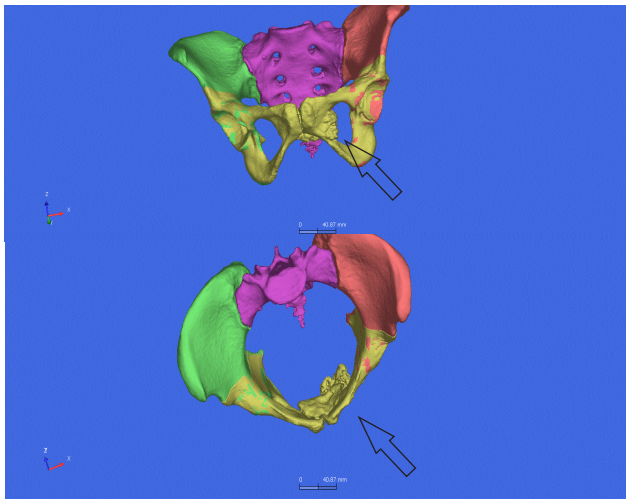# VOLMO

Design, Simulate and 3D print patient specific pelvis implant for chondrosarcoma patient
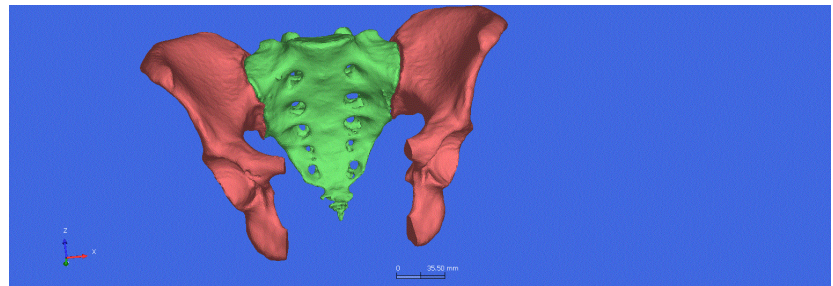
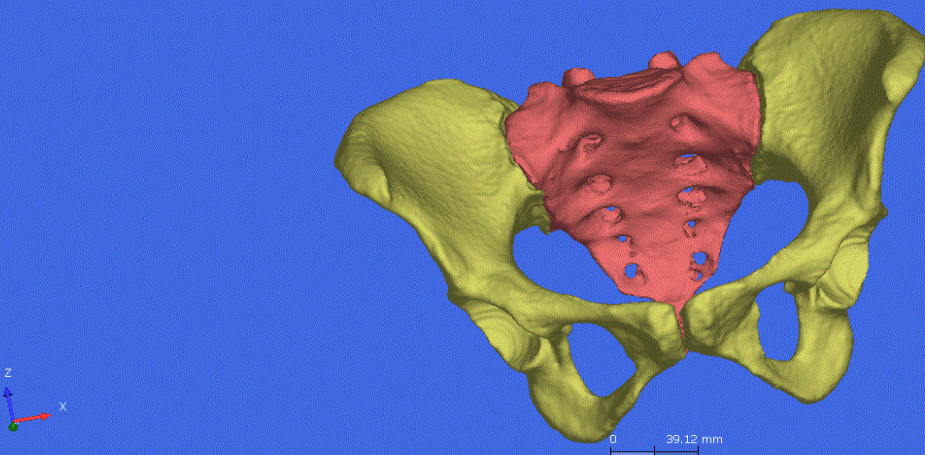## ImageSim software was used to convert CT data into STL Model.

Patient had tumor on Pubic symphysis. Patient CT scan data was imported into ImageSim Software. The scan data was filtered using advanced anisotropic filtering feature in the tool. Next the filtered image was segmented and saved as STL model.

Bone Resection.

Pelvic STL model was imported into internal CAD environment of ImageSIm. Tumor was removed by cutting the bone and removing pubic symphysis.
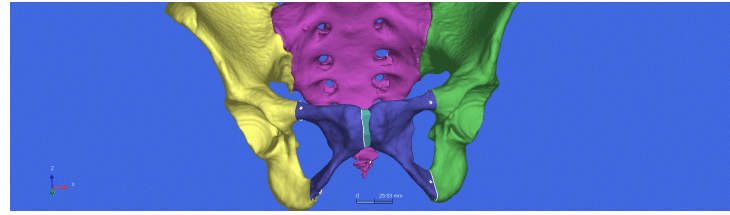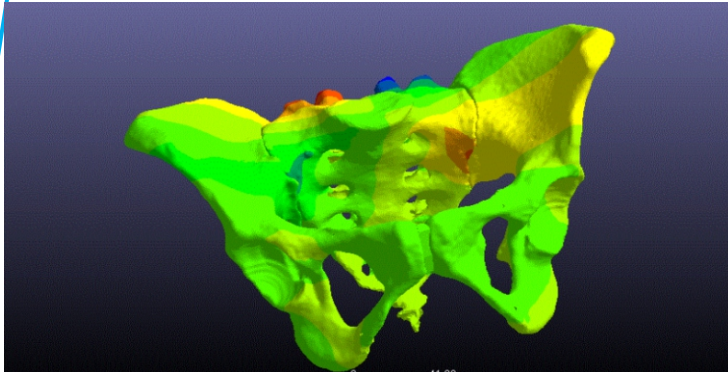

New Implant designed .

Implant design and assembly.

Resected pelvis and newly created pelvis implant was imported in ImageSim CAD environment and then positioned and assembled.
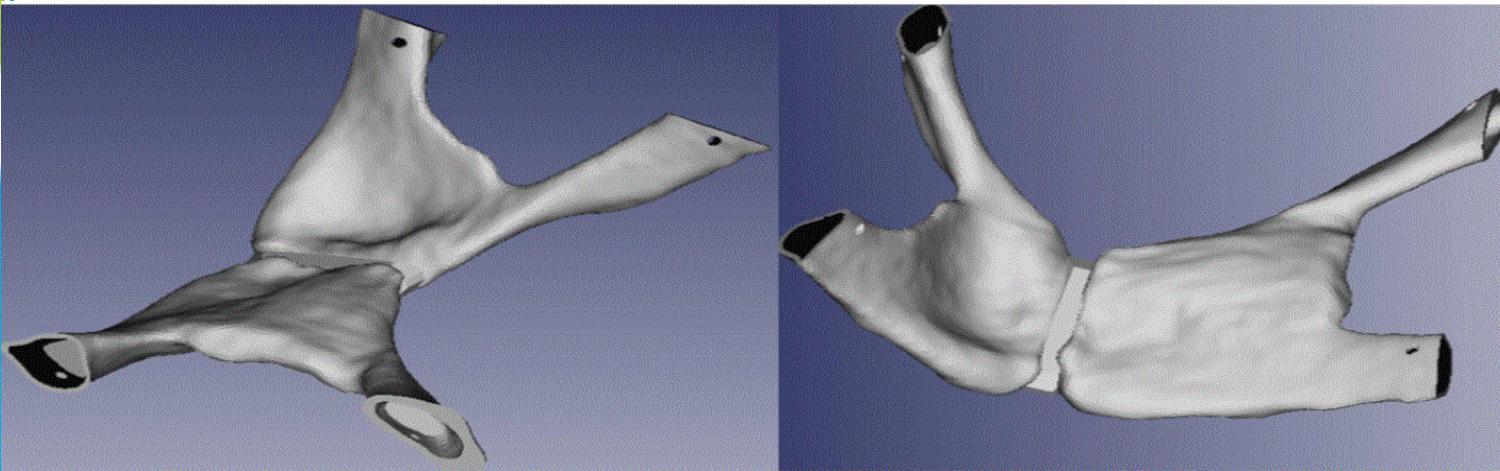

Full Pelvis model Simulated in Ansys

Full assembled model was simulated in Ansys. The model was constrained at the hip joints and loaded at the top of sacrum. The results did not show any stress sites in or around the the newly fitted implant

3D printed Implant

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> **Save your time and cost**
> **Partner with us to complete your projects successfully and on time**

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[1] Blunt Liver Injury with Intact Ribs under Impacts on the Abdomen: A Biomechanical Investigation Yu Shao1,2., Donghua Zou1., Zhengdong Li1, Lei Wan1, Zhiqiang Qin1, Ningguo Liu1, Jianhua Zhang1, Liangwei Zhong3, Ping Huang1*, Yijiu Chen1* 1 Department of Forensic Pathology, Institute of Forensic Sciences, Ministry of Justice, P. R. China, Shanghai, China, 2 Department of Forensic Science, Shanghai Medical College, Fudan University, Shanghai, China, 3 College of Mechanical Engineering, University of Shanghai for Science and Technology, Shanghai, China