



# BRACHYTHERAPY

## ESTRO-Elekta Brachytherapy award

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### *What does this award mean to you?*

I am quite critical of my own work. I focus on the things that can be improved and sometimes forget about the things that go well. For me, this award is a gentle reminder that the work we have done is of high quality and matters for patient and clinical workflow. It is very nice to know that the work is appreciated by our society.

### *To whom would you like to dedicate your award?*

This work has truly been a team effort. The multidisciplinary team that has been working on the project has made it a success, and it could not have been achieved without their efforts. The award should be as much for the rest of the team as for me. Therefore, I would like to dedicate the award to the whole team: Sebastiaan Breedveld, Inger-Karine Kolkman-Deurloo, Ben Heijmen, Jan-Willem Mens, Danny Lathouwers and Zoltán Perkó.

### *What is your next challenge?*

The work on automated brachytherapy treatment planning was part of my masters research project. Currently, I am working on my PhD project in the same department but on a different topic: online adaptive treatment planning of proton therapy for head and neck cancer. I have learned many things while I worked on the brachytherapy project that I can use in my new project.

### *What do you think are the next challenges for brachytherapists?*

In the work we did we observed that automatically generated plans for treatment of cervical-cancer patients were superior to manually generated plans, and the total planning time when plans were generated automatically was only 20 seconds. These observations must be further validated after a clinical implementation. The department is setting up research collaborations with other centres for this purpose. The system will be developed further with robust and real-time planning. In another project, the department is investigating the use of fully personalised applicators for cervical-cancer patients. These will be shaped and configured based on patient anatomy. Their use would result in fully personalised, automatically generated treatment plans such that the sparing of organs at risk can be maximal while the targets are fully covered.

### *What do you do in your spare time?*

In my spare time I like doing athletics; specifically, I compete in the heptathlon on a national level. I usually spend around 14 hours a week training. When I started doing research, I did not expect to be able to combine my work with athletics at this level. Now, I think I am a better researcher because of it. I would always choose work above sports, but I don't feel that I have to. Being able to focus on athletics for a couple of hours a day is my strategy to clear my head. After that, I feel energised and I'm able to think better.