Curriculum Vitae of Pai-Chi Li

I. Address

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II. Education

School	Dates	<u>Degree</u>	<u>Major</u>
University of Michigan	1991-1994	Ph.D.	EE: Systems
University of Michigan	1989-1990	M.S.	EE: Systems
National Taiwan University	1983-1987	B.S.	Electrical Engineering

III. Work Experience

Member, Advanced Research Advisory Committee (ARAC), Industrial Technology Research Institute (ITRI), Jan. 2019 – present.

<u>Vice President for Research and Development</u>, National Taiwan University, Jan. 2019 – Jan. 2023.

<u>Director</u>, Industry Liaison Office, National Taiwan University, Jan. 2019 – Feb. 2023. <u>Convener</u>, Biomedical Engineering Program, Ministry of Science and Technology, Taiwan, Jan. 2016 - Dec. 2018.

<u>Associate Dean</u>, College of Electrical Engineering and Computer Science, National Taiwan University, Aug. 2015 - Jul. 2018.

Distinguished Professor, National Taiwan University, Aug. 2008 - present.

Director, Taiwanese Society for Molecular Imaging, Nov. 2012 - present.

<u>President</u>, Coretronic Display Solution Corporation, Jul, 2010 - Jul. 2011. (*on leave from National Taiwan University*)

<u>Senior Vice President</u>, Coretronic Display Solution Corporation, Aug. 2009 - Jul. 2010. (*on leave from National Taiwan University*)

Founding Director, National Taiwan University YongLin Biomedical Engineering Center, Jan. 2009 - Jul. 2009. <u>Founding Director</u>, Institute of Biomedical Electronics and Bioinformatics, National Taiwan University, Taipei, Taiwan, Aug. 2006 – Jul. 2009.

<u>Professor</u>, Electrical Engineering, National Taiwan University, Taipei, Taiwan, Aug. 2003 - present.

Adjunct Investigator, Division of Medical Engineering Research, National Health Research Institutes, Taiwan, Jun. 2004 - present.

<u>Associate Professor</u>, Electrical Engineering, National Taiwan University, Taipei, Taiwan, Aug. 1998 – Jul. 2003.

Adjunct Associate Investigator, Division of Medical Engineering Research, National Health Research Institutes, Taiwan, May 2001 - May 2004.

<u>Assistant Professor</u>, Electrical Engineering, National Taiwan University, Taipei, Taiwan, Aug. 1997 – Jul. 1998.

<u>Member of Technical Staff (System Design Engineer)</u>, Imaging Technologies, Sequoia Engineering, Acuson Corporation, Mountain View, CA 94039-7393, U.S.A., 1994-1997.

<u>Research Assistant</u>, Department of Electrical Engineering and Computer Science, University of Michigan, Ann Arbor, MI 48109-2122, U.S.A., 1990-1994.

Consultant, Computer Center, National Taiwan University, Taipei, Taiwan, 1987.

IV. Honors and Awards

IFMBE Otto Schmitt Award, 2022.

Merit MOST Research Fellow Award, Ministry of Science and Technology, 2022

AmTRAN Chair, 2019.

Academia Award, Ministry of Education, 2019.

IEEE UFFC Distinguished Lecturer, 2019/1-2020/6.

Outstanding Engineering Professors Award, Chinese Institute of Engineers, 2018.

IFMBE Vladimir K. Zworykin Award, 2018.

Y. Z. Hsu Science Award, 2017.

Getac Chair, 2016, 2017.

SPIE Fellow, 2015.

TBF (Taiwan Bio-development Foundation) Chair in Biotechnology, 2014.

Outstanding Researcher Award, National Taiwan University, 2013.

AIUM Fellow, 2012.

Distinguished Research Award, National Science Council, 2012.

National Innovation Award, 2011.

NTU Distinguished Innovation Research Reward, National Taiwan University, 2011.

Outstanding Researcher Award, National Taiwan University, 2010.

Distinguished Research Award, National Science Council, 2009.

IAMBE Fellow, 2009. IEEE Fellow, 2008. Distinguished Research Award, National Taiwan University, 2006. Outstanding Electrical Engineer Professor Award, Chinese Institute of Electrical Engineering, 2005. Distinguished Research Award, National Science Council, 2004. Outstanding Researcher Award, National Taiwan University, 2003. Dr. Wu Dayou Research Award, National Science Council, 2002. Outstanding Young Electrical Engineer Award, Chinese Institute of Electrical Engineering, 2002. Distinguished Industrial Collaboration Award, Ministry of Education, 2002.

V. Editorship

Deputy Editor, Ultrasound in Medicine and Biology, 2023-present.

Editorial Board, Photoacoustics, 2013-present.

<u>Associate Editor</u>, Ultrasound in Medicine and Biology, 2011-2022 (was on the Editorial Board prior to that).

Editor-in-Chief of Journal of Medical and Biological Engineering, 2009-2014.

Editorial Board, Ultrasonic Imaging, 2005-present.

Editor, Science Development, National Science Council, 2003-present.

Associate Editor, IEEE Transactions on UFFC, 2002-present.

Editorial Board, Chinese Journal of Medical Imaging Technology, 2014-present. <u>Deputy Editor-in-Chief</u>, Journal of Medical and Biological Engineering, 2007-2009. <u>Guest Editor</u>, Journal of Medical and Biological Engineering, Special issue on Biomedical Ultrasound, December, 2005.

VI. Professional Activities and Societies

- Board Member of International Congress on Ultrasonics (ICU), 2022/4-present
- IAMBE Fellow Nominating Committee, 2011-present.
- Elected Member of IEEE UFFC AdCom, 2011-2013, 2018-2020.
- Safety Committee of AFSUMB (Asian Federation of Societies for Ultrasound in Medicine and Biology), 2011-present.
- Medical Ultrasound Instruments Innovative Research Committee Member of SUMROC (Taiwan Society of Ultrasound in Medicine), 2010-present.
- Medical Ultrasound Research and Development Committee Member of SUMROC (Taiwan Society of Ultrasound in Medicine), 2010-present.
- IEEE UFFC Fellow Committee (when not serving as a reference), 2010-present.
- Member of Acoustical Society of America, 2003-present.

- Member of SPIE, 2004-present.
- Member of American Institute of Ultrasound in Medicine, 2003-present.

Technical referee of the following journals:

- Nature Reviews Bioengineering
- Nature Nanotechnology
- Nature Communications
- Optics Letters
- Optics Express
- Journal of Biomedical Optics
- Journal of Physics D: Applied Physics
- IEEE Transactions on Ultrasonics, Ferroelectrics and Frequency Control
- IEEE Transactions on Medical Imaging
- IEEE Transactions on Biomedical Engineering
- IEEE Transactions on Circuits and Systems I
- IEEE Transactions on Circuits and Systems II
- IEEE Journal on Selected Topics in Quantum Electronics
- Ultrasound in Medicine and Biology
- Journal of Acoustical Society of America
- Ultrasonic Imaging
- Optics & Laser Technology
- Annals of Biomedical Engineering
- Journal of Medical Ultrasound
- Journal of Medical and Biological Engineering
- Biomedical Engineering Applications, Basis, Communications

Organizing committee of international conferences:

- General co-Chair, IEEE UFFC Joint Symposium, 2024
- Scientific Committee Chair, The 5th Global Conference on Biomedical Engineering (GCBME), 2022
- Scientific Committee Chair, The 4th Global Conference on Biomedical Engineering (GCBME), 2020
- Scientific Committee Chair, The 9th World Congress on Bioengineering (WACBE), 2019
- Program Chair, International Forum on Medical Imaging in Asia, 2017
- General (co-)Chair, International Conference on Biomedical Ultrasound (ICBMU), 2013, 2014, 2016, 2017, 2019.
- Co-Chair, Workshop on Bio-inspired and Medical Device Innovation, 2015

- General Chair, IEEE Ultrasonics Symposium, 2015
- Technical Program Committee, IEEE Biomedical Circuits and Systems Conference (BioCAS), 2012
- Program Committee, The Asian Conference on Computer Aided Surgery (ACCAS), 2012
- Academic Steering Committee, 1st International Symposium on Ultrasound Molecular Imaging
- International Committee, IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI), 2012
- Co-Chair, Scientific Committee, Symposium on Piezoelectricity, Acoustic waves, and Device Applications, 2011
- Safety Committee, Asian Federation of Societies for Ultrasound in Medicine and Biology (AFSUMB), 2011
- Short Course Chair, IEEE Ultrasonics Symposium, 2011
- Technical Program Committee, Optics & Photonics Congress/Biomedical Optics and 3D Imaging, 2010
- Organizing Committee, Asian Oceanian Congress of Radiology, 2010
- Track Chair, Medical Physics and Biomedical Engineering/World Congress, 2009
- General Chair, International Forum on Medical Imaging in Asia, 2009
- General Chair, International Workshop on CAD, 2006
- Technical Program Committee, SPIE Photonics West, 2009-present
- Technical Program Committee, IEEE Ultrasonics Symposium, 2007-present

Active reviewer of government supported projects:

- Executive Yuan
- National Science Council/Ministry of Science and Technology
- Ministry of Economic Affairs
- Ministry of Education

Academic Advisory Committee:

- National Taipei University of Technology
- University of Hong Kong, the International Advisory Committee of the Biomedical Engineering Programme, (2021/9/1-present)
- National Central University
- National Yang-Ming University
- Chang Gung University
- Southern Taiwan University
- National Taiwan University of Science and Technology

Consulting/Collaboration:

- Novatek Microelectronics Corp., Taiwan
- Siemens Ultrasound, USA
- U-Systems Inc., USA
- Chung-Shan Institute of Science and Technology, Taiwan
- Industrial Technology Research Institute, Taiwan
- Institute for Information Industry, Taiwan
- Computed Ultrasound Global, Taiwan
- Micro Star International, Taiwan
- ASUSTEK Computer Inc., Taiwan
- Chang Gung Medical Supplies & Equipment Corp., Taiwan
- Yong-Ling Foundation, Taiwan
- Coretronic Group, Taiwan
- New Deantronics, Taiwan
- GIS, Taiwan
- Qisda, Taiwan

VII. Student Thesis Advisory

Ph.D. Thesis (21):

- 1. <u>Chih-Kuang Yeh</u>: Ultrasonic quantitative blood flow estimation, 1/2004.
- 2. <u>Meng-Lin Li</u>: Coherence-factor-based adaptive ultrasound imaging, 1/2004.
- 3. <u>Sheng-Wen Huang</u>: Ultrasonic computed tomography of the breast using linear arrays, 7/2004.
- 4. <u>Che-Chou Shen</u>: Pulse inversion based ultrasonic nonlinear imaging, 12/2004.
- 5. <u>Wen-Chun Yeh</u>: Ultrasonic tissue characterization of liver, 1/2005.
- 6. <u>Geng-Shi Jeng</u>: Ultrasonic Vector Velocity Estimation in Swept-scan Using a K-space Approach, 7/2005.
- 7. <u>Chao-Kang Liao</u>: Optical absorption reconstruction and blood flow measurements using backward mode photoacoustic imaging, 7/2007.
- 8. Jian-Hung Liu: Devices and methods for ultrasonic small animal imaging, 7/2008.
- 9. <u>Ai-Ho Liao</u>: Techniques and applications of multi-modality small animal imaging in cancer research, 1/2009.
- 10. <u>Shun-Li Wang</u>: Aperture domain data processing and its applications in ultrasound imaging, 7/2009.
- 11. <u>Chen-Wei Wei</u>: Applications of gold nanoparticles in photoacoustic biomedical imaging, 7/2009.

- 12. <u>Yae-Lin Sheu</u>: Numerical analysis and its applications in photoacoustic imaging, 7/2010.
- 13. <u>Bao-Yu Hsieh</u>: Development of intravascular ultrasound/photoacoustic imaging system and probe, 7/2012.
- 14. <u>Yueh-Hsun Chuang</u>: Roles of cavitation and radiation force in sonothrombolysis and Drug Delivery, 7/2013.
- 15. <u>Yu-Hsin Wang</u>: Photoacoustic and ultrasound dual-modality imaging: system development and the applications of molecular probes, 7/2013.
- 16. <u>Chia-Lun Yeh</u>: Development of functional ultrasound for tendon diseases, 1/2015.
- 17. <u>U-Wai Lok</u>: Improving performance of real time software-based beamformers using data compression, 1/2017.
- 18. <u>Ching-Yen Lee</u>: Conformal Scanning and Automatic Tracking For 3D Breast Ultrasound, 7/2018.
- 19. <u>Pei-Yu Chao</u>: Laser Speckle Contrast Shear Wave Imaging: System Development and Applications in Mechanobiology, 7/2018.
- 20. <u>Shao-Lun Lu</u>: Tumor Microenvironments Stiffness and Radiosensitization-Modulating the Biophysical Cue through Sonoporation, 7/2022.
- 21. <u>Yuan-Yen Chang</u>: Deep Learning Based Gastrointestinal Endoscopic Anatomy Classification and Automatic Quality Assessment, 9/2022.
- 84 M.S. Thesis (as of April 2023)

VIII. Invited Papers/Presentations

- C.J. Chiang, J.M. Jenkins, L.A. DiCarlo, D. Lin and <u>P.-C. Li</u>, "Real-time arrhythmia identification from automated analysis of intraatrial and intraventricular electrograms", **invited paper**, Pacing and Electrophysiology, Vol. 16, No. 1, Part II, pp. 223-227, Jan. 1993.
- M. O'Donnell and <u>P.-C. Li</u>, "Adaptive large aperture array systems for ultrasound imaging", **invited paper**, 7th Congress of World Federation for Ultrasound in Medicine and Biology, Sapporo, Hokkaido, Japan, July 17-22, 1994.
- <u>P.-C. Li</u> and M. O'Donnell, "Ultrasound imaging with 2D anisotropic arrays: phase aberration correction", **invited paper**, 36th Annual Meeting and Exhibition of American Association of Physicists in Medicine, Anaheim, California, July 24-28, 1994.
- <u>P.-C. Li</u>, "Second harmonic generation using chirp excitation", invited paper, 5th Congress of the Asian Federation of Societies for Ultrasound in Medicine and Biology, Taipei, Taiwan, October 23-27, 1998.

- <u>P.-C. Li</u> and S.-W. Wang, "Physics and recent development of harmonic imaging", invited paper, International Perinatal Doppler Society 2000, Taipei, Taiwan, June 29-July 2, 2000.
- <u>P.-C. Li</u>, "The role of IC technologies on biomedical ultrasonics", invited paper, the IEEE International Workshop on BioMedical Circuits and Systems, Singapore, December 1-3, 2004.
- K. Lin, C. Hsieh, C. Yu, C. Pan, J. Chyi, S. Huang, <u>P.-C. Li</u>, S. K. Keller, S. P. DenBaars, C. Sun, "Generation, detection, and propagation of nano-acoustic waves in piezoelectric semiconductor", **invited paper**, SPIE International Symposium on Optoelectronics, San Jose, California, January 22-27, 2005.
- P.-C. Li and S.W. Huang, "Ultrasound tomography of the breast using linear arrays", invited paper, 2005 IEEE International Conference on Acoustics, Speech, and Signal Processing, Philadelphia, Pennsylvania, March 18-23, 2005.
- 9. <u>P.-C. Li</u>, "Ultrasonic small animal imaging", Department of Radiology, University of Chicago, May 23, 2005.
- <u>P.-C. Li</u>, "Biomedical ultrasonic imaging", keynote speech, Workshop on Ultrasonic Imaging Techniques and Clinical Applications, Ministry of Education, September 14, 2005.
- <u>P.-C. Li</u>, "Ultrasonic micro-imaging and photoacoustic imaging technologies: Recent developments", **invited paper**, Department of Biomedical Engineering, University of Southern California, January 24, 2006.
- 12. <u>P.-C. Li</u>, "Advanced imaging technologies using aperture domain processing", **invited paper**, U-Systems Inc., San Jose, California, January 25, 2006.
- <u>P.-C. Li</u>, M.-L. Li and G.-S. Jeng, "Improved ultrasonic small animal imaging", invited paper, the 9th Western Pacific Acoustics Conference, Seoul, Korea, June 26-28, 2006.
- P.-C. Li, S.-W. Huang and C.-H. Chang, "Parametric Ultrasonic Imaging Using Linear Arrays for Breast Cancer Detection", invited paper, Fortieth Annual Asilomar Conference on Signals, Systems, and Computers, Pacific Grove, California, USA, October 29-November 1, 2006.
- <u>P.-C. Li</u>, "Ultrasonic and photoacoustic molecular imaging: applications and challenges", invited paper, 2006 Taipei International Symposium of Molecular Imaging, Taipei, Taiwan, October 30-31, 2006.
- <u>P.-C. Li</u>, "Ultrasonic Microimaging for Small Animal Research", International Neuroscience Symposium on Advanced Neuroimaging (INSAN), invited paper, Taipei, Taiwan, December 9-10, 2006.

- C.-K. Sun, K.-H. Lin, Y.-C. Wen, T.-M. Liu, <u>P.-C. Li</u> and J.-I. Chyi, "Optical Piezoelectric Transducer based Nanoultrasonics", invited paper, 7th IEEE International Conference on Nanotechnology, August 2-5, 2007.
- <u>P.-C. Li</u>, C.-H. Chang, S.-W. Huang and H.-C. Yang, "New Approaches for Ultrasonic Breast Imaging", invited paper, IEICE Technical Committee on Medical Imaging, Okinawa, Japan, January 25-26, 2008.
- <u>P.-C. Li</u>, "Photoacoustic and Ultrasonic Molecular Imaging", International Symposium on Biomedical Engineering, Taoyuan, Taiwan, invited paper, December 12-13, 2008.
- 20. <u>P.-C. Li</u>, "Molecular Imaging at National Taiwan University", International Forum on Medical Imaging in Asia, **invited paper**, Taipei, Taiwan, January 19-21, 2009.
- S. Emelianov, <u>P.-C. Li</u> and M. O'Donnell, "Photoacoustics for Molecular Imaging & Therapy", invited paper, Physics Today, pp. 34-39, May 2009.
- 22. <u>P.-C. Li</u>, "Photoacoustic molecular imaging and targeted therapy using gold nanoparticles", 19th International Conference on Advanced Laser Technologies, **invited talk**, Golden Sands, Bulgaria, September 3-8, 2011.
- <u>P.-C. Li</u>, "Photoacoustic Imaging and Photothermal Therapy of Cancer", Post-Congress Symposium of 2010 World Molecular Imaging Congress (WMIC), Taipei, Taiwan, September 13-14, 2011.
- 24. <u>P.-C. Li</u>, "Acoustic power measurements and safety in medical ultrasound", AFSUMB Workshop, **invited talk**, Bali, Indonesia, November 19, 2011.
- <u>P-C. Li</u>, "Photoacoustic and photothermal techniques with gold nanoparticles for theragnosis", 16th International Conference on Photoacoustic and Photothermal Phenomena, invited talk, Merida, Mexico, November 27-December 1, 2011.
- <u>P-C. Li</u>, "Wireless neural stimulation using ultrasound", 2011 Symposium on Piezoelectricity, Acoustic waves, and Device Applications (SPAWDA 2011), invited talk, Shenzhen, China, December 9-11, 2011.
- 27. <u>P.-C. Li</u>, "Acoustics based multi-modality molecular imaging and targeted therapy", International Symposium on Ultrasound Molecular Imaging (ISUMI), **invited talk,** Chongqing, China, April 27-29, 2012.
- 28. <u>P.-C. Li</u>, "Ultrasound power measurements and clinical safety", 2012 Joint Congress of Medical Ultrasound, **invited talk**, Seoul, Korea, May 11-13, 2012.
- <u>P.-C. Li</u>, "Principles and applications of micro-ultrasound in pre-clinical molecular imaging", 2012 Small Animal Molecular Imaging Conference: Technology Development and Applications, **invited talk**, Chongqing, China, May 19, 2012.
- <u>P.-C. Li</u>, "Principles and applications of micro-ultrasound in pre-clinical molecular imaging", 2012 Small Animal Molecular Imaging Conference: Technology Development and Applications, **invited talk**, Beijing, China, May 21, 2012.

- 31. <u>P.-C. Li</u>, "Ultrasound and photoacoustic molecular imaging and current developments", Chinese Molecular Imaging Forum, **invited talk**, Harbin, China, July 5-6, 2012.
- <u>P.-C. Li</u>, "Applications of high frequency ultrasound in biomedical research", 4th National Conference on Laboratory Animal Science, **invited talk**, Kuala Lumpur, Malaysia, July 11-12, 2012.
- 33. <u>P.-C. Li</u>, "Ultrasound and photoacoustic small animal imaging", 8th SALAS Conference, **keynote speech**, Singapore, November 15-16, 2012.
- 34. <u>P.-C. Li</u>, "Acoustics-based multi-modality molecular imaging and targeted therapy", 4th Ultrasound Molecular Diagnosis and Therapy Conference (第 4 回超 音波分子診断治療研究会), **invited talk**, Fukuoka, Japan, March 2, 2013.
- 35. <u>P.-C. Li</u>, "The principle and applications of micro ultrasound in pre-clinical molecular imaging", The 5th Small Animal Molecular Imaging Symposium, **invited talk**, Shanghai/Beijing, China, June 4/6, 2013.
- <u>P.-C. Li</u>, "Ultrasound and photoacoustic molecular imaging and therapy", First Dalian International forum of Medical Imaging, **invited talk**, Dalian, China, June 10, 2013.
- 37. <u>P.-C. Li</u>, "Applications of ultrasound in small animal imaging", Imaging Workshop, **invited talk**, Liverpool, U.K., September 4, 2013.
- Y.-H. Wang and <u>P.-C. Li</u>, "Enhanced delivery of AuNPs with acoustic cavitation for photoacoustic imaging and photothermal therapy", JSAP-OSA Joint Symposia, invited talk, Kyoto, Japan, September 16-20, 2013.
- <u>P.-C. Li</u>, "Ultrasonic wireless neural stimulation and detection of implantable devices", International Workshop on Lead-free Ferro-/Piezoelectric Materials and Their Applications, invited talk, Shanghai, China, October 27-31, 2013.
- 40. <u>P.-C. Li</u>, "Ultrasound/Photoacoustic Multi-Modality Molecular Imaging and Targeted Therapy", **invited talk**, Annual Symposium on Biomedical Engineering and Technology, Hsinchu, Taiwan, November 15-16, 2013.
- 41. <u>P.-C. Li</u>, "Ultrasound and photoacoustic dual-modality molecular probes for theranosis", **keynote speech**, 7th East Asian Consortium on Biomedical Engineering, Taipei, Taiwan, November 18-19, 2013.
- 42. Y.-H. Wang, S.-P. Chen and <u>P.-C. Li</u>, "Photothermal therapy with enhanced delivery of gold nanoparticles by acoustic cavitation", The 8th Student Workshop of East Asian Consortium on Biomedical Engineering, **invited talk**, Sendai, Japan, March 12-13, 2014.
- 43. <u>P.-C. Li</u>, "Enhanced plasmonic photothermal therapy with targeted delivery of gold nanoparticles and acoustic cavitation", 1st National and 2nd International

Conference, Chinese Society of Ultrasound Molecular Imaging (CSUMI), invited talk, Chongqing, China, April 25-28, 2014.

- 44. <u>P.-C. Li</u>, "Cavitation-assisted delivery of gold nanoparticles for photothermal therapy", The 6th Asian Conference on Ultrasound Contrast Imaging (ACUCI 2014), **invited talk**, Yokohama, Japan, May 10, 2014.
- 45. <u>P.-C. Li</u>, "New applications of ultrasound biomicroscope in preclinical research: elasticity imaging, sonoporation and 3D cell culture systems", The 6th Small Animal Molecular Imaging Symposium, invited talk, Shanghai/Beijing, China, May 20/22, 2014.
- 46. <u>P.-C. Li</u>, "Ultrasound and photoacoustic dual modality molecular imaging and enhanced targeted photothermal therapy", The 45th Annual Congress of Korean Society of Ultrasound in Medicine, **invited talk**, Seoul, Korea, May 23-24, 2014.
- <u>P.-C. Li</u>, "Open platforms for biomedical ultrasound research", 2014 Advanced Biomedical Ultrasound Technology Summit, **invited talk**, Shenzhen, China, June 14, 2014.
- Y.-H. Wang, S.-P. Chen and <u>P.-C. Li</u>, "Enhanced plasmonic photothermal therapy by combining targeted delivery of gold nanoparticles with sonoporation", The 35th PIERS, invited talk, Guangzhou, China, August 25-28, 2014.
- 49. <u>P.-C. Li</u>, "Enhanced photoacoustic imaging and photothermal therapy with synergistic delivery of gold nanorods", **invited talk**, World Molecular Imaging Congress (WMIC), Seoul, Korea, September 17-20, 2014.
- 50. <u>P.-C. Li</u>, "Open Platforms for Biomedical Ultrasound Research", **invited talk**, CUMB 2014, Xian, China, September 19-20, 2014.
- <u>P.-C. Li</u>, "Ultrasound for Preclinical Research: Theranosis and 3D Cell Culture System", the 9th International Conference on Ultrasonic Biomedical Microscanning (UBM 2014), keynote speech, Edinburgh, Scotland, September 28-October 1, 2014.
- 52. <u>P.-C. Li</u>, "Ultrasound for Preclinical Research on Small Animals and 3D Cell Culture Systems", keynote speech, International Conference on Biomedical Ultrasound (ICBMU), Shenzhen, China, October 21-22, 2014.
- 53. <u>P.-C. Li</u>, "Diagnostic Ultrasound Safety: Radiation Force Based Imaging as an Example", invited talk, the 11-th Congress of the Asian Federation of Societies for Ultrasound in Medicine and Biology, Kuala Lumper, Malaysia, October 30-November 1, 2014.
- 54. <u>P.-C. Li</u>, "Theranostic agent for enhanced plasmonic photothermal therapy", **invited talk**, the Second Congress of New Development on Molecular Imaging, Guangzhou, China, December 19-21, 2014.

- 55. <u>P.-C. Li</u>, "Shear Wave Elasticity Imaging for Preclinical Research on Small Animals and 3D Cell Cultures", **invited talk**, IEEE International Ultrasonics Symposium (IUS), Taipei, Taiwan, October 21-24, 2015.
- 56. <u>P.-C. Li</u>, "Preclinical Research with 3D Cell Cultures Using Light and Sound", invited talk, 3rd International Academic Conference of Chinese Society of Ultrasound Molecular Imaging (CSUMI), Ultrasound Biological Effects and Ultrasound Treatment, Chongqing, China, April 8-11, 2016.
- 57. <u>P.-C. Li</u>, "Cell tracking in 3D cell culture systems using dual wavelength photoacoustic microscopy", **invited talk**, International Conference on Bio-fabrication and Bio-monitoring, Taipei, Taiwan, October 13-14, 2016.
- <u>P.-C. Li</u>, "3D tracking of cells under different matrix stiffness using photoacoustic microscopy and shear wave elasticity measurements", keynote speech, International Conference on Biomedical Ultrasound, Nanjing, China, October 20-21, 2016.
- <u>P.-C. Li</u>, "Shear wave elasticity imaging for preclinical research", invited talk, the 3rd Annual Conference on Ultrasound in Medicine and Biology, Shenzhen, China, November 6, 2016.
- Y.-H. Wang and <u>P.-C. Li</u>, "Coherence-Based Adaptive Imaging for High-Frame-Rate Ultrasonic Imaging", invited talk, the 172nd meeting of Acoustical Society of America, Honolulu, Hawaii, November 28 – December 2, 2016.
- P.-Y. Lee, W.-W. Liu, S.-C. Chen and <u>P.-C. Li</u>, "Dual-Wavelength Photoacoustic Microscopy for Cell Tracking", **invited talk**, the 172nd meeting of Acoustical Society of America, Honolulu, Hawaii, November 28 – December 2, 2016.
- 62. <u>P.-C. Li</u>, "Photoacoustic imaging for preclinical research with 3D cell culture systems", **keynote speech**, International Forum on Medical Imaging in Asia, Okinawa, Japan, January 19-20, 2017.
- 63. <u>P.-C. Li</u>, "Ultrasound for preclinical research: shear wave imaging and photoacoustic imaging of 3D cell culture systems", **invited talk**, 2017 International Conference on Regulatory Approaches for Fostering Innovation in Drugs and Medical Devices, Taipei, Taiwan, March 30-31, 2017.
- 64. <u>P.-C. Li</u>, "3D cell tracking with dual wavelength photoacoustic microscopy", invited talk, the 39th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Jeju Island, Korea, July 11-15, 2017.
- <u>P.-C. Li</u>, "Cell tracking using dual-wavelength photoacoustic microscopy", invited talk, the 4th Gastrointestinal Endoscopic Molecular Imaging Forum, Beijing, China, August 25-27, 2017.

- 66. <u>P.-C. Li</u>, "Multifunctional microbubbles in ultrasound theranostics", **invited talk**, the 16th World Federation for Ultrasound in Medicine and Biology Congress in 2017, Taipei, Taiwan, October 13-17, 2017.
- 67. <u>P.-C. Li</u>, "Adaptive Beamforming and Motion Estimation in Ultrafast Ultrasound Imaging", invited talk, the 13th Congress of the Asian Federation of Societies for Ultrasound in Medicine and Biology in conjunction with ACUCI 2018, Seoul, Korea, May 23-26, 2018.
- 68. <u>P.-C. Li</u>, "Shear Wave Imaging for Preclinical Research", invited talk, the 13th Congress of the Asian Federation of Societies for Ultrasound in Medicine and Biology in conjunction with ACUCI 2018, Seoul, Korea, May 23-26, 2018.
- 69. <u>P.-C. Li</u>, "Future Prospects of Basic Ultrasound Research", invited talk, the 13th Congress of the Asian Federation of Societies for Ultrasound in Medicine and Biology in conjunction with ACUCI 2018, Seoul, Korea, May 23-26, 2018.
- <u>P.-C. Li</u>, "Ultrasound technologies for preclinical and clinical research", IFMBE Awardees Keynote Lectures, World Congress on Medical Physics and Biomedical Engineering, Prague, Czech Republic, June 3-8, 2018.
- <u>P.-C. Li</u>, "Shear wave elasticity imaging approaches for mechanobiology studies", plenary speaker, the 9th WACBE World Congress on Bioengineering, Taipei, Taiwan, August 16-19, 2019.
- P.-C. Li, "Shear Wave Elasticity Imaging for Studying Mechanical Interactions of Cells", invited talk, the 17th World Federation for Ultrasound in Medicine and Biology Congress, Melbourne, Australia, September 6-9, 2019.
- 73. <u>P.-C. Li</u>, "Photoacoustic Microscopy for Cells in a 3D Microenvironment: Systems and Applications", **invited talk**, the 17th World Federation for Ultrasound in Medicine and Biology Congress, Melbourne, Australia, September 6-9, 2019.
- 74. <u>P.-C. Li</u>, "Shear wave imaging and photoacoustic imaging of small animals and 3D cell culture systems", **invited talk**, the fall meeting of the Dutch Society for Medical Ultrasound, Delft, Netherlands, October 4, 2019.
- 75. <u>P.-C. Li</u>, "Ultrasound for preclinical research: Shear wave imaging and photoacoustic imaging of small animals and 3D cell culture systems", keynote speech, the 5th International Conference on Biomedical Ultrasound, Wuhan, China, November 7-9, 2019.
- 76. <u>P.-C. Li</u>, "Preclinical research with light and sound: Shear wave imaging and photoacoustic imaging of 3D cell culture systems", **invited talk**, the International Symposium of Frontier Acoustics, Shenzhen, China, November 20, 2019.
- 77. <u>P.-C. Li</u>, "Ultrasound for preclinical research: Shear wave imaging and photoacoustic imaging of small animals and 3D cell culture systems", **plenary talk**,

the 40th Symposium on Ultrasonic Electronics, Tokyo, Japan, November 25-27, 2019.

- <u>P.-C. Li</u>, "Synergistic Vaporization for Effective Sonoporation", invited talk, International Symposium on Medical Ultrasonics in Chiba, Japan, November 28, 2019.
- 79. <u>P.-C. Li</u>, "Ultrasound for preclinical research: Shear wave imaging and photoacoustic imaging of small animals and 3D cell culture systems", **invited talk**, Stanford University, USA, February 7, 2020.
- 80. <u>P.-C. Li</u>, "Ultrasound for preclinical research: Shear wave imaging and photoacoustic imaging of small animals and 3D cell culture systems", **invited talk**, the University of Chicago, USA, March 12, 2020.
- P.-C. Li, "Shear wave stiffness measurements of 3D cell culture systems", plenary talk, the 2021 Conference on Materials, Mimics, and Microfluidics: Engineering Tools for Mechanobiology (3M2021), Virtual and Singapore, July 21-23, 2021.
- P.-C. Li, "Biomedical Research with Synergy of Light and Sound", award speech, the 2022 IUPESM World Congress on Medical Physics and Biomedical Engineering, Singapore, June 12-17, 2022.
- <u>P.-C. Li</u>, "Elasticity Measurements of Millimeter Sized Biomaterials: Technologies and Applications", plenary speech, the 5th Global Conference on Biomedical Engineering, Taipei, December 15-17, 2022.
- 84. <u>P.-C. Li</u>, "Shear Wave Elasticity imaging of 3D Cell Culture Systems: Principles and Applications", **invited talk**, WFUMB 2023, Ultrasound World Congress, Muscat, Oman, November 4-7, 2023.

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IX. Journal Papers, Conference Presentations and Patents

Journal Papers

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- 172. Y.-L. Sheu, C.-Y. Chou, B.-Y. Hsieh and <u>P.-C. Li</u>, "Application of Limited-View Image Reconstruction Method to Intravascular Photoacoustic Tomography", SPIE International Symposium on Biomedical Optics, San Francisco, California, January 23-28, 2010.
- 173. B.-Y. Hsieh, S.-L. Chen, T. Ling, L.-J. Guo and <u>P.-C. Li</u>, "Design and Fabrication of Integrated Intravascular Ultrasound/Photoacoustic Scan Head," SPIE International Symposium on Biomedical Optics, San Francisco, California, January 23-28, 2010.
- 174. P.-W. Cheng and <u>P.-C. Li</u>, "Transcranial Microbubbles Destruction by Using Re-Focusing Ultrasound", 159th Meeting of the Acoustical Society of America, Baltimore, Maryland, April 19-23, 2010.
- 175. <u>P.-C. Li</u>, "Photoacoustic Imaging and Photothermal Therapy of Cancer", Post-Congress Symposium of 2010 World Molecular Imaging Congress (WMIC), Taipei, Taiwan, September 13-14, 2010.
- 176. S.-Y. Su and <u>P.-C. Li</u>, "Photoacoustic Signal Generation with Golay Coded Excitatio", 2010 IEEE International Ultrasonics Symposium, San Diego, California, October 11-14, 2010.
- 177. A.-H. Liao, Y.-H. Wang, Y.-T. Weng, C.-R. Wang and <u>P.-C. Li</u>, "An Imaging/therapeutic Molecular Probe for Ultrasound and Photoacoustic Dual Modality System", 2010 IEEE International Ultrasonics Symposium, San Diego, California, October 11-14, 2010.
- 178. A.-H. Liao, H.-L. Liu, C.-H. Su, Y.-T. Weng, P.-H. Hsu, S.-M. Huang, S.-Y. Wu, H.-E. Wang, T.-C. Yen and <u>P.-C. Li</u>, "US/MRI Dual Modality Contrast Agent for Concurrent MR and Ultrasonic Imaging for Focused-Ultrasound Induced Blood-

Brain Barrier Opening", 2010 IEEE International Ultrasonics Symposium, San Diego, California, October 11-14, 2010.

- 179. P.-L. Kuo, C.-L. Yeh and <u>P.-C. Li</u>, "Joint Capsule Loosening by High-Intensity Pulsed Ultrasound", 2010 IEEE International Ultrasonics Symposium, San Diego, California, October 11-14, 2010.
- 180. Y.-F. Li and <u>P.-C. Li</u>, "Ultrasound Beamforming with Compressed", 2010 IEEE International Ultrasonics Symposium, San Diego, California, October 11-14, 2010.
- 181. C.-L. Hu, G.-S. Jeng, Y.-H. Wang, <u>P.-C. Li</u> and M.-L. Li, "Improved Plane-Wave High Frame Rate Imaging Using Retrospective Transmit Focusing and Filterderived Coherence-Index Weighting", 2010 IEEE International Ultrasonics Symposium, San Diego, California, October 11-14, 2010.
- 182. S.-C. Lin and <u>P.-C. Li</u>, "Automatic Contrast Enhancement Using Ensemble Empirical Mode Decomposition", Symposium of Annual Conference of the Biomedical Engineering Society, Kaohsiung, Taiwan, December 10-11, 2010. (Best Paper Award)
- 183. J.-Y. Tsai and <u>P.-C. Li</u>, "The application of Ultrasonic Power Transfer for Wireless Neural Stimulator", Symposium of Annual Conference of the Biomedical Engineering Society, Kaohsiung, Taiwan, December 10-11, 2010. (Best Paper Award)
- 184. B.-Y. Hsieh, Y.-H. Chuang and <u>P.-C. Li</u>, "Development of IVPA/IVUS Imaging Technologies and Investigation on Ultrasound-assisted Thrombolysis(3/3)", Symposium of Annual Conference of the Biomedical Engineering Society, Kaohsiung, Taiwan, December 10-11, 2010.
- 185. K.-H. Huang, J.-H. Liu, <u>P.-C. Li</u>, "A Filtering Approach to Improving Depth of Single Element Annular Transducer", Symposium of Annual Conference of the Biomedical Engineering Society, Kaohsiung, Taiwan, December 10-11, 2010.
- 186. C.-L. Yeh and <u>P.-C. Li</u>, "Shear Wave Elasticity Imaging Using an Ultrasound Array System", Symposium of Annual Conference of the Biomedical Engineering Society, Kaohsiung, Taiwan, December 10-11, 2010.
- 187. C.-L. Yeh, P.-L. Kuo and <u>P.-C. Li</u>, "Investigation on Joint Capsule Loosening by High-Intensity Pulsed Ultrasound", Symposium of Annual Conference of the Biomedical Engineering Society, Kaohsiung, Taiwan, December 10-11, 2010.
- 188. Y.-H. Wang, A.-H. Liao, J.-H. Chen, C.-R. Wang and <u>P.-C. Li</u>, "Photoacoustic/ Ultrasound Dual Modality Contrast Agent and Its Application to Laser-induced Thermotherapy", Symposium of Annual Conference of the Biomedical Engineering Society, Kaohsiung, Taiwan, December 10-11, 2010.

- 189. L.-Y. Tseng and <u>P.-C. Li</u>, "Motion Analysis in Ultrasound Plane-wave Excitation Imaging By Feature Tracking", Symposium of Annual Conference of the Biomedical Engineering Society, Kaohsiung, Taiwan, December 10-11, 2010.
- 190. P.-W. Cheng and <u>P.-C. Li</u>, "High Frame Rate Ultrasonic Channel Data Compression Using MPEG Technology", Symposium of Annual Conference of the Biomedical Engineering Society, Kaohsiung, Taiwan, December 10-11, 2010.
- 191. <u>P.-C. Li</u>, E.-Y. Chuang and Y.-F. Tseng, "Integrated Approach to Dissecting Resistance of Anti-cancer Treatment", Symposium of Annual Conference of the Biomedical Engineering Society, Kaohsiung, Taiwan, December 10-11, 2010.
- 192. C.-L. Hu, G.-S. Jeng, Y.-H. Wang, <u>P.-C. Li</u> and M.-L. Li, "Improved Plane-wave High Frame Rate Imaging Using Filter-based Retrospective Focusing and Coherent Weighting", Symposium of Annual Conference of the Biomedical Engineering Society, Kaohsiung, Taiwan, December 10-11, 2010.
- 193. Y.-H. Wang and <u>P.-C. Li</u>, "Ultrafast Photoacoustic Imaging with Improved Elevational Focusing", SPIE Photonics West 2011, San Francisco, California, January 22-27, 2011.
- 194. S.-Y. Sue and <u>P.-C. Li</u>, "Photoacoustic Generation Using Coded Excitation", SPIE Photonics West 2011, San Francisco, California, January 22-27, 2011.
- 195. Y.-H. Wang, A.-H. Liao, J.-H. Chen, Y.-H. Lee, C.-R. Wang and <u>P.-C. Li</u>, "Thermotherapy with a Photoacoustic/Ultrasound Dual-modality Agent", SPIE Photonics West 2011, San Francisco, California, January 22-27, 2011.
- 196. M. Wang, J. Chen, Y.-H. Wang and <u>P.-C. Li</u>, "A Photoacoustic Imager with Infrared Illumination Through the CMUT Chip", The 16th International Conference on Solid-State Sensors, Actuators and Microsystems, Beijing, China, June 5-9, 2011.
- 197. B.-Y. Hsieh and <u>P.-C. Li</u>, "All-optical ultrasound/photoacoustic transducer for intravascular imaging", Annual Symposium on Biomedical Engineering and Technology, Tainan, Taiwan, August 19-20, 2011. (Best Paper Award)
- 198. Y.-H. Wang and <u>P.-C. Li</u>, "Signal-to-noise-ratio-scaled coherence weighting for minimum variance beamfomring", Annual Symposium on Biomedical Engineering and Technology, Tainan, Taiwan, August 19-20, 2011. (Excellent Paper Award)
- 199. H.-Y.Chen and <u>P.-C. Li</u>, "A Fiber-Based, Near Field Photoacoustic Microscopy", Annual Symposium on Biomedical Engineering and Technology, Tainan, Taiwan, August 19-20, 2011. (Excellent Paper Award)
- 200. T.-C. Chen and <u>P.-C. Li</u>, "Fall detection using Ultra-wideband Radar and Depth Camera", Annual Symposium on Biomedical Engineering and Technology, Tainan, Taiwan, August 19-20, 2011. (Excellent Paper Award)

- 201. Kevin K. Hsieh, J.-H. Liu, J.-L. Chiang and <u>P.-C. Li</u>, "Real-Time Wireless Transcranial Doppler Ultrasound", Annual Symposium on Biomedical Engineering and Technology, Tainan, Taiwan, August 19-20, 2011.
- 202. P.-C. Huang and <u>P.-C. Li</u>, "Ultrasonic Raw Data Compression Using Vector Quantization", Annual Symposium on Biomedical Engineering and Technology, Tainan, Taiwan, August 19-20, 2011.
- 203. C.-L. Yeh, P.-L. Kuo and <u>P.-C. Li</u>, "Evaluation the Loosening Effect of Therapeutic Ultrasound with Different Exposure Time on Joint Capsule", Annual Symposium on Biomedical Engineering and Technology, Tainan, Taiwan, August 19-20, 2011.
- 204. K.-H. Huang and <u>P.-C. Li</u>, "Improving depth of focus of a frequency-encoded transducer", Annual Symposium on Biomedical Engineering and Technology, Tainan, Taiwan, August 19-20, 2011.
- 205. F.-S. Jiang, K.-H. Huang, <u>P.-C. Li</u> and P.-L. Kuo, "Development of ultrasonic transducers for alveolar bone imaging", Annual Symposium on Biomedical Engineering and Technology, Tainan, Taiwan, August 19-20, 2011.
- 206. <u>P-C. Li</u>, K.-Y. Tseng and H. –E. Wang, "Quantitative study of US based targeted therapy: the use of US/PET and US/MRI molecular probes (1/3)", Annual Symposium on Biomedical Engineering and Technology, Tainan, Taiwan, August 19-20, 2011.
- 207. <u>P.-C. Li</u>, "Photoacoustic molecular imaging and targeted therapy using gold nanoparticles", 19th International Conference on Advanced Laser Technologies, **invited talk**, Golden Sands, Bulgaria, September 3-8, 2011.
- 208. J.-Y. Tsai, K.-H. Huang, J.-R. Wang, S.-I. Liu, <u>P.-C. Li</u>, "Ultrasonic wireless power and data communication for neural stimulation", IEEE International Ultrasonics Symposium, Orlando, Florida, USA, October 18-21, 2011.
- 209. B.-Y. Hsieh, S.-L. Chen, T. Ling, J. Kuo, <u>P.-C. Li</u>, "All optical generation and detection of acoustic waves for intravascular ultrasound", IEEE International Ultrasonics Symposium, Orlando, Florida, USA, October 18-21, 2011.
- 210. P.-W. Cheng, C.-C. Shen, <u>P.-C. Li</u>, "Ultrasound RF Channel Data Compression for Implementation of a Software-Based Array Imaging System", IEEE International Ultrasonics Symposium, Orlando, Florida, USA, October 18-21, 2011.
- 211. K.-H. Huang, J.-H. Liu, <u>P.-C. Li</u>, "Improved Depth of Focus for Single Element Annular Transducers", IEEE International Ultrasonics Symposium, Orlando, Florida, USA, October 18-21, 2011.

- 212. Y.-H. Wang, <u>P.-C. Li</u>, "SNR-Dependent Coherence Weighting for Minimum Variance Beamforming", IEEE International Ultrasonics Symposium, Orlando, Florida, USA, October 18-21, 2011.
- 213. L.-Y. Tseng, L.-C. Lin, <u>P.-C. Li</u>, "3D cardiac strain imaging using plane wave excitation and feature tracking", IEEE International Ultrasonics Symposium, Orlando, Florida, USA, October 18-21, 2011.
- 214. <u>P.-C. Li</u>, "Acoustic power measurements and safety in medical ultrasound", AFSUMB Workshop, **invited talk**, Bali, Indonesia, November 19, 2011.
- 215. <u>P.-C. Li</u>, "Photoacoustic and photothermal techniques with gold nanoparticles for theragnosis", 16th International Conference on Photoacoustic and Photothermal Phenomena, **invited talk**, Merida, Mexico, November 27-December 1, 2011.
- 216. <u>P.-C. Li</u>, "Wireless neural stimulation using ultrasound", 2011 Symposium on Piezoelectricity, Acoustic waves, and Device Applications (SPAWDA 2011), **invited talk**, Shenzhen, China, December 9-11, 2011.
- 217. B.-Y. Hsieh and <u>P.-C. Li</u>, "Real-time intravascular ultrasound/photoacoustic imaging system with omni-directional light excitation", SPIE Photonics West 2013, San Francisco, California, January 21-16, 2012.
- 218. Y.-H. Wang and <u>P.-C. Li</u>, "Signal-to-noise-ratio scaled coherence weighting for photoacoustic array imaging", SPIE Photonics West 2013, San Francisco, California, January 21-16, 2012.
- 219. <u>P.-C. Li</u>, "Acoustics based multi-modality molecular imaging and targeted therapy", International Symposium on Ultrasound Molecular Imaging (ISUMI), **invited talk,** Chongqing, China, April 27-29, 2012.
- 220. <u>P.-C. Li</u>, "Ultrasound power measurements and clinical safety", 2012 Joint Congress of Medical Ultrasound, **invited talk**, Seoul, Korea, May 11-13, 2012.
- 221. <u>P.-C. Li</u>, "Principles and applications of micro-ultrasound in pre-clinical molecular imaging", 2012 Small Animal Molecular Imaging Conference: Technology Development and Applications, **invited talk**, Chongqing, China, May 19, 2012.
- 222. <u>P.-C. Li</u>, "Principles and applications of micro-ultrasound in pre-clinical molecular imaging", 2012 Small Animal Molecular Imaging Conference: Technology Development and Applications, **invited talk**, Beijing, China, May 21, 2012.
- 223. <u>P.-C. Li</u>, "Ultrasound and photoacoustic molecular imaging and current developments", Chinese Molecular Imaging Forum, **invited talk**, Harbin, China, July 5-6, 2012.

- 224. <u>P.-C. Li</u>, "Applications of high frequency ultrasound in biomedical research", 4th National Conference on Laboratory Animal Science, **invited talk**, Kuala Lumpur, Malaysia, July 11-12, 2012.
- 225. P.-C. Huang and <u>P.-C. Li</u>, "Ultrasound imaging using vector quantization of RF channel date", 2012 IEEE International Ultrasonics Symposium, Dresden, Germany, October 7-10, 2012.
- 226. C.-L. Yeh, Y.-L. Sheu, P.-L. Kuo and <u>P.-C. Li</u>, "Investigation on anisotropy of elastic properties in tendon using shear wave elasticity imaging", 2012 IEEE International Ultrasonics Symposium, Dresden, Germany, October 7-10, 2012.
- 227. B.-Y. Hsieh, S.-L. Chen, T. Ling, J. Kuo and <u>P.-C. Li</u>, "All-optical transducer for ultrasound and photoacoustic imaging by dichroic filtering", 2012 IEEE International Ultrasonics Symposium, Dresden, Germany, October 7-10, 2012.
- 228. C.-L. Yeh, Y.-L. Sheu, P.-L. Kuo and <u>P.-C. Li</u>, "Tissue shear viscosity measurements using a spectral ratio method", 2012 IEEE International Ultrasonics Symposium, Dresden, Germany, October 7-10, 2012.
- 229. Y.-S. Tien, P.-C. Ku, F.-Y. Lin, <u>P.-C. Li</u>, L.-H. Lu, P.-L. Kuo, W.-C. Tien, "A low voltage CMOS-based capacitive micromachined ultrasonic sensor development", 2012 IEEE Sensors, Taipei, Taiwan, October 28-31, 2012.
- 230. <u>P.-C. Li</u>, "Ultrasound and photoacoustic small animal imaging", 8th SALAS Conference, **keynote speech**, Singapore, November 15-16, 2012.
- 231. I.-C. Wu and <u>P.-C. Li</u>, "Location of implantable devices using ultrasound", Annual Symposium on Biomedical Engineering and Technology, Chungli, Taiwan, November 17-18, 2012. (Best paper award)
- 232. G.-W. Fan, U.-W. Lok and <u>P.-C. Li</u>, "Implementation of Ultrasonic Data Demodulation and Compression Using FPGA", Annual Symposium on Biomedical Engineering and Technology, Chungli, Taiwan, November 17-18, 2012. (Best paper award)
- 233. Y.-C. Ho, Y.-L. Sheu, <u>P.-C. Li</u>, "Comparison between Anisotropy of the Ultrasonic Scattering and the Photoacoustic Signal from Fibrous Tissues: in vitro Measurements", Annual Symposium on Biomedical Engineering and Technology, Chungli, Taiwan, November 17-18, 2012. (Excellent paper award)
- 234. Y.-H. Wang, A.-H. Liao, C.-R. Lee, C.-H. Wu, T.-M. Liu, C.-R. Chris Wang, and <u>P.-C. Li</u>, "Development and Applications of Gold-Microbubbles in Targeted Ultrasound and Optics", Annual Symposium on Biomedical Engineering and Technology, Chungli, Taiwan, November 17-18, 2012. (Excellent paper award)
- 235. C.-L. Yeh, Y.-L. Sheu, P.-L. Kuo, P.-C. Li, "Evaluation on tendon structure alteration using shear wave elasticity Imaging and high frequency sonography",

Annual Symposium on Biomedical Engineering and Technology, Chungli, Taiwan, November 17-18, 2012. (Excellent paper award)

- 236. P.-Y. Chao and <u>P.-C. Li</u>, "Photoacoustic Image Resolution Enhancement using Estimated Point Spread Function and Deconvolution", Annual Symposium on Biomedical Engineering and Technology, Chungli, Taiwan, November 17-18, 2012. (Excellent paper award)
- 237. Y.-M. Wei and <u>P.-C. Li</u>, "Ultrasound Image Quality Optimization with Adaptive Global Sound Speed Correction", Annual Symposium on Biomedical Engineering and Technology, Chungli, Taiwan, November 17-18, 2012. (Excellent paper award)
- 238. C.-Y. Lee and <u>P.-C. Li</u>, "Automatic Conformal Scanning for 3D Image", Annual Symposium on Biomedical Engineering and Technology, Chungli, Taiwan, November 17-18, 2012.
- 239. U.-W. Lok and <u>P.-C. Li</u>, "GPU-based Ultrasonic Imaging System with Data Compression using 2-D Discrete Wavelet Transform", Annual Symposium on Biomedical Engineering and Technology, Chungli, Taiwan, November 17-18, 2012.
- 240. B.-R. Chen, C.-L. Yeh, P.-L. Kuo and <u>P.-C. Li</u>, "Shear Wave Elasticity Imaging for Preclinical Studies", Annual Symposium on Biomedical Engineering and Technology, Chungli, Taiwan, November 17-18, 2012.
- 241. Y.-L. Sheu, Y.-C. Ho and <u>P.-C. Li</u>, "Acoustic and photoacoustic scattering from transverse isotropic tissues", SPIE Photonics West 2013, San Francisco, California, February 2-7, 2013.
- 242. Y.-H. Wang, A.-H. Liao, J.-Y. Lin, C.-R. Lee, C.-H. Wu, T.-M. Liu, C.-R. Chris Wang and <u>P.-C. Li</u>, "Enhanced delivery of gold nanoparticles by acoustic cavitation for photoacoustic imaging and photothermal therapy", SPIE Photonics West 2013, San Francisco, California, February 2-7, 2013.
- 243. <u>P.-C. Li</u>, "Acoustics-based multi-modality molecular imaging and targeted therapy", 4th Ultrasound Molecular Diagnosis and Therapy Conference (第 4 回超 音波分子診断治療研究会), **invited talk**, Fukuoka, Japan, March 2, 2013.
- 244. Y. S. Luo, J.-R. Wang, W.-J. Huang, J.-Y. Tsai, I.-C. Wu, Y.-F. Liao, W.-T. Tseng, C.-T. Yen, <u>P.-C. Li</u>, and S.-I. Liu, "Ultrasonic telemetry and neural stimulator with FSK-PWM signaling," in Proc. Int. Symp. VLSI Des., Autom. Test, , pp. 136–139, Apr. 2013.
- 245. <u>P.-C. Li</u>, "The principle and applications of micro ultrasound in pre-clinical molecular imaging", The 5th Small Animal Molecular Imaging Symposium, **invited talk**, Shanghai, China, June 4, 2013.

- 246. <u>P.-C. Li</u>, "The principle and applications of micro ultrasound in pre-clinical molecular imaging", The 5th Small Animal Molecular Imaging Symposium, **invited talk**, Beijing, China, June 6, 2013.
- 247. <u>P.-C. Li</u>, "Ultrasound and photoacoustic molecular imaging and therapy", First Dalian International forum of Medical Imaging, **invited talk**, Dalian, China, June 10, 2013.
- 248. Y.-R. Liou, Y.-H. Wang, and <u>P.-C. Li</u>, "Cell Sorting Using Targeted Biotinylated Albumin Microbubbles", IEEE International Ultrasonics Symposium (IUS), Prague, Czech Republic, July 21-25, 2013.
- 249. C.-L. Yeh, P.-L. Kuo, and <u>P.-C. Li</u>, "Correlation between the shear wave speed in tendon and its elasticity properties", IEEE International Ultrasonics Symposium (IUS), Prague, Czech Republic, July 21-25, 2013.
- 250. U.-W. Lok, G.-W. Fan, and <u>P.-C. Li</u>, "Lossless Compression with Parallel Decoder for Improving Performance of GPU-based Beamformer", IEEE International Ultrasonics Symposium (IUS), Prague, Czech Republic, July 21-25, 2013.
- 251. I.-C. Wu and <u>P.-C. Li</u>, "Microstructure Design for Detection of Implantable Device Using Ultrasound", IEEE International Ultrasonics Symposium (IUS), Prague, Czech Republic, July 21-25, 2013.
- 252. F.-Y. Lin, W.-C. Tien, and <u>P.-C. Li</u>, "CMOS-based Capacitive Micromachined Ultrasonic Transducers Operating without External DC Bias", IEEE International Ultrasonics Symposium (IUS), Prague, Czech Republic, July 21-25, 2013.
- 253. Y.-M. Wei and <u>P.-C. Li</u>, "Ultrasound Image Quality Optimization with Adaptive Global Sound Speed Correction", IEEE International Ultrasonics Symposium (IUS), Prague, Czech Republic, July 21-25, 2013.
- 254. <u>P.-C. Li</u>, "Applications of ultrasound in small animal imaging", Imaging Workshop, **invited talk**, Liverpool, U.K., September 4, 2013.
- 255. Y.-H. Wang and <u>P.-C. Li</u>, "Enhanced Delivery of AuNPs with Acoustic Cavitation for Photoacoustic Imaging and Photothermal Therapy", JSAP-OSA Joint Symposia, invited talk, Kyoto, Japan, September 16-20, 2013.
- 256. S.-W. Liu and <u>P.-C. Li</u>, "Nanogold Droplets Development and Characterization as an Ultrasound Contrast Agent", The 5th Annual Coference on Ultrasound Contrast Imaging(ACUCI), **paper award**, Taipei, Taiwan, October 19-20, 2013.
- 257. B.Y. Hsieh, S.-Y. Hung, S.-L. Chen, T. Lin, L.- J. Guo and <u>P.-C. Li</u>, "All-optical Ultrasound and Photoacoustic Imaging Probes", International Conference on Biomedical Ultrasound (ICBMU 2013), Taipei, Taiwan, October 22-23, 2013.
- 258. Y.-R. Liou, Y.-H. Wang, C.-Y. Lee and <u>P.-C. Li</u>, "Application of Targeted Biotinylated Albumin Microbubbles on Buoyancy Activated Cell Sorting",

International Conference on Biomedical Ultrasound (ICBMU 2013), Taipei, Taiwan, October 22-23, 2013.

- 259. C.-L. Yeh, B.-R. Chen, P.-L. Kuo, and <u>P.-C. Li</u>, "In Vivo Measruement of Liver Elasticity on Mice Using a Single Element Preclinical Ultrasound System", International Conference on Biomedical Ultrasound (ICBMU 2013), Taipei, Taiwan, October 22-23, 2013.
- 260. C.-L. Yeh, <u>P.-C. Li</u>, and P.-L. Kuo, "Accessing Mechanical Malfunction of Tendons Using Shear Wave Elasticity Imaging", International Conference on Biomedical Ultrasound (ICBMU 2013), Taipei, Taiwan, October 22-23, 2013.
- 261. U-W. Lok, G.-W. Fan and <u>P.-C. Li</u>, "Ultrasound Baseband Data Compression Using Fast Walsh Transform to Enhance Performance of Data Transfer in a Gpubased Beamformer", International Conference on Biomedical Ultrasound (ICBMU 2013), Taipei, Taiwan, October 22-23, 2013.
- 262. Y.-R. Liou, Y.-H. Wang, C.-Y. Lee and <u>P.-C. Li</u>, "Isolating Cancer Cells with Targeted Biotinylated Albumin Microbubbles", 2013 Conference of the Federation of Asian Societies for Molecular Imaging, Taipei, Taiwan, October 25-27, 2013.
- 263. <u>P.-C. Li</u>, "Ultrasonic Wireless Neural Stimulation and Detection of Implantable Devices", International Workshop on Lead-free Ferro-/Piezoelectric Materials and Their Applications, **invited talk**, Shanghai, China, October 27-31, 2013.
- 264. <u>P.-C. Li</u>, "Ultrasound/Photoacoustic Multi-Modality Molecular Imaging and Targeted Therapy", **invited talk**, Annual Symposium on Biomedical Engineering and Technology, Hsinchu, Taiwan, November 15-16, 2013.
- 265. C.-L. Yeh, P.-L. Kuo, <u>P.-C. Li</u>, "Characterization of Normal and Diseased Tendon Using Shear Wave Elasticity Imaging", Annual Symposium on Biomedical Engineering and Technology, Hsinchu, Taiwan, November 15-16, 2013. (Best paper award)
- 266. S.-C. Lin, <u>P.-C. Li</u>, "Information Theoretic Parameter for Assessment of the Quality of Ultrasound Channel Data-compressed Images", Annual Symposium on Biomedical Engineering and Technology, Hsinchu, Taiwan, November 15-16, 2013. (Best paper award)
- 267. K.-D. Liao, <u>P.-C. Li</u>, "Ultra-wideband Radar 3D Respiration Detection", Annual Symposium on Biomedical Engineering and Technology, Hsinchu, Taiwan, November 15-16, 2013. (Best paper award)
- 268. T.-T. Chu, <u>P.-C. Li</u>, P.-L. Kuo, "Simulations of Tendon Mechanical Properties for Elasticity Imaging by ABAQUS", Annual Symposium on Biomedical Engineering and Technology, Hsinchu, Taiwan, November 15-16, 2013.
- 269. C.-T. Li, C.-H. Tsai, T.-Y. Ye, <u>P.-C. Li</u>, P.-L. Kuo, "Quantitative Assessment of Cell Elasticity Change in a 3D Culture System", Annual Symposium on

Biomedical Engineering and Technology, Hsinchu, Taiwan, November 15-16, 2013.

- 270. U.-W. Lok, <u>P.-C. Li</u>, "Lossless Data Compression with Fast Walsh Transform to Improve performance of a GPU-Based Beamformer", Annual Symposium on Biomedical Engineering and Technology, Hsinchu, Taiwan, November 15-16, 2013.
- 271. T.-Y. Lee, <u>P.-C. Li</u>, "GPU-based 3D Ultrasound Parallel Beamforming", Annual Symposium on Biomedical Engineering and Technology, Hsinchu, Taiwan, November 15-16, 2013.
- 272. S.-W. Liu, <u>P.-C. Li</u>, "Gold Nanoparticle Delivery Using Acoustic Cavitation and Optical Absoprption", Annual Symposium on Biomedical Engineering and Technology, Hsinchu, Taiwan, November 15-16, 2013.
- 273. S.-Y. Hung, B.-Y. Hsieh, <u>P.-C. Li</u>, "Optical Generation of Frequency Adjustable Ultrasound with Multilayer Structure", Annual Symposium on Biomedical Engineering and Technology, Hsinchu, Taiwan, November 15-16, 2013.
- 274. C.-Y. Lee, T.-L.Truong, <u>P.-C. Li</u>, "Automatic Conformal Scanning for Ultrasound Screening", Annual Symposium on Biomedical Engineering and Technology, Hsinchu, Taiwan, November 15-16, 2013.
- 275. <u>P.-C. Li</u>, "Ultrasound and photoacoustic dual-modality molecular probes for theranosis", **keynote speech**, 7th East Asian Consortium on Biomedical Engineering, Taipei, Taiwan, November 18-19, 2013.
- 276. S.-Y. Hung, B.-Y. Hsieh, and <u>P.-C. Li</u>, "Optical generation of narrowband high frequency ultrasound", SPIE Photonics West 2014, San Francisco, California, February 1-6, 2014.
- 277. Y.-H. Wang, S.-P. Chen and <u>P.-C. Li</u>, "Photothermal therapy with enhanced delivery of gold nanoparticles by acoustic cavitation", The 8th Student Workshop of East Asian Consortium on Biomedical Engineering, **invited talk**, Sendai, Japan, March 12-13, 2014.
- 278. <u>P.-C. Li</u>, "Enhanced plasmonic photothermal therapy with targeted delivery of gold nanoparticles and acoustic cavitation", 1st National and 2nd International Conference, Chinese Society of Ultrasound Molecular Imaging (CSUMI), **invited talk**, Chongqing, China, April 25-28, 2014.
- 279. <u>P.-C. Li</u>, "Cavitation-assisted delivery of gold nanoparticles for photothermal therapy", The 6th Asian Conference on Ultrasound Contrast Imaging (ACUCI 2014), **invited talk**, Yokohama, Japan, May 10, 2014.
- 280. <u>P.-C. Li</u>, "New applications of ultrasound biomicroscope in preclinical research: elasticity imaging, sonoporation and 3D cell culture systems", The 6th Small

Animal Molecular Imaging Symposium, invited talk, Shanghai/Beijing, China, May 20/22, 2014.

- 281. <u>P.-C. Li</u>, "Ultrasound and photoacoustic dual modality molecular imaging and enhanced targeted photothermal therapy", The 45th Annual Congress of Korean Society of Ultrasound in Medicine, **invited talk**, Seoul, Korea, May 23-24, 2014.
- 282. <u>P.-C. Li</u>, "Open platforms for biomedical ultrasound research", 2014 Advanced Biomedical Ultrasound Technology Summit, **invited talk**, Shenzhen, China, June 14, 2014.
- 283. C.-Y. Lee, T. T. Loc and <u>P.-C. Li</u>, "Automatic conformal ultrasound scanning for breast cancer screening", The 28th International Congress and Exhibition on Computer Assisted Radiology and Surgery (CARS 2014), Fukuoka, Japan, June 25-28, 2014.
- 284. Y.-H. Wang, S.-P. Chen and <u>P.-C. Li</u>, "Enhanced plasmonic photothermal therapy by combining targeted delivery of gold nanoparticles with sonoporation", The 35th PIERS, invited talk, Guangzhou, China, August 25-28, 2014.
- 285. C.-T. Li, <u>P.-C. Li</u> and P.-L. Kuo, "3D Cell Mechanobiology Study using Shear Wave Elasticity Imaging", IEEE International Ultrasonics Symposium (IUS), Chicago, USA, September 3-6, 2014.
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- 288. M. Sun, P.-L. Kuo and <u>P.-C. Li</u>, "Imaging 3D Cell Culture Systems Using an Optical Resolution Photoacoustic Microscope ", IEEE International Ultrasonics Symposium (IUS), Chicago, USA, September 3-6, 2014.
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- 292. U.-W. Lok and <u>P.-C. Li</u>, "Improving Performance of GPU-based Software Beamforming using Transform-based Channel Data Compression ", IEEE International Ultrasonics Symposium (IUS), Chicago, USA, September 3-6, 2014.
- 293. L.-Y. Tseng, Y.-R. Liou, C.-H. Wang, D.-L. Ou and <u>P.-C. Li</u>, "Evans Blue Extravasation in Mouse Tumor Model Using Ultrasound Image-Guided Sonoporation", World Molecular Imaging Congress (WMIC), Seoul, Korea, September 17-20, 2014.
- 294. <u>P.-C. Li</u>, "Enhanced photoacoustic imaging and photothermal therapy with synergistic delivery of gold nanorods", **invited talk**, World Molecular Imaging Congress (WMIC), Seoul, Korea, September 17-20, 2014.
- 295. <u>P.-C. Li</u>, "Open Platforms for Biomedical Ultrasound Research", **invited talk**, CUMB 2014, Xian, China, September 19-20, 2014.
- 296. <u>P.-C. Li</u>, "Ultrasound for Preclinical Research: Theranosis and 3D Cell Culture System", the 9th International Conference on Ultrasonic Biomedical Microscanning (UBM 2014), keynote speech, Edinburgh, Scotland, September 28-October 1, 2014.
- 297. <u>P.-C. Li</u>, "Ultrasound for Preclinical Research on Small Animals and 3D Cell Culture Systems", keynote speech, International Conference on Biomedical Ultrasound (ICBMU), Shenzhen, China, October 21-22, 2014.
- 298. <u>P.-C. Li</u>, "Diagnostic Ultrasound Safety: Radiation Force Based Imaging as an Example", **invited talk**, the 11-th Congress of the Asian Federation of Societies for Ultrasound in Medicine and Biology, Kuala Lumper, Malaysia, October 30-November 1, 2014.
- 299. <u>P.-C. Li</u>, "Theranostic agent for enhanced plasmonic photothermal therapy", invited talk, the Second Congress of New Development on Molecular Imaging, Guangzhou, China, December 19-21, 2014.
- 300. S.-W. Liu, W.-W. Liu and <u>P.-C. Li</u>, "Triggered vaporization of gold nanodroplets for enhanced photothermal therapy", SPIE Photonics West 2015, San Francisco, California, February 7-12, 2015.
- 301. P.-L. Kuo and <u>P.-C. Li</u>, "Evaluating Elasticity Dynamics of Three-Dimensional Cell-Matrix Using Ultrasonic Shear Waves", the 8th Asian-Pacific Conference on Biomechanics, Sapporo, Japan, September 16-19, 2015.
- 302. <u>P.-C. Li</u>, "Shear Wave Elasticity Imaging for Preclinical Research on Small Animals and 3D Cell Cultures", **invited talk**, IEEE International Ultrasonics Symposium (IUS), Taipei, Taiwan, October 21-24, 2015.
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- 308. P.-Y. Lee, W.-W. Liu, S.-C. Chen and <u>P.-C. Li</u>, "Dual-wavelength opticalresolution photoacoustic microscopy for cells with gold nanoparticle bioconjugates in three-dimensional cultures", SPIE Photonics West 2015, San Francisco, California, February 13-18, 2016.
- 309. P.-Y. Lee, W.-W. Liu, S.-C. Chen, L. Tseng, L. Cao and <u>P.-C. Li</u>, "3D Photoacoustic Microscopy for Cell Tracking", European Molecular Imaging Meeting, Utrecht, Netherlands, March 8-10, 2016.
- 310. W.-S. Wu, W-W. Liu and <u>P.-C. Li</u>, "Cost-effective design of a concurrent photoacoustic-ultrasound microscope using single laser pulses", European Molecular Imaging Meeting, Utrecht, Netherlands, March 8-10, 2016.
- 311. <u>P.-C. Li</u>, "Preclinical Research with 3D Cell Cultures Using Light and Sound", invited talk, 3rd International Academic Conference of Chinese Society of Ultrasound Molecular Imaging (CSUMI), Ultrasound Biological Effects and Ultrasound Treatment, Chongqing, China, April 8-11, 2016.
- 312. P.-Y. Chao, W.-W. Liu, Y.-T. Lu, S.-C. Chen and <u>P.-C. Li</u>, "Full-Field Laser Speckle Contrast Imaging for Shear Wave Measurements of 3D Cell Culture Systems", IEEE International Ultrasonics Symposium (IUS), Tours, France, September 18-21, 2016.
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- 316. <u>P.-C. Li</u>, "Cell tracking in 3 cell culture systems using dual wavelength photocoustic microscopy", **invited talk**, Internation Conference on Bio-fabrication and Bio-monitoring, Taipei, Taiwan, October 13-14, 2016.
- 317. <u>P.-C. Li</u>, "3D tracking of cells under different matrix stiffness using photoacoustic microscopy and shear wave elasticity measurements", **keynote speech**, International Conference on Biomedical Ultrasound, Nanjing, China, October 20-21, 2016.
- 318. <u>P.-C. Li</u>, "Shear wave elasticity imaging for preclinical research", **invited talk**, the 3rd Annual Conference on Ultrasound in Medicine and Biology, Shenzhen, China, November 6, 2016.
- 319. Y.-H. Wang and <u>P.-C. Li</u>, "Coherence-Based Adaptive Imaging for High-Frame-Rate Ultrasonic Imaging", invited talk, the 172nd meeting of Acoustical Society of America, Honolulu, Hawaii, November 28 – December 2, 2016.
- 320. P.-Y. Lee, W.-W. Liu, S.-C. Chen and <u>P.-C. Li</u>, "Dual-Wavelength Photoacoustic Microscopy for Cell Tracking", invited talk, the 172nd meeting of Acoustical Society of America, Honolulu, Hawaii, November 28 – December 2, 2016.
- 321. <u>P.-C. Li</u>, "Photoacoustic imaging for preclinical research with 3D cell culture systems", keynote speech, International Forum on Medical Imaging in Asia, Okinawa, Japan, January 19-20, 2017.
- 322. <u>P.-C. Li</u>, "Ultrasound for preclinical research: shear wave imaging and photoacoustic imaging of 3D cell culture systems", **invited talk**, 2017 International Conference on Regulatory Approaches for Fostering Innovation in Drugs and Medical Devices, March 30-31, 2017.
- 323. Y.-P. Lai, Y.-S. Yang, L. Cao and <u>P.-C. Li</u>, "High Frequency Shear-Wave Elasticity Measurement in Matrix of 3D Gastric Cancer Invasion Model", European Molecular Imaging Meeting, Cologne, Germany, April 5-7, 2017.
- 324. <u>P.-C. Li</u>, "3D cell tracking with dual wavelength photoacoustic microscopy", invited talk, the 39th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Jeju Island, Korea, July 11-15, 2017.
- 325. <u>P.-C. Li</u>, "Cell tracking using dual-wavelength photoacoustic microscopy", **invited talk**, the 4th Gastrointestinal Endoscopic Molecular Imaging Forum, Beijing, China, August 25-27, 2017.
- 326. J. Gao, M. O'Dell, R. Min, J. Chen1 and <u>P.-C. Li</u>, "Ultrasound elastography in assessment of post-stroke spasticity of the biceps brachii muscle", IEEE

International Ultrasonics Symposium (IUS), Washington, D.C., USA, September 6-9, 2017.

- 327. S.-C. Lin and <u>P.-C. Li</u>, "Estimating 2D Flow Vectors in Ultrasound Plane-Wave Fourier Imaging", IEEE International Ultrasonics Symposium (IUS), Washington, D.C., USA, September 6-9, 2017.
- 328. Y.-A. Wang, U W. Lok and <u>P.-C. Li</u>, "Needle Guidance Using Laser Generated Leaky Acoustic Waves", IEEE International Ultrasonics Symposium (IUS), Washington, D.C., USA, September 6-9, 2017.
- 329. Y.-S. Yang, P.-Y. Chao and <u>P.-C. Li</u>, "Tomographic Shear Wave Imaging: Feasibility Study", IEEE International Ultrasonics Symposium (IUS), Washington, D.C., USA, September 6-9, 2017.
- 330. P.-Y. Chao, W.-W. Liu, S.-S. Hsu and <u>P.-C. Li</u>, "Laser Speckle Contrast Shear Wave Imaging of Three-Dimensional Cancer Metastasis Model", IEEE International Ultrasonics Symposium (IUS), Washington, D.C., USA, September 6-9, 2017.
- 331. <u>P.-C. Li</u>, "Multifunctional microbubbles in ultrasound theranostics", invited talk, the 16th World Federation for Ultrasound in Medicine and Biology Congress in 2017, Taipei, Taiwan, October 13-17, 2017.
- 332. T.-H. Wu, W.-W. Liu, Y.-H. Chen, C. J.-T. Lee, <u>P.-C. Li</u> and Y.-H. Hsu, "study of the nutrition deprived condition on the development of a microtumor", The 21st International Conference on Miniaturized Systems for Chemistry and Life Sciences, μTAS, Savannah, USA, October 22-26, 2017.
- 333. W.-W. Liu and <u>P.-C. Li</u>, "Ultrasound Modulates Piezo1-Mediated Mechanotransduction in Neuro2A Cells", 62nd Annual Meeting of the Biophysical Society, San Francisco, California, February 17-21, 2018.
- 334. J. Gao, J. Chen, M. O'Dell, <u>P.-C. Li</u>, J. Rubin, and R. Min, "Ultrasound Strain Imaging to Assess the Biceps Brachii Muscle in Chronic Post-Stroke Spasticity", The American Institute of Ultrasound in Medicine(AIUM2018) Convention, New York, USA, March 24-28, 2018.
- 335. <u>P.-C. Li</u>, "Adaptive Beamforming and Motion Estimation in Ultrafast Ultrasound Imaging", invited talk, the 13th Congress of the Asian Federation of Societies for Ultrasound in Medicine and Biology in conjunction with ACUCI 2018, Seoul, Korea, May 23-26, 2018.
- 336. <u>P.-C. Li</u>, "Shear Wave Imaging for Preclinical Research", invited talk, the 13th Congress of the Asian Federation of Societies for Ultrasound in Medicine and Biology in conjunction with ACUCI 2018, Seoul, Korea, May 23-26, 2018.

- 337. <u>P.-C. Li</u>, "Future Prospects of Basic Ultrasound Research", **invited talk**, the 13th Congress of the Asian Federation of Societies for Ultrasound in Medicine and Biology in conjunction with ACUCI 2018, Seoul, Korea, May 23-26, 2018.
- 338. <u>P.-C. Li</u>, "Ultrasound technologies for preclinical and clinical research", IFMBE Awardees Keynote Lectures, World Congress on Medical Physics and Biomedical Engineering, Prague, Czech Republic, June 3-8, 2018.
- 339. P.-Y. Chao and <u>P.-C. Li</u>, "3D Shear Wave Elasticity Tomography based on Laser Speckle Contrast Imaging", IEEE International Ultrasonics Symposium (IUS), Kobe, Japan, October 22-25, 2018.
- 340. W.-W. Liu, S.-H. Huang and <u>P.-C. Li</u>, "Synchronized ADV and ODV for enhanced cavitation", IEEE International Ultrasonics Symposium (IUS), Kobe, Japan, October 22-25, 2018.
- 341. C.-L. Lee, Y.-S. Yang and <u>P.-C. Li</u>, "Shear Wave Computed Tomography with Directional Filtering", IEEE International Ultrasonics Symposium (IUS), Kobe, Japan, October 22-25, 2018.
- 342. C.-Y. Lee and <u>P.-C. Li</u>, "Improved Decorrelation Based Elevational Motion Estimation with Singular Value Decomposition and Machine Learning", IEEE International Ultrasonics Symposium (IUS), Kobe, Japan, October 22-25, 2018.
- 343. W.-W. Liu, S.-H. Chen and <u>P.-C. Li</u>, "Functional calcium imaging using opticalresolution photoacoustic microscopy in a 3D tumor cell culture", SPIE BiOS, San Francisco, California, United States, February 2-7, 2019.
- 344. <u>P.-C. Li</u>, "Shear wave elasticity imaging approaches for mechanobiology studies", plenary speaker, the 9th WACBE World Congress on Bioengineering, Taipei, Taiwan, August 16-19, 2019.
- 345. <u>P.-C. Li</u>, "Shear Wave Elasticity Imaging for Studying Mechanical Interactions of Cells", invited talk, the 17th World Federation for Ultrasound in Medicine and Biology Congress, Melbourne, Australia, September 6-9, 2019.
- 346. <u>P.-C. Li</u>, "Photoacoustic Microscopy for Cells in a 3D Microenvironment: Systems and Applications", **invited talk**, the 17th World Federation for Ultrasound in Medicine and Biology Congress, Melbourne, Australia, September 6-9, 2019.
- 347. <u>P.-C. Li</u>, "Shear wave imaging and photoacoustic imaging of small animals and 3D cell culture systems", invited talk, the fall meeting of the Dutch Society for Medical Ultrasound, Delft, Netherlands, October 4, 2019.
- 348. W.-W. Liu and <u>P.-C. Li</u>, "Ultrasound Modulates Piezo1 Ion Channel Activity", IEEE International Ultrasonics Symposium (IUS), Glasgow, Scotland, UK, October 6-9, 2019.

- 349. G.-H. Lai, <u>P.-C. Li</u> and C.-C. Shen "Golay-Encoded Pulse-Inversion Subtraction for RealTime Ultrasound Monitoring of HIFU Therapy", IEEE International Ultrasonics Symposium (IUS), Glasgow, Scotland, UK, October 6-9, 2019.
- 350. S. -L. Lu, W. -W Liu, J. C. -H. Cheng, Y. -H. Kuo, C. -R. C. Wang and <u>P.-C. Li</u>, "Radiosensitization in Cancer Treatment with Gold Nanoparticles through Synergistic Sonoporation", IEEE International Ultrasonics Symposium (IUS), Glasgow, Scotland, UK, October 6-9, 2019.
- 351. S.-C. Yang, P.-Y. Chao and <u>P.-C. Li</u>, "Single-Transducer Elasticity Measurements Using Reflected Shear Waves", IEEE International Ultrasonics Symposium (IUS), Glasgow, Scotland, UK, October 6-9, 2019.
- 352. P. -Y. Chao and <u>P.-C. Li</u>, "Laser Speckle Contrast Based Shear Wave Elasticity Tomography: An Anisotropic Phantom Study", IEEE International Ultrasonics Symposium (IUS), Glasgow, Scotland, UK, October 6-9, 2019.
- 353. H. -C. Ko, W. -W. Liu, Y. -H. Kuo, C. -R. C. Wang and <u>P.-C. Li</u>, "Sonoporation based on nanodroplet vaporization", IEEE International Ultrasonics Symposium (IUS), Glasgow, Scotland, UK, October 6-9, 2019.
- 354. W.-C. Yang, C.-Y. Lin, W.-W. Liu, <u>P.-C. Li</u> and Y.-H. Hsu, "Development of A Microfluidic Platform For Induction of Angiogenesis From A Vascularized Microtissue", the 23rd International Conference on Miniaturized Systems for Chemistry and Life Sciences(μTAS 2019), Basel, Switzerland, October 27-31, 2019.
- 355. <u>P.-C. Li</u>, "Ultrasound for preclinical research: Shear wave imaging and photoacoustic imaging of small animals and 3D cell culture systems", **keynote speech**, the 5th International Conference on Biomedical Ultrasound, Wuhan, China, November 7-9, 2019.
- 356. Y.-P. Lai, S.-C. Chen, Y.-S. Yang, C.-L. Yeh and <u>P.-C. Li</u>, "Alterations of Extracellular Matrix Elasticity Stiffness in Three Dimensional Gastric Cancer Invasion Model Measured by High Frequency Shear-Wave Elasticity", 4th EACR Conference of Goodbye Flat Biology: Advancing 3D-based Models for Cancer Biology and Drug Discovery, Berlin, Germany, November 10-13, 2019.
- 357. S.-C. Chen, Y.-P. Lai, Y.-T. Ma, Y.-S. Yang, C.-L. Yeh and <u>P.-C. Li</u>, "Stiffness alteration of tumor matrix after tumor killing by CD8⁺ T cells", 4th EACR Conference of Goodbye Flat Biology: Advancing 3D-based Models for Cancer Biology and Drug Discovery, Berlin, Germany, November 10-13, 2019.
- 358. <u>P.-C. Li</u>, "Preclinical research with light and sound: Shear wave imaging and photoacoustic imaging of 3D cell culture systems", **invited talk**, the International Symposium of Frontier Acoustics, Shenzhen, China, November 20, 2019.

- 359. <u>P.-C. Li</u>, "Ultrasound for preclinical research: Shear wave imaging and photoacoustic imaging of small animals and 3D cell culture systems", **plenary talk**, the 40th Symposium on Ultrasonic Electronics, Tokyo, Japan, November 25-27, 2019.
- 360. <u>P.-C. Li</u>, "Synergistic Vaporization for Effective Sonoporation", invited talk, International Symposium on Medical Ultrasonics, Chiba, Japan, November 28, 2019.
- 361. S.-H. Li and <u>P.-C. Li</u>, "Beamforming of Row-Column-Addressed 2D Arrays Based on Dynamic Apodization with Deep Neural Network", IEEE International Ultrasonics Symposium (IUS), Virtual Symposium, September 6-11, 2020.
- 362. S.-C. Lin and <u>P.-C. Li</u>, "Feasibility of Fourier-Based Fast 3D Ultrasound Imaging Using Row-Column Addressed 2-D Arrays", IEEE International Ultrasonics Symposium (IUS), Virtual Symposium, September 6-11, 2020.
- 363. S.-L. Lu, W.-W. Liu, Jason C.-H. Cheng, J.-H. Wu, C.-R. Chris Wang and <u>P.-C.</u> <u>Li</u>, "In vivo Radiosensitization in Liver Cancer with Gold Nanoparticles through Sonoporation on VEGFR2-Targeted Microbubbles", IEEE International Ultrasonics Symposium (IUS), Virtual Symposium, September 6-11, 2020.
- 364. S.-J. Chung, Y.-W. Huang, P.-L. Lee and <u>P.-C. Li</u>, "Diagnosis of Obstructive Sleep Apnea Using Dynamic Strain Measurements of Tongue Muscle", IEEE International Ultrasonics Symposium (IUS), Virtual Symposium, September 6-11, 2020.
- 365. C.-Y. Lee, U-Wai Lok and <u>P.-C. Li</u>, "Elevational motion estimation for 3D ultrasound with machine learning and a speckle generation gel pad", SPIE International Forum on Medical Imaging in Asia, Taipei, April 22, 2021.
- 366. <u>P.-C. Li</u>, "Shear wave stiffness measurements of 3D cell culture systems", plenary talk, the 2021 Conference on Materials, Mimics, and Microfluidics: Engineering Tools for Mechanobiology (3M2021), Virtual and Singapore, July 21-23, 2021.
- 367. S.-C. Lin and <u>P.-C. Li</u>, "Compounding for Row-Column-Address Arrays with Fourier-Based Beamforming", IEEE International Ultrasonics Symposium (IUS), Virtual Symposium, September 11-16, 2021.
- 368. S.-H. Li, S.-C. Lin and <u>P.-C. Li</u>, "Improved Row-Column Addressed Array Beamforming with Reconstruction of Fully Sampled Array Data Using k-Space Filtering", IEEE International Ultrasonics Symposium (IUS), Virtual Symposium, September 11-16, 2021.
- 369. S.-L. Lu, W.-W. Liu, K. Han, C.-H. Cheng and <u>P.-C. Li</u>, "Evaluations of Radiosensitivity and Tumor Microenvioronment Stiffness with Shear Wave Elasticity Imaging", IEEE International Ultrasonics Symposium (IUS), Virtual Symposium, September 11-16, 2021.

- 370. W.-W. Liu and <u>P.-C. Li</u>, "SWEI of 3D Cell Cultures for Mechanistic Studies of ECM Stiffness-Mediated Tumor Growth", IEEE International Ultrasonics Symposium (IUS), Virtual Symposium, September 11-16, 2021.
- 371. H.-L. Cheng, C.-W. Yang and <u>P.-C. Li</u>, "Needle Tip Detection by Using Correlation Matrix of Aperture Data and Coherence Factor", IEEE International Ultrasonics Symposium (IUS), Virtual Symposium, September 11-16, 2021.
- 372. K.-L. Lai and <u>P.-C. Li</u>, "Ultrafast Doppler with Spatial SVD Filtering for Synovial Vascularity Imagine in Rheumatold Arthritis", IEEE International Ultrasonics Symposium (IUS), Virtual Symposium, September 11-16, 2021.
- 373. C.-W. Yang and <u>P.-C. Li</u>, "Real-Time Reverberation Identification Using Coherence Factor in Ultrasound Nondestructive Testing", IEEE International Ultrasonics Symposium (IUS), Virtual Symposium, September 11-16, 2021.
- 374. <u>P.-C. Li</u>, "Biomedical Research with Synergy of Light and Sound", award speech, the 2022 IUPESM World Congress on Medical Physics and Biomedical Engineering, Singapore, June 12-17, 2022.
- 375. G.-S. Jeng, C.-L. Yen, L.-Y. Tseng and <u>P.-C. Li</u>, "3D Shear Wave Computed Tomography with Regularization", IEEE International Ultrasonics Symposium (IUS), Venice, Italy, October 10-13, 2022.
- 376. K.-C. Chen, H.-P. Wang and <u>P.-C. Li</u>, "Quantitative Contrast-Enhanced Harmonic Endoscopic Ultrasound for Differential Diagnosis of Pancreatic Tumors", IEEE International Ultrasonics Symposium (IUS), Venice, Italy, October 10-13, 2022.
- 377. M.-C. Tsai, L.-C. Lin and <u>P.-C. Li</u>, "Automatic Left Ventricle Segmentation in the Presence of Poor Echocardiographic Image Quality Using Machine Learning and Contour Fitting", IEEE International Ultrasonics Symposium (IUS), Venice, Italy, October 10-13, 2022.
- 378. S.-C. Lin and <u>P.-C. Li</u>, "Improvements in virtually compounded Fourier imaging with row-column addressed arrays", IEEE International Ultrasonics Symposium (IUS), Venice, Italy, October 10-13, 2022.
- 379. K.-L. Lai and <u>P.-C. Li</u>, "Correlation between ultrafast power Doppler imaging and rheumatoid arthritis disease severity", IEEE International Ultrasonics Symposium (IUS), Venice, Italy, October 10-13, 2022.
- 380. <u>P.-C. Li</u>, "Elasticity Measurements of Millimeter Sized Biomaterials: Technologies and Applications", **plenary speech**, the 5th Global Conference on Biomedical Engineering, Taipei, December 15-17, 2022.
- 381. S.-L. Lu, Y. Pei, W.-W. Liu, K. Han, J. C.-H. Cheng and <u>P.-C. Li</u>, "Impact of Sonoporation-Assisted Lox Inhibition on Radiosensitivity Using 3D Liver Cancer Cell Culture and Shear Wave Elasticity Imaging", IEEE International Ultrasonics Symposium (IUS), Montreal, Canada, September 3-8, 2023.

- 382. Y.-C. Chen, T.-W. Chen and <u>P.-C. Li</u>, "Reflected Shear Wave Computed Tomography (R-SWCT) for Elasticity Imaging of 3D Cell Culture Using a Single-Element Transducer", IEEE International Ultrasonics Symposium (IUS), Montreal, Canada, September 3-8, 2023.
- 383. W.-H. Shen, Y.-A. Lin, <u>P.-C. Li</u> and M.-L. Li, "Phase Aberration Correction with Adaptive Coherence-Weighted Point Spread Function Restoration Filtering Technique", IEEE International Ultrasonics Symposium (IUS), Montreal, Canada, September 3-8, 2023.
- 384. M.-C. Lin, H.-Y. Liu and <u>P.-C. Li</u>, "Estimation of Fractional Flow Reserve Using a Forward Looking IVUS Transducer", IEEE International Ultrasonics Symposium (IUS), Montreal, Canada, September 3-8, 2023.
- 385. R. Rahpeima and <u>P.-C. Li</u>, "A Comprehensive FEA Platform for Realistic Simulations of Photoacoustic Imaging", IEEE International Ultrasonics Symposium (IUS), Montreal, Canada, September 3-8, 2023.
- 386. W.-W. Liu, M.-C. Tseng and <u>P.-C. Li</u>, "SWEI of 3D Cell Cultures for Developing Mechanotherapy Targeting Matrix Stiffness with Verteporfin", IEEE International Ultrasonics Symposium (IUS), Montreal, Canada, September 3-8, 2023.
- 387. C.-Y. Hsieh, Y.-S. Wang, C.-P. Lin, W.-Z. Sun, F.-S. Jiang, C.-L. Hu, W. Zhou, T.-H. Chen and <u>P.-C. Li</u>, "Automatic 3D Needle Trajectory Navigation Using a Zipper Array Transducer", IEEE International Ultrasonics Symposium (IUS), Montreal, Canada, September 3-8, 2023.
- 388. K.-C. Chen, <u>P.-C. Li</u> and H.-P. Wang, "Utilization of Handcrafted Software for Quantitative Contrast-Enhanced Harmonic EUS-Focusing on Differential Diagnosis of Pancreatic Tumors", United European Gastroenterology Week (UEG Week) 2023, Copenhagen, Denmark, October 14-17, 2023.
- 389. M.-L. Han, K.-C. Chen, <u>P.-C. Li</u> and H.-P. Wang, "Application of Quantitative Contrast-Enhanced Harmonic EUS on Differential Diagnosis of Gallbladder Polypoid Lesions", United European Gastroenterology Week (UEG Week) 2023, Copenhagen, Denmark, October 14-17, 2023.
- 390. <u>P.-C. Li</u>, "Shear wave elasticity imaging of 3D cell culture systems: principles and applications", WFUMB 2023, Ultrasound World Congress, Muscat, Oman, November 4-7, 2023.

Book Chapters, Technical Reports and Others

1. <u>P.-C. Li</u> and C.-C. Shen, "Enhanced contrast detection using ultrasonic pulse inversion imaging", Proceedings of WCCBME 2002, Kluwer/Plenum Academic Publishers, New York, New York.

- 2. <u>P.-C. Li</u>, Y.-F. Chen, W.-F. Cheng and F.-J. Hsieh, "High frequency ultrasound image and histology of a mouse tumor", Cover Page Illustration, IEEE Transactions on Ultrasonics, Ferroelectrics and Frequency Control, Vol. 51, No. 1, January, 2004.
- <u>P.-C. Li</u>, C.-W. Wei, S.-W. Huang, C.-K. Liao and C.-R. Chris Wang, "Photoacoustic flow measurements with gold nanoparticles", Chapter 31, Photoacoustic Imaging and Spectroscopy, CRC Press, 2009.

Patents

- "Imaging system display processor", K. Ustuner, M. Haller, T.-L. Ji, <u>P.-C. Li</u>, and C. Cinbis, U.S. Patent number 5,479,926, 1996/1/2.
- "Ultrasonic imaging aberration correction system and method", D. Langdon, G. Holley, J. Hossack and <u>P.-C. Li</u>, U.S. Patent number 6,131,458, 2000/10/17.
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