BUENOS AIRES BREAST CANCER SYMPOSIUM
BA-BCS 2021

Mayo, 17-21, 2021

Homenaje a la Dra. Christiane Dosne Pasqualini en su 101 aniversario

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PROGRAM

14:00 **Welcome/Bienvenida**
Claudia Lanari, IBYME-CONICET, Buenos Aires, Argentina
Tribute to doctor Christiane Dosne Pasqualini
Raúl Ruggiero, Academia Nacional de Medicina, Buenos Aires, Argentina

Opening Conference
Chairs: Santiago Bella, Sanatorio Allende y Clínica Universitaria Reina Fabiola, Córdoba, Argentina and José Luis Bocco, CIBICI-CONICET, Córdoba, Argentina
14:15-15:15 **Geoffrey Greene**, University of Chicago, Chicago, USA
"Advances in ER Targeted Approaches to Breast Cancer Management"

Session 1: Tumor heterogeneity and breast cancer therapy
Chairs: Isabel Frahm, Sanatorio Mater Dei, CABA, Argentina and Albana Gattelli, IFIBYNE-UBA-CONICET, CABA, Argentina, Marina Simian, INS-CONICET, San Martín, Argentina
15:30-16:00 **Mohamed Bentires-Alj**, University of Basel, Basel, Switzerland
"Cancer targeted therapy and tumor heterogeneity: Act locally, think globally"
16:00-16:30 **Jorge Reis Filho**, Memorial Sloan Kettering Cancer Center, New York City, USA
"Triple-negative breast cancer subtyping: why bother?"
16:30-16:45 **Catalina Lodillinsky**, Instituto de Oncología Ángel H. Roffo, CABA, Argentina
"Metastasis-suppressor NME1 controls the invasive switch of breast cancer by regulating MT1-MMP surface clearance" (Selected from poster presentations)
16:45-17:00 **Discussion**

Session 2: From hormone receptors to the immune system: the evolution of therapeutic targets in breast cancer
Chairs: Caroline Lamb, IBYME-CONICET, CABA, Argentina; Fernando Petracci, Instituto Alexander Fleming, CABA, Argentina and Cecilia Jazmín Proietti, IBYME-CONICET, CABA, Argentina
17:15-17:45 **Carol Lange**, University of Minnesota, Minneapolis, USA
"Tracking steroid receptor-driven changes in breast cancer cell fate"
17:45-18:15 **Jennifer Richer**, University of Colorado, Aurora, USA
"Breast cancer hijacks a trophoblast-like program of immune suppression"
18:15-18:45 **Mariana Salatino**, IBYME-CONICET, Buenos Aires, Argentina
"Mifepristone primes antitumor immunity in selected luminal mammary carcinomas opening the door to immune therapies"
18:45-19:00 **Andrés Marcos Castellaro**, CIQUIBIC-UNC, Córdoba, Argentina
"Tumor-associated macrophages induce endocrine therapy resistance in ER+ breast cancer cells" (Selected from poster presentations)
19:00-19:15 **Discussion**

Tuesday, May 18th

10:30-13:00 **Poster Session 1**

Session 3: Cancer stem cells and de-differentiated phenotype
Chairs: Gonzalo Gómez Abuin, Hospital Alemán, CABA, Argentina; Mauricio Menacho Márquez, IDICER, CCT-CONICET, Rosario, Argentina and Gastón Soria, CIBICI-CONICET, Córdoba, Argentina
14:00-14:30 **Jochen Maurer**, University Hospital RWTH, Aachen, Germany
"Cancer stem cells as disease models in research-opportunities and challenges"
14:30-15:00 **Paolo Ceppi**, University of Southern Denmark, Odense, Denmark
"The activity of thymidylate synthase shapes the de-differentiated phenotype of aggressive breast cancers"
15:00-15:30 **Robert Clarke**, University of Manchester, Manchester, UK
"Cytokine regulation of stem cell activity, endocrine resistance and metastasis"
15:30-15:45 **Martín Emilio García Solá**, IFIBYNE-UBA-CONICET, CABA, Argentina
"An integrative single-cell transcriptomic atlas of the post-natal mouse mammary gland allows discovery of new developmental trajectories in the luminal compartment" (Selected from poster presentations)
15:45-16:00 **Discussion**

Session 4: Mouse models for studying breast cancer initiation and progression
Chairs: María Marta Facchinetti, INIBIBB-UNS, Bahía Blanca, Argentina and Edith Kordon, IFIBYNE-UBA-CONICET, Buenos Aires, Argentina
16:15-16:45 **D. Joseph Jerry**, University of Massachusetts, Amherst, USA
"Consequences of estrogen exposure among strains of mice: a model for gene and environment interactions"
16:45-17:15 **Fariba Behbod**, University of Kansas, Kansas City, USA
"DCIS progression in the MIND model"
17:15-17:45 **William Muller**, Rosalind and Morris Goodman Cancer Center, Montreal, Canada
"Oncogene-mediated signal transduction in transgenic mouse models of human breast cancer"

17:45-18:00 **Diego Yair Grinman**, Yale School of Medicine, New Haven, USA
"PTHrP overexpression in mammary tumors increases tumorigenesis and causes anorexia" (Selected from poster presentations)
18:00-18:15 **Discussion**

Session 5: Round Table 1 - Genomics Platforms
Chair: Aníbal Nuñez de Pierro, Hospital Fernández, CABA, Argentina; **Co-chairs**: Gustavo Helguera, IBYME-CONICET, CABA, Argentina, Ignacio Mc Lean, Hospital Universitario Austral, Pilar, Argentina
18:30-19:30 **Ernesto Korbenfeld**, Hospital Británico, CABA, Argentina
Fernando Petracci, Instituto Alexander Fleming, CABA, Argentina

Wednesday, May 19th

10:30-13:00 **Poster Session 2**

Session 6: Genetics and Epigenetics of Breast Cancer
Chairs: Martín Abba, UNLP, La Plata, Argentina; Laura Kass, UNL, Santa Fe, Argentina and María Roque Moreno, IHEM-CONICET, Mendoza, Argentina
14:00-14:30 **Adrian Lee**, University of Pittsburgh, Pittsburgh, USA
"Genomics of breast cancer progression"
14:30-15:00 **Sophie Lelievre**, Purdue University College of Veterinary Medicine, West Lafayette, USA
"Environmental epigenetics to fight breast cancer risk and development"
15:00-15:30 **Guenter Vollmer**, Technische Universität Dresden, Dresden, Germany
"Polypharmacology of botanical extracts: Is there a link to breast cancer prevention?"
15:30-15:45 **Santiago Madera**, IBYME-CONICET, CABA, Argentina
"Targeting ErbB-2 nuclear function induces the interferon signalling pathway in breast cancer" (Selected from poster presentations)
15:45-16:00 **Discussion**

Session 7: Understanding the metastatic cascade to learn how to inhibit tumor progression
Chairs: Daniel Alonso, Universidad Nacional de Quilmes, Bernal, Argentina; Enrique Díaz Cantón, CEMIC, CABA, Argentina and Mario Rossi, Universidad Austral, Pilar, Argentina
16:15-16:45 **Valerie Weaver**, University of California, San Francisco, USA
"Tissue force promotes metabolic reprogramming to drive breast tumor aggression and metastasis"
16:45-17:15 **John Condeelis**, Albert Einstein Cancer Center, Bronx, USA
"The mechanism of metastasis during breast cancer progression and how to inhibit it"
17:15-17:45 **Julio Aguirre Ghiso**, Icahn School of Medicine at Mount Sinai, New York, USA.
"The impact of disseminated cancer cell dormancy on the paradigm of metastasis"
17:45-18:00 **Juan Garona**, Universidad Nacional de Quilmes, Bernal, Argentina
"Drug repurposing of hemostatic compound desmopressin (dDAVP) in triple-negative breast cancer (TNBC): Preclinical antitumor activity on 2D/3D cell growth, chemotaxis, tumor progression and metastatic spread" (Selected from poster presentations)
18:00-18:15 **Virginia Judith Wolos**, Instituto de Oncología Ángel H. Roffo, CABA, Argentina
"Hypoxic microenvironment is associated with acquired resistance to HER2+ breast cancer immunotherapies" (Selected from poster presentations)
18:15-18:45 **Discussion**

Session 8: Round Table 2 - Biorepositories and sample management
Chair: Eduardo Sandes, Instituto de Oncología Ángel H. Roffo, CABA, Argentina; **Co-chair**: Fabiana Lubieniecki, Hospital Juan P. Garrahan, CABA, Argentina
19:00-20:30 **Andrea Bosaleh**, Hospital Juan P. Garrahan, CABA, Argentina
Liliana Virginia Siede, UBA-UMSA, CABA, Argentina
Alfredo Molinolo, Moores Cancer Center, UCSD, San Diego, USA
Gonzalo Ardao, Hospital Central de las Fuerzas Armadas (HCFFAA), Montevideo, Uruguay
Ana Palmero, Ministerio de Salud de la Nación, CABA, Argentina

Thursday, May 20th

10:30-13:00 **Poster Session 3**

Session 9: Estrogen receptors: their involvement in endocrine resistance and dormancy
Chairs: Luisa A. Helguero, Institute of Biomedicine (iBiMED), University of Aveiro, Portugal; Isabel Lüthy, IBYME-CONICET, CABA, Argentina
14:00-14:30 **Steffi Oesterreich**, University of Pittsburgh, Pittsburgh, USA
"ER mutations in breast cancer"
14:30-15:00 **Todd Miller**, University of Dartmouth, Lebanon, USA
"Targeting dormancy in ER+ breast cancer"
15:00-15:15 **Discussion**

Session 10: Novel targets in the era of precision medicine
Chairs: Vanesa Gottifredi, Instituto Leloir, CABA, Argentina; Adrián Nervo, Instituto Alexander Fleming, Buenos Aires, Argentina and Virginia Novaro, IBYME-CONICET, CABA, Argentina
15:30-16:00 **Violeta Serra**, Vall d'Hebron Institut d'Oncologia (VHIO), Barcelona, Spain
"CDKs and PARP inhibition in breast cancer"
16:00-16:15 **Santiago Bella**, Sanatorio Allende y Clínica Universitaria Reina Fabiola, Córdoba, Argentina
"Use of CDK inhibitors in South America"
16:15-16:45 **Dejan Juric**, Massachusetts General Hospital, Boston, USA
"News on PI3K inhibitors in clinical practice"
16:45-17:00 **Andrés Elia**, IBYME-CONICET, CABA, Argentina
"Antiproliferative effect of mifepristone in breast cancer patients with higher levels of progesterone receptor A than B: results from the MIPRA trial" (Selected from poster presentations)
17:00-17:15 **Fabiana A. Rossi**, IIMT-CONICET-Univ. Austral, Pilar, Argentina
"USP19 modulates cancer cell migration and invasion and acts as a novel prognostic marker in patients with early breast cancer" (Selected from poster presentations)

Use of CDK inhibitors in South America
SANTIAGO RAFAEL BELLA
Sanatorio Allende y Clínica Universitaria Reina Fabiola, Córdoba, Argentina
Santiagorafaelbella@gmail.com

I will talk about the uses of CDK4/CDK6 inhibitors in South America. I will make a fast review of the contribution of CDK4/CDK6 inhibitors in advanced breast cancer, the discussions opened during last 2020 in the adjuvant setting, and then I will mention the current studies using these drugs and their availability in the real world.

News on PI3K inhibitors in clinical practice
DEJAN JURIC
Massachusetts General Hospital, Boston, USA
juric.dejan@mgh.harvard.edu

Abstract is not available

Antiproliferative effect of mifepristone in breast cancer patients with higher levels of progesterone receptor A than B: results from the MIPRA trial
Andrés Elía*[1], Silvia I. Vanzulli[2], Hugo Gass[3]**, Caroline A. Lamb[1], Victoria T Fabris[1], Paula Martínez Vazquez[3], Javier Burruchaga[3], Eunice Spengler[3], Inés Caillet Bois[3], Alejandra Castets[3], Silvia Lovisi[3], Marcos Liguori[3], Gabriela Pataccini[1], María Florencia Abascal[1], Virginia Novaro[1], Gabriela Acosta Haab[4], Martin Abba[5], Alfredo Molinolo[6], Paola Rojas[1], Claudia Lanari[1]
[1]IBYME-CONICET, Buenos Aires, Argentina, [2]Academia Nacional de Medicina, Buenos Aires, Argentina, [3]Hosiptal Magdalena V de Martínez, General Pacheco, Argentina, [4]San Isidro Patología, San Isidro, Argentina, [5]Universidad Nacional de La Plata, Argentina, [6]Moores Cancer Center, San Diego, USA
**:* elia.andresm@gmail.com*, **: Deceased*

Preclinical data indicates that antiprogestins inhibit cell proliferation of luminal breast carcinomas expressing higher levels of progesterone receptor isoform A (PRA) than those of isoform B (PRB). MIPRA (NCT02651844) is an open-label, one-arm, prospective interventional study designed to test the effect of mifepristone (MFP; 200 mg, PO, QD, 14 days) in 20 breast cancer patients selected by their high PRA/PRB isoform ratio. The primary endpoint was to compare the Ki67 levels of the core needle biopsies and the post-therapy surgical specimens. Wilcoxon rank test was used to compare paired samples. A 49.62% decrease in the median was registered in all surgical specimens compared to baseline ($p = 0.0003$). Using the prespecified response parameter (30% reduction), we identified 14/20 (70%) responders. The degree of inhibition was similar to that reported for tamoxifen in luminal breast cancer patients in short-term treatment studies. RNA-seq analysis was performed in samples from 8 patients (4 responders and 4 non-responders) pre- and post-treatment. Interestingly, in responsive patients, MFP regulated genes related to the immune system and downregulated genes involved in cell-cycle and proliferative pathways. Our results show that MFP treatment may be effective in patients with a high PRA/PRB ratio. Ongoing analysis will determine changes in other markers that may help to further define MFP-responsive patients.

USP19 modulates cancer cell migration and invasion and acts as a novel prognostic marker in patients with early breast cancer
Fabiana A Rossi*[1], Juliana H Enriqué Steinberg[1], Ezequiel H Calvo Roitberg[1], Molishree U Joshi[2], Ahwan Pandey[3], Martín C Abba[4], Beatrice Dufrusine[5], Simonetta Buglioni[6], Vincenzo De Laurenzi[5], Gianluca Sala[5], Rossano Lattanzio[5] , Joaquín M Espinosa[2,7,8], Mario Rossi[1]
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The development of metastasis in patients suffering from cancer represents a significant reduction in their survival. Tumor cell migration and invasion are required for metastasis formation. In order to investigate the role of the Ubiquitin-Proteasome System (UPS) in the regulation of these processes, we performed a genetic screen using an shRNA library against UPS genes and Boyden chambers to analyze the migrating potential of breast cancer (BC) cells infected with this library. After the selection process, we characterized the non-migrating population and obtained a list of 30 candidate positive regulator genes. We focused on a specific DUB, USP19 and demonstrated that its silencing reduces the migratory/invasive potential of different BC cell lines. Since silenced cells proliferation was impaired using *in vitro* 3D setups, we furthered our investigation with *in vivo* studies. Mice inoculated with USP19 silenced cells presented Kaplan Meier curves for tumor free survival with a clear separation from the control group, as well as a delay in the onset of tumor formation. In addition, we observed a significant reduction in the generation of metastatic foci. Overexpression experiments in poorly migrating BC cells further validated our findings. Finally, we performed a retrospective clinical study which demonstrated that USP19 protein expression is a prognostic predictor of distant relapse free survival in BC patients. Altogether, USP19 might represent a novel therapeutic target.

Session 11 - Round Table 3 - Interaction among government, non-government agencies, and industry for funding and promoting breast cancer translational research
In Spanish at the end as a special article

Session 12 - Local and systemic therapies

Oligometastasis-The Impact of Local Therapy On Systemic Disease
CATHERINE PARK
University of California, San Francisco, USA
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The development of systemic disease, or metastasis, has been long viewed as heralding the end of survival