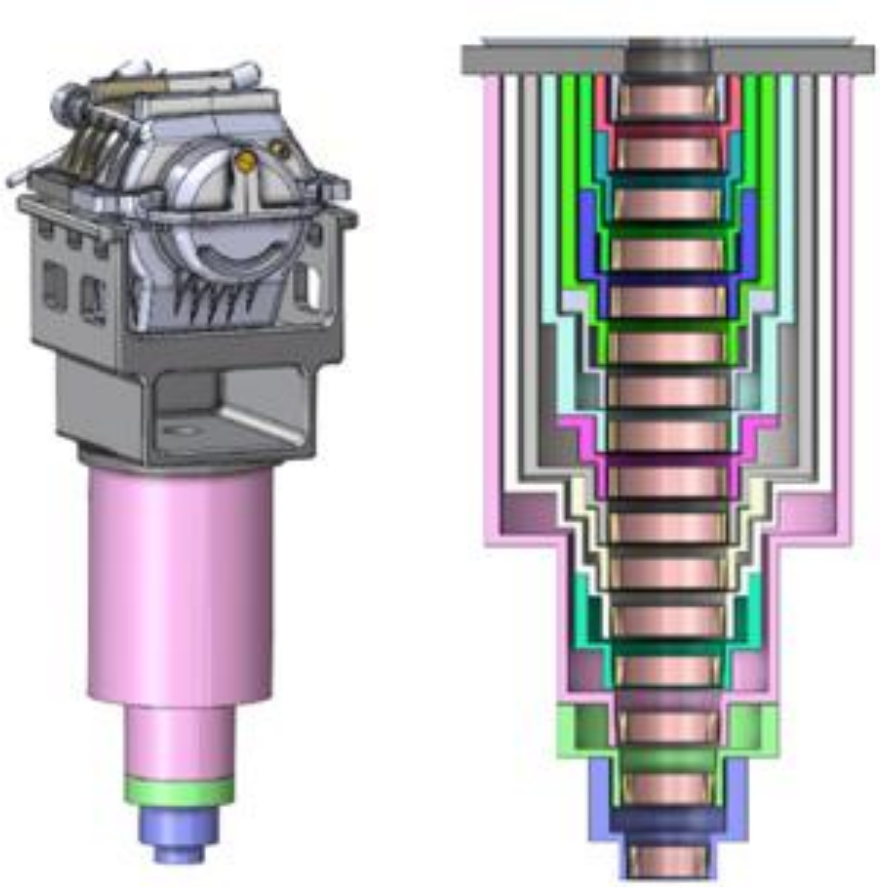
ConVergent

A new focus on Radiation Research and Treatment



List of Publications 6/1/2026

Published papers

1. Characterization of the Medscint HYPERSCINT scintillation dosimetry research platform with orthovoltage photon beams and a novel quasi monoenergetic beam, **2025**, Physics in Medicine and Biology
   Authors: Che Fru, Insley, Lee, Bartkoski, Reiazi, Schori, Tailor, Salehpour.
   https://iopscience.iop.org/article/10.1088/1361-6560/ae0efb
2. Converging lens radiotherapy (CLRT) employing kilovoltage x-ray source: Treatment planning study, **2025**, Medical Physics
   Authors: Kinz, Alfassi, Gebert, Alezra, Hesser, Zygmanski
   https://aapm.onlinelibrary.wiley.com/doi/10.1002/mp.18007
3. G4BraggReflection for accurate modeling of Bragg reflection in perfect and mosaic crystals, **2025**, Journal of Physics
   Authors: Reiazi, Lee, Bartkoski, Kleckner, Salehpour.
   https://iopscience.iop.org/article/10.1088/1361-6463/aded1d
4. Statistical toolkit for analysis of radiotherapy DICOM data, **2025** Biomedical Physics & Engineering Express
   Authors: Kinz, Molodowitch, Killoran, Hesser, Zygmanski
   (partially funded by CRnR, does not involve CRnR technology)
   https://iopscience.iop.org/article/10.1088/2057-1976/ade9cb
5. Dosimetry of a Novel Focused Monoenergetic Beam for Radiotherapy, **2023**, Phys Med Biol
   Authors: Moradi-Kurdestany, Bartkoski, Tailor, Mirkovic, Harel, Bar-David, Kleckner, Borukhin, Salehpour.
   https://iopscience.iop.org/article/10.1088/1361-6560/ac5c8f
6. Adding the X-ray Bragg reflection physical process in crystal to the Geant4Monte Carlo simulation toolkit, part I: reflection from a crystal slab, **2022**, Precision Rad Onc
   Authors: Guan, Asai, Bartkoski, Kleckner, Harel, Salehpour
   https://onlinelibrary.wiley.com/doi/10.1002/pro6.1188
7. Analysis of a novel X-ray lens for converging beam radiotherapy, **2021**, Nature Scientific reports
   Authors: Bartkoski, Bar-David, Kleckner, Mirkovic, Tailor, Moradi-Kurdestany, Borukhin, Harel, Burshtein, Zuck, Salehpour
   https://www.nature.com/articles/s41598-021-98888-8

Posters and Presentations

1. G4BraggReflection: Pioneering Wave-Particle Simulations for Convergent Radiotherapy and Beyond, AAPM **2025** snap oral presentation
   Authors: Reiazi, Lee, Bartkoski, Kleckner, Salehpour
   https://aapm.confex.com/aapm/2025am/meetingapp.cgi/Paper/18266
2. Modeling of Novel Converging Beam Radiotherapy System in Geant4 Montel Carlo Simulation , AAPM **2025** Poster
   Authors: Lee, Reiazi, Barkoski, Schori, Insely, Che Fru, Tailor, Kleckner, Salehpour
   https://aapm.confex.com/aapm/2025am/meetingapp.cgi/Paper/16538
3. Statistical toolkit for analysis of radiotherapy DICOM data, **2024** AAPM Poster
   Authors: Kinz, Molodowitch, Killoran, Hesser, Zygmanski
   (partially funded by CRnR, does not involve CRnR technology)
   https://aapm.confex.com/aapm/2024am/meetingapp.cgi/Paper/10994
4. Monte Carlo Energy And Volume Correction Factor Calculation For Plane-Parallel Ion Chamber In A Convergent Monoenergetic Photon Beam, AAPM **2023** oral presentation.
   Authors: Insley, Bartkoski, Che Fru, Tailor, Schueler, Kry, Salehpour
   https://aapm.confex.com/aapm/2023am/meetingapp.cgi/Paper/3097
5. Relative Biological Effectiveness Of An X-Ray Lens Converging Beam Radiotherapy System, AAPM **2023** Poster
   Authors: Flint, Bartkoski, Akhavan, Che Fru, Salehpour, Sawakuchi
   https://aapm.confex.com/aapm/2023am/meetingapp.cgi/Paper/5378

Papers that are not published yet

1. Modeling of Novel Converging Beam Radiotherapy System in Geant4 Montel Carlo Simulation
   Authors: Lee, Reiazi, Barkoski, Schori, Insely, Che Fru, Tailor, Kleckner, Salehpour
2. Design of a new Parallel Plate Ion-chamber for absolute dosimetry of a novel quasi monoenergetic beam
   Authors: Insley.
3. Biological characterization of convergent low-energy x-rays Data in vitro and in vivo
   Authors: Rai, Hosseini, Bright, Brito, Lee, Che Fru, Salehpour, Sawakuchi
4. Converging lens X-ray beam radiotherapy treatment plan comparison with linear accelerator– and a proton beam–based plans in a case of ocular melanoma
   Authors: Che Fru, Alfassi, Alezra, Amin, Gebert, Chung, Salepour
5. Modalities comparison PBT SRS Linac and CRNR Beam in 3 brain cases
   Authors: Che Fru
6. Modalities comparison PBT SRS Linac and CRNR Beam in Lung, Liver metastases
   Authors: Che Fru