

August 2015 Volume 7, Issue 6

ISSN: 1948-5956

Open Access

308th OMICS International Conference

Journal of Cancer Science & Therapy

Proceedings of Werld Congress on

Breast Cancer

August 03-05, 2015 Birmingham, UK

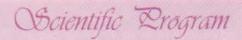






OMICS International Conferences

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Day 1 August 03, 2015

08:00 - 08:30 Registrations

Hall - 2



conferenceseries.com 08:30 - 09:00 Opening Ceremony

| Keynote Forum | |
|---------------|---|
| 09:00-09:05 | Introduction |
| 09:05-09:25 | Shahla Masood |
| | University of Florida College of Medicine-Jacksonville, USA |
| 09:25-09:45 | Chintamani |
| | The Association of Breast Surgeons of India, India |
| 09:45-10:05 | Raj Kumar |
| | The Commonwealth Medical College, USA |

| rack 1: Biolo | gy of Breast Cancer |
|---------------|--|
| | Session Introduction |
| | : Shahla Masood, University of Florida College of Medicine-Jacksonville, USA |
| | air: Christopher Busby, Environmental Research SIA, Latvian Academy of Sciences, Latvia |
| 10-05-10:20 | Title: The Breast Cancer Epidemic: Evidence For a Radiogenic Cause |
| | Christopher Busby, Environmental Research SIA, Latvian Academy of Sciences, Latvia |
| 10:20-10:35 | Title: Changes in Breast Cancer Pathology Reports After Second Opinion |
| | Vicente Marco Molina, Hospital Quirón Barcelona, Spain |
| 10:35-10:50 | Title: The Unknown Predisposition Can lie Deep in the Family Tree |
| | San Ming Wang, University of Nebraska Medical Center, USA |
| 10:50-11:05 | Title: Origin of breast cancer metastasis |
| | Gaspar Banfalvi, University of Debrecen, Hungary |
| | Coffee Break: 11:05-11:2 |
| 11:20-11:35 | Title: Multiparameter characterization of breast carcinoma: subgross, microscopy, proteins, and genes |
| | Tibor Tot, European Society of Pathology, Sweden |
| 11:35-11:50 | Title: Differentiation and histogenesis of syringomatous tumour of the nipple and low-grade adenosquamou carcinoma: Evidence for a common origin |
| | Werner Boecker, University of Muenster, & Institute for Hematopathology, Germany |
| 11:50-12:05 | Title: Microcalcification as an active phenomenon mediated by epithelial cells with mesenchymal characteristic |
| | Elena Bonanno, University of Rome Tor Vergata, Italy |
| 12:05-12:20 | Title: A role for lipids and statins in breast cancer risk and prevention? |
| | Mieke Van Hemelrijck, King's College London, London UK |
| 12:20-12:35 | Title: DNA methylation profiles in advanced breast cancer |
| | Ivana Fridrichova, Cancer Research Institute, Slovak Academy of Sciences, Slovakia |
| 12:35-12:50 | Title: Passive smoking, household exposure to PAH, GST polymorphisms and risk of breast cancer |
| | Nelly H Alieldin, Cairo University, Egypt |
| | Group Photo |

Lunch Break: 12:50-13:30



World Congress on

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DNA methylation profiles in advanced breast cancer

Ivana Fridrichova, BozenaSmolkova, VieraKajabova, IvetaZmetakova, Tomas Krivulcik, Michal Mego, ZuzanaCierna, Marian Karaba, JurajBenca, Daniel Pindak, Martin Bohac, Vanda Repiska and Ludovit Danihel

Cancer Research Institute, Slovak Academy of Sciences in Bratislava, Slovakia

More than 25% of the patients with breast cancer (BC) develop metastatic disease. We investigated the relationship between DNA methylation levels in genes regulating cell growth, invasiveness, and metastasis and advanced BCs and evaluated the clinical utility of methylation profiles for detecting metastatic potential. Methylation levels in 11 cancer associated genes in primary tumors (PTs), lymph node metastases (LNMs), plasma (PL), and blood cells from 206 patients with invasive BC were quantified by pyrosequencing. PTs showed hypermethylation of RASSF1A, APC, CXCL12, and ADAM23 genes with means 38.98%, 24.84%, 12.04%, and 10.01%, respectively. Positive correlations were identified between methylations in PTs and LNMs, but not between PL and PTs. The cumulative methylation of PTs and LNMs manifested similar spectrums of methylated genes that indicate the maintaining of aberrant methylation during breast tumorigenesis. Significantly increased methylation levels in RASSF1A, APC, CXCL12, and ADAM23 were found in ER positive BCs in comparison with ER negative cases. Regarding these results, the evaluation of DNA methylation could be more informative in testing of patients with ER positive BC. The risk for LNMs development and higher proliferation of cancer cells measured through Ki-67 expression was increased by hypermethylation of CXCL12 and ADAM23, respectively. Therefore, the quantification of CXCL12 and ADAM23 methylation could be useful for the prediction of advanced stage of BC.

This study was supported by the Slovak Research and Development Agency (APVV) grant No. APVV-0076-10; the Research and Development Operational Programme (ERDF), grant No. 26240220058; the Scientific Grant Agency (VEGA), grants No. 2/0120/13, No. 2/0169/14, no. 2/0092/15 and No. 1/0324/11; and the RFL2010 Programme funded by the Slovak Cancer Research Foundation.

Biography

sana Fridrichova has completed her university and PhD study from Comenius University in Bratislava and Cancer Research Institute, Slovak Academy of Sciences (CRI SAS) in Bratislava, Slovakia, in 1983 and 1991, respectively. Currently, she is senior scientist and head of Epigenetic Research Group at CRI SAS and she has supervised research projects dealing with investigation of the aberrant epigenetic changes in cancer patients. Her research team is focused on aberrant methylation profiles of genes associated with metastatic breast cancer. She has published more than 25 papers in reputed journals.

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