

CURRICULUM VITAE**OF****WEI-CHIANG LIN**

10555 West Flagler Street, EAS 2673
 Department of Biomedical Engineering
 Florida International University
 Miami, FL 33129
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EDUCATION

Degree	Institution	Field	Dates
PhD	University of Texas at Austin	Biomedical Engineering	1997
MS	University of Texas at Austin	Biomedical Engineering	1994
BS	Chung-Yuan Christian University	Biomedical Engineering	1989

FULL-TIME ACADEMIC EXPERIENCE

Institution	Rank	Field	Dates
Florida International University	<i>Associate Professor</i>	Biomedical Engineering	8/2012 – Now
Florida International University	<i>Director</i>	<i>MS Orthotics and Prosthetics Engineering Track</i>	8/2020 - Now
Florida International University	<i>Co-Director</i>	Biomedical Engineering <i>MS Orthotics and Prosthetics Track</i>	8/2017 - 2020
Florida International University	<i>Interim Chair</i>	Biomedical Engineering	8/2015 – 8/2017
Florida International University	<i>Graduate Program Director</i>	Biomedical Engineering	9/2012 – 8/2015
Miami Children's Hospital	<i>FIU Associate Professor of Neuro-Engineering</i>	Neuro-Engineering	9/2008 – 2012
Florida International University	<i>MCH Associate Professor of Neuro-Engineering & Graduate Program Director</i>	Biomedical Engineering	9/2008 – 2012

Miami Children's Hospital	<i>FIU Assistant Professor of Neuro-Engineering</i>	Neuro-Engineering	8/2004 – 8/2008
Florida International University	<i>MCH Assistant Professor of Neuro-Engineering</i>	Biomedical Engineering	8/2004 – 8/2008
Vanderbilt University	<i>Research Assistant Professor</i>	Biomedical Engineering	1/2001-7/2004
Vanderbilt University	<i>Research Associate</i>	Biomedical Engineering	7/1997-1/2001
The University of Texas Medical Branch at Galveston	<i>Research Associate</i>	Biomedical Engineering	1/1997 – 6/1997

NON-ACADEMIC EXPERIENCE

Place of Employment	Title	Dates
Industrial Technology Research Institute, Hsinchu, Taiwan	Assistant Engineer	8/1989 - 7/1991

PUBLICATIONS IN DISCIPLINE

Books

NA

Papers in Peer-Reviewed Journals

1. Jared Leichner, Wei-Chiang Lin, "Advances in imaging and analysis of 4 fluorescent components through the rat cortical column". *Journal of Neuroscience Methods*, V341, 108792, (2020).
2. Deshmukh, Abhay, Jared Leichner, Jihye Bae, Yinchon Song, Pedro A. Valdés-Hernández, Wei-Chiang Lin, and Jorge J. Riera. "Histological Characterization of the Irritative Zones in Focal Cortical Dysplasia Using a Preclinical Rat Model." *Frontiers in cellular neuroscience* 12 (2018): 52.
3. Chegondi, Madhuradhar, Jun Sasaki, Sayed Naqvi, Wei-Chiang Lin, Andre Raszynski, and Balagangadhar R. Totapally. "Heart rate variability in children following drowning injury." *Indian Journal of Critical Care Medicine: Peer-reviewed, Official Publication of Indian Society of Critical Care Medicine* 22, no. 1 (2018): 53.
4. Chegondi, Madhuradhar, Teshaun Francis, Wei-Chiang Lin, Sayed Naqvi, Andre Raszynski, and Balagangadhar R. Totapally. "Effects of closed endotracheal suctioning on systemic and cerebral oxygenation and hemodynamics in children." *Pediatric Critical Care Medicine* 19, no. 1 (2018): e23-e30.
5. Yinchon Song, Sarahy Garcia, Yisel Frometa, Jessica C. Ramella-Roman, Mohammad Soltani, Mohamed Almadi, Jorge J Riera, Wei-Chiang Lin. "Quantitative assessment of hemodynamic and

- structural characteristics of in vivo brain tissue using total diffuse reflectance spectrum measured in a non-contact fashion”. *Biomed. Opt. Express* 8, 78-103 (2017).
6. Yinchen Song, Jorge J Riera, Sanjiv Bhatia, John Ragheb, Claudia Garcia, Alexander G. Weil, Prasanna Jayakar, Wei-Chiang Lin. “Intraoperative optical mapping of epileptogenic cortices in pediatric patients”. *NeuroImage: Clinical*, 11, 423-434. 2016.
 7. Yinchen Song, Rafael A. Torres, Sarahy Garcia, Yisel Frometa, Jihye Bae, Abhay Deshmukh, Wei-Chiang Lin, Ying Zheng, Jorge J Riera. “Dysfunction of Neurovascular/Metabolic Coupling in Chronic Focal Epilepsy”. *Biomedical Engineering, IEEE Transactions on* 63(1):97-110. 2016.
 8. Yinchen Song, Basavaraju Sanganahalli, Fahmeed Hyder, Wei-Chiang Lin, Jorge J Riera. “Distributions of irritative zones are related to individual alterations of resting-state networks in focal epilepsy”. *PLOS One* 10(7): e0134352. 2015.
 9. Xizi Dai, Yen-Chih Huang, Jared Leichner, Madhvan Nair, Wei-Chiang Lin, Chen-Zhong Li. (2015) Peptide modified polymer poly (glycerol- dodecanedioate co-fumarate) for efficient control of motor neuron differentiation. *Biomedical Materials* (2015).
 10. N Yadav, S Bhatia, J Ragheb, Y Song, A Romero, SH Oh, and **WC Lin**. "Evaluating and improving the quality of time-dependent, diffuse reflectance spectroscopic signals measured from *in vivo* brain during craniotomy." *Medical Engineering & Physics* (2013).
 11. Lin WD, Chang KP, Wang CH, Chen SJ, Fan PC, Weng WC, **Lin WC**, Tsai Y, Tsai CH, Chou IC, Tsai FJ, ‘Molecular Aspects of Dravet Syndrome Patients in Taiwan,’ *Clinica Chimica Acta* (2013).
 12. N Yadav, S Bhatia, J Ragheb, R Mehta, P Jayakar, W Yong , **WC Lin**, ‘*In vivo* detection of epileptic brain tissue using static fluorescence and diffuse reflectance spectroscopy,’ *J. Biomed. Opt.* 18(2), 027006 (Feb 05, 2013).
 13. Wang, C., C-YC Huang, and **WC Lin**. "Optical ATP biosensor for extracellular ATP measurement." *Biosensors and Bioelectronics* 43: 355-361 (2013).
 14. PC Chen, B Fernald, **WC Lin**, “Estimation of regional hemoglobin concentration in biological tissues using diffuse reflectance spectroscopy with a novel spectral interpretation algorithm,” *Physics in Medicine and biology*, 2011, **56** 3985.
 15. S Oh, T Stewart, I Miller, S Bhatia, J Ragheb, M Duchowny, P Jayakar, **WC Lin**, In vivo optical properties of cortical tubers in children with tuberous sclerosis complex (TSC): a preliminary investigation, *Epilepsia*, 52(9):1699–1704, September 2011.
 16. PC Chen, **WC Lin**, ‘Spectral-profile-based algorithm for hemoglobin oxygen saturation determination from diffuse reflectance spectra,’ *Journal of Biomedical Optics Express*, **2**, 1082-1096 (2011).
 17. **WC Lin**, DI Sandberg, S Bhatia, M Johnson, S Oh, J Ragheb, ‘Diffuse reflectance spectroscopy for *in vivo* pediatric brain tumor detection’, *Journal of Biomedical Optics*, 2010 Nov-Dec;15(6).
 18. YL Ti, PC Chen, **WC Lin**, ‘In-vivo characterization of myocardial infarction using fluorescence and diffuse reflectance spectroscopy, *Journal of Biomedical Optics*, 2010 May-Jun;15(3).
 19. **WC Lin**, DI Sandberg, S Bhatia, M Johnson, G. Morrison, J Ragheb, “Optical spectroscopy for *in vitro* differentiation of pediatric neoplastic and epileptogenic brain lesions,” *J of Biomedical Optics*, 2009 Jan-Feb;14(1):014028.
 20. S Bhatia, **WC Lin**, S Oh, D Sandberg, J Ragheb, G Morrison, “Fluorescence and diffuse reflectance spectroscopy for intraoperative guidance in pediatric epilepsy surgery,” *J Neurosurg Pediatrics*. 2008 Apr; 1(4):A351.
 21. Y Ti, **WC Lin**, “Effects of probe contact pressure on *in vivo* optical spectroscopy,” *Optics Express*, 2008 March; 16(6): 4250:4262.
 22. SK Majumder, S Gebhart, MD Johnson, R Thompson, **WC Lin**, A Mahadevan-Jansen, “A probability-based spectroscopic diagnostic algorithm for simultaneous discrimination of brain

- tumor and tumor margins from normal brain tissue,” *Applied Spectroscopy*, 2007 May; 61(5):548-57.
23. DJ Parekh, **WC Lin**, SD Herrell, “*In vivo* assessment of radio frequency induced thermal damage of kidney using optical spectroscopy,” *Journal of Urology*, 2006 Oct;176(4):1626-1630.
 24. SA Toms, P Konrad, **WC Lin**, RJ Weil, “Neuro-oncological applications of optical spectroscopy”, *Technology in Cancer Research and Treatment*, 2006 Jun; 5: 231 – 238.
 25. S Gebhart, **WC Lin**, A Mahadevan-Jansen, “Normal and neoplastic brain tissue optical properties using inverse adding-doubling,” *Physics in Medicine and Biology*, 2006 Apr 21;51(8):2011-27.
 26. DJ Parekh, **WC Lin**, SD Herrell, “Optical spectroscopy characteristics can differentiate benign and malignant renal tissues: A potentially useful modality,” *Journal of Urology*, 2005 Nov; 174(5):1754-8.
 27. SA Toms, **WC Lin**, RJ Weil, MD Johnson, ED Jansen, A Mahadevan-Jansen, “Intraoperative Optical spectroscopy identifies infiltrating glioma margins with high sensitivity,” *Neurosurgery*, 2005 Oct;57(4 Suppl):382-91; discussion 382-91.
 28. **WC Lin**, M Johnson, RJ Weil, A Mahadevan-Jansen, SA Toms, “*In vivo* optical spectroscopic detection of radiation injury in brain tissue,” *Neurosurgery*, 2005 Sep;57(3):518-25; discussion 518-25.
 29. S Gebhart, A Mahadevan-Jansen, **WC Lin**, “Experimental and simulated angular profiles of fluorescence and diffuse reflectance emission from turbid media,” *Applied Optics*, 2005 Aug 10; 44(23):4884-901.
 30. CD Anderson, **WC Lin**, JT Beckham, A Mahadevan-Jansen, CR Buttemere, MK Washington, DJ Phillips, J Pierce, IB Nicoud, CW Pinson, RS Chari, “Fluorescence spectroscopy accurately detects irreversible cell damage during hepatic radiofrequency ablation,” *Surgery*, 2004 Sep; 136; 524-531.
 31. CD Anderson, **WC Lin**, CR Buttemere, MK Washington, A Mahadevan-Jansen, J Pierce, IB Nicoud, CW Pinson, and RS Chari, “Real-time spectroscopic assessment of thermal damage: implications for radiofrequency ablation,” *Journal of Gastrointestinal Surgery*, 2004 Sep-Oct; 8: 660-669.
 32. CR Buttemere, RS Chari, CD Anderson, MK Washington, A Mahadevan-Jansen, **WC Lin**, “*In vivo* assessment of thermal damage in the liver using optical spectroscopy,” *Journal of Biomedical Optics*, 2004 Sep-Oct; Vol. 9, No.5, p. 1018-1027.
 33. **WC Lin**, CR Buttemere, A Mahadevan-Jansen, “Effects of thermal damage on the *in vitro* optical and fluorescence characteristics of liver tissues,” *IEEE Journal of Selected Topics in Quantum Electronics*, 2003 March, Vol. 9, No.2, p. 162-170.
 34. PD O'Neal, GL Cote, M Motamedi, J Chen, **WC Lin**, “Feasibility study using surface-enhanced Raman spectroscopy for the quantitative detection of excitatory amino acids,” *Journal of Biomedical Optics*, 2003 Jan; Vol. 8 No. 1. p. 33-39.
 35. **WC Lin**, SA Toms, ED Jansen, A Mahadevan-Jansen, “Intraoperative application of optical spectroscopy in the presence of blood,” *IEEE Journal of Selected Topics in Quantum Electronics*, Vol. 7, No. 6, p. 996-1003, 2001.
 36. **WC Lin**, SA Toms, M Johnson, ED Jansen, A Mahadevan-Jansen, “*In vivo* brain tumor demarcation using optical spectroscopy,” *Photochemistry and Photobiology*, Vol. 73, No, 4, p. 396-402, 2001.
 37. **WC Lin**, SA Toms, M Motamedi, ED Jansen, A Mahadevan-Jansen, “Brain tumor demarcation using optical spectroscopy; an *in vitro* study,” *Journal of Biomedical Optics*, Vol. 5, No. 2, p. 214-220, 2000.

38. **WC Lin**, M Motamedi, AJ Welch, “Dynamics of tissue optics during laser heating of turbid media,” *Applied Optics*, Vol. 35, No. 19, p. 3413-3420, 1996.
39. **WC Lin**, M Motamedi, AJ Welch, “Nonlinear optical behavior of ocular tissue during laser irradiation,” *Applied Optics*, Vol. 34, No. 34, p. 7979-7985, 1995.

Chapters in Books

1. AJ Welch, **WC Lin**, IF Cilesiz, ED Jansen, M Frenz, M Motamedi, “Dynamics of optical properties,” in *Biomedical Optical Instrumentation and Laser-Assisted Biotechnology*, NATO ASI Series, Kluwer Academic Publishers, Dordrecht, p. 33-41, 1996.

Conference Proceedings

1. Giraldo, Juan, Anthony Giordano, Mohamed Almadi, and Wei-Chiang Lin. "Assessment of complete hemodynamic characteristics of in vivo tissues using a non-contact laser Doppler and total diffuse reflectance spectroscopy system." In *Microscopy Histopathology and Analytics*, pp. JTU3A-49. Optical Society of America, 2018.
2. YC Song, A Joasil, **WC Lin**, “Optical Spectroscopy for In Vivo Estimation of Hemodynamics and Structural Properties of the Brain,” 29th Southern Biomedical Engineering Conference (SBEC), Miami, FL, May 3-5, 2013.
3. YC Song, S Bhatia, J Ragheb, P Jayakar, **WC Lin**, “Potential Use of Low-Frequency Oscillations of Cortical Hemodynamics in Pediatric Epilepsy Surgery,” Biomedical Optics by OSA, Miami, FL, April 28 – May 2, 2012.
4. N Yadav, S Oh, S Bhatia, J Ragheb, P Jayakar, M Duchowny, **WC Lin**, ‘In Vivo Characterization of Epileptic Tissue with Time - Dependent, Diffuse Reflectance Spectroscopy, 2010 South Biomedical Engineering Conference, University of Maryland, April 30- May 2, 2010.
5. PC Chen, **WC Lin**, ‘Determination of In Vivo Blood Oxygen Saturation and Blood Volume Fraction using Diffuse Reflectance Spectroscopy’, 2010 South Biomedical Engineering Conference, University of Maryland, April 30- May 2, 2010.
6. PC Chen, YL Ti, **WC Lin**, In vivo Characterization of Myocardial Infarct Using Optical Spectroscopy, Biomedical Optics (BIOMED) Topical Meeting and Tabletop Exhibit, Optical Society of America, April 11-14, 2010
7. S Bhatia, J Ragheb, M Johnson, S Oh, D Sandberg, **WC Lin**, “The role of optical spectroscopy in epilepsy surgery in children,” *Neurosurg Focus*. 2008 Sep; 25(3):E24.
8. Y Ti, **WC Lin**, “Optical characterization of myocardial infarction: an *in vivo* study,” BIOMED Topical Meeting (Optical Society of American), 2008.
9. Y Ti, **WC Lin**, “Probe contact pressure effects on *in vivo* diffuse reflectance and fluorescence spectroscopy,” BIOMED Topical Meeting (Optical Society of American), 2008.
10. S Oh, J Ragheb, S Bhatia, D Sandberg, M Johnson, B Fernald, **WC Lin**, “Time-dependent diffuse reflectance spectroscopy for in vivo characterization of pediatric epileptogenic brain lesions,” *Proc. SPIE* 6842, (2008).
11. SK Majumder, S Gebhart, R Thompson, KD Weaver, MD Johnson, **WC Lin**, and A Mahadevan-Jansen, “*In-vivo* optical detection of brain tumor and tumor margin: a combined auto-fluorescence and diffuse reflectance spectroscopic study,” *Proc. SPIE* 6430, 64300F (2007).
12. **WC Lin**, J Ragheb, S Bhatia, M Johnson, D Sandberg, A Fernandez, G Morrison, M Duchowny, and P Jayakar, “*In vivo* optical characterization of pediatric epileptogenic lesions”, *Proc. SPIE* 6424, 642427 (2007).

13. SA Toms, O Muhammad, H Jackson, and **WC Lin**, "Decline in NAD(P)H autofluorescence precedes apoptotic cell death from chemotherapy," *SPIE Proc.* 6009, 60090Q (2005).
14. **WC Lin**, JT Beckham, DJ Parekh, S Duke Herrell, CR Anderson, RS Chari, A Mahadevan-Jansen, "Optical spectroscopy for guiding thermotherapies of tumors," 2004 Biomedical Optics Conference (Optical Society of American), 2004.
15. CD Anderson, **WC Lin**, CR Buttemere, A Mahadevan-Jansen, DJ Phillips, J Pierce, I Nicoud, RS Chari, "Differentiation of normal and radio frequency ablated liver tissue using an optical based feedback system," *American Hepato-Pancreato-Biliary Association's 4th Congress*, Miami, Florida, 2003.
16. S Gebhart, **WC Lin**, A Mahadevan-Jansen, "Characterization of a spectral imaging system," *Proc. SPIE* 4959, 34 (2003).
17. CR Buttemere, RS Chari, CD Anderson, A Mahadevan-Jansen, **WC Lin**, "Feedback control of liver thermotherapy using optical spectroscopy," *Proc. SPIE* 4958, 201 (2003).
18. **WC Lin**, SA Toms, M Johnson, RJ Weil, A Mahadevan-Jansen, "Detection of radiation injured brain tissue using optical spectroscopy," *Biomedical Topical Meetings, OSA Technical Digest* (Optical Society of America), 491, 2002.
19. ED Jansen, A Mahadevan-Jansen, **WC Lin**, SP Brophy, MA Mackanos, "Development and implementation of an interactive instructional module for light distribution in tissue," *2001 ASEE Annual Conference Proceedings*, 2001.
20. A Mahadevan-Jansen, JD Mongin, ED Jansen, D Pedrotty, **WC Lin**, "Brain tissue characterization using spectral imaging: a potential clinical tool," *Proc. SPIE* 4259, 85 (2001).
21. **WC Lin**, A Mahadevan-Jansen, ED Jansen, "Intraoperative guidance of brain tumor resection: reduction of blood contamination effects on tissue optical spectra," *Proc. SPIE* 4254, 181 (2001).
22. **WC Lin**, SA Toms, ED Jansen, A Mahadevan-Jansen, "Spectroscopic-guided brain tumor resection," *Proc. SPIE* 3911, 130 (2000).
23. **WC Lin**, SA Toms, ED Jansen, A Mahadevan-Jansen, "Optical spectroscopy for intraoperative guidance of brain tumor resection," *Biomedical Topical Meetings, OSA Technical Digest* (Optical Society of America), p. 52-55, 2000.
24. **WC Lin**, JP Wicksted, AJ Welch, M Motamedi, "Thermally induced refractive nonlinearity in scattering media," *Proc. SPIE* 2975, 76 (1997).
25. **WC Lin**, M Motamedi, AJ Welch, "Dynamics of tissue reflectance and transmittance during laser irradiation," *Proc. SPIE* 2134, 296 (1994).

Invited Talks

1. **WC Lin**, "In vivo characterization of pediatric epileptogenic lesion," China Medical University, Jan 29, 2007
2. **WC Lin**, "Optical diagnosis and surgical guidance," October Meeting of the MCH Research Group, Oct 20, 2004.
3. **WC Lin**, "Clinical utility of optical spectroscopy," September Meeting of the Research Committee of the Miami Children's Hospital, Miami Children's Hospital, Sep 22, 2004.
4. **WC Lin**, "Surgical and therapeutic guidance using tissue optical properties," Department of Biomedical Engineering, Florida International University, May 13, 2004.
5. **WC Lin**, "Surgical and therapeutic guidance using tissue intrinsic properties," Department of Biomedical Engineering, Texas A&M University, May 10, 2004.
6. **WC Lin**, "Optical spectroscopy for intraoperative brain tumor demarcation," Neuro-Oncology 2004: Current Concepts, Lake Buena Vista, Florida, January 31 to February 2, 2004.

7. WC Lin, SA Toms, M Johnson, ED Jansen, A Mahadevan-Jansen, "An optical spectroscopy based intraoperative guiding system for brain tumor resection," Third Johnson&Johnson CORP Medical Optics Subcommittee Symposium, Cincinnati, OH, September 20-21, 2000
8. WC Lin, SA Toms, M Motamedi, ED Jansen, A Mahadevan-Jansen, "Fluorescence and reflectance spectroscopy in brain tumor margin detection," Laser Medicine and Biophysics '99, La Jolla, California, April 19 -21, 1999
9. WC Lin, SA Toms, M Motamedi, ED Jansen, A Mahadevan-Jansen, "Optical spectroscopy for brain tumor margin detection," 1999 Tennessee Biomedical Engineering Conference, Nashville, Tennessee, April 9 -11, 1999

FUNDED RESEARCH

'Spectroscopic-guided FEL ablation of tissue using hollow waveguides'

PI: Wei-Chiang Lin

Mentors: E. Duco Jansen, Michael Copeland, Massoud Motamedi

Office of Naval Research (ONR) – FEL Laser Fellowship

Period: 10/97 – 10/98

Project Budget: \$ 45,000

'Spectroscopic-guided FEL ablation of tissue using hollow waveguides'

PI: Wei-Chiang Lin

Mentors: E. Duco Jansen, Massoud Motamedi, Anita Mahadevan-Jansen, Steven Toms

Office of Naval Research (ONR) – FEL Laser Fellowship (renewal)

Period: 10/98 – 9/99

Project Budget: \$ 45,000

'Spectroscopic-guided FEL ablation of tissue using hollow waveguides '

PI: Wei-Chiang Lin

Mentors: E. Duco Jansen, Massoud Motamedi, Anita Mahadevan-Jansen, Steven Toms

ONR/FEL Laser Fellowship (extension)

Period: 10/99 – 4/00

Project Budget: \$ 20,000

'Skin cancer detection using optical spectroscopy and imaging'

PI: Wei-Chiang Lin

Vanderbilt *In Vivo* Imaging Center Research Funds

Period: 12/00 - 11/02

Project Budget: \$ 25,000

'Brain tumor and tumor margin identification using optical spectroscopy'

PI: Anita Mahadevan-Jansen

Investigators: Wei-Chiang Lin, Steven A Toms, Mahlon Johnson

NIH/NCI (CA085989-01A1)

Period: 1/01 – 12/05

Project Budget: \$1,361,925

'Retinal blood barrier permeability using optical tracers'

PI: Frederick Haselton
Investigator: Wei-Chiang Lin, Ming Chen
NIH/NEI
Period: 1/02 – 12/4
Project Budget: \$657,562

‘Novel optical modality for *in vivo* tissue vitality assessment’
PI: Wei-Chiang Lin
Investigators: Dan Tobati, David Sandberg, Michael S Duchowny
Miami Children’s Hospital, Seed Grant
Period: 7/2005 – 6/2007

‘Intraoperative surgical guidance for brain lesion removal’
PI: Wei-Chiang Lin
Mentor: Anita Mahadevan-Jansen
Investigators: David Sandberg, Prasanna Jayakar
FIU RCMI Collaborative Project
Period: 2005 – 2006
Project Budget: \$ 20,000

‘*In vivo* differentiation of normal, stunned, hibernating, and scarred myocardium using optical spectroscopy’
PI: Wei-Chiang Lin
Investigators: Michael Brown, Anthony McGoron, Eric Crumpler
American Heart Association, Grant-In-Aid, Florida/Puerto Rico Affiliate
Period: 7/2006 – 6/2009
Project Budget: \$ 261,000

‘Image Guided Intervention for Breast Cancer: Combined Hyperthermia and Chemotherapy with Reduced Cardiotoxicity’
PI: Antherny McGoron
Co-I: Wei-Chiang Lin, etc
Agency: Florida Department of Health
Period: 07/01/08 to 06/30/09
Project Budget: \$200,000

‘Optimizing pediatric brain tumor surgery through optical spectroscopy to enhance survival and quality of life’
PI: Wei-Chiang Lin
Co-PIs: David Sandberg and John Ragheb
Agency: Thrasher Research Fund
Period: 7/1/2007 – 12/31/2011
Project Budget: \$320,214

‘25th Southern Biomedical Engineering Conference’
PI: Anthony McGoron
Co-I: Wei-Chiang Lin and Chenzhong Li

Agency: NSF
Period: 1/1/2009 to 12/31/2009
Project Budget: \$10,000

'Multimodal Neuromonitoring and Neuroprotection in Critically Ill Children (W81XWH-09-1-0295)
PI: Totapally, Co-PI: Lin
Agency: Department of Defense
Period: 01/2009-1/2015
Project Budget: \$1,500,000

'Novel Optical Guidance for Surgical Resection of Pediatric Neoplastic and Epileptic Brain Lesions/MCH Professorship'
PI: Wei-Chiang Lin
Agency: Miami Children's Hospital
Period: 8/2010-7/2012
Project Budget: \$88,949.24

'Multimodal Neuromonitoring and Neuroprotection in Critically Ill Children/MCH Professorship'
PI: Wei-Chiang Lin
Agency: Department of Defense/Miami Children's Hospital
Period: 8/2010-7/2012
Project Budget: \$88,949.24

'Development of a novel test platform for myocardial infarction studies'
PI: Wei-Chiang Lin
Investigators: YC Huang
College of Engineering and Computing, Florida International University
Period: 5/2010 - 4/2011
Project Budget: \$ 5,000

'Smart Intraoperative Guidance for Pediatric Brain Tumor Surgery' (R15CA173617-01A1)
PI: Wei-Chiang Lin
Agency: National Institutes of Health (NCI)
Period: 08/2013-7/2016
Project Budget: \$355,812

'Multimodal Neuromonitoring and Neuroprotection in Critically Ill Children' (W81XWH-09-1-0295)
PI: B Totapally
Role: Co-PI (20% Effort)
Agency: Department of Defense
Period: 1/1/2009 – 1/1/2015
Project Budget: \$1,500,000

PATENT DISCLOSURES, APPLICATIONS, AND AWARDS

Granted

1. US10580129B2, Hybrid spectroscopy imaging system for intraoperative epileptic cortex detection, Wei-Chiang Lin and Yinchen Song
2. US20180042485A1, Intraoperative guidance system for tumor surgery, Wei-Chiang Lin and Yinchen Song
3. US7979107B2, System and method for differentiation of normal and malignant in vivo liver tissues, Wei-Chiang Lin, Steven A. Toms, Anita Mahadevan-Jansen, and Ravi S. Chari.
4. US6377841B1, Tumor demarcation using optical spectroscopy, Wei-Chiang Lin, Anita Mahadevan-Jansen, E. Duco Jansen, and Steven A. Toms.

PROFESSIONAL HONORS, PRIZES, FELLOWSHIPS

1. American Heart Association Florida/Puerto Rico Affiliate Robert J. Boucek, M.D. Research Award (2006).
2. Winner of the graduate student/post-doc poster competition, 2000 Gordon Research Conference on Lasers in Medicine and Biology (2000)
3. FEL laser fellowship (renewal), the W. M. Keck Foundation FEL Center, Vanderbilt University, Nashville, TN (1998)
4. Winner of the graduate student/post-doc poster competition, 1998 Gordon Research Conference on Lasers in Medicine and Biology (1998)
5. FEL laser fellowship, the W. M. Keck Foundation FEL Center, Vanderbilt University, Nashville, TN (1997)

EDUCATION ACTIVITIES

Courses Taught at FIU

<i>Course Number</i>	<i>Course Title</i>	<i>Term</i>
BME1008c	Introduction to Biomedical Engineering	Multiple Semesters
BME 3710	Data Evaluation Principle	Multiple Semesters
BME 4050L	BME Labs I*	Multiple Semesters
BME 4051L	BME Labs II*	Multiple Semesters
BME 4531	Medical Imaging*	Multiple Semesters
BME 4580/5560	Biomedical Engineering Optics	Multiple Semesters
BME 6563	Optical Spectroscopy	Multiple Semesters

* Co-taught with other faculty

Student Supervision

Postdoc and PhD Students at Florida International University

Primary Adviser

Sanghoon Oh	Postdoc	2006-2009
Yalin Ti	Ph.D. Dissertation	2005-2009
Poching Chen	Ph.D. Dissertation	2006-2011
Nitin Yadav	Ph.D. Dissertation	2007-2012
Yinchin Song	Ph.D. Dissertation	2009-2016

Jared Leichner	Ph.D. Dissertation	2011-2020
Mohamed Almadi	Ph.D. Dissertation	2014-Now
Teshaun Francis	Ph.D. Dissertation	2015-Now
Mehnur Sawar	Ph.D. Dissertation	2019-Now

UNIVERSITY SERVICE

1. Graduate program director of the Department of Biomedical Engineering (2008 – 2015)
2. FIU IACUC representative for the School of Engineering and Computing (2008 – 2012)
3. Member of the search committee for the new faculty position of the Department of Biomedical Engineering (2009)
4. FIU IRB representative for the School of Engineering and Computing (2004 – 2008)
5. Member of the Faculty Council on Government of the School of Engineering and Computing (2006-2007)
6. Member of the search committee for the chair of the Department of Biomedical Engineering (2007)
7. Secretary of the Faculty Council on Government of the School of Engineering and Computing (2006-2007)
8. Member of the search committee for the instructor of the Department of Biomedical Engineering (2005)

OTHER PROFESSIONAL ACTIVITIES AND PUBLIC SERVICE

Memberships

1. American Heart Association
2. Optical Society of American
3. The International Society for Optical Engineering
4. Biomedical Engineering Society

Manuscript Reviewership

1. "Lasers in Surgery and Medicine"
2. "IEEE Transactions of Biomedical Engineering"
3. "IEEE Journal of Selected Topics in Quantum Electronics"
4. "Journal of Biomedical Optics"
5. "Applied Optics"
6. "Photochemistry and Photobiology"
7. "Medical & Biological Engineering & Computing"
8. "Journal of Physiology"
9. "Annals of Biomedical Engineering"
10. "Laser in Medical Science"

Outside Service

1. Program committee member of the OSA topical meeting on Biomedical Optical Spectroscopy and Diagnostics, 2002
2. Reviewer of a grant application from Ontario Centres of Excellence, 2008
3. Reviewer a grant application from the University Grants Committee (UGC) of Hong Kong, 2008
4. Guest editor for the Special Issue titled "The Role of Complementary and Alternative Medicine (CAM) for Regenerative Medicine" for the Journal of Evidence-Based Complementary and Alternative Medicine.
5. Member of the scientific committee of the SBEC 2013 conference.
6. Session chair of the SBEC 2013 conference.