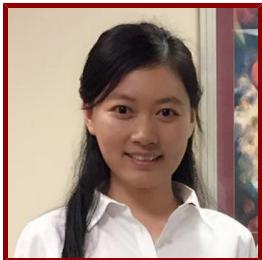


Stanford



Lu,Guolan

Instructor, Otolaryngology (Head and Neck Surgery)

Bio

ACADEMIC APPOINTMENTS

- Instructor, Otolaryngology (Head and Neck Surgery)

HONORS AND AWARDS

- NIH K99/R00 Pathway to Independence Award, NCI (2022)
- Stanford Translational Medicine Scholar, Stanford (2022)
- Stanford Molecular Imaging Scholar (SMIS Fellow), Stanford (2018-2021)
- Student Travel Award, World Molecular Imaging Congress (WMIC) (2017)
- Outstanding Translational Research Award, Department of Biomedical Engineering at Georgia Institute of Technology and Emory University (2016)
- Rising Stars in Biomedical Engineering and Science, Massachusetts Institute of Technology, Cambridge (2016)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, Georgia Institute of Technology and Emory University , Biomedical Engineering
- Master of Science, Georgia Institute of Technology , Electrical and Computer Engineering

Publications

PUBLICATIONS

- **Highly multiplexed spatial profiling with CODEX: bioinformatic analysis and application in human disease.** *Seminars in immunopathology* Kuswanto, W., Nolan, G., Lu, G. 2022
- **A real-time GPU-accelerated parallelized image processor for large-scale multiplexed fluorescence microscopy data.** *Frontiers in immunology* Lu, G., Baertsch, M. A., Hickey, J. W., Goltsev, Y., Rech, A. J., Mani, L., Forgo, E., Kong, C., Jiang, S., Nolan, G. P., Rosenthal, E. L. 2022; 13: 981825
- **Tumour-specific fluorescence-guided surgery for pancreatic cancer using panitumumab-IRDye800CW: a phase 1 single-centre, open-label, single-arm, dose-escalation study.** *The lancet. Gastroenterology & hepatology* Lu, G., van den Berg, N. S., Martin, B. A., Nishio, N., Hart, Z. P., van Keulen, S., Fakurnejad, S., Chirita, S. U., Raymundo, R. C., Yi, G., Zhou, Q., Fisher, G. A., Rosenthal, et al 2020
- **Translating a fluorescent DNA-repair inhibitor.** *Nature biomedical engineering* Lu, G., Rosenthal, E. L. 2020; 4 (3): 247–49

- **Predicting Therapeutic Antibody Delivery into Human Head and Neck Cancers.** *Clinical cancer research : an official journal of the American Association for Cancer Research*
Lu, G., Fakurnejad, S., Martin, B. A., van den Berg, N. S., van Keulen, S., Nishio, N., Zhu, A. J., Chirita, S. U., Zhou, Q., Gao, R. W., Kong, C. S., Fischbein, N., Penta, et al
2020
- **Co-administered antibody improves penetration of antibody-dye conjugate into human cancers with implications for antibody-drug conjugates.** *Nature communications*
Lu, G., Nishio, N., van den Berg, N. S., Martin, B. A., Fakurnejad, S., van Keulen, S., Colevas, A. D., Thurber, G. M., Rosenthal, E. L.
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- **Histopathology Feature Mining and Association with Hyperspectral Imaging for the Detection of Squamous Neoplasia.** *Scientific reports*
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2019; 9 (1): 17863
- **Detection and delineation of squamous neoplasia with hyperspectral imaging in a mouse model of tongue carcinogenesis** *Journal of Biophotonics*
Lu, G., Wang, D., Qin, X., Muller, S., Wang, X., Chen, A. Y., Chen, Z. G., Fei, B.
2018 ; 11 (3): e201700078
- **Detection of Head and Neck Cancer in Surgical Specimens Using Quantitative Hyperspectral Imaging.** *Clinical cancer research : an official journal of the American Association for Cancer Research*
Lu, G., Little, J. V., Wang, X., Zhang, H., Patel, M. R., Griffith, C. C., El-Deiry, M. W., Chen, A. Y., Fei, B.
2017; 23 (18): 5426-5436
- **Deep convolutional neural networks for classifying head and neck cancer using hyperspectral imaging.** *Journal of biomedical optics*
Halicek, M., Lu, G., Little, J. V., Wang, X., Patel, M., Griffith, C. C., El-Deiry, M. W., Chen, A. Y., Fei, B.
2017; 22 (6): 60503
- **A Minimum Spanning Forest-Based Method for Noninvasive Cancer Detection With Hyperspectral Imaging** *IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING*
Pike, R., Lu, G., Wang, D., Chen, Z. G., Fei, B.
2016; 63 (3): 653-663
- **Framework for hyperspectral image processing and quantification for cancer detection during animal tumor surgery** *JOURNAL OF BIOMEDICAL OPTICS*
Lu, G., Wang, D., Qin, X., Halig, L., Muller, S., Zhang, H., Chen, A., Pogue, B. W., Chen, Z. G., Fei, B.
2015; 20 (12)
- **Spectral-spatial classification for noninvasive cancer detection using hyperspectral imaging** *JOURNAL OF BIOMEDICAL OPTICS*
Lu, G., Halig, L., Wang, D., Qin, X., Chen, Z. G., Fei, B.
2014; 19 (10)
- **Semantic interpretation of robust imaging features for Fuhrman grading of renal carcinoma.** *Conference proceedings : ... Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Annual Conference*
Champion, A., Lu, G., Walker, M., Kothari, S., Osunkoya, A. O., Wang, M. D.
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- **Medical hyperspectral imaging: a review** *JOURNAL OF BIOMEDICAL OPTICS*
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- **Spatial Dissection of the Bone Marrow Microenvironment in Multiple Myeloma By High Dimensional Multiplex Tissue Imaging**
Baertsch, M., Brobeil, A., Hickey, J., Haist, M., Poos, A., Lu, G., Kuswanto, W., Schuerch, C., Voehringer, H., Huber, W., Mechtersheimer, G., Mueller-Tidow, C., Schirmacher, et al
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- **A spatial map of human macrophage niches reveals context-dependent macrophage functions in colon and breast cancer.** *Research square*
Matusiak, M., Hickey, J. W., Luca, B., Lu, G., Kidziński, L., Zhu, S., Colburg, D. R., Phillips, D. J., Brubaker, S. W., Charville, G. W., Shen, J., Nolan, G. P., Newman, et al
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- **Metastatic and sentinel lymph node mapping using intravenously delivered Panitumumab-IRDye800CW.** *Theranostics*
Krishnan, G., van den Berg, N. S., Nishio, N., Juniper, G., Pei, J., Zhou, Q., Lu, G., Lee, Y. J., Ramos, K., Iagaru, A. H., Baik, F. M., Colevas, A. D., Martin, et al
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- **EGFR-targeted intraoperative fluorescence imaging detects high-grade glioma with panitumumab-IRDye800 in a phase 1 clinical trial.** *Theranostics*
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- **Molecular imaging of a fluorescent antibody against epidermal growth factor receptor detects high-grade glioma.** *Scientific reports*
Zhou, Q., Vega Leonel, J. C., Santoso, M. R., Wilson, C., van den Berg, N. S., Chan, C. T., Aryal, M., Vogel, H., Cayrol, R., Mandella, M. J., Schonig, F., Lu, G., Gambhir, et al
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- **Intraoperative Fluorescence-Guided Surgery in Head and Neck Squamous Cell Carcinoma.** *The Laryngoscope*
Lee, Y. J., Krishnan, G., Nishio, N., van den Berg, N. S., Lu, G., Martin, B. A., van Keulen, S., Colevas, A. D., Kapoor, S., Liu, J. T., Rosenthal, E. L.
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- **EGFR-targeted intraoperative fluorescence imaging detects high-grade glioma with panitumumab-IRDye800 in a phase 1 clinical trial** *Theranostics*
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- **Effect of Formalin Fixation for Near-Infrared Fluorescence Imaging with an Antibody-Dye Conjugate in Head and Neck Cancer Patients.** *Molecular imaging and biology*
Kapoor, S., Lu, G., van den Berg, N. S., Krishnan, G., Pei, J., Zhou, Q., Martin, B. A., Baik, F. M., Rosenthal, E. L., Nishio, N.
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- **Intraoperative Fluorescence-Guided Surgery in Head and Neck Squamous Cell Carcinoma** *LARYNGOSCOPE*
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Kasten, B. B., Jiang, K., Cole, D., Jani, A., Udayakumar, N., Gillespie, G. Y., Lu, G., Dai, T., Rosenthal, E. L., Markert, J. M., Rao, J., Warram, J. M.
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- **Optical molecular imaging can differentiate metastatic from benign lymph nodes in head and neck cancer.** *Nature communications*
Nishio, N., van den Berg, N. S., van Keulen, S., Martin, B. A., Fakurnejad, S., Teraphongphom, N., Chirita, S. U., Oberhelman, N. J., Lu, G., Horton, C. E., Kaplan, M. J., Divi, V., Colevas, et al
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● **Probe-based fluorescence dosimetry of an antibody-dye conjugate to identify head and neck cancer as a first step to fluorescence-guided tissue preselection for pathological assessment.** *Head & neck*

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2019

● **Fluorescence molecular imaging for identification of high-grade dysplasia in patients with head and neck cancer.** *Oral oncology*

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2019; 97: 50–55

● **The Clinical Application of Fluorescence-Guided Surgery in Head and Neck Cancer** *JOURNAL OF NUCLEAR MEDICINE*

van Keulen, S., Nishio, N., Fakurnejad, S., Birkeland, A., Martin, B. A., Lu, G., Zhou, Q., Chirita, S. U., Forouzanfar, T., Colevas, A., van den Berg, N. S., Rosenthal, E. L.
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● **Optimal Dosing Strategy for Fluorescence-Guided Surgery with Panitumumab-IRDye800CW in Head and Neck Cancer.** *Molecular imaging and biology : MIB : the official publication of the Academy of Molecular Imaging*

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2019

● **The Clinical Application of Fluorescence-Guided Surgery in Head and Neck Cancer.** *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*

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● **Rapid, non-invasive fluorescence margin assessment: Optical specimen mapping in oral squamous cell carcinoma.** *Oral oncology*

van Keulen, S., van den Berg, N. S., Nishio, N., Birkeland, A., Zhou, Q., Lu, G., Wang, H., Middendorf, L., Forouzanfar, T., Martin, B. A., Colevas, A. D., Rosenthal, E. L.
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● **Intraoperative Tumor Assessment Using Real-Time Molecular Imaging in Head and Neck Cancer Patients.** *Journal of the American College of Surgeons*

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● **Rapid, non-invasive fluorescence margin assessment: Optical specimen mapping in oral squamous cell carcinoma** *ORAL ONCOLOGY*

van Keulen, S., van den Berg, N. S., Nishio, N., Birkeland, A., Zhou, Q., Lu, G., Wang, H., Middendorf, L., Forouzanfar, T., Martin, B. A., Colevas, A., Rosenthal, E. L.
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● **Selective modification of fluciclovine (F-18) transport in prostate carcinoma xenografts** *AMINO ACIDS*

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2018; 50 (9): 1301–5

● **Determination of Tumor Margins with Surgical Specimen Mapping Using Near-Infrared Fluorescence.** *Cancer research*

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2018

● **Ultrasound Imaging Technologies for Breast Cancer Detection and Management: A Review.** *Ultrasound in medicine & biology*

Guo, R., Lu, G., Qin, B., Fei, B.
2018; 44 (1): 37-70

● **Label-free reflectance hyperspectral imaging for tumor margin assessment: a pilot study on surgical specimens of cancer patients.** *Journal of biomedical optics*

Fei, B., Lu, G., Wang, X., Zhang, H., Little, J. V., Patel, M. R., Griffith, C. C., El-Diery, M. W., Chen, A. Y.
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● **Functional MRI of the Eustachian Tubes in Patients With Nasopharyngeal Carcinoma: Correlation With Middle Ear Effusion and Tumor Invasion** *AMERICAN JOURNAL OF ROENTGENOLOGY*

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● **Simulating cardiac ultrasound image based on MR diffusion tensor imaging** *MEDICAL PHYSICS*

Qin, X., Wang, S., Shen, M., Lu, G., Zhang, X., Wagner, M. B., Fei, B.

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