Electronic Supplementary Material (ESI) for Biomaterials Science.

Irisin recouples osteogenesis and osteoclastogenesis to protect wear-particle-induced osteolysis by suppressing oxidative stress and RANKL production

Sihan Hu,‡[a,b] Yuan Xue,‡[a,b] Jiachen He,[a] Chichi Chen,[a] Jie Sun,[a] Yesheng Jin,[a,b] Yuanshu Zhang,[a,b] Qin Shi,*[a] and Yongjun Rui*[b]

[a]Department of Orthopedics, the First Affiliated Hospital of Soochow University, Orthopedics Institute of Soochow University, Medical College of Soochow University, Suzhou, Jiangsu, 215006, P. R. China. E-mail: shiqin@suda.edu.cn for Dr. Qin Shi (Q. Shi)

Fax: +86-0512-67780999; Tel: +86-0512-67780999

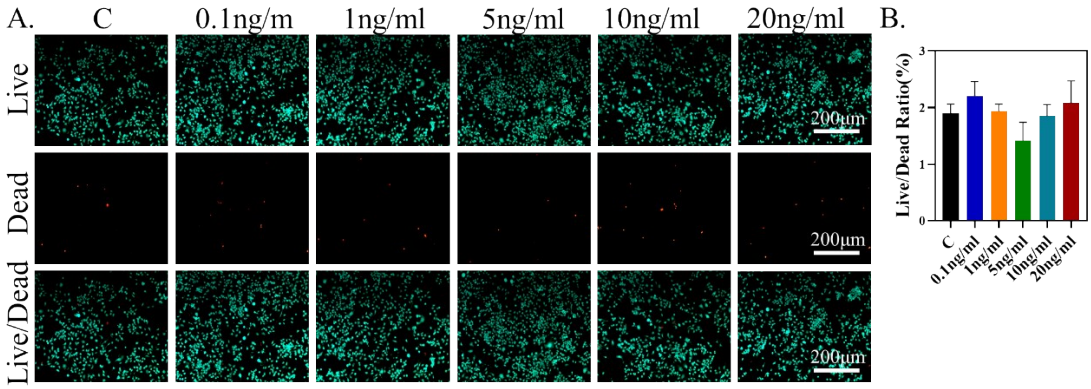
[b]Department of Orthopedics, Wuxi Ninth People's Hospital affiliated to Soochow University, Wuxi, Jiangsu, 214026, P. R. China. E-mail: ruiyj@hotmail.com for Dr. Yongjun Rui (YJ. Rui)

Fax: +86-0510-85873955, Tel: +86-0510-85867999

‡These authors contributed equally to this work.

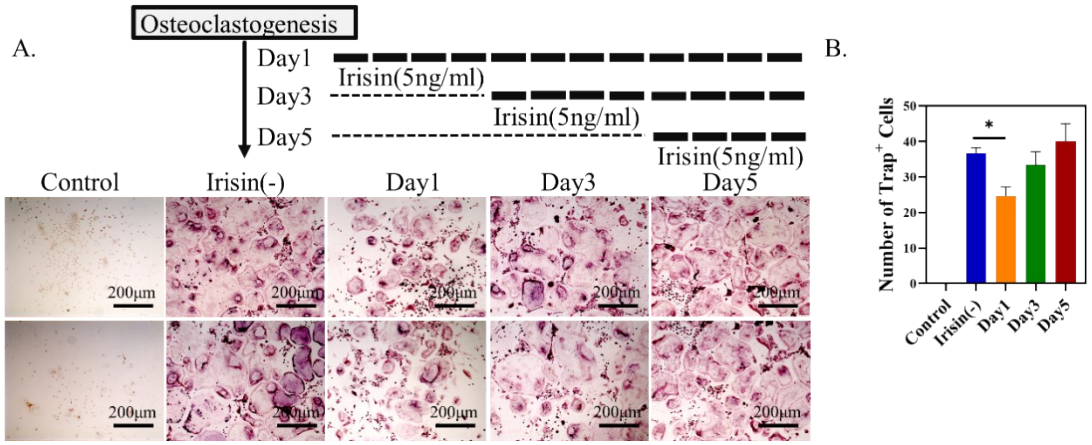
*Corresponding author. E-mail: shiqin@suda.edu.cn for Dr. Qin Shi (Q. Shi), ruiyj@hotmail.com for Dr. Yongjun Rui (Y. Rui)

FigureS1



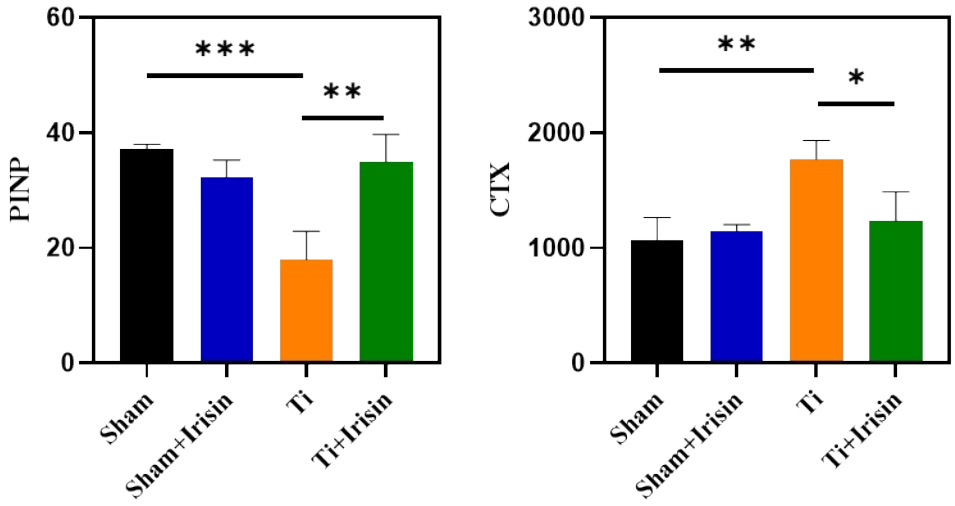
FigS1: RAW264.7 cells were cultured in the presence of indicated concentrations of Irisin for 3 days. (A)Live/Dead staining; (B) Live/Dead ratio. *P >0.05.

FigureS2



FigS2: BMMs were activated to osteoclasts and irisin was added at different stages (A) TRAP staining;(B) Number of TRAP-positive cells. *P <0.05.

FigureS3



FigS3: PINP and CTX in the sera of mice with osteolysis induced by Ti Particles by ELISA. *P < 0.05, **P < 0.01, ***P < 0.001.