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COPD and Pulmonary Diseases

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3RD International Conference on

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Thank You All

Oral Presentations

October 09, 2025

Htoo Myat

John Hunter Hospital
Australia

Femoral Bone Cortical Thickness (FBCT) in patients with Chronic Obstructive Pulmonary Disease (COPD) and hip fracture: Role of comorbidities and lifestyle characteristics

Abstract:

Aim: To evaluate in COPD patients with hip fracture (HF) factors affecting the FBCT, a new and simple tool to assess skeletal status.

Methods: In 426 patients with COPD and HF (mean age 80.5 years, 295 females) and 106 healthy controls (mean age 32.0 years, 45 females) FBCT was measured at 3 cm and 10 cm from the greater trochanter. Data were correlated with 19 comorbid and lifestyle characteristics, 2 bone turnover markers (β-CTX, P1NP) and 5 bone-related parameters (PTH, 25 OH-vitamin D, calcium, phosphate, magnesium)

Results: In patients and controls, FBCT at both levels was significantly lower in females than in males. Low FBCT (lower than lowest quartile in controls) was found in 79% of male and 67% of female patients, and this proportion increased in parallel with the number of comorbidities, in males: from 7.7% (no comorbidities) to 44.3% (with ≥3 comorbidities) and in females from 3.7% to 36.3%, respectively. The highest number of low FBCT demonstrated males with stroke (85.7%), anaemia (80.0%) and walking aids users (81.3%), and females with a transient ischemic attack (TIA, 86.4%), stroke (77.1%) and excessive alcohol users (77.8%). Bone turnover marker (β-CTX) was significantly associated with low FBCT. Multivariate analysis identified cardiovascular disease, diabetes, TIA and smoking as independent determinants of low FBCT.

Conclusion: In COPD patients with HF, the FBCT is sex-dependent and significantly influenced by type and number of comorbid conditions, frailty, alcohol overuse. FBCT together with comorbid and lifestyle characteristics can help in assessment and prediction osteoporotic fractures risk.

Biography

Htoo Myat was originally from Myanmar and earned his primary medical degree from University of Medicine 1, Yangon, Myanmar in 2007. He migrated to Australia in 2013 and is currently working as a final year Geriatric Medicine Trainee in John Hunter Hospital, New South Wales, Australia. As part of his training, Htoo Myat has conducted a research project on femoral bone cortical thickness in COPD patients with hip fracture, and the findings have been presented locally and internationally. He has also contributed to a scoping review on adult patients with de novo glomerular diseases following COVID-19 infection or vaccine.

Omar Alqaisi

Al-Zaytoonah University
Jordan

Merkel Cell Carcinoma of the limbs has better outcome than truncal lesions: management updates from a 949-patient integrated international database.

Abstract:

Purpose: Merkel Cell carcinoma is a rare and aggressive cutaneous neoplasm. We studied the incidence, challenges in management and outcomes of lesions located in the limb from an aggregated database in order to evaluate whether the prognosis of peripheral MCC behaves similarly to rest of the body.

Methods and Materials: A 949-patient aggregated database (March 1982 - February 2015) was built from records of six cancer institutions and the literature consisting of patient characteristics, treatment details and outcomes to achieve adequate statistical power since it is a rare cancer. Equivalent doses in 2-Gy fractions (EQD2) = total dose×[(dose per fraction+α/β)/(2+α/β)], assuming α/β=10, were calculated to compare different dose-fractionations.

Results: 942/949 patients in the database have available data on original site(s), with primary in the head and neck 48.1% (453/942), limb 37.7% (355/942) and trunk 10.6% (100/942). Among those with a limb primary at presentation, 273/355 (76.9%) had clinical stage I or II, i.e. localized disease, 64/355 (18.0%) with stage III/nodal disease, 9/355 (2.5%) with stage IV/distant metastases and 8/355 (2.3%) with unknown stage. Radiotherapy (RT) techniques include: no RT in 236/355 (66.5%), primary site only in 33/355 (9.3%) with a median dose of 50 (range: 28-68.7) Gy2 or local+nodal coverage in 35/355 (9.9%) with a median dose of 50 (range: 37.3-60.0) Gy2. Among 343 patients with known outcome, local recurrence occurred in 74/343 (21.6%), nodal recurrence in 175/343 (51.0%) and distant recurrence in 108/343 (31.5%). The 5-year overall survival (OS) of the limb subgroup was 45.4%, compared with those of trunk (24.5%, P=0.005, logrank test). Corresponding 5-year cause-specific survival (CSS) was 60.0% vs 34.2% (P=0.000015). Limb lesions have better 5-year OS than head and neck (45.4% vs 35.5%, P=0.0027) and CSS (60.0% vs 58.2%, P=0.37).

Conclusions: Before the era of immunotherapy, peripheral lesions in the limbs have better outcomes than truncal lesions. Enrolment in clinical trials of neoadjuvant and adjuvant immunotherapy may help to improve prognosis of these patients.

Biography

Omar Al-Qaisi 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 currently works as a part-time clinical instructor at Al-Zaytoonah University and also at the Military 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, orthopaedics, sleep quality, pain management and patient satisfaction in oncology patients.

Chonghyun Won

Ulsan Uuniversity School of Medicine
South Korea

Clinical and histopathological characteristics of melanomas in Asians under age 40

Abstract:

Previous studies suggested racial difference between young melanomas of Caucasians and non-Caucasians. This study aimed to elucidate characteristics of melanomas in young Asians. We analyzed clinical and histologic characteristics of patients under age 40 diagnosed with cutaneous melanomas including in situs. Survival and subgroup analyses were conducted. Among the 45 patients investigated, the most common anatomical sites of melanomas were lower extremities (22/45, 45.3%) and acral lentiginous type was the most common histological variety (18/45, 40%), of which 12 were subungual type. Lymph node involvement and nodular histologic type were significant prognostic factors. Age subgroup analysis revealed that clinical and histopathologic features of adolescents (15–21 years old [YO]) were distinct from those of young adults (22–39 YO), but similar to children (0–14 YO) who showed amelanotic nodules ($p < 0.01$) and spitzoid subtypes ($p < 0.001$). Pediatric melanomas (< 20 YO), showed racial differences based on sex ($p < 0.01$), an-atomical site ($p < 0.001$), histologic types ($p < 0.001$), and lymph node involvement at diagnosis ($p < 0.047$). Understanding the differences among age groups will help clinicians decide management of melanomas in young Asian patients.

Biography

Chonghyun WON has completed his PhD from Harvard University and postdoctoral studies from Harvard University School of Medicine. He is the director of skin cancer center, he has published more than 250 papers in reputed journals.

Jirakrit Leelarungrayub

The Far Eastern University
Thailand

Preliminary study on innovative virtual reality exercise for pulmonary rehabilitation among stable patients with chronic obstructive pulmonary disease

Abstract:

Virtual reality (VR) is a new innovative technology that can enhance pulmonary rehabilitation (PR) in physical therapy (PT). The software with three exercise components of chest mobilization and deep breathing, upper and lower limb exercise, and relaxation exercise is challenged clinically among patients with chronic obstructive pulmonary disease (COPD). Therefore, the clinical effect of exercises with VR was studied among stable COPD participants (n = 10) compared to non-VR participants (n = 10). Clinical outcomes: sit-and-reach distance, lung capacity (VC) (forced vital capacity; FVC and forced expiratory at one second; FEV1), chest wall expansion (CWE), and dyspnea score were assessed before and after 14 days. In addition, the usability, satisfaction, and health safety of the VR were interviewed. The results between non-VR exercise (aged 56.80 ± 10.52 years) and VR exercise groups (aged 64.70 ± 10.33 years) showed significant differences between groups in the sit-and-reach distance, CWE, or dyspnea score, except for the VC. When comparing within groups, the VR exercise group significantly changed on FVC, sit-and-reach distance, CWE, and dyspnea scores as well as in the non-VR exercise group showed significant differences in FVC, sit-and-reach distance, and dyspnea score, except FEV1 and CWE. When statistically comparing the results of the post-exercise period between groups, the sit-and-reach distance, CWE, and dyspnea were improved in the VR exercise group significantly when compared to the non-VR exercise group. Ultimately, COPD participants accepted the usability and satisfaction on exercise with VR without side effects on health.

Conclusion: This study demonstrates that innovative VR can be applied via specific exercise programs in pulmonary rehabilitation for physical therapy.

Biography

Jirakrit Leelarungayub has completed his Bachelor program in Physical Therapy from Khon Kaen University, Master of Science in Data Science and Digital Innovation, and Ph.D. in Biochemistry in Thailand. He has been an Associate Professor in the Cardiopulmonary Physical Therapy Field at the Faculty of Associated Medical Science, Chiang Mai University, Thailand since 1994. He has published more than 64 papers in reputed journals and has been serving as an editorial board member of repute.

Yasmeen Idrees

Fatima Jinnah Medical University
Pakistan

Beyond Relief: Opioid Use Disorder in Cancer Patients - Narrative Review and Expert Opinion

Abstract:

Opioids are vital for managing cancer-related pain, especially in advanced disease stages. However, growing global awareness of opioid use disorder (OUD) introduces ethical, clinical, and policy dilemmas within oncology care. This narrative review explores the intersection of cancer care and OUD, synthesizing recent literature and expert insights to promote responsible pain management practices. Our findings are summarized as follows. While cancer patients are often seen as exempt from OUD risk due to the necessity of opioid analgesia, emerging data and clinical experience challenge this assumption. Survivorship and chronic malignancies show patterns of misuse and behavioral addiction. Cases from Canada, France, Jordan, and Kosovo illustrate these complexities. Risk factors include prior substance use, psychological comorbidities, prolonged survivorship, and insufficient monitoring. Gaps in provider training and inconsistent screening contribute to underdiagnosis. The review examines current pharmacologic approaches—long-acting opioids, adjuvant therapies, and opioid-sparing techniques such as nerve blocks, cannabis derivatives, and non-opioid analgesics. Expert commentaries support a patient-centered strategy that differentiates dependence from addiction. They call for nuanced judgment, interdisciplinary collaboration, and standardized tools to manage risk without compromising symptom control. Integrated care models-psycho-oncology, addiction consultation, telehealth-are recommended. In conclusion, a paradigm shift is needed: one that balances empathy with clinical vigilance. By embracing evidence-based practice, targeted education, and policy reform, oncology teams can address OUD risk while preserving compassionate pain relief.

Biography

Yasmeen Idrees is a medical graduate of Fatima Jinnah Medical University Lahore, Pakistan. Following her graduation, she pursued postgraduate training in General Internal Medicine and completed MRCP (UK) as her postgraduate qualification. She is keen to explore research in medical field and collaborated with Professor Patricia Tai in Canada for the same.

Omar Alqaisi

Al-Zaytoonah University of Jordan
Jordan

Oncology Nurses' Attitudes, Knowledge and Practices in Providing Sexuality Care to Cancer Patients: A Scoping Review

Abstract:

Sexual health in cancer care is often overlooked. This study examines oncology nurses' knowledge and practices regarding sexuality care, identifying barriers and facilitators. A Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA)-guided search of Scopus, ScienceDirect, PubMed, and EBSCO focused on studies from 2014 to 2024. Of 1735 identified studies, only 11 met inclusion criteria. Findings revealed a lack of knowledge among nurses and dissatisfaction with sexual healthcare. Barriers include time constraints, cultural factors, and personal reservations. Routine discussions are often absent due to inadequate training. Education- and system-based strategies are needed to enhance nurses' competence in addressing sexual concerns. Implementing training programs, structured records, evaluation tools, concept maps, and system support would improve patient care and oncology nursing practices. Addressing these gaps with practical measures can enhance communication, patient satisfaction, and quality of life. This unique analysis was conducted by two experienced advanced nurses in the Middle East, were discussions about sex are often regarded as taboo.

Biography

Omar Al-Qaisi 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 currently works as a part-time clinical instructor at Al-Zaytoonah University and also at the Military 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.

Melinda Hysenaj

University of Prishtina
Kosovo

Oncologic Emergencies: A Narrative Review with Clinical Cases and Recommendations

Abstract:

Background: Oncologic emergencies are acute, life-threatening complications in cancer patients, including metabolic, neurologic, infectious, and treatment-related conditions. Their incidence is increasing due to improved cancer survival and aging populations, making timely recognition and intervention critical in all care settings.

Methods: A literature review of clinical guidelines, systematic reviews, and large observational studies from the past decade was conducted. Representative real-world cases were included to illustrate diagnostic complexity and interdisciplinary management strategies.

Results: The most frequent oncologic emergencies include infections, uncontrolled pain, respiratory distress (e.g., superior vena cava syndrome), gastrointestinal obstruction, febrile neutropenia, hypercalcemia, tumor lysis syndrome, and spinal cord compression. Atypical presentations demand vigilance.

Examples:

- A 40-year-old woman had sudden paraplegia, initially suspected as spinal cord compression; later confirmed as Guillain-Barré syndrome.
- An 80-year-old man with hypercalcemia died from overhydration complications.
- A 68-year-old woman with superior vena cava syndrome received emergent stenting and radiotherapy; diagnosis was later confirmed via liquid biopsy. These highlight the need for rapid decision-making and access to advanced diagnostics.

Conclusion: Effective management of oncologic emergencies requires prompt recognition, interdisciplinary coordination, and adaptive strategies to manage atypical cases. Integrating tools like liquid biopsy and improving access to emergent care can enhance outcomes.

Biography

Melinda Hysenaj is a final-year medical student at the University of Prishtina. Passionate about medical education and cancer care, she collaborates with an international research team under the mentorship of Professor Patricia Tai (Canada).

Melisa Stublla

University of Prishtina
Kosovo

Incidents and near-misses in patient care

Abstract:

Background: Near misses and adverse events in healthcare often result from communication failures, medication errors, and clinical judgment lapses. While not all cause direct harm, they expose weaknesses that can compromise patient safety.

Methods: A literature review was conducted using PubMed and credible news sources from the past decade. Real-world cases were analyzed to identify recurring issues and practical strategies for prevention.

Results: Communication failures are a leading cause of near misses. Examples include misheard verbal medication orders and illegible handwriting leading to drug errors. In Hong Kong, a dysphagic patient died after receiving a regular diet due to a misunderstood "diet as tolerated" order, highlighting the need for clear, accurate communication. Poor communication in emotionally sensitive situations can have tragic consequences. A patient with recurrent breast cancer in Hong Kong died by suicide after learning of prolonged treatment. In contrast, Canada integrates social workers and public crisis alerts to support at-risk individuals, showing the benefit of psychosocial care. Medication errors commonly occur during care transitions, such as confusion between ".1 mg" and "1 mg," or duplicate prescriptions from different providers. These stress the need for medication reconciliation, electronic prescribing, and clear discharge instructions. Judgment errors also pose risks. One case involved delayed recognition of sepsis symptoms, only addressed after a nurse spoke up—emphasizing clinical vigilance and team collaboration.

Conclusion: Preventing near misses requires structured communication, digital tools, simulation training, and a non-punitive culture that encourages reporting and system improvement.

Biography

Melisa Stublla, is a recent medical graduate from the University of Prishtina in Kosovo, with growing interest in oncology, gynecology, internal medicine, and public health. She is deeply engaged in research and values evidence-based practice, having collaborated with international teams across multiple disciplines. Under the mentorship of Professor Patricia Tai, a leading figure in global oncology, Melisa is further motivated to pursue clinical research and contribute to global health efforts. She is dedicated to improving patient outcomes through scientific inquiry, innovation, and human-centered care.

Shend Kryeziu

University of Prishtina
Kosovo

Challenges of cancer care in war-torn countries

Abstract:

Introduction: War and armed conflict severely disrupt cancer care systems by destabilizing infrastructure, draining financial resources, and displacing healthcare personnel. Hospitals and clinics may become unsafe or inaccessible due to bombardment, military occupation, or evacuation. Essential medical services such as chemotherapy, radiotherapy, surgery, and follow-up care are often interrupted. The breakdown of supply chains affects the availability of medications, blood products, and stem cell donations. Moreover, logistical difficulties and sanctions hinder the safe transport of critical resources from outside regions, leaving cancer patients with limited or no access to life-saving treatments.

Methods: A comprehensive literature and media review was conducted, focusing on publications from the past five years. Researchers from Ireland, Jordan, Lebanon, and Kosovo analyzed their firsthand experiences and data on cancer service delivery in conflict settings in this work.

Results: The impact of war on cancer care is multifaceted. The war on Gaza since 2024 forced Jordan to receive more than 23,000 children for treatment at the King Hussein Cancer Center, which is the only center in Jordan for treating cancer patients. The children are received at intermittent intervals, which increases the consumption of medical equipment, stresses the medical staff, and increases the pressure on the center. Similarly, cancer care in war-torn countries, like Kosovo, faces several significant challenges that are compounded by the impact of conflict, economic instability, and the destruction of healthcare infrastructure. Kosovo, which declared independence from Serbia in 2008 after a long history of political instability, is still in a rebuilding phase, with many of its systems, including healthcare, grappling with the aftermath of war. This includes a lack of adequate medical facilities, limited access to modern treatment options, and the shortage of specialized medical staff, all of which create barriers to providing essential cancer care. Both regions highlight how conflict severely disrupts cancer treatment, whether by overloading healthcare centers or by undermining the foundations of an already fragile medical system. Routine vaccinations, such as those needed after splenectomy, may be delayed or missed due to vaccine shortages and staff shortages. Basic medical supplies like masks and gloves often can't be restocked because of damaged trans-

portation or security issues. Sterilization of surgical instruments is compromised when power infrastructure is damaged, and explosions targeting key facilities can halt hospital operations. Diagnostic services, including imaging and lab testing, may become unavailable due to damaged equipment or the inability to maintain machines without spare parts and trained technicians. Follow-up appointments, critical for monitoring disease progression or response to therapy, may be indefinitely delayed as patients flee conflict zones or as physicians are reassigned, displaced, or injured.

Communication breakdowns and patient record losses further challenge continuity of care. In some conflict areas, cancer treatment regimens are altered, interrupted, or abandoned altogether. High-tech therapies like precision medicine, radiopharmaceuticals, and cellular therapies are rarely feasible due to their dependence on stable infrastructure and international cooperation.

Conclusions: Cancer treatment requires a level of stability, coordination, and access that is difficult to sustain in war-torn regions. While international humanitarian efforts can offer temporary relief, sustained access to safe and effective cancer care is only feasible in times of peace. Every effort must be made by all stakeholders—governments, non-governmental organizations, healthcare providers, and global institutions—to prevent conflict and ensure healthcare continuation during crises. Preserving and restoring cancer services in conflict settings is not only a medical imperative but a humanitarian one, grounded in the principles of equity, dignity, and the right to health.

Biography

Shend Kryeziu is a medical student and will graduate to be a medical doctor in Kosovo. His interest is cancer research. He collaborates with his other colleagues in the cancer research team of Professor Patricia Tai in Canada who serves as a mentor for them all.

Lorent Sijarina

University of Prishtina
Kosovo

Applying concepts of "Lean Management": Evaluation of a pioneer off-site injection program for androgen deprivation treatment of prostate cancer

Abstract:

Aim: With the rising number of prostate cancer patients requiring androgen deprivation therapy (ADT), especially with monthly gonadotropin-releasing hormone (GnRH) antagonist injections, our province was the first in Canada to implement an off-site injection program. The goal was to decentralize ADT from hospital clinics, reduce healthcare workload, and improve patient access, following Lean Management principles. This study evaluates program acceptance, challenges, and outcomes.

Methods: Nurses from the Community Oncology Program of Saskatchewan (COPS), selected pharmacies, and home injection services were trained by nurses from two tertiary cancer centers and pharmaceutical representatives. Since 2012, pharmaceutical companies have hired nurses to deliver off-site injections. Patients with mobility or travel barriers were offered home administration. Oncologists identified candidates and coordinated care. Initially, patient consent was faxed to urban off-site programs and COPS in rural areas. Later, electronic health records and incident reporting were introduced. In 2014, 60 patients were randomly selected from 662 enrolled to evaluate the program using telehealth feedback, faxed nursing reports, and record reviews.

Results: By 2014, 662 patients were enrolled. Rural patients appreciated care closer to home; staff reported smoother workflows. Some miscommunications led to missed visits or medication confusion. One site had increased injection reactions, prompting retraining. Scheduling and supply delays improved with better communication. Traveling patients continued treatment abroad. PSA monitoring improved with nursing reminders.

Conclusions: The off-site ADT program is feasible and effective, enhancing access, reducing hospital burden, and supporting Lean Management goals for more efficient care.

Biography

Lorent Sijarina, MD, is a recent medical graduate from University of Prishtina, Kosovo, with broad interests in internal medicine, oncology, and public health. Passionate about research and evidence-based practice, he has engaged in international collaborations with diverse experts. Currently mentored by Professor Patricia Tai, a global leader in oncology, Lorent is further inspired to pursue clinical research and global health. He is committed to advancing medicine through scientific inquiry, innovation, and compassionate care. With a strong drive for interdisciplinary learning, he aims to grow as a physicianresearcher dedicated to improving healthcare outcomes and promoting excellence in science.

Fatlinda Berisha

University of Pristina
Kosovo

Overview of PSMA PET and salvage treatment of previously irradiated recurrent prostate cancers

Abstract:

Background: Prostate cancer is one of the most common malignancies in the U.S., with recurrent disease posing a significant clinical challenge. Biochemical recurrence is typically indicated by a rising prostate-specific antigen (PSA) level, prompting further evaluation. Recent advances in nuclear imaging-particularly prostate-specific membrane antigen (PSMA) PET—have revolutionized recurrence detection, offering superior sensitivity and specificity compared to conventional modalities. This enables earlier and more accurate restaging and guides salvage therapy decisions.

Methods: A focused literature search was conducted using PubMed and Google to identify peer-reviewed articles, clinical trials, and guidelines related to recurrence detection and salvage treatment. Keywords included "prostate cancer recurrence," "PSMA PET," "androgen deprivation therapy," and "salvage treatment."

Results: PSMA PET imaging now plays a central role in restaging, even at low PSA levels. Emerging biomarkers such as circulating tumor DNA (ctDNA) may complement PSA testing in the future. First-line salvage therapy typically involves total androgen blockade using a GnRH agonist or antagonist with an anti-androgen. GnRH antagonists may offer faster PSA responses and fewer side effects. Continuous androgen deprivation therapy (ADT) is preferred over intermittent regimens in patients with poor prognostic factors. Local salvage options—such as prostatectomy or reirradiation—are technically complex and best performed at specialized centers. In advanced cases, triplet therapy and radiopharmaceuticals like Radium-223 and ^177Lu-PSMA-617 have shown survival benefits. Psychological support remains essential to address distress and improve quality of life.

Conclusion: PSMA PET imaging and tailored salvage therapies are reshaping the management of recurrent prostate cancer, requiring multidisciplinary care and ongoing research.

Biography

Fatlinda Berisha is a medical student who will soon complete her studies in General Medicine at the University of Prishtina "Hasan Prishtina." She has a compassion for helping patients and performing research in cancer. She collaborates with seven other classmates in the cancer research team of Professor Patricia Tai in Canada who serves as a mentor for them all.

Md Zaber

Gazi Medical College
Bangladesh

Evaluation of Multiplex loop-mediated isothermal amplification assay for the detection of Mycobacterium tuberculosis complex from clinically suspected cases of pulmonary tuberculosis

Abstract:

Tuberculosis (TB) is the second leading cause of death from a single infectious agent worldwide.Bangladesh ranks 7th among the 30 high TB burdened countries in the world. Accurate detectionof Mycobacterium tuberculosis complex (MTBC) is challenging for developing countries as most of the resource-poor settings are not suitable for performing molecular techniques. The purpose of the study was to compare the multiplex TB-LAMP assay with MTB/NTM qPCR,culture, Z-N staining, and fluorescence microscopy in order to assess the effectiveness of the LAMP assay for detecting cases of pulmonary tuberculosis. This research work was done from March 2022 to February 2023. Fulfilling the inclusion criteria 130 sputum samples were collected. TB-LAMP assay, qPCR, culture in L-J media, Z-N staining, and fluorescence microscopy were performed. Out of 130 samples qPCR detected MTBC in 56.92 % cases, and TB-LAMP detected 53.85 %. MTBC was detected by culture 46.15 %, by Fluorescence microscopy 40.77 %, and Z-N staining 36.92 %. TB-LAMP detected 16.93 % more cases than Z-N staining and 13.08 % more cases than fluorescence microscopy. The sensitivity, specificity, positive, and negative predictive values of multiplex-LAMP assay were 95 %, 81.4 %, 81.4 %, and 95 %, respectively considering culture as a gold-standard. MTBC negative culture samples (18.57 %) showed positivity by LAMP assay as well as by qPCR. This study detected 7.69 % non-tuberculous mycobacteria (NTM) by qPCR. All NTM positive samples were negative by TB-LAMP. TB-LAMP is an easy to perform, cost-effective, reliable assay with high sensitivity and specificity. World Health Organization recommended TB-LAMP as a rapid molecular test for rapid detection of tuberculosis and as replacement of microscopy in resource poor settings/hard to reach areas. Bangladesh being a high TB burden country it is essential to implement TB-LAMP to achieve End TB Strategy by 2035.

Biography

Md. Zaber currently serves as an Assistant Professor in the Department of Microbiology at Gazi Medical College, Khulna, Bangladesh. He obtained his MBBS degree from Mymensingh Medical College and subsequently earned his MD in Microbiology from Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka. Dr. Zaber has over five years of research experience in the field of microbiology, complemented by two years of academic teaching. His research interests include the optimization of culture conditions for bacterial isolation, the application of molecular technologies for pathogen detection, and the analysis of antimicrobial resistance patterns. In addition, his work has contributed to the detection of cytokine levels for COVID-19 diagnosis, as well as the identification and differentiation of Mycobacterium tuberculosis and non-tuberculous mycobacteria. Through his academic and research contributions, Dr. Zaber remains committed to advancing knowledge in microbiology and strengthening diagnostic approaches for infectious diseases in Bangladesh.

Drilon Bytyci

University of Prishtina
Kosovo

Difficult-to-manage prostate cancer scenarios that illustrate the pathologist's role in prostate cancer management

Abstract:

Prostate cancer diagnosis primarily depends on the Gleason scoring system, which evaluates histological patterns from 12-core biopsy samples. Although this system has improved in accuracy over time, significant interobserver variability remains-particularly when grading ambiguous features such as cribriform architecture or differentiating between Gleason patterns 3 and 4. Rare histological variants like small cell and intraductal carcinoma add further diagnostic complexity. This variability raises the question: could a double-read system where two pathologists independently assess biopsy samples-enhance diagnostic consistency? To explore this, we conducted a literature review using PubMed and relevant news sources to evaluate the diagnostic impact, financial implications, and logistical feasibility of implementing a double-read approach. Studies indicate that double-reading significantly improves diagnostic precision. For example, a UK study showed a reduction in false positives from 0.4% to 0.06% when specialist uropathologists reviewed cases. Additionally, rare false negatives were better detected in multidisciplinary settings. Despite its benefits, double-reading introduces added labor costs and slower turnaround times. With prostate biopsies contributing $2.5 billion annually to U.S. healthcare expenses, the financial burden may be prohibitive for some institutions. However, selective double-reading for complex cases or integrating AI-assisted pathology could offer cost-effective alternatives. In conclusion, enhancing diagnostic consistency in Gleason grading is crucial for optimal prostate cancer management. While double-reading offers clear clinical benefits, its implementation must consider resource availability. Hybrid strategies using selective review or technology may provide a balanced approach between accuracy and efficiency.

Biography

Drilon Bytyci is a medical student from Kosovo and will graduate from the University of Prishtina. He already holds a Bachelor's degree in Radiologic Technology since 2022. His main interests include radiology, otorhynolaryngology, oncology and medical research. In May, he presented his graduation thesis at the National Conference of Medical Sciences in Tirana, contributing to academic dialogue among peers and professionals. He has a strong interest in evidence-based medicine, integrating current literature into practice and contributing to systematic reviews and data analysis. He is skilled in academic writing, medical imaging interpretation and structured clinical reasoning.

Jhan. S. Saavedra T

Universidad del Cauca
Colombia

Microgravity shapes cancer pathophysiology and progression

Abstract:

Exposure of tumor cells to microgravity, whether aboard space platforms or in ground-based simulators profoundly remodels their biology, affecting mechanotransduction, epigenetic regulation, three-dimensional architecture and intercellular communication [1]. In colorectal cancer organoids cultured in a 3D clinostat, cells adopt quiescent-cystic morphologies, hyperactivate mitotic-spindle, G2/M-checkpoint and E2F-target pathways and lose expression of TBC1D3 GTPases, doubling their proliferation rate versus 1G controls [2]. By contrast, A-172 glioblastoma lines on a 3D "microgravity-on-a-chip" exhibit smoother cell borders, reduced filopodia and lamellipodia, and inactivation of Hippo signaling—with YAP-1 down 22 % and vinculin down 20 %, culminating in suppressed growth [3]. Epigenetically, microgravity suppresses histone-deacetylase genes (HDACs) and core histones (H2B, H4, H2A) and lowers KMT2C/D/E methyltransferases, implicating genomic instability and impaired DNA repair in both colorectal and breast (MCF-7) aggregates [2,4]. Moreover, adherent cells shed into suspension spontaneously form multicellular spheroids that mimic micrometastases, displaying oxygen gradients, reduced central necrosis and differential chemosensitivity; notably, colorectal spheroids under microgravity show enhanced 5-fluorouracil efficacy, suggesting more predictive drug screens [2,4]. Exosome biogenesis is also reprogrammed: MDA-MB-231 breast cells release fewer but larger vesicles enriched in Ras-like GTPases (Ral, Rho, CDC42), modulating paracrine invasiveness, while FTC-133 thyroid cells on the ISS elevate CD63/CD81 exosomal markers and alter over 100 microRNAs tied to aggressiveness, yielding novel epigenetic targets [1]. Lineage-specific responses further illustrate microgravity's heterogeneity: A549 lung carcinoma regains E-cadherin and downregulates N-cadherin/MMP2 toward a more epithelial phenotype; PC-3 prostate spheroids show anomalous divisions, early inflammatory signals (↑IL-6, ↑CXCL8) and RPM spheroids with upregulated VEGF, integrins and cytoskeletal components endorsing angiogenesis; gastrointestinal models shift to glycolytic metabolism and modulate multidrug-resistance genes; and melanoma (HaCaT/A375) increases viability and mitochondrial activity but reduces proliferation with actin network reorganization [5]. Collectively, these findings demonstrate that microgravity redefines tumor cell behavior, provides three-dimensional models closely emulating human cancers and accelerates therapeutic target discovery and preclinical drug evaluation, establishing microgravity research as a promising catalyst in translational oncology.

Biography

Jhan Sebastián Saavedra Torres is a medical doctor from Universidad del Cauca (Colombia), with master's degrees in Palliative Care (Universidad Nebrija) and Clinical Immunology (Universidad de Vitoria-Gasteiz, Spain). He is a Family Medicine specialist from Universidad Javeriana, Cali. His current research focuses on sepsis and immunology. He is a member of the Health Research Group (GIS) and an active participant in NASA's Human Research Program (valid through 2025). He has training in neurological diving rescue and assessment (PADI and DAN), and has authored multiple scientific publications in critical care, immunology, and global health.

Liburn Grabovci

University of Pristina
Kosovo

Improving quality of life among cancer patients in the modern era

Abstract:

Modern cancer treatments often cause acute side effects (e.g., fatigue, nausea, pain) and long-term complications (e.g., neuropathy, hormonal imbalance, infertility, cognitive issues) that impair quality of life. This review examined strategies from the past five years to manage these effects in survivors.

Methods: A literature review of the past five years was conducted to identify strategies aimed at improving quality of life and managing post-treatment complications among cancer survivors.

Results: Common complications include radiation-induced skin toxicity, fatigue, alopecia, and weight changes. Advances like IMRT and SRS reduce healthy tissue damage, while minimally invasive surgery helps manage head and neck disfigurements. Cardiotoxic agents (e.g., doxorubicin) require dose management and cardiology coordination; AI tools like CardioAI aid in monitoring and risk prediction. GI side effects can be alleviated by limiting dietary fat, and pelvic floor muscle training reduces urinary incontinence after prostatectomy. Supplements like vitamin D and bisphosphonates help prevent radiotherapy-induced bone loss. Sexual dysfunction remains under-addressed, but structured documentation and role-play-based provider education show promise in improving care. Survivors often face financial strain, relationship stress, and fear of recurrence. Psychosocial interventions including digital CBT, health education, and virtual reality therapy significantly reduce distress and improve well-being.

Conclusion: Improving cancer survivorship requires multidisciplinary care, integrating medical, psychological, and technological strategies. Coordinated support and tailored education can enhance survivors' long-term quality of life.

Biography

Liburn Grabovci is a medical doctor and graduated in the University of Prishtina. His interests include surgery and internal medicine, and he aims to pursue postgraduate specialization while remaining dedicated to lifelong learning, professional growth and works in scientific papers. He collaborates with his other colleagues in the cancer research team of Professor Patricia Tai in Canada who serves as a mentor for them all.

Sunday Aghamie

University of Northern Colorado
USA

IPCW-Weighted Ensemble of DeepSurv, VAE and Bayesian Neural Mixture Models for Personalized Prognostic Subtyping on the METABRIC Breast Cancer Cohort

Abstract:

Accurate, patient-specific prognosis in breast cancer is hindered by high-dimensional data, heterogeneous risk factors and right-censoring. We present an ensemble framework that leverages inverse-probabilityof-censoring weights (IPCW) to train three complementary DeepSurvbased architectures on the publicly available METABRIC cohort (n 1,980; up to 10-year follow-up):

- A baseline DeepSurv network predicting log-hazard scores,
- A DeepSurv network fed with low-dimensional embeddings froma variational autoencoder, and
- A DeepSurv network whose final layer is a Bayesian neural mixture head.

Each model is optimized under an IPCW-weighted Cox partial-likelihood loss; their risk outputs are then stacked via a meta-learner and converted into calibrated survival probabilities through Platt scaling. On held-out test data, our ensemble achieves a concordance index of 0.784 (±0.012) and an integrated Brier score of 0.183, outperforming all individual components. Time-dependent AUC at 5 years increases by up to 5%, and decision-curve analysis demonstrates higher net benefit across clinically relevant thresholds. This IPCW-weighted ensemble delivers fine-grained, uncertainty-aware prognostic subtypes that can guide personalized surveillance and treatment planning in breast oncology.

Biography

Sunday Aghamie is a Ph.D. student and Graduate Assistant in the Department of Applied Statistics and Research Methods at the University of Northern Colorado (UNC) in Greeley, Colorado

Keynote Presentations

October 09, 2025

Patricia Tai

University of Saskatchewan
Canada

Update on PSMA PET scans: initial and salvage treatment of nodal/distant metastases in prostate cancer

Abstract:

This update explores prostate-specific membrane antigen (PSMA) positron-emission tomography (PET) and key controversies in managing nodal and distant metastases in prostate cancer. PSMA PET is increasingly favored over conventional imaging, yet treatment decisions for positive findings remain debated, particularly regarding therapeutic strategies, disease progression monitoring, and intensification approaches for metastatic castration-resistant prostate cancer (mCRPC). For nodal metastases, both metastasis-directed and systemic treatments have been explored. Total androgen blockade with gonadotropin-releasing hormone (GnRH) agonists or antagonists, combined with anti-androgens, is recommended. GnRH antagonists provide faster, more effective responses with fewer complications. Intermittent androgen deprivation therapy is generally discouraged for patients with nodal or distant metastases. Prostatectomy remains investigational for oligometastatic cases. Upon progression to castration-resistant prostate cancer, intensification strategies include radiotherapy (e.g., radium-223, lutetium-177 PSMA-targeted therapy, stereotactic body radiotherapy), chemotherapy, and immunotherapy. Lutetium-177 PSMA therapy is FDA-approved only for mCRPC patients who have failed androgen receptor pathway inhibitors (ARPI). Triplet therapy or early radiopharmaceutical administration may benefit younger, fit patients. Pembrolizumab and poly (ADP-ribose) polymerase (PARP) inhibitors are now standard-of-care for patients with germline or somatic BRCA or ATM mutations in mCRPC, though controversy remains regarding the prognostic role of tumor suppressor genes. Various approaches exist for managing nodal or distant metastases detected via PSMA PET. This talk highlights ongoing debates in radiotherapy, systemic therapies, and immunotherapy to improve outcomes in prostate cancer care.

Biography

Patricia Tai, a gold medal graduate from University of Hong Kong (ranked 35/100 globally), trained under renowned experts Prof. John Ho (nasopharyngeal cancer), Prof. David McDonald (brain tumor response: McDonald's criteria), and Mr. Jake Van Dyk (medical physics). An international skin cancer specialist, she is the author of five UpToDate chapters (Wolters Kluwer, United States). She is also the Clinical Professor of University of Saskatchewan in Western Canada. She has 148 full publications, 126 conference abstracts, and 168 presentations. With 13 academic awards, her contributions to oncology and medical research continue to benefit the field.

Poster Presentations

October 09, 2025

Fahad Amin Khan

Shifa College of Medicine
Pakistan

Actinomyces Infection in a Post-TB Cavity: A case report

Abstract:

Background: Actinomyces is a chronic bacterial infection caused by gram positive, anaerobic bacilli, commonly affecting the oral cavity, gastrointestinal, and urogenital tract. Pulmonary actinomycosis is uncommon, compromising only 15% of cases, and is misdiagnosed due to its resemblance to malignancies or fungal infections. Post-Tuberculous (Post-TB) cavities serve as breeding ground for secondary infection, particularly fungal, with bacterial infections being rare.

Case: We present a 56 year old male with a history of TB in the right upper lung (RUL), who developed pulmonary actinomyces in a Post-TB cavity. He presented with a complaint of hemoptysis and had comorbidities like poorly controlled diabetes mellitus, hyperlipidemia, and smoking history. Chest CT showed a "tree in bud" appearance in the RUL cavity. Pulmonary functions tests showed obstructive changes. A biopsy was taken which confirmed actinomyces. The patient was treated with IV ceftriaxone for 4-6 weeks, followed by oral Augmentin for 1.5 years. Clinical improvement was noted on followup.

Conclusion: This case emphasizes the rare development of actinomyces in a post-TB cavity, highlighting the need of histopathological diagnosis in patients with cavitary lung disease. Due to the risk of misdiagnosis and inappropriate therapy, actinomyces should be considered in chronic lung disease patients presenting with hemoptysis and cavitary lesions, especially in TB endemic areas. A multidisciplinary approach is important for optimal management.

Biography

Fahad Amin Khan is a fourth-year medical student at Shifa College of Medicine with a strong interest in internal medicine and research. He has presented a poster at an international conference and is dedicated to advancing his medical education and clinical expertise.

Oral Presentations

October 09, 2025

Aziz Maleki

Zanjan Pharmaceutical Nanotechnology Research Center (ZPNRC), Iran

Infected Wound Healing Using Near-Infrared Responsive Hydrogels

Abstract:

One-third of the global mortality is related to bacterial infectious diseases, causing tremendous harm to human health. Skin plays a vital protective role in protecting the body from external harm, thus, it is of special importance to accelerate the treatment of damaged skin tissues especially bacterial infected ones. Benefiting from their favorable biocompatibility, distinctive physicochemical properties, and their ability to simulate the natural extracellular matrix, hydrogels are often used as excellent wound dressings. They have a three dimensional and porous structure and can absorb a large quantity of water, thus providing a moist environment to the wound environment. Due to wounds on the skin being often irregular in shape, conventional hydrogels cannot cover the wounds. Therefore, injectable counterparts have recently gained great attention because of their potential for filling an irregular wound.

Recently, photothermal therapy (PTT) has attracted great interest in the treatment of bacteria-accompanied wounds. Under near-infrared (NIR) light irradiation, a high local temperature (>50 °C) generated by the NIR-active wound dressing or nanosystem kills bacteria. This is mainly due to physical damage (thermal destruction) to bacteria and on demand drug release when an antimicrobial drug is used.

Here, we discuss recent advances on the development of novel photothermally active hydrogels in burn and infected wound healing. In addition, recent achievements at our research group on the design and fabrication of multifunctional hydrogels will be presented. To this aim, combination of PTT with gas delivery and chemodynamic therapy will be discussed in a wound healing process as well.

Biography

Aziz Maleki received his Ph.D. degree in organic chemistry from the Institute for Advanced Studies in Basic Sciences, Zanjan, Iran. He then worked as a postdoctoral fellow in Zanjan University of Medical Sciences (ZUMS). At present, he is currently an associate professor at department of pharmaceutical nanotechnology, ZUMS, Zanjan, Iran. His research interests focus on the fabrication and characterization of novel nanocomposites and hydrogels for catalytic nanomedicine, sonodynamic therapy, photothermal therapy, and tissue engineering applications.

Rayehe Noroozi

Shiraz University of Medical Science,
Iran

Bridging the Divide: Health Economic Inequities in the Management of Chronic Obstructive Pulmonary Disease (COPD) in Underserved Populations

Abstract:

Chronic Obstructive Pulmonary Disease (COPD) imposes a substantial, yet unequal, clinical and economic burden that disproportionately affects deprived populations and exacerbates health inequities.[1] This systematic review examines the health economic consequences of these disparities. Following PRISMA guidelines, a search of PubMed, Scopus, and Web of Science (2015-2025) was conducted.[1] The review confirms a strong socioeconomic gradient in COPD prevalence, morbidity, and mortality. Financial barriers limit access to essential medications and pulmonary rehabilitation, leading to poor outcomes. Indirect costs from lost productivity and caregiver burden are significantly higher in low-income households, perpetuating a cycle of illness and poverty.[1] These findings underscore the urgent need for justice-oriented policies. A focus on purely clinical solutions is insufficient. Equitable resource allocation, strengthening universal health coverage to include comprehensive COPD care, and implementing community-based interventions are critical. Investing in equitable COPD management is a moral imperative and a sound economic strategy.

Biography

Rayehe Noroozi is a PhD student in Health Economics at Shiraz University of Medical Science. Her research focuses on health equity, the economic burden of chronic diseases, and the impact of socioeconomic factors on healthcare access in underserved populations.[1] She is dedicated to using health economic principles to inform policy and promote justice in global health systems. She has contributed to several research projects analyzing health disparities and aims to develop cost-effective intervention models for low- and middle-income countries

Supporting Journals

Journal of Archives in Oncology Research

https://scitechjournals.com/archives-in-oncology-research

Journal of Pulmonary and Respiratory Diseases

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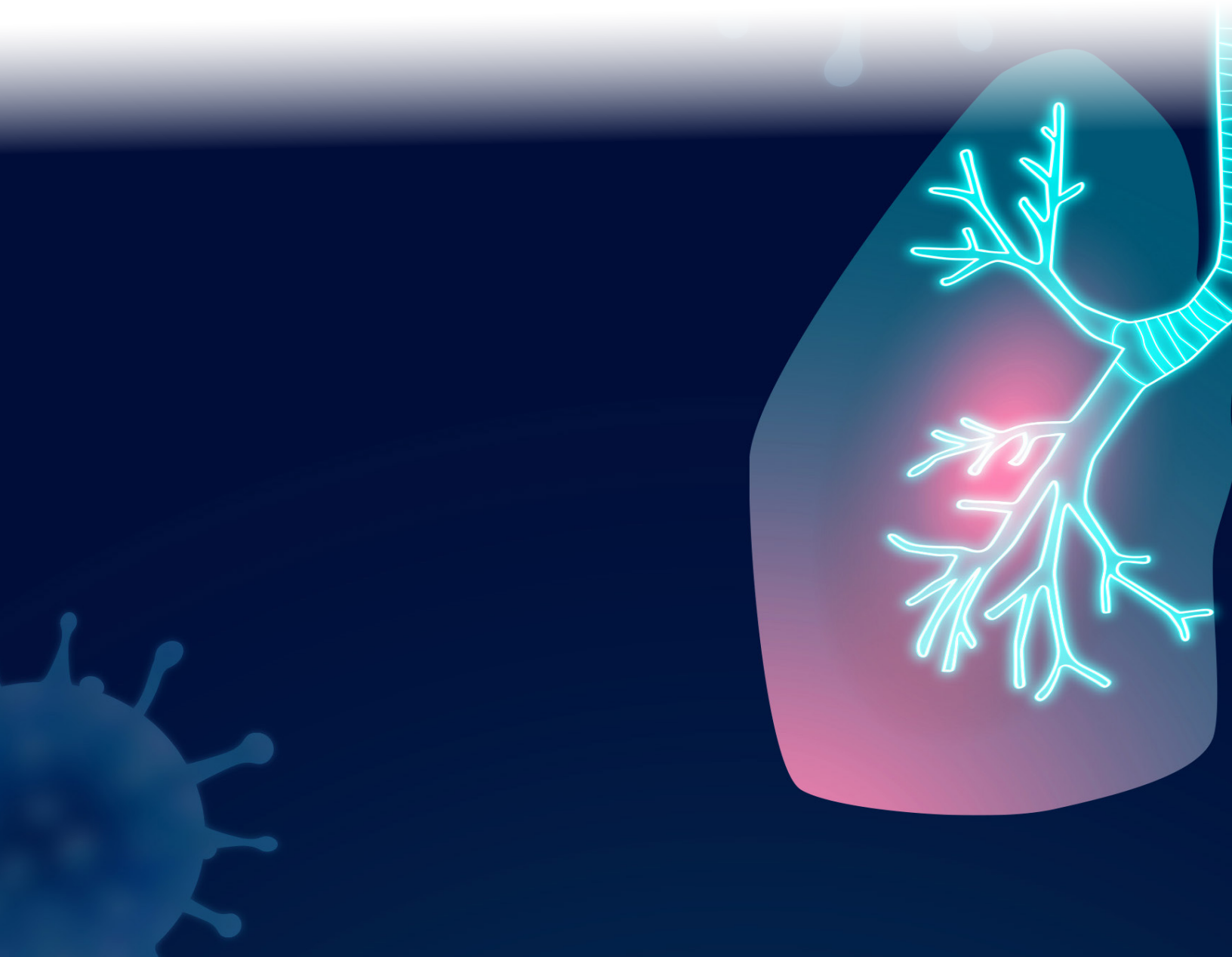

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