

100 Voices of Hope

Winter 2011

vol. 5

Conclusions and future direction

2009 research project

Many of you know, Hari Nakshatri, PhD, and a team of IU Simon Cancer Center investigators discovered the presence of the U6 mRNA in the serum of breast cancer patients as a result of the first research project funded by 100 Voices of Hope. His findings are tremendous as researchers have never documented this discovery until now. The conclusive findings of this project are:

- U6-SNORD44 ratio is consistently higher in patients with a history of breast cancer or with active metastasis.
- Serum microRNA profile is different in patients with cancer compared to healthy.
- miR-16 and 5S showed experimental variability.

With the addition NCI funding, Dr. Nakshatri will continue his research demonstrating that the biomarker U6 could be useful in diagnosing early stage recurrence of breast cancer. The specific aims of the grant are:

- To determine whether genes corresponding to microRNAs/small RNA differentially expressed in the serum of cancer bearing animals show altered expressing, histone modifications, and RNA polymerase occupancy in liver and lungs.
- To investigate prospectively whether serum U6, 5S and other select miRNA levels change during breast cancer treatment.

Progress Report

2010 research project

Dr. Nakshatri and his team continue their work to discover new microRNAs specific to breast cancer and the development of microRNA-specific probes. In addition, funding is being used to discover the molecular process that creates the cancer-generated microRNA and discover specific tumor cell communication pathways that promote the growth and spread of cancer. Our funding is helping them to compare healthy tissue with tissue from women cured of breast cancer, compare microRNA among the known types of breast cancer (including ER+ and ER-), compare normal tissue with tissue of women who have active disease and compare tissue from cured women with tissue from patients with metastatic disease. U6—the microRNA identified in the 2009 research project—and other highly suspicious cancer-related microRNAs are being studied.

New research project

2011 hunch chosen

Hunch #2: “Genes Predicting Late Recurrence of Breast Cancer” was clearly the popular choice for this year’s research project. Currently, Dr. George Sledge is amassing a research team to work on the 2011 research project and preparing the iTRAC budget and schedule. The project goal is to determine genes that are involved in the late recurrence of breast cancer. Breast tissue taken at the time of diagnosis will be compared with tissue from women who are taking hormonal therapies at

five and 10 years out from initial diagnosis to learn which genes are being expressed. This tissue is banked at IU and available immediately for this research purpose.

It is worth mentioning that every year a triple negative hunch has been presented and every year that hunch comes in second. Therefore, with unused resources from prior hunches, coupled with gifts that surpassed our \$100,000 2010 goal, we are hoping to provide partial funding to advance the triple negative hunch. This means that 100 Voices of Hope would be able to fund two research projects this year!

Upcoming Events:

Listed are a few upcoming fundraising events benefiting 100 Voices of Hope. We hope you will help—every whisper counts!

Zumba for the Cure \$10 per person

Saturday, March 26, 10-noon

Lifetime Fitness, 8705 Castle Creek Parkways East Drive, Indianapolis, IN, 46250

For more information contact: cesar_aaq@hotmail.com or call (317) 507-4924

Help Krista Stahly raise a voice!

Krista admitted she is not a runner, yet she has created her own challenge and will be training for and completing a mini marathon in May. Her goal is to raise a voice in honor of the challenges her friend, Laura Hague, has faced every day for the past 13 years battling breast cancer. Every dollar counts—if you would like to help Krista meet her goal, you can donate through the 100 Voices of Hope website. Be sure to put “Krista Stahly fundraiser” in the comments box. <http://www.cancer.iu.edu/100voices>

B-Cause Jewelry

If your birthday is coming up and would like to request a special gift from your family or friends, remember the handmade heart jewelry by Heidi Mandich. A portion of the proceeds benefit 100 Voices of Hope. You can place an order through the website or find out which art fair she will be showing her jewelry. <http://www.mychampagnecreations.com/>

2011 Campaign Goal

Since 2008, together we have raised a stunning \$342,490 for breast cancer research at the IU Simon Cancer Center. As you can see from the research updates, your contributions have already made a difference in the lives of women with metastatic breast cancer. Wouldn't it be incredible to say that our group has raised a half-million dollars for breast cancer research? Let's make this our goal! Individually and through events such as yoga nidra, cardio disco, bake sales, concerts, jewelry sales, luncheons and dinner parties, 2010 was an incredibly successful year. Why not make 2011 our best year ever?

Don't forget we have our own webpage!

This is a great place to tell your family and friends about 100 Voices of Hope and keep up on fundraising events to support 100 Voices of Hope. Or if you would like printed material on 100 voices of Hope, please contact Theresa Vernon at (317) 278-2120 or tm5@iupui.edu

Website link: <http://www.cancer.iu.edu/100voices>

