

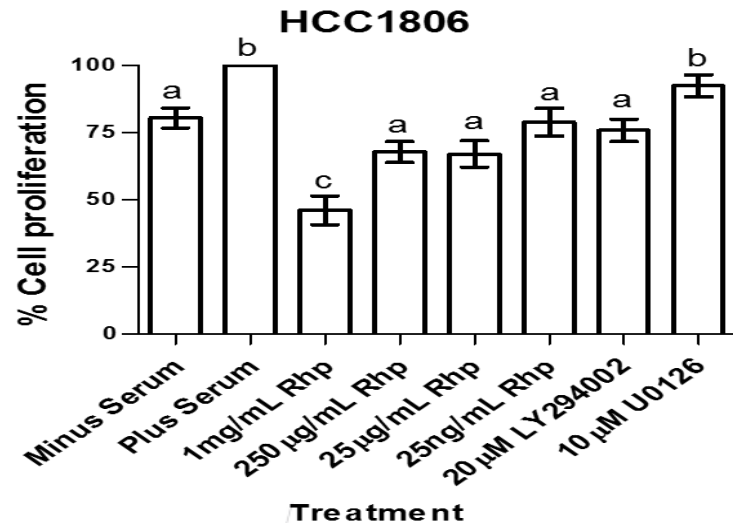


Patrice Cagle

Program: Energy & Environmental Systems

*Title: “Examining the Anti-oncogenic Properties
of Rosehip (Rosa canina) Extracts on Human
Breast Cancer Cell Proliferation, Migration, and
Invasion”*

Major Professor: Dr. Patrick Martin



RESEARCH QUESTIONS / PROBLEMS:

- There are currently no targeted therapy options for women with triple negative breast cancer.

METHODS:

- Cell proliferation assay, Western blot, Wound Healing assay, Transwell assays, MMP array, Gelatin zymography

RESULTS / FINDINGS:

- Inhibit cell proliferation, migration, and invasion without promoting apoptosis.
- Synergize with doxorubicin to inhibit cell proliferation and promote apoptosis.

SIGNIFICANCE / IMPLICATIONS:

- 1st study to demonstrate that rosehip extracts have anti-oncogenic properties on TNBC cells.
- 1st time ethnicity-based cell study has been conducted and demonstrated effectiveness in BC cells from specific ethnic origin.
- R16-3 (b type procyanidin): 1st time demonstrating anti-proliferative effects in cancer cells.
- This study has led to a better understanding of how natural products (rosehip extracts) may provide a chemotherapeutic effect in breast cancer.