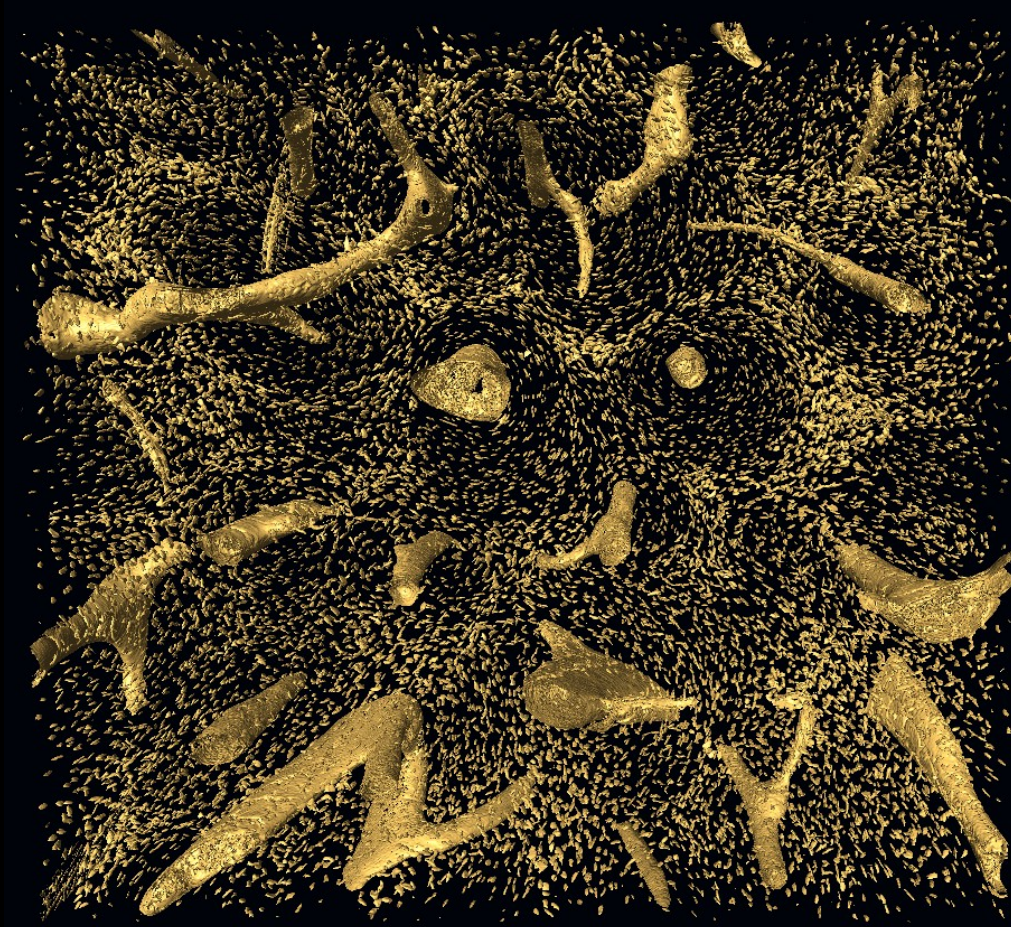


High Resolution Imaging of Human Cortical Bone

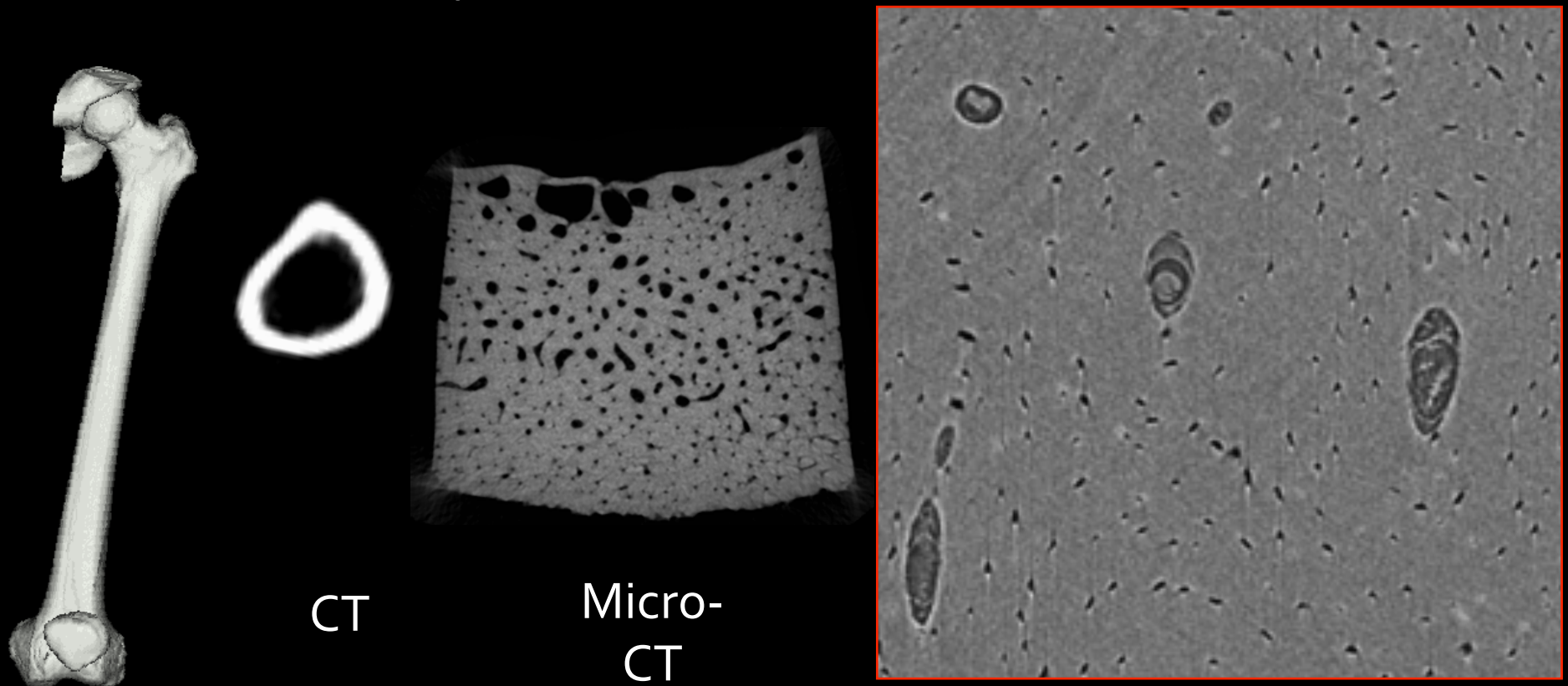


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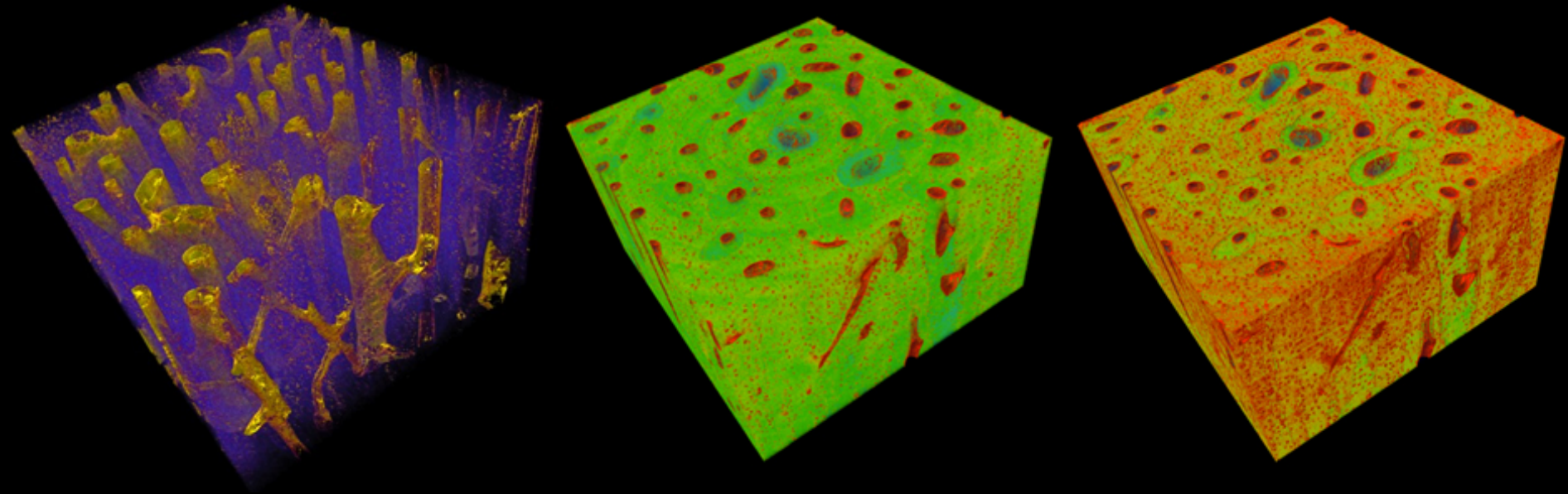
Yasmin Carter

Department of Anatomy & Cell Biology
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- Medical Computed Tomography ($\sim 1\text{mm}$ resolution) →
- Micro CT ($10\text{-}50\ \mu\text{m}$ resolution) →
- Synchrotron Radiation Micro CT ($0.7\text{-}1.47\ \mu\text{m}$ resolution) →



3d Data Sets: Average 1800 x 1800 x 900 Pixels



Data

- Beamtime to collect data in multiple facilities including the Advanced Photon Source, IL
- Each sample ~1-3gb per scan
- Average 70-100 scans per run
- Average take home data set 3-7 TB
- Before Globus we would do a physical transfer of this data on to multiple hard drives. On average this added two days to beamtime and all costs associated

Globus Transfer

- Globus allows:
 - Ease of Use
 - Secure
 - Fast recovery of data after collection
 - Partial Transfer i.e. can be examining one sample while the others are transferring
 - No expensive hard drives required
 - No time delay
 - Easy recovery of lost or corrupted files
 - Data accessible anywhere