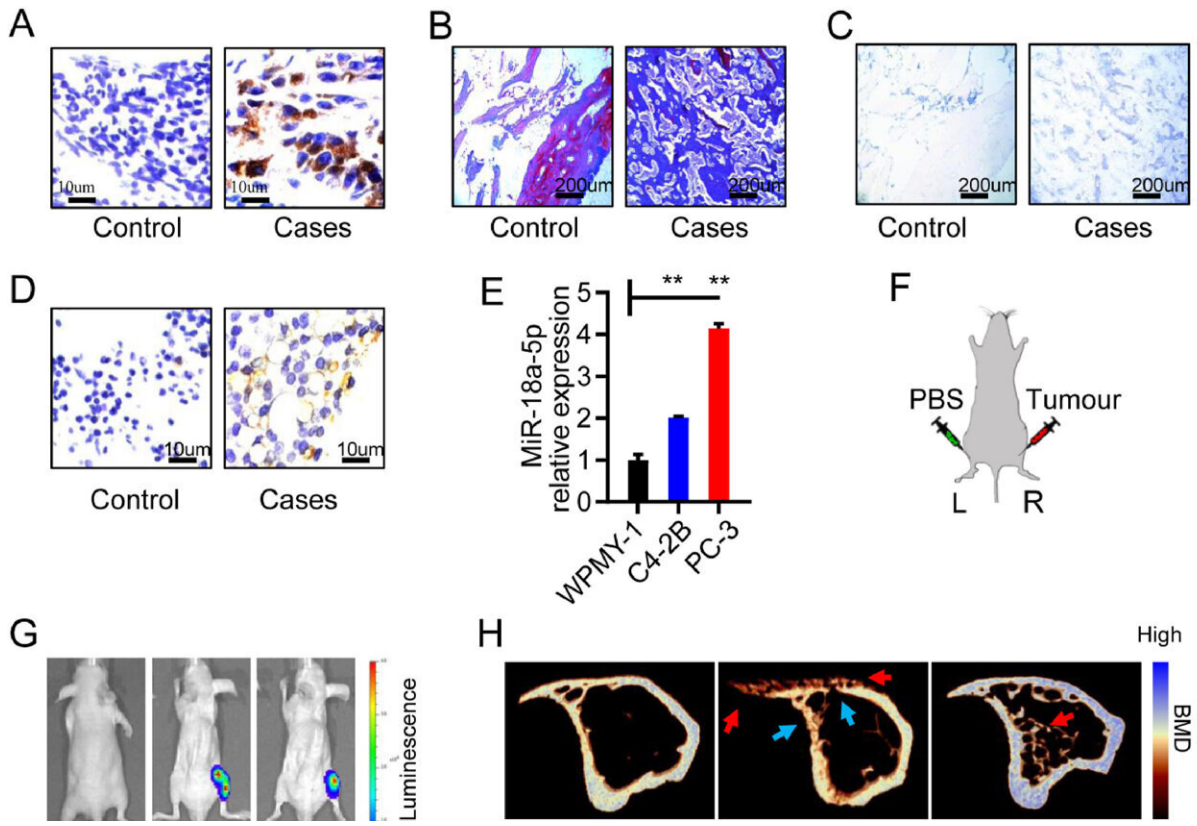
Study reveals promising therapeutic approach for prostate cancer bone metastasis

October 9 2023



MiR-18a-5p was overexpressed in osteoblastic lesions of PCa bone metastasis. (A–D) Bone specimens of PCa patients with bone metastasis. (A) Immunohistochemical labeling of PSA (brown represents positive). (B) Masson staining (blue represents young bone, red represents old bone). (C) TRAP staining (purple represents positive). (D) In situ hybridization of miR-18a-5p (brown represents positive). (E) The miR-18a-5p expression in prostate cells and PCa bone metastasis cells. (F) Schematic diagram of the PCa bone metastasis model in nude mice (L represents left tibia; R represents right tibia). (G) In vivo

imaging of nude mice implanted with PBS or PCa cells for 4 weeks. (H–K) Tibia specimens of PCa bone metastasis in nude mice after PCa cells implantation for 4 weeks. (H) Representative micro-CT 3D-reconstruction models illustrating in tibia (red arrows indicates an osteoblastic lesion; blue arrows indicate an osteolytic lesion). (I) The ultimate load of tibia implanted with C4-2B cells. (J) The Young's modules of tibia implanted with C4-2B cells. (K) In situ hybridization of miR-18a-5p (brown represents positive). The data are represented as mean ± SEM or SD. ∗P