PATENT AGENT
Portland Office
503.595.5300
jie.lian@klarquist.com

EDUCATION
J.D. candidate, Lewis & Clark Law School, Present

M.B.A., Healthcare Management, Oregon Health & Science University/Portland State University, 2011

Ph.D., Bioengineering, University of Illinois at Chicago, 2002

M.S., Biomedical Engineering, Zhejiang University, 1995

B.S., Biomedical Engineering, Zhejiang University, 1992

ADMISSIONS
U.S. Patent and Trademark Office, 2012 (Reg. No. 70,556)

PRACTICE AREAS
Patents

TECHNOLOGIES
Software & Internet Technology

Electrical & Semiconductors

Mobile Devices & Applications

Consumer Products

Life Sciences & Biotechnology

Mechanical

Medical Devices & Diagnostics

Jie Lian, Ph.D.

Jie's practice includes the preparation and prosecution of U.S., international, and foreign patent applications, and performing patentability and prior art searches and freedom-to-operate analysis.

Jie's professional experience includes more than 10 years of academic research and more than 13 years of industrial research and development, spanning areas including medical devices, mobile health, signal/image processing, and wearable technology, among others. He specializes in signal processing, statistical analysis, physiological modeling, and algorithm development for embedded systems. Jie has published three book chapters and more than 70 peer-reviewed research articles, and served as an expert reviewer for more than a dozen scientific journals. He is the recipient of more than 40 issued or pending U.S. patents and dozens of European patents.

Jie joined Klarquist as a patent agent in 2017.

Professional Experience

- Ganz Pollard
  Hillsboro, Oregon
  Patent Agent, 2016 – 2017
- Micro Systems Engineering
  Lake Oswego, Oregon
  Staff Engineer, Project Manager, 2002 – 2015

Professional Activities

- Session Chair, 40th Annual International Conference of IEEE-EMBS, 2018
- 2005 – present, Senior Member, Institute of Electrical and Electronics Engineers (IEEE)
- 2015 – present, Member, IEEE Technical Committee on Wearable Biomedical Sensors and Systems
- 2013 – present, Member, IEEE Internet of Things Community

Honors & Awards

- 2008 and 2013, Biotronik Innovation Award
- 2011, Best Presentation Award, National Collegiate Inventors & Innovators Alliance IdeaLab

Presentations & Publications

- "Oracle America v. Google, Free Java: Fair or Unfair?" IPWatchdog, 7/9/2018

Klarquist

- Lian J, Garner G, Muessig D. Biventricular capture verification by means of morphological analysis of intracardiac electrogram. Europace, 15:1677-1683, 2013
- Lian J, Wang L, Muessig D. A simple method to detect atrial fibrillation using RR intervals. Am J. Cardiol., 107: 1494-1497, 2011
- Lian J, Muessig D, Lang V. Risk assessment of R-on-T event based on modeled QT-RR relationship. Pacing Clin. Electrophysiol., 34(6): 700-708, 2011
- Lian J, et al. Clinical appointment process: improvement through schedule defragmentation. IEEE Eng. Med. Biol. Mag., 29(2): 127-134, 2010
- Lian J, Garner G, Muessig D, Land V. A simple method to quantify the morphological similarity between signals. Signal Processing, 90(2): 684-688, 2010
- Lian J. Unravel the complexity of heart rhythm: a modeling approach. In L. A. Vespry (Ed): Cardiac Arrhythmia Research Advances. Nova Science Publishers, pp. 9-31, 2007
- Lian J, Muessig D, Lang V. Ventricular rate smoothing for atrial fibrillation: a quantitative comparison study. Europace, 9: 506-513, 2007
- Lian J, Muessig D, Lang V. On the role of ventricular conduction time in rate stabilization for atrial fibrillation. Europace, 9: 289-293, 2007
- Lian J, Clifford GD, Muessig D, Lang V. Open source model for generating RR intervals in atrial fibrillation and beyond. Biomedical Engineering Online, 6:9, 2007
- Lian J, Muessig D, Lang V. Computer modeling of ventricular rhythm during atrial fibrillation and ventricular pacing. IEEE Trans Biomed Eng, 53: 1512-1520, 2006
- He B, Lian J. High-resolution spatio-temporal neuroimaging of brain activity. Crit Rev Biomed Eng, 30(4-6): 283-306, 2002
- Lian J, Goldstein A, Donchin E, He B. Cortical potential imaging of episodic memory encoding. Brain Topogr, 15: 29-36, 2002
- Lian J, He B. A minimal product method and its application to cortical imaging. Brain Topogr, 13: 209-217, 2001
- He B, Lian J, Spencer KM, Dien J, Donchin E. A cortical potential imaging analysis of the P300 and novelty P3 components. Hum. Brain Mapp, 12: 120-130, 2001
- He B, Lian J, Li G. High-resolution EEG: a new realistic geometry spline Laplacian estimation technique. Clin Neurophysiol, 112: 845-852, 2001

Representative Patents

- Device for automatic mapping of complex fractionated atrial electrogram (9,456,759)
- Apparatus and method for spinal cord stimulation to treat pain (9,421,378)
- UV dosimetry system (9,068,887)
- Apparatus and method for detection of lead failure in an implantable medical device (8,892,193)
- Respiration measurement by means of morphological operators (8,419,645)
- Method and apparatus for ectopic beat detection (8,315,694)
- Method for optimizing resource allocation (8,239,231)
- Device, method and computer-readable storage medium for enhanced sense event classification in implantable devices by means of morphology analysis (8,090,434)
- Device, method and computer-readable storage medium for SVT and VT classification (8,082,028)
- Apparatus and method to assess the risk of R-on-T event (8,019,406)
- Atrial overdrive pacing in non-atrial tracking mode while maintaining AV synchrony (7,583,996)
- Adaptive ventricular rate smoothing during atrial fibrillation (7,532,929)

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