



UNIVERSITÄT
HEIDELBERG
HEIDELBERG CENTER
PARA AMÉRICA LATINA



PONTIFICIA
UNIVERSIDAD
CATÓLICA
DE CHILE

dkfz.



Workshop on “The Physics of Novel Radiotherapy Techniques”

On June 24-25 2014 the workshop on ‘The Physics of Novel Radiotherapy Techniques’ took place at the Heidelberg Center in Santiago de Chile. The workshop was hosted in the frame of the International Master’s programme “Clinical Medical Physics” (CMP) offered jointly by the Pontifical Catholic University of Chile (PUC) and Heidelberg University, Germany.

Experts from PUC, the German Cancer Research Center in Heidelberg (DKFZ), the University of Munich (LMU), the National Autonomous University of Mexico (UNAM) and from the Department of Radiation Oncology at the Clinica Alemana, Santiago de Chile presented their latest research results in medical physics and novel techniques in the interdisciplinary field of radiotherapy.

Approximately 30 participants from Chile attended the workshop, many of them students of the CMP program. Participants had the chance to discuss neutron peripheral dosimetry with the director of the medical physics program at PUC, Beatriz Sanchez, as well as recap the biological effects in radiotherapy. Thereafter, latest investigations on the radiobiology of high LET radiation and its model parameters were presented. Researchers introduced experiments on polymer gel dosimetry and highlighted the challenges in tumour response modelling. Nowadays novel imaging techniques – whether functional or morphological – gain an increased importance for modern radiotherapy techniques, talks presented also the benefits and challenges in the field of small animal imaging techniques and dual energy CT imaging.

Oliver Jäkel, Head of the Medical Physics in Radiation Therapy Department at the German Cancer Research Center, gave two comprehensive talks on the radiotherapy with heavy ions and the future of adaptive radiotherapy with special regard to the MR image guidance. Andrés Córdova, Head of the Department of Radiation Oncology at the Clinica Alemana, Santiago de Chile, underlined in his talk the necessity of a detailed quality assurance by medical physics staff and emphasized the importance of risk analysis to prevent human faults during the radiotherapy treatment course.

At the end of the two days, the first CMP students were awarded with their double degrees by the representatives of the study program of both universities. The graduation ceremony took place at PUC and was accompanied by the Vice Rector of PUC, Roberto González, and the Dean of the Physics Faculty, Máximo Bañados. Graduated students looked back on their



UNIVERSITÄT
HEIDELBERG
HEIDELBERG CENTER
PARA AMÉRICA LATINA



PONTIFICIA
UNIVERSIDAD
CATÓLICA
DE CHILE

dkfz.

two years lasting master studies of which some students spend parts of it in Heidelberg for their Master's thesis. After the ceremony, graduated students celebrated together with their families, faculties and workshop participants at a small reception.

The workshop provided an excellent opportunity to strengthen the collaboration by scientific exchange and personal meetings at the Heidelberg Center. The organisers unanimously agreed to proceed with the program and expressed the wish to extend the number of students and participants of the workshop.