



Amy Shu-Jung Yu

Clinical Associate Professor, Radiation Oncology - Radiation Physics

Bio

ACADEMIC APPOINTMENTS

- Clinical Associate Professor, Radiation Oncology - Radiation Physics

HONORS AND AWARDS

- Cancer Center Clinical Innovation Fund, Stanford University (2020)
- SQIMM Award, Stanford University (2020)
- Teaching Award, Stanford University (2018)
- SQIMM Award, Stanford University (2017)
- Stanford Medicine Faculty Innovation Program (Co-PI), Stanford University (2015)
- Radiation Physics Impact Award, Stanford University (2014)
- Scholarship for nanostorage research from Ministry of economic affairs, NTU (2004)
- The AP-NFO student Award, 4th Asia-Pacific International Conference on near-field Optics (2003)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Executive Committee Member, Northern California Chapter of AAPM (2020 - present)
- Associate Editor, Journal of Applied Clinical Medical Physics (JACMP) (2018 - present)
- Chair, Unit No. 52 of AAPM - Video Abstracts (2018 - present)
- Chair, Unit No. 47 of AAPM - AAPM Journals App and MP and JACMP Websites (2018 - present)
- Director, Northern California Chapter of AAPM - Therapy Physics Mock Exam (2018 - present)
- Member, Working Group 2 of AAPM (2018 - present)
- Member, AAPM - Work Group on Periodic Review of Medical Physics Residency Training (2018 - present)
- Member, Unit No. 51 of AAPM - Journal Marketing (2018 - present)
- Member, Unit No. 53 of AAPM - California Rulemaking Project (2018 - 2020)
- President, Northern California Chapter of AAPM (2018 - 2020)
- President-Elect, Northern California Chapter of AAPM (2017 - 2018)

PROFESSIONAL EDUCATION

- DABR, The American Board of Radiology , Therapeutic Medical Physics (2015)
- Residency, Stanford University , Therapeutic Medical Physics (CAMPEP Accredited) (2014)
- Ph.D., University of California, Los Angeles , Biomedical Physics (CAMPEP Accredited) (2011)

PATENTS

- "United States , A novel integrated multi-modal phantom for combined dosimetry and positioning verification"
- "United States , Method for analyzing the spatial accuracy for single-isocenter multitarget stereotactic radiosurgery"
- "United States , Field shaping device for radiation therapy"

Publications

PUBLICATIONS

- **CT-less electron radiotherapy simulation and planning with a consumer 3D camera.** *Journal of applied clinical medical physics*
Skinner, L., Knopp, R., Wang, Y., Dubrowski, P., Bush, K. K., Limmer, A., Trakul, N., Million, L., Marquez, C. M., Yu, A. S.
2021
- **A robotically assisted 3D printed quality assurance lung phantom for Calypso.** *Physics in medicine and biology*
Capaldi, D. P., Skinner, L. B., Dubrowski, P. n., Zhang, H. n., Xing, L. n., Chuang, C. F., Loo, B. W., Bush, K. K., Fahimian, B. P., Yu, A. S.
2021
- **Nontoxic electron collimators.** *Journal of applied clinical medical physics*
Breitkreutz, D. Y., Skinner, L., Lo, S., Yu, A.
2021
- **The benefit of using the AAPM Journal app.** *Journal of applied clinical medical physics*
Yu, A. S.
2020
- **FLASH irradiation enhances the therapeutic index of abdominal radiotherapy in mice**
Natarajan, S., Levy, K., Wang, J., Chow, S., Eggold, J., Loo, P., Manjappa, R., Lartey, F. M., Schuler, E., Skinner, L., Rafat, M., Ko, R., Kim, et al
AMER ASSOC CANCER RESEARCH.2020
- **Total abdominal ultra-rapid FLASH irradiation enhances the efficacy of PD-1 inhibition in preclinical models of ovarian cancer**
Chow, S., Eggold, J. T., Levy, K., Wang, J., Manjappa, R., Breitkreutz, D. Y., Yu, A. S., Bush, K., Dorigo, O., Loo, B. W., Rankin, E. B.
AMER ASSOC CANCER RESEARCH.2020
- **Abdominal FLASH irradiation reduces radiation-induced gastrointestinal toxicity for the treatment of ovarian cancer in mice.** *Scientific reports*
Levy, K. n., Natarajan, S. n., Wang, J. n., Chow, S. n., Eggold, J. T., Loo, P. E., Manjappa, R. n., Melemenidis, S. n., Lartey, F. M., Schüler, E. n., Skinner, L. n., Rafat, M. n., Ko, et al
2020; 10 (1): 21600
- **An integrated quality assurance phantom for frameless single-isocenter multitarget stereotactic radiosurgery.** *Physics in medicine and biology*
Capaldi, D. P., Skinner, L. B., Dubrowski, P. n., Yu, A. S.
2020
- **FLASH Irradiation Results in Reduced Severe Skin Toxicity Compared to Conventional-Dose-Rate Irradiation.** *Radiation research*
Soto, L. A., Casey, K. M., Wang, J. n., Blaney, A. n., Manjappa, R. n., Breitkreutz, D. n., Skinner, L. n., Dutt, S. n., Ko, R. B., Bush, K. n., Yu, A. S., Melemenidis, S. n., Strober, et al
2020
- **Patient motion tracking for non-isocentric and non-coplanar treatments via fixed frame-of-reference 3D camera.** *Journal of applied clinical medical physics*
Gasparyan, S. n., Ko, K. n., Skinner, L. B., Ko, R. B., Loo, B. W., Fahimian, B. P., Yu, A. S.
2020
- **Probing Estrogen Sulfotransferase-Mediated Inflammation with [11C]-PiB in the Living Human Brain.** *Journal of Alzheimer's disease : JAD*
Surmak, A. J., Wong, K., Cole, G. B., Hirata, K., Aabedi, A. A., Mirfendereski, O., Mirfendereski, P., Yu, A. S., Huang, S., Ringman, J. M., Liebeskind, D. S., Barrio, J. R.
2019
- **Does 2-FDG-PET Accurately Reflect Quantitative In vivo Glucose Utilization?** *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*
Barrio, J. R., Satyamurthy, N., Huang, S. C., Scafoglio, C., Yu, A., Alavi, A., Krohn, K. A.

2019

- **Tungsten filled 3D printed field shaping devices for electron beam radiation therapy.** *PloS one*
Skinner, L., Fahimian, B. P., Yu, A. S.
2019; 14 (6): e0217757
- **Factor 10 Expedience of Monthly Linac Quality Assurance via an Ion Chamber Array and Automation Scripts.** *Technology in cancer research & treatment*
Skinner, L. B., Yang, Y., Hsu, A., Xing, L., Yu, A. S., Niedermayr, T.
2019; 18: 1533033819876897
- **A novel-integrated quality assurance phantom for radiographic and nonradiographic radiotherapy localization and positioning systems.** *Medical physics*
Yu, A. S., Fowler, T. L., Dubrowski, P.
2018
- **Intrafractional Tracking Accuracy of a Transperineal Ultrasound Image Guidance System for Prostate Radiotherapy.** *Technology in cancer research & treatment*
Yu, A. S., Najafi, M., Hristov, D. H., Phillips, T.
2017; 16 (6): 1067-1078
- **Using a handheld stereo depth camera to overcome limited field-of-view in simulation imaging for radiation therapy treatment planning** *MEDICAL PHYSICS*
Jenkins, C., Xing, L., Yu, A.
2017; 44 (5): 1857-1864
- **Dapagliflozin Binds Specifically to Sodium-Glucose Cotransporter 2 in the Proximal Renal Tubule** *JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY*
Ghezzi, C., Yu, A. S., Hirayama, B. A., Kepe, V., Liu, J., Scafoglio, C., Powell, D. R., Huang, S., Satyamurthy, N., Barrio, J. R., Wright, E. M.
2017; 28 (3): 802-810
- **A Robust and Affordable Table Indexing Approach for Multi-isocenter Dosimetrically Matched Fields.** *Cureus*
Yu, A. n., Fahimian, B. n., Million, L. n., Hsu, A. n.
2017; 9 (5): e1270
- **Chest wall dose reduction using noncoplanar volumetric modulated arc radiation therapy for lung stereotactic ablative radiation therapy.** *Practical radiation oncology*
Yu, A. S., Maxim, P. G., Loo, B. W., Gensheimer, M. F.
2017
- **Automating quality assurance of digital linear accelerators using a radioluminescent phosphor coated phantom and optical imaging.** *Physics in medicine and biology*
Jenkins, C. H., Naczynski, D. J., Yu, S. S., Yang, Y., Xing, L.
2016; 61 (17): L29-37
- **Anatomic optimization of lung tumor stereotactic ablative radiation therapy.** *Practical radiation oncology*
Yu, A. S., von Eyben, R., Yamamoto, T., Diehn, M., Shultz, D. B., Loo, B. W., Maxim, P. G.
2015; 5 (6): e607-13
- **Noninvasive pulmonary nodule elastometry by CT and deformable image registration.** *Radiotherapy and oncology*
Negahdar, M., Fasola, C. E., Yu, A. S., von Eyben, R., Yamamoto, T., Diehn, M., Fleischmann, D., Tian, L., Loo, B. W., Maxim, P. G.
2015; 115 (1): 35-40
- **Monitoring external beam radiotherapy using real-time beam visualization.** *Medical physics*
Jenkins, C. H., Naczynski, D. J., Yu, S. S., Xing, L.
2015; 42 (1): 5-?
- **Regional distribution of SGLT activity in rat brain in vivo** *AMERICAN JOURNAL OF PHYSIOLOGY-CELL PHYSIOLOGY*
Yu, A. S., Hirayama, B. A., Timbol, G., Liu, J., Diez-Sampedro, A., Kepe, V., Satyamurthy, N., Huang, S., Wright, E. M., Barrio, J. R.
2013; 304 (3): C240-C247
- **Functional expression of SGLTs in rat brain** *AMERICAN JOURNAL OF PHYSIOLOGY-CELL PHYSIOLOGY*
Yu, A. S., Hirayama, B. A., Timbol, G., Liu, J., Basarah, E., Kepe, V., Satyamurthy, N., Huang, S., Wright, E. M., Barrio, J. R.

2010; 299 (6): C1277-C1284

- **Quantification of Cerebral Glucose Metabolic Rate in Mice Using F-18-FDG and Small-Animal PET** *JOURNAL OF NUCLEAR MEDICINE*
Yu, A. S., Lin, H., Huang, S., Phelps, M. E., Wu, H.
2009; 50 (6): 966-973
- **In vivo quantitation of glucose metabolism in mice using small-animal PET and a microfluidic device** *JOURNAL OF NUCLEAR MEDICINE*
Wu, H., Sui, G., Lee, C., Prins, M. L., Ladno, W., Lin, H., Yu, A. S., Phelps, M. E., Huang, S.
2007; 48 (5): 837-845
- **Bright fluorescent nanodiamonds: No photobleaching and low cytotoxicity** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Yu, S. J., Kang, M. W., Chang, H. C., Chen, K. M., Yu, Y. C.
2005; 127 (50): 17604-17605