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SCIENTIFIC PROGRAM

INTERNATIONAL CONFERENCE

RAINERS HOTEL
VIENNA, AUSTRIA
APRIL 29-30, 2025

GRFG-2025
April 29-30, 2025 | Vienna, Austria

WFBCC - 2025
April 29-30, 2025 | Vienna, Austria

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SCIENTIFIC PROGRAM

TUESDAY
APRIL 29, 2025

INTERNATIONAL CONFERENCE

REGISTRATIONS & OPENING CEREMONY (09:00 - 09:30)

KEYNOTE TALKS

09:30 - 10:00

Therapy of cystitis with nitroxoline-NitroxWin: Prospective, multicenter, non-interventional study and microbiological resistance surveillance

Kurt G. Naber, Technical University of Munich, Germany

10:00 - 10:30

CER818: A Highly Specific and Sensitive HPV L1 High-Risk Serological Lateral Flow Rapid Test for Early Detection of Cervical Cancer and Its Precursor Lesions

Ralf Hilfrich, University of Mainz, Germany

10:30 - 11:00

Should Endometriosis-Associated Ovarian Cancer Alter the Management of Women with an Intact Endometrioma in the Reproductive Age?

Johnny S. Younis, Bar-Ilan University , Israel

REFRESHMENT BREAK & GROUP PHOTO (11:00 - 11:20)

11:20 - 11:45

Global funding trends in contraceptive R&D in 2023: gaps and progress

Cécile Ventola, Policy Cures Research, Australia

11:45 - 12:10

Efficacy of a Tumor Microenvironment-Responsive Oncolytic Adenovirus in Various Gynecological Preclinical Cancer Models

Maria Veronica Lopez, Instituto Leloir-CONICET, Argentina

12:10 - 12:35

Immune Modulating Oncoltyic Virus : Neutrophil-directed T cell therapy

Tae-Ho Hwang, Pusan National University, South Korea

12:35 - 13:00

Exploring the role of curcumin as a chemosensitizer in 5-FU chemotherapy against Breast cancer

Ruby John Anto, Institute of advanced virology, Centre of nutraceuticals excellence, India

LUNCH @ RESTAURANT (13:00 - 14:00)

14:00 - 14:25

MLH1 Inhibits Metastatic Potential of Pancreatic Ductal Adenocarcinoma via Downregulation of GPRC5C

Lu Jun, Peking University Third Hospital, China

14:25 - 14:50

Non-Invasive Diagnostic Signatures and Phytotherapeutics for Breast Cancer Evaluation of Vis-BUS

Ashok Kumar Patel, IIT Delhi, India

14:50 - 15:15

Image Quality Assessment Tool for Conventional and Dynamic Magnetic Resonance Imaging Acquisitions

Katerina Nikiforaki, University of Crete, Greece

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REFRESHMENT BREAK (15:40 - 16:00)

16:00 - 16:25

Role of Hyaluronic Acid Metabolism in Endometrial Receptivity: Insights from RNAseq and Cellular Models

Eva Kriváková, Pavol Jozef Safarik University in Kosice, Slovakia

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16:25 - 16:50

Privacy Protection of Sexually Transmitted Infections Information from Chinese Electronic Medical Records

Mengchun Gong, School of Biomedical Engineering, Guangdong Medical University, China

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16:50- 17:15

Canephron for non-antibiotic therapy of acute uncomplicated UTI and postoperative prevention of UTI in patients after urogynecological surgeries

Kurt G. Naber, Technical University of Munich, Germany

17:15- 17:40

Urinary ATP may be a biomarker of interstitial cystitis/ bladder pain syndrome and its severity

Zongping Wang , Zhejiang cancer hospital, China

POSTER PRESENTATIONS (17:40-18:00)

Cervical-Endometrial Immune metabolome in Unknown genesis of Recurrent Pregnancy Loss

Sergey Mikhalev, Pirogov Russian National Research Medical University, Russia

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The Consequences of Non- Participation and Inadequate Follow up in Cervical Cancer Screening

Georg Richter, Institute of Pathology, Germany

PANEL DISCUSSIONS

DAY-01 CONCLUDES

April 30
Virtual Presentations

Central European Time

INTERNATIONAL CONFERENCE

09:00-09:25	**FBXO47 Is Key Component of The Centromeric SCF E3 Ligase Complex That Regulates Centromere Pairing for Pachynema Progression in Mouse Spermatocytes** **Ani MA,** Shenzhen Institute of Advanced Technology, China
09:25-09:50	**The mechanism of transcription factor GATA3 in esophageal squamous cell carcinoma** **Jiahui-Cai,** Beijing Hospital, China
09:50-10:15	**TFAP2A downregulation mediates tumor-suppressive effect of miR-8072 in triple-negative breast cancer via inhibiting SNAI1 transcription** **Yujing Gao,** Ningxia Medical University, China
10:15-10:40	**Biological role of folic acid in pregnancy and possible therapeutic application for the prevention of preeclampsia** **Akylbek Tussupkaliyev,** West-Kazakhstan Marat Ospanov Medical University, Kazakhstan
10:40-11:05	**Stem Cell versus Exosome Therapy for Premature Ovarian Insufficiency: A Review of Characteristics, Limitations and Challenges** **Narges Elahi,** Fasa University of Medical Science, Iran
11:05-11:30	**Effect of Aerobic and Resistance Exercise on Metabolic Syndrome among Breast Cancer Survivors: 5-year follow-up to a randomized controlled trial** **Christina M. Dieli-Conwright,** Harvard Medical School, USA
11:30-11:55	**Effect of Resistance Training on Cognition, Physical Performance, and Brain Anatomy in Older Adults with Mild Cognitive Impairment** **Isadora Cristina Ribeiro,** School of Medical Sciences, Brazil
11:55-12:20	**Hypofractionated Radiotherapy for Breast Cancer: A 10-Year Experience at CHU Hassan II, Fès** **khalfi samia,** Hassan II University hospital Fès, Morocco
12:20-12:45	**Factors Associated with Low Birth Weight in Low-Income Populations in Western Balkans: Insights from the Multiple Indicator Cluster Survey** **Dragana Grbić,** Gynecology Obstetrics University Hospital Narodni Front, Serbia
12:45-13:10	**Gestional Breast Cancer Diagnosis, Management and their outcomes** **Roshan Kumar,** Maya Devi University, India
13:10-13:35	**Technical Difficulties of Removing Huge Bilateral Breast Fibroadenomas** **Mohamed Ali,** NHS, UK

INTERNATIONAL CONFERENCE

13:35-14:00	**Immunoliposomes in Cancer Therapy: Advancing Targeted Drug Delivery Frontiers** **Jitendra Gupta,** Ganeshi Lal Agrawal University, India
14:00-14:25	**Application of a single Universal warming protocol" for vitrified donor oocytes: A multicenter study** **Paloma Troncoso,** Ovoclinic, Spain
14:25-14:50	**Effect of Propolis on Ppp2r1a and Apoptosis in Cancer Cells** Burak Durmaz, Near East University, Cyprus
14:50-15:15	**Prenatal care needs to include mental health; many types of stress in pregnancy can alter the outcome for the child** **Vivette Glover,** Imperial College London, UK
15:15-15:40	**Comparative investigation of genital self image and sexual function in Women with and without history of female genital cosmetic procedures: A cross- sectional study** **Tayebeh Sasan Far,** Tehran University of Medical Sciences, Iran
15:40-16:05	**A multimodal deep-learning model for cervical pre-cancers and cancers prediction : Development and internal validation study** **Quitterie Lelong,** Ecole Polytechnique Federale de Lausanne, France
16:05-16:30	**Cannabinoid hyperemesis syndrome in pregnancy: a case series and review** **Sarah hanley,** General Adult Psychiatry, Ireland
16:30-16:55	**Addressing the unmet needs of women with breast cancer in Mexico: a non-randomised pilot study of the digital ePRO intervention** **Victor Javier Vazquez Zamora,** University of California, Mexico
16:55-17:20	**Integrin-Linked Kinase–Frizzled 7 Axis: A Novel Target Bridging Cancer Stem Cells and the Tumor Niche** **Salvatore Condello,** Indiana University School of Medicine, USA
17:20-17:45	**In Vitro Assessment of Cryoablation Procedural Variables and a Novel Cryoprobe for the Treatment of Breast Cancer** **John M. Baust,** CPSI Biotech, USA

DAY-02 CONCLUDES

Conference Proceedings By United Research Forum, London, UK

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(CONNECT WITH RESEARCH WORLD)

2nd GLOBAL CONFERENCE ON REPRODUCTION, FERTILITY AND GYNECOLOGY

April 29-30, 2025 | VIENNA, AUSTRIA

Kurt G. Naber[1], Florian Wagenlehner[2], Michael Kresken[3], Esther Wohlfarth[3], Christina Bahrs[4,5], Beatrice Grabein[6], Walter Ludwig Strohmaier[7,8]

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[2]Clinic for Urology, Pediatric Urology and Andrology, Justus-Liebig University of Giessen. Germany
[3]Antiinfectives Intelligence, Cologne, Germany
[4]Institute for Infectious Diseases and Hospital Hygiene, University Hospital Jena/Friedrich Schiller University, Jena, Germany
[5]Clinical Division of Infections and Tropical Medicine, University Clinic for Internal Medicine I, Medical University of Vienna, Vienna, Austria
[6]Department of Clinical Microbiology and Hospital Hygiene, LMU Klinikum, Munich, Germany
[7]Medical School Regiomed, Coburg, Germany
[8]University of Split, Croatia

Therapy of cystitis with nitroxoline-NitroxWin: Prospective, multicenter, non-interventional study and microbiological resistance surveillance

Abstract:

Introduction

According to the AWMF S3 guidelines, nitroxoline is one of the antibiotics of first choice for the treatment of uncomplicated cystitis (UC) in women. Under real-world conditions, the clinical effectiveness of nitroxoline should be tested in a prospective, multicenter, non-interventional study (NIS) and the resistance of Escherichia coli to nitroxoline.

Material and Methods

Patients with UC and treatment with nitroxoline (recommended dosage 250 mg 3 times daily for 5 days) were recruited by urologists, general practitioners and internists working in family medicine across Germany from April to December 2022 and followed up over a period of 21-28 days. The diagnosis and course of therapy were assessed using the ACSS questionnaire and laboratory tests (leukocyturia, etc.). Independently of the NIS, Escherichia coli urine isolates were collected in 23 laboratories in the period 2019-20 as part of a nationwide resistance surveillance and their sensitivity to nitroxoline was tested.

Results

Of 316 patients with a mean (SD) age of 57.2 (±20.4; median 62.5) years who were included in the NIS, the therapy was clinically successful at the time of the "test of cure" in 193/248 (86.3%) in the per-protocol group and 193/263 (81.4%) in the intention-to-treat group. 96% of the patients rated the tolerance of nitroxoline as "very good" or "good". All 272 Escherichia coli isolates tested were nitroxoline-sensitive.

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Conclusion

Nitroxoline achieved very good clinical results in NIS and showed a very favorable resistance situation in Escherichia coli urine isolates. Nitroxoline can still be recommended as the first-line antibiotic for the treatment of UZ in women.

Biography: Dr. Naber is Assoc. Professor of Urology at the Technical University of Munich and from 1975-2006 he was Head of the Urologic Clinic, St Elisabeth Hospital in Straubing, a teaching hospital of the Technical University of Munich, Germany. Dr Naber was President (1997-1999) of the Paul Ehrlich Society for Chemotherapy (PEG) in Germany, and President (1998-2000) of the Federation of European Societies for Chemotherapy and Infection (FESCI).

He was the President of the 2nd European Congress of Chemotherapy 1998 in Hamburg, Germany, and the President of the International Society of Chemotherapy (ISC) for Infection and Cancer (2005-2009). His research interests include urological infections, especially the microbiology and pharmacokinetics of antimicrobials for the treatment of UTI and prostatitis.

He is Honorary Member of the Slovak Society of Chemotherapy (1997), of the German Association of Urology (2010), of the International Society of Chemotherapy (2013) and he received his doctor degree honoris cause (Dr.h.c.) from the St. Elizabeth University, Bratislava, Slovakia (2007).

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2nd GLOBAL CONFERENCE ON REPRODUCTION, FERTILITY AND GYNECOLOGY

April 29-30, 2025 | VIENNA, AUSTRIA

Johnny S. Younis, MD

Reproductive Medicine. Tzafon Medical Center, Poria, and Faculty of Medicine, Bar-Ilan University, Safed, Israel

Should Endometriosis-Associated Ovarian Cancer Alter the Management of Women with an Intact Endometrioma in the Reproductive Age?

Abstract:

Endometriosis-associated ovarian cancer (EAOC) is an evolving clinical entity believed to develop from ovarian endometriosis. Continuous efforts are nowadays invested in exploring its pathogenesis and causality. Since endometrioma is a widespread subtype of the disease, malignant transformation to EAOC during reproductive age may cause much concern and affect its management. The summary relative risk of developing EAOC in women with endometriosis is 1.93-fold compared to women without endometriosis, but its lifetime risk is relatively low, equivalent to 2.1%. EAOC is an age-dependent disease with a mean age of 51.64 ± 3.24 years at diagnosis; 30.68% of patients are below 50, presumably premenopausal. Only 2.10% and 0.017% of cases are below 45 and 40 years, apparently in reproductive age. The evidence is reassuring and implies that managing an intact endometrioma should not be altered in most women of reproductive age. Particular attention should be focused on sporadic cases with an enlarging endometrioma, atypical findings on transvaginal ultrasound (TVUS), and characteristic magnetic resonance imaging (MRI) features.

Keywords: endometriosis; endometrioma; endometriosis-associated ovarian cancer; reproductive age.

Biography: A full professor at the Azrieli Faculty of Medicine, affiliated with Bar-Ilan University. He is the past Chair of the Obstetrics and Gynecology Circle and the past Chair of the Admission Committee at the Faculty of Medicine. He is the past Chair of the Obstetrics and Gynecology Examination Board, the Scientific Council, and the Israeli Medical Association. Until July 2023, he served as the past Vice Dean for Clinical Education at the Azrieli Faculty of Medicine in Galilee. His present interests are low ovarian reserve, ovarian reserve biomarkers, endometriosis, and controlled ovarian stimulation.

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5th WORLD FORUM ON BREAST AND CERVICAL CANCER

April 29-30, 2025 | VIENNA, AUSTRIA

Ralf Hilfrich[3], Karen Bräutigam[1,2], Stefanie Meier[1], Frank Köster[1], Achim Rody[1]

[1]Department of Gynecology and Obstetrics, University of Lübeck and University Medical Center Schleswig-Holstein, Campus Lübeck, Ratzeburger Allee 160, 23560 Lübeck, Germany

[2]Section for Translational Surgical Oncology and Biobanking, Department of Surgery, University of Lübeck and University Medical Center Schleswig-Holstein, Campus Lübeck, Ratzeburger Allee 160, 23560 Lübeck, Germany

[3]Abcerion Diagnostics GmbH, R&D, Zum Roemberg 24, 65597 Huenfelden, Germany

CER818: A Highly Specific and Sensitive HPV L1 High-Risk Serological Lateral Flow Rapid Test for Early Detection of Cervical Cancer and Its Precursor Lesions

Abstract:

Objective: The objective of the study is to validate a new human papillomavirus (HPV) L1 high-risk specific serological assay in a case-control study.

Methods: Serum samples of 138 patients (cervical intraepithelial neoplasia (CIN) 1, 2, and 3 and cervical cancer), 21 vaccinees, and 246 female controls were tested for the presence of HPV L1 high-risk specific antibodies.

Results: HPV L1 high-risk antibodies were detected in 100% of the CIN1 and 2, 86.6% of the CIN3 and 82.4% of the cervical cancer cases, 100% of the vaccinees, and 3.9% of the female controls. Area under the curve (AUC) was calculated with 0.91 for controls versus CIN2+, 0.923 for controls versus CIN1+, and 0.968 for controls versus CIN1/2.

Conclusion: The HPV L1 high-risk specific serological lateral flow rapid test shows promising data in the field of early detection of HPV high-risk induced cervical cancer and its precursor lesions. This easy-to-use, robust, and affordable approach could offer a chance to reach women in low- or middle-income countries (LMICs) that could not be reached by HPV molecular testing–based cervical cancer screening programs.

Keywords: cervical cancer screening; CIN; HPV high risk; L1 serology; LMICs

Biography :

Over 30 years working on HPV with a strong focus on HPV related prognostic and diagnostic test systems, PhD at the University of Mainz in Virology, Immunology, Molecular and Human Genetics.

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2nd GLOBAL CONFERENCE ON REPRODUCTION, FERTILITY AND GYNECOLOGY

April 29-30, 2025 | VIENNA, AUSTRIA

Cécile Ventola, Joelle Tan, Sabastine Wakdok, Lindsay Keir

Impact Global Health, Sydney, Australia

Global funding trends in contraceptive R&D in 2023: gaps and progress

Abstract:

Enforcing the autonomy and reproductive rights of individuals globally relies on the accessibility of a wide variety of contraceptive methods in order to meet a diversity of preferences and social and physical needs. Contraceptive research and development is essential to bring forward new methods with fewer side-effects, innovative delivery and user-centric characteristics to cater to this diversity of needs. Characterizing global investment in contraceptive R&D helps assessing the dynamism of the field, understanding particular trends in terms of product categories (short or long-acting contraceptives, relying on hormones, multiple purpose technologies offering additional protection against STIs…) and highlighting promising developments and gaps. The G-FINDER survey collects global R&D funding data every year for several global health areas, including sexual and reproductive health. Through datamining and an extensive survey among funders and industry stakeholders running since 2007 (2018 for SRH), its results offer an overview of trends and gaps in sexual and reproductive health investment. In 2023, global funding for contraception decreased sharply compared to 2021, reaching a record-low level since the beginning of data collection. This decrease has implications regarding encouraging trends observed in the last SRH funding analysis, particularly when it comes to user-controlled, non-hormonal or male contraceptives.The characteristics of global contraceptive R&D investment in 2023 highlight the need for informed and strategic advocacy and policies to ensure sustained and targeted efforts to bring about the innovative contraceptive products essential to users' health and autonomy.

Keywords: Contraception, R&D, funding, investment, contraceptive innovation

Biography :

Cécile Ventola has a PhD in public health and is specialized in sexual and reproductive health. She has worked for several French national institutes, the WHO and a menstrual health start-up before joining Impact Global Health (previously Policy Cures Research) as a Senior Technical Officer for sexual and reproductive health in May 2023. She has conducted research on contraception, abortion, gender-affirming healthcare, sexual health and gender and health.

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2nd GLOBAL CONFERENCE ON REPRODUCTION, FERTILITY AND GYNECOLOGY

April 29-30, 2025 | VIENNA, AUSTRIA

Ana Alfano[1], Eduardo GA Cafferata[1], Mariela Gangemi[1], Alejandro N Candia[1], Cecilia Rotondaro[1], Nicasio Cuneo[3], Mauricio Vargas Lopez[1], David T Curiel[4] Osvaldo L Podhajcer[1], and **Maria Veronica Lopez[1]**

[1]Laboratory of Molecular and Cellular Therapy, Instituto Leloir, IIBBA-CONICET, Avenida Patricias Argentinas 435, C1405BWE, Ciudad Autónoma de Buenos Aires, Argentina

[2]Facultad de Ingeniería, Universidad Argentina de la Empresa. Lima 775, C1073AAO, Ciudad Autónoma de Buenos Aires, Argentina

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[4]Division of Cancer Biology, Department of Radiation Oncology, School of Medicine, Washington University in St. Louis, St. Louis, MO 63110, USA

Efficacy of a Tumor Microenvironment-Responsive Oncolytic Adenovirus in Various Gynecological Preclinical Cancer Models

Abstract:

More than one million women worldwide are diagnosed with gynecological cancer each year. Most cases are detected at a late stage, either due to a lack of symptoms, as seen in ovarian cancer, or limited access to primary prevention in low-resource countries, as in cervical cancer.

In this study, we further investigate AR2011, a stroma-targeted, tumor microenvironment-responsive oncolytic adenovirus (OAdV) driven by a triple-hybrid promoter. We demonstrate that AR2011 effectively replicates and induces lysis in fresh in vitro explants derived from human ovarian, uterine, and cervical cancers. Additionally, AR2011 significantly inhibits the in vitro growth of malignant ovarian cells obtained from human ascites fluid.

The virus also synergizes with cisplatin in vitro, even in ascites-derived cells from patients heavily pretreated with neoadjuvant chemotherapy. AR2011(h404), a dual transcriptionally targeted variant armed with hCD40L and h41BBL under the control of the hTERT promoter, exhibits strong efficacy in vivo in both subcutaneous and intraperitoneal models of human ovarian cancer in nude mice.

Preliminary studies in an immunocompetent murine tumor model further suggest that AR2011(m404), expressing murine cytokines, can induce an abscopal effect. These findings indicate that AR2011(h404) is a promising candidate for the treatment of intraperitoneally disseminated ovarian cancer.

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Keywords: Adenovirus, Cancer, Stroma, Gynecological cancer, murine model

Biography:

Maria Verónica Lopez is a researcher at the Leloir Institute- CONICET in Argentina. She holds degrees in Biochemistry (1995) and Chemistry (1996) from the National University of La Plata, and completed her medical degree at the University of Buenos Aires (2012 -2016). Verónica earned her PhD from the National University of La Plata (1997-2001) and completed postdoctoral research (2002-2005) at the Leloir Institute under the mentorship of Dr. Podhajcer, as well as at the University of Alabama at Birmingham in Dr. David Curiel's laboratory, with support from a CONICET fellowship. For over 23 years, Verónica has focused on cancer gene therapy, specializing in oncolytic adenoviruses and CAR-T cell therapies.

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Young-Mi Hong1, Jae-Joon Kim2, Mong Cho3, **Tae-Ho Hwang3,4,5**

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2. Divsion of Hematology & Oncology, PNUYH, YangSan City, S. Korea
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Immune Modulating Oncoltyic Virus :Neutrophil-directed T cell therapy

Abstract:

Over the past decade, oncolytic viruses (OVs) have been developed as a promising treatment alone or in combination in immuno-oncology but have faced challenges in late-stage clinical trials. Our retrospective reanalysis of vaccinia oncolytic virus (VOV) clinical trials indicates that lower doses—rather than the maximum tolerated dose (MTD)—are associated with better tumor response rates. Patients who responded well to lower doses generally had prolonged survival rates in the early phase clinical trial. The association between poor outcomes and an increase in OV-induced neutrophils (OV-N) but not baseline neutrophil counts suggests the need for a comprehensive characterization of OV-N. Although this reanalysis is limited by patient heterogeneity—including differences in cancer type and stage, treatment schedules, and administration routes—it remains informative given the complexities of translational studies in the tumor-bearing mouse models of vaccinia oncolytic viruses. Notably, while OV-N increases with higher viral doses, the immune state shaped by tumor progression likely amplifies this tendency.

We would present some potential underlying mechanisms by which neutrophil plasticity is involved in OVN production under cancer progression immunity."

These findings highlight the importance and strategy of OV-N immune modulation as well as dose optimization for the successful clinical development of VOV.

Keywords: Oncolytic virus, Immuno Oncology, T cell modulation, Neutrophil plasticity

Biography :

Professor Taeho Hwang is a faculty member at Pusan National University School of Medicine and a renowned immunologist. He has played a pivotal role in early-phase clinical studies of the Vaccinia Oncolytic Virus and has conducted reverse translational research based on in-depth immune analyses of preclinical and clinical studies over the past 23 years.

He is a co-founder of Bionox Inc. (S. Korea) and recently got US FDA Phase 1 clinical trial of immune-modulating oncolytic virus. His current research in Bionoxx and PNU focuses on T cell modulation through the regulation of neutrophil plasticity, with related studies underway in preparation for clinical application.

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Haritha Hariprasad Nair[1,2], Vijayasteltar B Liju1, Rayginia P Tennyson[1], Aiswarya US[1], Balachandran S Vinod[1,3], Nikhil Ponnoor Anto[4], Sankar Sundaram[5], Sreekumar Pillai[6] and **Ruby John Anto[1,7*]**

[1]Division of Cancer Research, Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram 695014, Kerala, India

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[6]Department of Surgical Oncology, Jubilee Mission Medical College and Research Institute, Thrissur 680005, Kerala, India

[7]Centre of Excellence in Nutraceuticals, KSCSTE, Government of Kerala, Bio360 Life Science Park, Thiruvananthapuram, 695317, Kerala, India.

Exploring the role of curcumin as a chemosensitizer in 5-FU chemotherapy against Breast cancer

Abstract:

Current chemotherapeutic regimens against breast cancer (BC) primarily target the receptor status of the breast tissue. Chemosensitization provides new insights to counter chemoresistance, a major obstacle that limits the benefits of chemotherapy of BC. By utilizing in vitro (Vinod et al., Cell Death and Disease, 2013) and two independent murine BC models; NSG mice bearing orthotropic triple-negative breast cancer (TNBC) xenografts (Haritha et al., 2021, Frontiers in Oncology) and Wistar rats bearing DMBA-induced breast tumors, we investigated the ability of curcumin in chemosensitizing BC, regardless of their receptor status, to 5-Fluorouracil (5-FU) chemotherapy. In both models, a significant synergistic antitumor potential was observed with a sub-optimal dose treatment of 5-FU plus curcumin, as evaluated by a reduction in the tumor-related parameters. We authenticated the pivotal role of thymidylate synthase (TS) in regulating the 5-FU–curcumin synergism using the TNBC pre-clinical model. Our study also confirmed the pharmacological safety of this combination using acute and chronic toxicity models.

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ISBN: 978-1-917892-03-2

Wen-Jing Liu[1#], **Jun Lu[1#]**, Wei-Xun Zhou[2], Jian-Zhou Liu[1] and Li Zhou[1]

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[2]Department of Pathology, State Key Laboratory of Complex Severe and Rare Diseases, Peking Union Medical College Hospital, Chinese Academy of Medical Sciences/Peking Union Medical College, Beijing 100730, China.

MLH1 Inhibits Metastatic Potential of Pancreatic Ductal Adenocarcinoma via Downregulation of GPRC5C

Abstract:

DNA mismatch repair gene MutL homolog-1 (MLH1) has divergent effects in many cancers; however, its impact on the metastasis of pancreatic ductal adenocarcinoma (PDAC) remains unclear. In this study, MLH1 stably overexpressed (OE) and knockdowned (KD) sublines were established. Wound healing and transwell assays were used to evaluate cell migration/invasion. In vivo metastasis was investigated in orthotopic implantation models (severe combined immunodeficiency mice). RT-qPCR and western blotting were adopted to show gene/protein expression. MLH1 downstream genes were screened by transcriptome sequencing. Tissue microarray-based immunohistochemistry was applied to determine protein expression in human specimens. In successfully generated sublines, OE cells presented weaker migration/invasion abilities, compared with controls, whereas in KD cells, these abilities were significantly stronger. The metastasis-inhibitory effect of MLH1 was also observed in mice. Mechanistically, G protein-coupled receptor, family C, group 5, member C (GPRC5C) was a key downstream gene of MLH1 in PDAC cells. Subsequently, transient GPRC5C silencing effectively inhibited cell migration/invasion and remarkably reversed the proinvasive effect of MLH1 knockdown in KD cells. In animal models and human PDAC tissues, tumoral GPRC5C expression, negatively associated with MLH1 expressions, was positively correlated with histologic grade, vessel invasion, and poor cancer-specific survival. In conclusion, MLH1 inhibits the metastatic potential of PDAC via downregulation of GPRC5C.

Keywords: GPRC5C; MLH1; metastatic potential; pancreatic ductal adenocarcinoma; prognosis.

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Biography :

Surgical treatment of hepatobiliary and pancreatic diseases Clinical, basic and translational research on pancreatic diseases (pancreatic cancer, pancreatic neuroendocrine tumors, pancreatic cystic tumors, pancreatitis, minimally invasive pancreatic surgery, islet transplantation, immunotherapy, etc.). Major： General Surgery.

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ISBN: 978-1-917892-03-2

Ashok Kumar

IIT Delhi, India

Non-Invasive Diagnostic Signatures and Phytotherapeutics for Breast Cancer Evaluation of Vis-BUS

Abstract:

Breast cancer ranks as the second most common cause of mortality among women. Timely detection and suitable treatment, accompanied by diligent monitoring, are crucial in minimizing the impact of this fatal disease. In the present study, we aimed to identify biomarkers that could assist in early and non-invasive breast cancer diagnosis. We isolated the exosomes from the saliva of HER-2-positive breast cancer patients with grade II ductal carcinoma and performed comparative proteomics using label-free LC-MS. Through comparative proteomics, we observed that most of the differentially expressed proteins (DEPs) were involved in the regulation of enzyme activity, binding with actin filament, regulation of various signalling pathways (VEGF and IL-17 signalling), and neutrophil extracellular trap formation, validated through Western blotting. The obtained salivary biomarkers could be employed in the early diagnosis of HER2-positive breast cancer. Further, towards a therapeutic, we investigated inhibitory effects of Acorus calamus extract on exosome secretion from breast cancer cells. Our approach involved targeting Rab27a and nSMase2 (neutral sphingomyelinase. We observed that treatment with A. calamus significantly downregulated the expression of Rab27a and nSMase2 in all tested breast cancer cells (MDA-MB-453, MCF- 7, and MDA-MB-231). These findings suggest that A. calamus could inhibit exosome secretion, potentially paving the way for cancer therapeutics. In conclusion, we identified salivary exosome proteins as potential biomarkers for early detection of HER2-positive breast cancer. We also found that the aqueous extract of Acorus calamus downregulated Rab27a and nSMase2 in breast cancer cells, leading to reduced exosome secretion compared to the control group.

Biography: Dr. Ashok Kumar Patel is an Associate Professor at the School of Biological Sciences. He earned his Ph.D. from Banaras Hindu University. Dr. Patel has specialized knowledge in biology, with a strong focus on molecular and structural biology, biophysics, and biochemistry. His expertise encompasses chromatin dynamics and its link to diseases, epigenetic regulation, chromatin remodeling, and the mechanisms underlying transcriptional activation and elongation. Additionally, his research includes gene silencing in cancer, DNA replication, recombination, repair, and gene expression. Dr. Patel also investigates histone modifications and the roles of histone deacetylases (HDACs) and other chromatin remodeling factors in regulating the development and function of the heart, muscle, and brain. His work explores the actions of HDAC inhibitors in various developmental and pathological processes.

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5th WORLD FORUM ON BREAST AND CERVICAL CANCER

April 29-30, 2025 | VIENNA, AUSTRIA

Katerina Nikiforaki

Nuclear Medicine, Radiology, and Radiation Therapy departments, University of Crete, Greece

Image Quality Assessment Tool for Conventional and Dynamic Magnetic Resonance Imaging Acquisitions

Abstract:

IQA is an indispensable part of the diagnostic process; either to ensure adequate diagnostic value of MRI images for conventional diagnosis or to enhance the explainability, traceability and fairness aspects of AI supported diagnostic models. IT has been designed to capture all the different aspects related to image quality and diagnostic value by addressing specific questions to the expert regarding the overall perceived quality of the images, the noise and contrast levels as well as the presence of artifacts. Specific questions taking into account the nature of breast MRI acquisitions are also included, i.e. the presence of surgical clips and the performance of fat saturation pulses. The expert's opinion is the only mandatory part in order to conclude an IQA session before saving the result in a txt file. However, additional features have been developed to assist the expert with quantitative evidence on the slices among a series presenting the weakest quality characteristics, at a glance. These functionalities are No-Reference image quality metrics (BRISQUE and Total Variation score per image) saved as plots per image. For dynamic DCE acquisitions, similarity indices between the different time points provide four graphs that are able to highlight indications of patient motion among different time points. The tool can run as a standalone application or it can be deployed through the freely available Mango tool. In the latter case, more functionalities are available, requiring user interaction: Definition of clinically important ROIs, in order to observe spatial variations in SNR and CNR and calculate a number of statistical metrics that capture the quality characteristics and their spatial variation. The rationale for developing such functionalities are to rise above the constraint or non-medically oriented objective quality metrics.

The tool presented herein was developed for the needs of RadioVal project, funded by the EU.

Keywords: Image Quality Assessment, ROIs : Regions of Interest, SNR: Signal to Noise Ratio, CNR: Contrast to Noise Ratio

Biography :

Surgical treatment of hepatobiliary and pancreatic diseases Clinical, basic and translational research on pancreatic diseases (pancreatic cancer, pancreatic neuroendocrine tumors, pancreatic cystic tumors, pancreatitis, minimally invasive pancreatic surgery, islet transplantation, immunotherapy, etc.). Major： General Surgery.

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ISBN: 978-1-917892-03-2

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[2] International Clinical Research Center – Centre of Biomolecular and Cellular Engineering, St. Anne's University Hospital, Brno, Czech Republic

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Role of Hyaluronic Acid Metabolism in Endometrial Receptivity: Insights from RNAseq and Cellular Models

Abstract:

Despite long-term research, the percentage of successfully implanted embryos during in vitro fertilization (IVF) process stays low (ca. 30%) creating a significant number of patients with so called non-receptive endometrium pathological condition. The extracellular matrix (ECM) of the endometrium, the initial interface between the embryo and the endometrial lining, may play a crucial role in embryo implantation. This matrix contains various adhesive molecules that facilitate temporary adhesion, allowing subsequent biological processes to support implantation. Hyaluronic acid (HA), a key ECM component, has been identified as critical in this interaction. This study investigates the role of HA metabolism in endometrial receptivity by analyzing RNA sequencing (RNAseq) datasets from the GEO database. We utilized two endometrial epithelial cell lines as models of receptive and non-receptive endometria: RL95-2 cells, which are moderately differentiated and resemble luminal epithelium in a receptive state, and AN3CA cells, which are poorly differentiated and resemble glandular, thus non-receptive endometrium. Through PCR, proteomics, immunohistochemistry (IHC), and flow cytometry, we assessed differences in HA metabolism between these cell lines. We compared datasets from GEO database of endometrial samples from healthy women with successful pregnancies to those with repeated IVF failures, revealing significant downregulation of HA metabolism in the latter group. The results from in vitro experiments indicated alterations in HA-related gene expression and protein levels, consistent with the differential HA gene expression observed in human endometrial samples. These findings suggest that impaired HA metabolism may contribute to the non-receptive state of the endometrium, providing a potential target for enhancing implantation success in assisted reproduction techniques (ART).

Keywords: endometrium, receptivity, hyaluronic acid, extracellular matrix

Biography :

I am a PhD student focused on female infertility related to non-receptive endometrium. With a bachelor's degree in molecular biology and a master's in immunology, I investigate the mechanisms of endometrial receptivity at the cellular level. Utilizing diverse in vitro methods, my research aims to uncover the underlying factors that contribute to infertility, ultimately seeking to enhance our understanding and treatment of this critical issue.

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ISBN: 978-1-917892-03-2

Mengchun Gong

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Privacy Protection of Sexually Transmitted Infections Information from Chinese Electronic Medical Records

Abstract:

The comprehensive adoption of Electronic Medical Records (EMRs) offers numerous benefits but also introduces risks of privacy leakage, particularly for patients with Sexually Transmitted Infections (STI) who need protection from social secondary harm. Despite advancements in privacy protection research, the effectiveness of these strategies in real-world data remains debatable. The objective is to develop effective information extraction and privacy protection strategies to safeguard STI patients in the Chinese healthcare environment and prevent unnecessary privacy leakage during the data-sharing process of EMRs. The research was conducted at a national healthcare data center, where a committee of experts designed rule-based protocols utilizing natural language processing techniques to extract STI information. Extraction Protocol of Sexually Transmitted Infections Information (EPSTII), designed specifically for the Chinese EMRs system, enables accurate and complete identification and extraction of STI-related information, ensuring high protection performance. The protocol was refined multiple times based on the calculated precision and recall. Final protocol was applied to 5,000 randomly selected EMRs to calculate the success rate of privacy protection. A total of 3,233,174 patients were selected based on the inclusion criteria and a 50% entry ratio. Of these, 148,856 patients with sensitive STI information were identified from disease history. The identification frequency varied, with the diagnosis sub-dataset being the highest at 4.8%. Both the precision and recall rates have reached over 95%, demonstrating the effectiveness of our method. The success rate of privacy protection was 98.25%, ensuring the utmost privacy protection for patients with STI.

Keywords: Chinese Electronic Medical Records, Sexually Transmitted Infections, Privacy Protection, Infectious Disease, Natural Language Processing

Biography: Dr. Mengchun Gong, MD, graduated from the eight-year clinical medicine program at Peking Union Medical College (Peking University Health Science Center) and completed training at Peking Union Medical College Hospital. He has conducted research in pediatric nephrology, health economics, and medical education, with a visit to the University of California, San Francisco. Currently, he is the Senior Vice President and Chief Medical Officer at Shenzhou Medical and Director of the Multi-modal Data Fusion Innovation Application Laboratory at Guangdong Medical University. He has published over 40 papers in top international journals and received the IMIA Best Paper Award in 2020.

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2nd GLOBAL CONFERENCE ON REPRODUCTION, FERTILITY AND GYNECOLOGY

April 29-30, 2025 | VIENNA, AUSTRIA

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[2]Clinic for Urology, Pediatric Urology and Andrology, Justus-Liebig University, Giessen, Germany
[3]2nd Department of Gynaecology, Medical University of Lublin, Lublin, Poland
[4]Bionorica SE, Neumarkt, Germany

Canephron for non-antibiotic therapy of acute uncomplicated UTI and postoperative prevention of UTI in patients after urogynecological surgeries

Abstract:

Background:

Despite of increasing prevalence of bacterial resistance to antibiotics and possible adverse drug reactions (ADRs), uncomplicated lower urinary tract infections (uUTIs) are usually treated with antibiotics, although several clinical guidelines also recommend non-antibiotic therapy of uncomplicated acute cystitis (uAC) in women. The same is true for prevention of postoperative UTI in patients after urogynecological surgeries. In this presentation we would like to summarize the experience with Canephron® N (BNO 1045), a herbal medicinal product containing centaury herb, lovage root and rosemary leaves, as compared with an antibiotic agent such as fosfomycin trometamol (FT) for these two clinical indications.

Material and Methods

In Study A [1] women aged 18–70 years with typical symptoms of newly diagnosed acute lower uUTIs were randomized to BNO 1045 (N=325) or FT (N=334), with corresponding matched placebo. The primary endpoint was the proportion of patients who received additional antibiotics (ABs) to treat uUTIs between Days 1–38 ±3.

In Study B [2] 125 female patients were randomized into two groups before undergoing urogynecological surgeries, including a control group (n = 67), which received one dose of 3g of FT the day after the procedure, and a study group (n = 58), which received BNO 1045 three times a day for 14 days, starting the day after the procedure.

Results

In Study A [1] between Days 1–38, 238 (83.5%) patients in the BNO 1045 group and 272 (89.8%) patients in the FT group received no additional ABs. At a 15% non-inferiority margin, BNO 1045 was non-inferior to FT in treating uUTIs. Adverse event rates were similar between groups, with higher rates of gastrointestinal disorders in the FT group and pyelonephritis in the BNO 1045 group.

In Study B [2] UTIs were observed in 6.4% of the patients after urogynecology surgeries. There was no statistically significant difference between the use of FT and BNO 1045 in terms of UTIs. Additional factors, such as menopausal status and the type of procedure performed, increased the risk of developing a UTI. Factors such as the body mass index (BMI), sexual activity, and parity had no correlation.

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Conclusions

Canephron® N (BNO 1045) is noninferior to FT in the treatment of uAC in women and in prevention of postoperative UTIs in patients urogynecological surgeries. The use of such a phytotherapeutic drug may help to decrease antibiotic consumption, which is closely connected to the growing trend of antibiotic resistance.

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2nd GLOBAL CONFERENCE ON REPRODUCTION, FERTILITY AND GYNECOLOGY

April 29-30, 2025 | VIENNA, AUSTRIA

Yanyuan Wu, Zongping Wang

Zhejiang Cancer Hospital, Hangzhou Institute of Medicine (HIM), Chinese Academy of Sciences, Hangzhou, China

Urinary ATP may be a biomarker of interstitial cystitis/ bladder pain syndrome and its severity

Abstract:

Urinary tract cells exhibit a response to bladder distension by releasing adenosine triphosphate (ATP). Interstitial cystitis/bladder pain syndrome (IC/BPS) patients demonstrate elevated levels of urinary ATP in comparison to asymptomatic controls. The objective of this study was to investigate the potential of urinary ATP as a non-invasive biomarker for IC/BPS and its symptom severity.

This study involved 56 patients diagnosed with IC/BPS, and 50 asymptomatic individuals as controls. Urine were collected from both groups. The level of urinary ATP was measured using a lucigenin-luciferase bioluminescence method. The severity of IC/BPS symptoms was assessed using the visual analogue score (VAS), interstitial cystitis symptom index (ICSI), and interstitial cystitis problem index (ICPI) from the O'Leary-Sant score. The study examined the correlations between symptom scores and urinary ATP levels specifically in patients with IC/BPS.

Urinary ATP were found to be significantly elevated in IC/BPS patients compared to the control group ($p < 0.0001$). Among IC/BPS patients, there was a notable positive association observed between the concentration of urinary ATP and VAS, ICPI, and ICSI ($p < 0.0001$). The threshold value for ATP concentration was determined to be 56.6 nM, with an area under the receiver operating characteristic (ROC) curve of 0.811 (95% CI: 0.730-0.892).

Individuals diagnosed with IC/BPS have been found to excrete higher amounts of ATP in urine. This observation suggests that urinary ATP could potentially be utilized as a non-invasive biomarker for IC/BPS. Furthermore, the levels of ATP in the urine may also possess predictive value in terms of symptom severity.

Keywords: Lower urinary tract symptoms, lower abdominal pain, interstitial cystitis/ bladder pain syndrome (IC/BPS), adenosine triphosphate

Biography: YanyuanWu graduated from Shanghai Jiaotong University School of Medicine. She was jointly supervised by Professor Jun Qi (a Clinical Urologist), Professor Weifang Rong (a basic scientist with a research interest in bladder physiology and dysfunction) and Professor Weihong Tan (a academician in the field of analytical chemistry). Her current research focuses on ion channels and receptors in hypersensitive bladder.

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2ND GLOBAL CONFERENCE ON GYNECOLOGY AND WOMEN'S HEALTH

April 29-30, 2025 | VIENNA, AUSTRIA

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Federal State Autonomous Educational Institution of Higher Education "N.I. Pirogov Russian National Research Medical University" of the Ministry of Health of the Russian Federation[1]; Federal State Autonomous Educational Institution of Higher Education «Peoples' Friendship University of Russia» Patrice Lumumba[2], Russian Federation

Cervical-Endometrial Immune metabolome in Unknown genesis of Recurrent Pregnancy Loss

Abstract:

To investigate the mechanisms of endocervical cell proliferation disorders in women with RPL of unknown genesis by examining human papillomavirus (HPV) typing, and the expression levels of key molecular biological markers. A prospective observational comparative study was executed on women with RPL and healthy pregnant controls with full ethical approval. Samples were collected for HPV typing and immunocytochemical analysis to evaluate the expression of p16, Ki-67, BCL-2, and the anti-oncogenic microRNAs (miR-145 and miR-34a). The expression of mRNA for the progesterone receptor (PGR-A) was also assessed, alongside local immune status markers, including proinflammatory T-lymphocytes (Th17/Th1) and regulatory CD4+ Tregs. Overexpression of p16, Ki-67, and BCL-2 was observed in 52.5% of women with RPL who had an ASC-US/LSIL cytogram, with the average double expression of p16/Ki-67 being three times higher than in the healthy pregnant group. A significant decrease in PGR-A mRNA expression in the endocervix of women with RPL was noted, accompanied by a dysregulated local immune status characterized by an increased prevalence of Th17/Th1 cells and a reduction in regulatory CD4+ Tregs. The expression of miR-145 and miR-34a in the endocervix and endometrium of women with RPL significantly differed from the physiological pregnancy group, particularly in the context of high-risk HPV infection. The findings describe that disorders of endocervical cell proliferation in women with RPL of unknown genesis are associated with overexpression of specific molecular markers, impaired immune regulation, and altered microRNA profiles. These alterations may contribute to the pathophysiology of RPL, highlighting the need for further research into targeted interventions that could improve reproductive outcomes in affected individuals.

Keywords: recurrent pregnancy loss, miRNAa, HPV, p16/Ki-67

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ISBN: 978-1-917892-03-2

INTERNATIONAL SYMPOSIUM ON WOMEN'S HEALTH: BREAST AND CERVICAL CANCER

April 29-30, 2025 | VIENNA, AUSTRIA

G Richter, P Richter, K Murad

Insitute of Pathology, Hameln, Germany

TFAP2A downregulation mediates tumor-suppressive effect of miR-8072 in triple-negative breast cancer via inhibiting SNAI1 transcription

Abstract:

Aims:. In 2020 in Germany, co-testing with Pap smear and HPV etection was introduced. In the present study, we retrospectively analyzed to which extent the women diagnosed with cervical cancer had participated in the national screening program. Additionally, we examined whether those who had undergone screening received appropriate follow-up care for abnormal findings.

Methods: In 2024, 11 cervical cancers were diagnosed at our institute. The patients were from Germany, primarily northern regions. In all cases, the diagnosis was confirmed using histology. We retrospectively examined whether these women had participated in the German national cervical cancer screening program.

Results: 8 out of 11 women had not undergone cytological and/or HPV testing in the years preceding their cancer diagnosis. Three women had previously received abnormal Pap smear (all classified as Pap III D1) and positive HPV results, but their findings were not followed up according to standard protocols. The average age at the time of cancer diagnosis was 55 years.

Discussion: The significant reduction in cervical cancer incidence in Germany can be attributed to the successful early detection program. However, our study indicates two critical issues. On one side, the greater part of the affected women had not participated in the screening program prior to the diagnosis, when on the other side women who had undergone cytological and HPV testing, abnormal findings were not consistently followed up by colposcopy as recommended by standard protocols. Therefore, increasing the participation rate and securing consistent follow-up of abnormal findings should be prioritized to further reduce the incidence of cervical cancer.

Keywords: cervical cancer, screening, cytology, HPV testing

Biography: after finishing school with „Abitur“

1989-90 military duty in the “Scharnhorst Kaserne / Bundeswehr” in Hanover

1990-96 Medicial School Hanover

Work experience

1996-1997 first-year resident in neurology (Hedon-Klinik, Lingen)

1998-1999second-year resident in pathology (University of Magdeburg)

1999-2001intern in pathology (University of Regensburg)

2001-2003intern in pathology (Centralhospital St.-Jürgen-Strasse Bremen)

since 2003 specialist in pathology

since 2004 consultant (Institute of Pathology, Burgwedel)

since 2007 satellite pathology at Hospital Hameln

since 2011 director (Institute of Pathology, Hameln)

doi.org/10.51219/URForum.2025.Georg-Richter

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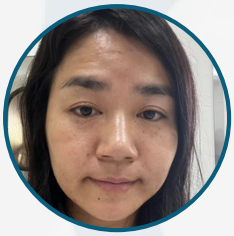
2nd GLOBAL CONFERENCE ON REPRODUCTION, FERTILITY AND GYNECOLOGY

April 29-30, 2025 | VIENNA, AUSTRIA



Ani Ma, Yali Yang, Lianbao Cao, Lijun Chen, Jian V. Zhang

Center for Energy Metabolism and Reproduction, Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences, 518055, Shenzhen, Guangdong, China

FBXO47 Is Key Component of The Centromeric SCF E3 Ligase Complex That Regulates Centromere Pairing for Pachynema Progression in Mouse Spermatocytes

Abstract:

Centromere pairing is crucial for synapsis in meiosis. This study delves into the Skp1-Cullin1-F-box protein (SCF) E3 ubiquitin ligase complex, specifically focusing on F-box protein 47 (FBXO47), in mouse meiosis. Here, we discovered that spermatocytes deficient in centromere-expressed FBXO47 encounter difficulties with double-strand break (DSB) repair and arrest at a stage resembling pachytene, displaying unstable centromere pairing. Defective centromere pairing leads to the disintegration of the synaptonemal complex (SC) in chromosomes and disrupts the telomere-nuclear envelope (NE) attachment system during the pachytene stage. Immunoblotting analysis revealed that the deletion of FBXO47 impairs the expression of centromere protein C (CENP-C) and SC components beginning at this pachytene-like stage. This coincides with the depletion of its partner SKP1 at centromeres and chromosomes in Fbxo47$^{-/-}$ spermatocytes. Notably, the patterns observed in FBXO47-deficient mice—specifically, the return recruitment of HORMAD1 on chromosomes and the reduction of CENP-C are similar to those in SKP1-deficient mice. Furthermore, co-immunoprecipitation (Co-IP) analysis indicates that FBXO47 interacts with SKP1, playing a crucial role in stabilizing it by reducing its ubiquitination in the HEK293 cell line. Our findings suggest that the SCF complex formed at centromeres is essential for stabilizing centromere pairing, likely through the regulation of HORMAD1 during meiosis.

Keywords: FBXO47, meiosis, DSB, synapsis, centromere pairing

Biography :

1) meiosis focusing on FBXO47
2) endocrinology focusing on Spexin

doi.org/10.51219/URForum.2025.Ani-MA

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2nd GLOBAL CONFERENCE ON REPRODUCTION, FERTILITY AND GYNECOLOGY

April 29-30, 2025 | VIENNA, AUSTRIA

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[3]Specialist Perinatal Mental Health Service, University Maternity Hospital Limerick, Limerick, Ireland

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Cannabinoid hyperemesis syndrome in pregnancy: a case series and review

Abstract:

Background: Cannabinoid hyperemesis syndrome (CHS) is a syndrome of cyclic nausea and vomiting in the setting of chronic cannabis use. To date, only 11 cases of CHS in pregnancy have been reported.

Case presentation: We describe two cases of uncontrolled vomiting in pregnancy due to CHS. Case 1 represents a 30-year-old Caucasian woman presenting in the 5th week of gestation with nausea, vomiting and abdominal pain intermittently of 1 week duration. Physical work-up was normal, and symptoms resolved with supportive treatment within 3 days, only to occur again at the 14th week of gestation, and again at the 30th week of gestation. Link between symptom relief and hot bathing led to suspicion for CHS, confirmed with positive cannabis urine toxicology screening. Nausea, vomiting and pain subsided with cannabis cessation, and baby was born healthy at 38+5 weeks gestation. Case 2 describes a 28-year-old Caucasian woman presenting in the 16th week of gestation with nausea, vomiting and abdominal pain. Physical examination was normal, and symptoms self-resolved. Two weeks later, in the 18th week of gestation, the patient re-presented to the emergency room with sudden re-occurrence of nausea, vomiting and abdominal pain. Once again, a link between symptom relief and hot bathing was noted on admission. The patient was educated on possible links of chronic cannabis use with CHS symptoms and subsequently relayed extensive (>14 years) cannabis use history. Symptoms resolved with cannabis cessation. Baby was born at 37 weeks gestation, with low birth weight of 2180 g requiring 5 days neonatal intensive care unit (NICU) treatment. Regular follow-up up to 5 months post-partum confirmed no CHS relapse with cannabis cessation.

Conclusion: CHS in pregnancy is likely under-reported, reflective possibly of limited physician and patient awareness of this condition, as well as patient concealment of cannabis use in pregnancy. In cases of severe, cyclic nausea and vomiting in pregnancy unresponsive to typical anti-emetic treatment, comprehensive social history including cannabis use should be sought, and associated hot bathing for symptomatic relief out-ruled.

Keywords: Cannabis, hyperemesis gravidarum, cyclic vomiting, hot water bathing, pregnancy

Biography: Dr Sarah Hanley is a Consultant General Adult Psychiatrist, and Consultant Perinatal Psychiatrist currently working in Galway University Hospital, Ireland. Dr Hanley has a masters in Psychoanalytic Psychotherapy from Trinity College Dublin, and a diploma in Neurodiversity from University College Dublin, and diploma in Mindfulness from University College Cork. Specialist areas of interest included ADHD and ASD in peripartum, as well as medical psychotherapy. Dr Hanley is a trained in Mentalization-Based Treatment therapist.

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2nd GLOBAL CONFERENCE ON REPRODUCTION, FERTILITY AND GYNECOLOGY

April 29-30, 2025 | VIENNA, AUSTRIA

Salvatore Condello

Indiana University School of Medicine, Indianapolis, IN, USA

Integrin-Linked Kinase–Frizzled 7 Axis: A Novel Target Bridging Cancer Stem Cells and the Tumor Niche

Abstract:

Ovarian cancer (OC) is the deadliest gynecological malignancy characterized by chemoresistance and peritoneal recurrence. This has been attributed partly to persistence of ovarian cancer stem cells (OCSCs) at the end of primary treatment. The plasticity of OCSC allows them to survive and to be enriched during disease progression as well as after chemotherapy. Therefore, development of novel therapeutic strategies exploiting key biological mechanisms regulating cancer progression will significantly impact outcomes of patients suffering the complications of this aggressive cancer. The focus of our research was to understand how integrin-linked kinase (ILK), an enzyme found to be active in ovarian tumors, protected OCSC and stimulated their growth. Our results demonstrated increased fibronectin, integrin β1, and active-phospho-ILK at Ser246 in spheroids and chemoresistant OC cells. Mechanistically, the Wnt receptor frizzled 7 (Fzd7) activated ILK and amplified Wnt-3A signals with increased β-catenin-TCF/LEF1 transcriptional activity. Fzd7 and ILK blockade in combination with carboplatin reduced β-catenin nuclear translocation and inhibited Akt activation with consequent increased levels of cleaved-caspase-3 compared to single agent alone, indicating sustained apoptotic damage, significant decrease in the expression levels of stemness-related genes, spheroid proliferation, and tumorigenicity in mice.

Keywords: frizzled 7, integrin-linked kinase, tumor microenvironment, cancer stem cells

Biography: Dr. Condello is an Assistant Professor (tenure track) in the Department of Obstetrics and Gynecology at Indiana University School of Medicine in the subspecialty of Gynecology Oncology. His ongoing research is focused in identifying and validating oncogenic pathways and metabolic pattern alterations correlated with ovarian cancer stem cells survival and proliferation, with the final aim to find new functional target genes and test novel therapeutics.

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5th WORLD FORUM ON BREAST AND CERVICAL CANCER

April 29-30, 2025 | VIENNA, AUSTRIA

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[2]Senoguard, Seal Beach, CA, 90740, USA
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In Vitro Assessment of Cryoablation Procedural Variables and a Novel Cryoprobe for the Treatment of Breast Cancer

Abstract:

Cryoablation is an effective treatment for breast cancer (BC), yet its clinical use remains limited. Recent advancements, including combination therapies and its potential as an alternative to post-lumpectomy radiation, are positioning cryoablation as a key innovation in breast cancer treatment. Whether applied as a primary or adjunctive treatment, one challenge is achieving minimal lethal temperature (MLT) which results in complete cell destruction throughout the target tissue. Complicating this is the MLT varies for a given tissue/cancer type. In this study we 1) assessed cell death at various temperatures to identify the MLT for BC, assessed the impact of repetitive freeze-thaw cycles, and 2) evaluated a novel cryoprobe for post-lumpectomy cavity treatment. Cell Studies: MCF-7 cells were exposed to -10, -15, -20, or -25°C for 5 minutes, followed by passive or active thawing for 5 or 10 minutes. Cell survival and modes of death were assessed over 3 days post-freeze. Minimal cell death occurred at -10°C, while -25°C yielded complete destruction. Single freeze cycles at -15°C and -20°C yielded gradual cell death, whereas repeat a freeze achieved complete destruction at -20°C and near-complete death at -15°C (-15°C Day 1 survival: single: 20% vs. repeat: 4%). Shorter thaw intervals (5 minutes) and passive thawing enhanced ablation efficacy (-15°C repeat freeze: passive: 4% survival vs. active: 29%). Cryoprobe Studies: Assessment of the novel cryoprobe revealed the ability to deliver the -20°C isotherm to a depth of 1 cm within 3 minutes and the -40°C isotherm within 5 minutes. These findings suggest that repeat freeze-thaw cycles and advanced cryotechnologies can optimize BC cryoablation and offer a potential as an adjunct to surgery as an alternative to post-lumpectomy radiation therapy.

Keywords: Cryoablation, Breast Cancer, Focal Therapy, Apoptosis,

Biography :

John M. Baust, Ph.D., is pioneer in cryomedicine. His research on the molecular mechanisms of cell death and low temperature stress has been instrumental in advancing the field of cryoablation. Baust's efforts have resulted in the identification of a significant molecular stress response component to freezing injury which is responsible for the differential sensitivity of various cancers to freezing. He has developed numerous cryoablation devices for the treatment of cancer as well as for improved cell cryopreservation. Dr. Baust has founded 4 companies; >100 publications; >75 patents; serves on several editorial boards and is President-Elect of the Society for Cryobiology.

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5th WORLD FORUM ON BREAST AND CERVICAL CANCER

April 29-30, 2025 | VIENNA, AUSTRIA

Cai Jiahui

Beijing Hospital, China

The mechanism of transcription factor GATA3 in esophageal squamous cell carcinoma

Abstract:

GATA3 is a transcription factor. In this study, a comprehensive analysis of whole transcriptome data from ESCC and adjacent tissues revealed a significant enrichment of GATA3 and its regulatory pathway in ESCC. Validation from multiple ESCC gene expression datasets confirmed the upregulation of GATA3, underscoring its pivotal role in ESCC. Subsequent functional experiments further substantiated that GATA3 plays a crucial role in promoting the proliferation of ESCC cells both in vitro and in vivo. To further elucidate the molecular mechanisms, ChIP-seq was performed to define the GATA3 cistrome. The enriched motif was discovered by MEME. The differential expressed genes were analyzed by whole-transcriptome sequencing. Interactions between GATA3 and co-factors were verified with co-immunoprecipitation. The binding of GATA3 and co-factors at same genomic location was examined by sequential ChIP. The transcriptional regulation of GATA3 on target genes was validated by ChIP-qPCR, RT-qPCR and Western Blot. Clinical sample analysis indicated that the high transcriptional activity of the GATA3/ATF4/target gene regulatory axis not only closely correlates with the degree of malignancy in tumor cells but also exhibits a significant association with the activation of cancer-associated fibroblasts (CAFs), suggesting a potential oncogenic role for this regulatory axis, likely through its modulation of tumor-microenvironment interactions.

In summary, this study revealed the critical roles of GATA3 in driving the malignant phenotypes of ESCC. We systematically elucidated the molecular mechanisms by which the GATA3/ATF4/target gene regulatory axis drive the proliferation of ESCC cells. This finding provides new potential therapeutic targets for ESCC patients and is expected to serve as an important basis for the development of novel targeted treatment strategies for ESCC.

Keywords: esophageal squamous cell carcinoma, GATA3, oncogene, CAFs

Biography :

I am currently serving as an Assistant Researcher at Beijing Hospital since 2024. I earned her Bachelor's degree from Peking University between 2015 and 2019, followed by a Ph.D. at Cancer Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College from 2019 to 2024.With a strong foundation in medical research, I am committed to advancing healthcare practices and contributing to the development of innovative solutions in cancer research. My focus remains on improving patient care and furthering the scientific understanding of medical conditions through my ongoing work.

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5th WORLD FORUM ON BREAST AND CERVICAL CANCER

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Christina M. Dieli-Conwright

PhD, MPH, Dana-Farber Cancer Institute, Harvard Medical School, Boston, MA, USA

Effect of Aerobic and Resistance Exercise on Metabolic Syndrome among Breast Cancer Survivors: 5-year follow-up to a randomized controlled trial

Abstract

Breast cancer survivors experience many treatment-related side effects, including the development of metabolic syndrome (MetS) which is associated with poor prognosis and higher risk of mortality. We previously reported that a 16-week aerobic and resistance exercise intervention significantly improved MetS among sedentary, overweight/obese breast cancer survivors. We sought to determine whether improvements in MetS were maintained 5-years post-intervention among sedentary, overweight/obese breast cancer survivors. We conducted a 5-year follow-up study after the completion of a 16-week, two-armed randomized controlled trial comparing a combined supervised aerobic and resistance exercise program to a usual care group. The sample included 84 sedentary breast cancer survivors that were overweight or obese (Body mass index ≥ 25.0 kg/m^2). No intervention was conducted during the follow-up period. Waist circumference, blood pressure, and fasting blood samples were obtained 5 years following the post-intervention timepoint. MetS z-score was calculated by assessing waist circumference, blood pressure, fasting levels of high-density lipoprotein cholesterol (HDL-C), triglycerides, and glucose. Participants with follow-up data (N=84) were aged 58.9 ± 10.2 years old, were mostly obese (52%), and 70% were ethnic minorities. The change in MetS z-score from post-intervention to follow-up was significantly lower among the exercise group compared to the usual care group (mean difference -2.4; 95% CI, -4.7 to -0.5; p=0.001). The attenuated increase of MetS z-score in the exercise group compared to the usual care group suggests that exercise might have a beneficial long-term effect on MetS. Therefore, an exercise intervention may be able to attenuate the increased risk of MetS in breast cancer survivors over a 5-year follow-up period.

Keywords: exercise, breast cancer, metaolbic syndrome

Biography: Christina M. Dieli-Conwright is an Associate Professor of Medicine at the Harvard Medical School and in the Division of Population Sciences of the Department of Medical Oncology at the Dana-Farber Cancer Institute. She holds a secondary appointment as Associate Professor of Nutrition in the Department of Nutrition at the T.H. Chan Harvard School of Public Health. Her research is focused on examining mechanisms by which post-diagnosis exercise can impact cancer prognosis with a specific focus on biomarkers of metabolic dysregulation related to tumor growth, inflammation, gut microbiome, and body composition. Dr. Dieli-Conwright has a history of funding from the National Cancer Institute, American Cancer Society, Department of Defense, American Institute for Cancer Research, Pfizer, and foundation grants.

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TFAP2A downregulation mediates tumor-suppressive effect of miR-8072 in triple-negative breast cancer via inhibiting SNAI1 transcription

Abstract:

Triple-negative breast cancer (TNBC) is a highly aggressive subtype of breast cancer characterized by challenging clinical management and poor prognosis. While TFAP2A, a member of the AP-2 transcription factor family, is known to maintain the basal phenotype of breast cancer, its specific regulatory role in TNBC has remained undefined. In this study, in vitro assessments using MTS, colony formation, and EdU assays were conducted to evaluate TNBC cell growth and migratory potential. Quantitative PCR and Western blot analyses were employed to assess mRNA and protein expression levels, as well as the phosphorylation status of AKT and ERK. The post-transcriptional regulation of TFAP2A by miR-8072 and the transcriptional activation of SNAI1 by TFAP2A were investigated through luciferase reporter assays. A xenograft mouse model was used to evaluated the in vivo growth capacity of TNBC cells. The results demonstrated that selective silencing of TFAP2A significantly inhibited TNBC cell proliferation and migration, with elevated TFAP2A expression observed in breast cancer tissues. Notably, TNBC patients exhibiting heightened TFAP2A levels experienced shortened overall survival. Mechanistically, TFAP2A was identifed as a transcriotional activator of SNAI1, a crucial regulator of epithelial-mesenchymal transition (EMT) and cellular proliferation, thereby augmenting the oncogenic properties of TFAP2A in TNBC. Moreover, miR-8072 was unveiled as a negative regulator of TFAP2A, exerting potent inhibitory effects on TNBC cell growth and migration

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INTERNATIONAL SYMPOSIUM ON WOMEN'S HEALTH: BREAST AND CERVICAL CANCER

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Isadora Cristina Ribeiro

School of Medical Sciences, Brazil

Effect of Resistance Training on Cognition, Physical Performance, and Brain Anatomy in Older Adults with Mild Cognitive Impairment

Abstract:

INTRODUCTION: Alzheimer's disease is the most prevalent dementia in the world and has a high socioeconomic impact. Mild cognitive impairment (MCI) refers to the unnatural cognitive loss of aging with preservation of independence in activities of daily living. Individuals with this diagnosis have a higher risk of developing dementia. Non-pharmacological interventions, such as physical exercise, are beneficial for the cognition of this population. However, the impact of resistance training (RT) on the brain anatomy of elderly with MCI has not yet been clarified. This study aimed to investigate the impact of RT on cognition, functionality and brain anatomy (gray matter volume and white matter integrity) of elderly individuals with MCI. METHODS: Forty-four elderly individuals diagnosed with MCI were evaluated, 22 in the training group (TG) and 22 in the control group (CG). Participants were evaluated in neuropsychological tests and magnetic resonance imaging at the beginning and end of the study, which lasted 24 weeks. The TG was also evaluated for physical performance. We used repeated measures ANOVA within a general linear mixed model to compare moments (pre- and post-intervention) and groups (control and training). We included age and education as covariates. The values were corrected for multiple comparisons using False Discovery Rate. RESULTS: The TG showed better performance in the Rey Auditory Verbal Learning Test, body mass index, waist-to-hip ratio, physical activity level, Timed Up and Go test, Sit-to-Stand Test and upper and lower limb muscle strength after 24 weeks of training. The CG showed a significant decrease in gray matter volume in the hippocampus and precuneus (right and left hemispheres), while the TG showed no reduction in the right hippocampus and precuneus. However, it showed a decrease in the volume of these regions on the left side and in the left superior frontal gyrus. In the analysis of white matter integrity, fractional anisotropy increased in the TG and decreased in the CG. Axial diffusivity decreased in the TG, while radial diffusivity increased in the CG, and mean diffusivity varied, increasing and decreasing in both groups according to the tract evaluated. CONCLUSION: RT improved memory performance, anthropometric measures, and functional capacity in elderly individuals with MCI. Furthermore, it appears to play a protective role against atrophy of the hippocampus and precuneus (right hemisphere) and positively influences white matter integrity parameters.

Keywords: Dementia; Alzheimer Disease; Resistance Training; Magnetic Resonance Imaging; Diffusion Magnetic Resonance Imaging.

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2ND GLOBAL CONFERENCE ON GYNECOLOGY AND WOMEN'S HEALTH

April 29-30, 2025 | VIENNA, AUSTRIA

Narges Elahi

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Stem Cell versus Exosome Therapy for Premature Ovarian Insufficiency: A Review of Characteristics, Limitations and Challenges

Abstract:

Premature ovarian insufficiency (POI), a condition causing varying levels of infertility, is a challenging disorder in the world. Emerging treatments involve mesenchymal stem cell (MSC) therapy and its exosome derivatives. The characteristics, drawbacks, and challenges associated with using MSCs and exosomes to treat POI have been explored in this study. It offers insights for researchers, aiding in the selection of appropriate chemicals, optimization of dosages, and other crucial considerations for clinical and experimental approaches. While MSC therapy has demonstrated the ability to improve ovarian function in some animal models of POI, it also presents limitations such as high costs, complex cell culture requirements, and potential for adverse effects. Exosomes, a more recent therapeutic approach, have demonstrated early promise in animal trials but require further in-depth study. Overall, existing data on both MSC and exosome treatments for POI are limited and further investigation is needed to confirm the safety and efficacy of both MSC and exosome therapies for women with POI. This study offers a novel perspective for future research into cell and exosome-based treatments for POI.

Keywords: Premature Ovarian Insufficiency, Treatment, Stem cell, Exosome, Prospective

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2ND GLOBAL CONFERENCE ON GYNECOLOGY AND WOMEN'S HEALTH

April 29-30, 2025 | VIENNA, AUSTRIA

Vivette Glover MA. PhD, DSc

Imperial College London, London, UK

Stem Cell versus Exosome Therapy for Premature Ovarian Insufficiency: A Review of Characteristics, Limitations and Challenges

Abstract:

About 15 % of women in high income countries, and up to double that in low income countries, suffer from depression and anxiety during pregnancy. If the woman is in the top 15% for such symptoms (even without meeting criteria for a disorder), her child has double the risk of a probable mental health disorder later, after allowing for a wide range of confounders. There is also an increased risk of ADHD, conduct disorder, being on the autistic spectrum and cognitive problems. Stress from other factors such as abuse from her partner can also have such long term effects on the child. We are starting to understand the biological mechanisms that may underlie such fetal programming. There can be alterations in the function of the placenta in response to prenatal stress, that allows more cortisol to pass from mother to fetus, and this can alter the development of the fetal brain.

It is thus very important to detect symptoms of depression and anxiety during pregnancy as well as other forms of stress, such as from partner violence or food insecurity. All pregnant women should be assessed for these problems and help provided as appropriate. Antidepressants can be safe and helpful if needed. But many other interventions can be effective too, such as talking therapies or yoga. Recent research is showing that music may be beneficial, and be especially useful in low income countries where other professional services may not be available. We need to help with much more than diagnosed mental disorders, for the sake of both the mother and her future child.

Keywords: prenatal, stress, anxiety, depression, fetus, child, interventions

Biography: Vivette Glover is Visiting Professor of Perinatal Psychobiology at Imperial College London. Her research has shown how the emotional state of the mother during pregnancy can have adverse effects on the developing fetus and longer term on the child, especially on neurodevelopment.Her group has also shown some of the underlying biological mechanisms. She has published over 330 papers in peer reviewed journals. This work has contributed to changes in UK government policy, including more funding for perinatal mental health. She is currently also carrying out collaborative research in Africa and India about how music can help reduce perinatal stress.

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Factors Associated with Low Birth Weight in Low-Income Populations in Western Balkans: Insights from the Multiple Indicator Cluster Survey

Abstract:
Low birth weight (LBW) remains a significant public health concern with multifactorial risk dimensions. This study aimed to examine the association between socio-demographic and reproductive characteristics of women from low-income households and the incidence of LBW in Serbia, Kosovo, and Montenegro. Using data from the Multiple Indicator Cluster Survey – Round 6, we conducted a secondary analysis of 1,019 women aged 15–49, whose households fell within the first or second wealth quintiles and who had given birth to a live child in the two years preceding the survey. Univariate regression analysis revealed that LBW was significantly associated with residence in Roma-majority settlements, urban living, early marriage or union (before age 18), low education levels, higher illiteracy rates, and lack of antenatal care by a medical doctor. Multivariate logistic regression identified two significant predictors of LBW: maternal illiteracy (OR: 1.741; 95% CI: 1.060–2.859) and antenatal care not provided by a medical doctor (OR: 2.735; 95% CI: 1.229–6.087). These findings highlight the need for targeted social interventions to improve female literacy and ensure equitable access to qualified antenatal care across underserved populations in the Western Balkans.

Keywords: low birth weight, socio-economic factors, illiteracy, antenatal care, wealth index

Biography: Medical Doctor and Public Health Specialist with over 30 years of experience in healthcare organization and management, reproductive and perinatal health improvement. Currently working at the Gynecology and Obstetrics University Clinic Narodni Front in Belgrade, Serbia. A PhD candidate at the Institute of Social Medicine, Faculty of Medicine, University of Belgrade. Author and co-author of numerous publications and articles in the field of public health, with a strong commitment to advancing maternal and child health in low-resource settings.

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[2]Ecole polytechnique, Institut Polytechnique de paris, Palaiseau, France

[3]Institute of the Cervix, Paris, France

A multimodal deep-learning model for cervical pre-cancers and cancers prediction : Development and internal validation study

Abstract:

The current cervical cancer screening and diagnosis have limitations due to their subjectivity and lack of reproducibility. We describe the development of a deep learning (DL)-based diagnostic risk prediction model and evaluate its potential for clinical impact. We developed and internally validated a DL model which accommodates both clinical data and colposcopy images in predicting the patients CIN2+ status using a retrospective cohort of 6356 cases of LEEP-conization/cone-biopsy (gold-standard diagnosis) following an abnormal screening result. The overall performance, discrimination, and calibration of the model were compared to expert clinician's colposcopic impression. The potential for clinical impact was assessed with rate of unnecessary conizations that could be avoided by using our model. The model combining clinical history and colposcopy images demonstrated superior performance prediction of CIN2+(AUC-ROC = 95.3 %, accuracy = 90.8 %, PPV = 94.1 %, NPV = 87.9 %) and better calibration compared to models that used image or clinical history data alone and outperformed clinician's colposcopic impressions. Moreover, if a decision threshold of 10 % is applied to the predicted probability from this model to recommend conization, up to 35 % of conizations could be avoided without missing any true CIN2+ cases. We present a novel DL model to predict cervical neoplasia with potential for reducing unnecessary conization. External validation studies are warranted for assessing generalizability.

Keywords: Artificial Intelligence, CIN, Cervical cancer, Colposcopy, Risk prediction, Deep learning

Biography :

After two years of preparatory classes, I successfully entered Ecole Polytechnique, the most renowned engineering school in France, which provided me with a strong innovative and scientific mind. I then had the opportunity to do a Life Sciences master's degree at the Ecole Polytechnique Fédérale de Lausanne, renowned for its major advances in biomedical sciences. During these years, I had the opportunity to partner with Professor Joseph Monsonego, well-known for his dedicated years of work towards better treatment and prevention of cervical cancer; this partnership allowed to create, present and publish results about a state-of-the-art deep-learning model improving by far precancer detection.

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INTERNATIONAL SYMPOSIUM ON WOMEN'S HEALTH: BREAST AND CERVICAL CANCER

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Roshan Kumar

School of Pharmacy, Maya Devi University, Dehradun, India

GESTIONAL BREAST CANCER DIAGNOSIS, MANAGEMENT AND THEIR OUTCOMES

Abstract:

Breast cancer remains one of the most prevalent malignancies affecting women worldwide, with significant implications for both health outcomes and quality of life. The intersection of breast cancer and pregnancy presents a unique set of challenges, given the complexities of treating cancer during gestation while safeguarding both maternal and fetal health. Pregnancy itself can alter the biology of breast cancer, sometimes leading to delayed diagnoses due to physiological changes in breast tissue, while treatment options may be limited due to concerns over teratogenicity and maternal safety. Lifestyle factors play a crucial role in both the prevention and management of breast cancer, with regular physical activity, balanced nutrition, and the management of stress being essential components of overall health. Recent research underscores the importance of early screening, individualized treatment plans, and lifestyle modifications in improving outcomes for pregnant women with breast cancer. This abstract highlights the need for comprehensive care that integrates oncological and obstetric expertise, while emphasizing the positive impact of lifestyle interventions in enhancing the well-being of both the mother and the unborn child during breast cancer treatment.

Keywords: Breast Cancer, Carcinoma, Mammography, Tumor, Radiotherapy, Hormone Receptor Positive

Biography: Mr. Roshan Kumar Completed his B. Pharmacy form I. K GUJRAL Punjab Technical University, Punjab India. M. Pharm (Pharmacology) from Uttarakhand Technical University, Dehradun. He Pursue Ph. D in (Pharmacology) from, Maharaja Agrasen University, Baddi. He is Currently working as Assistant Professor, School of Pharmacy, Maya Devi University, Dehradun. He has guided more than 25+ B. Pharm Students and assist in Lab work and Publication Support. He has organized many hospital visits, Industrial Visits B. Pharm and D. Pharm students.He has also Life Member of various Society like IPA, IPGA, IHPA, IOA, CPA,NFPS,APPI, etc. Roshan received Award "BEST STUDENT UG AWARD" by National forum of Pharmacy Student in Association with SBS Group, Punjab. He has also Awarded "Bihar HEOR Best Health care Award" by IPGA during COVID-19. He has also received "Emerging Health Care Best Boy Award" & "Student Leadership Award" by Himachal College of Pharmacy. He has also received "Young Scientist Award" by SERB Board Mumbai" He has also received "Emerging Scientist Award" by Miser, Tamil Nadu. He also received "Young Scientist award in Pharmacology 2023" by LR group of insititute, kathog, HP. He has also received "Researcher of the year Award 2023" by IPGA. Uttarakhand Branch Organized by RSMC, Bahadrabad, Haridwar. "Pharma Sodha Ratna Award 2024" by Gautam College of Pharmacy, Hamirpur, HP."Sodha Ratn Award 2024, IPGA Uttarakhand Branch. Roshan Has Published 95+ Research/ Reviews with reputated Journal EC B, NVEO, IJRASB, JMMAR, JRASB, BIOMEDICA, JCDR, ANCB, JETIR, JDTT, IJPR, IJPER ,JDDTS, JFS, E Food, JPP, JPPR, FJPT, NB, CCR, etc. He has also Published 8 Indian Formulation Patent, 7Design Patent, 14 Copyright 27 Book Chapter. 9 Edited Book as author & Editor He has attended 50+ international and National Symposium, Conference, Seminar, Workshop and also conducted Several conferences, webinar by Bio leagues, APTI, DST, DBT, SERB, NFPS,IOA,IPGA,IHPA,IPA Organization as (Organizing Committee Member), Resource Person, Chairperson, Session Chair, Session Co- Chair, Convener, Patron. He is Editorial Board / Associated Editor/ Reviewer Member for 45+ International & National Peer Reviewed Journals. Kumar is also Bentham Science, Elsevier Ambassador from 2017 to till now. His Research Interest are Novel Drug delivery system, Clinical Practice Study, Tropical Neglected disease, Policy research, Epidemiology and Genomics etc.

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Addressing the unmet needs of women with breast cancer in Mexico: a non-randomised pilot study of the digital ePRO intervention

Abstract:

Introduction: The incidence of breast cancer has increased in Mexico in the past 60 years, and the cancer treatment typically involves a combination of local and systemic treatments whose side effects can negatively impact a patient's physical and emotional health and quality of life, potentially interrupting cancer treatment and decreasing the patient's chances of survival. Patient-reported outcome measures (PROs) have been developed to guide patient-centred care by aligning health services with patients' values. Electronic PRO (ePRO) interventions have been proposed to facilitate patient-centred cancer care.

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Objectives: The Mexican Institute of Social Security (IMSS) is Mexico's largest public healthcare system: it provides healthcare to over 70 million people. In 2022, IMSS treated 71 000 women for breast cancer. Nearly all women treated for breast cancer at IMSS reported at least one unmet supportive care need, including health systems and information needs as well as psychological, physical, sexuality and patient care needs. To address the supportive care needs of women with breast cancer at IMSS, we designed an intervention combining a responsive web application registry to capture symptoms and supportive care needs with proactive follow-up by nurses guided by predefined clinical algorithms.

Methods: We conducted a multimethod non-randomised pilot study from August 2023 to February 2024 within the oncology services of three IMSS hospitals. We used a pre-test/ post-test design for quantitative assessment of the intervention's effect on patients' supportive care needs and quality of life. women between 20 and 75 years diagnosed with stage I–III breast cancer who: have started neoadjuvant or adjuvant treatment with chemotherapy or radiotherapy within the past 2 weeks; have access to the internet via mobile phone, computer, or tablet; and provided written informed consent. Women who agreed to participate were assigned a username and password to access the ePRO application and were trained on its use. On this platform were entered weekly symptoms report asked about the presence and severity of 20 symptoms commonly experienced by women with breast cancer during neoadjuvant and adjuvant chemo and radiotherapy. In addition, the ePRO application also inquired about characteristics that help define the severity of these symptoms as mild, moderate, or severe. Nurses received immediate automatic alerts by email and followed-up with patients by telephone within 5–20 min to provide information or non-pharmacological guidance.

Results: 50 women agreed to participate, the mean age was 53.4 years with 60% completing secondary schooling. 44% had clinical stage III, 40% had clinical stage II and the mean time since diagnosis was 39.5 weeks. Half received CT, and another half received RT. Local recurrence in the breast was observed in only 6% of patients. There were 203 website visits per IP address per month. Overall adherence to weekly symptom reporting was 76.3%, half of the participants had an adherence rate of 70% or higher. The median time nurses took to respond to moderate or severe alerts during business hours was 13 min, with an IQR of 8–20.5 min. All participants completed the 4-week assessment, the median number of supportive care needs decreased significantly from baseline to 4-week assessment: 11 versus 3, difference −8.

Conclusion: The present study identified multiple benefits of the ePRO intervention perceived by women and health professionals and encouraging prelaminar results related to high retention rate, decrease in the supportive care needs, and breast symptoms and increase in global quality of life, justifying further RCT. The study also revealed several barriers to successful ePRO implementation at individual, intervention and institutional levels and suggested improvements to the randomized controlled trial protocol methods. Importantly, the tumor-suppressive actions mediated by the miR-8072/TFAP2A axis were intricately associated with the attenuation of AKT/ERK signaling cascades and the blockade of EMT processes. Our findings unravel the role and underlying mechanism of TFAP2A in driving tumorigenesis of TNBC. Targeting the TFAP2A/SNAI1 pathway and utilizing miR-8072 as a suppressor represent promising therapeutic strategies for treating TNBC.

Keywords: Triple-negative breast cancer, TFAP2A, SNAI1, miR-8072, tumorigenesis

Biography: Dr. Yujing Gao is a professor at Ningxia Medical University in China, specializing in teaching and research in medical biochemistry and molecular biology. Dr. Gao's research is dedicated to unraveling the intricate molecular mechanisms that drive tumor initiation and progression. Leading a dynamic research group, she is passionately committed to advancing cancer research and education, contributing significantly to the expansion of knowledge in this vital field.

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INTERNATIONAL SYMPOSIUM ON WOMEN'S HEALTH: BREAST AND CERVICAL CANCER

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Ghazala Sultan

Aligarh Muslim University, India

Decoding Breast Cancer Across Populations: A Machine Learning integrated Bioinformatics Discovery

Brief Summary of the Speech:

In this talk, I will present how the integration of bioinformatics and machine learning has enabled us to identify a universal panel of breast cancer biomarkers that transcend geographic and ethnic boundaries. Using gene expression data from six diverse countries, we employed boosting classifiers—particularly CatBoost—to uncover a core network of differentially expressed genes. These genes not only performed robustly in classifying cancer samples with 92% accuracy, but also revealed key regulatory roles in cancer-associated pathways like calcium signaling and actin cytoskeleton regulation. Importantly, our study highlights PALMD as a novel and promising biomarker for breast cancer progression. This research not only demonstrates the power of AI-driven analysis in global oncology but also lays the groundwork for equitable and personalized breast cancer diagnostics.

Effect of Resistance Training on Cognition, Physical Performance, and Brain Anatomy in Older Adults with Mild Cognitive Impairment

INTRODUCTION: Alzheimer's disease is the most prevalent dementia in the world and has a high socioeconomic impact. Mild cognitive impairment (MCI) refers to the unnatural cognitive loss of aging with preservation of independence in activities of daily living. Individuals with this diagnosis have a higher risk of developing dementia. Non-pharmacological interventions, such as physical exercise, are beneficial for the cognition of this population. However, the impact of resistance training (RT) on the brain anatomy of elderly with MCI has not yet been clarified. This study aimed to investigate the impact of RT on cognition, functionality and brain anatomy (gray matter volume and white matter integrity) of elderly individuals with MCI.

METHODS: Forty-four elderly individuals diagnosed with MCI were evaluated, 22 in the training group (TG) and 22 in the control group (CG). Participants were evaluated in neuropsychological tests and magnetic resonance imaging at the beginning and end of the study, which lasted 24 weeks. The TG was also evaluated for physical performance. We used repeated measures ANOVA within a general linear mixed model to compare moments (pre- and post-intervention) and groups (control and training). We included age and education as covariates. The values were corrected for multiple comparisons using False Discovery Rate.

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RESULTS: The TG showed better performance in the Rey Auditory Verbal Learning Test, body mass index, waist-to-hip ratio, physical activity level, Timed Up and Go test, Sit-to-Stand Test and upper and lower limb muscle strength after 24 weeks of training. The CG showed a significant decrease in gray matter volume in the hippocampus and precuneus (right and left hemispheres), while the TG showed no reduction in the right hippocampus and precuneus. However, it showed a decrease in the volume of these regions on the left side and in the left superior frontal gyrus. In the analysis of white matter integrity, fractional anisotropy increased in the TG and decreased in the CG. Axial diffusivity decreased in the TG, while radial diffusivity increased in the CG, and mean diffusivity varied, increasing and decreasing in both groups according to the tract evaluated.

CONCLUSION: RT improved memory performance, anthropometric measures, and functional capacity in elderly individuals with MCI. Furthermore, it appears to play a protective role against atrophy of the hippocampus and precuneus (right hemisphere) and positively influences white matter integrity parameters.

Keywords: Dementia; Alzheimer Disease; Resistance Training; Magnetic Resonance Imaging; Diffusion Magnetic Resonance Imaging.

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5th WORLD FORUM ON BREAST AND CERVICAL CANCER

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Immunoliposomes in Cancer Therapy: Advancing Targeted Drug Delivery Frontiers

ABSTRACT: The potential of immunoliposomes in targeted drug delivery for cancer therapy is indeed promising. These liposomes, combined with the specificity of antibodies, can target cancer cells with high precision and minimal systemic toxicity, which are significant advantages. These specialized nanocarriers consist of liposomes, lipid-based vesicles encapsulating drugs, adorned with antibodies or ligands that specifically recognize and bind to antigens overexpressed on cancer cells. By harnessing the specificity of antibodies, immunoliposomes can precisely deliver therapeutic payloads to malignant tissues, sparing healthy cells. Through surface modification with targeting moieties, such as monoclonal antibodies or peptides, immunoliposomes can selectively home in on cancer cells, facilitating efficient drug internalization. Additionally, their liposomal structure provides a protective environment for encapsulated drugs, shielding them from premature degradation and clearance in the bloodstream. Furthermore, immunoliposomes can exploit the enhanced permeability and retention (EPR) effect exhibited by solid tumors. They preferentially accumulate at tumor sites due to leaky vasculature and poor lymphatic drainage. This passive targeting mechanism enhances drug delivery to the tumor microenvironment while reducing exposure to healthy tissues. The abstract provides an overview of the potential of immunoliposomes in improving the therapeutic index of anticancer drugs. The review highlights recent advancements, challenges, and prospects in developing immunoliposomes for cancer therapy, paving the way for more effective and efficient treatment options.

Keywords: Immunoliposomes; Antibodies; Liposomes; Drug Delivery; Cancer Therapy

Biography: Dr. Jitendra Gupta completed his M. Pharm. (Pharmaceutics) from Dr. APJ Abdul Kalam Technical University (Formerly U.P.T.U.), Doctor of Philosophy (PhD) from National Institute of Medical Science, Jaipur, and qualified gate (93.32 percentile) and D.P.Q.C.&Q.A.M., IPER, Pune, Maharashtra. He has approx. 18 years and 7 months of research and teaching experience @ Institute of Pharmaceutical Research, GLA University (NAAC A^+ Grade, NIRF 54 rank & 12 B Status), Mathura. He has awarded “Shishak Gaurav Ratna Award" 2023 & "Shishak Sri Award” 2018 by “First Vice President” of Nepal Government @ Krishna Menan Bhawan, New Delhi. He has also awarded Young Scientist Award, Eminent Teacher Award, Best Students PhD award, Best paper publication, Best paper presentation and Best poster presentation award, and Fellow member of FRSH, FICPHS. He is “Ambassador” of Bentham Science in 2020 and also called for a Guest lecture and speaker The M.S. University, Baroda (Gov. University). He has also called as a speaker in International and National Conferences/FDP. He has been serving as an Editorial Board Member and Reviewer of International/National Journals indexing in SCI, SCOPUS. He has more than 100 publications index in SCI and Scopus index journals with high impact factors (more than 10.3) and over 100 posters/abstracts at the International/National conferences. He has guided 14 post-graduate students and 77 undergraduate students as the main supervisor. He is guiding 05 PhD students. He has published four books and three book chapters published in Springer Nature, Singapore, published eight patents, two patents grant and two IEDC-DST sponsored projects. He has knowledge and experience of NAAC, NIRF etc. His area of research interest include nanotechnology, microtechnology, nano-micelles micellar solubilization technique), solid dispersion, transdermal patch; Standardization of polyherbal formulations; Medicinal plants and their role in health and disease management, Molecular Mechanisms and Antioxidants, Anti-diarrhoeal, Wound healing, Antitussive, Cough suppressant, Antimicrobial, Anti-ischemic, Anticancer and also isolations and identification of phytochemicals from local natural resources.

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Hypofractionated Radiotherapy for Breast Cancer: A 10-Year Experience at CHU Hassan II, Fès

Abstract

INTRODUCTION: Breast cancer remains the leading malignancy among women in Morocco. We report our 10-year experience with adjuvant hypofractionated radiotherapy for breast cancer, assessing its efficacy and tolerability.

METHODS: This retrospective study included 425 patients with invasive breast cancer treated between January 2010 and December 2019. All patients underwent a standardized hypofractionated radiotherapy protocol.

RESULTS: The average age was 50 years (range 23–88), with 8.2% having a family history of breast cancer. In 82% of cases, patients underwent mastectomy with lymph node dissection, followed by radiotherapy to 42 Gy (2.8 Gy per fraction over 15 sessions across 19 days) with nodal irradiation in 52% of cases. The remaining 18% received breast-conserving surgery, complemented by a tumor bed boost of 11.8 Gy over 25 days. With a median follow-up of 42 months, 8.5% of patients experienced metastatic recurrence (5.5% pulmonary, 2% cerebral, and 1% osseous) and 1.5% a locoregional recurrence, while complete remission was observed in 90% of cases. Acute toxicity was mainly radiodermatitis (81%), and 15% of patients developed post-radiotherapy fibrosis, with no long-term cardiac or pulmonary toxicity observed.

CONCLUSION: This 10-year experience demonstrates that adjuvant hypofractionated radiotherapy for breast cancer provides satisfactory local control with acceptable tolerability, supporting its integration into clinical practice.

Keywords: Breast Cancer; Hypofractionated Radiotherapy

Biography: I am a radiation oncologist, assistant professor at the Faculty of Medicine and Pharmacy in Fez, Morocco, and a researcher at the Moroccan Cancer Research Institute.

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