

Stanford



Zhihai Qiu

Postdoctoral Research Fellow, Radiological Sciences Laboratory

Bio

HONORS AND AWARDS

- Micro Fund Award, The Hong Kong Polytechnic University (2019)
- Top36, Jumpstarter (2019)
- Tianqiao and Chrissy Chen Fellowship, Cold Spring Harbor Laboratory (2018)
- 1st Runner-up, Student Research Award, The Hong Kong Medical and Healthcare Device Industries Association (2017)
- Travel Award, IEEE International Ultrasonics symposium (2017)
- Best Student Oral Presentation Award, The 8th WACBE World Congress on Bioengineering (2017)
- Talent Development Scholarship, HKSAR Government Scholarship Fund (2016/2017)
- Third Prize of Tianqiao and Chrissy Chen Fellowship, Cold Spring Harbor Asia, Francis Crick Symposium (2017)
- Travel Scholarship, Janelia conference: From light to sound, frontiers in deep tissue imaging (2017)
- Young Investigator Travel Award, 2nd International Brain Stimulation Conference (2017)
- Biophysical Journal Outstanding Poster Award in the student category, Biophysical society (2016)
- Best Student Presentation Award, The 11th International Conference on Photonics and Imaging in Biology and Medicine (2013)

PROFESSIONAL EDUCATION

- Bachelor of Science, Fujian Normal University (2012)
- Master of Philosophy, Fujian Normal University (2015)
- Doctor of Philosophy, Hong Kong Polytechnic University (2019)

STANFORD ADVISORS

- Kim Pauly, Postdoctoral Faculty Sponsor

PATENTS

- Lei Sun, Zhihai Qiu, Jinghui Guo. "United States Patent US20200069801A1 Enhanced selective cellular stimulation by ultrasound", The Hong Kong Polytechnic University, Mar 2, 2020
- Lei Sun, Zhihai Qiu, Yaoheng Yang, Jinghui Guo, Shashwati Kala. "United States Patent US20190308035A1 A non-invasive method for selective neural stimulation by ultrasound", The Hong Kong Polytechnic University, Mar 10, 2018

Research & Scholarship

RESEARCH INTERESTS

- Brain and Learning Sciences

LAB AFFILIATIONS

- Kim Pauly (9/1/2019)

Publications

PUBLICATIONS

- **Biogenic nanobubbles for effective oxygen delivery and enhanced photodynamic therapy of cancer.** *Acta biomaterialia*
Song, L., Wang, G., Hou, X., Kala, S., Qiu, Z., Wong, K. F., Cao, F., Sun, L.
2020
- **The Mechanosensitive Ion Channel Piezo1 Significantly Mediates In Vitro Ultrasonic Stimulation of Neurons** *ISCIENCE*
Qiu, Z., Guo, J., Kala, S., Zhu, J., Xian, Q., Qiu, W., Li, G., Zhu, T., Meng, L., Zhang, R., Chan, H., Zheng, H., Sun, et al
2019; 21: 448+
- **Nonlinear photoacoustic generation by pump-probe excitation**
Cao, F., Qiu, Z., Wong, K., Lai, P., Sun, L., Oraevsky, A. A., Wang, L. V.
SPIE-INT SOC OPTICAL ENGINEERING.2019
- **The mechanosensitive ion channel Piezo1 significantly mediates in vitro ultrasonic stimulation of neurons** *iScience*
Qiu, Z., Guo, J., Kala, S., Zhu, J., Xian, Q., Qiu, W., Li, G., Zhu, T., Meng, L., Zhang, R., Chan, H. C., Zheng, H., Sun, et al
2019
- **PINK1/Parkin-Mediated Mitophagy Promotes Resistance to Sonodynamic Therapy.** *Cellular physiology and biochemistry : international journal of experimental cellular physiology, biochemistry, and pharmacology*
Song, L., Huang, Y., Hou, X., Yang, Y., Kala, S., Qiu, Z., Zhang, R., Sun, L.
2018; 49 (5): 1825–39
- **Temporal evolutionary acoustic pattern generated by a 3D printed Fresnel lens-focused transducer**
Lin, P., Fei, C., Chen, Q., Sun, X., Wu, Y., Qiu, Z., Sun, L., IEEE
IEEE.2018
- **Visualization of Porphyrin-Based Photosensitizer Distribution from Fluorescence Images In Vivo Using an Optimized RGB Camera** *JOURNAL OF APPLIED SPECTROSCOPY*
Liu, L., Huang, Z., Qiu, Z., Li, B.
2018; 84 (6): 1124–30
- **Photoacoustic Imaging in Oxygen Detection** *APPLIED SCIENCES-BASEL*
Cao, F., Qiu, Z., Li, H., Lai, P.
2017; 7 (12)
- **Ultrasonic Characteristics and Cellular Properties of Anabaena Gas Vesicles.** *Ultrasound in medicine & biology*
Yang, Y., Qiu, Z., Hou, X., Sun, L.
2017; 43 (12): 2862–70
- **Determination of Optical and Microvascular Parameters of Port Wine Stains Using Diffuse Reflectance Spectroscopy.** *Advances in experimental medicine and biology*
Qiu, Z., Yao, G., Chen, D., Wang, Y., Gu, Y., Li, B.
2016; 923: 359–65
- **Deep brain stimulation of pallidal versus subthalamic for patients with Parkinson's disease: a meta-analysis of controlled clinical trials.** *Neuropsychiatric disease and treatment*
Xu, F., Ma, W., Huang, Y., Qiu, Z., Sun, L.
2016; 12: 1435–44
- **Effect of oxygen concentration on singlet oxygen luminescence detection**
Chen, L., Lin, L., Li, Y., Lin, H., Qiu, Z., Gu, Y., Li, B.
ELSEVIER SCIENCE BV.2014: 98–102

- **Monitoring blood volume fraction and oxygen saturation in port-wine stains during vascular targeted photodynamic therapy with diffuse reflectance spectroscopy** *Photonics & Lasers in Medicine*

Qiu, Z., Chen, D., Wang, Y., Yao, G., Gu, Y., Li, B.
2014; 3 (3)

- **Advanced optical techniques for monitoring dosimetric parameters in photodynamic therapy**

Li, B., Qiu, Z., Huang, Z., Luo, Q., Gu, Y., Li, X. D.
SPIE-INT SOC OPTICAL ENGINEERING.2012