Stanford

Luis Soto

Postdoctoral Scholar, Radiation Therapy

Bio

PROFESSIONAL EDUCATION

- Doctor of Philosophy, Stanford University , CANBI-PHD (2021)
- PhD, Stanford University , Cancer Biology (2021)
- M.S., San Francisco State University , Cell & Molecular Biology (2014)
- B.S., San Francisco State University , Cell & Molecular Biology (2012)

STANFORD ADVISORS

- Billy Loo, Postdoctoral Faculty Sponsor

Publications

PUBLICATIONS

- **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

- **Rapid Sterilization of Clinical Apheresis Blood Products using Ultra-High Dose Rate Radiation.** *bioRxiv : the preprint server for biology*

  Melemenidis, S., Nguyen, K. D., Baraceros-Pineda, R., Barclay, C. K., Bautista, J., Lau, H., Ashraf, M. R., Manjappa, R., Dutt, S., Soto, L. A., Katila, N., Lau, B., Visvanathan, et al

  2024

- **Dosimetric calibration of anatomy-specific ultra-high dose rate electron irradiation platform for preclinical FLASH radiobiology experiments.** *Medical physics*

  Wang, J., Melemenidis, S., Manjappa, R., Viswanathan, V., Ashraf, R. M., Levy, K., Skinner, L. B., Soto, L. A., Chow, S., Lau, B., Ko, R. B., Graves, E. E., Yu, et al

  2024

- **A multi-institutional study to investigate the sparing effect after whole brain electron FLASH in mice: Reproducibility and temporal evolution of functional, electrophysiological, and neurogenic endpoints.** *Radiotherapy and oncology : journal of the European Society for Therapeutic Radiology and Oncology*

  Drayson, O. G., Melemenidis, S., Katila, N., Viswanathan, V., Kramár, E. A., Zhang, R., Kim, R., Ru, N., Petit, B., Dutt, S., Manjappa, R., Ramish Ashraf, M., Lau, et al

  2024: 110534

- **Laminin-associated integrins mediate Diffuse Intrinsic Pontine Glioma infiltration and therapy response within a neural assembloid model.** *Acta neuropathologica communications*

  Sinha, S., Huang, M. S., Mikos, G., Bedi, Y., Soto, L., Lensch, S., Ayushman, M., Bintu, L., Bhutani, N., Heilshorn, S. C., Yang, F.

  2024; 12 (1): 71

- **Multi-Institutional Audit of FLASH and Conventional Dosimetry with a 3D-Printed Anatomically Realistic Mouse Phantom.** *International journal of radiation oncology, biology, physics*

  Ashraf, M. R., Melemenidis, S., Liu, K., Grilj, V., Jansen, J., Velasquez, B., Connell, L., Schulz, J. B., Bailat, C., Libed, A., Manjappa, R., Dutt, S., Soto, et al

2024

- **Exploring deep learning for estimating the isoeffective dose of FLASH irradiation from mouse intestinal histology images.** *International journal of radiation oncology, biology, physics*

  Fu, J., Yang, Z., Melemenidis, S., Viswanathan, V., Dutt, S., Manjappa, R., Lau, B., Soto, L. A., Ashraf, R., Skinner, L., Yu, S. J., Surucu, M., Casey, et al

  2024

- **FLASH-RT does not affect chromosome translocations and junction structures beyond that of CONV-RT dose-rates.** *Radiotherapy and oncology : journal of the European Society for Therapeutic Radiology and Oncology*

  Barghouth, P. G., Melemenidis, S., Montay-Gruel, P., Ollivier, J., Viswanathan, V., Jorge, P. G., Soto, L. A., Lau, B. C., Sadeghi, C., Edlabadkar, A., Zhang, R., Ru, N., Baulch, et al

  2023: 109906

- **Human enteroids as a tool to study conventional and ultra-high dose rate radiation.** *Integrative biology : quantitative biosciences from nano to macro*

  Klett, K. C., Martin-Villa, B. C., Villarreal, V. S., Melemenidis, S., Viswanathan, V., Manjappa, R., Ashraf, M. R., Soto, L., Lau, B., Dutt, S., Rankin, E. B., Loo, B. W., Heilshorn, et al

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- **FLASH-RT does not affect chromosome translocations and junction structures beyond that of CONV-RT dose-rates.** *bioRxiv : the preprint server for biology*

  Barghouth, P. G., Melemenidis, S., Montay-Gruel, P., Ollivier, J., Viswanathan, V., Jorge, P. G., Soto, L. A., Lau, B. C., Sadeghi, C., Edlabadkar, A., Manjappa, R., Wang, J., Bouteiller, et al

  2023

- **Real-time optical oximetry during FLASH radiotherapy using a phosphorescent nanoprobe.** *Radiotherapy and oncology : journal of the European Society for Therapeutic Radiology and Oncology*

  Ha, B., Liang, K., Liu, C., Melemenidis, S., Manjappa, R., Viswanathan, V., Das, N., Ashraf, R., Lau, B., Soto, L., Graves, E. E., Rao, J., Loo, et al

  2022

- **Evaluating the Reproducibility of Mouse Anatomy under Rotation in a Custom Immobilization Device for Conformal FLASH Radiotherapy.** *Radiation research*

  Ko, R. B., Soto, L. A., von Eyben, R. n., Melemenidis, S. n., Rankin, E. B., Maxim, P. G., Graves, E. E., Loo, B. W.

  2020

- **A near-infrared phosphorescent nanoprobe enables quantitative, longitudinal imaging of tumor hypoxia dynamics during radiotherapy.** *Cancer research*

  Zheng, X., Cui, L., Chen, M., Soto, L. A., Graves, E. E., Rao, J.

  2019

- **Macrophages Promote Circulating Tumor Cell-Mediated Local Recurrence following Radiotherapy in Immunosuppressed Patients** *CANCER RESEARCH*

  Rafat, M., Aguilera, T. A., Vilalta, M., Bronsart, L. L., Soto, L. A., von Eyben, R., Golla, M. A., Ahrari, Y., Melemenidis, S., Afghahi, A., Jenkins, M. J., Kurian, A. W., Horst, et al

  2018; 78 (15): 4241-4252

- **The role of granulocyte macrophage colony stimulating factor (GM-CSF) in radiation-induced tumor cell migration** *CLINICAL & EXPERIMENTAL METASTASIS*

  Vilalta, M., Brune, J., Rafat, M., Soto, L., Graves, E. E.

  2018; 35 (4): 247-254

- **The role of granulocyte macrophage colony stimulating factor (GM-CSF) in radiation-induced tumor cell migration.** *Clinical & experimental metastasis*

  Vilalta, M., Brune, J., Rafat, M., Soto, L., Graves, E. E.

  2018

- **Macrophages Promote Circulating Tumor Cell-Mediated Local Recurrence Following Radiation Therapy in Immunosuppressed Patients.** *Cancer research*

  Rafat, M. n., Aguilera, T. A., Vilalta, M. n., Bronsart, L. L., Soto, L. A., von Eyben, R. n., Golla, M. A., Ahrari, Y. n., Melemenidis, S. n., Afghahi, A. n., Jenkins, M. J., Kurian, A. W., Horst, et al

  2018