



醫學物理實驗室

杜書儒

Shu-Ju Tu, Ph.D.

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Education

Ph.D., Physics Department, Purdue University, West Lafayette, Indiana, USA

Professional experiences

1. Postdoctoral Fellow, Radiation Physics Department, The University of Texas MD Anderson Cancer Center, Houston, Texas, USA
2. Postdoctoral Fellow, Imaging Physics Department, The University of Texas MD Anderson Cancer Center, Houston, Texas, USA

Research interest

1. 醫學物理 (medical physics)
2. 電腦斷層掃描與影像量化分析 (quantitative computed tomography)
3. 影像導引在質子治療的應用 (image guided applications in proton radiotherapy)
4. 手術中放射治療 (intro-operative radiation therapy)
5. 奈米粒子在生物醫學影像與放射治療中的應用 (applications of nanoparticles in biomedical imaging and radiation therapy)
6. 影像基因體學與放射基因體學(imaging genomics and radiomics)

Recent publications

1. Shu-Ju Tu, Pei-Ying Yang, Ching-Jung Lo (2015). Consequence on dosimetry of external targeted radiotherapy due to the rapid clearance of gold nanoparticles. *Journal of Medical and*

Biological Engineering. (Accepted). (SCI, 55/76, Biomedical Engineering).

2. Ching-Jung Lo, Pei-Ying Yang, Chi-Tsian Chao, Shu-Ju Tu* (2015). Effect of contrast agent administration on consequences of dosimetry and biology in radiotherapy planning. *Nuclear Instruments & Methods in Physics Research Section A*. (Accepted). (SCI, 9/33, NUCLEAR SCIENCE & TECHNOLOGY).
3. Shu-Ju Tu; Hong-Wen Huang; Wei-Jeng Chang (2015, Feb). X-ray imaging characterization for aging mice with an extreme disorder in femoral bones. *Micron*. 71(2), 14-21. (SCI, 5/11, MICROSCOPY).
4. Ya-Yun Hsiao, Tzu-Hsiang Hung, Shu-Ju Tu, Chuan-Jong Tung (2014, May). Fast Monte Carlo simulation of DNA damage induction by Auger-electron emission. *International Journal of Radiation Biology*, 90(5), 392-400. (SCI, 3/33, NUCLEAR SCIENCE & TECHNOLOGY).
5. Shu-Ju Tu; Siao-Yun Wu; Fu-Sheng Wang; Yunn-Hwa Ma (2014, Feb). Retention assessment of magnetic nanoparticles in rat arteries with micro computed tomography. *Physics in Medicine and Biology*, 59(5), 1271-1281. (SCI, 16/74, ENGINEERING, BIOMEDICAL).
6. Shu-Ju Tu, Pei-Ying Yang, Ji-Hong Hong, Ching-Jung Lo (2013, Jul). Quantitative dosimetric assessment for effect of gold nanoparticles as contrast media on radiotherapy planning. *Radiation Physics and Chemistry*, 88(7), 14-20. (SCI, 11/33, NUCLEAR SCIENCE & TECHNOLOGY).
7. Tsui-Hsun Wu, Shu-Chuan Liao, Ying-Fang Chen, Yi-You Huang, Yi-Syuan Wei, Shu-Ju Tu*, Ko-Shao Chen (2013, Feb). Determination of functionalized gold nanoparticles incorporated in hydrophilic and hydrophobic microenvironments by surface modification of quartz crystal microbalance. *Applied Surface Science*, 274: 418-424. (SCI).
8. Jyh-Ping Chen, Pei-Ching Yang, Yunn-Hwa Ma, Shu-Ju Tu, Yu-Jen Lu (2012, Oct). Targeted delivery of tissue plasminogen activator by binding to silica-coated magnetic nanoparticle. *International Journal of Nanomedicine*, 7: 5137-5149.
9. Yunn-Hua Ma, Si-Yi Chen, Shu-Ju Tu, Hung-Wei Yang, Hao-Li Liu (2012, Sep). Manipulation of magnetic nanoparticle retention and hemodynamic consequences in microcirculation: assessment by laser speckle imaging. *International Journal of Nanomedicine*, 7:2810-2817.
10. Hong-Wen Cheng, Ching-Ju Ho, Chung-Chi Lee, Shu-Ju Tu, Bor-Yuan Shih, Tsi-Chian Chao (2011, Dec). Development of a novel optical CT employing a laser to create a collimated line-source with a flat-top intensity distribution. *Radiation Measurements*, 46(12), 1932-1935. (SCI).
11. Tsui-Hsun Wu, Shu-Chuan Liao, Yi-Shiuan Wei, Shu-Ju Tu, Yi-You Huang, Hsin-Ming Wu, Ko-Shao Chen (2011, Dec). Hydrophilic modification of Au nanoparticles on the gold electrode of QCM by plasma deposition for biomedical applications. *Current Nanoscience*, 7(6), 950-954. (SCI).