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Insulin Signaling in Osteocytes in Bone Development

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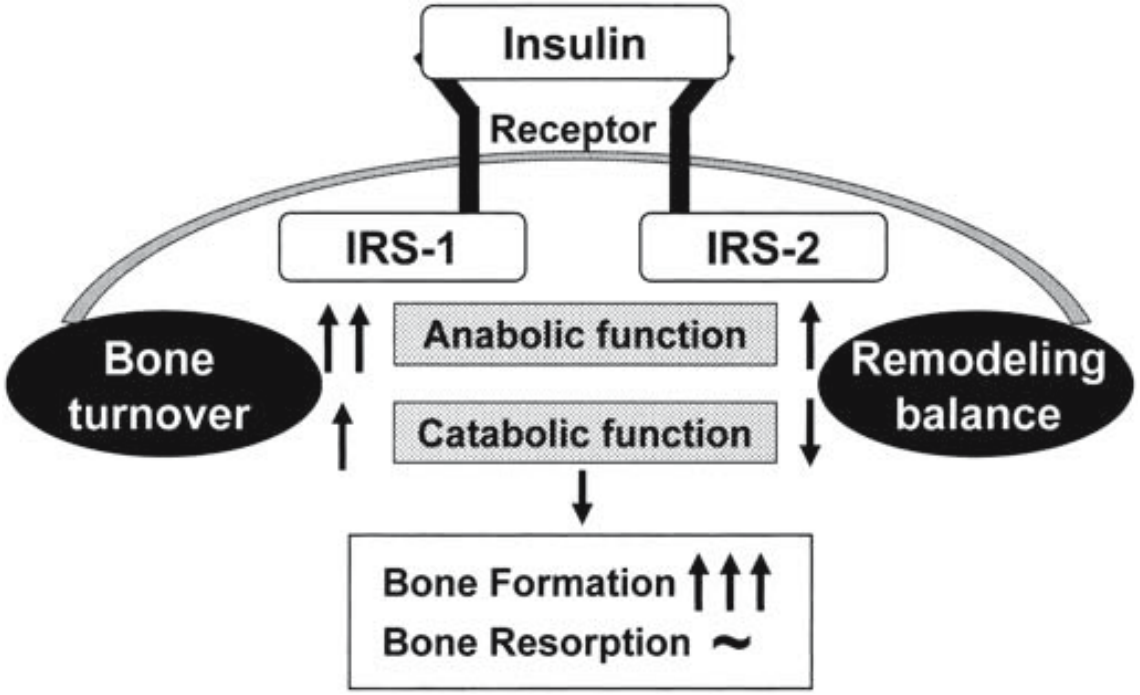
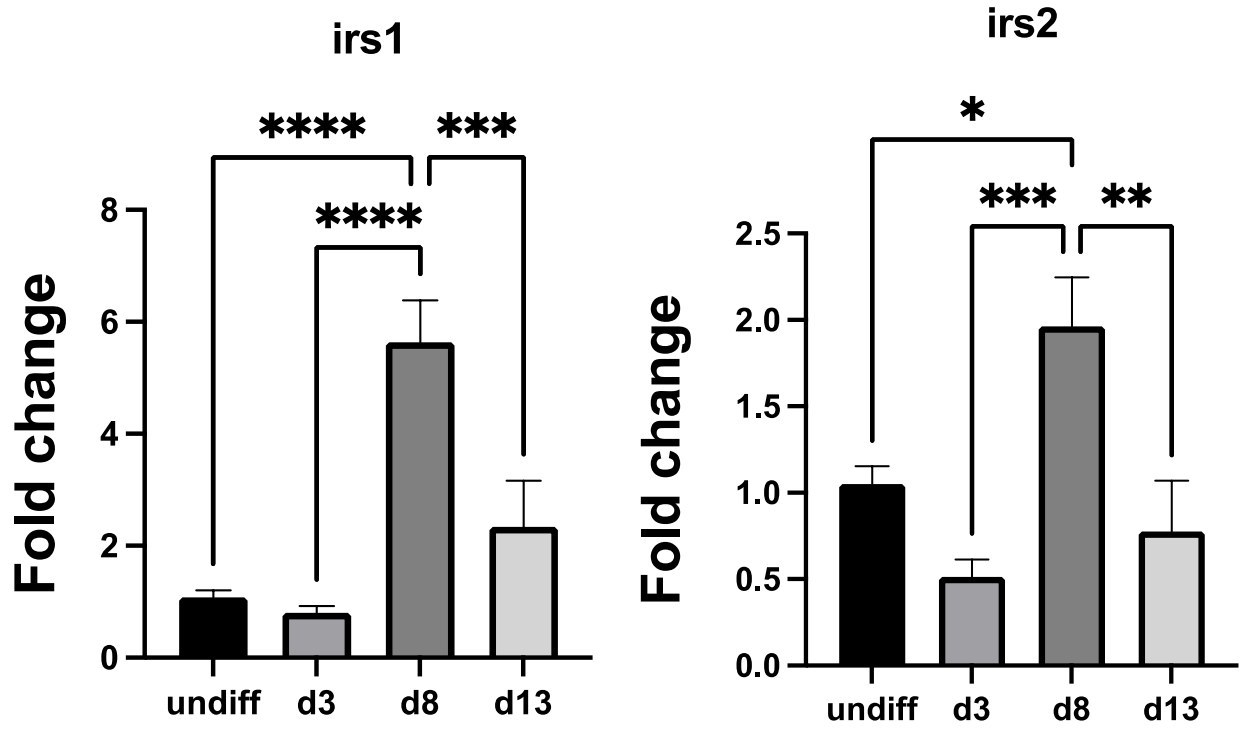
5.6.21

Insulin signaling in osteocytes in bone development

Hypothesis: IRS1/2 signaling is necessary for osteocyte development and function



H.Kawaguchi *et al,* OPLL Springer Tokyo, 2006.

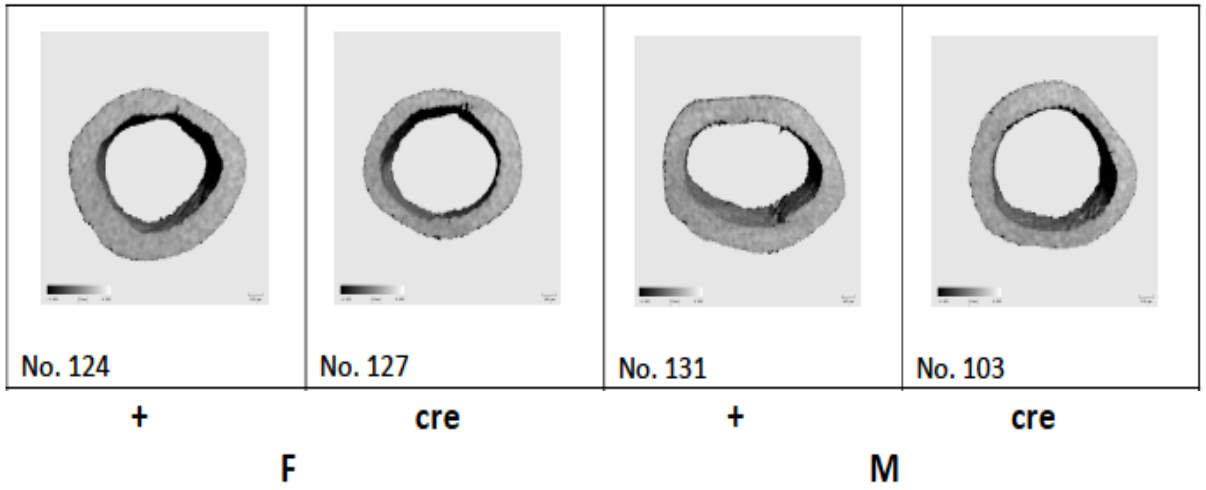


Gene expression of IRS1 and IRS2 in differentiated Ocy454 cell line.

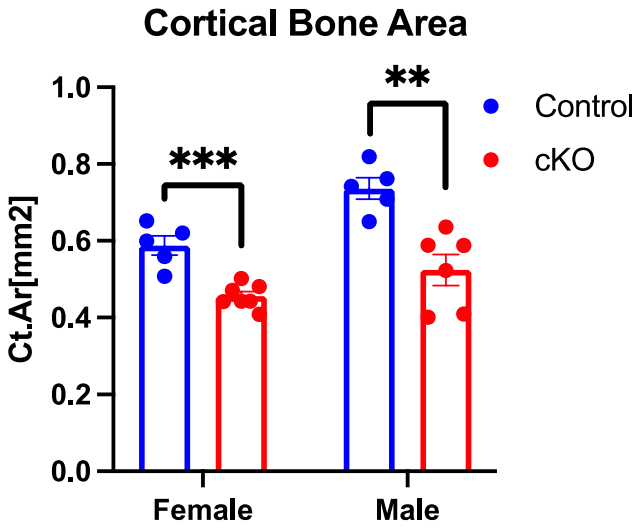
- IRS1 and IRS2 (IRS1/2) were knocked out in osteocytes (cKO) using DMP1 cre.
- Cre negative littermates with homozygous floxed IRS1/2 were used as control.

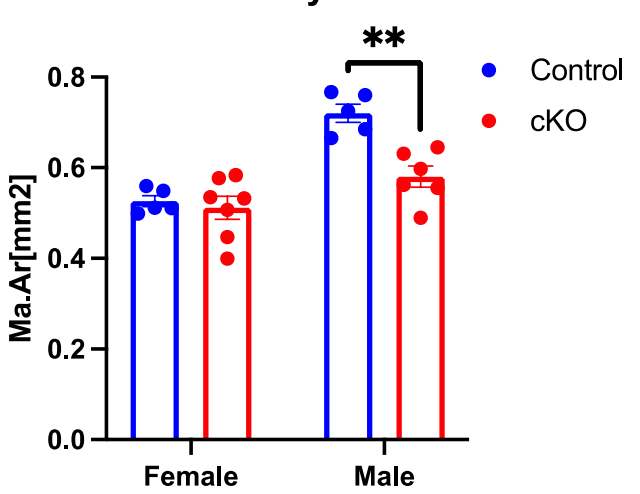
DMP IRS1/2 cKO mice have altered bone parameters

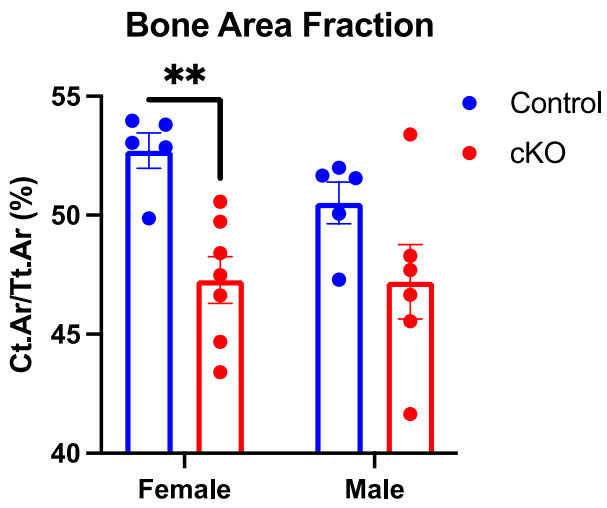
MicroCT - Cortical bone parameters

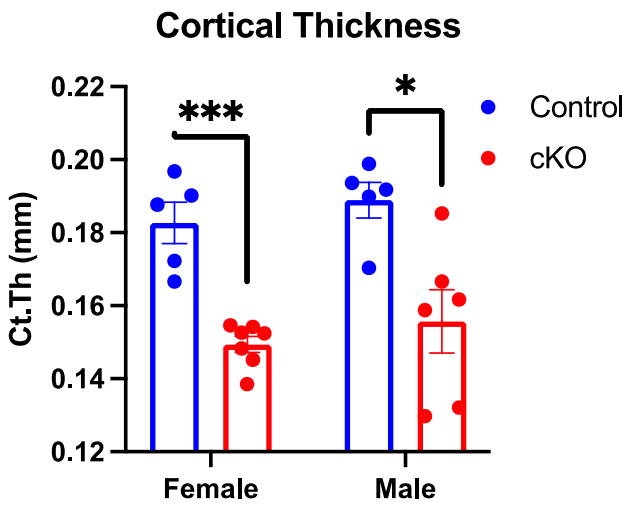


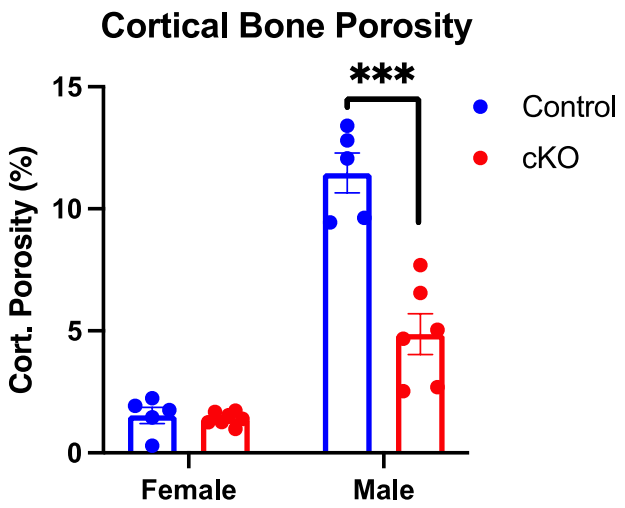
Bones represent mean for each group ($p < 0.05$).

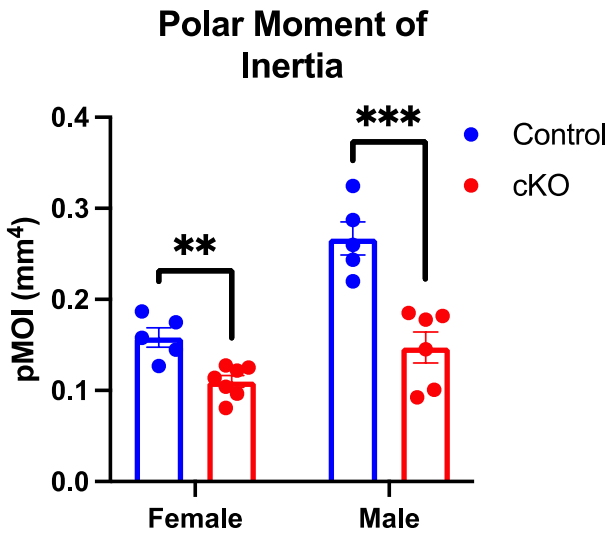






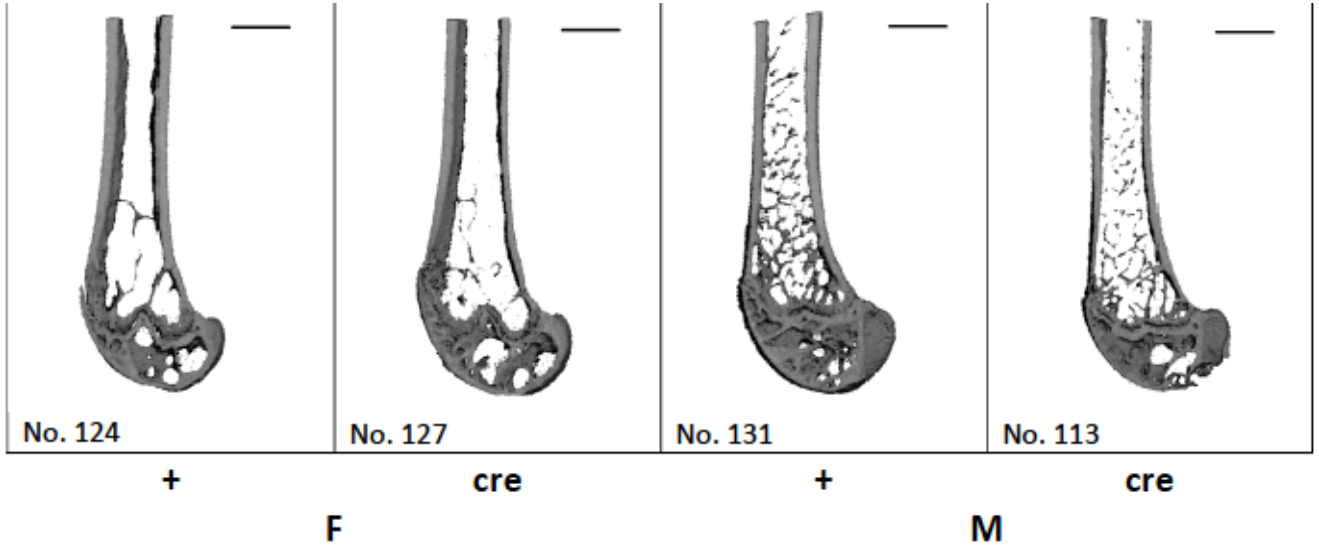


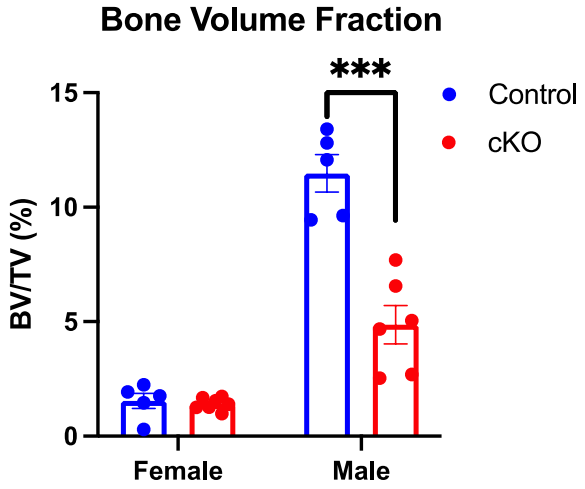


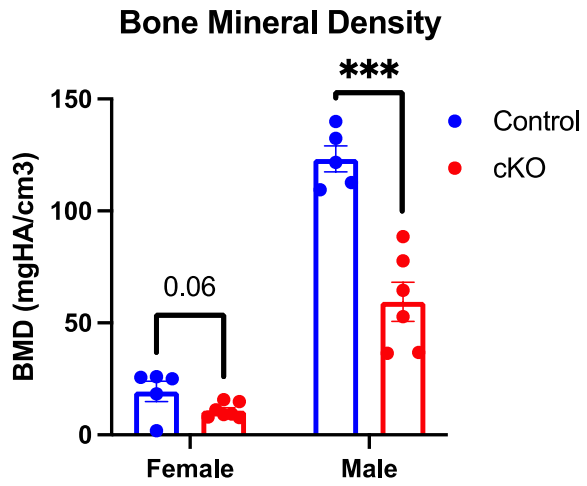


DMP IRS1/2 cKO mice have altered bone parameters

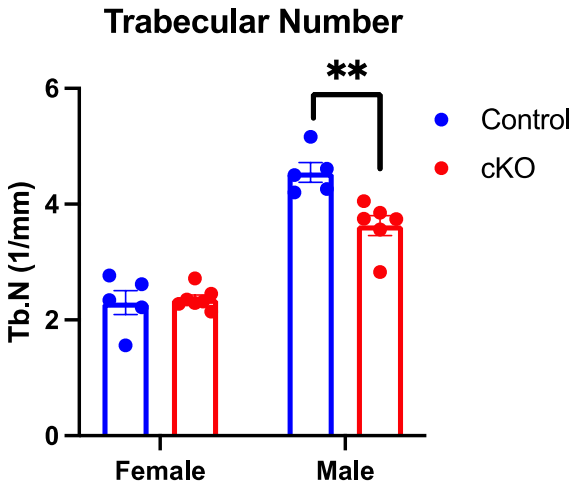
MicroCT - Trabecular bone parameters

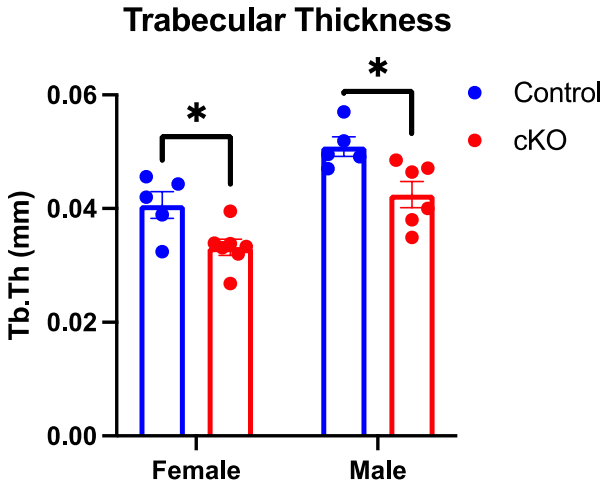


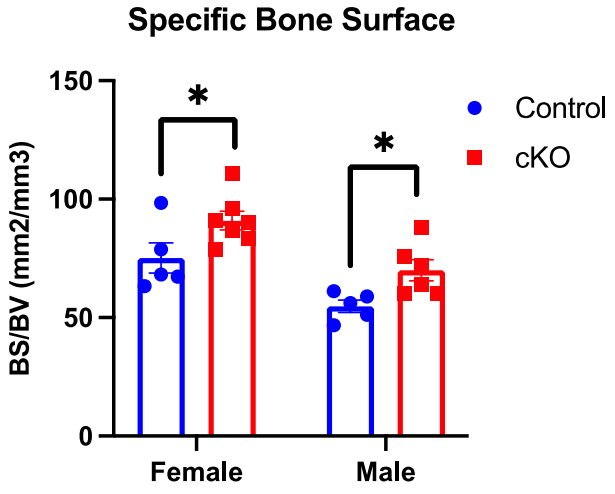


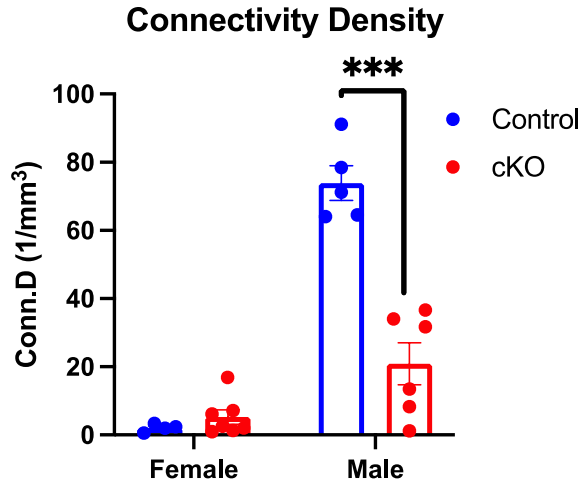


Bones represent mean for each group ($p < 0.05$). Scale = 1mm









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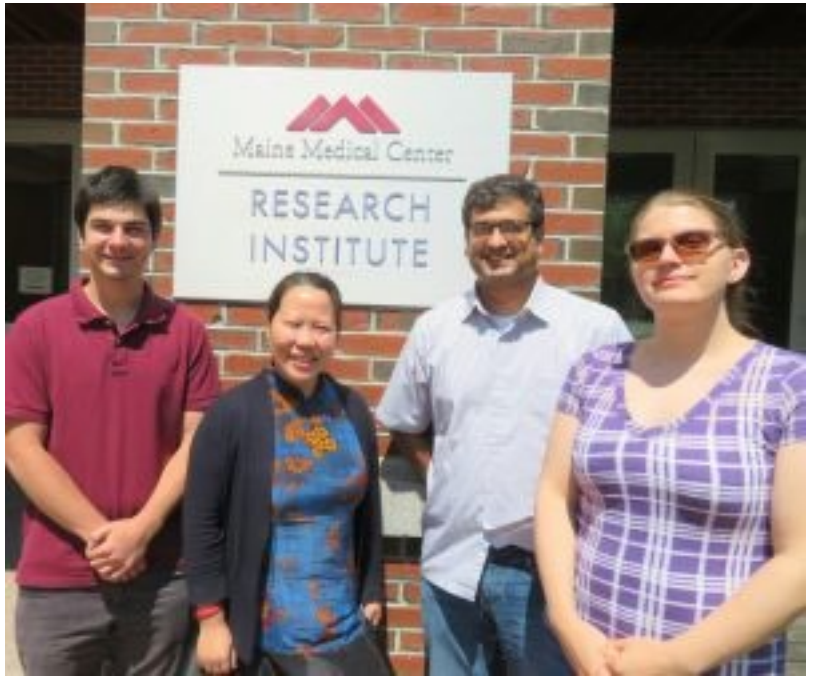

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