

## MouseTibia Service

### Evaluation of bone densitometric and mechanical properties for preclinical applications

Job No. 1

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#### Input data

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<b>Job Ref.</b>	Tibia1baseline
<b>Requesting organisation</b>	University of Sheffield
<b>Date submitted</b>	Nov 12, 2020
<b>Input file name</b>	Tibia1_baseline.zip
<b>Voxel size (mm)</b>	0.0104

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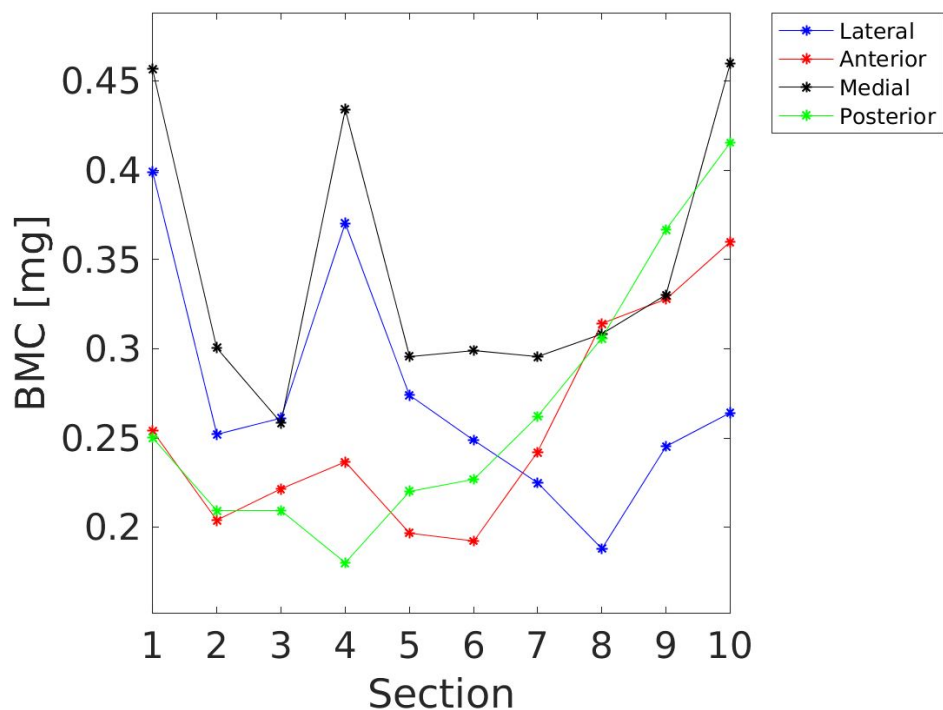
#### Results

##### Densitometric analysis

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<b>Total BMC (mg)</b>	11.36
<b>Average TMD (mgHA/cc)</b>	1047
<b>Average BMD (mgHA/cc)</b>	696
<b>Total BV/TV (-)</b>	0.66
<b>Average cross-sectional area (mm<sup>2</sup>)</b>	1.08
<b>Average bone area (mm<sup>2</sup>)</b>	0.72

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## Results

### microFE analysis

Stiffness (N/mm)

321

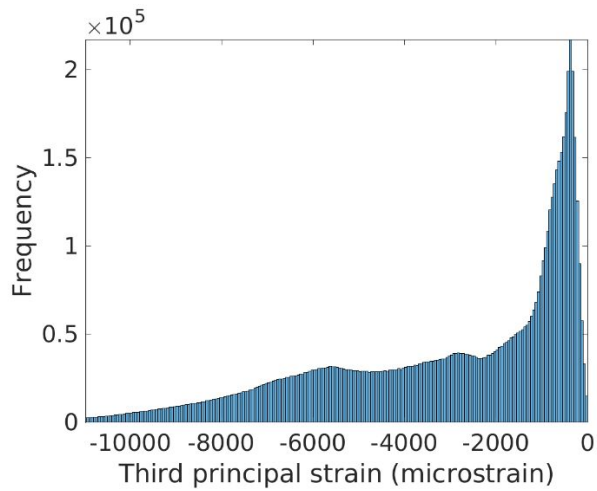
Failure load (N)

57.77

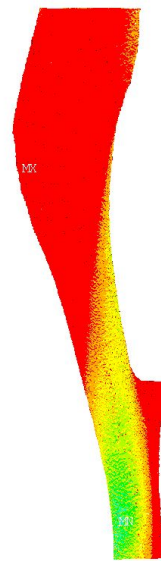
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### Third principal strain

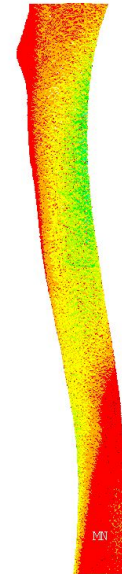
Histogram



xz view

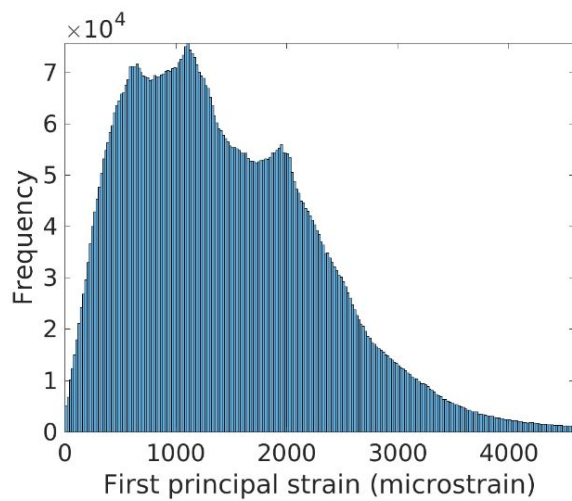


yz view

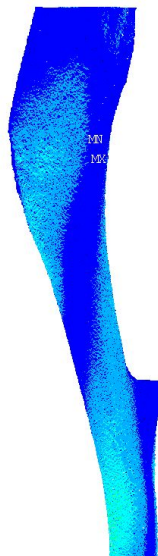


### First principal strain

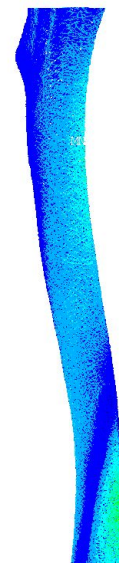
Histogram



xz view



yz view



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**Operator**

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<b>Email</b>	uct2ufe@sheffield.ac.uk
<b>Date</b>	Nov 12, 2020

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**Software Used**

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**Amira 6.2.0**  
**Imagej**  
**MATLAB R2017b**  
**Ansys 19.0**

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