

INTERNATIONAL CANCER CONFERENCE



NOVEMBER 27-29, 2025

ONLINE

Website: <https://cancer-conference.org/>

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ABOUT US

Iris Scientific Group

Iris Scientific Group is started to fulfill the requirements and to seek after aggregate objectives of the scientific community particularly focusing in the field of Science and technology to support the efforts to exchange knowledge and ideas which encourage the cooperation between the researchers, scientists, academicians and analysts of interdisciplinary research or same field.

We are expert in conducting conferences, workshops, seminars, and meetings with the peerless and inspired speakers all around the world. We are here to provide you and your association with the opportunities to connect with others, explain your research and make your unique identity in front of others. Our conferences and workshops are known as the sea of learning where we help you to swim and learn everything you want.

In a very short period, Iris Scientific Group became successful in developing a unique platform for experts, budding researchers and professionals from different universities, countries, research institutions, hospitals, companies and industries. Here we provide an opportunity to easily discuss and socialize their techniques of research, goals, facts, latest science discoveries and news.

KEYNOTE FORUM

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Maria Giakoumak¹, George I. Lambrou^{2,3}, Dimitrios Vlachodimitropoulos⁴, Anna Tagka⁵, Andreas Vitsos¹, Maria Kyriazi¹, Aggeliki Dimakopoulou¹, Vasiliki Anagnostou¹, Marina Karasmani¹, Heleni Deli¹, Andreas Grigoropoulos¹, Evangelos Karalis¹, Michail Christou Rallis¹, and Homer S. Black^{6*}

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Type 1 diabetes mellitus suppresses experimental skin carcinogenesis.

This study explores the previously uncharted territory of the effects of ultraviolet (UV) radiation on diabetic skin, compared to its well-documented impact on normal skin, particularly focusing on carcinogenesis and aging. Employing hairless SKH-
hr2, Type 1(T1D) and Type 2 diabetes was induced by administration of 30 or 20mg/kg streptozocin, respectively, throughout the study and subjected to UV radiation thrice weekly for six months. The investigation included comprehensive assessments of photoaging and photocarcinogenesis in diabetic versus normal skin. Findings reveal that under UV exposure, Type 1 diabetic skin (T1D) showed heightened dehydration, thinning, and signs of accelerated aging. Remarkably, Type 1 diabetic mice did not develop squamous cell carcinoma or pigmented nevi, contrary to normal and Type 2 diabetic skin. Closer examination of metabolic parameters provide a potential mechanism for the refractory response to UV-carcinogenesis in T1D skin. Observations on this study displayed a significant increase in glucose level from 127 mg/dl at base line to 344.14 at one month to 550 at month six; a decrease in Glutathione; and increase in Oxidative Stress (OS) in the Stratum corneum; and reduction in body weight from 29.36 (gr) compared to 37.99 gr at three months and 24.40 vs 43.86 gr at six months. in the normal control group; and an inhibition of Skin cancer in the T1D group. Recognizing the metabolic complexities in the diabetic phenotype and the link to cancer1, Occam's Razor might guide us to a solution, i.e., complexity should not be multiplied beyond necessity. OS is elevated due to glutathione decreases related to NADH/NAD+ resulting in depleted fuel (ATP) necessary to carry-on normal growth rates (Caloric restriction, CR) 2,3 leading to extreme un-thriftiness known to inhibit neoplasia (incidence of neoplasia was reduced by 50% in rhesus monkeys). CR may be the mechanism that results in inhibition of skin cancer in T1D.



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Audience Take Away:

- Be informed of the link between Type 1 Diabetes and skin cancer.
- Learn of some of the metabolic parameters that are manifested in this link.
- Become aware of the potential mechanism by which this link occurs.
- Should consider caloric restriction as a potential mechanism for other metabolic disorders linked to cancer.
- It should be useful in both expanding their related research and teaching.
- This information may be useful that assists in experimental design for related studies.

Biography

Homer S. Black was born in Port Arthur, Texas in 1935. He attended Nederland, Texas public schools and graduated from Nederland High School in 1952. Upon graduation from high school, he enrolled in Texas A & M College and graduated with a B.Sc. in 1956. He was commissioned in the United States Air Force. Completing active-duty obligation he attended Sam Houston State College where he earned a M.Ed. in 1960 and matriculated at Louisiana State University, earning the Ph.D. in Biochemistry of Plant Diseases in 1964. Dr. Black was awarded a position as a National Academy of Science/National Research Council Research Associate at the Southern Regional Research Lab in New Orleans where he researched effects of Aflatoxin B1 on de novo protein synthesis. This research was continued at the M. D. Anderson Cancer Hospital in Houston as a Welch Post-doctoral fellow in Biochemistry. Dr. Black then spent two years teaching at Sam Houston State University. He returned to research in 1968, joining the Dermatology Department at Baylor College of Medicine and the Veterans Affairs Medical Center. He received a M.S.A. (Business/Health Science Administration) from the University of Houston in 1977.



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M. Thompson*, PhD, B. De la Franier, PhD, Navina Lotay, Soha Ahmadi, PhD, Lidia Nemtsov

University of Toronto, Canada

Sensor-Based Detection of Biomarkers for Early-stage Ovarian Cancer

Biosensor technology represents an attractive strategy for the detection and monitoring of biomarkers for disease states within the context of precision medicine. This approach offers the possibility for biomarker assay via incorporation into an automated robotic system to process and test patient samples. Such a technology would require device reversible signalling or flow-through cleaning, appropriate sensitivity and, critically, the capability of operation in a biological fluid. In the present paper we discuss the application of biosensor technology for the early-stage detection of ovarian cancer. This disease results in some 150,000 deaths worldwide of nearly 300,000 new cases each year. Unfortunately, only 20 % of patients are diagnosed at the early stages (I and II) of the disease when treatment is most effective, leading to a 5- year relative survival rate of only 20 %. Early diagnosis of OC improves survival rate to 93 %; however, there is a lack of early diagnose due to few specific symptoms being observed, and the absence of reliable, cost-effective mass screening techniques. Several biomarkers have been identified for OC, of which cancer antigen-125 (CA125) is the only one currently clinically approved. In our research, we are working on the development of seniors for the multiplexed assay of markers for OC. Lysophosphatidic acid (LPA) is a distinctly attractive potential biomarker with high sensitivity (98 %) and specificity. The normal level of LPA in the body is 0–5 μ M, but increases to 5–50 μ M in OC, even in stage I. In our research, we are employing three different biosensor-based strategies for LPA detection in tandem with that for CA-125. These techniques include an ultra-high frequency acoustic wave device, a chemiluminescence-based iron oxide nanoparticle (IONP) approach and electrochemical detection based on both square wave and differential pulse voltammetry. For assay of LPA all these methods incorporate the protein complex gelsolin-actin, which enables testing for detection of the biomarker binding to the complex results in separation of gelsolin from actin. In proof of concept experiments, each of the approaches is capable of the detection of LPA at the sub micromole level. In addition to the work with LPA we are developing an electrochemical system for the tandem assay of CA-125 which is based on an aptamer probe for the marker. Criteria for application of biosensor technology application in oncology; detection of biomarkers for ovarian cancer; multiplexed biomarker detection

Biography

Professor Michael Thompson was appointed Lecturer in Instrumental Analysis at Loughborough University in 1971. He then moved to the University of Toronto where he is now Professor of Bioanalytical Chemistry. He is recognized internationally for his pioneering work over many years in the area of research into new biosensor technologies. His research is centered on the surface chemistry of proteins, cells and bacteria. An aspect of this work concerns the detection of biomarkers in complex media such as serum. Thompson has served on the Editorial Boards of a number of major international journals including *Analytical Chemistry* and *The Analyst* and is currently Editor-in-Chief of the monograph series "Detection Science" for the Royal Society of Chemistry, UK. He has been awarded many prestigious international prizes for his research including The Robert Boyle Gold Medal of the Royal Society of Chemistry, The Elsevier Prize in Biosensor and Bioelectronics Technology, the E.W.R. Steacie Award of the Chemical Society of Canada, and recently the 2023 Royal Society of Chemistry Horizons Prize in Analytical Science. Surface chemistry of biological species, Ovarian cancer biomarkers; biomarker detection technology; biosensors 350 papers



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**Aoife Jones Thachuthara ¹, Patricia Tai ^{2,*}, Kurian Joseph ³,
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Photodynamic therapy for healing radiation-induced skin ulcers: the first Canadian documented clinical case

Introduction: Photodynamic therapy (PDT) promotes wound healing while its clinical use is not investigated in human for radiation induced skin ulcers.

Methods and Materials: We documented the first Canadian in-human case and searched the PubMed literature using “PDT” AND “radiation” AND “ulcer” terms.

Results: PDT has been used on premalignant and malignant skin cancer for years. Our patient had a radiation-induced refractory post-mastectomy radiotherapy chest wall ulcer of 5-year duration, published in the Cureus journal in 2024. There are 6 laboratory reports (total 95 rats) in the literature with an overall efficacy of 90%. We documented ulcer healing at 3-month follow-up with gradual improvement to 14 months. The topically applied 5-aminolevulinic acid (5-ALA) was activated by red light of wavelength 630 nm after an incubation time of 5 hours. The median incubation time, as the body tissue takes up 5-ALA, was 4 (range: 2-18) hours after topical application in the literature. We used three 30-minute treatments at month 0, 1, 5 months, which can vary depending on treatment response. Currently large PDT Canadian centers for malignant cutaneous, esophageal and bronchial lesions are located in Calgary, Hamilton, Kingston, Toronto, Ottawa and Montreal. Comparing with hyperbaric oxygen therapy (HBOT) which is a known gold standard, PDT is non-invasive and safe with few complications, e.g., skin irritation/swelling (rarely requiring steroid treatment), photosensitivity and retinal damage. PDT has a lower cost: 5-ALA costs only CAN\$500/session for Metvix (methyl 5-ALA, currently approved by Health Canada) vs HBOT requiring 30 sessions with a total cost of \$15,000 in Ontario, Canada. PDT procedure is simple and safe. Hence, PDT providers can be nurse practitioners, family doctors, or specialists (oncologists, general surgeons), unlike HBO requiring subspecialists with special expertise with higher billing costs to the health care system. Besides, HBO has risks of hearing damage, pain in the ear/sinus/tooth, claustrophobia, fatigue, temporary near-sightedness and hypoglycemia in diabetics.

Conclusions: Laboratory publications substantiate the efficacy of PDT on radiation-induced ulcer healing. The first Canadian clinical case was documented by us in Ontario. It is cost-effective for superficial radiation-induced ulcers. Further clinical studies are warranted to evaluate the optimal treatment schema and effects on quality of life. Hopefully it can be widely available with costs covered by the government.



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Audience Take Away

Participants will understand this innovative, cost-effective method to treat radiation-induced injuries and can use what they learn as it is quite simple to apply. Participants can help patients with radiation-induced ulcers since the speech also covers many available alternative treatments and how to make referrals for clients they met in their job.

- Photodynamic therapy provides a practical solution to a common and difficult problem that could make participants' job more efficient and satisfying. It will improve patient care, decrease health care spending, increase availability compared to other treatment alternatives.
- Other researchers/faculties can use the information to expand their research or teaching.
- Future research can be aimed at developing an optimal schema and/or assessing quality of life improvement.

Biography

Prof. Patricia Tai graduated with a gold medal from Hong Kong University (#35 of the top 100 universities in the world), after training under Prof. John Ho (a world leader in nasopharyngeal carcinoma). Upon immigrating to Canada, she received fellowship training under Prof. David McDonald (known for the landmark McDonald brain tumor criteria) and Mr. Jake Van Dyk (a world-famous medical physicist). She is an international skin cancer expert and invited author of 5 UpToDate chapters since 2000. She was promoted to full professor in 2009 and became an Honorary Professor in Hong Kong University in 2016. Currently she has 144 full publications, 120 conference abstracts and 168 oral/posterpresentations/lectures.



Toshiko Kato Dr. Science,

Independent Researcher, Japan

High incidence of radiation-induced thyroid cancer after the Fukushima nuclear accident and difficulties faced by young patients

After the Fukushima nuclear power plant accident in Japan on March 11, 2011, thyroid ultra-sound examinations (TUEs) were conducted as part of the Fukushima health management survey (FHMS) on all residents aged ≤ 18 years at the time of the accident. The result showed tens of times increase in thyroid cancer detection compared with the expected incidence from the cancer registry. Despite the extraordinary high incidence, the radiation origin of thyroid cancer has not been recognized and possible overdiagnoses are suggested, largely due to the low thyroid doses estimated by UNSCEAR 2020/2021. The linear response of annual incidence rates per person-years (PY) to averaged thyroid dose of four areas in Fukushima based on UNSCEAR 2020/2021 in the first six years indicated dominant radiation origin, not due to overdiagnosis, of childhood and adolescent thyroid cancer. The excess absolute risk per Gray (EAR/Gy104PY) of 143 (95%CI: 122, 165) in the second TUE ($p \leq 0.001$) was approximately 60 times higher than the EAR/104PY Gy 2.3 observed after the Chernobyl accident, suggesting an underestimation of approximately 1/60 by UNSCEAR compared with the thyroid dose in Chernobyl. The increased childhood thyroid cancer in Fukushima was found to arise from radioactive iodine exposure comparable to that in Chernobyl. UNSCEAR's conclusion that a large excess of thyroid cancer, as observed in the TUEs, would not be expected based on the low dose estimation should be retracted. In addition to the epidemiological evidence, it was reported that "the majority of detected thyroid cancer patients in the second TUE (83%) and third TUE (64%) had no nodules in the preceding TUE". This indicated that among young residents in Fukushima, thyroid cancer newly appears and grows in two-years between TUEs and the only possible explanation for thyroid cancers in FHMS —a small nodule growing rapidly—seems to be the effect of radiation exposure. Despite the high rate of recurrence (10%) and metastasis (including 5/220 cases of lung metastasis), the FHMS published "Merit and demerit of TUE" and requires parents of eligible people to understand the merits and demerits of TUE before making a decision to undergo TUE due to concerns about overdiagnosis. Many patients are told at their initial diagnosis that "your thyroid cancer is unrelated to radiation exposure from the nuclear accident". More than 400 thyroid cancer patients endure poor health, being unable to disclose that they had surgery of thyroid cancer given the official view of the government that the nuclear accident had no health effects. Discussions about thyroid cancer are criticized as "harmful rumors" that link Fukushima to radioactive contamination and hinder recovery efforts. Without any international recognition of radiation health effects in Fukushima, the situation experienced by patients in Fukushima may be experienced by people exposed in the next nuclear accident.

The audience take away from presentation:

- Radiation associated thyroid cancer is often aggressive and fast growing as compared to naturally occurring slow-growing sporadic thyroid cancer.
- Situation of patients after the NPP accident is quite different from the same disease without radiation exposure because of social pressure from the government and those supporting nuclear power.



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- Most patients cannot speak out about their thyroid cancer, and are difficult to have social support from the community.
- Radiation health effects are not a problem of Japan but of sustainability of people in the world.

Biography

Toshiko Kato was a professor at SeiboJogakuin Jr. College, Kyoto, Japan, and retired in 2008. I graduated from the Faculty of Science, Kyoto University, completed the doctoral course in the Graduate School of Science at Kyoto University. In addition to the main work of education at the Department of Child Education, SeiboJogakuin Jr. College, I continued the experimental and theoretical research in Chemical Physics of liquids. After 3.11.2011, I started the research on the radiation health effects after the Fukushima nuclear accident. The main focus was on childhood and adolescent thyroid cancer in Fukushima. I published 13 papers about radiation health effects, which are cited at <https://www.researchgate.net/profile/Toshiko-Kato-2/research>



Dr Manmohan Agrawal^{1*}, Dr Lakshmi Agarwal²

¹MBBS MS DNB Surgical Oncology, India

²MBBS MD Pathology Fellowship in Genetic Diagnostics, India

Upfront surgery with adjuvant treatment in operable triple negativebreast cancer patient-A single institute experience

Triple negative breast cancer (TNBC) is considered as an aggressive sub group of breast cancer and the incidence are increasing. Neo adjuvant chemotherapy is recommended in TNBC, if \geq cT2 or \geq cN1. Clinical prognostication and postoperative decision-making rely exclusively on whether a pathologic complete response (pCR) is achieved or not. Recent studies confirm the addition of immunotherapy in neo adjuvant protocol achieve a better rate of complete pathological response. The protocol of pretreatment evaluation (mapping, marking of tumour and axilla) requires not only expertise but advanced equipment. Moreover, neo adjuvant therapy and frequent response evaluation of disease adds extra financial and psychological pressure on the patients.

Treating patients in tier three city with limited resources and financial constraint is a challenging task. 50 TNBC patients with follow up of more than 4years were analysed retrospectively. All these patients were treated with upfront surgery and adjuvant therapy. The results were evaluated on the basis of disease free survival and recurrence. The results were found to be comparable.

Biography

Dr Manmohan Agrawal (Consultant Oncosurgeon) MBBS MS, DNB Surgical Oncologyis working as surgical oncologist in Department of Oncosurgery, Pushpadi cancer care centre, Kota, Rajasthan,India. Dr. Manmohan has obtained his Master of surgery degree from SCB medicalCollege, Utkal University in 2005 and completed his DNB from DharamshilaCancer hospital, Delhi in 2009. He has more than 10 years of experience inthe field of cancer surgery and had performed more than 5000 cancer surgeries. Being in a tyre III city like Kota with limited resources, he has learnt to provideadequate cancer care at a grassroots level. He has done many complicated anddifficult surgeries independently like 3 field esophagectomy (25 cases),Whipple's procedure (50 cases), pelvic exenteration (10 cases), Breast (>1000 surgery). His main researches are focused on head and neck cancer, breast cancer andgynecological malignancy. He has published many articles in national and international journals.

SPEAKER SESSIONS

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XPO1 inhibition as a strategy to overcome resistance and improve the durability of KRASG12D inhibition in pancreatic cancer.

Husain Yar Khan, Mohammad Najeeb Al-Hallak, Anthony F. Shields, Philip A. Philip, Bassel El-Rayes, Ramzi M. Mohammad, Boris C. Pasche, M.D., Asfar S. Azmi, Ph.D

Wayne State University School of Medicine, USA

Pancreatic ductal adenocarcinoma (PDAC) remains one of the most lethal malignancies, in part due to the high prevalence of activating KRAS mutations, particularly KRASG12D. The selective KRASG12D inhibitor MRTX1133 is currently in clinical development and represents a significant advance for PDAC therapy. However, like other OFF-state KRAS inhibitors, MRTX1133 shows limited long-term benefit due to acquired drug resistance. This has created an urgent need for rational combination strategies that not only boost initial efficacy but also extend therapeutic durability.

Nuclear export protein XPO1 is a well-characterized oncogenic facilitator that regulates nuclear-cytoplasmic trafficking of tumor suppressors and key transcription factors. XPO1 is frequently overexpressed in PDAC, and its inhibition creates synthetic lethality in KRAS-driven cancers. Our hypothesis was that co-inhibition of XPO1 and KRASG12D could resensitize resistant tumors and promote sustained responses.

In this study, we utilized MRTX1133-resistant PDAC cell lines and evaluated the efficacy of the second-generation XPO1 inhibitor KPT8602 (eltanexor). The combination demonstrated potent synergy in both 2D and 3D cultures and showed robust tumor regression in multiple *in vivo* models, including immunocompetent KPC allografts. Mechanistically, the combination treatment significantly downregulated MAPK signaling components (p-ERK, mTOR, p-4EBP1), cell cycle regulators, and kinase-wide MAPK pathway activity. Importantly, the addition of KPT8602 as a maintenance therapy prevented tumor relapse in CDX models, highlighting the potential for durable disease control.

This presentation will share new preclinical evidence supporting XPO1 inhibition as a clinically actionable strategy to improve KRASG12D-targeted therapy in PDAC and outlines a translational framework for advancing this combination into clinical trials.

Audience Take Away:

Background of the latest KRAS therapeutics in the cancer field

1. Understand the mechanistic rationale for combining XPO1 and KRASG12D inhibitors to overcome resistance in PDAC.
2. Learn about preclinical data showing synergistic tumor regression and survival benefit in KRASG12D-mutant PDAC models.
3. Gain insight into kinase signaling rewiring under combination treatment using phospho-kinome profiling.
4. Recognize the clinical relevance of maintenance strategies using XPO1 inhibitors to prevent tumor relapse.
5. Explore translational implications and design considerations for future KRASG12D-based combination trials in solid tumors.

Practical Application:



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Faculty, clinicians, and cancer researchers will be equipped with a novel combination paradigm for targeting PDAC, applicable in their translational studies or therapeutic development programs. This research can inform future experimental designs, biomarker strategies, and therapeutic sequencing efforts to combat KRAS-driven cancers more effectively.

Biography

Dr. Asfar S. Azmi is a Professor of Oncology at the Wayne State University School of Medicine and Scientific Member at the Barbara Ann Karmanos Cancer Institute NCI designated Comprehensive Cancer Center in Detroit, Michigan. He leads the Molecular Therapeutics Program and directs the Pancreatic Cancer Research Initiative. Dr. Azmi's research focuses on targeting oncogenic signaling and drug resistance mechanisms in gastrointestinal cancers. He has secured multiple NIH, DoD, and industry grants and has authored over 180 peer-reviewed publications and >20,000 citations. His lab develops rational combination strategies using small molecules and RNA-based therapeutics with a focus on translational relevance.



How Scar Massage Can Aid Recovery in Cancer Patients

Emma Holly

Education and Clinical Scar Massage Specialist – RestoreTherapy Ltd, UK

Scar massage is a simple, accessible, and evidence-informed intervention that can significantly improve recovery outcomes for cancer patients following surgery and radiotherapy. This presentation will provide an overview of practical scar massage techniques, focusing on appropriate pressure, timing, and patient-specific considerations.

The session is designed for healthcare professionals working in cancer care. While scar massage is often viewed as a basic therapy, its physiological and psychological benefits—when performed appropriately—can be profound.

These include improved mobility, reduced discomfort, better cosmetic outcomes, and enhanced body confidence.

This presentation will address important clinical considerations, including contraindications and risks associated with oncology patients, and how to adapt massage techniques based on individual healing status. Attendees will also explore the role of emollient versus dry techniques and the benefits of topical moisturisers in promoting scar health in evidence-based insights.

Case-examples will be shared from clinical practice. The aim is to equip attendees with both theoretical knowledge and simple, practical tools they can implement immediately in clinical settings and disperse within their organisations. Covering the key aspects of scar massage application, how hands-on scar massage treatment from a physiotherapist, occupational therapist, or oncology nurse specialists or provide patient-guided self-care instructions.

Audience take away:

- A clear understanding of the benefits of scar massage following oncology surgery and radiotherapy
- Knowledge of risks, precautions, and contraindications in oncology-related scar management
- Practical guidance on selecting and applying massage techniques, including dry vs. emollient-based approaches
- Evidence supporting the use of topical moisturisers in scar care
- Tools and tips to support patients in self-managing their scars effectively
- Participants will be able to recommend the benefits of scar massage into clinical protocols or patient education sessions. The knowledge gained offers practical solutions that can enhance comfort, recovery speed, and quality of life for cancer survivors. Faculty and researchers may also use the content to inform future studies or incorporate scar care education into broader oncology rehabilitation programs.

Biography

Emma Holly is a leading UK-based educator and clinical specialist in scar therapy. Founder of Restore Therapy Ltd, she has developed one of the UK's most comprehensive scar therapy education programs, training healthcare professionals across various disciplines. Emma has presented internationally, including at the UK Association of Breast Surgeons Conference (2024), Scars2023 in Berlin, and the Australasian Lymphology Association Symposia (2023, New Zealand; 2025, Australia). She is passionate about integrating evidence-based scar management into mainstream rehabilitation care for cancer patients and survivors.



Comparative Differences in Tumor Biology Between Dogs and Cats: Clinical Practice and Translational Oncology Insights

Nomeda Juodziu kyniene,

University of Health Sciences, Lithuania

Background: Companion animals develop spontaneous tumors while sharing the same environmental carcinogenic exposures as humans. This positions dogs and cats as naturally occurring, immunocompetent models of cancer progression. However, tumors with identical histological labels can display distinctly different biological behaviors across species. Understanding these interspecies differences is essential both for veterinary clinical management and for harnessing dogs and cats as translational models relevant to human oncology.

Methods: A retrospective analysis of 3525 histopathological cases (2861 dogs and 664 cats) diagnosed between 2020 and 2025 was conducted. Tumors were classified using ICD-O and Vet-ICD-O systems, and histological grading followed accepted veterinary adaptations of Elston–Ellis, Nagamine, and Kiupel criteria where applicable. Comparative evaluation focused on mammary gland carcinoma, squamous cell carcinoma (SCC), and lymphoma due to their high clinical relevance and cross-species translational significance.

Results: Mammary gland carcinoma was prevalent in both species; however, feline tumors showed markedly higher malignancy rates (approximately 80–95%), early lymphovascular invasion, and predominance of solid and comedo patterns. In contrast, canine mammary tumors exhibited broader morphological heterogeneity and variable clinical courses. Squamous cell carcinoma was nearly three times more common in cats, typically affecting the oral cavity and nasal planum, and demonstrated aggressive local invasion comparable to human head and neck SCC. Lymphoma patterns diverged by species: canine lymphoma was predominantly multicentric with nodal enlargement, while feline lymphoma was primarily alimentary, often clinically resembling chronic enteropathy and requiring biopsy and immunophenotyping for accurate diagnosis.

Conclusions: Although dogs and cats share environmental risks, the biological behavior of their tumors differs fundamentally. Feline mammary carcinoma should be approached as a systemic disease from the outset, oral SCC in cats provides a spontaneous model of locally aggressive human head and neck cancer, and feline alimentary lymphoma offers translational insight into immune-mediated gastrointestinal lymphomas. These distinctions reinforce the importance of species-specific diagnostic and therapeutic strategies and highlight the value of companion animals in comparative and translational oncology.



A Narrative Review on The Roles of Nursing in Sexual Dysfunction Among Oncological Patients

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⁵ Department of Radiation Oncology, Western University, Canada

Sexual dysfunction is a prevalent yet often overlooked issue among cancer patients, significantly affecting their quality of life, emotional well-being, and intimate relationships. Despite the high prevalence of sexual dysfunction among cancer survivors, it remains underdiagnosed and undertreated in oncology care. Nurses play a pivotal role in addressing these concerns; however, multiple barriers, including lack of training, cultural stigma, and institutional limitations, hinder effective intervention. This review explores the role of nurses in addressing sexual dysfunction among cancer patients, identifies challenges they face, and examines potential interventions to improve sexual health care within oncology nursing practice. A comprehensive literature review was conducted using peer-reviewed articles from major databases. The review focused on the prevalence, impact, and management of sexual dysfunction in cancer patients, as well as the role of oncology nurses in addressing this issue. Integrating sexual health care into oncology nursing practice is essential for improving the well-being of cancer patients. Addressing barriers through education, policy reforms, and multidisciplinary collaboration can empower nurses to provide comprehensive sexual health support. Future efforts should focus on institutional changes that prioritize sexual health as a fundamental component of cancer care, ensuring better patient outcomes and quality of life.

Biography

Mr Omar Alqaisi : PN,RN,MSN from Al-Zaytoonah University is a nursing expert in oncology and emergency medicine. He holds a master's degree in emergency and disaster medicine from Al-Zaytoonah University. He works as a part-time clinical instructor at Al-Zaytoonah University and also at the Jordan Oncology Center. He has experience using Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) and the Mixed Methods Appraisal Tool (MMAT) for research. His recent research focuses on sexual healthcare, selenium, orthopedics, sleep quality, pain management and patient satisfaction in oncology patients.



Time To Change To Time: Single amino acid resolution Anti-tumorplatform Tag-Tack is standby

Jun Bai, Yuan Zhang

Medical Oncology department, Shaanxi Provincial People's Hospital, Xi'an, Shaanxi, P.R.China

Background In order to shorten drug's evolution time than personal cancer's evolution time, a Tag-Tack platform was designed and constructed to make introcytoplasmic missense proteins to be druggable in 6 months.

Methods We screened 8 human ScFVs for 6 introcytoplasmic missense proteins (TP53 p.R248Q, KRAS p.G13D, BRAF p.V600E, IDH1 p.R132C, PIK3CAp.E545K, EML4-ALK v3a fusion) , and cloned them into the platform to be TagTacker.

Results 6 cell-lines harboring the former 6 introcytoplasmic missense proteins were target killed by those 8 Tag-Tackers, while no tagging protein cell-lines were alive. Based on those in vitro cell line's results, an out of treatment patient having BRAF p.K601E mutation was successfully treated by lesion injection of BRAFp.K601E Tagtacker's Compassionate using.

Conclusions Tag-tack, a single amino acid resolution anti-tumor platform Which can make any introcytoplasmic missense proteins to be druggable in 6 months is standby!

Audience take away:

1. Any introcytoplasmic proteins can be druggable at Tag-tack platform!
2. This druggable time can be shortened less than 6 months!
3. Any cancer patient can get personal Tag-tacker drugs in 6 months at Tag-tack

platform!

Biography

Jun Bai, Director of Medical Oncology department of Shaanxi Provincial People's Hospital, Xi'an, Shaanxi, P.R.China; Doctor of Oncology Medicine, The Fourth Military Medical University, Xi'an, Shaanxi, P.R.China



PROGNOSTIC FACTORS OF RECURRENCE AND SURVIVAL AFTER CURATIVE HEPATECTOMY AS FIRST TREATMENT IN HEPATOCELLULAR CARCINOMA PATIENTS

Nguyen Dinh Song Huy*, Banh Trung Hieu

Objectives: Evaluate prognostic factors for recurrence, disease-free survival (DFS), and overall survival (OS) in patients with newly diagnosed hepatocellular carcinoma (HCC) who underwent curative hepatectomy as first treatment at Cho Ray Hospital.

Methods: A retrospective study was performed on 2419 HCC patients who underwent primary curative hepatectomy as first treatment between January 2015 and December 2022. Patient follow-up extended to December 2024.

Results: The overall recurrence rate was 64.57%, with 1-, 2-, and 3-year recurrence rates of 45.9%, 55.5%, and 59.2%, respectively. The mean disease-free survival (DFS) was 22.4 months (median 9.8 months), and the mean overall survival (OS) was 40.9 months (median 30.3 months). Univariate analysis demonstrated statistically significant associations between recurrence, DFS, and OS with several factors, including gender, AFP level, vascular invasion, tumor number, tumor size, histological pattern, Edmondson-Steiner grade, removable metastatic lesions, and level of hepatectomy. Multivariate logistic regression identified gender, AFP level, vascular invasion, tumor number, tumor size, removable metastatic lesions, and Edmondson-Steiner grade as independent prognostic factors associated with recurrence. Multivariate Cox regression analysis revealed gender was an independent prognostic factor for DFS, whereas gender and tumor number as independent prognostic factors for OS.

Conclusion: Despite the high recurrence rate for 3 years, the 3-year survival outcomes remain favorable. Surgical resection continues to represent a promising and effective treatment option for patients with hepatocellular carcinoma.



Radio genomics in paving the landscape of precision oncology

Dr Don Mathew, Ph.D.

Pacific Medical College & Hospital, India

While conventional radical radiotherapy is a primary treatment for Head and Neck Squamous Cell Carcinoma (HNSCC), its efficacy is often overshadowed by significant radiation-induced toxicities, such as acute mucositis, which severely impact patients' quality of life. This presentation will explore the emerging field of radio genomics, which seeks to personalize cancer treatment by understanding how individual genetic variations influence a patient's response to radiotherapy. We will detail a study designed to develop a predictive model for identifying HNSCC patients at high risk for developing severe radiation toxicity. The research focused on 16 specific Single-Nucleotide Polymorphisms (SNPs) within genes critical to DNA repair, xenobiotic metabolism, and radiation fibrogenesis pathways. Genetic data from 222 patients, obtained via RFLP analysis, were integrated with clinical parameters and treatment details. Our findings successfully yielded several robust risk prediction models, including Multivariable regression, Cox regression, and Decision tree (CART & Random Forest) models. A key discovery was that a specific SNP in the XRCC1 DNA repair gene, when combined with clinical factors like a history of tobacco chewing and a low Karnofsky Performance Status (KPS) score, served as a powerful predictor for higher grades of acute mucositis. This work underscores the potential of a radio genomics-based approach to stratify patients into high-risk and low-risk categories for toxicity before treatment. By enabling more tailored radiotherapy strategies, such as intensified supportive care for high-risk individuals or treatment de-escalation for low-risk groups, this model promises to significantly reduce treatment-related complications, thereby improving the therapeutic window and overall survivorship experience in precision oncology.

The audience take away from presentation:

1. Attendees of this presentation will gain several actionable insights that bridge the gap between radio genomic research and clinical practice. Specifically, they will learn: A Clinically Actionable Predictive Model for Toxicity Risk: The audience will see a validated, multi-factorial approach to predicting severe acute mucositis. They will learn that it is not just a single gene but a combination of a specific genetic marker (an XRCC1 SNP), tobacco use history, and patient performance status (KPS score) that most accurately identifies high-risk patients. This moves beyond theoretical genetics to a practical risk stratification tool.

2. A Methodological Framework for Translational Radio genomics: Researchers and clinicians will be introduced to a robust methodological pipeline—from SNP selection (focusing on DNA repair, metabolism, and fibrogenesis pathways) through RFLP genotyping to advanced statistical modeling (CART, Random Forest, Cox regression). This provides a template that other faculty and researchers can adapt and apply to their own studies in different cancer types or for different radiation toxicities, thereby expanding the field.

3. A Direct Path to Personalizing Radiotherapy Protocols: For clinical oncologists and radiotherapists, this research provides a concrete strategy to improve patient outcomes and quality of life. By identifying high-risk patients before treatment begins, clinicians can:

For High-Risk Patients: Implement more aggressive prophylactic supportive care (e.g., specialized mouthwashes, nutritional support, pain management) or consider advanced radioprotective agents.

For Low-Risk Patients: Potentially explore opportunities for treatment de-escalation to reduce treatment time and cost, or avoid unnecessary supportive interventions.

4. This directly enhances the efficacy, safety, and precision of their treatment planning.

The Tangible Value of Integrating Genetics with Routine Clinical Data: The presentation will demonstrate that the predictive power of genetics is significantly enhanced when combined with standard clinical variables. This underscores a key paradigm shift in modern oncology: the future of precision medicine lies in integrated models, not siloed data. This knowledge can help clinicians, hospital administrators, and



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researchers advocate for and develop the necessary infrastructure for such integrative approaches in their own institutions.

How This Helps the Audience:

1. For Researchers/Faculty: Provides a novel research framework and specific, significant biomarkers (XRCC1) to build upon, apply for grants, and incorporate into teaching materials on personalized medicine and toxicogenomics.
2. For Clinical Oncologists & Radiotherapists: Offers a practical, data-driven solution to a common and debilitating clinical problem (mucositis). It simplifies the complex task of predicting toxicity by providing a clear, evidence-based risk profile, leading to more informed clinical decision-making and improved patient counseling.
3. For the Broader Oncology Community: Advances the core mission of precision oncology by demonstrating a clear pathway to reduce treatment-associated morbidity, thereby improving the therapeutic ratio and making cancer survivorship more manageable for patients.

Biography

Dr. Don Mathew is a dedicated researcher in the field of cancer biology and precision medicine. As a scholar affiliated with the Department of Biochemistry at Pacific Medical College and Hospital, Udaipur, his work primarily focuses on radio genomics and the genetic determinants of treatment response in Head and Neck Squamous Cell Carcinoma (HNSCC). His investigations aim to identify genetic signatures that predict radiation-induced toxicity, intending to develop personalized radiotherapy strategies to improve patient outcomes. His research, documented in several peer-reviewed publications, bridges molecular biochemistry and clinical oncology to advance the landscape of cancer therapy.



Role of acupuncture in cancer and window cancer research

Rahul Hajare

Rahul Hajare

Acupuncture in cancer care with intermediate outcomes among really feasible and attractive therapeutic option. Complementary and alternative medicine (CAM) is commonly used by cancer patients. Recent randomized controlled trials showed that acupuncture is safe, effective and feasible for the management of cancer- related fatigue and other adverse events of anti-neoplastic therapies. Since November 2020, author has been offering a supportive care program of 20 minutes weekly session of acupuncture for the management of chemotherapy- induced nausea/vomiting, hot flashes, cancer- related fatigue and xerostomia. A brochure regarding indications and techniques was offered to all cancer patients who received a systemic antiblastic therapy (chemotherapy, target therapy and endocrine treatment) and/or radiation therapy. More than 500 patients affected by solid tumours or lymphoma were treated in our operative unit during the period of the project. None of them preferred to receive acupuncture in addition to the specific pharmacological treatment.

Biography

Dr. Rahul_Hazare is a highly accomplished scholar. Dr. Rahul Hazare is young, student and 180 cm tall. Dr. Rahul Hazare is a scholar at the Hindu University of American, Florida. Dr. Hazare and Strong Hand are mentored by the esteemed Dr. Ramesh S. Paranjape, a globally respected scientist and former director of the National AIDS Research Institute. Dr. Rahul Hazare enjoyed every privilege as a student of the Honored Dr. Ramesh S. Paranjape. A Brahman from Pune since the time of Peshwas and a Brahman known for Lucky feet, Royal linkage, quality coaching, his character and high side reputation, sweet demeanor, and reserved nature, he is deeply rooted in his cultural values and shares a unique connection with his mentors and family, particularly his mother, Love, whom he has guided with his wisdom. He belongs to a high caste and has a higher compatibility with Brahmins. Dr. Rahul Hazare is known for his win by kindness. Dr. Rahul Hazare is the closest one with the Europeans and Americans.



Oral Malignancies and its various presentations amongst Indian population.

Dr. Manisha Lakhanpal Sharma, (B.D.S, M.D.S)

Consultant Emanate Dental Clinic, India

Oral cancer is the sixth most common malignancy affecting the health of people with an unacceptably high mortality rate in India. The clinical presentation varies from a simple lesion or a nodule to an aggressive intraosseous entity causing osteolysis with pathological fracture. Therefore, the aim of this scientific paper is to present different types of clinical presentations of oral malignancies through a case series which would facilitate the clinicians with clinical tips and radiological knowledge to diagnosis the patients. This paper would emphasize on the need for timely screening, early detection and diagnosis of the disease that shall aid in increasing the life expectancy of the patient and lowering down the cancer burden.

Audience Take Away

- The clinicians would obtain knowledge of the different clinical presentations of various forms of Oral Malignancies
- The clinicians would also obtain knowledge of the different radiological presentations of Oral Malignancies
- Is this research that other faculty could use to expand their research or teaching? Does this provide a practical solution to a problem that could simplify or make a designer's job more efficient? Will it improve the accuracy of a design, or provide new information to assist in a design problem? List all other benefits.
- This paper would enlist different forms of malignancies. This can help the researchers to design several studies to understand the different aspects of these malignancies. This would encompass the etiology, clinical and radiological presentation and tumor marker associated.

Biography

I have 19 years of experience as an academician in Oral Medicine and Radiology. As, an oral physician I take the onus of coming to a right diagnosis for patients suffering from orofacial disorders so that an apt treatment can be rendered. My field of interest is use of LASERS in the treatment of various oromucosal diseases. In liaison with oncologists I have been conducting various workshops for spreading awareness on oral cancer. I lay a lot of stress on nipping the potentially malignant disorders in the bud. I also hold expertise in the management of orofacial pain.



Selection of Novel Cyclic Peptides for Effective Targeted Drug Delivery

Anna Cohen, Ph.D¹, Maysoon Kashkoosh, Ph.D¹, Vipin Sharma, Ph.D¹, Akash Panja, Ph.D¹, Sagi A. Shpitzer, MD², Shay Golan, MD², Andrii Bazylevich, Ph.D¹, Gary Gellerman, Ph.D¹, Galia Luboshits, Ph.D¹ and Michael A. Firer*, Ph.D¹

Ariel University, Ariel, Israel. 2. Rabin Medical Center, Petah Tikva, Israel

Metastatic prostate cancer (mPrC), with a median survival of under 2 years, represents an important unmet medical need which may benefit from the development of more effective targeted drug delivery systems. Several cell surface receptors have been identified as candidates for targeted drug delivery to mPrC cells; however, these receptors were selected for their overabundance on PrC cells rather than for their suitability for targeted delivery and uptake of cytotoxic drug payloads. **Methods:** We describe a novel, unbiased strategy to isolate peptides that fulfill functional criteria required for effective intracellular drug delivery and the specific cytotoxicity of PrC cells without prior knowledge of the targeted receptor. Phage clones displaying 7-mer cyclic peptides were negatively selected *in vivo* and then positively biopanned through a series of parent and drug-resistant mPrC cells. Peptides from the internalized clones were then subjected to a panel of biochemical and functional tests that led to the selection of several peptide candidates.

Results: The selected peptides do not bind PSMA. Peptide-drugconjugates (PDCs) incorporating one of the peptides selectively killed wild-type and drug-resistant PrC cell lines and patient PrC cells but not normal prostate tissue cells *in vitro*. The PDC also halted the growth of PC3 tumors in a xenograft model.

Conclusions: Our study demonstrates that adding unbiased, functional criteria into drug carrier selection protocols can lead to the discovery of novel peptides with appropriate properties required for effective targeted drug delivery into target cancer cells.

Audience Take Away

The audience will learn how to use important functional criteria to select peptide ligands that are appropriate to use for targeted drug delivery to specific cancer cells.

Biography

Prof. Firer researches the development of targeted therapies for cancer. This work includes targeted cellular immunotherapy and targeted drug delivery systems. He is an immunologist who received his BSc(Hons) from Monash University, Melbourne, Australia and his Ph.D from Melbourne University. He then received a Feinberg Postdoctoral Fellowship to work with Prof. Zelig Eshhar at the Weizmann Institute of Science, Rehovot, Israel. He joined the faculty at Ariel University in 1992 (then a small college) and now has a joint appointment in the Department of Chemical Engineering and in the Adelson School of Medicine, where he serves as Deputy Dean.



Assessing Human Exposure to Key Chemical Carcinogens Diagnostic Approaches and Interpretation

Vladan Radosavljevic

Institute of epidemiology, Military Medical Academy, Belgrade, Serbia

Chemical carcinogens classified by the International Agency for Research on Cancer (IARC) as Group 1 very probably contribute to cancer occurrence in over 13.5 million people and death from cancer in over seven million people. In percent, chemical elements and chemical compounds very probably contribute to cancer occurrence in about 68% of all cancer cases and very probably significantly contribute to cancer death in about 72% of all cancer deaths (yearly and globally). There are two main reasons for increasing cancer cases in the next decades: first, growing of the world population and, second, un-proportional growing of the elderly population. Consequently, by 2050, the number of cancer cases predicts to reach 35 million.

The mentioned chemical carcinogens were used for decades without proper evaluation of their health effects. Early detection is crucial as most carcinogens have cumulative effects. Identifying urinary markers of exposure can help detect, eliminate, or reduce sources of carcinogens, advancing preventive oncology.

While complete eliminating carcinogens is impossible, improving detection and monitoring—especially through specialized urine analysis—can help define preventive measures to lower carcinogen levels in the body.

Described screening protocol is applicable in any location with HPLC (High Performance Liquid Chromatography) and ICP (Inductively Coupled Plasma) devices. They are non-invasive, quick, effective, affordable, and inexpensive requiring only urine samples.

This screening protocol aims to develop, improve, and implement screening protocol for many malignant diseases and some chronic non-communicable diseases like cardiovascular, endocrine, neurological, hematological, dermatological, and malignant diseases. It supports medical professionals in interpreting HPLC and ICP urinary analyses and providing guidance on reducing or avoiding carcinogen exposure. In some cases, doctors may identify sources of exposure and inform authorities to address and eliminate these hazards.

Keywords: Human Exposure; Chemical Carcinogens; Screening; Cancer.

Biography

Vladan Radosavljevic graduated from the Medical Faculty of the University of Belgrade, Serbia, in 1991. He specialized (May 1995) and received his doctorate (November 1999) in epidemiology at the Medical Faculty of the University of Belgrade. Dr. Radosavljevic was the head of the Department of Epidemiology and deputy director of the Military Institute for Preventive Medicine in Belgrade from 2003 to 2010. He was the head of military preventive medicine from 2010 to 2020 in the Ministry of Defence of Serbia, and in 2020 he moved to the Institute of Epidemiology of the Military Medical Academy, Belgrade, where he works as an expert epidemiologist. He was a professor at the Biological Weapons course at the Military Academy of the University of Defence in Belgrade and a research associate at the Epidemiology course. Since 2015, Dr. Radosavljevic is a United Nations expert on biological weapons within the mechanism of the United Nations Secretary General.



Title of Presentation(New Thiophene Derivative Blocking TLR4/MAPK pathway sensitizes Hepatocellular Carcinoma induced in rats tolonizing Radiation and Convince Apoptosisthrough JAK/STAT3, β -Catenin/NOTCH and SOCS3 Downstream Nrf2, PPAR- γ signaling

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Background: Hepatocellular carcinoma (HCC) is one of the most common types of cancer worldwide and the first cause of cancer-related deaths. Tumor resistance is typically blamed for the failure of radiotherapy and chemotherapy to treat cancer in clinic patients. To improve the cytotoxicity of tumor cells using radiation in conjunction with specific tumor-selective cytotoxic drugs is crucial.

Aims and objectives: The goal of the present study was to investigate the antitumor efficacy of a new thiophene derivative against HCC in rats and explore the possible associated molecular pathways. The potential of this thiophene derivative to sensitize the HCC tumor tissue to a low dose of gamma irradiation was also investigated.

Methods: Adult male rats were divided into five groups; control, group treated with diethylnitroseamine (DEN) for the induction of HCC. The HCC-group was further divided into four groups and treated with thiophene derivative, γ -irradiation, thiophene derivative+ γ -irradiation, or left untreated.

Results: DEN induced HCC as evidenced by the macroscopic examination of liver tissues and histopathology, slowed the proliferation of cancer cells. As a key player in tumor proliferation, and inflammatory cascade induction, the down regulation of STAT3 following treatment of irradiated and non-irradiated HCC group with thiophene reduced tumor growth via multiple mechanisms, including production of pro inflammatory cytokines (down regulation of TLR4 expression and NFKB level), suppression of survival markers level (reduction of JAK, NOTCH1, β - catenin, SOCS3), and enhancing apoptosis (induction of tumor PPAR- γ and caspase-3) followed by enhancement of redox tone (Nrf-2,SOD,catalase and MDA) of the cells. The concomitant action of thiophene derivative+ γ -irradiation was typified by the better amelioration of tumor incidence and multiplicity.

Conclusion: Taken together, the new thiophene derivative is a promising therapeutic candidate for treatment of hepatic cancer in rats. It also sensitizes the HCC tumor to the ionizing radiation through anti-inflammatory and pro-apoptotic pathways

Biography

I got a scholarship for MSc Study from Academy of Scientific Research and Technology (ASRT), in atomic energy authority, in the field of radiation biology, since 1/2/ 2009 to 31/12/2011. Ph.D. degree in Biochemistry, Biochemistry Department, Faculty of Science, Ain Shams University, (2017). As a reviewer in Scientific Reports, cell biochemistry and function, open chemistry journal, biomed research international, human and experimental toxicology, BMC complementary cancer medicine, integrative cancer therapies, Asian Pacific Journal of Cancer Prevention, archive and case report, parasite and vectors journal, Toxicology report journal. Associate professor of Biochemistry, Radiation Biology Department, National Centre for Radiation Research and Technology (NCRRT), Atomic Energy Authority (AEA), Cairo, Egypt, 2023.



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