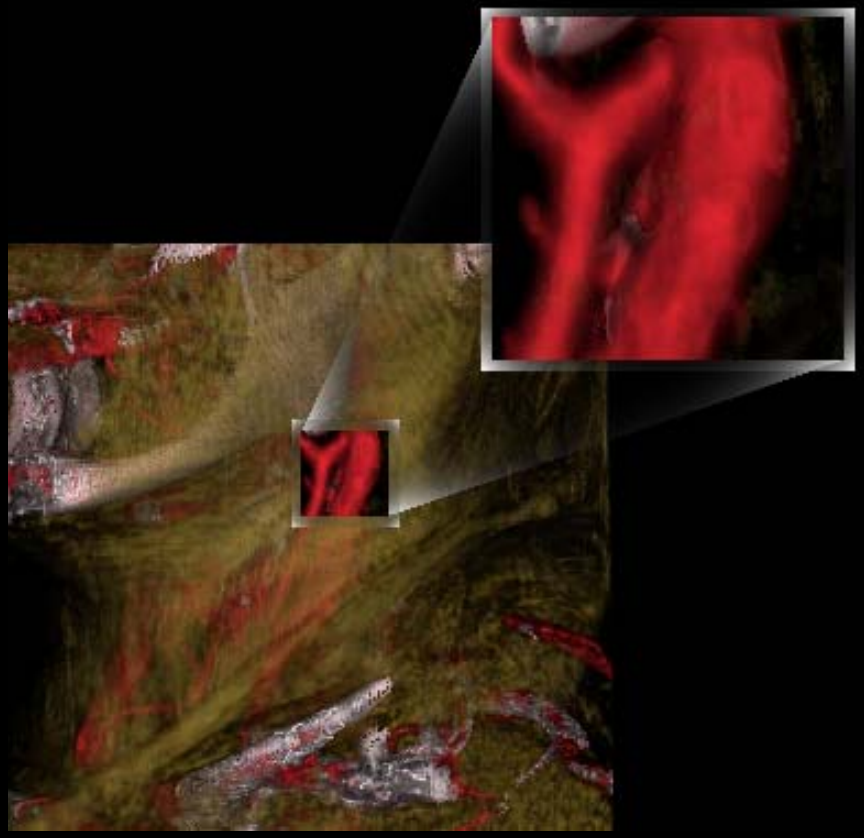
3D color florescent confocal microscopy image of kidney cells, rendered with maximum luminosity projection.

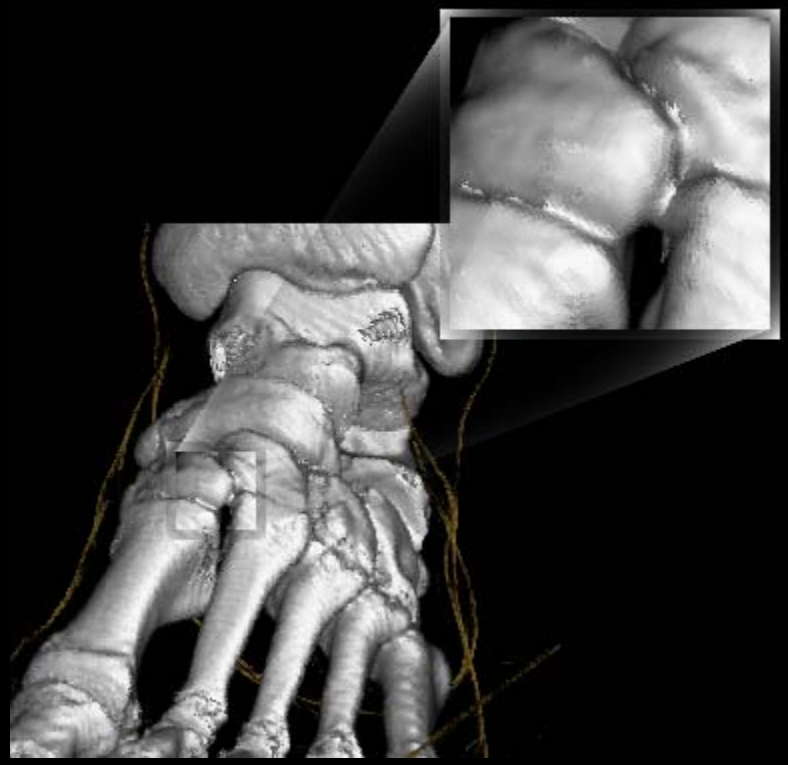
Data provided by Dr. Pina Colarusso, Dept of Physiology and Biophysics, Faculty of Medicine, University of Calgary

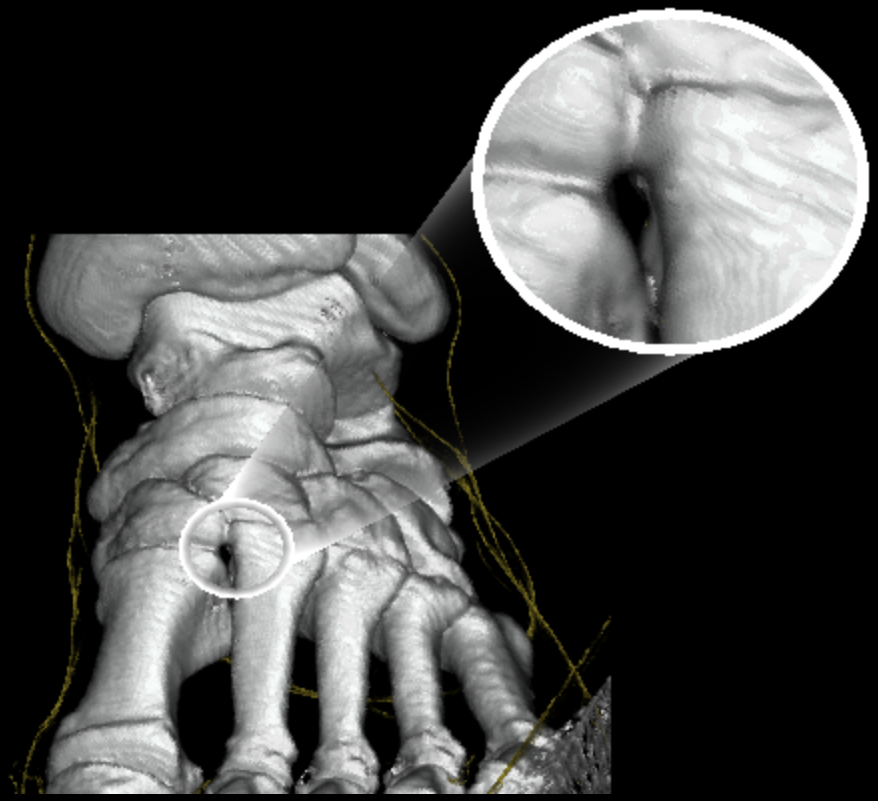


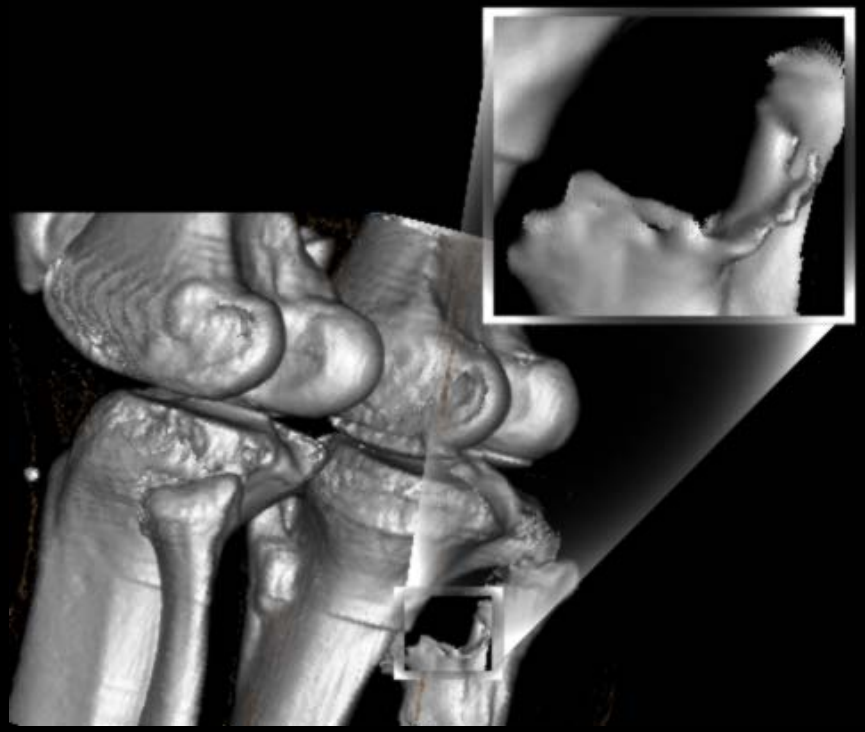


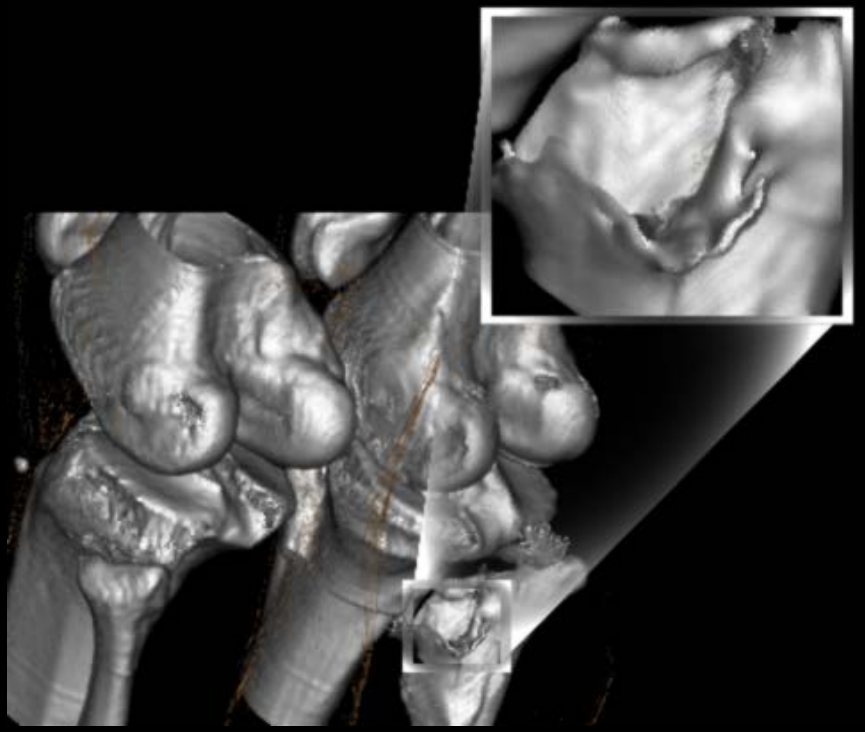


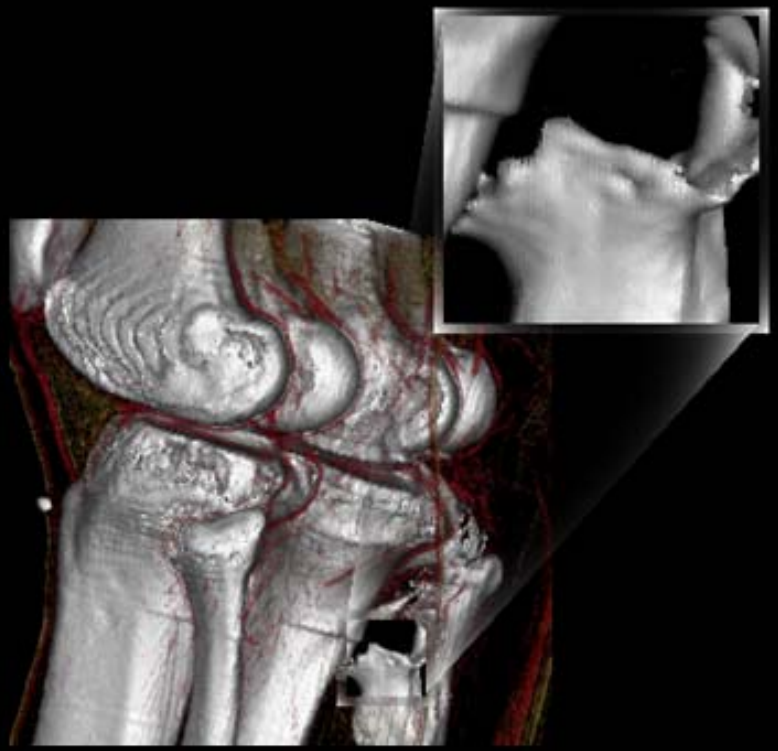


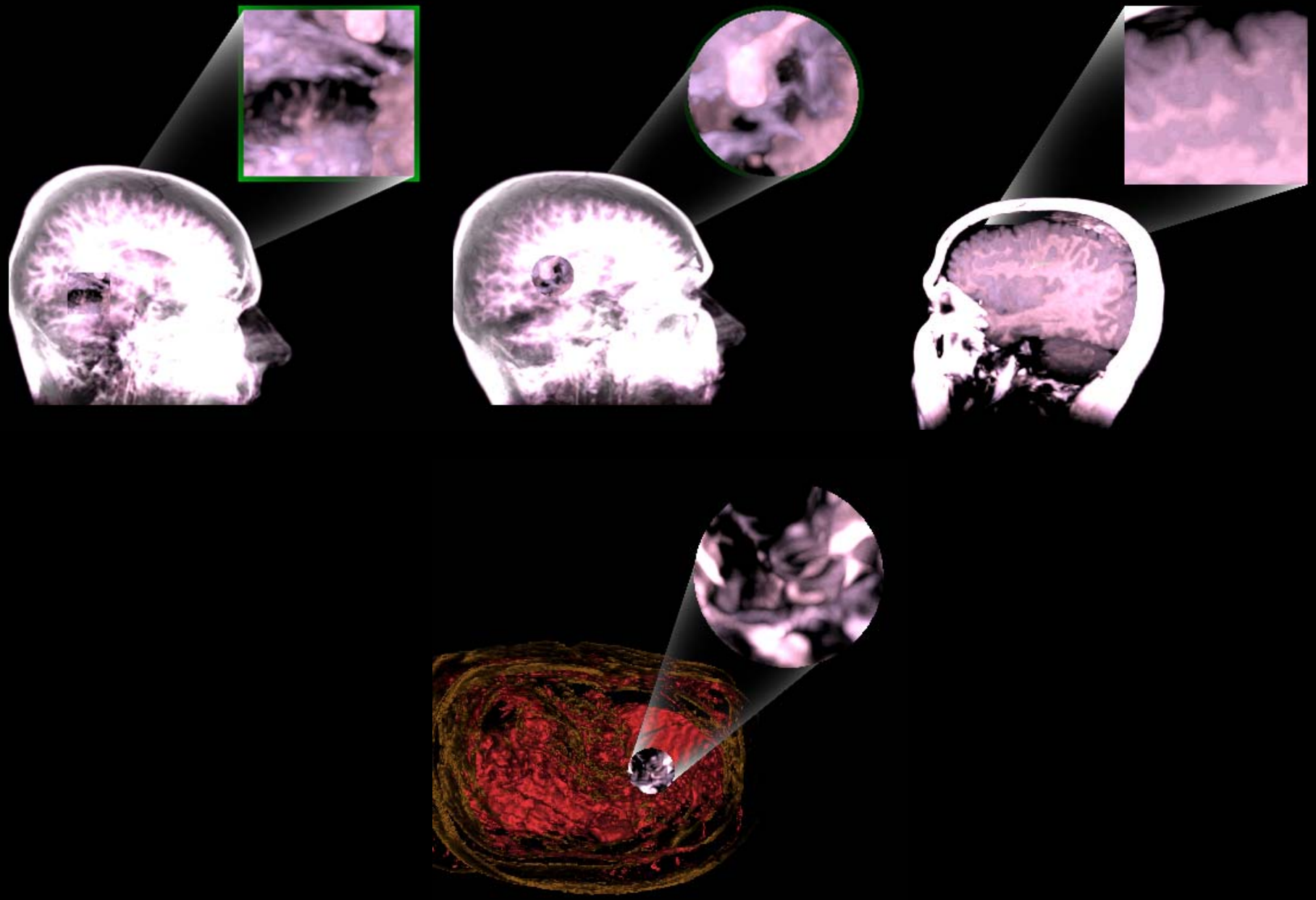












Research and Development Support

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