**TITLE:** Micro-RNAs that Inhibit Bone Resorption and Enhance Bone Formation and Uses Thereof

**INVENTORS:** Yihong Wan

**TECHNOLOGY:** Biologicals

**UTSD:** 2625

**SUMMARY:** This invention relates to the discovery of a specific microRNA that potently suppresses osteoclast differentiation and bone resorption, and at the same time enhances osteoblast differentiation and bone formation. Since osteoporosis, arthritis and bone metastasis of cancers are associated with elevated bone resorption and diminished bone formation, this micro RNA holds tremendous potential as a therapeutic agent to combat these diseases. This micro RNA is also a known tumor suppressor which is up-regulated by p53, and therefore, it could provide additional benefits to cancer patients with bone metastasis.

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Please reference UT Southwestern Case Number: 2625