# MICROPOS MEDICAL





Todays objective in radiotherapy is to optimize dose to the target and minimize dose to organs at risk. Image guidance with patients in treatment position and gating has improved the therapy a lot over the last years.

However, these tools are not considering the motion of the target in real time, which is most essential to guarantee that the dose is correctly achieved.

RayPilot® is a system that continuously checks the prostate position and gives the precise location of the tumor at all times. An objective and automatic set-up and continuous tumor surveillance secures that the right dose is delivered to the tumor in real time and minimize the dose to the OAR.

Securing dose to the target opens up possibilities to reduce treatment margins, increase the dose and to give less fractions which in total shortens the treatment time.

# **RAYPILOT®**

# Objective tumor tracking™ to any linac

#### **IMPROVED WORKFLOW**

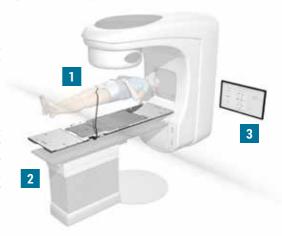
With RayPilot® you get automatic patient identification as well as objective and non-ionizing patient set-up.

# SAFER TREATMENT WITH REAL TIME POSITIONING

Real time positioning of the ROI gives intrafractional control of organ motions. RayPilot® is a tool that fits to the most linacs on the market and could enable margin reductions and hypo fractionation. A gating interface for automatic beam ON/OFF\* if target is moving out of tolerance is pending release.

#### TREATMENT ANALYSIS

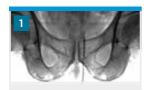
Retrospective data can be retrieved from the software and enables advanced adaptive analyses of tumor positions and its implications.



#### **IN SITU DOSE\*\***

With a dosimeter placed in the transmitter you get in situ dose in real time and with a given position. This enables for instance exact dose verification during IMRT and arc therapy.

### THE RAYPILOT® SYSTEM CONSISTS OF THREE PARTS:



#### RAYPILOT® TRANSMITTER

The RayPilot® transmitter is inserted in the ROI that will be tracked before CT and dose planning. The transmitter is removed after the last treatment session. It requires one transmitter per patient.



#### RAYPILOT® SENSOR PLATE

The RayPilot® sensor plate is a receiving system that is placed directly on the existing carbon fibre couch. The patient lays on top of the plate and the transmitter sends out positioning signals to the sensor plate.



#### RAYPILOT® SOFTWARE

The RayPilot® system tracks and records the ROI position continuously during the radiotherapy session. A warning occurs if the ROI moves out of the predefined margins. If needed, reposition according to the RayPilot system. All data acquired in the system could be exported for analyze.

The RayPilot® system is CE-marked for prostate use and has been in clinical use since 2010. Not available for sale within the USA.
\*) The gating interface is work in progress and not available for sale. \*\*) The in-situ dosimeter is work in progress and not available for sale.