

# FP7 “Marie Curie Initial Training Networks”

## ENTERVISION

### Research Training in 3D Digital Imaging for Cancer Radiation Therapy Job Vacancy:

#### Integration of treatment related imaging and dosimetry data

Within the ENTERVISION project, we will focus on the development of practical clinical implementations for internal target tracking using respiratory motion (intra-fractional) as well as inter-fractional motion detection. This will be achieved using a range of measurement techniques such as optical systems, fluoroscopy, and spirometry. The acquired data will be used to develop class solutions for clinical treatment, dependent on machine and beam type, tumour location, and patient physiology, and information of this type will be integrated directly into treatment planning systems. All tasks will be performed in close collaboration with the Heidelberg Ion Beam Therapy Centre and an industrial partner. The candidate will have the possibility to obtain a Ph.D. in physics at Technical University of Darmstadt.

- The ESR at GSI will work on:
  - combination or correlation of online- and offline data to improve data quality of intra-fractionally moving targets to adequately consider motion throughout the treatment and imaging process
  - correlation of fluoroscopic images of the target, traces from the motion monitoring device, and potentially prompt-gamma data (SPECT) acquired with the in-room imaging system

#### Requested Profile

- MSc in Physics / Engineering
- Experience in medical physics / image processing / programming
- English / German fluent

#### How to apply

Verify that you fulfill the FP7 Marie Curie ITN Eligibility conditions

Send the application including a CV to:

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<http://www.gsi.de/forschung/bio/>  
<http://www.fkp.tu-darmstadt.de/>

**CONTRACT DURATION: 36 Months**  
**APPLICATION DEADLINE: July 31, 2011**