

Curriculum Vitae – George E. Yanulis, M.S., M.Eng., D.Eng.

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Educational Background:

D.Eng Biomedical Engineering	Cleveland State University/Cleveland Clinic Foundation Cleveland, OH	2008
M.S. Bioengineering	University of Pittsburgh Pittsburg, PA	2002
M.Eng Biomedical Engineering	University of Virginia Charlottesville, VA	1981
B.A. Chemistry	Syracuse University Syracuse, NY	1977

Professional Services:

03/2014 – Present: [B. H. Barkalow & Associates, LLC](http://www.bhbi.com), Newaygo, MI. **Clinical Engineering Expert Consultant** for hospitals, medical device companies, legal firms, and insurance carriers. Responsibilities consist of providing biomedical, clinical, and forensic engineering support to clients, that can include incident investigations, reports of findings, as well as expert witness testimony. Medical technology experience consists of familiarity with the design, use, and applications associated with a variety of medical devices and software used for: cardiac pacing, ventricular assist, cardiac echocardiography and electrophysiology, vascular stents, physiological monitoring, medical imaging, neurological therapy, surgery, among others.

08/2013 – Present: [Widener University](http://www.widener.edu), Chester, PA. **Adjunct Assistant Professor**, Biomedical Engineering Department.

- Developed biomedical engineering instrumentation course
- Developed and delivered coursework in bioinstrumentation design-related
- Mentoring undergraduates in lecture and lab settings in the biomedical engineering program
- Involved in ABET certification preparation for students within the department

01/2013 – 12/2013: [Stevens Institute of Technology](http://www.stevens.edu), Hoboken, NJ. **Adjunct Assistant Professor**, Biomedical Engineering Program.

- Collaborated with Dr. Arthur Ritter (Professor) on the revisions of an existing biomedical engineering instrumentation course
- Was responsible for the development and delivery of coursework in bioinstrumentation design courses
- Mentored undergraduates in lecture and lab settings in the biomedical engineering program
- Filed two provisional applications related to a novel innovative medical imaging

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technology

01/2011 – Present: *Integral ElectroMagnetronic Technologies*, North Bergen, NJ. **IEMT-Medical Imaging Consultant and Scientific Advisory Board Member.**

- Development of preclinical device studies on a low-cost, low-power high-resolution medical imager with the accuracy of existing imaging technology
- Co-development of two provisional applications with the U.S. Patent & Trademark Office related to the imaging technology related to a novel innovative medical imaging technology

11/2010 – 11/2012: [Laughlin Engineering Firm, LLC](#), Houston, TX. **Senior Medical Device Consultant**, Forensics Engineering Division.

- Provided expertise to clients in the following areas: cardiac resynchronization devices, including both pacemaker devices and ICD devices from Medtronic, St Jude Medical, and Boston Scientific
- Provided intellectual property advice on cardiac devices to patent attorneys and have provided expertise in the area of FDA device controls
- Served as an expert witness on cardiac device failure-related cases (plaintiff)

08/2009 – 12/2013: [College of Staten Island](#), Staten Island, NY. **Adjunct Assistant Professor**, Department of Engineering Science and Physics.

- Collaborated with Dr. Lihong Li (Associate Professor) on developing a new biomedical engineering course, entitled “Biomedical Medical Engineering Instrumentation Design Theory and Applications,” for senior undergraduate students

10/2005 – 08/2008: [Cleveland Clinic Foundation](#), Cleveland, OH. **Research Assistant.**

- Development of novel medical devices involving new cardiac pacing paradigms
- Collaborated with the Data Science Corporation (DSI) on several projects that included advanced ECG signal detection and pressure-volume loop analysis
- Performed cardiac device implants in the canine model
- Performed physiological monitoring sessions post operatively
- Cleveland Clinic’s Innovation Awards (research in the use of novel cardiac pacing paradigms for heart failure patients, co-developed by Don Wallick, Ph.D. and George Yanulis, D.Eng., 8/2007 and 10/2008)

08/2000 – 07/2002: [University of Pittsburgh](#), Pittsburgh, PA. **Research Assistant/Teaching Assistant**, Department of Surgery/McGowan Institute of Regenerative Medicine.

- Development of a respiratory assist device using elastomeric polymers as actuators
- Coordinated senior bioengineering design projects with different clinical mentors within the University of Pittsburgh

Publications and Presentations:

Lim, Pascal; George E. Yanulis; David Verhaert; Neil L. Greenberg; Richard A. Grimm; Patrick J. Tchou; Nicolas Lellouche; and Don W. Wallick. [Coupled Pacing Improves Left Ventricular Function during Simulated Atrial Fibrillation without Mechanical Dyssynchrony](#). *Europace*. 2010 Mar; 12(3): 430-6.

Yanulis, George E.; Pascal Lim; Ali Ahmad; Zoran B. Popović; and Don W. Wallick. [Coupled](#)

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[Pacing Reverses the Effects of Persistent Atrial Fibrillation on the Left Ventricle](#). *The Annals of Thoracic Surgery*. 2008 Sep; 86(3): 984-7.

Yanulis, George E. [A Novel Cardiac Pacing Paradigm for Atrial Fibrillation and Heart Failure Patients](#). Doctoral dissertation, Fenn College of Engineering, Cleveland State University. 2008 May; 1-106.

Cingoz, Faruk; George E. Yanulis; Elizabeth Ching; Kiyotaka Fukamachi; and Don W. Wallick. [Use of Conventional Dual Chamber Pacemakers with Custom Lead Adapters to Induce Atrial Fibrillation or Heart Failure in Dogs](#). *The Annals of Thoracic Surgery*. 2007 May; 83(5): 1858-62.

Professional Affiliations:

[Heart Rhythm Society](#) (HRS)

[ASAIO](#) (formerly American Society for Artificial Internal Organs)

[Biomedical Engineering Society](#) (BMES)

Professional and Character References:

Available upon request.