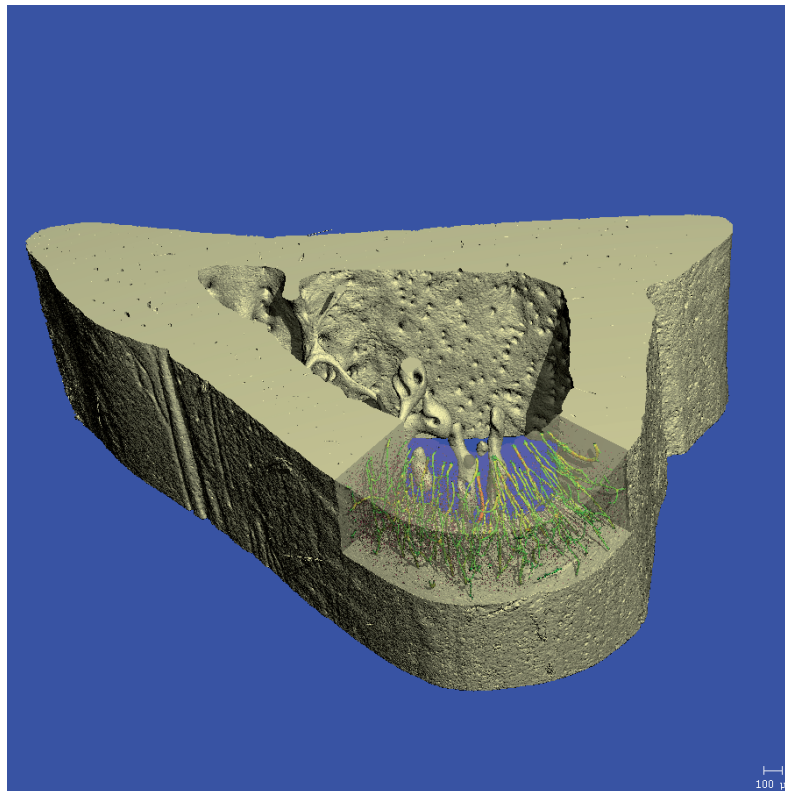
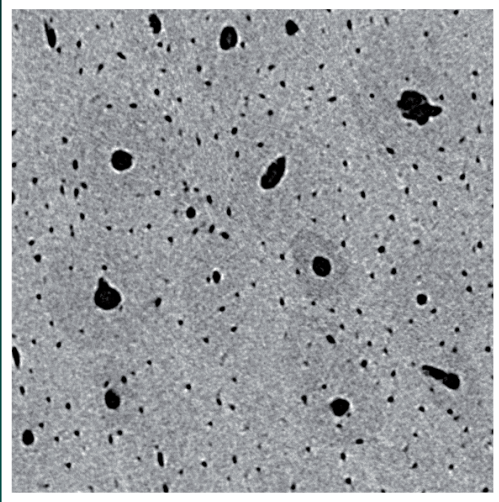


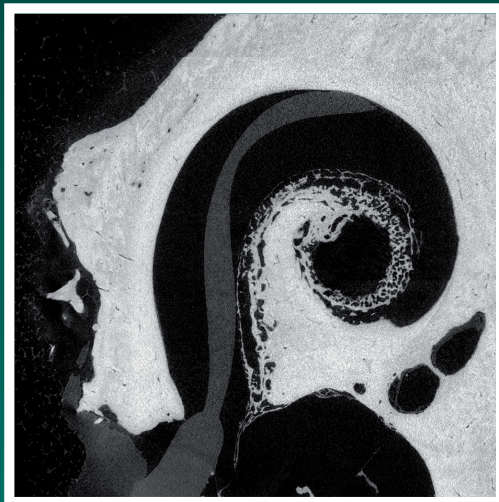
MicroCT Systems and Software



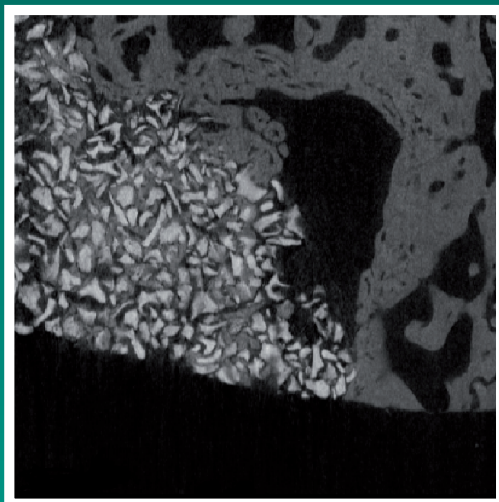
SCANCO MEDICAL



µCT 50, Murine cortical bone, 1 µm



µCT 50, Temporal bone, 6 µm



µCT 100, Grafted bone, 7 µm

© Prof. Pripatnanont, DDS, Prince of Songkhla University

SCANCO - Scanners, Software and Contract Research Services:

SCANCO Medical has been a pioneer in the field of high-resolution computed tomography for more than two decades and have over 400 systems installed and in operation on all six continents. We offer a wide range of microCT systems to study the internal structure of different materials.

These systems are supplied with high-end computing equipment and sophisticated analysis and visualization software to provide the most comprehensive and industry-leading imaging solutions.

SCANCO Medical also offers scanning, analysis and consulting services for a wide range of applications.

Applications:

- Bone quality measurements
- Dental research
- Vascular research
- Scaffold characterization
- Implant measurements
- Nondestructive testing
- Imaging of composite materials, polymers and foams
- Imaging of food and biologic material
- Low temperature measurements

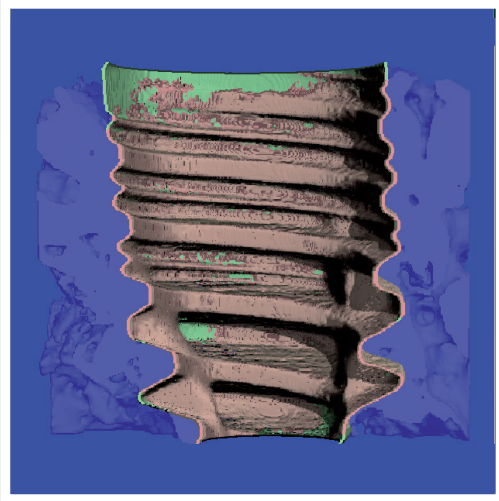
High resolution imaging for accurate results:

- Non-Destructive analysis
- Minimal or no sample preparation required
- High throughput (batch mode processing, automatic sample changer)
- Custom system configuration available
- Very fast acquisition, reconstruction and analysis
- Automatic sample changer (µCT 35, 40, 50 and µCT 100)
- Physiological monitoring and gating for vivaCT 40 and 80.
- Mechanical testing/loading device

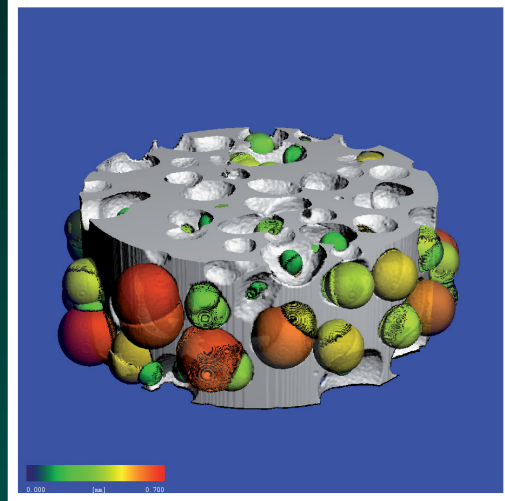
Software

- Bone morphometry and density measurements
- General morphometry: Segmentation, porosity, specific object surface, object volume, local thickness, pore size distribution, pore connectivity
- Contact area calculations

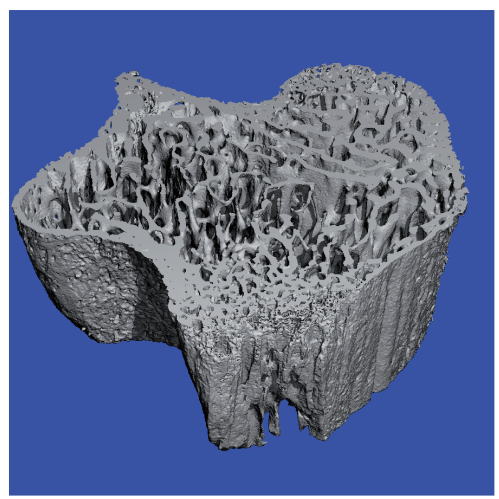
MicroTomography Systems



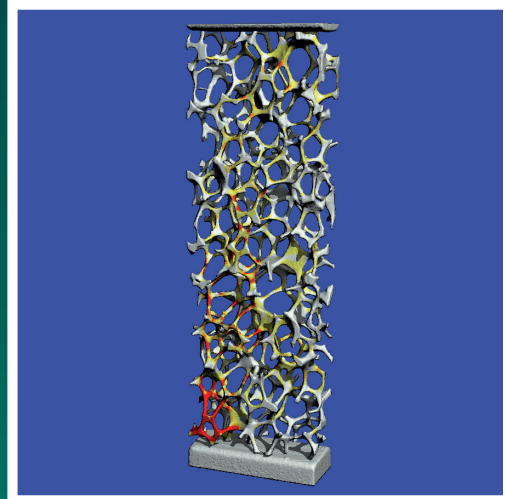
μCT 35, Implant contact surface, 10 μm



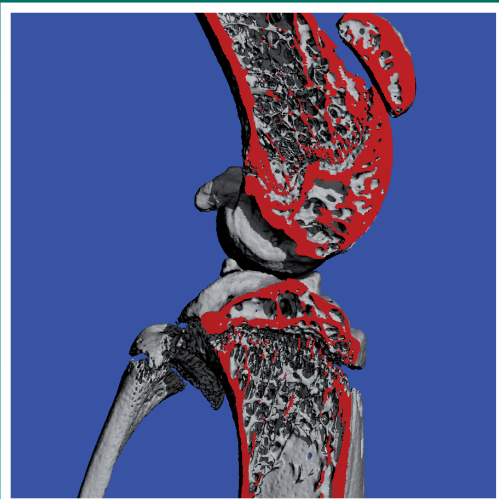
μCT 40, CDHA scaffold, 5 μm
© S. Hofmann, ETHZ



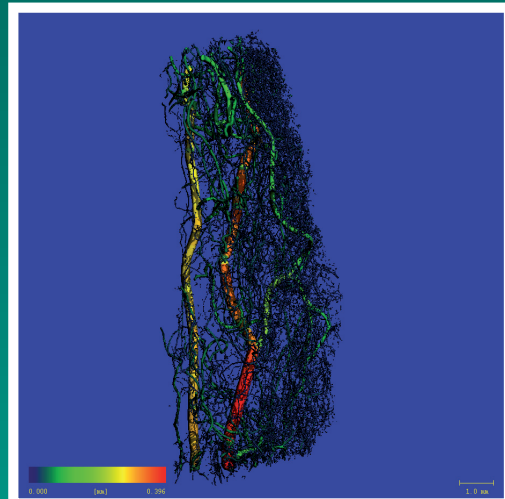
μCT 50, Mouse tibia, 2 μm



μCT 40 Al foam FE Analysis, 6 μm



vivaCT 80, Mouse knee, 5 μm

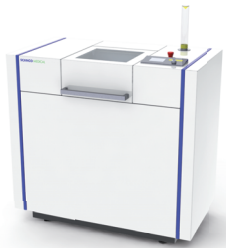


μCT 100, Skin vascular system, 6 μm

Specifications

Specimen Systems

	μCT 40	μCT 35
Peak Energy	30-80 kVp	30-80 kVp
Max. Scan Diameter	36.9 mm	37.9 mm
Max. Scan Length/Height	80 mm	120 mm
Automatic Sample Changer Option	up to 10 holders	up to 8 holders
Resolution (Nom. /10% MTF)	3-72 μm / <8 μm	1.75-72 μm / <5 μm
Minimal Scan Time per Stack	2 min	3 min
Image Matrix :	from 512 x 512	512 x 512
	to 4096 x 4096	4096 x 4096
	μCT 50	μCT 100
Peak Energy	30-100 kVp	30-100 kVp
Variable Spotsizes	4-30 μm (4-18W)	4-30 μm (4-18W)
Filter Changer (4 pos.)	yes	yes
Max. Scan Diameter	50 mm	100 mm
Max. Scan Length/Height	120 mm	140 mm
Max. Sample Diameter	100 mm	100 mm
Max. Sample Length/Height	160 mm	160 mm
Automatic Sample Changer Option	up to 12 holders	up to 12 holders
Resolution (Nom. /10% MTF)	0.5-100 μm / <2 μm	1.25-200 μm / <4 μm
Image Matrix :	from 512 x 512	512 x 512
	to 8192 x 8192	8192 x 8192



in vivo Systems

	vivaCT 40	vivaCT 80
Peak Energy	30-70 kVp	30-70 kVp
Max. Scan Diameter	38.9 mm	80 mm
Max. Scan Length	145 mm	145 mm
Resolution (Nom./10% MTF)	5-76 μm / <14 μm	5 - 160 μm / <14 μm
Minimal Scan Time per Stack	30 s	20 s
Image Matrix :	from 512 x 512	512 x 512
	to 4096 x 4096	8192 x 8192
	XtremeCT II ²	
Peak Energy	68 kVp	
Max. Scan Diameter	140 mm	
Max. Scan Length	200 mm	
Resolution (Nom./10% MTF)	17 μm / <55 μm	
Standard Scan Time per Patient	1.6 min	
Image Matrix :	from 512 x 512	
	to 8192 x 8192	



Specialized specimen holders and/or casts, quality control protocols
Density and resolution phantoms available for all scanners (some are optional)

Computing

	rx2660/rx2800 i2/i4	bl860c/bl870c/bl890c i2/i4
HP Integrity Server, 64 bit		
RAM	up to 384 GB	up to 1.5 TB
CPU	2 to 16	2 to 64
Disks	4 TB to multiple TB	4 TB to multiple TB
Archival Device	high capacity tape drive (6.0 TB per cartridge)	
Reconstruction Time	2 s for 1k x 1k (1 CPU)	2 s for 1k x 1k (1 CPU)
Analysis Time	5 min typical	



Pictures are not to scale

Clustering of multiple rx2660/rx2800/bl860/bl870 possible to enhance throughput
GPU Reconstruction to speed up reconstruction with up to 120 times, runs on NVIDIA GPU Accelerator with Kepler architecture (Tesla K20c)

¹ Specifications subject to change

² Contact Scanco Medical for latest update on regulatory approval in your country

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