# The MArkerless Lung Target Tracking CHallenge (MATCH): An AAPM Grand Challenge

**Your Participation**

In which part of the MATCH would you like to participate in?
- [ ] Part A: In-silico study
- [ ] Part B: Prospective phantom study
- [ ] Both

**Your Markerless Lung Tumor Tracking Approach**

Are you going to participate with an Academic or Commercially available markerless lung tumor tracking approach?
- [ ] Academic
- [ ] Commercial (CyberKnife, Brainlab Vero...)
  - [ ] CyberKnife
  - [ ] Brainlab Vero
  - [ ] Other: _______________________________________________________________________

In what stage is the development of your markerless lung tumor tracking approach?
- [ ] In-silico / retrospective tests
- [ ] Prospective tests in a clinical environment
- [ ] Clinical trial / in treatment use

(Optional) Please attach relevant publications as web-links: __________________________________________________________________________________________________________________________

**Experiment Hardware Available at Your Center (Participants of Part B Only)**

For part B of the MATCH (prospective phantom study) the MATCH phantom will be sent to the participating institution and the participant will conduct the experiments. The experiments require the phantom to be moved with 3D motion traces using a motion-platform or programable treatment couch, which needs to be available at the participating institution. Further institution-specific materials include the markerless lung target tracking algorithm, a clinical CT scanner, a radiation therapy planning system and a radiation therapy delivery system.

Please select one:
- [ ] A motion-platform or programable treatment couch is available at our center.
- [ ] A Scandidos Delta4 HexaMotion phantom is available at our center. I would like to request the organizers custom made adapter platform to move the MATCH phantom.
- [ ] None of the above is available at our center and I would like to ask the organizers to get back to me with other options.

Please select the dates suitable for you to conduct the experiments of MATCH Part B. The intended timeframe for the experiments at each institution is 3 weeks.
- [ ] December 2019
- [ ] January 2020
- [ ] February 2020
- [ ] March 2020
- [ ] April 2020
- [ ] May 2020

I understand that I have to cover the shipping costs of the Part B experiment setup to the closest MATCH organizers institution when participating in MATCH Part B.*

*The experimental setup consists of the MATCH phantom and the custom made HexaMotion adapter platform if requested. The MATCH organizers institutions are the AAPM HQ in Alexandria, the University of Sydney in Australia and VUMC Amsterdam in the Netherlands. For cost estimation a package of (20kg, 60x40x40cm, 10,000USD value) can be assumed.

Please send the filled form to: marco.mueller@sydney.edu.au

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**PARTICIPATION FORM**

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<td>Contact person(s)</td>
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