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Education

Columbia University in the City of New York

Ph.D. in *Electrical Engineering* 09/2013 ~ 11/2017
Dissertation: High-speed phase-stable swept source optical coherence tomography: functional imaging and biomedical applications
Advisor: Christine Hendon, PhD

University of California, Los Angeles

M.S. in *Electrical Engineering* 09/2011 ~ 12/2012
Thesis: Ultra Large Field-of-view Dual-mode Biomedical Imaging System
Advisor: Aydogan Ozcan, PhD

Shanghai Jiao Tong University

B.S. in *Electrical Engineering* 09/2007 ~ 06/2011
Senior Design: The Application of Interference Modulation in Display Area
Advisor: Yikai Su, PhD

Academic Positions

Columbia University in the City of New York

Postdoctoral Research Scientist 1/2018 ~ present

Columbia University in the City of New York

Teaching Assistant 09/2013 ~ 05/2014
◇ *ELEN E4488 Optical Systems* Fall 2013
◇ *ELEN E4830 Digital Image Processing* Spring 2014

University of California, Los Angeles

Junior Development Engineer 01/2013 ~ 07/2013

Honors and Awards

1. Millman Teaching Assistant Award 05/2014
2. Wei Family Private Foundation Alternative Award 10/2013
3. Shanghai Municipal Outstanding Graduate Award 06/2011
4. Shanghai Jiao Tong University Excellent Bachelor's Thesis 06/2011

Publications and Patents

◇ Journal Articles

1. X. Yao, Y. Gan, Y. Ling, C. C. Marboe, C. P. Hendon. "Multi-contrast Endomyocardial Imaging By Single-channel High Resolution Cross-polarization Optical Coherence Tomography," *Journal of Biophotonics*, Accepted (2017). doi: [10.1002/jbio.201700204](https://doi.org/10.1002/jbio.201700204)
2. J. P. McLean, Y. Ling, C. P. Hendon. "Frequency-constrained robust principal component analysis: a sparse representation approach to segmentation of dynamic features in optical coherence tomography imaging," *Optics Express*, vol. 25, no. 21, 25819-25830 (2017). doi: [10.1364/OE.25.025819](https://doi.org/10.1364/OE.25.025819)
3. Y. Ling, X. Yao, C. P. Hendon. "Highly phase-stable 200 kHz swept-source optical coherence tomography based on KTN electro-optic deflector," *Biomedical Optics Express*, vol. 8, no. 8, 3687-3699 (2017). doi: [10.1364/BOE.8.003687](https://doi.org/10.1364/BOE.8.003687)
4. Y. Ling, Y. Gan, X. Yao, C. P. Hendon. "Phase noise analysis on swept-source optical coherence tomography system," *Optics Letters*, vol. 42, no. 7, 1333-1336 (2017). doi: [10.1364/OL.42.001333](https://doi.org/10.1364/OL.42.001333)
5. Y. Ling, X. Yao, U. A. Gamm, E. Arteaga-Solis, C. W. Emala, M. A. Choma, C. P. Hendon. "Ex vivo visualization of human ciliated epithelium and quantitative analysis of induced flow dynamics by using optical coherence tomography," *Lasers in Surgery and Medicine*, vol. 49, no. 3, 270-279 (2017). **Editor's Choice**. doi: [10.1002/lsm.22653](https://doi.org/10.1002/lsm.22653)
6. Z. Göröcs, Y. Ling, M. D. Yu, D. Karahalios, K. Mogharabi, K. Lu, A. Ozcan. "Giga-pixel fluorescent imaging over an ultra-large field-of-view using a flatbed scanner," *Lab on a Chip* 13, 4460-4466 (2013). doi: [10.1039/C3LC51005K](https://doi.org/10.1039/C3LC51005K).
7. Z. He, Z. Ye, Q. Cui, J. Zhu, H. Gao, Y. Ling, H. Cui, J. Lu, X. Guo, Y. Su. "Reflection chromaticity of cholesteric liquid crystals with sandwiched periodical isotropic defect layers," *Optics Communications*, vol. 284, no. 16-17, 4022-4027 (2011). doi: [10.1016/j.optcom.2011.04.015](https://doi.org/10.1016/j.optcom.2011.04.015).

◇ Conference Presentations and Proceedings

1. Y. Ling*, W. Meiniel*, E. Angelini, J.-C. Olive-Marin, C. P. Hendon. "Implementation and demonstration of compressed sensing enabled phase-resolved swept-source optical coherence tomography for time lapse imaging," Accepted. *Optical Coherence Tomography and Coherence Domain Optical Methods in Biomedicine XXII*, 10483-90.
*: *Equally contributed.*
2. Y. Ling, C. P. Hendon. "Investigating mechanically induced phase response of the tissue by using high-speed phase-resolved optical coherence tomography", Proc. SPIE 10067, *Optical Elastography and Tissue Biomechanics IV*, 100670Q (April 24 2017). doi:[10.1117/12.2252376](https://doi.org/10.1117/12.2252376).
3. Y. Ling, U. A. Gamm, X. Yao, E. Arteaga-Solis, C. W. Emala, M. A. Choma, C. P. Hendon. "Visualization of ex vivo human ciliated epithelium and induced flow using optical coherence tomography," Proc. SPIE 10041, *Optical Techniques in Pulmonary Medicine II*, 1004106 (19 April 2017). doi:[10.1117/12.2253045](https://doi.org/10.1117/12.2253045).
4. Y. Ling, C. P. Hendon. "Ultrahigh phase-stable swept-source optical coherence tomography as a cardiac imaging platform," Proc. SPIE 9689, *Photonic Therapeutics and Diagnostics XII*, 968937 (April 27, 2016). doi:[10.1117/12.2216438](https://doi.org/10.1117/12.2216438).
5. Y. Ling, X. Yao, C. P. Hendon. "Nonlinear amplification and detection for swept-source optical coherence tomography (Poster Presentation)," *European Conference on Biomedical Optics 2015*, Paper 9541-58.
6. Z. Göröcs, Y. Ling, M. D. Yu, D. Karahalios, K. Mogharabi, K. Lu, A. Ozcan. "Fluorescent imaging over an ultralarge field-of-view of 532 cm² using a flatbed scanner," Proc. SPIE 8951, *Optical Diagnostics and Sensing XIV: Toward Point-of-Care Diagnostics*, 89510D (March 12, 2014). doi:[10.1117/12.2038602](https://doi.org/10.1117/12.2038602).

7. Y. Ling, W. Gao, S. Ouyang, Y. Su, H.-P. D. Shieh. "Flat-Panel-Display System Based on Interference Modulation for Both Intensity and Color." SID 2011 Digest, 71.3, p. 1049-1051, (2011). doi: [10.1889/1.3621001](https://doi.org/10.1889/1.3621001).

◇ **Patents**

1. C. P. Hendon, Y. Ling. "Compressed Sensing Enabled Swept Source Optical Coherence Tomography." US Patent Pending.
2. C. P. Hendon, X. Yao, Y. Ling. "High-sensitive Swept-source Optical Coherence Tomography System And Methods Of Use Thereof." US Patent WO/2016/086112.
3. A. Ozcan, Z. Göröcs, Y. Ling, M. D. Yu. "Fluorescent imaging using a flatbed scanner." US Patent 9,683,938.

Professional Service

- ◇ Student Member, Society of Photographic Instrumentation Engineers (SPIE) 2012~present