Dr. Yamamoto’s scientific interests focus on developing and investigating novel imaging technologies and integrating these innovations into clinical radiotherapy to improve therapeutic gains in cancer radiotherapy. Areas of active research include: (1) the development of lung ventilation/perfusion imaging based on computed tomography (CT) and deformable image registration, and applications in lung cancer radiotherapy to reduce pulmonary toxicity, and (2) the investigation of radiomics, an emerging method that applies advanced mathematical algorithms to extract quantitative features predictive of gene expression or clinical outcomes from imaging data, toward personalized radiotherapy.
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Medicine (AAPM), 2010

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