

REQUEST FOR PROPOSAL

OVERVIEW:

AAPM is seeking a company with a cloud-based solution to host a project titled “Simulated Error Training for the Physics Plan Review”. The project requires a software platform capable of providing storage, remote access, and interaction with DICOM RT data and plan documentation.

ORGANIZATIONAL OVERVIEW:

AAPM was founded in 1958 and is a 501(c)(3) organization representing the Medical Physics community worldwide (80% US based, 20% outside US). Medical Physics is a broad-based scientific and professional discipline that encompasses physical principles with applications in biology and medicine. With 9,400+ members, AAPM supports the Medical Physicist community with a focus on advancing patient care through education, improving safety and efficacy of radiation oncology and medical imaging procedures through research, and the maintenance of professional standards. AAPM has a staff of 32, headquartered in Alexandria, VA, and an annual budget of \$10.7M.

PROJECT VISION:

Simulated error training is a method to practice error detection in situations where the occurrence of error is low. Such is the case for the physics plan review where a physicist may check several plans before encountering a significant problem. By simulating potentially hazardous errors, physicists can become familiar with how they manifest and learn from mistakes that can be made during a simulated plan review. To this end, the AAPM’s Working Group on the Prevention of Errors (WGPE) has developed a series of mock treatment plans/charts that include a variety of embedded errors based on the formal risk-assessment provided by AAPM’s Task Group 275 report. The mock datasets include documentation and DICOM data (images, registration files, RT dose, and RT contours) derived from common treatment planning and radiation oncology information systems. The goal of this project is to provide this data to the AAPM membership in a format that allows them to access it remotely and review it dynamically, thereby providing widespread implementation of this simulated error training module.

PROJECT REQUIREMENTS:

The primary requirement of this project is a software platform capable of providing storage, remote access, and interaction with RT data and plan documentation. The following features are critical needs that the software platform should address:

1. Cloud-based storage of RT data and plan documentation including:
 - a. Image datasets (CT, MRI, and PET)
 - b. RT Structures
 - c. RT Dose
 - d. Image registration files
 - e. PDF documents
2. Remote access capability for up to 500 users
3. Ability to control user access
4. Ability to both upload and download data

5. Ability to display and interact with DICOM RT data including:
 - a. 3D navigation of image datasets
 - b. Image window and leveling
 - c. Pan and zoom
 - d. Dose and image pixel probing
 - e. Toggle structure display on/off
 - f. Toggle image and dose layers on/off
 - g. Blending of fused images

PROPOSAL SUBMISSIONS AND EVALUATION:

The Proposal in response to this RFP should include:

1. Brief background of your company.
2. Description of your company's ability to meet the project needs.
3. Description of how your company is different from competitors.
4. Estimated cost and/or other requested compensation.
5. Anything else you feel is important for AAPM to consider in evaluating your proposal.

All proposals will be considered proprietary and not available for viewing by any competing company(s) that may be chosen for this project. Evaluations will be based on the ability of the proposed solution to meet the project needs in a timely fashion while seeking reasonable compensation from the AAPM. Following the submission and review process, all RFP respondents will be notified of the outcome.

Proposals must be received electronically (preferable) or via mail no later than March 20, 2021. Vendor selection will be made by April 1, 2021.

For more information or to submit a proposal, please contact Shana Donchatz, Programs Manager, shana@aapm.org.