

The Innovator

Baystate  Health



Summer 2017

A Productive Collaboration

As with the best partnerships, whether in business or in private life, two axioms hold. The first is a requirement for patience and a respect for the complementary skills of the other party. The second is a recognition of how difficult partnerships are to maintain!

At Baystate, the marriage of basic/bench science and medical/clinical research has been particularly fruitful. Baystate is a leader in breast cancer treatment and the Rays of Hope has been a generous research sponsor via the Center for Breast Cancer Research – a joint project between Baystate Medical Center and UMass Amherst investigators. Added to these ingredients for success is a collaborative academic environment where surgeons, pathologists and laboratory scientists willingly share their expertise and resources with each other.

A recent publication in the *Journal of Cell Physiology* highlights this collaborative approach. Using breast tissue specimens collected during breast reduction and cancer surgeries, the authors discovered that mitochondrial respiration was different in breast cells from women who had breast cancer compared to those who did not. This metabolic measure of how cells get their energy may become an important marker for the future development of cancer. Further research using cells in the Breast Registry may lead to other provocative findings.

In addition to the Rays of Hope funding, UMass and Baystate recently received funding under a large NIH (National Institute of Health) U01 cooperative research grant. Joe Jerry, PhD of UMass Amherst and Sally Schneider, PhD of Baystate Medical Center, are the PIs of the grant entitled “Disruption of parity – induced tumor suppressor pathways by xenoestrogen exposures during pregnancy”. Drs. Grace Makari-Judson



Drs. Sallie Schneider, Joe Jerry, and Nagendra Yadava (from left to right)

(Baystate Oncology), Giovanna Crisi (Baystate Pathology) and Richard Arenas (Baystate Surgical Oncology) are co-investigators on the grant. Baystate’s Nagendra Yadava, PhD, received supplemental funds on the grant to add metabolic endpoints (and whose metabolic analyses led to the finding at the heart of the *J Cell Physiol* article mentioned above).

We are hopeful that this bountiful partnership continues to grow and flourish!

**[Individual-Specific Variation in the Respiratory Activities of HMECs and their Bioenergetic Response to IGF1 and TNF α . Schneider SS, Henchey EM, Sultana N, Morin SM, Jerry DJ, Makari-Judson G, Crisi GM, Arenas RB, Johnson M, Mason HS, Yadava N.]. One can get the abstract via <http://onlinelibrary.wiley.com/doi/10.1002/jcp.25932/abstract>. The full article is available at <http://onlinelibrary.wiley.com/doi/10.1002/jcp.25932/epdf>.*

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