

THE 30th CONFERENCE of the Nuclear Societies in Israel

7-9 June 2022 | Daniel Hotel, Herzliya, Israel



Radiation Protection in Medicine Wednesday, June 8, 2022

08:00-09:00 Registration, Registration Desk

09:00-10:30 Plenary 2, Plenary Hall

Moderators: Raquel Bar Deroma & Chen D. Dubi

09:00 What we Learned about Radiation Effects from Large-scale Animal Studies

Northwestern University, USA and Vice-Chair of Committee 1 (Radiation Effects) of ICRP

Zoom Presentation

[Gayle Woloschak](#)

09:30 Alpha-DaRT: Breakthrough Technology in Radiation Therapy

Unit of Nuclear Engineering, Ben-Gurion University of the Negev, Israel

[Lior Arazi](#)

10:00 Out-of-Field Doses in Radiotherapy

SCK CEN, Belgian Nuclear Research Centre, Belgium

[Filip Vanhavere](#)

10:30-10:50 Coffee Break & Exhibition Viewing, Poseidon Hall

10:50-12:30 Session 8 - Radiation in Medicine 1, Aphrodite Hall

Moderator: Filip Vanhavere

10:50 Radiation Reduction in Pediatric Cardiac Catheterization: Can We Go Even Lower?

[Sharon Borik](#)¹, [Y. Yitzhak](#)¹, [Y. Weiner](#)¹, [D. Mroczek](#)², [LNB Benson](#)²

¹*Pediatric Heart Institute, Sheba Medical Center, Tel Aviv University, Ramat Gan, Israel*

²*Division of Cardiology, Hospital for Sick Children, University of Toronto, Toronto, Canada*

11:10 Assessing Patient Effective Dose for Spine Surgery using Intraoperative Cone-Beam CT

[Gabriel Bartal](#)¹, [Avi Ben-Shlomo](#)², [Francesco Costa](#)³, [Shay Shabat](#)⁴

¹*Tel Aviv-Yafo, Israel*

²*Radiation Protection Domain, Soreq NRC, Yavne, Israel*

³*Spine Surgery Unit, Dept of Neurosurgery, Fondazione IRCCS Istituto Nazionale Neurologico "C. Besta", Milan, Italy*

⁴*Spinal Care Unit, Orthopedic Surgery Dept, Meir Medical Center, Kfar Saba, Israel*

11:30 The Evolution of PET/CT Scanners at Rambam Health-care Campus: From First Hybrid to First-in-class Solid State Extended Axial Bore Scanners

Tala Palchan Hazan¹, John A. Kennedy^{1,2} Zohar Keidar^{1,2}

¹*Department of Nuclear Medicine, Rambam Health Care Campus, Haifa, Israel*

²*Ruth and Bruce Rappaport Faculty of Medicine, Technion-Israel Institute of Technology, Haifa, Israel*

11:50 Appropriateness of Utilizing Imaging in Musculoskeletal Medicine: Radiation and Clinical Considerations

Aharon (Roni) Finestone

Department of Orthopaedic Surgery, Shamir (Assaf HaRofeh) Medical Center, Zeriffin, Israel

12:10 Dosimetry Audits in Radiotherapy: Key Component in Achieving High Quality Treatments

Annette Wygoda

Radiation Control Unit, Medical Technology, Health Information and Research Directorate, Ministry of Health, Jerusalem, Israel

12:30-13:30 Lunch Break & Exhibition Viewing, Poseidon Hall

13:30-15:10 Session 10 - Radiation in Medicine 2, Aphrodite Hall

Moderator: Gabriel Bartal

13:30 Advantages and Limitations of the Use of Active Personal Dosemeters in Hospitals

SCK CEN, Belgian Nuclear Research Centre, Belgium

Filip Vanhavere

13:50 Radiation Safety During Fluoroscopy Guided Therapy

Zalman Itzhakov

Interventional Radiologist Consultant & the Director of Diagnostic Imaging, E.Wolfson Medical Center, Israel

14:10 Patient Contact Shielding in Diagnostic Radiology - New Guidelines

Raquel Bar Deroma

Radiotherapy, Rambam Health Care Campus, Haifa, Israel

14:20 Personal Protective Equipment (PPE) – Standards Update

Sigalit Haruz-Waschitz

Medical Physics Section, Shamir (Asaf Harofeh) MC, Select One, Israel

14:30 Local and Systemic Safety of Diffusing Alpha-emitters Radiation Therapy (DaRT)

Arindam Roy, Lior Arazi

Unit of Nuclear Engineering, Faculty of Engineering Sciences, Ben-Gurion University of the Negev, Beer-Sheva, Israel

14:50 Professional Image X-Ray Technician

Sarit H. Malul Markovich

*Alexandru Ioan Cuza University of Iasi, Iasi, Romania
Assuta MC, Israel*

15:10-15:30 Coffee Break & Exhibition Viewing, Poseidon Hall

15:30-17:10 Session 12 - Medical Physics, Aphrodite Hall

Moderator: Sergio Faerman

15:30 Simulations of Positron Transport using the EGS5 Monte Carlo code and Comparison to the GAMOS Monte Carlo Code Results

Shlomi Caduri^{1,2}, Itzhak Orion¹

¹Department of Nuclear Engineering, Ben-Gurion University of the Negev, Israel

²Consulting Department, Clalit Biomedical Engineering, Israel

15:50 Proton PBS Treatment for Prostate in Seated Position

Dori Benjamin⁴, Shlomi Alani², Michael Marash³, Itzhak Orion⁵, Sion Koren^{1,2}

¹Radiation Oncology, Saare Zedek Medical Center, Jerusalem, Israel, Israel

²Radiation Oncology, Ziv Medical Center, Safed, Israel, Israel

³P-Cure, LTD, Shilat, Israel

⁴Radiation Oncology, Sheba Medical Center, Tel Hashomer, Israel

⁵Nuclear Engineering, Ben Gurion University of the Negev, Beer Sheva, Israel

16:10 Mosfet In-vivo Dosimetry for TBI – Soroka Experience

Nathan Schwob, Yanai Krutman

Radiotherapy, Soroka University Medical Center, Beer Sheva, Israel

16:30 Diffusing Alpha-emitters Radiation Therapy: Results from Preclinical Studies and New Clinical Frontiers

Mirta Dumancic¹, Guy Heger¹, Ishai Luz², Maayan Vatarescu³, Tomer Cooks², Lior Arazi¹

¹Nuclear Engineering Unit, Ben-Gurion University of the Negev, Beer Sheva, Israel

²Shraga Segal Department of Microbiology, Immunology and Genetics, Ben-Gurion University of the Negev, Beer Sheva, Israel

³Preclinical Division, Alpha Tau Medical, Jerusalem, Israel

16:50 Preparation Free X-ray Based Imaging Capsule for Colorectal Cancer Screening

Yoav Kimchy

R&D, Check-Cap Ltd, Isfiya, Other, Israel