

Areas of Medical Device Expertise

- **Medical Device Expert Witness (over 15 years)**
- **Medical Devices Research & Development (R&D) – over 20 years**
- **Cardiac Pacing Algorithms**
- **Implantable Cardioverter Defibrillator (ICD) Research**
- **Cardiac Pacemaker Research**
- **Cardiovascular Physiology**
- **Atrial Fibrillation Therapy Systems**
- **Coronary Stents**
- **Drug Eluting Stents**
- **Heart Bypass Systems**
- **Cardiovascular Devices**
- **Pediatric Ventilation Systems**
- **Food & Drug Medical (FDA) Device Regulatory Protocols**
- **Cardiac Magnetic Resonance Imaging (MRI)**
- **Cardiac Ultrasound**
- **Medical Imaging Analysis**
- **Cardiac Electrophysiology (EP)**
- **Interventional Cardiology**
- **Orthopedic Device Implants**
- **Clinical Engineering**
- **Heart Failure Studies**
- **Atrial Fibrillation Studies**
- **Therapeutic Radiological Physics**
- **Pediatric Critical Care Medicine Devices**
- **Medical Device Failure Analysis**

Medical Device Research & Development /Consulting/Litigation Support

- **Cleveland Clinic Foundation (cardiac pacing paradigm studies)**
- **Dielectric Elastomeric Polymer Studies - UMPC**

- **Mount Sinai Health System (Surgical Wound Repair Studies)**
- **Provided testimony in 6 separate depositions in the last 4 years**
- **Involved in over 30 medical device liability and 4 patent infringement cases**
- **Provides advice and expertise to attorneys & health care systems**
- **Performed over 500 ECG signal detection & cardiac P/V analysis**
- **Assisted in over 200 Cardiac Device Implants (Canine Model)**
- **Provides biomedical engineering analysis**
- **Expertise in evaluating Quality Assurance Testing and Results**
- **Evaluation of cardiac pacing and ICD lead/system failures**
- **Reviews cardiac pacing and ICD monitoring sessions as an Expert Witness**

Selected Peer-reviewed Publications

1. **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. *Euro pace*. 2010 Mar; 12(3): 430-6.**
2. **Yanulis, George E.; Pascal Lim; Ali Ahmad; Zoran B. Popović; and Don W. Wallick. Coupled Pacing Reverses the Effects of Persistent Atrial Fibrillation on the Left Ventricle. *The Annals of Thoracic Surgery*. 2008 Sep; 86(3): 984-7.**
3. **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.**
4. **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.**