Tower Cancer Research Foundation

Funded Researcher Report

Supporting **groundbreaking discoveries**

In 2022 alone, over **287,000** new cases of invasive breast cancer (BC) will be diagnosed in women. Of these, about 75 percent express estrogen receptors (ER).

While progress has been made with treatments that inhibit ER signaling, a substantial proportion of patients presenting with localized disease, and essentially all patients with metastatic BC, become resistant to current endocrine therapies.

This presents a problem for oncologists to manage a patient with an ER-positive breast cancer (BC) after the failure of a succession of endocrine therapies.

Despite continued efforts to improve treatment options, development of endocrine resistance remains a major reason that breast cancer is the second most frequent cause of cancer death in women.

The need for new therapeutic approaches is urgent.

In his TCRF funded research project, Dr. Pietras developed a novel translational strategy to address the challenge of endocrine resistance.

He has discovered a new class of selective steroid-like drugs that enable the degradation of ER (termed SERDs) and stop BC progression.

These SERDs have never been synthesized or studied before and are being developed as therapeutics to target the elimination of endocrine-sensitive and -resistant cancer cells in the clinic.

He expects that further preclinical development of these SERDs will lead to timely clinical trials of new therapeutics to overcome endocrine resistance and improve the long-term survival of patients afflicted with BC.

This discovery may allow development of a new therapeutic approach to manage advanced breast cancer and promote the long-term survival of patients afflicted with this disease.

MEET THE RESEARCHER

Richard J. Pietras, MD, PhD

University of California, Los Angeles

2015 Jessica M. Berman Memorial Fund Senior Investigator Grant

To date, Dr. Pietras has contributed more than 100 research publications, and has received more than 12,000 citations in the medical literature. His research has focused largely on women's cancers, with an aim toward translation of basic research findings to the clinic.

His work on hormones and HER-2 growth factor receptors in human breast cancer contributed to the preclinical and clinical development of novel targeted therapies, such as Herceptin, for breast cancer.

He is currently a Professor of Medicine in the Division of Hematology/Oncology at the Geffen School of Medicine at UCLA. He has lectured nationally and internationally and has received many awards from professional and academic organizations for his research contributions.

FOLLOW-ON FUNDING

$500K

Initial TCRF Funding: 2015 Senior Investigator Grant

$1.2M

Additional subsequent funds awarded by others for cancer research