The 9th International Clinical Oncology Congress

The 19th Iranian Annual Clinical Oncology Congress

29 - 31 January 2025

Tehran. Iran

Iranian Society of Radiation (Clinical) Oncology

President of Congress: Dr. Yasha Makhdomi
Scientific Committee Chairperson: Dr. Morteza Tabatabaeifar
Executive Committee Chairperson: Dr. Borna Farazmand

Scientific Chairperson of Oncology Nursing: Dr. Leyla Khanali Mojen
Scientific Chairperson of Clinical Radiobiology: Dr. Hossein Mozdarani
Scientific Chairperson of Medical Physics: Dr. Mohsen Bakhshande
Scientific Chairperson of Radiotherapy Technologists: Mr. Hasan Jahangir Golestan

Endorsed by ESTRO

ISRO Iranian Society of Radiation Oncology

Endorsed by ESMO

Unit # 4, 1st Floor, No # 63, Tousi St.,
Tohid Ave., Tohid Sq., Tehran-IRAN
Tel: 0098 (21) 66567619
Fax: 0098 (21) 66567620

Sponsors


AXTG


VARIAN
PHARMED


MERCK


NANODARU


ACTERO
DEVELOPING FUTURE


AstraZeneca


behestan
darou


داروسازی
هما فارمد
HomaPharmed Pharmaceutical


Matlab Arefan Eng.Co
Medical Healthcare Authorized


Pooyesh Darou


abidi
Oncology

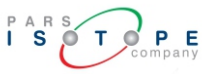

Noavaran Daroui
KIMIA Co.
(P.J.S)


Roche


ROOYAN AQVIDA
German Joint Venture, Top Quality Products


Orchid Pharmed


فن آوری آزمایشگاهی


PARS
ISOTOPE
company


Sobhan
Oncology


NANOALVAND


مرکز پاتولوژی و ژنتیک
کریمی‌نژاد - نجم‌آبادی


آزاد طب درمان
azad teb darman


سامان تابش امید


cimorgh


Techno
Med


PHARMED
salamat sina

Endorsed by ESTRO

ISRO
Iranian Society of Radiation Oncology

Endorsed by ESMO

انجمن علمی آسیب شناسی ایران
IRANIAN SOCIETY OF PATHOLOGY

انجمن فیزیک پزشکی ایران
IRANIAN ASSOCIATION OF MEDICAL PHYSICIST

MASHAD UNIVERSITY OF MEDICAL SCIENCES CANCER RESEARCH CENTER

مرکز تحقیقات پرتودرمانی سرطان
Radiation Oncology Research Center
RORC

Shiraz University of Medical Sciences
Institute for Cancer Research
Shiraz Iran

NCRC
مرکز تحقیقات انکولوژی نگین

The 9th International Clinical Oncology Congress

نهمین کنگره بین‌المللی کلینیکال انکولوژی

The 19th Iranian Annual Clinical Oncology Congress

نوزدهمین همایش سالانه کلینیکال انکولوژی

همزمان با رخداد فیزیک پزشکی، تکنولوژی پرتودرمانی، رادیوبیولوژی و پرستاری

29 - 31 January 2025

Tehran - Iran

۱۰ - ۱۲ بهمن ۱۴۰۳

تهران، هتل المپیک

ISRO

Iranian Society of Radio Oncology

Dr. Yasha Makhdomi

President of ISRO and ISCO Congress

The Ninth International Clinical Oncology Congress

Welcome

9th International Congress and 19th Annual Clinical Oncology Conference

We welcome you to the ninth International Clinical Oncology Congress, which will be held from January 29th to 31st at the Olympic Hotel in Tehran. Over the years, we have hosted eight international congresses and eighteen annual national conferences in the field of clinical oncology. Our goal has been to advance the scientific programs of our society and support research and development in various sectors. We strive to participate in these scientific programs, provide effective strategies, foster optimal interaction among researchers and clinicians, and offer resources to enhance scientific accountability. Additionally, we aim to create a suitable platform for informed policymaking in science and technology for youth, utilizing the facilities of organizations and scientific centers to elevate public understanding and achieve sustainable development in these fields.

This year's congress will focus on three main themes. The first theme is "Oncology and Personalized Medicine," which aims to tailor treatment based on each patient's unique genetic makeup, marking a new era in oncologic care. The second theme is the "Use of AI in Oncology." This will explore the role of artificial intelligence in transforming the landscape of oncology and cancer research. The third theme is "Ethics and Oncology," which emphasizes how ethical decisions in cancer care create a framework for balancing innovation with compassion.

The target audience for this congress includes radiation oncologists, medical physicists, radiotherapy technicians, radiobiologists, and oncology nurses.

Dr. Yasha Makhdomi
President of ISRO and ISCO Congress

ISRO
Iranian Society of Radiation Oncology

دکتر یاشا مخدومی

رئیس انجمن رادیوانکولوژی و کنگره کلینیکال انکولوژی ایران

The Ninth International Clinical Oncology Congress

Welcome

نهمین کنگره بین المللی کلینیکال انکولوژی ۱۰ تا ۱۲ بهمن ماه در هتل المپیک تهران برگزار می شود. در طی سالهای اخیر هشت کنگره بین المللی و هجده همایش سالانه کلینیکال انکولوژی در ایران برگزار شده است که هدف آن کمک به پیشبرد برنامه های علمی جامعه و حمایت از گسترش فعالیت های تحقیق و توسعه علمی در بخش های مختلف، مشارکت در برنامه های توسعه علمی جامعه و ارائه راهبردهای مناسب، ایجاد زمینه برای تعاملات بهینه پژوهشگران و اندیشمندان و ارائه ابزارهای مناسب برای ارتقای پاسخگویی علمی، فراهم سازی بستر مناسب برای گسترش و سیاستگذاری آگاهانه در حوزه علم و فناوری جوانان و بهره گیری از امکانات سازمان ها و مراکز علمی، ارتقای سطح فرهنگ عمومی جامعه به منظور دستیابی به توسعه پایدار در حوزه علم و فناوری و ترویج فعالیت های پژوهشی در جامعه بوده است. کنگره امسال با ۳ تم اصلی برگزار خواهد شد. تم اول "انکولوژی و پزشکی فردمحور" است که هدف آن برنامه ریزی برای درمان شخصی مبتنی بر ساختار ژنوم و سرآغاز یک دوره جدید مراقبت از سرطان است. تم دوم "استفاده از هوش مصنوعی در انکولوژی" است. با تبیین این محور، جایگاه هوش مصنوعی و نقش آن در تحول چشم انداز سرطان شناسی و انکولوژی تشریح خواهد شد. تم سوم این کنگره "اخلاق و انکولوژی" است چرا که تصمیم گیری اخلاقی در مراقبت از سرطان، چارچوبی برای ایجاد تعادل بین نوآوری و درمان را به همراه خواهد داشت. گروه هدف این کنگره متخصصان رادیوانکولوژی، دانش آموختگان فیزیک پزشکی، تکنولوژی پرتو درمانی، رادیوبیولوژی و پرستاری انکولوژی است.

دکتر یاشا مخدومی

رئیس انجمن رادیوانکولوژی و کنگره کلینیکال انکولوژی ایران

ISRO
Iranian Society of Radiation Oncology

Dr. Morteza Tabatabaeifar
Scientific Chairperson

Dr. Borna Farazmand
Executive Chairperson

The Ninth International Clinical Oncology Congress

Welcome

At the ninth International Clinical Oncology Congress, we will discuss the most important and recent treatment option advances in the field of oncology.

The primary goal of the of the congress is to enhance our understanding of oncology, which will hopefully pave the way for improving the healthcare services provided to our patients.

We also see this event as an opportunity to increase empathy and collaboration in our colleagues.

Organizing this congress would not have been achievable without the assistance of the incredible people who supported us throughout the different phases of planning and implementation. We are grateful to all of these dear ones for their time and effort and value their hard work.

Dr. Morteza Tabatabaeifar
Scientific Chairperson

Dr. Borna Farazmand
Executive Chairperson

ISRO
Iranian Society of Radiation Oncology

دکتر مرتضی طباطبایی فر
دبیر علمی کنگره

دکتر برنا فرازمند
دبیر اجرایی کنگره

The Ninth International Clinical Oncology Congress

Welcome

به نام خداوند جان و خرد

در نهمین کنگره بین المللی کلینیکال انکولوژی در مورد مطالب علمی روز دنیا صحبت خواهیم کرد.
هدف اصلی برگزاری این کنگره ارتقا سطح دانش انکولوژی در کشـور است که امیدواریم اینکار زمینه ساز بهبود کیفیت ارائه خدمات درمانی به بیماران نیازمند در کشور عزیزمان گردد.
همچنین امیدواریم که این گردهمایی تخصصـی بسـتری برای گسـترش همدلی و همکاری های جمعی علمی فراهم آورد.
اجرای این کنگره بدون کمک عزیزانی که در مراحل گوناگون برنامه ریزی و اجرایی همـراه ما بودند مقدور نبوده و نخواهد بود. از همه این عزیزان سپاسگزاریم و قدردان زحماتشان هستیم.

دکتر مرتضی طباطبائی فر
دبیر علمی کنگره

دکتر برنا فرازمند
دبیر اجرایی کنگره

ISRO
Iranian Society of Radiation Oncology

Dr. Mohsen Bakhshandeh

Scientific Chairperson of Medical Physics

The Ninth International Clinical Oncology Congress

Welcome

In the name of God

Dear Professors, Colleagues, Students, and Researchers

This year, at the 9th International and 19th Annual Congress of Clinical Oncology, we will gather in the physics hall to synergize, share experiences and expand our knowledge. This year's congress focuses on advanced and practical topics in radiotherapy from the perspective of radiotherapy physics. It is our hope that, by the end of this conference, we will have taken a step forward in enhancing the quality of healthcare services provided to patients.

With utmost respect

Dr. Mohsen Bakhshandeh

Scientific Chairperson of Medical Physics

ISRO

Iranian Society of Radiation Oncology

دکتر محسن بخشنده
دبیر علمی بخش فیزیک پزشکی

The Ninth International Clinical Oncology Congress

Welcome

به نام خدا

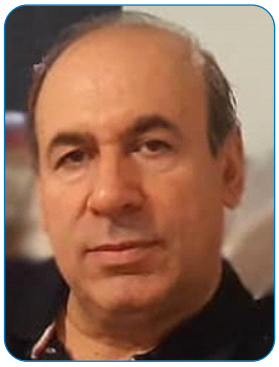
اساتید، همکاران، دانشجویان و پژوهشگران گرامی

امسال در نهمین کنگره بین المللی و نوزدهمین کنگره سالیانه کلینیکال انکولوژی در سالن فیزیک برای هم افزایی و اشتراک تجربه و دانش گرد هم خواهیم امد. در کنگره امسال سعی بر این شده است که روی موضوعات پیشرفته و کاربردی رادیوتراپی از دیدگاه فیزیک رادیوتراپی متمرکز شویم. امید است در پایان این کنفرانس گامی به جلو در راستای اعتلای کیفیت خدمات درمانی به بیماران برداشته باشیم.

با تقدیم احترام

دکتر محسن بخشنده
دبیر علمی بخش فیزیک پزشکی

ISRO
Iranian Society of Radiation Oncology



Dr. Hossein Mozdarani

Scientific Chairperson of Clinical Radiobiology

The Ninth International Clinical Oncology Congress

Welcome

Dear Colleagues,

It is my honor to invite you to the 9th congress on clinical radiobiology, to be held on 29-31 January 2025 in conjunction with the 9th international and 19th annual congress of clinical oncology arranged by our dear colleagues in the Iranian society of clinical oncology, in Tehran, Iran. The aim of this conference as similar to other previously held is to update our knowledge, exchange and share our experiences as well as getting familiar with advancements in the field of radiobiology and its application in clinical oncology. This is the 9th meeting series on clinical radiobiology that tries to bring together leading academic basic and clinical scientists as well as researchers from various disciplines related to radiobiology, to discuss the latest developments in the fields of basic and clinical radiobiology and share their experiences and research results on all aspects of radiobiology. To promote translation of basic research results into clinical application, an intensified dialogue between basic and clinical scientists is important. Therefore, prospective authors, young scientists and students are kindly encouraged to contribute to the congress through submissions of their research abstracts. Also, high quality research contributions describing original and unpublished results of experimental work in all areas of radiation biology are cordially invited for presentation at the congress. We look forward to welcome you in person and to have your participation in the congress.

Kind Regards,

Dr. Hossein Mozdarani
Professor of Medical Genetics / Radiobiology
Scientific Secretary of Clinical Radiobiology section

ISRO
Iranian Society of Radiation Oncology

دکتر حسین مزدرانی

دبیر علمی رادیوبیولوژی بالینی

The Ninth International Clinical Oncology Congress

Welcome

به نام آن که هستی نام از او یافت

سپاس خداوندی را که به عنایت او و با همت و همکاری صمیمانه هیات مدیره محترم انجمن کلینیکال انکولوژی، یکبار دیگر توفیق برگزاری همایشی دیگر در زمینه رادیوبیولوژی بالینی را یافته ایم تا در خدمت اساتید معزز و همکاران محترم و دانشجویان گرامی فعال در حوزه رادیوبیولوژی و کلینیکال انکولوژی کشور باشیم. هدف اصلی از برگزاری این به روز نمودن اطلاعات، تبادل دیدگاه ها و آشنایی با پیشرفت های جدید در حوزه رادیوبیولوژی و استفاده درست از یافته های تحقیقاتی در شرایط بالینی است. نقش رادیوبیولوژی در درمان، پیشگیری از اثرات مضر پرتوهای یونساز، پیگیری روند درمان و در بسیاری از موارد پیشگیری از بروز بیماری ها بر کسی پوشیده نیست. از اینرو در همایش در پیش رو مباحث روز مرتبط با رادیوبیولوژی بالینی با حضور اساتید خارجی و داخلی مطرح خواهد شد. امید است این گردهمایی تاثیر به سزایی در توسعه یا بهینه سازی راهکارهای درمانی سرطان بویژه پرتودرمانی داشته باشد. اینجانب به عنوان دبیر علمی همایش، با افتخار از همه اساتید بزرگوار، همکاران ارجمند فعال در این عرصه مهم علمی و دانش آموختگان و دانشجویان عزیز رادیوبیولوژی و رزیدنت های محترم کلینیکال انکولوژی، کارشناسان محترم پرتودرمانی و علوم پرتوی دعوت می نمایم با مشارکت فعال و حضور گرم خویش موجب غنای علمی این همایش شده و با طرح مشکلات و دیدگاه های خود در پانل های مختلف، باعث هرچه پربارتر شدن بحث های علمی آن بشوند.

دکتر حسین مزدرانی

دبیر علمی بخش کلینیکال رادیوبیولوژی

استاد ژنتیک پزشکی/ رادیوبیولوژی

دانشگاه تربیت مدرس

ISRO Iranian Society of Radiation Oncology

Dr. Leyla Khanali

Scientific Chairperson of Oncology Nursing

The Ninth International Clinical Oncology Congress

Welcome

The Clinical Nursing Oncology congress, focusing on the standards of nursing in cancer, aims to create a dynamic atmosphere for the exchange of knowledge and information. By showcasing the latest scientific and research findings, it provides a dynamic environment, encouraging lively discussions and exchange of perspectives between you, the respected professors, valuable researchers and experts. We hope that these programs result in delivering high quality services to cancer patients and their families in various fields of treatment.

I want to express my gratitude to the honorable president of the association, the honorable president of the congress, the honorable executive secretary and all the dear colleagues who assisted in organizing this congress.

Dr. Leyla Khanali
Scientific Chairperson of Oncology Nursing

ISRO
Iranian Society of Radiation Oncology

دکتر لیلا خانعلی

دبیر علمی پرستاری انکولوژی

The Ninth International Clinical Oncology Congress

Welcome

کنگره پرستاری کلینیکال انکولوژی با تمرکز بر استانداردهای پرستاری در سرطان، در ایجاد فضـــایی پویا جهت تبادل دانش و اطلاعات تلاش نموده و با ارائه جدیدترین یافته های علمی و پژوهشـــی زمینه بحث و تبادل نظر را با حضور شما اساتید محترم، پژوهشگران ارزشمند و صاحبنظران گرامی فراهم می نماید. امید اسـت مجموعه برنامه های طراحی شـده در راسـتای ارایه خدمات با کیفیت به بیماران مبتلا به سـرطان و خانواده های آنها در عرصه های مختلف درمانی مفید واقع شود.

برخود لازم می دانم از ریاسـت محترم انجمن ،ریاسـت محترم کنگره ،دبیر محترم اجرایی و کلیه همکاران عزیزی که در برگزاری این کنگره ما را یاری نمودند، نهایت تشکر را داشته باشم.

دکتر لیلا خانعلی

دبیر علمی پرستاری انکولوژی

ISRO
Iranian Society of Radiation Oncology

Mr. Hasan Jahangir Golestan

Scientific Chairperson of Radiotherapy Technologists

The Ninth International Clinical Oncology Congress

Welcome

The Radiotherapy and Oncology Congress,like all scientific congresses, is a place to discuss and exchange views on the latest scientific findings and research. It presents the newest articles and studies in the presence of professors, researchers, students, and colleagues who strive towards the treatment of cancer patients. We hope that, through the efforts and work of those involved in organizing this event, along with the efforts of all our friends active in this field, we can take a step towards improving the scientific level of our colleagues and enhancing the quality of patient care by becoming familiar with new topics and technologies.

Hasan Jahangir Golestan
Scientific Chairperson of Radiotherapy Technologists

ISRO
Iranian Society of Radiation Oncology

آقای حسن جهانگیر گلستان

دبیر علمی تکنولوژی پرتودرمانی

The Ninth International Clinical Oncology Congress

Welcome

کنگره رادیوتراپی و انکولوژی همانند تمامی کنگره های علمی با تکیه بر یافته های جدید علمی وپژوهشی و همچنین ارائه جدیدترین مقالات و تحقیقات، مکانی اســت جهت بحث و تبادل نظر در مورد یافته های نو در حضـور اساتید، پژوهشـگران، دانشـجویان و همکاران عزیز آن حوزه که در جهت درمان بیماران مبتلا به کانســـر گام برمی دارند. امید است با تلاش و کوشش دست اندرکاران برگزاری این رویداد در کنار زحمات تمامی دوســـتان فعال در این حوزه بتوانیم با تکیه برآشـــنایی با مطالب و تکنولوژی های جدید گامی در راستای ارتقا سطح علمی همکاران و هم چنین بهبود کیفی درمان بیماران برداریم.

حسن جهانگیر گلستان

دبیر علمی تکنولوژی پرتودرمانی

ISRO
Iranian Society of Radiation Oncology

The Ninth International Clinical Oncology Congress

Clinical Oncology Scientific Committee

Alphabetical

Chair:
Dr. Mortreza Tabatabaeifar

Dr. Abbas Basiri
Dr. Abdolazim Sedighi Pashaki
Dr. Ahmad Mafi
Dr. Ali Ghanbari Motlagh
Dr. Ali Tabibi
Dr. Ali Taghizadeh Kermani
Dr. Ali Yaghoubi Jolbari
Dr. Alia Bahramnejad
Dr. Alireza Abrishami
Dr. Alireza Amouheidari
Dr. Alireza Javadinia
Dr. Amir Anvaari
Dr. Amir Mohsen Jalaeifar
Dr. Amirhossein Rayegani
Dr. Andrew Gaya
Dr. Arda Kiani
Dr. Atoosa Gharib
Dr. Azin Ahmari
Dr. Azin Alizadehasl
Dr. Babak Salavatipour
Dr. Bahar Moeini
Dr. Behnaz Moradi
Dr. Borna Farazmand
Dr. Dariush Moslemi
Dr. Davood Khoda Amorzideh
Dr. Ditte Sloth Moller
Dr. Ehsan Saraee
Dr. Elham Zarei
Dr. Elyas Hasanzadeh
Dr. Eric Van Cutsem
Dr. Farhad Samiee
Dr. Farnaz Amouzegar Hashemi
Dr. Farshad Seyednejad
Dr. Fatemeh Homaei Shandiz
Dr. Fatemeh Mohammadian
Dr. Forouzan Nourbakhsh
Dr. George Pentheroudakis
Dr. Hadis Zeynalkhani
Dr. Hamid Emami
Dr. Hamid Nasrollahi
Dr. Hamidreza Bolhasani
Dr. Hamidreza Mirzaei
Dr. Hamidreza Namazi
Dr. Hossein Foudazi
Dr. Mahdi Aghili
Dr. Mahdiye Dayyani
Dr. Majid Mokhtari
Dr. Malihe Dayyani
Dr. Mansour Ansari
Dr. Maryam Feli
Dr. Maryam Garousi
Dr. Maryam Sadat Hosseini
Dr. Marziye Lashkari
Dr. Masoud Sayad
Dr. Mastaneh Sanei
Dr. Maysa Yamrali
Dr. Mehdi Astaraki
Dr. Mithra Ghalibafian
Dr. Mohammad Ali Boromand
Dr. Mohammad Bagheri
Dr. Mohammad Gouran Savadkoohi
Dr. Mohammad hasan Larizadeh
Dr. Mohammad Sadegh Fazeli
Dr. Mohammadreza Ghavam Nasiri
Dr. Mohammadreza Keramati
Dr. Mohammadreza Saghafi
Dr. Mojgan Foroutan
Dr. Mojgan Foroutan
Dr. Morteza Tabatabaeifar
Dr. Nasser Rakhshani
Dr. Nikos Paragios
Dr. Nima Mousavi
Dr. Payam Azadeh
Dr. Pedram Fadavi
Dr. Pegah Sasanpour
Dr. Pegah Baba Heydarian
Dr. Ramin Ajami
Dr. Reyhane Bayani
Dr. Reza Eghdam Zamiri
Dr. Reza Ghalehtaki
Dr. Reza Moghareh Abed
Dr. Sarah Forati
Dr. Sasan Razmjoo
Dr. Seyed Hossein Yahyazadeh
Dr. Seyed Mohammad Hosseini
Dr. Seyedeh Fatemeh Hosseini Jebelli
Dr. Shao Peng David Tan
Dr. Sheyda Pashapour
Dr. Soheil Vejdani
Dr. Soheila Sarmadi
Dr. Soraya Salmanian
Dr. Soudeh Arastouei
Dr. Timothy Crook
Dr. Yasamin Afsari Zanouz
Dr. Yasha Makhdomi
Dr. Zahra Naderi

Clinical Oncology Executive Committee

Alphabetical

Chair: Dr. Borna Farazmand

Dr. Alireza Javadinia
Dr. Borna Farazmand
Dr. Ehsan Saraee
Dr. Elham Zarei
Dr. Forouzan Nourbakhsh
Dr. Maryam Garousi
Dr. Maysa Yamrali
Dr. Nima Mousavi
Dr. Reyhane Bayani
Dr. Sheyda Pashapour
Dr. Soudeh Arastouei
Mrs. Golnaz Zaeri
Mrs. Mahnaz Zaeri

ISRO
Iranian Society of Radiation Oncology

Scientific Committee of Oncology Nursing

Alphabetical

Chair: Dr. Leyla Khanali Mojen

Dr. Azam Eshaghian Darche
Dr. Azam Shirinabadi Farahani
Dr. Batool Nahrir
Dr. Esmat Hosseini
Dr. Hadis Ashrafizadeh
Dr. Maryam Karami
Dr. Mohadeseh Babaei
Dr. Parand Pourazar Hagh
Dr. Salman Barasteh
Dr. Samira Beiranvand
Dr. Tahereh Khobbin Khoshnazar
Mr. Alireza Abbasi Niasar
Mr. Alireza Alimohammadiha
Mr. Alireza Farid Khamami
Mr. Amirhossein Moslehi
Mr. Esmaeil Rezaei
Mr. Mehdi Akbarzadeh Amirdehi
Ms. Fatemeh Kamali
Ms. Fatemeh Khademi
Ms. Fatemeh Mohammadian
Ms. Leila Angouti Ashnari
Ms. Marjan Minoufar
Ms. Maryam Soodmand
Ms. Nasrin Dadashi
Ms. Parastou Ariamlou
Ms. Somayeh Hodavand Mirzaei
Ms. Somayeh Kiani
Ms. Somayeh Sayyadinejad
Ms. Zahra Saeedi
Ms. Zeynab Kazemzadeh

Executive Committee of Oncology Nursing

Alphabetical

Chair: Dr. Nasrin Dadashi

Ms. Elham Abbasi
Ms. Elham Almasi
Ms. Mohadese Babaei
Ms. Parastoo Aryamloo
Ms. Somayeh Mirzaei
Ms. Soosan Jamshidi
Ms. Zahra Saeedi
Ms. Zeinab Kazemzadeh

The Ninth International Clinical Oncology Congress

ISRO
Iranian Society of Radiation Oncology

The Ninth International Clinical Oncology Congress

Scientific Committee of Medical Physics

Alphabetical

Chair:
Dr. Mohsen Bakhshande

Dr. Abolfazl Nikfarjam
Dr. Afshin Rakhsha
Dr. Ahad Zeinali
Dr. Ahmad Mostaar
Dr. Ali Ghanbari Motlagh
Dr. Ali Ghanbarzadeh
Dr. Ali Jomehzadeh Mahani
Dr. Ali Neshasteriz
Dr. Ali Shabestani Monfared
Dr. Alireza Farajollahi
Dr. Amin Banaei
Dr. Anil Sethi
Dr. Bijan Hashemi
Dr. Esmaeil Parsaei
Dr. Faraz Kalantari
Dr. Ghazaleh Geraily
Dr. Hamed Rezaei-Jam
Dr. Hamid Gholamhosseinian Najjar
Dr. Iraj Abedi
Dr. Karim Khoshgard
Dr. Mahdi Momen Nezhad
Dr. Masoud Rezaei-joo
Dr. Mehdi Aghili
Dr. Mehdi Shirin Shandiz
Dr. Mehran Yarahmadi
Dr. Milad Hatamian
Dr. Mohammad Amin Mosleh Shirazi
Dr. Mahammadjavad Keikhai Farzaneh
Dr. Mahammadjavad Tahmasebi Birgani
Dr. Mohammadreza Bayatiani
Dr. Mohammad Mohammadi
Dr. Mohsen Bakhshandeh
Dr. Peyman Hejazi
Dr. Ramin Jaberi
Dr. Seyed Hossein Yahyazadeh
Dr. Seyed Rabi Mahdavi
Dr. Shahrokh Naseri
Mr. Shahram Monadi

Executive Committee of Medical Physics

Alphabetical

Chair:
Dr. Mohsen Bakhshande

Dr. Amin Banaei
Mr. Mahdi Safaei
Mr. Saman Moradi
Ms. Elham Yaghoubvand
Ms. Leyla Rahmati
Ms. Sahar Montazeri
Ms. Nasim Amiri
Ms. Zahra Sadat Tabatabaei
Ms. Parisa Abdeli

ISRO
Iranian Society of Radiation Oncology

Scientific Committee of Radiobilogy

Alphabetical

Chair: Dr. Hossein Mozdarani

Dr. Ahmad Ameri
Dr. Ali Ghanbari Motlagh
Dr. Amin Mosleh Shirazi
Dr. Farhad Samiei
Dr. Fatemeh Pakniyat
Dr. Hossein Azimian
Dr. Mahdieh Dayani
Dr. Mahdieh Salimi
Dr. Mohammad Mohammadi
Dr. Mohsen Foroghizadeh
Dr. Ramin Jaberi
Dr. Reza Sadeghi
Dr. Sara Samiei
Dr. Seyed Abolghasem Haeri
Dr. Seyed Morteza Tabatabaeifar
Dr. Ali Neshastehriz
Dr. Ali Shabestani Monfared
Dr. Chougule Arun
Dr. Hossein Mozdarani
Dr. Samideh Khoei
Dr. Seyed Mohammad Javad Mortazavi
Dr. Seyed Rabi Mahdavi

Executive Committee of Radiobilogy

Alphabetical

Chair: Mr. Saeed Rezapour

Dr. Hossein Mozdarani
Mr. Saeed Dabirifar
Mr. Saeed Rezapour

The Ninth International Clinical Oncology Congress

Scientific Committee of Radiotherapy Technologists

Alphabetical

Chair: Mr. Hasan Jahangir Golestan

Dr. Seyed Rabi Mahdavi
Dr. Shaghayegh Yeganeh
Mr. Akbar Shahriari
Mr. Reza Shirzadeh
Ms. Fahimeh Lamei Ramandi
Ms. Malihe Salami
Ms. Mandana Soleymani
Ms. Maryam Gholizadeh
Ms. Nader Sepanlou
Ms. Sepideh Sheyrani
Ms. Zahra Rezaei Moslek
Ms. Homa Emamgholi
Mr. Nader Naderian
Ms. Fatemeh Zabihikia
Mr. Alireza Soltani
Mr. Ahmad Rouhizadegan Jahromi
Mr. Nader Naderian
Ms. Zahra Jafari
Ms. Mohadese Akbarian
Ms. Mariziye Nabikhani
Ms. Farzaneh Shirzad
Ms. Nafiseh Hasani
Mr. Mehdi Amini
Mr. Mehdi Shahsavarian
Ms. Leila Mohammadian

Executive Committee of Radiotherapy Technologists

Alphabetical

Chair: Mr. Hasan Jahangir Golestan

Mr. Mohammadreza Aghamohammadi
Ms. Fahimeh Lamei Ramandi
Ms. Sara Ghavami
Mr.Mohammad Pedarpour

ISRO
Iranian Society of Radiation Oncology

Invited International Speakers

Dr. Ramin Ajami

MD, Director of medical services, HCA, UK

The Ninth International Clinical Oncology Congress

Invited International Speakers

Dr. Ramin Ajami is a distinguished oncologist with an extensive educational and professional background in oncology and medical leadership. He earned his Doctorate in General Medicine (M.D.) from Azad Medical University of Tehran. Following this, he pursued a Post Graduate Diploma in Public Health Oncology at the University of Westminster, where he focused on disease prevention and healthcare policy. He then completed a Post Graduate Diploma in Cancer Biology and Practical Oncology at King's College London.

Dr. Ajami further advanced his training through a specialty program in oncology at renowned institutions, including Guy's and St Thomas', Christie Hospital, Royal Marsden, and HCA Oncology Hospitals. In 2015, he became the Lead Oncology Fellow at The London Clinic, Cancer Centre. He subsequently served as an Honorary Senior Associate Specialist at Guy's and St Thomas's Hospital before joining HCA Medical Services, where he initially held the position of Head of Medical Services and later advanced to Director.

Currently, Dr. Ajami serves as the Director of Medical Services at HCA UK, a role he has held since November 2022. Additionally, he is an Honorary Medical Oncologist at the Royal Free Hospital, focusing on neuroendocrine tumors and genitourinary cancers while actively engaging in research and clinical trials.

Throughout his career, Dr. Ajami has participated in various clinical trials, including the NEPTUNE Trial for metastatic prostate cancer, the JAVELIN Trial for advanced urothelial cancer, the ENZAMET Trial evaluating the efficacy of enzalutamide, the SPARTAN Trial assessing apalutamide, and the PALOMA 1/TRIO 18 Trial evaluating palbociclib. His research interests are wide-ranging, encompassing systemic anti-cancer therapies and their effects on patient outcomes. He has made significant contributions to audits and has authored numerous publications in respected medical journals.

Dr. Ajami is also an active participant in prestigious conferences such as ESMO and ASCO, where he has presented abstracts and findings, underscoring his commitment to advancing oncology care and improving patient outcomes.

ISRO Iranian Society of Radiation Oncology

Dr. Timothy Crook

Consultant Medical Oncologist

The Ninth International Clinical Oncology Congress

Invited International Speakers

Dr. Timothy Robert Crook is a distinguished medical oncologist with a robust educational background and extensive clinical experience. He earned a BSc (Hons) in Biology in 1981, followed by a PhD in Cancer Biology in 1986, and an MBBS in 2000, all from the University of London. He is also a Fellow of the Royal College of Physicians (FRCP), having achieved this distinction in 2016.

His career in the NHS began in 2000 as a Pre-Registration House Surgeon at Harold Wood and Old church Hospitals, followed by various roles in oncology and general medicine. He became a Consultant Medical Oncologist at Southend University NHS Trust in June 2010, specializing in melanoma, ovarian cancer, and lung cancer. He has also served as a Clinical Senior Lecturer at the University of Dundee and held consultant positions at Whittington Hospital and St Luke's Cancer Centre.

Dr. Crook has a strong research background, having held several prestigious scientific posts, including fellowships at the National Cancer Institute and the Ludwig Institute for Cancer Research. He has an extensive publication record, with over 100 peer-reviewed articles, editorials, and book chapters. His research contributions span various aspects of oncology, particularly focusing on melanoma, breast cancer, and the molecular mechanisms of cancer treatment. He has received recognition for his work, notably, the Best Paper award in 2022 for his early-stage breast cancer screening article published in the journal Cancers.

He has received numerous grants for his research, including a Cancer Research UK Clinical Scientist Fellowship and a Scottish Senior Clinical Fellowship. His work has focused on molecular genetic determinants of chemosensitivity and the development of novel biomarkers for breast cancer.

In addition to his clinical and research roles, Dr. Crook has held various leadership positions, such as Clinical Lead for Acute Oncology Service at Southend University NHS Trust and Clinical Lead for lung cancer research in the Essex Cancer Network. He has been involved in numerous clinical trials and advisory boards, contributing to advancements in oncology treatments.

ISRO
Iranian Society of Radiation Oncology

Dr. Nikos Paragios

Ph.D. in Computer Science

The Ninth International Clinical Oncology Congress

Invited International Speakers

Dr. Nikos Paragios is a distinguished expert in the fields of medical imaging and computer vision. He completed his Ph.D. in Computer Science at the University of Paris in 1999, after earning his Master's degree in the same discipline from the same institution.

Currently, Dr. Paragios serves as a Director of Research at the Centre National de la Recherche Scientifique (CNRS) and is a Professor at Centrale Supélec, which is affiliated with the University of Paris-Saclay. He is also the head of Therapanacea, a company dedicated to developing innovative solutions in medical imaging and radiotherapy.

Throughout his career, Dr. Paragios has focused on computer vision, radiotherapy contouring, and medical image analysis, making significant contributions to these fields. His research interests primarily revolve around medical imaging, where he explores the development of imaging biomarkers and methods for disease characterization. A key aspect of his work at Therapanacea involves improving the accuracy and efficiency of radiotherapy treatment planning through enhanced contouring techniques. He applies advanced machine learning methods to automate and refine the delineation of tumors and organs-at-risk, which is crucial for optimizing radiation therapy outcomes.

Dr. Paragios is also known for employing mathematical models to advance image processing and analysis. Throughout his career, he has authored numerous peer-reviewed articles published in top-tier journals related to computer vision and medical imaging. Additionally, he is a regular participant and speaker at leading conferences in artificial intelligence, computer vision, and medical computing, where he shares his insights and research findings.

Dr. Andrew Gaya

Consultant Clinical Oncologist & MRL Specialist Doctor

The Ninth International Clinical Oncology Congress

Invited International Speakers

Dr Gaya qualified at St George's Hospital Medical School (University of London) where he was awarded a distinction and several academic prizes. He trained in Clinical Oncology at Imperial College and St Bartholomew's Hospital and subsequently undertook a Cancer Research UK MD Fellowship at University College London.

Dr Gaya treats solid tumors using chemotherapy , radiotherapy , immunotherapy and biological therapies . He treats gastrointestinal cancers – cancers of the oesophagus, stomach, pancreas, liver, colon, rectum and anus. Dr Gaya's main research interests are functional cancer imaging, looking for ways to assess response to treatment much earlier. He is also involved in the clinical development of immunotherapies such as IMM-101, recently published as the IMAGE-1 trial, and is now looking to combine radiotherapy with immunotherapy.

He was heavily involved with the implementation of the latest radiotherapy techniques in the UK such as SABR (SBRT), and is looking forward to the introduction of proton therapy to the UK in 2018 as this has potential advantages for some gastrointestinal cancers. He was one of the first UK oncologists to use the CyberKnife, now almost 10 years ago. He has published widely in peer-reviewed journals. He is a principle investigator on a number of national and international clinical trials, sits on the board of directors of the Radiosurgery Society, and is on the editorial review board for the Cureus journal

ISRO
Iranian Society of Radiation Oncology

The Ninth International Clinical Oncology Congress

Invited International Speakers

Dr. Arun Chougule

Dean and Chief Academic Officer Swasthya Kalyan Group, Jaipur

Dr. Arun Chougule possesses 39 years of professional and teaching experience in the field of medical physics. He is recognized as one of the pioneers of radiation experiment dosimetry and radiobiology in India. Currently, he serves as the Chair of the Education and Training Committee of the International Organization of Medical Physics (IOMP) and is a member of the Board of Directors of the International Medical Physics Certification Board (IMPCB). Dr. Chougule has authored over 165 publications in national and international journals and has presented more than 380 papers at various national and international conferences. His research interests encompass radiation biology, experimental dosimetry in teletherapy, radiation safety and protection in radiology and radiotherapy, and QA-QC in radiology.

Dr. Chougule has served as an expert for the International Atomic Energy Agency (IAEA) and has been a regular associate of the International Centre for Theoretical Physics (ICTP) for eight years. He has contributed significantly to the radiation safety training programs of VLIR in Belgium as a key resource for many years and is the recipient of several prestigious fellowships, including CAS-TWAS, TWAS-UNESCO, APCASOT, and UICC. He is affiliated with over 27 national and international scientific organizations, serves as an Associate Editor for four international journals, and is a member of the editorial boards of several other journals.

ISRO
Iranian Society of Radiation Oncology

Dr. E. Ishmael Parsai

Ph.D. in Medical Sciences (Concentration in Radiation Oncology Physics).

The Ninth International Clinical Oncology Congress

Invited International Speakers

Dr Ishmael Parsai, Ph.D., DABR, DABMP, FACRO, FAAPM, FIOMP is a distinguished medical physicist with over 30 years of experience in the field. He achieved board certification from the American Board of Medical Physics (ABMP) in 1995 and the American Board of Radiology (ABR) in Radiation Oncology Physics and Therapeutic Radiologic Physics in 2006 and again in 2016. Additionally, he has been recognized as a Certified Radiation Expert (CRE) by the Ohio Department of Health since May 2000.

Dr. Parsai served as a tenured professor in the Department of Radiation Oncology at the University of Toledo Health Science Campus from April 2000 until October 2022, where he also held the position of Director of the CAMPEP-accredited Medical Physics Program and Chief of the Medical Physics Division. He played a crucial role in initiating the Ph.D. degree program through the University of Toledo's Department of Physics & Astronomy. He has contributed as an adjunct professor of Radiation Oncology at the First Affiliated Hospital of Wenzhou Medical University in China since May 2014 and as a Prestige Professor of Physics and Astronomy at the University of Toledo's Department of Physics & Astronomy since January 2000. From July 2012 to January 2015, he served as the Interim Radiation Safety Officer at the University of Toledo.

Dr. Parsai has a robust portfolio of patents, including FFF photon beams for radiation therapy, and a new GYN catheter system for high dose rate brachytherapy. His patents have been recognized in both the US and China. He holds several provisional patents in progress, focusing on advancements in gamma ray detection and imaging technologies.

Throughout his career, Dr. Parsai has secured substantial funding for research, totaling approximately $1.85 million from extramural grants and around $3.5 million in royalties for the University of Toledo. His contributions to the field are further highlighted by his extensive publication record, which includes 79 peer-reviewed manuscripts, 9 book chapters, and 182 abstracts, along with notable awards for excellence in radiation measurement. He has delivered numerous lectures, including an invitation to speak at the Summer School for the Asian Federation of Medical Physics (AFOMP) on August 21, 2021.

Dr. Parsai has held numerous leadership and editorial roles, including serving as the President of the Society of Directors of Academic Medical Physics Programs (SDAMPP) in 2019, an Oral Examiner for the American Board of Radiology (ABR) since 2006, and an Associate Editor for the Medical Dosimetry Journal since February 2023. He was a member of the Editorial Board for the AAPM Newsletter from 2012 to 2018 and served as the Editor of the Medical Physics World, the IOMP Bulletin, from 2000 to 2009. He also co-authored the original copy of the "Red Book" for standards in radiation therapy.

In addition to his professional roles, Dr. Parsai has co-authored a comprehensive dictionary of medical physics terms in Persian, known as the "Emitel dictionary of medical physics," and a complete translation of the entire Oxford Dictionary into Persian, which is now known as the "Parsa Dictionary." This new dictionary is set to be published in July 2023.

ISRO Iranian Society of Radiation Oncology

The Ninth International Clinical Oncology Congress

Invited International Speakers

Dr. Anil Sethi

PhD of Medical Physics

Anil Sethi, Ph.D. is a Professor of Medical Physics and Director of Medical Physics Residency Program at the Loyola University Chicago, USA. He is active in all phases of education, clinical service, and research. Dr Sethi has authored more than 200 peer-reviewed papers, book chapters, and abstracts at national and international conferences. His main research interests are in the fields of MR-Guided Radiation Therapy (MRgRT), Intra-Operative Radiation Therapy (IORT) and Image-Guided Radiation Therapy (IGRT). He has organized a number of invited talks/courses for ASTRO, AAPM, and TARGIT Collaborative Group (TCG). He is a research mentor for several students receiving Loyola STAR Fellowships, Provost Fellowships, AAPM Summer Undergraduate Fellowship, and International Atomic Energy Agency (IAEA) Research Training Fellowship. Dr Sethi is a fellow of the American Association of Physicists in Medicine (AAPM) and a recipient of the Teacher of the Year Award given by the Association of Residents in Radiation Oncology (ARRO). He is also a member of the AAPM Awards and Honors Committee, ACR Commission on Medical Physics, and ASTRO Science Education and Program Development Committee. He is on the Editorial Boards of several journals including Medical Physics and Therapeutic Radiology and Oncology. Dr Sethi has been board certified by the American Board of Medical Physics (ABMP) and the American Board of Radiology (ABR).

ISRO
Iranian Society of Radiation Oncology

Dr. Shao Peng, David Tan

Medical Oncologist

Dr Tan is a senior consultant medical oncologist at the National University Cancer Institute, Singapore and an Associate Professor in the Department of Medicine at the Yong Loo Lin School of Medicine, National University of Singapore and Principal Investigator at the Cancer Science Institute, National University of Singapore. He graduated from Guy's, King's and St Thomas' School of Medicine in London, UK and trained in internal medicine at Hammersmith and Guy's and St Thomas' Hospitals. He obtained his PhD in Oncology at the Institute of Cancer research in London and trained in Medical Oncology at the Royal Marsden Hospital in London and Princess Margaret Cancer Centre in Toronto, Canada. His primary clinical and research interests are in gynecological cancers, precision oncology, and early phase trials. He has authored over 100 peer-reviewed scientific papers and received several awards for his research. Dr Tan is currently the Head of the Innovation Transfer Office at National University Health Systems (NUHS). He was the founding President of the Gynecologic Cancer Group Singapore (GCGS), and past-chairman of the Asia-Pacific Gynecologic Oncology Trials (APGOT) Group. He currently also chairs the Cervical Cancer Research Network (CCRN) and is a member of the executive board of directors of the Gynecologic Cancer InterGroup (GCIG).

The Ninth International Clinical Oncology Congress

Invited International Speakers

ISRO
Iranian Society of Radiation Oncology

Dr. Eric Van Cutsem

Head of Digestive Oncology at University of Leuven

The Ninth International Clinical Oncology Congress

Invited International Speakers

Eric Van Cutsem, MD, PhD, is full professor and Division Head of Digestive Oncology at University of Leuven (KUL) and University Hospitals Gasthuisberg, Leuven, Belgium. In 2018, he became doctor honoris causa of the Medical University of Warsaw, Poland.

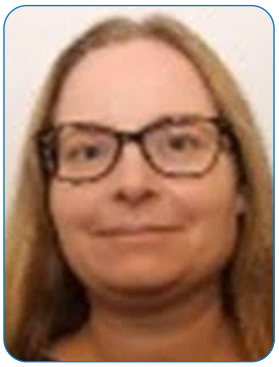
He is Member of the Belgian Royal Academy of Medicine and president of the Belgian Foundation against Cancer.

He received several awards, amongst which were the ESMO Award and the European Awards in Medicine for Cancer Research in 2019.

His research focuses on the development of new treatment strategies for GI cancers, including drug development and identification of molecular markers and diagnostic tools. He published over 606 articles in Pubmed and more than 1325 according Thomson Web of Science, leading to more than 80.500 citations and an H-factor of 128. In 2013, Capital magazine ranked him in the top 3 reputed colon cancer experts globally. Thomson Reuters ranks him in the top 1% for impact in his domain.

He co-founded ESMO GI/World Congress on Gastrointestinal Cancer, and is Chair of the meeting in Barcelona, Spain. He serves/served on the board or key committee of ESMO (executive board and several committees), ASCO (program committee and international affairs committee), ENET (advisory board), EORTC (executive board and chair GI Cancer group), ECCO (program committee), ESDO (president) and of the patient advocacy groups, Europacolon (medical director) and Digestive Cancers Europe (co-founder and executive board). He was chairman of the governmental colon cancer prevention task force in Flanders, Belgium and was president of Belgian Group Digestive Oncology (BGDO) from 2010 to 2016 and is now treasurer. He was president of FAPA (Familial Adenomatous Polyposis Association) until 2016 and is now vice-president of FAPA.

ISRO
Iranian Society of Radiation Oncology



Dr. Ditte Sloth Moller

Medical Physicist

Ditte Sloth Moller is head of medical physics and an associate professor in the department of clinical medicine at Aarhus University Hospital, Denmark. Her clinical interests are IMRT, Lung cancer Radiotherapy, and side effects of radiation therapy, such as Pneumonitis and how to reduce it. She has a long research track record in image-guided and adaptive radiotherapy, particularly in lung cancer, achieving more than 80 publications and editorials in the field, being cited over 1600 times. She has recently been advocating for the use of AI in healthcare, participating in several publications and debates in the field, with publications such as "National consensus-based bespoke automatic delineation of thoracic organs at risk", " AI-segmentation of Pelvic Bone Substructures for Bone-Sparing Radiotherapy", "Automatic delineation: How should it be used and possible dangers or drawbacks", "An open source auto-segmentation algorithm for delineating heart and substructures - Development and validation within a multicenter lung cancer cohort" and several other publications focusing on the matter.

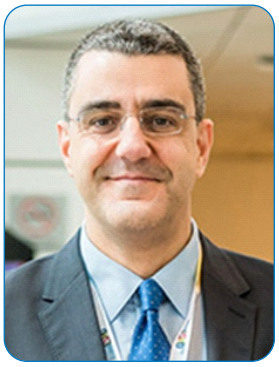
The Ninth International Clinical Oncology Congress

Invited International Speakers

ISRO
Iranian Society of Radiation Oncology

The Ninth International Clinical Oncology Congress

Invited International Speakers



Dr. George Pentheroudakis

Medical Oncology

George Pentheroudakis (born 3/12/1967) holds an MD degree from the Aristotle University of Thessaloniki, Greece (1991). He specialized in Internal Medicine in Thessaloniki, Greece (1993-1999). Subsequently he trained in Medical Oncology at the Beatson Oncology Centre, Glasgow, United Kingdom (1999-2002).

Returning to Greece in 2003, he defended his PhD thesis and worked as a Consultant Medical Oncologist at the Department of Medical Oncology, University of Ioannina, Greece. He joined the Medical School faculty, University of Ioannina, Greece as Assistant Professor in 2010 and became Head of Department of Oncology in 2016 and Professor of Oncology in 2018, where he established a Translational and Clinical Research Unit, a Palliative and Supportive Care Unit and a Liquid Biopsy Unit. He had regular teaching duties and was actively involved in translational research in cancer and in early phase I-II studies evaluating novel agents in collaboration with national and international groups.

He served as Chair of the Scientific Committee of the Hellenic Cooperative Oncology Group (HeCOG) from 2012 to 2016. His main research interests are gastrointestinal cancer, cancer of unknown primary, translational cancer research.

Since August 2020, Professor Pentheroudakis serves as ESMO Chief Medical Officer, after having served as Guidelines Committee Chair (2016-2020), member of the Executive Board (2016-2018) and as ESMO CUP and Endocrine Tumour Faculty Coordinator. He has (co)-authored 342 PubMed-indexed peer-reviewed papers and speaks Greek, English, French and Italian

IRSO
Iranian Society of Radiation Oncology

Dr. Mohammad Mohammadi

PhD, Medical Physics

Mohammad Mohammadi, PhD, is a registered Medical Physics Specialist in Iran and Australia. He completed his Ph.D. in Medical Physics at The University of Adelaide from 2003 to 2006. He has extensive experience in the field which has spanned over three decades, acting as a Physicist and Radiation Safety Officer as well as a university lecturer in various hospitals and universities in Iran. Since relocating to Australia, he has held the position of Senior Medical Physicist at the Royal Adelaide Hospital and has served as an Affiliate Senior Lecturer at The University of Adelaide. Dr Mohammadi has authored over 60 peer-reviewed journal articles and book chapters focusing on radiation therapy, dosimetry, and advancements in medical physics technology. He has presented at over 140 national and international conferences, been an editorial member for several respected journals, and organized numerous conferences and workshops for the medical physics community.

The Ninth International Clinical Oncology Congress

Invited International Speakers

ISRO
Iranian Society of Radiation Oncology

Dr. Sara Abdollahi

Ph.D. in medical Physics

The Ninth International Clinical Oncology Congress

Invited International Speakers

Dr. Sara Abdollahi received her Bachelor of Science in Solid State Physics from Hakim Sabzevari University. She then pursued her Master's and Doctorate degrees in Medical Physics from Mashhad University of Medical Sciences in Iran. She has also completed several clinical fellowships, including Machine Learning Application in Radiotherapy, specifically in Automated Contouring and Automated Planning. This fellowship was through a Comprehensive Quality Assurance program at the Sint-Augustinus Cancer Centre - Iridium Network in Antwerp, Belgium, which was sponsored by the European Society for Radiotherapy & Oncology (ESTRO) mobility grant. Additionally, she participated in MR-Based Image Guided Brachytherapy at the Vienna General Hospital (AKH) in Vienna, Austria.

Initially, she worked as a Medical Physicist at Imam Reza Hospital and the Reza Radiation Oncology Center (RROC) in Mashhad, where she advanced to become the Director of Research and Development in Radiotherapy and the Chief Quality Officer at RROC.

Dr. Abdollahi is currently a Medical Physicist at University Hospital Zurich and serves as a teacher for the ESTRO.

ISRO
Iranian Society of Radiation Oncology

Dr. Maryam Asadi

PhD in Computer engineering,
Research Assistant in Barcelona, Spain

Dr Maryam Asadi holds a BSc in Computer Engineering from Iran University of Science and Technology in Tehran, where she also completed her Master of Science in the same field. She then earned a Ph.D. in Computer Engineering from Sharif University of Technology in Tehran.

She has gained valuable experience as a Research Assistant at the Computer Vision Center at the University of Barcelona in Spain, followed by a postdoctoral position in the School of Biomedical Engineering at the University of British Columbia in Vancouver, Canada.

Throughout her academic journey, Dr Asadi has received several honors and awards. In 2008, she ranked first among Bachelor's graduates in Computer Engineering at Iran University of Science and Technology and achieved 12th place in the 13th Iranian Scientific Olympiad in Computer Engineering. During her Master's studies, she ranked third among graduates at the same university in 2011. She then ranked third among PhD graduates at Sharif University of Technology in 2014. Additionally, She was recognized as a member of Iran's National Elites Foundation from 2015 to 2016 and was honored with the Michael Smith Health Research BC Trainee Award in 2024.

The Ninth International Clinical Oncology Congress

Invited International Speakers

ISRO
Iranian Society of Radiation Oncology

The Ninth International Clinical Oncology Congress

Invited International Speakers

Dr. Mehdi Astaraki

Department of Medical Radiation Physics,
Karolinska Institute & Stockholm University

Dr Mehdi Astaraki earned his BSc and MSc in Biomedical Engineering from the Science and Research Faculty of Azad University in Tehran, Iran, followed by a Doctor of Philosophy in Medical Technology and a Doctor of Philosophy in Medicine (dual degree) from KTH Royal Institute of Technology and Karolinska Institutet in Stockholm, Sweden. Later, he expanded his expertise as a Visiting Researcher in Medical Image Analysis at the Technical University of Munich in Germany.

Throughout his academic and professional career, he has achieved notable recognition in various international challenges. In 2024, he ranked first in the MICCAI challenge on Pediatric Brain Tumor Segmentation (BraTS) and second in the MICCAI challenge on Meningioma Tumor Segmentation (BraTS). Additionally, he ranked first in the Segmentation of Organs-at-Risk and Gross Tumor Volume for Radiotherapy Planning (SegRap2023) within the MICCAI challenge and secured third place in the Head and Neck Tumor Segmentation for MR-Guided Applications (HNTS-MRG) challenge the same year. His accomplishments also include ranking fourth in the international competition for Automated Lesion Segmentation in Whole-Body PET/CT - Multitracer Multicenter Generalization (AutoPET2024) and seventh in the AutoPET2022 challenge for Automated Lesion Segmentation in Whole-Body FDG-PET/CT. In 2019, he received the Best Student Poster Award, first place, from the Department of Biomedical Engineering and Health Systems at KTH Royal Institute of Technology.

In addition to his research achievements, he possesses substantial teaching experience. He has served as a teacher for several courses, including Image and System Analysis at Stockholm University, Applied AI in Healthcare at the Karolinska Institute, and Deep Learning Methods for Radiation Therapy at Stockholm University. He has also taught Deep Learning Methods for Medical Image Analysis as a hands-on course at KTH, Biomedical Signal Processing at KTH, and Multimodality Imaging in Oncology at the Karolinska Institute. His teaching portfolio further includes hands-on sessions in the HelloAI RIS program with EIT & GE and coursework on 3D Image Reconstruction and Processing in Medicine at KTH.

ISRO
Iranian Society of Radiation Oncology

Dr. Ali Fatemi

PhD of Medical Physics,
Community Health Systems (CHS), Mississippi, USA

The Ninth International Clinical Oncology Congress

Invited International Speakers

Dr. Fatemi is a board-certified radiation physicist and MRI physics specialist with extensive expertise and contributions in the medical physics field. He obtained his Ph.D. in MRI Physics from McMaster University under the guidance of Dr. Mark Haacke, where he developed the 3D high-resolution MRI pulse sequence called Susceptibility Weighted Imaging (SWI). He completed a Medical Physics residency at Princess Margaret Hospital at the University of Toronto, where he worked with prominent researchers in imaging-guided Radiotherapy.

Dr. Fatemi is the Director of Medical Physics at Community Health Systems (CHS), Merit Health Central, Department of Radiation Oncology, Gamma Knife Center, and Chief Scientific Officer at Spintecx.LLC.

Dr. Fatemi has made significant contributions over the years in developing and implementing guidelines and procedures related to MRI machines for radiotherapy planning, particularly for Stereotactic Radiosurgery (SRS). His team's work on quality-control tests for MRI machines has resulted in the publication of over 100 manuscripts and abstracts that are well-known internationally. Dr. Fatemi's team has also developed a post-processing technique that corrects patient-specific geometrical distortion in MRI images, improving SRS treatment and directly impacting patient care.

Dr. Fatemi is also an entrepreneur and collaborates with UCLA and Dr. Daniel Low, Professor, and Vice Chair of the radiation oncology department, to develop an innovative solution called MRsim. This hybrid AI-based and MRI physics innovative solution is designed to enable MRI-guided radiotherapy using any clinical radiotherapy setup. Dr. Fatemi's team also proposes innovative MRI machine quality control solutions, MRsim QC, which includes a G-Phantom and a custom end-to-end test head phantom, Pari head phantom, for QC testing MRI machines intended for radiotherapy and overall MRI-guided radiotherapy procedures.

Dr. Fatemi is an active member of multiple medical physics communities, serving as the past president of the Association of Iranian Physicists in Medicine (AIPM) associated with AAPM and President-Elect for The Southeast Chapter of the American Association of Physicists in Medicine (SEAAPM).

ISRO
Iranian Society of Radiation Oncology

Dr. Faraz Kalantari

American Board of Radiology (ABR),
Therapeutic Medical Physics

The Ninth International Clinical Oncology Congress

Invited International Speakers

Dr. Faraz Kalantari received his BSc in Atomic Physics from Kharazmi University of Tehran in Iran. Then he pursued his M.Sc and Ph.D in Medical Physics from Tarbiat Modares in Iran.

He is board-certified by the American Board of Radiology (ABR) in Therapeutic Medical Physics. He worked closely with radiation safety officer (RSO), striving to maintain a safe environment. He participated in policy development, regulatory compliance monitoring, and voting for new members as authorized users (AUs) or authorized medical physicists (AMPs). He assisted the residency program director in the administration, management, and oversight of the program, ensuring compliance with CAMPEP accreditation standards.

ISRO
Iranian Society of Radiation Oncology

Dr. Hamid Abdollahi

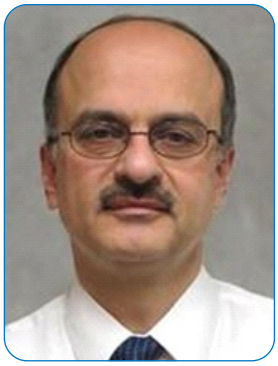
Ph.D in Medical Physics

Dr. Hamid Abdollahi received his B.Sc. in Radiology Technology from Mashhad University of Medical Sciences in Iran. Then he pursued his M.Sc in Radiation Biology & Protection from Shiraz University of Medical Sciences and also Ph.D in Medical Physics from Iran University of Medical Sciences. He was a Medical Imaging Technologist in Departments of Radiology of Bahonar Hospital in Kerman as well as a Researcher/Instructor in Departments of Radiologic Sciences and Medical Physics in Kerman University of Medical Sciences. Currently, He is a Postdoctoral Researcher in Departments of Integrative Oncology, BC Cancer Research Institute of Vancouver, Canada and the Department of Radiology, University of British Columbia.

The Ninth International Clinical Oncology Congress

Invited International Speakers

ISRO
Iranian Society of Radiation Oncology



Dr. Parham Alaei

Professor, Department of Radiation Oncology,
University of Minnesota

The Ninth International Clinical Oncology Congress

Invited International Speakers

Dr. Parham Alaei received his B.Sc in Physics in Florida International University and then MSc in Nuclear Engineering Sciences from the University of Florida in 1992. Then he pursued his Ph.D in Biophysical Sciences and Medical Physics from the University of Minnesota. He is a Professor of medical physics in the Department of Radiation Oncology at the University of Minnesota, and the Director of Graduate Studies, the Medical Physics Graduate Program in the University of Minnesota.

ISRO
Iranian Society of Radiation Oncology

Dr. Elahe Salari

Dr.Elahe Salari received her B.Sc. in physics from Ferdowsi University in Mashhad, followed by M.Sc in Medical physics from Ahvaz Jundishapur University of Medical Sciences.Also she was received Phd in medical physics from university of Toledo,Ohio in USA.At present she is medical physics resident in emory university school of medicine. She is membership of ASTRO ,GWS and AAPM.and she is cpmmittee member of radiation dosimetry and treatment planning subcommittee(RDSC) in AAPM and committee member of machine learning subcommittee in AAPM.

The Ninth International Clinical Oncology Congress

Invited International Speakers

ISRO
Iranian Society of Radiation Oncology

The Ninth International Clinical Oncology Congress

Invited International Speakers

Mr. Reza Alinaghizadeh

Radiation Oncology Medical Physicist

Mr. Reza Alinaghizadeh received his B.Sc. in physics from Iran University of Science and Technology (IUST), followed by M.Sc in Medical physics from Tehran University of Medical Sciences. He was Radiation Oncology Medical Physicist in Radiation Oncology department in Pars General Hospital of Tehran in Iran. Currently, he is the Medical Physicist and ROMP Preceptor in William Buckland Radiotherapy Centre in Melbourne and Radiation Oncology Medical physicist in Olivia Newton Johan Cancer and Wellness center.

ISRO
Iranian Society of Radiation Oncology

The 9th International Clinical Oncology Congress

The 19th Iranian Annual Clinical Oncology Congress

Program

Clinical Oncology Program

The Ninth International Clinical Oncology Congress

Main Hall

Day 1

Wednesday Jan. 29 2025

Day 1: Wednesday 29 Jan. 2025 – Main (International) Hall

Time	Topic	
Chairpersons: • Dr. Farhad Samiee (Clinical Oncologist) • Dr. Mohammad Reza Ghavam Nasiri (Clinical Oncologist)		
08:10 – 08:30	Breast Cancer Session	**Radiotherapy for breast cancer in 2024: A review of hot topics** • Dr. Marzieh Lashkari (Clinical Oncologist)
08:35 – 09:50		**Panel: Emerging diagnostics and systemic treatments for patients with metastatic breast cancer (mBC)** **Moderator:** • Dr. Pedram Fadavi (Clinical Oncologist) **Members:** • Dr. Reza Moghareh Abed (Clinical Oncologist) • Dr. Mahdieh Dayyani (Clinical Oncologist) • Dr. Soraya Salmanian (Clinical Oncologist) • Dr. Pegah Babaheidarian (Pathologist)
09:50 – 10:30		**Debate: Radiation in the setting of pCR in breast cancer (pretreatment data vs post neoadjuvant findings)** **Moderator:** • Dr. Marzieh Lashkari (Clinical Oncologist) **Members:** • Dr. Pegah Sasanpour (Clinical Oncologist) • Dr. Elyas Hassanzadeh (Clinical Oncologist)
10:30 – 11:00	Break	
Chairperson: • Dr. Farnaz Amouzegar Hashemi (Clinical Oncologist)		
11:00 – 11:40	European Society of Medical Oncology (ESMO) Joint Session	**Beyond One-Size-Fits-All: Targeted Therapies for Endometrial Cancer** • Dr. David Tan Shao Peng (Medical Oncologist)
11:40 – 13:00	Gynecological Cancer Session	**Panel: Adjuvant radiotherapy and systemic therapy in endometrial cancer in post molecular era** **Moderator:** • Dr. Fatemeh Homaei Shandiz (Clinical Oncologist) **Members:** • Dr. Fatemeh Mohammadian (Clinical Oncologist) • Dr. Reyhaneh Bayani (Clinical Oncologist) • Dr. Behnaz Moradi (Radiologist) • Dr. Soheila Sarmadi (Gynecological Pathology Fellowship) • Dr. Maryam Sadat Hosseini (Gyneco-oncologist)

ISRO Iranian Society of Radiation Oncology

The Ninth International Clinical Oncology Congress

Main Hall

Day 1

Wednesday Jan. 29 2025

Time	Topic	
13:00 – 14:00	Lunch	
Chairperson: • Dr. Ramin Ajami (Medical Oncologist)		
14:05 – 14:50	Precision Oncology Session	**Panel: Interpreting NGS data for optimal patient outcomes** **Moderator:** • Dr. Ramin Ajami (Medical Oncologist) **Members:** • Dr. Timothy Crook (Medical Oncologist) • Dr. Andrew Gaya (Clinical Oncologist) • Dr. Alireza Amouheidari (Clinical Oncologist)
Chairperson: • Dr. Ahmad Mafi (Clinical Oncologist)		
15:00 – 15:45	European Society of Medical Oncology (ESMO) Joint Session	**Improving patient care in oncology: Integration of evidence-based guidelines with genomic views** • Dr. George Pentheroudakis (Medical Oncologist)
15:45 – 15:55		**Q & A**
Chairpersons: • Dr. Azin Alizadehasl (Cardio-Oncologist) • Dr. Davood Khoda-Amorzideh (Cardio-Oncologist) • Dr. Alia Bahramnejad (Cardio-Oncologist) • Dr. Sarah Forati (Cardio-Oncologist)		
	Cardio-Oncology Session	**Radiation induced cardiac side effects**
16:00 – 16:20		**Radiation induced pericardial diseases** • Dr. Azin Alizadehasl (Cardio-Oncologist)
16:20 – 16:40		**Radiation induced coronary diseases** • Dr. Seyedeh Fatemeh Hosseini Jebelli (Cardio-Oncologist)
16:40 – 17:00		**Radiation induced cardiomyopathy** • Dr. Yasamin Afsari Zanouz (Cardio-Oncologist)
17:00 – 17:20		**Radiation induced peripheral artery disease** • Dr. Masoud Sayad (Cardio-Oncologist)
17:20 – 17:30		**Q & A**
17:30 – 19:30	Radiotherapy Workshop	**Plan evaluation** **Moderators:** • Dr. Morteza Tabatabaeifar (Clinical oncologist) • Dr. Amir Anvari (Clinical Oncologist)) **Members:** • Dr. Mohammad Ali Boroomand (Clinical oncologist) • Dr. Zahra Naderi (Clinical oncologist)

ISRO
Iranian Society of Radiation Oncology

The Ninth International Clinical Oncology Congress

Main Hall

Day 2

Thursday Jan. 30 2025

Day 2: Thursday 30 Jan. 2025 – Main (International) Hall

Time	Topic	
Chairpersons: • Dr. Seyed Hossein Yahyazadeh (Clinical Oncologist) • Dr. Mastaneh Sanei (Clinical Oncologist)		
08:10 – 08:30	Gastrointestinal Cancer Session	**How to manage common side effects of Immunotherapy** • Ali Taghizadeh Kermani (Clinical Oncologist)
08:35 – 09:50		**Panel: Treatment of Gastric adenocarcinoma in the era of Personalized Medicine** **Moderator:** • Dr. Sasan Razmjoo (Clinical Oncologist) **Members:** • Dr. Reza Ghalehtaki (Clinical Oncologist) • Dr. Reza Eghdam Zamiri (Clinical Oncologist) • Dr. Mojgan Forootan (Gastroenterologist) • Dr. Abodlazim Sedighi Pashaki (Clinical Oncologist) • Dr. Hamidreza Bolhasani (PhD in Data Science and AI) • Dr. Amirmohsen Jalaeefar (Oncosurgeon) • Dr. Babak Salavatipour (Radiologist)
09:50 – 10:30		**Surgery vs Surveillance in esophageal cancer after neoadjuvant treatment** **Moderator:** • Dr. Payam Azadeh (Clinical Oncologist) **Members:** • Dr. Mohammad Reza Saghafi (Clinical Oncologist) • Dr. Maryam Garousi (Clinical Oncologist)
10:30 – 11:00	Break	
Chairperson: • Dr. Soheil Vejdani (Clinical Oncologist)		
11:00 – 11:40	European Society of Medical Oncology (ESMO) Session	**Optimal perioperative systemic treatment in Rectal Cancer** • Dr. Eric Van Cutsem (Medical Oncologist)
11:45 – 13:00	Gastrointestinal Cancer Session	**Panel: Controversies in localized rectal cancer treatment** **Moderator:** • Dr. Mahdi Aghili (Clinical Oncologist) **Members:** • Dr. Nima Mousavi (Clinical Oncologist) • Dr. Mansour Ansari (Clinical Oncologist) • Dr. Mohammad Sadegh Fazeli (Colorectal surgeon) • Dr. Mohammadreza Keramati (Colorectal Surgeon)

ISRO Iranian Society of Radiation Oncology

Time	Topic	
		• Dr. Mohamad Bagheri (Gastroenterologist) • Dr. Alireza Abrishami (Radiologist) • Dr. Maryam Sadat Hosseini (Gyneco-oncologist)
13:00 – 14:00	Lunch	
Chairperson: • Dr. Seyed Mohammad Hosseini (Clinical Oncologist)		
14:05 – 14:50	Beyond Oncology Session: Ethics in Oncology	**Conflict of Interest in Oncology** • Dr. Hamidreza Namazi (PhD in Medical and Philosophical Ethics)
Chairperson: • Dr. Maryam Feli (Clinical Oncologist)		
15:00 – 17:00	European Society for Radiotherapy and Oncology (ESTRO) Joint Session	**Automatic delineation systems: A danger or a life saver?** • Dr. Nikos Paragios (PhD in Computer Sciences) **Automatic delineation: How should it be used and possible dangers or drawbacks** • Dr. Ditte Sloth Møller (Medical Physicist) **Challenges: a Trustworthy standard framework for objective evaluation of segmentation models** • Dr. Mehdi Astaraki (PhD in Medical Imaging)

The Ninth International Clinical Oncology Congress

Main Hall

Day 3

Friday Jan. 31 2025

Day 3: Friday 31 Jan. 2025 – Main (International) Hall

Time	Topic	
Chairpersons: • Dr. Hamid Emami (Clinical Oncologist) • Dr. Bahar Moeini (Clinical Oncologist)		
08:10 – 08:30	Pediatrics Cancer Session	**Medulloblastoma in children: When a tumor changes the life of the whole family** • Dr. Mithra Ghalibafian (Clinical Oncologist)
08:35 – 09:45		**Can we expand bladder preservation by optimal use of systemic therapy and biomarkers?** **Moderator:** • Dr. Hamidreza Mirzaei (Clinical Oncologist) **Members:** • Dr. Abbas Basiri (Uro-Oncologist) • Dr. Hamid Nasrollahi (Clinical Oncologist) • Dr. Azin Ahmari (Clinical Oncologist) • Dr. Ali Tabibi (Uro-Oncologist) • Dr. Atoosa Gharib (Pathologist) • Dr. Hadiseh Zeynalkhani (Radiologist) • Dr. Farshad Seyednejad (Clinical Oncologist)
09:50 – 10:30		**Debate: Local treatment in metastatic Prostate cancer** **Moderator:** • Alireza Amouheidari (Clinical Oncologist) **Members:** • Dr. Amir Hossein Rayegani (Clinical Oncologist) • Malihe Dayani (Clinical Oncologist)
10:30 – 11:00	Break	
Chairperson: • Dr. Hossein Foudazi (Clinical Oncologist)		
11:00 – 11:40	Beyond Oncology Session: Medical Coaching	**Medical Coaching in Oncology: Patient-centered treatment instead of treatment of the disease** • Dr. Soraya Salmanian (Clinical Oncologist)
11:40 – 13:00	Lung Cancer Session	**Panel: Best therapies with driver mutations in lung cancer** **Moderator:** • Dr. Ali Yaghoubi Joibari (Clinical Oncologist) **Members:** • Dr. Mohammad Hasan Larizadeh (Clinical Oncologist) • Dr. Dariush Moslemi (Clinical Oncologist) • Dr. Arda Kiani (Pulmonologist)

ISRO Iranian Society of Radiation Oncology

Time	Topic	
		• Dr. Mohammad Gouran Savadkoohi (Clinical Oncologist) • Dr. Majid Mokhtari (Pulmonologist) • Dr. Nasser Rakhshani (Pathologist)
13:00 – 13:45	Closing Ceremony	
13:45 – 14:30	Lunch	

The Ninth International Clinical Oncology Congress

Main Hall

Day 3

Friday
Jan. 31
2025

ISRO
Iranian Society of Radiation Oncology

Oncology Nursing Program

The Ninth International Clinical Oncology Congress

Tooska Hall

Day 1

Wednesday Jan. 29 2025

Day 1: Wednesday 29 Jan. 2025 – Tooska Hall

Time	Topic
08:15 – 08:40	**Opening session: The goals of the congress** • Dr. Leila Khanali Mojen (Assistant prof of nursing)
08:40 – 09:00	**Cancer status in Iran** • Dr. Samira Beiranvand (Assistant prof of nursing)
09:00 – 10:00	**Panel: Palliative care in cancer** **With an introduction to palliative care centers in the country** **Moderator:** • Parastoo Aryamloo (MSc in nursing) **Members:** • Dr. Hadise Ashrafizadeh (Assistant prof of nursing) • Somayeh Mirzaei (BSc in nursing) • Zeinab Kazemzadeh (MSc in nursing) • Zahra Saeedi (BSc in nursing)
10:00 – 10:30	**Pain management in Oncology Nursing** • Dr. Parand Poorazar (Medical doctor)
10:30 – 11:00	Break
11:00 – 13:00	**Panel: updates in chemotherapy- related care and nursing care in oncologic emergencies** **Moderator:** • Dr. Salman Barasteh (Assisstant prof of nursing) **Members:** • Alireza Farid Khamami (BSc in nursing) • Esmaeil Rezaei (BSc in nursing)
13:00 – 14:00	Lunch
14:00 – 15:30	**Panel: Gastrointestinal cancers- treatment regimens, managing complications and empowering the patient and family** **Moderator:** • Dr. Azam Shirinabadi Farahani (Assisstant prof of nursing) **Members:** • Marjan Minoofar (BSc in nursing) • Fatemeh Mohammadian (BSc in nursing) • Nasrin Dadashi, (Student of PhD in nursing) • Fatemeh KHademi (MSc in nursing)
15:30 – 16:00	**Q & A Session**

ISRO Iranian Society of Radiation Oncology

Day 2: Thursday 30 Jan. 2025 – Tooska Hall

Time	Topic
08:15 – 08:30	**Overview of the presented content** • Dr. Leila Khanali Mojen (Assistant prof of nursing)
08:30 – 10:30	**Panel: Oncologic wound and vascular leakage management** **Moderator:** • Dr.Mehdi Akbarzadeh Amirdehi (PhD in nursing) **Members:** • Alireza Ali Mohammadiha (MSc in nursing) • Alireza Abbasi Niasar (MSc in nursing) • Dr.Esmat Hosseini (Assistant prof of nursing) • Somayeh Kiani (MSc in nursing) • Seyed Amirhossein Moslehi (MSc in nursing) • Dr. Batool Nahrir (PhD in nursing)
10:30 – 11:00	Break
11:00 – 13:00	**Panel: Lymphedema management** **Moderator:** • Leila Angooti (MSc in Physical Medicine) **Member:** • Dr. Mohadese Babaei (Assistant prof of nursing)
13:00 – 14:00	Lunch
14:00 – 15:30	**Panel: Breast cancer- treatment regimens, managing complications and empowering the patient and family** **Moderator:** • Dr. Maryam Karami (PhD in nursing) **Members:** • Dr. Azam Eshaghian (PhD in nursing) • Dr. Tahereh Khoob Bin Khoshnazar (Assistant prof of nursing) • Somayeh Sayyadinejad (BSc in nursing) • Fatemeh kamali (BSc in nursing) • Maryam Soodmand (BSc in nursing)
15:30 – 16:00	**Q & A Session**

Clinical Radiobiology Program

The Ninth International Clinical Oncology Congress

Molavi Hall

Day 1

Wednesday Jan. 29 2025

Day 1: Wednesday 29 Jan. 2025 – Molavi Hall

Time	Topic
08:15 – 08:30	**Holly Quran recitation and welcoming**
08:35 – 08:50	**Introductory talk** • Dr. Hossein Mozdarani (Prof of Medical Genetics and Radiobiology)
Chairpersons:	• Dr. Samideh Khoei (Prof of Biophysics) • Dr. Mohsen Foroughizadeh Moghaddam (Assistant Prof of Medical Genetics) • Dr. Seyed Rabi Mahdavi (Prof of Medical Physics) • Dr. Hossein Mozdarani (Prof of Medical Genetics and Radiobiology)
08:50 – 09:20	**Radiation induced cell death** • Dr. Samideh Khoei (Prof of biophysics)
09:25 – 09:55	**Journey of radiobiology from 4Rs to precision oncology** • Dr. Arun Chogule (Prof of Medical Physics)
10:00 – 10:30	**Radiation accidents in radiotherapy Center** • Dr. Mohsen Foroughizadeh Moghadam (Assistant Prof of Medical Genetic)
10:30 – 11:00	**Break**
Chairpersons:	• Dr. Sara Samiee (Clinical Oncologist) • Dr. Ahmad Ameri (Clinical Oncologist) • Dr. Mahdiye Dayyani (Clinical Oncologist) • Dr. Ramin Jaberi (PhD in Medical Physics)
11:00 – 11:30	**Re-irradiation actions and limits** • Dr. Mohammad Mohammadi (Associate Prof of Medical Physics)
11:30 – 11:55	**Brachytherapy as an alternative solution for re-irradiation** • Dr. Ramin Jaberi (PhD in Medical Physics)
12:00 – 12:10	**Re- irradiation for Head & neck cancers** • Dr. Ahmad Ameri (Clinical Oncologist)
12:10 – 12:20	**Re- irradiation for breast cancers** • Dr. Mahdieh Dayyani (Clinical Oncologist)
12:20 – 12;30	**Re- irradiation for Abdominal cancers** • Dr. Sara Samiee (Clinical Oncologist)
12:30 – 13:00	**Challenging cases for irradiation** • Dr. Sara Samiee (Clinical Oncologist) • Dr. Ahmad Ameri (Clinical Oncologist) • Dr. Mahdiye Dayyani (Clinical Oncologist)
13:00 – 14:00	**Lunch**
Chairpersons:	• Dr. Seyed Mohammad Javad Mortazavi (Prof of Medical Physics)

ISRO Iranian Society of Radiation Oncology

Time	Topic
	• Dr. Fatemeh Pakniat (Assistant Prof of Medical Physics) • Dr. Mohammad Akbarnejad (PhD in Medical Radiation) • Dr. Hamed Bagheri (PhD in Medical Physics)
14:10 – 14:40	**Reduced melanoma growth in mice exposed to extreme high background radiation: Evidence of challenging conventional models** • Dr. Seyed Mohammad Javad Mortazavi (Prof of medical physics)
14:45 – 15:05	**Low dose radiation therapy radiobiology: A new concept in benign conditions** • Dr. Sara Samiee (Clinical Oncologist)
15:10 – 15:25	**The Magic of a Conditioning Dose: A Revolutionary Mechanism for Enhancing Cancer Treatment, Radiotherapy, and Radiation Protection in Medicine, Space, and Beyond** • Dr. Abolfazl kanani (PhD in Medical Physics)
15:30 – 15:45	**The role of radioprotectors in mitigating the injuries of radiotherapy related side effects and accidents** • Dr. Fatemeh Pakniat (Assistant Prof of Medical Physics)
15:50 – 16:05	**Investigating the anti-inflammatory effect of hydrogel containing liposomes loaded with nano-curcumin in rat skin under megavoltage electron irradiation** • Foad Valikhani (MSc in Radiobiology)
16:10 – 16:30	**Bioshield: A multimodal radioprotective agent** • Dr. Hossein Mozdarani (Prof of Medical Genetics and Radiobiology)

The Ninth International Clinical Oncology Congress

Molavi Hall

Day 2

Thursday Jan. 30 2025

Day 2: Thursday 30 Jan. 2025 – Molavi Hall

Time	Topic
Chairpersons:	• Dr. Mohammad Amin Mosleh Shirazi (Associate Prof of Medical Physics) • Dr. Ali SHabestani Monfared (Prof of Medical Physics) • Dr. Abolhassan Rezaeian (Assistant Prof of Medical Physics) • Dr. Mohsen Bakhshandeh (Associate Prof of Medical Physics)
08:15 – 08:30	**Brief introduction of the 2 nd day events**
08:35 – 09:05	**High and low dose spots in treatment planning in radiotherapy. How do they affect on the outcome?** • Dr. Ali. Shabestani Monfared (Prof of Medical Physics)
09:10 – 09:40	**Radiobiology of hypofractionated stereotactic radiotherapy** • Dr. Seyed Rabi Mahdavi (Prof of Medical Physics)
09:45 – 10:00	**Radiobiological aspects of FLASH radiotherapy** • Dr. Freshteh Kosha (Assistant Prof in Medical Physics)
10:00 – 10:15	**Diagnostic value of CT scan imaging features in predicting complications of heart failure resulting from breast radiotherapy** • Dr. Susan Cheraghi (Assistant Prof of medical physics)
10:15 – 10:30	**Increasing the radiotherapy efficiency of MDA-MB-231 breast cancer cell line using Fe_3O_4 @Au and Fe_3O_4 @Ag core/shell nanoparticles loaded with TNF-α** • Motahere Khoshkar (MSc in Medical Physics)
10:35 – 11:00	Break
Chairpersons:	• Dr. Abolfazl Razzaghdoust (Assisstant Prof of Medical Physics) • Dr. Hossein Azimian (Associate Prof of Medical physics) • Dr. Seyed Abolghasem Hayeri (Assistant Prof of Medical Physics) • Dr. Aziz Mahmoudzadeh (Assistant Prof of Immunology)
11:00 – 11:30	**Epigenetics alterations as radiogenomic predictor for radiotoxicity** • Dr. Hossein Mozdarani (Prof of Medical Genetics and Radiobiology)
11:35 – 12:05	**Unraveling the role of non-coding RNAs: A Key to overcoming radiotherapy resistance** • Dr. Hossein Azimian (Associate Prof of Medical Physics)
12:10 – 12:25	**Temporal Expression Analysis of FDXR and GADD45A Genes as Molecular Biomarkers in Peripheral Blood of Prostate Cancer Patients During Radiotherapy: A Prospective Cohort Study** • Dr. Aziz Mahmoudzadeh (Assistant Prof of Immunology)
12:30 – 12:45	**Cold atmospheric plasma as a promising radiosentisizer for cancer therapy** • Dr. Masoumeh Zangeneh (PhD in Medical Physics)
12:45 – 13:00	**Enhancing the response of resistant renal cancer tumors to megavoltage X-rays using cold atmospheric plasma as a radiosensitizer** • Hanieh Nazem Zomorodi (MSc in Medical Physics)

ISRO Iranian Society of Radiation Oncology

Time	Topic
13:00 – 14:00	Lunch
Chairpersons: • Dr. Masoud Rezaeijou (Assistant Prof of Medical Physics) • Dr. Alireza Mohammad Karim (Assistant Prof of Medical Physics) • Saeed Rezapour (Student of PhD in Medical physics) • Dr. Abolhasan Rezaeian (Assistant Prof of Medical Physics)	
14:10 – 14:30	**AI in radionuclide therapy: radiobiology and modeling** • Dr. Hamid Abdollahi (Assistant Prof of Medical Physics)
14:35 – 14:50	**Using AI in prediction of radiotherapy outcome: Radiobiology in the era of deep learning** • Dr. Masoud Rezaeijou (Assistant prof of Medical Physics)
14:55 – 15:10	**Utilizing NTCP models in modern clinical radiotherapy** • Dr. Alireza Mohammadkarim (Assistant Prof of Medical Physics)
15:15 – 15:30	**Comparison of Artificial Intelligence using in the FFF-Machine on improving the dose distribution accuracy and normal tissue sparing: state of the art and future perspectives** • Fahimeh Faghihi Moghaddam (MSc in Medical Physics)
15:35 – 15:50	**Neuroimaging findings of post-treatment radiation effects in non-CNS cancer** • Dr. Abolhasan Rezaeian (Assistant Prof of Medical Physics)
15:55 – 16:10	**AI role in spinal cord re-irradiation** • Dr. Azadeh Amraei (Assistant Prof of Medical Physics)
16:15 – 16:30	**Bioshield: A multimodal radioprotective agent** • Mr. Saeed Dabirifar (MSc in Radiobiology)

Radiation Technologist's Program

The Ninth International Clinical Oncology Congress

Razi Hall

Day 1

Thursday Jan. 30 2025

Day 1: Thursday 30 Jan. 2025 – Razi Hall

Time	Topic
09:00 – 09:15	**Opening session** • Mr. Hassan Jahangir Golestan (MSc in Medical Radiation)
Chairpersons: • Mr. Akbar Shahriari (Radiology Associate Degree) • Mr. Nader Sepanlou (MSc in Medical Radiation)	
09:15 – 09:45	**Analysis of radiomic alterations in the Femoral Bone resulting from Tomotherapy radiation in Male patients with Pelvic Cancers** • Ms. Maryam Gholizadeh (MSc in Medical Physics)
09:45 – 10:00	**Professional Ethics** • Mr. Nader Sepanlou (MSc in Medical Radiation)
10:00 – 10:30	**Radiotherapy in Children** • Dr. Shaghayegh Yeganeh (Clinical Oncologist)
10:30 – 11:10	Break
Chairpersons: • Mr. Akbar Shahriari (Radiology Associate Degree) • Mr. Nader Sepanlou (MSc in Medical Radiation)	
11:15 – 11:50	**Impacts of Artificial Intelligence use Before and After Treatment** • Ms. Mandana Soleimani (Radiotherapy Technologist)
12:00 – 12:50	**Various Imaging Methods for Managing Patient Movement in Radiotherapy treatment** • Dr. Seyed Rabi Mahdavi (PhD in Medical Physics)
13:00 – 14:00	Lunch
Chairpersons: • Ms. Marziyeh Nabikhani (MSc of Medical Physics) • Ms. Farzaneh Shirzad (MSc in Medical Radiation)	
14:00 – 14:30	**Principles of CT simulator in SRS treatments** • Ms. Homa Emamgholi (MSc in Medical Physics)
14:30 – 15:00	**Introduction to more precise treatments with stereotactic technique** • Mr. Nader Naderian (Radiotherapy Technologist)
15:00 – 15:30	**Artificial intelligence and its effects on reducing errors and improving treatment outcomes, especially in patient follow-up** • Ms. Fatemeh Zabihi Kia (Radiotherapy Technologist)
15:30 – 16:00	**V Prevalence of health anxiety in cancer care workers** • Mr. Alireza Soltani (Radiotherapy Technologist)

ISRO Iranian Society of Radiation Oncology

Day 2: Friday 31 Jan. 2025 – Razi Hall

Time	Topic
Chairpersons: • Ms. Nafiseh Hasani (MSc of Medical Physics) • Mr. Fahimeh Lamei (MSc in Radiobiology & Radiation Protection)	
08:15 – 08:35	**Effect analysis of patient rotation automatic correction on dose distribution of the target volumes and organs at risk during tomotherapy after MVCT** • Mr.Ahmad Rouhi Zadegan (MSc in Medical Imaging Technology)
08:40 – 09:20	**Innovative Treatment Techniques (SBRT, SRS, VMAT)** • Mrs. Sepideh Shirani (PhD Student in Medical Radiation)
Chairpersons: • Mr. Mehdi Amini (Radiotherapy Technologist) • Ms. Zeinab Azimi (MSc in Medical Radiation)	
09:20 – 10:00	**Methods for preventing hand lymphedema before, during and after radiotherapy** • Ms. Malihe Salami (BSc in Nursing)
10:00 – 10:30	**Converting MR imaging to CT and Vice Versa for radiotherapy treatment planning** • Ms. Zahra Rezaei Moslek (Student of MSc in Medical Physics)
10:30 – 11:00	Break
Chairpersons: • Mr. Mehdi Shahsavarian (BSc in Radiology) • Ms. Leila Mohammadian (MSc in Radiology)	
11:10 – 11:35	**Modern Radiotherapy Devices from an Engineering Perspective** • Reza Shirzadeh (Radiotherapy Technologist)
11:35 – 12:00	**The vital role of imaging and clinical case analysis in Head and Neck patients using advanced accelerators** • Ms. Fahimeh Lamei (MSc in Radiobiology and Radiation Protection)
12:00 – 12:30	**Minimalization of error in radiotherapy setup** • Ms. Zahra Jafari (Student of MSc in Medical Physics)
12:30 – 13:00	**The role of patient education before treatment** • Ms. Mohadeseh Akbarian (Radiotherapy Technologist)
13:00 – 14:00	Lunch

Medical Physics Program

The Ninth International Clinical Oncology Congress

Hegmataneh Hall

Day 1

Wednesday Jan. 29 2025

Day 1: Wednesday 29 Jan. 2025 – Hegmataneh Hall

Time	Topic	
08:00 – 08:30	**Quran recitation, national anthem and welcome** Dr. Mohsen Bakhshandeh (Associate Prof of Medical Physics)	
Chairpersons: • Dr.Mohammad Javad Tahmasebi (Prof of Medical Physics) • Dr. Hamid Gholamhosseinian (Associate Prof of Medical Physics) • Dr.Abolfazl Nikfarjam (Associate Prof of Medical Physics) • Dr.Ghazaleh Geraily (Prof of Medical Physics)		
08:30 – 09:00	Treatment planning panel	**Current considerations in SBRT, planning, QA and delivery** • Dr. Esmaeil Parsaei (Prof of Medical Physics)
09:00 – 09:20		**Multi-criteria optimization (MCO) in treatment planning** • Dr. Abolfazl Nikfarjam (Associate prof of Medical Physics)
09:20 – 09:40		**Physics of proton and carbon ion therapy** • Dr. Amin Banaei (Assistant prof of Medical Physics)
09:40 – 10:00		**SMART Radiotherapy** • Dr. Ali Shabestani Monfared (prof of Medical Physics)
10:00 – 10:20		**Inverse treatment planning in advanced radiotherapy: Establishing a common language to optimize communication among radiation oncologists, radiotherapy physicists, and treatment planning systems** • Dr. Ali Ghanbarzadeh (PhD in nuclear engineering)
10:20 – 10:40		**Hybrid IMRT and VMAT treatment** • Dr. Ghazaleh Geraily (Prof of Medical Physics)
10:40 – 11:10	Break	
Chairpersons: • Dr. Mohammad Mohammadi (PhD in Medical Physics • Dr. Ali Jomehzadeh (Associate Prof of Medical Physics) • Dr. Amin Banaei (Assitant Prof of Medical Physics) • Dr. Mehdi Shirin Shandiz (Assistant Prof of Medical Physics)		
11:10 – 11:30	Adaptive radiotherapy panel	**Current status of radiation oncology in Iran and comparison to other countries** • Dr. Mohammadreza Barzegar (Clinical Oncologist)
11:30 – 11:50		**Motion monitoring in radiation therapy** • Dr. Mohammad Mohammadi (PhD in medical physics)
11:50 – 12:10		**Introducing a native respiratory gating system (design and construction) in order to implement respiratory gating techniques in radiotherapy** • Dr. Mohammadjavad Keikhai-Farzane (Assistant prof of medical physics)

ISRO Iranian Society of Radiation Oncology

The Ninth International Clinical Oncology Congress

Hegmataneh Hall

Day 1

Wednesday Jan. 29 2025

Time	Topic	
12:10 – 12:30		**Surface guided radiotherapy** • Dr. Sara Abdollahi (PhD in medical physics)
12:30 – 12:50		**Adaptive radiotherapy: Clinical rationale, workflow and quality assurance considerations** • Dr. Parham Alaei (Prof of Medical Physics)
12:50 – 13:20		**Image guided adaptive radiotherapy: opportunities and challenges** • Dr. Anil Sethi (Prof of Medical Physics)
13:20 – 14:20	Lunch	
Chairpersons: • Dr. Mohammad Amin Mosleh-Shirazi (Associate Prof of Medical Physics) • Dr. Alireza Farajollahi (Prof of Medical Physics) • Dr. Ali Shabestani Monfared (Prof of Medical Physics) • Dr. Mohsen Bakhshanndeh (Associate Prof of Medical Physics)		
14:20 – 14:40	Imaging in oncology panel	**Application of deformable image registration in radiotherapy** • Dr. Mohammad Amin Mosleh-Shirazi (Associate prof of medical physics)
14:40 – 15:00		**Evaluation and correction of MRI geometrical distortions for optimal radiotherapy planning** • Dr. Ali Fatemi (PhD in medical physics)
15:00 – 15:20		**Motion management in MRI guided radiotherapy** • Reza Alinaghizadeh (MSc in medical physics)
15:20 – 15:40		**Application of perfusion MR in neuro oncology** • Dr. Fariborz Faeghi (Associate prof of medical physics)
15:40 – 16:00		**Application of PET-CT in oncology** • Dr. Ahmad Bitarafan-Rajabi (Associate prof of medical physics)
16:00 – 16:20		**Overview of synchrony real-time delivery adaptation** • Sepideh Saadatmand (MSc in medical physics)
16:20 – 16:40		**Increasing accuracy in pelvic cancer radiotherapy set-up: a new averaging method to reduce systematic and random errors through EPID** • Mehdi Khosravi, (MSc in medical physics)
14:00 – 16:30	Scientific Workshop (Hafez Hall)	**Introduction to IMRT and VMAT treatment planning basics** • Dr. Amin Banaei (Assistant prof of medical physics) • Saman Moradi (MSc in medical physics) • Zahra Tabatabaei (MSc in medical physics)

ISRO Iranian Society of Radiation Oncology

The Ninth International Clinical Oncology Congress

Hegmataneh Hall

Day 2

Thursday Jan. 30 2025

Day 2: Thursday 30 Jan. 2025 – Hegmataneh Hall

Time	Topic	
Chairpersons: • Dr. Seyed Rabi Mahdavi (Prof of Medical Physics) • Dr. Ahmad Mostaar (Prof of Medical Physics) • Dr. Mohsen Bakhshandeh (Associate Prof of Medical Physics) • Shahram Monadi (MSc in Medical Physics)		
08:00 – 08:30	SRS/SBRT panel	**Evaluation of the effect of energy and planned dose grid on plan quality metrics for treatment of single isocenter multiple target brain lesions** • Dr. Elahe Salari (PhD in medical physics)
08:30 – 08:50		**Planning for multiple brain metastasis SRT** • Dr. Seyed Rabi Mahdavi (Prof of medical physics)
08:50 – 09:10		**Cyberknife radiosurgery overview: Specifications and treatment planning** • Dr. Ahmad Mostaar (Prof of medical physics)
09:10 – 09:30		**SBRT with respiratory gating for lung small metastasis in Leimyosarcoma** • Faranak Felfeliyan (MSc in medical physics)
09:30 – 09:50		**Respiratory motion management strategies for SBRT** • Dr. Faraz Kalantari (Associate prof of medical physics)
09:50 – 10:10		**Small field dosimetry** • Dr. Davood Khezerloo (Associate prof of medical physics)
10:10 – 10:40		**Appreciation ceremony for the veteran professor of medical physics**
10:40 – 11:10	Break	
Chairpersons: • Dr. Mehdi Momennejad (Assistant Prof of Medical Physics) • Dr. Ahad Zeynali (Prof of Medical Physics) • Dr. Masoud Rezaeijoo (Assistant Prof of Medical Physics) • Dr. Iraj Abedi (Assistant Prof of Medical Physics)		
11:10 – 11:30	AI in Radiotherapy Panel	**Familiarity with applications of Python programming language and artificial intelligence in radiotherapy** • Dr. Samira Abbaspour (PhD in medical physics)
11:30 – 11:50		**AI based segmentation in radiation treatment planning** • Dr. Mehdi Astaraki (PhD in medical imaging)
11:50 – 12:10		**Application of artificial intelligence in treatment planning** • Dr. Shahrokh Naseri (Associate prof of medical physics)

ISRO Iranian Society of Radiation Oncology

The Ninth International Clinical Oncology Congress

Hegmataneh Hall

Day 2

Thursday Jan. 30 2025

Time	Topic	
12:10 – 12:30		**Predictive modeling of rectal damage based on radiomics in prostate cancer patients undergoing radiotherapy comparing CT and MRI** • Dr. Hossein Hasaninezhad (PhD in medical physics)
12:30 – 12:50		**Feasibility and reproducibility of radiomics in quality control for radiotherapy treatment planning systems** • Dr. Masoud Rezaei-Joo (Assistant Prof of Medical Physics)
12:50 – 13:20		**AI based treatment Planning** • Dr Hamid Abdollahi (PhD in medical physics)
13:20 – 14:20	Lunch	
Chairpersons: • Dr. Ramin Jaberi (PhD in Medical Physics) • Dr. Nahid Chegeni (Associate Prof of Medical Physics) • Dr. Ali Shabestani Monfared (Prof of Medical Physics)		
14:20 – 14:40	Brachytherapy panel	**Literature review after 20 years, could EMBRACE recommendations make advanced cervical cancer more curable?** • Dr. Ramin Jaberi (PhD in medical physics)
14:40 – 15:00		**Eye plaque radiotherapy** • Dr. Mohammad Mohammadi (PhD in medical physics)
15:00 – 17:00		**Panel: Evaluating the clinical requirements of radiation therapy physicists based on the educational program of master's and doctorate courses in medical physics** **Moderator:** • Dr. Mohsen Bakhsandeh (Associate Prof of medical physics) **Members:** • Dr. Bijan Hashemi (Associate Prof of Medical Physics) • Dr. Ali Ghanbari Motlagh (Clinical Oncologist) • Dr. Seyed Hossein Yahyazadeh (Clinical Oncologist) • Dr. Mahdi Aghili (Clinical Oncologist) • Dr. Afshin Rakhsha (Clinical Oncologist) • Dr. Ali Neshasteriz (Prof of Medical Physics)
14:00 – 16:30	Scientific Workshop (Hafez Hall)	**Introduction to brachytherapy treatment planning in GYN cancers** • Dr. Shadi Zohouriniya (Clinical Oncologist) • Leila Rahmati (MSc in medical physics) • Ali Rajabi (MSc in nuclear engineering)

ISRO Iranian Society of Radiation Oncology

The Ninth International Clinical Oncology Congress

Hegmataneh Hall

Day 3

Friday Jan. 31 2025

Day 3: Friday 31 Jan. 2025 – Hegmataneh Hall

Time	Topic	
Chairpersons: • Dr. Ali Jomehzadeh (Associate Prof of Medical Physics) • Dr. Hamed Rezaei-Jam (Assistant Prof of Medical Physics) • Dr. Mehran Yarahmadi (Associate Prof of Medical Physics) • Dr. Peyman Hejazi (PhD in medical Physics)		
08:30 – 09:00	**Dosimetry and quality control panel**	**3D In-Vivo dosimetry techniques in radiotherapy: Where is Iran now?** • Dr. Ali Jomezade (Associate prof of medical physics)
09:00 – 09:20		**Parameters required for commissioning treatment planning software and audit tests based on TEC-DOC1583** • Dr. Hamed RezaeiJam (Assistant prof of medical physics)
09:20 – 09:40		**Multi leaf collimators, specifications, characteristics, and quality control** • Dariush Khoramian (MSc in medical physics)
09:40 – 10:00		**Development programs of the secondary standard dosimetry laboratory in improving dose traceability in radiation therapy and quality control of medical linear accelerators** • Dr. Mahmoudreza Akbari (PhD in nuclear engineering)
10:00 – 10:20		**Quality control of linear accelerator imaging systems** • Dr. Mehran Yarahmadi (Assistant prof of medical physics)
10:20 – 10:40		**Small field dosimetry** • Dr. Maryam Yaftian (PhD in nuclear engineering)
10:40 – 11:10	**Break**	
Chairpersons: • Dr. Mohammad Javad Keikhai-Farzane (Assistant Prof of Medical Physics) • Dr. Milad Hatamian (Assistant Prof of Medical Physics) • Dr. Mohammadreza Bayatiyani (Associate Prof of Medical Physics) • Dr. Karim Khoshgard (Prof of Medical Physics)		
11:10 – 11:30	**Novel Techniques panel**	**Revolutionizing cancer research with advanced AI in histopathology** • Dr. Maryam Asadi (PhD in computer Science & AI)
11:30 – 11:50		**Investigating the hybrid treatment planning technique (IMRT-3D) in breast cancer patients, especially in patients with breast implants** • Dr. Maryam Yaftiyan (PhD in nuclear engineering)
11:50 – 12:10		**Introduction to matRad: Open-source toolkit for intensity-modulated photon, proton, and carbon ion planning** • Dr. Nahid Chegeni (Associate prof of Medical Physicst)

ISRO Iranian Society of Radiation Oncology

Time	Topic	
12:10 – 12:30		**Innovations in cancer laser treatments, combining laser treatment modalities to increase effectiveness** • Dr. Hossein Rasta (Prof of medical physics)
12:30 – 12:50		**Dosimetric and radiobiological comparison of hybrid technique with "intnsity modulated radiotherapy" and "volume modulated arc therapy" techniques in rectal cancer patients** • Elham Yaghoubvand (MSc in medical physics)
12:50 – 13:10		**Evaluating the efficiency of multi-criteria optimization (MCO) in treatment planning of GBM radiotherapy** • Nasim Amiri (MSc in medical physics)
13:10 – 14:00	Lunch	

The 9th International Clinical Oncology Congress

The 19th Iranian Annual Clinical Oncology Congress

Abstracts & Posters List

Evaluation of tumor clearance and pathological complete response using induction FLOT chemotherapy before neoadjuvant chemoradiotherapy in the treatment of locally advanced adenocarcinoma of the gastroesophageal junction and proximal stomach

Zohre Pishevar [1] , Seyed Amir AleDavood [1]

1 -Cancer research center, Mashhad university of medical center, Mashhad, Iran

Introduction:

Choosing the right treatment approach in patients with adenocarcinoma of lower end of esophagus and the proximal part of the stomach is challenging. While addition of chemotherapy and radiotherapy to surgery has been proven to be beneficial, consensus on the sequence of these treatments is lacking. As the most important cause of death in this group of patients is distant spread of the disease, it is possible that earlier use of systemic treatment can be beneficial. In this study, we aimed to investigate the benefit of induction FLOT chemotherapy prior to neoadjuvant chemoradiotherapy in the treatment of adenocarcinoma of lower esophagus and proximal part of the stomach.

Method:

In this single arm, phase II clinical trial, patients with operable locally advanced adenocarcinoma (T1-T4b, No-N3, M0) at lower esophageal junction and proximal stomach in two teachings hospitals affiliated to Mashhad University of Medical Sciences (Imam Reza (AS) Hospital [Department of Radiotherapy Oncology] and Omid Hospital) were included in the study. At first, the patients received two courses of FLOT chemotherapy (docetaxel 50 mg/m2, oxaliplatin 85 mg/m², leucovorin 200 mg/m², and 5-FU 2600 mg/m² as 24-hour infusion, all on day one, given every 2 weeks). Then, they were put on neoadjuvant chemoradiotherapy, along with paclitaxel (50 mg/ m2)/carboplatin (AUC=2) regimen, and total radiotherapy dose of 41.4-45 Gy at 1.8-2 Gy/ day. Four to six weeks after completion of chemoradiotherapy treatment, patients were referred for surgery. Patients were examined weekly during neoadjuvant treatments and up to one month after surgery in terms of acute complications. The rate of acute complications, the possibility of tumor removal during surgery, and the pathological response to neoadjuvant treatment in patients were recorded.

Results:

A total of 57 patients with an average age (24-64) of 56.5 ± 8.3 were included in the study. Most of the lesions were T3 (23 people, 40.4%) and N1 (26 people, 45.6%) based on CT scan findings with and without EUS. All patients were treated with induction chemotherapy, with 51 patients (89.5%) receiving both chemotherapy courses. 73.6% of patients received more than four courses of chemotherapy along with radiotherapy. 40 patients underwent surgery. In examining the pathology results after surgery, complete response was observed in 11 patients(27.5%) partial response in 10 (25%), minimal response in 12 (30%), and poor response in 7 patients (17.5%). In general, in terms of hematological and gastrointestinal side effects, neoadjuvant treatments were tolerable and most patients either had zero or grade one side effects.

Conclusion:

The results of this study demonstrate that the use of induction chemotherapy with FLOT regimen before neoadjuvant chemoradiotherapy, in patients with distal esophageal and proximal gastric adenocarcinoma, is a safe and tolerable treatment approach, resulting in complete pathological response in nearly one third of the patients.

Keywords: adenocarcinoma, Esophageal cancer, GEJ, Gastric cancer, Sievert classification, neoadjuvant chemoradiotherapy, induction chemotherapy.

A phase III clinical trial study: Clinical assessment of whole body hyperthermia plus external Radiation Therapy versus Radiation Therapy alone in patients with painful bony metastases

Fahimeh Faghihi Moghaddam [1] , Mohsen Bakhshandeh [2] , Hüseyin Sahinbas [3] , Arash Mahdavi [4] , Hamidreza Mirzae [5] , Bahram Mofid [5] , Afshin Rakhsha [5] , Amir Shahram Yousefi Kashi [5]

1. Biomedical Engineering and Medical Physics Department, Faculty of Medical Sciences, Shahid Beheshti University of Medical Sciences, Tehran, Iran

2. Department of Radiation Technology, Faculty of Allied Medical Sciences, Shahid Beheshti University of Medical Sciences, Tehran, Iran

3. Institute for Hyperthermia Research, Partner of the Marien Hospital Herne, Hospital of the RuhrUniversity, Bochum, Germany

4. Department of Radiology, University of Washington, Washington, USA

5. Department of Radiation Oncology, Shohada-e Tajrish Educational Hospital, School of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran

Introduction:

To assess the pain relief rate after external beam radiotherapy with or without fever-range WBH in bony metastatic patients.

methods:

Eligible patients were randomly assigned to receive RT + WBH or RT- alone treatment, and were enrolled with pathologically and clinically confirmed bony metastases with an index lesion involving or abutting bone; Eastern Cooperative Oncology Group performance status score of 0 to 3; and life expectancy ≥ 3 months. According to the BPI guideline patients' pain rated on a 0 to 10 scale. Assessment was performed using different tools including the Brief Pain Inventory (BPI) in metastatic patients with pain score ≥4 on underwent RT of 30 Gy in 10 fractions in combination with WBH versus RT-alone. The index lesion was defined according to the BPI guideline as lesion less than 20 cm with "worst pain" score of the BPI (BPI ≥4) during the last 24 h, WBH session time was 3-4 h in three fractions. Based on the clinical trial carried out by Mau-Shin Chi et al., the other parameters such as systemic therapy (chemotherapy, hormonal therapy, target therapy, or bisphosphonate), analgesics, or prior surgery strength should

not have been changed for 4 weeks before and during the R T. All patients were enrolled including primary site of breast or prostate cancer vs. others. The primary endpoint was complete response (CR) (BPI equal to zero with no increase of analgesics) within two months of follow-up. The secondary endpoint was partial response (PR) during the two months follow up.

Results:

The results of the current survey have shown that the patients who underwent RT-alone have the worst pain score rather than the WBH arm. The study was terminated after the enrollment of a total of 61 patients, 5 years after the first enrollment. The significant P-value for the interaction variable shows that the mean trend of pain score was statistically different over time between two groups (P = 0.001). This means that patients in the group WBH experienced lower WPS than those in the RT-alone group during the study period. The CR rate in RT + WBH revealed the most significant difference with RT-alone, 47.4% versus 5.3% respectively within 2 months post-treatment. Pain progression or stable pain was observed in half of the patients in RT-alone group within 4 weeks after treatment. However, this score was near zero in RT +WBHT patients in two months post-treatment.

Conclusion:

Pain reduction showed significant increases in WBH in combination with RT group and shorter response time in comparison with RT-alone for patients with bone metastatic lesions.

Keywords: Whole Body Hyperthermia, Bone Metastasis, Radiotherapy, Pain Relief

Influence of P53 expression in clinical outcome and prognostic factors in Iranian breast cancer patients

Dr. Maryam Kalanrati khandani [1] , Dr. Masoumeh Nouri [2]

1- Radiotherapy Oncology Department, Shohada-e Tajrish Educational Hospital, School of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran,

2- Surgical Oncology Research Center, Faculty of Medicine, Mashhad University of Medical Science, Mashhad, Iran

Introduction:

Breast cancer(BC) is the most common visceral cancer among Iranian women with 13400 new cases annually .A few studies have reported that BC patients with P53 expression had different prognosis and clinical outcome. The aim of the present study to evaluate and compare clinical outcome and prognostic factors in Iranian breast cancer patients with P53 expression.

Method:

In a longitudinal study, 801 BC patients who had referred to and were followed by cancer research center, from 2003 to 2017 were divided into two groups: 300 patients with P53 expression (positive) and 501 patients without P53 expression (negative). Then, clinical outcome and prognostics factors for these two groups were evaluated and compared.

Results:

The patients with positive and negative P53 represented 37.5% and 62.5% of cases with the mean ages of 44.2 years (SD=9.4) and 47.7 years (SD= 10.9),respectively (p<0.0001).There were more advanced stage and lymph node involvement , more positive lymphovascular invasion and premenopausal status ,higher degrees of negative estrogen receptor (ER)status, and positive human epidermal receptor 2 (HER2) expression in patient with positive P53 in comparison to those with negative P53 (P = 0.0162, P=0.0047 , P= 0.0296, P=0.0339, P=0.0374 and P=0/0494 , respectively). In patients with positive and negative P53,five years disease free survival were 81% and 86.4%(p= 0.0413) and five years overall survival were 70% and 76.8%,respectively(p=0.0323).

Conclusion :

our study showed better clinical outcome and favorable prognostic factors in patients without P53 expression compared with those with P53 expression

Keywords: p53 expression , breast cancer , Iran , clinical outcome

Results of intraoperative radiotherapy as a boost in non-metastatic breast cancer treated with breast-conserving surgery

Elyar Mousapour Shahi [1] , Kazem Anvari [1] , Fatemeh Molaei [2]

1- Cancer Research Center, Mashhad University of Medical Sciences

2- Iran Mehr Hospital, Birjand University of Medical Sciences

Introduction:

Today, the most common surgical treatment for breast cancer is breast-conserving surgery and adjuvant radiation therapy. Radiotherapy is usually given externally with the treatment of the whole breast and an additional boost dose to the tumor bed, which makes up a period of 6 to 7 weeks. IORT has been used in recent years to prescribe boost doses during lumpectomy, as an attempt to reduce the time of radiotherapy. The current study aimed to determine the results of intraoperative radiotherapy treatment as a boost dose in non-metastatic breast cancer undergoing breast-conserving surgery.

Method:

In medical centers including Omid and Imam Reza Educational Hospitals and Pasteur Private Hospital specified for the treatment of breast cancer, female patients with early-stage breast cancer (stage I-II), who were candidates for breast conserving surgery with whole breast radiotherapy were enrolled. Pregnant and lactating patients and patients undergoing neoadjuvant chemotherapy were excluded. Patients underwent standard lumpectomy with a margin of at least 1 mm and during the operation, patients underwent intraoperative radiotherapy with a dose of 20 Gy with ZEISS INTRABEAM 50-kV X-ray System. Afterwards, the whole breast was treated externally either with a dose of 50 Gy using two tangential fields with or without treatment of regional lymph nodes, or a hypofractionated regimen. Patients were evaluated for treatment complications including dermatitis, skin, and cosmetic necrosis, as well as the extent and pattern of local and systemic recurrence at two years.

Results:

Most of the patients had T2 (45 patients, 48.4%) and N0 (51 patients, 54.8%) disease and 70.7% (n = 65) of the patients had a hormone-positive tumor. Her2 positivity was reported in 12 patients (13.3%). In terms of disease stage, 19 patients were stage I, 57 patients were stage II and 11 patients were stage III disease. Regarding the toxicity of treatment, the treatment did not result in any cutaneous or subcutaneous toxicities in 48 patients (55.8%). Grade 1 dermatitis was observed in 18 patients (20.9%) and grade 1 subcutaneous toxicity was reported in 30 patients (34.8%). At a median follow-up of two years, one case of locoregional recurrence of the axillary region and one case of distant recurrence was reported.

Conclusion:

Overall, the results of this study showed that the use of IORT as a tumor bed boost dose is a safe and efficient treatment approach for breast cancer patients with acceptable side effects and low rates of severe side effects. However, long-term follow-up is required to determine clinical outcomes.

Keywords: Breast Cancer, Adjuvant Radiation Therapy, Intraoperative Radiation Therapy, Tumor Bed Boost

Investigation of 3-Year Survival in Rectal Cancer Patients Undergoing Chemoradiotherapy or Brachytherapy with Chemoradiotherapy

Yasin Parvizi [1,2] , Shima Masumi [1] , Alireza Samavati [1] , Abdolazim Sedighipashaki [2]

1- Student Research Committee, Hamadan University of Medical Sciences, Hamadan, Iran

2- Cancer Research Center, Institute of Cancer, Avicenna Health Research Institute (AHRI), Hamadan University of Medical Sciences, Hamadan, Iran

Introduction:

Rectal cancer is a prevalent gastrointestinal cancer and ranks as the fourth most common cancer worldwide. This study aims to compare the 3-year survival rates in rectal cancer patients undergoing chemoradiotherapy alone versus those receiving combined chemoradiotherapy and brachytherapy.

Method:

A retrospective cohort study was conducted involving 18 patients who received brachytherapy in addition to chemoradiotherapy (study group) and 81 patients who received chemoradiotherapy alone (control group) at the Hamedan Mahdieh radiotherapy center between 2005 and 2015. Patient data were extracted, compiled into a checklist, and analyzed using SPSS version 21.

Results:

The study included 99 patients with a mean age of 60.47 ± 12.40 years, comprising 62 males and 37 females. No recurrence was observed in either group. Metastasis rates in stages III, IVA, and IVB were 6.25%, 100%, and 100%, respectively (P<0.001). Secondary surgical treatment resulted in the highest metastasis rate (36.36%), while primary surgery showed the lowest (0%), followed by the brachytherapy group (7.69%). The 1-, 2-, and 3-year survival rates were 94.44%, 100%, and 100% for the control group, and 96.29%, 87.5%, and 96% for the brachytherapy group.

Conclusion:

Adding brachytherapy to chemoradiotherapy appears to reduce metastasis frequency and highlights the impact of disease stage on metastasis. However, there is no significant difference in the 1-, 2-, and 3-year survival rates between the two treatment groups.

Keywords: Chemoradiotherapy, brachytherapy, rectal cancer, survival

Epigenetics alterations as radiogenomic predictor for radiotoxicity

Hossein Mozdarani [1]

1- Department of Medical Genetics, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran.

Introduction:

To date there is no assay/biomarker in routine use to predict individual radiosensitivity and/or normal tissue complications during or after radiotherapy (RT). Cytogenetic end points such as chromosomal aberration study and micronucleus assay did not find a place in routine radiosensitivity testing because of their relatively low sensitivity and low throughput methods. In light of progress in findings molecular genetics and epigenetic markers and possibility of utilization of liquid biopsy, the aim of this study was to find possible radiotoxicity biomarker (s) in non-coding RNAs in peripheral blood cells of irradiated breast cancer patients.

Method:

Various epigenetic biomarkers such as miRNA, lncRNA and circ RNAs acting at different cellular pathways (apoptosis or repair) were candidate for investigation. Real time PCR was performed on peripheral blood (PB) samples derived from healthy individuals and BC patients before and after RT. Radiation dose received by patients was 10Gy delivered daily basis of 2 Gy/fraction. RNA extraction and cDNA synthesis was performed and RT-PCR was done using cyber green reactions and appropriate primers designed and prepared for each lncRNA, miRNA or circRNA. Data were analyzed using $2^{-\Delta\Delta CT}$ method.

Results:

Results showed expression changes in all markers studied after irradiation. However, the expression patterns of about 20 lncRNAs were more unstable compared to miRNAs and circRNAs. Among lncRNA down-regulation of GAS5 TUG1 and MALAT1 after irradiation was observed and was persistent in peripheral blood of radiotherapy patients significantly different from control unirradiated cells from the same patients. Expression pattern of miRNA and circRNA were more persistent than lncRNAs.

Conclusion:

Results indicated that the non-coding RNAs in apoptosis and repair pathways might be possible radiotoxicity biomarkers. The study implies that lncRNAs, circ-RNAs and miRNAs involved in apoptosis pathway respond more persistently compared to other non-coding RNAs. Therefore, for radiosenstivity and radiotoxicity study of breast cancer patients, combination of selected non-coding RNAs could be used as possible candidate epigenetic biomarkers. The reason for non-persistence gene expression observed for most of candidate markers might be the non-uniform irradiation of blood cells because patients received partially body irradiation.

Keywords: Radiotoxicity, epigenetic, non-coding RNA, radiotherapy, blood cells

Evaluating the Role of Artificial Intelligence in Optimizing Dose Distribution and Sparing Normal Tissue in FFF-Machines : A Comprehensive Review and Future Perspectives

Haniyeh Sherafat [1] , Fahimeh Faghihi Moghaddam [2] , Haniyeh Sabaghi [1] , Hamidreza Mirzaei [3] , Afshin Rakhsha [3]

1- Radiation Sciences Research Center, Faculty of Para medicine, Shahid Beheshti University of Medical Sciences

2- Biomedical Engineering and Medical Physics Department, Faculty of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

3- Radiation Oncology Department, Shohada-e-Tajrish Hospital, Faculty of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran

Introduction:

A significant concern in radiation therapy has always been the accurate delivery of the prescribed dose to a tumor volume while ensuring the safety of surrounding organs at risk (OAR). The dose administered to a tumor can be heavily influenced by various factors, including the accuracy and precision of the commissioning process, the radiation delivery system, and dosimetry techniques.

Method:

The goal was to improve planning quality, efficiency, and consistency by reducing trial-and-error practices and incorporating existing clinical knowledge. Therefore, this study aims to compare AI models utilized in FFF machines for improving dose distribution accuracy. Characteristics such as higher dose rates, increased dose per pulse, reduced lateral variations in beam hardening, and decreased leakage and out-of-field doses all contribute to the potential enhancement of treatment plans. As the volume of available data increases and models become more sophisticated, this study represents a notable advancement in radiotherapy measurements, aiming to enhance accuracy and workflow efficiency. Flattening filter-free (FFF) beams offer several potential dosimetric advantages compared to conventional flattened beams. Additionally, AI has gained considerable traction in clinical research, raising questions about the accuracy and uncertainties associated with OAR during different stages and methods of stereotactic radiosurgery (SRS) treatment delivery. Moreover, Most studies were categorized into sections focusing on the accuracy of dose calculation algorithms, technical and methodological investigations, and quality assurance (QA). For instance, research has demonstrated that employing a

residual neural network model trained to generate clinically acceptable dose predictions based on 270 cases of head-and-neck cancer could be influenced by patient-specific geometries and treatment protocols.

Results:

the AI methodology achieved a validation success rate of 90% against microdiamond measurements within a gamma criterion of 0.5 mm/2%. Numerous surveys have examined the dosimetric characteristics of various machines, including the TrueBeam linear accelerator, which is capable of delivering both flattened and FFF photon beams. FFF profiles exhibit sharper penumbra but diverge more rapidly compared to flattened beams.

Conclusion:

The findings highlight the potential advantages of FFF beams in stereotactic radiotherapy and high-dose-rate treatments, and AI has been used as a tool to increase quality, standardization of these procedures leading to a more precise and accurate radiation dose distributions by prediction and optimization of workflows due to their unique dosimetric attributes and OAR sparing.

Keywords: Cancer, OAR, Dose measurement, AI, FFF Linac

The Magic of a Conditioning Dose: A Revolutionary Mechanism for Enhancing Cancer Treatment, Radiotherapy, and Radiation Protection in Medicine, Space, and Beyond

Abolfazl Kanani [1,2] , Seyed Mohammad Javad Mortazavi [2]

1- Pardis Cancer Research Center, Pardis Cancer Institute, Shiraz, Iran

2- Ionizing and Non-ionizing Radiation Protection Research Center (INIRPRC), Shiraz University of Medical Sciences, Shiraz, Iran

Introduction:

Adaptive Response (AR) is a biological phenomenon wherein exposure to low-dose radiation (LDR) enhances an organism's ability to withstand subsequent higher radiation doses. This paper explores AR's versatile applications across fields such as cancer radiotherapy, neurodegenerative disease management, space exploration, and pandemic response strategies.

Method:

A comprehensive literature review was conducted to examine AR and LDR's role in cancer therapy, neurodegenerative conditions, space radiation protection, and pandemic-related challenges. The findings were analyzed to assess AR's potential to improve therapeutic efficacy, minimize side effects, and address radiation-associated issues in both clinical and non-clinical contexts.

Results:

AR holds transformative potential across diverse fields. In cancer therapy, AR could enhance radiotherapy by protecting healthy cells while sensitizing tumor cells, mitigating chemotherapy side effects, and boosting immune responses. In neurodegenerative diseases, preliminary findings suggest AR may delay or alleviate conditions like Alzheimer's and Parkinson's. For space exploration, ground-based AR screening of cultured lymphocytes could identify individuals with strong AR, enabling astronauts to adapt to chronic cosmic radiation and tolerate acute exposures during solar particle events. Additionally, AR shows promise in pandemic scenarios, where low-dose radiotherapy has demonstrated efficacy in managing severe pneumonia and reducing viral complications, including those associated with COVID-19.

Conclusion:

The adaptive response and conditioning doses of LDR offer groundbreaking opportunities for enhancing cancer treatment, neurodegenerative disease management, astronaut safety, and pandemic care. These applications underscore AR's ability to provide innovative solutions to complex challenges. However, further research is essential to unravel its mechanisms, validate its efficacy, and expand its clinical and operational integration.

Keywords: Cancer Treatment, Radiotherapy, Radiation Protection , Adaptive Response, to low- dose radiation

Radiation accidents in radiotherapy centers

Mohsen Foroughizadeh [1]

1- Malek Ashtar University

Radiotherapy is a very complex process, involving many different steps and many different people in the planning and delivery of treatment. This complexity leads to many opportunities for mistakes. Major incidents are rare, but their consequences can be very serious. Radiotherapy-related events that happened after 1976 identified to be greater than 7000 incidents and near-misses. 3125 incidents of these resulted in patient harm. The harms ranged from underdosing tumor, thus increasing the risk of recurrence, to overdosing, causing unacceptable toxicities. Accidents and errors do not only affect patients directly but might also undermine the public's confidence in the treatment. Thirty-eight deaths were also reported that is greater than radiation induced deaths reported in Chernobyl nuclear reactor accident in 1986. According to WHO 55% of the incidents occur in the planning stage, and the remaining 45% were due to errors that occurred during the introduction of new systems and/or equipment (25%), errors in treatment delivery (10%), information transfer (9%) or in multiple stages (1%). WHO has identified and listed radiotherapy risks by stage in the radiotherapy process in following sections: assessment of patient, decision to treat, prescribing treatment protocol, positioning and immobilization, simulation, imaging and volume determination, planning, treatment information transfer, patient setup, treatment delivery, and treatment verification and monitoring. Lack of training competence or experience, fatigue and stress, poor design and documentations of procedures, over-reliance on automated procedures, poor communication and lack of teamworking, hierarchical departmental structure, staffing and skills levels, working environment, and changes in process are the most important Contributory factors.

Keywords: Radiotherapy, Radiation accident, Overdose, Radiation death

Bioshield: A multimodal radioprotective agent

Hossein Mozdarani [1]

1- Department of Medical Genetics, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran.

Introduction:

Utilization of ionizing radiation (IR) in various aspects of modern life and occupational exposures in medical and industrial practices as well as exposure to high natural background radiation is inevitable. Short term effects such as leukopenia and thrombocytopenia lead to immunodeficiency. Long term effects such as infertility, secondary cancers and transgenerational genetic diseases are other side effects of exposure to IR. Despite long time efforts toward introducing a chemical or natural radioprotective agents to combat side effects of IR, little success was achieved so far. Amifostine, the most effective known radioprotector should be administered intravenously 30 minutes prior to irradiation. Moreover, its neurotoxicity and toxicity for other organs limits its usage as a potent radioprotector. Other natural or synthetic compounds introduced as radioprotector are tissue specific of with low dose reduction factor.

Method:

Bioshield ® , an orally administrable drug with patented ingredient is a mixture of chemical and natural antioxidative agents that was tested for genotoxicity and cytotoxicity on various tissue types in vivo and in vitro. The end points used in the preclinical study of this drug were of DNA damage, micronucleus assay, chromosomal aberration assay, MTT and cell survival assay alone or in the form of mixed agents. Results were analyzed with appropriate statistical tests for significances.

Results:

Results of various assays, cell survival, MTT assay, DNA damage and micronucleus assay indicated that some ingredients when administered in combination act as a powerful radioprotector on normal tissues and cells, while maintaining genome instability and immune system. Bioshield has shown protective effect on normal cells and tissues such as bone marrow cells, guts epithelium, spermatogenesis, embryos, oogenesis, blood lymphocytes against radiation.

Conclusion:

Bioshield ® , was found a drug with different ingredients that act as a radioprotector of normal tissue. The main specifications of a relatively good radioprotector is its route of administration, availability, stability in ambient condition, affordable price and non-toxicity at cellular and genetic level. The most important features of Bioshield ® is its, oral administration route, stability in ambient condition, and low price and non-toxicity for various organs.

Key words: Radioprotection, ionizing radiation, genotoxicity, normal tissue, Bioshield ®

Temporal Expression Analysis of FDXR and GADD45A Genes as Molecular Biomarkers in Peripheral Blood of Prostate Cancer Patients During Radiotherapy: A Prospective Cohort Study

Aziz Mahmoudzadeh [1] , Bahram Mofid [2] , Amirabbas Ebrahimi [3] , Mohsen Foroughizadeh Moghadam [1]

1- Faculty of Passive Defense, Malek Ashtar University of Technology, Iran.
2- Department of Radiation Oncology, Shohada-e Tajrish Educational Hospital, School of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran.
3- M.A. graduate of Department of Biology, Science and Research Branch, Islamic Azad University, Tehran, Iran

Introduction:

This study explores the changes in gene expression of FDXR and GADD45A in prostate cancer patients undergoing radiotherapy.

Results:

significant increases in the expression of these genes during treatment was seen, with GADD45A exhibiting a marked and sustained rise.

These findings highlight the potential of these genes as biomarkers for assessing radiotherapy response. The gradual increase in FDXR may be useful for evaluating cumulative doses, while the rapid response of GADD45A could aid in immediate radiation exposure diagnosis. The study also underscores the need for standardizing laboratory methods to enhance the comparability and reproducibility of results. Furthermore, the variability in gene expression among individuals suggests multiple influencing factors, such as genetic polymorphisms and immune system status, which can affect the response to radiotherapy.

Conclusion:

Despite limitations like the small sample size, this research represents a significant step toward a deeper understanding of molecular responses to radiotherapy and the development of more precise biodosimetry methods. The findings of this study provide a robust foundation for designing and implementing future studies, as well as for improving existing treatment methodologies.

Keywords: Radiation Therapy, GADD45A protein, Ferredoxin Reductase, Prostatic Neoplasms, Biodosimetry, DNA Damage, Biomarkers, Gene Expression, Real-Time PCR

Investigating the anti-inflammatory effect of hydrogel containing liposomes loaded with nano-curcumin in rat skin under megavoltage electron irradiation

Foad Valikhani [1] , Ehsan khodamoradi [2] , Khodabakhsh Rashidi [3] , Elham Arkan [4] , Mohammad Farhadi Rad [1] , Masoud Najafi [1,2]

1- Radiology and Nuclear Medicine Department, School of Paramedical Sciences, Kermanshah University of Medical Sciences, Kermanshah, Iran

2- Medical Technology Research Center, Institute of Health Technology, Kermanshah University of Medical Sciences, Kermanshah, Iran.

3- Adipose Tissue and Oils Research Center, Health Technology Research Institute, Kermanshah University of Medical Sciences, Kermanshah, Iran

4- Nano Drug Delivery Research Center, Faculty of Pharmacy, Health Technology Institute, Kermanshah University of Medical Sciences, Kermanshah, Iran

Introduction:

Radiotherapy (RT) serves as a primary treatment for malignant tumors. Recent findings reveal that more than 70% of patients with these tumors require radiotherapy at different stages. About 95% of individuals undergoing this treatment experience skin alterations. These radiation-induced skin injuries can adversely affect patients' quality of life, particularly due to pain and the potential for premature treatment discontinuation, which may hinder effective disease management. In this regard, natural antioxidants have been studied for their protective effects against radiation. The aim of this research is to investigate the anti-inflammatory properties of a chitosan-based hydrogel containing liposomes infused with nano-curcumin on skin inflammation caused by electron radiation in an animal model. This will involve evaluating the levels of oxidative stress markers and IL-1β in the skin tissue of rats.

Method:

In this study, after the synthesis of the hydrogel containing nano- curcumin, 49 male rats were randomly divided into 7 main groups, with each group consisting of 7 rats. The groups included: control, radiation, radiation with ointment, radiation with an empty hydrogel, and radiation with hydrogel containing nano-curcumin at three different concentrations (10, 20, and 40 mg). A specific area of the rats' bodies (the thigh region) was exposed to electron radiation at a dosage of 6 gray and an energy level of 6 mega electron volts.After the radiation treatment, 5 of the groups were treated with metigator, and 48 hours later, the rats

were sacrificed. Skin tissue samples were collected for the evaluation of oxidative stress markers, interleukin levels, and histopathological analysis.

Results:

The results revealed that radiation exposure significantly elevated the levels of MDA and IL-1β while significantly reducing the levels of GSH and SOD, along with changes in histological parameters. All treatment groups (empty hydrogel, curcumin ointment, and hydrogelcontaining nano-curcumin at three concentrations) successfully prevented the decrease in GSH levels and the increase in IL-1β levels.In terms of SOD and MDA, only the group treated with the hydrogel containing nano-curcumin at a concentration of 10 mg effectively compensated for these changes, resulting in decreased lipid peroxidation and increased SOD enzyme activity.Histological assessments showed positive results for the hydrogel containing nano-curcumin at 10 mg, curcumin ointment, and empty hydrogel, with the effects of the 10 mg nano-curcumin hydrogel being particularly notable.

Conclusion:

The results of our study indicated that the hydrogel containing liposomes loaded with nano-curcumin can partially reduce oxidative stress induced by radiation exposure and normalize its levels in the short term. Additionally, it was found to decrease skin inflammation. However, further studies are necessary to evaluate its clinical efficacy.

Keywords: Radiotherapy, skin inflammation, hydrogel, nano-curcumin, SOD, GSH, MDA, IL- 1β.

Enhancing the response of resistant renal cancer tumors to megavoltage X-

rays using cold atmospheric plasma as a radiosensitizer

Hanieh Nazem Zomorodi [1] , Seyed MahmoudReza Aghamiri [1] , Fatemeh PakNiyat [2,3] , Aziz MahmoudZadeh [4] , Abolfazl RazzaghDoust [5] , HamidReza Ghomi [6] , Bahram Mofid [5]

1- Department of Medical Radiation Engineering, Shahid Beheshti University, Tehran, Iran

2- Chronic Respiratory Diseases Research Center, National Research Institute of Tuberculosis and Lung Diseases (NRITLD), Shahid Beheshti University of Medical Sciences, Tehran, Iran

3- Department of Radiation Biology Studies, Chronic Respiratory Diseases Research Center, National Research Institute of Tuberculosis and Lung Diseases (NRITLD), Shahid Beheshti University of Medical Sciences, Tehran, Iran

4- Faculty of Passive Defense, Malek Ashtar University of technology, Iran

5- Urology and Nephrology Research center, Research Institute for Urology and Nephrology, Shahid Beheshti University of Medical Sciences, Tehran, Iran

6- Laser and Plasma Research Institute, Shahid Beheshti University, Tehran, Iran

Introduction:

Radiation therapy is rarely used for kidney cancer due to the high resistance of kidney cancer cells. Radiosensitizers, such as Cold Atmospheric Plasma (CAP), can increase cancer cells' sensitivity to radiation, allowing for lower doses of X-ray radiation and fewer side effects. CAP, delivered via a plasma jet, uses a mixture of 95% argon and 5% oxygen gas to produce reactive oxygen species (ROS) that can destroy cancer cells. CAP's selective action is due to its higher ROS production in cancer cells compared to normal cells, leading to greater apoptosis in cancer cells. This study used clonogenic assays to measure the effectiveness of combined CAP and radiation treatments, showing CAP's potential as a radiosensitizer. Evaluations included apoptosis measurement, ROS production quantification, and cell cycle analysis.

Method:

1. Clonogenic Assay: Plating efficiency, which represents the percentage of cultured cells forming colonies, was determined across different treatments (control, 2 Gy radiation, CAP, and their combination). Cell lines were cultured in 25 cm^2 flasks at low cell densities and treated after 24 hours. Post-treatment, cells were incubated for 10-14 days for colony formation.Colonies were then stained with crystal violet and counted, with survival rates calculated.

2. Apoptosis Assay by Annexin Flow Cytometry: The type and extent of cell death in HEK293 and ACHN cells across four treatment groups were determined

using flow cytometry and an apoptosis kit. Cells were treated, incubated according to their doubling times, and stained with Annexin V-FITC and PI. Fluorescence levels were measured using a flow cytometer to determine apoptosis rates.

3. Cell Cycle Arrest by Flow Cytometry: Flow cytometry was utilized to examine the impact of different treatments on the cell cycle status of HEK293 and ACHN cells. Post-treatment, cells were incubated, fixed, stained with PI MASTER MIX, and fluorescence levels were measured to analyze cell cycle phases.

4. ROS Test by Flow Cytometry: ROS levels in HEK293 and ACHN cells were determined across different treatments using flow cytometry. Cells were treated, incubated, stained with DA-DCFH and PI dyes, and fluorescence levels were measured to assess ROS production.

Result:

Clonogenic assay showed that normal and tumor kidney cells had survival rates of 90.12% and 80.80% at a 2 Gy dose, confirming their radioresistance. CAP treatment decreased survival rates to 28.71% (normal) and 4.55% (tumor), indicating high sensitivity to CAP. Combined CAP and 2 Gy irradiation further reduced survival to 13.07% (normal) and 0.49% (tumor), showing a synergistic effect. Annexin flow cytometry showed that 2 Gy radiation did not induce significant apoptosis in HEK293 or ACHN cells. CAP treatment increased apoptosis 8.98 times in HEK293 and 19.73 times in ACHN. Combined treatment amplified apoptosis in HEK293 (10.46 times) and ACHN (20.9 times), highlighting CAP's selective action and synergy with irradiation. Cell cycle tests revealed a high frequency of the Sub-G1 phase in ACHN under CAP and combined treatments, indicating substantial apoptosis. Combined treatment increased the Sub-G1 population by 17.02 times. The ROS test also confirmed the above results.

Conclusion:

The results of clonogenic survival, apoptosis, cell cycle, and ROS assays indicated that kidney cancer cells are highly radioresistant, often rendering conventional radiotherapy ineffective. However, these cells show high sensitivity to Cold Atmospheric Plasma (CAP), which induces apoptosis even with indirect irradiation. Combining CAP with 2 Gy radiation has a synergistic effect, significantly increasing cell destruction. Apoptosis tests showed 16.92 times more cell death with the combined treatment compared to 2 Gy radiation alone, while cell cycle tests showed 31.32 times increase in apoptotic cells. This suggests that CAP, as a radiosensitizer, could be a promising method for

enhancing radiotherapy effectiveness. Moreover, CAP exhibits selective properties, causing less damage to normal kidney cells compared to cancer cells under the same conditions.

Keywords: resistant renal cancer tumors, megavoltage X-Rays, radiosensitizer, Cold Atmospheric Plasma

Radiomics based predictive modeling of rectal toxicity in prostate cancer patients undergoing radiotherapy: CT and MRI comparison

Hossein Hassaninejad [1] , Mohammad Bagher Tavakkoli [1] , Iraj Abedi [1] , Hamid Abdollahi [1] ,Alireza Amouheidari [1] , Mohammad Hossein Shakeri [1]

1- Department of Radiology, Faculty of Paramedical, Rafsanjan University of Medical Sciences, Rafsanjan, Iran

Introduction:

Rectal toxicity is a common side effect of radiotherapy in prostate cancer patients. Radiomics offers a non-invasive and cost-effective way to predict radiation toxicity, overcoming limitations of traditional methods. By analyzing radiomic features from CT and MR images and applying machine learning, this study aims to predict rectal radiation toxicity with reliable performance.

Method:

In a prospective trial, 70 men with confirmed prostate cancer undergoing 3DCRT were studied. Radiomic features were extracted from rectal wall CT and MR images. The LASSO method was used for feature selection, and classifiers like Random Forest, Decision Tree, Logistic Regression, and K- Nearest Neighbors were employed to build predictive models. These models incorporated radiomic, dosimetry, and clinical data alone or in combination. Performance was evaluated using AUC-ROC, accuracy, sensitivity, and specificity.

Results:

The best outcomes were achieved by the radiomic features of MR images in conjunction with clinical and dosimetry data, with a mean of AUC: 0.79, accuracy: 77.75%, specificity: 82.15%, and sensitivity: 67%.

Conclusion:

This study showed that the radiomic features of MR images before treatment perform better than CT for the development of rectal radiation toxicity prediction models. Furthermore, when the radiomic features of images are combined with the clinical and dosimetry parameters of patients, the performance of predictive.

Keywords: Rectal toxicity, prostate cancer, effect of radiotherapy,radiomic

4D Respiratory SBRT of metastatic small sized lung nodules in leiomyosarcoma

Faranak Felfeliyan [1] , Reza moghare abed [1] , Shahram Monadi [1] , Mohsen Saeb [1] , Nikta Monadi [1]

1- Rasa Imaging and Therapy Center, Isfahan Healthcare City, Isfahan, Iran

Introduction:

Uterine leiomyosarcoma (ULMS) is a rare disease with high rates of local recurrence and metastasis. the interval of detection of metastasis is different. Lung is the most common site. In this study, a case of ULMS after hysterectomy and the manner of treatment has been reported.

Materials and Methods:

a 63-year-old woman with history of previous uterine leiomyosarcoma, presented with frequent coughs. In restaging PET CT showed two positive active lesions (SUV=9.6 and 9.8) in upper lobe of left lung (1.4 cm) and lower lobe of right lung (1.8 cm) respectively. CNB had done, resulted metastatic leiomyosarcoma. She underwent SBRT of both nodules with fractionation 60 Gy in 8 fractions. CT simulation was performed using gating respiratory system. Contouring by physician was performed using the Synovia system, included movement of nodules through all directions. treatment planning carried out using Monaco ver(5.51.11) and treatment performe using Versa HD (Elekta) by 4D CT IGRT during each session.

Results:

Patient's follow up by PET/CT six months after treatment showed complete responses of both nodules without any progression till 14 months.

Conclusion:

It shows linac based respiratory gating SBRT is feasible even in small metastatic nodules by fractionated dose and results in good local control and limited toxicity, in the area of lacking real time gating system.

keywords: leiomyosarcoma, lung, SBRT, respiratory gating, PET CT

Related factors to spiritual needs among cancer patients: A systematic review

Nasrin Dadashi [1] , Leila Khanali Mojen [2]

1 Student Research Committee, School of Nursing and Midwifery, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

2 Assistant Professor of Nursing, Department of Medical Surgical Nursing, School of Nursing and Midwifery, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

Introduction:

Spiritual needs are important elements of holistic care. These needs increase drastically after a diagnosis of cancer. Most cancer patients think about the meaning and purpose of life and the issues around death. Awareness of factors related to spiritual needs is an important step in comprehensive oncology care. Therefore, the present systematic review investigated the related factors to spiritual needs among cancer patients.

Method:

A systematic review study was searched in three scientific databases: PubMed, Scopus and Web of Science using keywords such as “spirit*”, “spiritual need*”, “spiritual demand*”, “cancer*”, “Tumour*”, “oncology”, “Malignancy”, “Benign”, “Tumor”, “neoplasm* and carcinoma” by May 8, 2024. In this systematic review, only observational studies were included and their qualitative assessment was conducted by the Newcastle-Ottawa scale related to cohort and cross-sectional studies.

Results:

Out of 3613 research papers found, 13 were included in the study. The perspectives of 2855 cancer patients were investigated, of whom 970 were men and 1885 were women. Factors affecting spiritual needs were categorized into six categories, including physical (pain intensity, physical function, Cancer-related fatigue), psychological (anxiety, depression, stress, demoralization), social (religious affiliation, reading Holy Quran, social support), demographic (age, gender, race, education level, occupation, household income, number of children, marital status), clinical (duration of being diagnosed with cancer, type of treatment, disease stage, hospitalization frequency) and overall health (quality of life, satisfaction) factors.

Conclusion:

Spiritual needs assessment is an important step in palliative and supportive care and it should be considered in the planning of spiritual care based on the patient's preferences. Identifying related factors helps healthcare providers provide comprehensive and targeted spiritual care according to the characteristics of cancer patients. The promotion of spiritual interventions helps to fulfill spiritual needs and improve spiritual well-being and quality of life for cancer patients, which is the ultimate goal in palliative care.

Keywords: Spiritual needs, Cancer Patients, Spirituality, Palliative Care

Nursing

Author	Title
Atousa Afsari et al	The Role of Artificial Intelligence in Providing Treatment and Care Services for Cancer Patients
Atousa Afsari et al	The Relationship between Awareness of Illness and Hope for Life in Cancer Patients
Atousa Afshari et al	Investigating the assistance of animals in the palliative care of cancer patients
Azam Eshaghian et al	Pandemic Lessons for Palliative Care:A Thematic Analysis of Medical Notes Related to COVID-19
Fateme Rezaeeniya et al	Effectiveness of Nursing Care on Sexual Function After Bladder Cancer Surgery
Fatemeh Mohamadian et al	The role of Nurses in Managing Lymphedema in Cancer patients
Fereshteh Mollaei et al	The Consequences of Resilience in Family Caregivers of Patient with Cancer: A systematic review
Hanieh Molaee	The effect of acupressure on sleep quality in patients with leukemia: a single - center, randomized controlled trial
Heshmatol ah Heydari et al	Palliative care model integrated with PHC and Quality of life caregivers of Ill cancer patients
Marjan Dal Minoofar	Nursing Role in Management of Chemotherapy Extravasation
Maryam Jafari	Evidence-based Symptom Management: The Role of Oncologic Nurses in Improving Patient Outcomes
Maryam Sodmand	Evaluation ofthe Role of the Clinical Nurse Specialist in Cancer Care
Marzieh Barahooei Noori	The Impact of Laughter Therapy on the Quality of Life of CancerPatients: A Systematic Review
Mina Afshar et al	Examining Cultural-Related Ethical Challenges in the Care of Cancer Patients
Mobina Nabizadeh	Determining predictors of subjective financial distress in cancer patients
Mohammad Chahkandi	The effect of topical Aloe vera on radiotherapy-induced dermatitis: A systematic review
Naiire Salmani et al	Death literacy: A narrative review study
Nasrin Dadashi et al	Related factors to spiritual needs among cancer patients: A systematic review
Nasrin Shabani et al	Silent Suffering: Hidden Psychological Effects on Husbands of Women with Breast Cancer
Seyedeh Atoosa Ramezani	A Systematic Review of the Impact of Virtual Reality on Pain and Anxiety Levels in Cancer Patients
Seyedeh Atoosa Ramezani	A Systematic Review of the Impact of Clown Therapy on Pain and Anxiety Reduction in Children with Cancer
Shahin Salarvand et al	The comparison of the effect of personalized supportive mobile health(mHealth) and in-person home-based education on the burden of care and coping strategies of family caregivers of older people cancer patients
Shima Yadegar Tirandaz	Outcomes of Oncology Nurse Navigator in palliative care: a review study
Shima Yadegar Tirandaz	Tele-medicine: Missing Link in Breast Cancer Palliative Care
Somaye Bahrami et al	Related factors to death anxiety among cancer patients: Cross-sectional Study
Somayeh Sayadinegad	The Role of Nurses in Managing Adverse Effects of Targeted Therapy in Cancer

Soolmaz Moosavi	The role of nursing in multifaceted cancer management: A comprehensive Review of challenges and opportunities
Soore Khaki et al	The Role of Nurses in Communicating Bad News to Patients and Families: An Integrated Review Stud
Zahra Ghorbani	Evaluate the effectiveness of mandala coloring on anxiety levels in cancer patients undergoing treatment
Zakiye Ghelbash et al	Challenges in Treatment and Care for Gynecological Cancers in Socially Vulnerable Women: A Narrative Review

Clinical

Author	Title
Ahlam Almanie et al	A PEG- assisted approach to exosome isolation and doxorubicin encapsulation: toward safer and targeted cancer therapy
Ali Tamimi	A Systematic Review of the Recent Breakthrough in Glioblastoma Immunotherapy: Oncolytic Viruses and Emerging Future Strategies
Alireza Samavati	Evaluation and Comparison of Radiation Dose to the Thyroid in Breast Cancer Patients Undergoing Breast and Supraclavicular Radiotherapy
Amirmasoud Talebian	Unveiling the Prognostic Potential of Metabolic Genes in Lung Adenocarcinoma
Amirmohammad Salehi et al	Azathioprine increases the risk of Non-melanoma skin cancers among organ transplant recepients :An updated systematic review and meta-analysis
Elyar Mousapour Shahi et al	Results of intraoperative radiotherapy as a boost in non-metastatic breast cancer treated with breast-conserving surgery
Faezeh Arghidash	Investigating the combined effects of nanoliposomes containing silymarin and radiotherapy for the treatment of melanoma cancer, In vitro studies
Fateme Sheida et al	Health-related quality of life and cancer related fatigue in patients with non-metastatic head and neck cancers
Fateme Sheida et al	Impact of Human Papillomavirus (HPV) and Epstein-Bar Virus (EBV) on risk of Esophageal Cancer in Iran: a systematic review and meta-analysis
Fatemeh Seif	Radiotherapy in the Management of Hydatid cyst : A Systematic Review
Golnaz Zaeri	The effect of multimedia in cancer prevention
Hedyieh Karbasforooshana et al	Evaluation of oral nano-silymarin formulation efficacy in prevention of diarrhea induced by XELOX or m-FOLFOX6 regimens in metastatic colorectal cancer: A triple blinded, randomized clinical trial
Maryam Kalantari Khandani et al	Influence of p53 expression in clinical outcome and prognostic factors in Iranian breast cancer patients
Maryam Kalantari Khandani et al	Therapeutic potential of virus like particles in breast cancer : a meta- analysis of clinical outcomes
Mohammad Dorchin et al	The role of topical application of sesame oil in the treatment and prevention of phlebitis in patients with colorectal cancer referred to Dr. Ganjavian Dezful Hospital
Mohammad Mahdi Alvandi Fard	Hub Genes That Are Involved in the Resistance Mechanisms of Breast Cancer Cell Lines to Palbociclib
Nafise Mortazavi et al	. Genetic Insights and Clinical Implications in the Diagnosis of Acute Myeloid Leukemia: An Updated Perspective
Nafiseh Mortazavi et al	Genetic Insights and Clinical Implications in the Diagnosis of Acute Myeloid Leukemia: An Updated Perspective
Parisa Qayenipour	Hub Genes That Are Involved in the Resistance Mechanisms of Glioma Cell Lines to Temozolomide
Reyhaneh Bayani	Neoadjuvant chemoradiotherapy in rectal cancer patients: Experience of a single cancer institution in Iran
Soudeh Arastouei	Non-randomized phase II trial of concurrent capecitabine with brachytherapy in treatment of advanced cervical cancer patients eligible for definitive chemoradiotherapy
Zohreh Pishevar	Evaluation of tumor clearance and pathological complete response using induction FLOT chemotherapy before neoadjuvant chemoradiotherapy in the treatment of locally advanced adenocarcinoma of the gastroesophageal junction and proximal stomach

Radiobiology

Author	Title
Abolfazl Razzaghdoust	MRI radiomics for prediction of response to neoadjuvant chemotherapy in patients with muscle-invasive bladder cancer
Arian Bandari et al	The Association Between Dietary Acid Load, Alkaline Water And Cancer Incidence: A Systematic Review
Arian Bandari et al	The Effects of Ginseng Extract and Its Compounds on Radiation Exposure: A Systematic Review
Asra Sadat Talebi et al	Assessment of radiation dose and radiation-induced cancer risk in Ho-166 and Y-90 radioembolization
Bahare Arjmand et al	Comparison of hypofunction radiotherapy with conventional radiotherapy in breast cancer based on radiobiological modeling of TCP and NTCP
Hanie Nazem Zomorodi	Enhancing the response of resistant renal cancer tumours to megavoltage X-rays using atmospheric plasma as a radiosensitizer
Mina Pourhabib Mamaghani et al	Radiosensitizing Effect of Green Synthesis ZnO Nanoparticles on Ferroptosis in Triple Negative Breast Cancer Cells (MDA-MB453)
Mohammad Sobhan Mokhtari Zamenjani	Evaluating the Impact of Toxoplasma gondii-Derived Recombinant Protein (rGRA6Nt) on Radiosensitivity and Colony Formation in 4T1 Breast Cancer Cells
Parisa Rouhbakhsh et al	A Novel Strategy to Enhance Prostate Cancer Radiosensitization Using Quercetin Conjugated to Selenium Nanosystems
Saba Ordibeheshti et al	Induction of Necroptosis with Selenium Nanoparticles and Analysis of Radiosensitivity in HT29 Cells
Sahar Seif	Radiotherapy in the Management of Graves' Ophthalmopathy
Sima Sayah et al	In vitro study of the effect of intraoperative radiotherapy of breast cancer on the microenvironment and phenotype of cancer cell
Zohreh Daliri et al	Investigating into the Application of Ferrous-Based Metal-Organic Frameworks Loaded with Paclitaxel to Enhance Radiosensitivity in Breast cancer Radiation Therapy

Physics

Author	Title
Abolfal Koozari	Deep Learning in Neuro-Oncological Imaging: Point Transformer versus U-Net for Precise Brain Tumor Delineation - A 341-Patient Clinical Study
Abolfazl Kanani	Radiation Shielding Requirements for Designing a Halcyon LinacVault: A Compliance with IAEA SRS-47
Ali Bahari et al	Evaluating Dose Calculation Accuracy of the Monaco Treatment Planning System for Effective Wedge Angles: A Comparative Analysis of Elekta and ICRU-24 Formulas
Amirhosein Vatandoost	High-Frequency Image-Guided Radiation Therapy in Stage III Non-Small-Cell Lung Cancer: A Systematic Review of Outcomes
Amirhosein Vatandoost	Revolutionizing Personalized Breast Cancer Treatment: A Systematic Review of AI's Advancements and Challenges
Asra Sadat Talebi	Dosimetry in Ac-225 Targeted alpha particle therapy Utilizing Cherenkov Luminescence Imaging
Azin Ahmari	Mitigating Radiation-Induced Hypothyroidism in Head and Neck Oncology: Screening, Treatment, and Advanced Imaging Techniques
Davood Khezerloo	Evaluation of the Correlation between MVCT-based radiomics features and Radiation Dose in Tomotherapy
Faranak Felfeliyan et al	4D Respiratory SBRT of metastatic small sized lung nodules in leiomyosarcoma
Fatemeh Ranjbar	Evaluation of organs at risk Integral dose in left breast radiation therapy 3D-CRT and IMRT using Monte Carlo simulation code
Fatemeh Seif	Radiotherapy Predictive Modeling of Secondary Cancer Risk Post-Radiation Therapy Using Machine learnig
Fatemeh Shafiei	Assessment of critical organs Integral dose in prostate radiation therapy with 3D-CRT and IMRT methods using Monte Carlo
Fatemeh Zahra Nosrati	Artificial Intelligence in Radiotherapy Treatment Planning: Current Applications, Challenges, and Future Directions
Hadi Keivan	Field Size Characteristics in Small Megavoltage Photon Beam Dosimetry
Hamed Zamani	Impact of CyberKnifeStereotactic Radiosurgery on Ocular Dosimetry in Patients with Brain Tumors
Hamed Zamani	Efficacy of CyberKnife Stereotactic Radiosurgery in the Treatment of Brain Metastases: A Retrospective Analysis
Hossein Hassaninejad	Radiomics based predictive modeling of rectal toxicity in prostate cancer patients undergoing radiotherapy: CT and MRI comparison
Hossein Hassaninejad	Comparison prediction models of bladder toxicity based on radiomic features of CT and MRI in patients with prostate cancer undergoing radiotherapy
Hossein Rast	Comparative Analysis of Manual and AI-Based Contouring for Mandible, Oral Cavity, and Parotid Glands in Head and Neck Radiotherapy
Kimiya Mohammadian	CT-Based vs. MRI-Based Target Delineation: Dosimetric Outcomes in Cervical Cancer Brachytherapy
Mahshad Neshasteriz	A treatment planning study comparing VMAT techniques and Cyberknife in single brain tumor: treatment planning study
Mahshad Neshateriz	Effect of deep inspiration breath-hold (DIBH) in Dose of heart, lungs, and left anterior descending artery in the left sided breast cancer radiotherapy
Maryam Zamanian	Nested-CNN: An architecture for prediction of Three-dimensional dose distribution for prostate cancer in Tomo-Helical technique
Milad Amiri et al	Investigation and structural study of SnO2nanocomposite based on polyvinyl chloride (PVC) for protection against X-rays
Mohammad Javad Enferadi-Aliabad	Patient-Specific Quality Assurance in Laryngeal IMRT: Exploring the Influence of Thresholds on Gamma Passing Rate Using GafchromicEBT3 Films

Mohammad Javad Enferadi-Aliabad	Advance Cervical Cancer Radiotherapy: A Systematic Comparison of Proton Therapy and IMRT Dosimetric Outcomes
Mohammad Reza Mohammadpour	The Upright Radiotherapy Technique Versus the Conventional Supine Method for Lung Cancer Treatment and Imaging
Mozafar Naserpour	Enhancing Radiation Therapy Planning with Dual-Energy CT: Impact on Electron Density and Stopping Power Predictions
Najmeh Arjmandi et al	A Hybrid Deep Learning Model for Enhanced Multi-Organ Segmentation in Prostate Cancer Radiotherapy
Rahele Kazemi et al	Artificial Intelligence Techniques to Predict Breast Cancer Recurrence Risk
Rahele Kazemi et al	Streotactic Body Radiation Therapy (SBRT) for Lung Cancer Treatment: A Systematic Review
Saeedeh Moharramkhani	Optimization of Hybrid Arc Treatment Planning Based on IMRT and VMAT for Nasopharyngeal Cancer
Sahel Heydarheydari et al	Magnetic Field-Induced Reversible Blood-Brain Barrier Permeabilization: Enhancing Drug Delivery for Brain Tumor Therapy
Sajjad Aghasizadeh	Comparison of dose enhancement among Bismuth, Gold, and Platinum Nanoparticles with high dose rate sources in Brachytherapy: A Monte Carlo Study
Samaneh Zolghadri	Optimized production of [68Ga]Ga-AMBA for GRPR-expressing tumor imaging
Samaneh Zolghadri	Preparation and quality control of 177Lu-Alpha-MSH for the treatment of malanoma
Sasan Tizrou Namakabroody	Evaluating the improvement of radiation treatment planning for patients with glioblastoma multiforme tumor by using the fusion of images obtained from magnetic resonance imaging and computed tomography and dosimetry of the eye area
Shirin Farhang	Setup margin evaluation for head and neck radiotherapy patients using Electronic Portal Imaging Device
Soroush Najafi Sarvestani	The Evolving Role of Radiation Therapists In Modern Oncology: Precision, Technology, and Patient Care
Zeinab Alsadat Ahmadi	Dosimetric parameters comparison of three-field and field-in-field radiotherapy planning in the treatment of glioblastoma patients