

STRECH

Seminars in Translational Research



November 21, 2025
9:00AM-10:00AM
Virtual Seminar

SCAN ME



Connexin channels in mechanotransduction and cancer bone metastasis: from Mechanisms to therapeutic opportunities

Presented by Jean Jiang, PhD

Professor and Zachary Distinguished University Chair
Vice Chair, Department of Biochemistry and Structural Biology
Associate Director, Joint Biomedical Engineering (BME) Graduate Program
UT Health San Antonio

Osteocytes sense mechanical stress and activate connexin 43 (Cx43) hemichannels on the cell surface. Activation of these hemichannels promotes bone formation by releasing anabolic factors and suppresses breast cancer migration and bone metastasis. We developed a Cx43-activating antibody that enhances bone mass in aging and disuse and inhibits tumor growth by shifting the bone microenvironment toward an anti-cancer state. These findings support osteocytic Cx43 hemichannels as a promising therapeutic target for skeletal disorders and cancer bone metastasis.

For information on participating in the current monthly seminar.
Please head to <https://klesse.utsa.edu/bmce/strech/> or scan the QR code above.



UT San Antonio™
The University of Texas at San Antonio