

The Indiana Center for Breast Cancer Research: Progress towards a SPORE Proposal

George W. Sledge Jr¹, Sunil Badve², Casey Bales³, Erin M. Gill³, David P. Gilley⁴, Chirayu Goswami⁵, Clark D. Wells⁶, Kim W. Ziner³, Harikrishna Nakshatri⁷

¹Department of Medicine, ²Department of Pathology and Laboratory Medicine, ³IU Simon Cancer Center, ⁴Department of Medical and Molecular Genetics, ⁵Center for Computational Biology and Bioinformatics, ⁶Department of Biochemistry and Molecular Biology, ⁷Department of Surgery, Indiana University School of Medicine, Indianapolis, IN

Presenting author: H. Nakshatri

Indiana University – Purdue University Indianapolis

Abstract

The Indiana Center for Breast Cancer Research (ICBCR) was funded under the IUPUI Signature Center Initiative in 2010. Its mission is to address the full range of prevention, early detection, and treatment of breast cancer through translational projects, supportive cores, and synergistic programs. This poster details our efforts to date towards applying for a National Cancer Institute Specialized Program of Research Excellence (SPORE) in January 2013. The proposed IU Breast Cancer SPORE will include 4-5 individual research projects, 3 cores, developmental research and career development programs. The SPORE Biostatistics and Bioinformatics core has developed the Breast Cancer Prognostics Database (BCDB), an online tool to study prognostic implications of genes of interest in publically available breast cancer databases. The BCDB can be used to study overall, recurrence free and metastasis free survival in large patient series. Supporting the SPORE Biospecimen/Pathology core, the IU Breast Cancer Tissue Bank includes a total sample of N = 500 cases with 30% non-Caucasian cases from Wishard Memorial Hospital. Currently there are N = 333 cases with tissue microarray data and complete clinical data with an additional 200 cases pending tissue confirmation. Dr. Clark D. Wells together with S. Badve and G. Sandusky are collaborating on the project: “Histologic Analysis of the Protein Levels of Amot130, AmotL1 and YAP in Normal, Hyperplastic and Invasive Breast Cancer Tissues”, a candidate SPORE individual research project. This project is investigating localized protein expression in paraffin-embedded tissues to associate expression levels with disease subtype and patient outcome. Dr. David P. Gilley together with N. Kannan, N. Huda, L. Tu, R. Droumeva, R. Brinkman, J. Emerman, S. Abe, and C. Eaves, are collaborating on the project: “Luminal mammary progenitors are a unique site of telomere dysfunction”, a candidate SPORE developmental research project. This project is investigating the relationship between telomere dysfunction and breast cancer tumorigenesis. These SPORE projects and cores were discussed at the IUSCC Breast Cancer Program retreat held on 1/13/12. Two additional planning meetings were held on 1/5 and 2/23. A timeline was generated to include final project selection in April, internal review in June, external review in August-September, and draft completion by 12/1, to meet the 1/20/13 NIH receipt deadline.