

COLLEGE OF MEDICINE  
UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER  
(updated December 2014)

**CURRICULUM VITAE**

**I. RALPH LAZZARA, MD**

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**II. EDUCATION**

Additional Training	Columbia College of Physicians and Surgeons New York, New York	1964-1965
Cardiology Fellow	Tulane Medical School New Orleans, Louisiana	1963-1964
Residency/ Internal Medicine	Tulane Medical School New Orleans, Louisiana	1960-1963
Internship	Ochsner Foundation Hospital New Orleans, Louisiana	1959-1960
M.D.	Tulane Medical School New Orleans, Louisiana	1955-1959
B.A.	University of Chicago Chicago, Illinois	1952-1955

**III. PROFESSIONAL EXPERIENCE**

Co-Director, Heart Rhythm Institute	2013-Present
Director, Heart Rhythm Institute	1998-2013
Professor of Medicine University of Oklahoma HSC	1978-Present
Cardiovascular Section Chief University of Oklahoma HSC	1978-1998
Professor of Medicine University of Miami School of Medicine Miami, Florida	1977-1978
Section Chief Cardiology Veterans Administration Hospital Miami, Florida	1974-1978

Associate Professor of Medicine 1972-1977  
University of Miami School of Medicine

Chief, Section of Electrophysiology 1970-1972  
Mount Sinai Hospital Miami Beach, Florida

Director, Cardiovascular Research Laboratory 1965-1967  
Ochsner Clinic and Foundation Hospital  
New Orleans, Louisiana

Instructor in Medicine 1965-1967  
Tulane Medical School 1960-1964  
New Orleans, Louisiana

**IV. MILITARY EXPERIENCE**

Lieutenant Colonel, United States Army 1967-1970  
Fitzsimmons Army Hospital, Aurora, CO

**V. CERTIFICATION AND BOARD STATUS**

American Board of Internal Medicine 1967  
American Board of Internal Medicine  
Cardiovascular Diseases 1968

**VI. LICENSE**

Oklahoma Medical License (Active) 1978

**VII. RESEARCH AND SCHOLARSHIP**

Jackman WM, Lazzara R: U.S. Patent #4,572,192: System for prevention of paroxysmal supraventricular tachycardia. February 25, 1986.

**VIII. PUBLICATIONS**

Refereed Journals

1. Stavrakis S. Jackman WM. Nakagawa H. Sun Y. Xu Q. Beckman KJ. Lockwood D. Scherlag BJ. Lazzara R. Po SS. Risk of coronary artery injury with Radiofrequency Ablation and Cryoablation of Epicardial Posteroseptal Accessory Pathways within the Coronary Venous System. Circulation: Arrhythmia and Electrophysiology. February 2014, 7(1), 113-119.
2. Li H. Scherlag BJ. Kem DC. Benbrook A. Shen X. Cunningham MW. Lazzara R. Aston CE. Yu X. Inducible cardiac arrhythmias caused by enhanced beta1-adrenergic autoantibody expression in the rabbit. American Journal of Physiology - Heart & Circulatory

Physiology. 2014 Feb, 306(3):H422-8.

3. Stavrakis S, Scherlag BJ, Fan Y, Mao J, Varma V, Lazzara R, Po SS. Inhibition of atrial fibrillation by low-level vagus nerve stimulation: the role of the nitric oxide signaling pathway. *Journal of Interventional Cardiac Electrophysiology*. April 2013, 36(3):199-208.
4. Stavrakis S, Lazzara R. Further Insights into the issue of risk stratification of patients with early repolarization. *Annals of Noninvasive Electrocardiology*. March 2013. 18(2):212-3.
5. Li H, Scherlag BJ, Kem DC, Zillner C, Male S, Thirunavukkarasu S, Shen X, Pitah JV, Cunningham MW, Lazzara R, Yu X. Atrial Tachycardia provoked in the presence of activating autoantibodies to beta2-adrenergic receptor in the rabbit. *Heart Rhythm Journal*. March 2013, 10(3):436-41.
6. Stavrakis S, Patel N, Te C, Govala H, George A, Lozano P, Lazzara R. Development and validation of a prognostic index for risk stratification of patients with early repolarization. *Annals of Noninvasive Electrocardiology*. October 2012 17(4):361-71
7. Stavrakis S, Scherlag BJ, Fan Y, Liu Y, Liu Q, Mao J, Cai H, **Lazzara R**, Po SS. Antiarrhythmic effects of vasostatin-1 in a canine model of atrial fibrillation. *J Cardiovasc Electrophysiol*. July 2012, 23(7):771-7.
8. Yu L, Scherlag BJ, Sha Y, Li S, Sharma T, Nakagawa H, Jackman WM, **Lazzara R**, Jiang H, Po SS. Interactions between atrial electrical remodeling and autonomic remodeling: how to break the vicious cycle. *Heart Rhythm* May 2012, 9(5):804-9.
9. Liu Y, Scherlag BJ, Yagi T, Patterson E, Jackman WM, **Lazzara R**, Po SS. Extra- and intracellular recordings from the AV junction: discerning the mechanisms for irregular ventricular responses during supraventricular arrhythmias. *Acta Cardiologica* Apr 2012 67(2):221-229 (PMID 22641980)
10. Nakagawa H, Ikeda A, Sharma T, Lazzara R, Jackman WM. Rapid High Resolution Electroanatomical Mapping: Evaluation of a New System in a Canine Atrial Linear Lesion Model. *Circulation: Arrhythmia and Electrophysiology* April 2012, 5(2):417-424 (PMID 22392447)
11. Moers AM, Scherlag BJ, Niu G, Lu Z, Ghias M, **Lazzara R**, Jackman WM, Po SS. Pharmacological prevention and termination

- of focal atrial fibrillation. *Europace* Mar 2012 14(3):426-430 (PMID 21933797)
12. Stavrakis S, **Lazzara R**, Thadani U. The Benefit of Cardiac Resynchronization Therapy and QRS Duration: A Meta-Analysis. *Journal Of Cardiovascular Electrophysiology* Feb 2012 23(2):163-168 (PMID 21815961)
  13. **Lazzara R**. The Intrinsic Autonomic Nervous System in Atrial Fibrillation: A Review. *ISRN Cardiology*, 2012, 8 pages (doi:10.5402/2012/490674). (PMID 490674)
  14. Scherlag BJ, Nakagawa H, **Lazzara R**, Po SS. Learning without burning: emerging knowledge of the autonomic innervation of the heart. *Pacing Clin Electrophysiol.* 34(11):1457-9, 2011 Nov. [comment/editorial] (PMID 22155424)
  15. Sha Y, Scherlag BJ, Yu L, Sheng X, Jackman WM, **Lazzara R**. Po SS. Low-level right vagal stimulation: anticholinergic and antiadrenergic effects. *J Cardiovasc Electrophysiol.* 2011Oct 22(10):1147-53. (PMID 2149033)
  16. Lazzara R. Ablation: search and destroy dormant gaps awakened by adenosine. *Heart Rhythm* Sep 2011. 8(9):1434-5 (PMID 21699830)
  17. Stavrakis S, Kem DC, Patterson E, Lozano P, Huang S, Szabo B, Cunningham MW, **Lazzara R**, Yu X. Opposing cardiac effects of autoantibody activation of beta-adrenergic and M2 muscarinic receptors in cardiac-related diseases. *Int J Cardiol.* May 2011 148(3):331-6. (PMID 20053466)
  18. Yu L, Scherlag BJ, Li S, Sheng X, Lu Z, Nakagawa H, Zhang Y, Jackman WM, **Lazzara R**, Jiang H, Po SS. Low-level vagosympathetic nerve stimulation inhibits atrial fibrillation inducibility: direct evidence by neural recordings from intrinsic cardiac ganglia. *J Cardiovasc Electrophysiol.* 22(4):455-63, 2011 Apr.
  19. **Lazzara R**. Spatial vector cardiogram to predict risk for sudden arrhythmic death: phoenix risen from the ashes. *Heart Rhythm.* 2010 Nov; 7(11):1606-13.[comment/editorial]
  20. **Lazzara R**. The Right Stuff in the Right Place-The Quest for Atrial Selective Antiarrhythmic Agents. *Journal of Cardiovascular Pharmacology* 56(1), 78-79, July 2010. [comment/editorial]

21. Patterson E, Scherlag B, **Lazzara, R.** Stable Patterns of AH Block Arising from Longitudinal Dissociation and Reentry Within the Superfused Rabbit AV Junction. *Journal of Interventional Cardiac Electrophysiology* 28(1):5-18, 2010 June.
22. **Lazzara R.** How the Heart can Fibrillate: When Diversity is a Disadvantage. *Heart Rhythm* 7(2):258-9, 2010.
23. Gupta R, Sech C, **Lazzara R.** Transient cardiac ballooning—the syndrome. *Clinical Cardiology.* 32(11):614-20 Nov 2009
24. Lu Z, Scherlag BJ, Lin J, Yu L, Guo JH, Niu G, Jackman WM, **Lazzara R,** Jiang H, Po SS. Autonomic mechanism for initiation of rapid firing from atria and pulmonary veins: evidence by ablation of ganglionated plexi. *Cardiovascular Research.* 84(2):245-52, Nov 1 2009.
25. Ghias M, Scherlag BJ, Lu Z, Niu G, Moers A, Jackman WM, **Lazzara R,** Po, SS. The role of ganglionated plexi in apnea-related atrial fibrillation. *Journal of the American College of Cardiology.* 54(22):2075-83, 2009 Nov 24.
26. Stavrakis S, Yu X. Patterson E. Huang S. Hamlett SR. Chalmers L. Pappy R. Cunningham MW. Morshed SA. Davies TF. **Lazzara R.** Kem DC. Activating autoantibodies to the beta-1 adrenergic and m2 muscarinic receptors facilitate atrial fibrillation in patients with Graves' hyperthyroidism. *Journal of the American College of Cardiology.* 54(14):1309-16, 2009 Sep 29.
27. Niu G, Scherlag BJ, Lu Z, Ghias M, Zhang Y, Patterson E, Dasari TW, Zacharias S, **Lazzara R,** Jackman WM, Po SS. An acute experimental model demonstrating 2 different forms of sustained atrial tachyarrhythmias. *Circulation: Arrhythmia and Electrophysiology.* 2(4):384-92, 2009 Aug.
28. Rathi S. Shakir F. Sech C. **Lazzara R.** Non-hodgkin lymphoma causing acute myocardial infarction and tachyarrhythmia. *American Journal of Cardiology.* 104(3):450-2, 2009 Aug 1. [Case Reports. Journal Article]
29. Lin J. Scherlag BJ. Niu G. Lu Z. Patterson E. Liu S. **Lazzara R.** Jackman WM. Po SS. Autonomic elements within the ligament of Marshall and inferior left ganglionated plexus mediate functions of the atrial neural network. *Journal of Cardiovascular Electrophysiology.* 20(3):318-24, 2009 Mar.

30. Kohler HR. **Lazzara R**. Dittbrenner N. Capowiez Y. Mazzia C. Triebkorn R. Snail phenotypic variation and stress proteins: do different heat response strategies contribute to Waddington's widget in field populations? *Journal of Experimental Zoology. Part B. Molecular & Developmental Evolution*. 312(2):136-47, 2009 Mar 15.
31. Yokoyama K, Nakagawa H, Seres KA, Jung E, Merino J, Zou Y, Ikeda A, Pitha JV, Lazzara R, Jackman WM. Canine model of esophageal injury and atrial-esophageal fistula after applications of forward-firing high-intensity focused ultrasound and side-firing unfocused ultrasound in the left atrium and inside the pulmonary vein. *Circulation: Arrhythmia and Electrophysiology*. 2(1):41-9, 2009 Feb.
32. Zhang Y, Scherlag BJ, Lu Z, Niu GD, Yamanashi WS, Hogan C, Fields J, Ghias M, **Lazzara R**, Jackman WM, Po S. Comparison of atrial fibrillation inducibility by electrical stimulation of either the extrinsic or the intrinsic autonomic nervous systems. *Journal of Interventional Cardiac Electrophysiology*. 24(1):5-10, 2009 Jan.
33. Gupta R, Murray C, **Lazzara R**, Sivaram CA. Acute systolic dysfunction within two weeks of high-dose chemotherapy conditioning before autologous bone marrow transplant: a case report. *Echocardiography*. 25(7):764-7, 2008 Aug.
34. Yu X, Patterson E, Stavrakis S, Huang S, De Aos I, Hamlett S, Cunningham M, **Lazzara R**, Kem DC. Development of cardiomyopathy and atrial tachyarrhythmias associated with activating autoantibodies to beta-adrenergic and muscarinic receptors. *J Am Soc HTN* 3(2):133-140, 2009.
35. Patterson E, Lu Z, Lin J, Scherlag BJ, Po SS, Coscia D, **Lazzara R**. Antifibrillatory properties of mivacurium in a canine model of atrial fibrillation. *J Cardiovasc Pharmacology* 51(3):293-303, 2008 Mar.
36. Scherlag BJ, Hou YL, Lin J, Lu Z, Zacharias S, Dasari T, Niu G, Ghias M, Patterson E, Jackman WM, **Lazzara R**, Po SS. An acute model for atrial fibrillation arising from a peripheral atrial site: evidence for primary and secondary triggers. *J Cardiovasc Electrophysiol* 19(5):519-27, 2008 May.
37. Lu Z, Scherlag BJ, Lin J, Niu G, Ghias M, Jackman WM, **Lazzara R**, Jiang H, Po SS. Autonomic mechanism for complex fractionated atrial electrograms: evidence by fast Fourier transform analysis. *J Cardiovasc Electrophysiol* 19(8):835-42, 2008 Aug.

38. Patterson E, Scherlag BJ, Zhou J, Jackman WM, **Lazzara R**, Coscia D, Po S. Antifibrillatory actions of cisatracurium: an atrial specific M2 receptor antagonist. *J Cardiovasc Electrophysiol* 19(8):861-8, 2008 Aug.
39. Saya S, Hennebrey TA, Lozano P, **Lazzara R**, Schechter E. Coronary slow flow phenomenon and risk for sudden cardiac death due to ventricular arrhythmias: a case report and review of literature. *Clinical Cardiology* 31(8):352-5, 2008 Aug.
40. Lin J, Scherlag BJ, Zhou J, Lu Z, Patterson E, Jackman WM, **Lazzara R**, Po SS. Autonomic mechanism to explain complex fractionated atrial electrograms (CFAE). *J Cardiovasc Electrophysiol* 18(11):1197-205, 2007 Nov.
41. Patterson E, Scherlag BJ, **Lazzara R**, Garrison GL, Berlin KD. Electrophysiologic actions of d, l-sotalol and GLG-V-13 in ischemically injured canine epicardium. *J Cardiovasc Pharmacol* 50(3):304-13, 2007 Sep.
42. Patterson E, Jackman WM, Beckman KJ, **Lazzara R**, Lockwood D, Scherlag BJ, Wu R, Po SS. Spontaneous pulmonary vein firing in man: relationship to tachycardia-pause early afterdepolarizations and triggered arrhythmia in canine pulmonary vein *in vitro*. *J Cardiovasc Electrophysiol* 18:1067-1075, 2007 Sep.
43. Zhou J, Scherlag BJ, Edwards J, Jackman WM, **Lazzara R**, Po SS. Gradients of atrial refractoriness and inducibility of atrial fibrillation due to stimulation of ganglionated plexi. *J Cardiovasc Electrophysiol* 18:83-90, 2007
44. Hou Y, Scherlag BJ, Lin J, Zhang Y, Lu Z, Truong K, Patterson E, **Lazzara R**, Jackman WM, Po SS. Ganglionated plexi modulate extrinsic cardiac autonomic nerve input: effects on sinus rate, atrioventricular conduction, refractoriness, and inducibility of atrial fibrillation. *JACC* 50(1):61-8, 2007 July.
45. Hou Y, Scherlag BJ, Lin J, Zhou J, Song J, Zhang Y, Patterson E, **Lazzara R**, Jackman WM, Po SS. Interactive atrial neural network: determining the connections between ganglionated plexi. *Heart Rhythm* 4(1):56-63, 2007.
46. Hou Y, Scherlag BJ, Lin J, Zhou J, Song J, Zhang Y, Patterson E, **Lazzara R**, Jackman WM, Po SS. Interactive atrial neural network: determining the connections between ganglionated plexi. *Heart Rhythm* 4(1):56-63, 2007.

47. Zhou J, Scherlag BJ, Yamanashi W, Wu R, Huang Y, **Lazzara R**, Jackman WM, Po SS. Experimental model simulating right ventricular outflow tract tachycardia: a novel technique to initiate RVOT-VT. *J Cardiovasc Electrophys* 17(7):771-5, July 2006.
48. Lander P, Gomis, P, Warren S, Hartman G, Shuping K, **Lazzara R**, Wagner G. Abnormal intra-QRS potentials associated with percutaneous transluminal coronary angiography-induced transient myocardial ischemia. *J Electrocardiology* 39(3):282-9, July 2006.
49. Patterson E, **Lazzara R**, Szabo B, Liu H, Tang D, Li Y-H, Scherlag BJ, Po SS. Sodium-Calcium exchange initiated by the Ca<sup>2+</sup> transient. *JACC* 47:1196-206, 2006.
50. Yokoyama K, Nakagawa H, Wittkamp FHM, Pitha JV, **Lazzara R**, Jackman WM. Comparison of electrode cooling between internal and open irrigation in radio-frequency ablation lesion depth and incidence of thrombus and steam pop. *Circulation* 113(1):11-19, 2006.
51. Scherlag BJ, Yamanashi W, Patel U, **Lazzara R**, Jackman WM. Autonomically induced conversion of pulmonary vein focal firing into atrial fibrillation. *J Am Coll Cardiol* 45(11):1878-86, 2005.
52. Scherlag BJ, Yamanashi W, Amin R, **Lazzara R**, Jackman WM. Experimental model of inappropriate sinus tachycardia: initiation and ablation. *J Interven Card Electrophysiol* 13:21-29, 2005.
53. Scherlag BJ, Nakagawa H, Jackman WM, Yamanashi WS, Patterson E, Po SS, **Lazzara R**. Electrical stimulation to identify neural elements on the heart: their role in atrial fibrillation. *J Interven Card Electrophysiol* 13:37-42, 2005.
54. Patterson E, Po S, Scherlag BJ, **Lazzara R**. Triggered firing in pulmonary veins initiated by *in vitro* autonomic nerve stimulation. *Heart Rhythm* 2:624-631, 2005
55. Aoyama H, Nakagawa H, Pitha JV, Khammar GS, Chandrasekaran K, Matsudaira K, Yagi T, Yokoyama K, **Lazzara R**, Jackman WM. Comparison of cryothermia and radiofrequency current in safety and efficacy of catheter ablation within the canine coronary sinus close to the left circumflex coronary artery. *J Cardiovas Electrophysiol* 16(11):1218-26, 2005.
56. Po SS, Li Y, Tang D, Liu H, Geng N, Jackman WM, Scherlag B, **Lazzara R**, Patterson E. Rapid and stable re-entry within the



- pulmonary vein as a mechanism initiating paroxysmal atrial fibrillation. *J Amer Col Card* 45(11):1871-7, 2005.
57. Hasdemir C, Priori SG, Overholt E, **Lazzara R**. Catecholaminergic polymorphic ventricular tachycardia, recurrent syncope, and implantable loop recorder. *J Cardiovasc Electrophysiol* 15(6):729, 2004.
  58. Scherlag BJ, Yamanashi WS, Yagi T, Patterson E, **Lazzara R**, Jackman WM. Variability of AV nodal potentials recorded, in vivo: direct demonstration of dual AV nodal physiology. *J of Interven Cardiac Electrophysiol* 10(1):9-18, 2004
  59. Scherlag BJ, Yamanashi WS, Hou Y, Jacobson JI, Jackman WM, **Lazzara R**. Magnetism and cardiac arrhythmias. *Cardiology in Review* 12(2):85-96, 2004.
  60. Nakagawa H, Aoyama H, Beckman KJ, Po S, Wu, R, Lockwood D, Spector, P, Calame JD, Lustgarten DL, Herring L, Hasdemir C, Singh D, **Lazzara R**, Jackman WM. Relation between pulmonary vein firing and extent of left atrial-pulmonary vein connection in patients with atrial fibrillation. *Circulation* 109:1523-1529, 2004.
  61. Swan MH, Nakagawa H, Vanoli E, **Lazzara R**, Schwartz PJ, Adamson PB. Heterogeneous regional endocardial repolarization is associated with increased risk for ischemia-dependent ventricular fibrillation after myocardial infarction. *J Cardiovasc Electrophysiol* 14(8):873-9, 2003.
  62. **Lazzara R** and Scherlag BJ. Mechanisms of monomorphic ventricular tachycardia in coronary artery disease. *J of Interven Cardiac Electrophysiol* 8:87-92, 2003.
  63. Hasdemir C, Chandrasekaran K, **Lazzara R**, Reynolds DW. Sinus node dysfunction in a heart transplant patient secondary to severe sinus node artery obstruction—a case report. *Angiology* 54(6):725-8, 2003.
  64. Hasdemir C. Scherlag BJ, Yamanashi WS, **Lazzara R**, Jackman WM. Endovascular stimulation of autonomic neural elements in the superior vena cava using a flexible loop catheter. *Japanese Heart J* 44(3):417-27, 2003.
  65. Matsudaira K, Nakagawa H, Wittkamp FH, Yamanashi WS, Imai S, Pitha JV, **Lazzara R**, Jackman WM. High incidence of thrombus formation without impedance rise during radiofrequency ablation using electrode temperature control. *PACE* 26(5):1227-37, 2003.

66. Scherlag BJ, Patterson E, Jackman WM, **Lazzara R**. The elusive extracellular AV nodal potential: studies from the canine heart, *ex vivo*. *J Interv Card Electrophysiol* 7:39-52, 2002.
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75. Otomo K, Gonzalez MD, Beckman KJ, Nakagawa H, Becker AE, Shah N, Matsudaira K, Wang Z, **Lazzara R**, Jackman WM. Reversing the direction of paced ventricular and atrial wavefronts reveals an oblique course in accessory AV pathways and improves localization for catheter ablation. *Circulation* 104(5):550-6, 2001.
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80. Schauerte P, Scherlag BJ, Scherlag MA, Jackman WM, **Lazzara R**. Transvenous parasympathetic nerve stimulation in the inferior vena cava and atrioventricular conduction. *J Cardiovasc Electrophysiol* 11:64-69, 2000
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93. Patterson E, Scherlag, **Lazzara R**. Early afterdepolarizations produced by d,l-sotalol and clofilium. *J of Cardiovasc Electrophysiol* 8(6):667-678, 1997.
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96. **Lazzara R** as part of the Joint Steering Committees of the Unexplained Cardiac Arrest Registry of Europe and the Idiopathic Ventricular Fibrillation Registry of the United States. Survivors of out-of-hospital cardiac arrest with apparently normal heart: need for definition and standardized clinical evaluation. *Circulation* 95(1):265-272, 1997
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### **Editorials, Position Papers, Background Papers**

1. **Lazzara R**. The Congenital Long QT Syndrome: A Mask for Many Faces. *JACC* 51(9):930-932, 2008.
2. Nakagawa H, Jackman WM, Scherlag BJ, **Lazzara R**. Pulmonary vein isolation during atrial fibrillation: insight into the mechanism

of pulmonary vein firing. J Cardiovasc Electrophysiol 14(3):261-2, 2003.

3. **Lazzara R:** Will Antiarrhythmic Drug Therapy Guided by Electrophysiology Study Survive in the New Millennium? J Cardiovasc Pharm Ther 6(1):1-4, 2001
4. **Lazzara R.** Arrhythmia mechanisms in the new millennium. J Interven Card Electrophysiol 5(2):133-5, 2001.
5. **Lazzara R:** Twisting of the Points. JACC 29(4):843-5, 1997
6. **Lazzara R:** The U wave and the M cell. JACC 26(3): 193-194, 1995.
7. **Lazzara R:** Amiodarone and torsades de pointes. Ann Int Med III(7): 549-551, 1989.
8. Scherlag BJ, Gunn CG, Berbari EJ, **Lazzara R:** Peri-infarction block (1950) - late potentials (1980): Their relationship, significance and diagnostic implications. Am J Cardiol 55: 839-841, 1985.
9. **Lazzara R,** Scherlag BJ: The treatment of arrhythmias by blocking slow current. Appraisal of a new approach. Ann Int Med 93: 91-121, 1980.
10. El-Sherif N, Scherlag BJ, **Lazzara R:** Bradycardia-dependent conduction disorders. J Electrocardiol 9(1): 1-4, 1976.

#### **IX. TEACHING ACTIVITIES**

CCU attending yearly  
Consult service attending yearly  
Medicine Grand Rounds, February 15, 2012  
Medicine Grand Rounds, May 26, 2010  
Thesis Chair, Stavros Stavrakis, May 2010  
Cardiology Grand Rounds, June 2008  
Cardiovascular Fellows Noon Conference, November 2006  
Medical Grand Rounds, August 2005  
Medical Grand Rounds, January 2005  
Clinical Physiology Seminar Series, February 2004  
Cardiology Fellows Lecture, November 2000  
Cardiology Grand Rounds, September 2000  
Family Medicine Lecture Series, August 2000  
Family Medicine Lecture Series, May 2000

#### **X. PROFESSIONAL SERVICE**

### **Clinical Activities**

OU Physicians Clinic – 1 afternoon weekly  
Oklahoma Heart Hospital Physicians, Midwest City –  
2 afternoons monthly

### **Service to Professional Societies**

Heart Rhythm Society (formerly NASPE)  
Governor, 2012  
Strategic Planning Committee – 2004-present  
Governance Committee – 2004-2006  
President's Council Task Force – 2003-present  
Headquarters Location Task Force – 2003-2004  
National President 1995-1996  
Chair, Budget and Finance Committee – 1994  
Chairman, Program Committee – 1994  
Board of Trustees – 1992-1993  
Program Committee – 1992-1993  
American College of Cardiology  
Oklahoma Chapter Secretary-Treasurer – 1995  
Research in CME Committee – 1990-1992  
Governor for Oklahoma – 1984-1987  
Argentina Society of Cardiac Stimulation  
International Advisory Board – 1997  
National Institutes of Health  
Chair, NIH Cardiovascular and Renal Study Section  
– 1985-1986  
Ad hoc Review Committee, PPG, and SCOR grants  
– 1972-present  
VA Merit Review Board on Cardiovascular Disease 1979-1982

### **Editorial Services**

#### **Manuscript Referee**

American Heart Journal  
American Journal of Cardiology  
American Journal of Physiology  
Annals of Internal Medicine  
Circulation  
Circulation Research  
Journal of the American College of Cardiology  
Journal of Clinical Investigation  
Journal of Molecular and Cellular Cardiology  
Journal of Pharmacology and Experimental Therapeutics  
Pacing and Cardiac Electrophysiology

#### **Editorial Boards**

Cardiac Electrophysiology Review  
International Journal of Cardiology  
Journal of Cardiovascular Electrophysiology

**Invited and Special Lectures**

- Cellular Electrophysiology and Mechanisms of Arrhythmia, San Francisco, CA – March 5, 2010  
*“Mechanisms of Arrhythmias”*
- American College of Cardiology annual meeting, Orlando, FL – March 31, 2009  
*“Repolarization Abnormalities”*
- Cellular Electrophysiology and Mechanisms of Arrhythmias, San Francisco, CA – March 12-15, 2009  
*“Basic Cellular Electrophysiology (Understanding Arrhythmia Mechanisms)”*
- Cardiology Section Fellows Noon Conference – September 22, 2008  
*“Basic Channel Physiology”*
- OUHSC Electrophysiology Conference – August 3, 2008  
*“The Brugada Syndrome”*
- Heart Rhythm Society annual meeting – May 15, 2008  
*Careers in “Academic EP: What the EP Fellow Needs to Know – Choosing a Mentor”*
- 24th Annual Frontiers of Cardiology, Winter Park, CO – Jan 5, 2008  
*“Earl Beard Lecture: The History of Electrophysiology”*
- VII International Meeting on Atrial Fibrillation, Bologna, Italy – Sept 17-18, 2007  
*“New Insight into Atrial Fibrillation”*
- University of Vermont Cardiology Section – August 31, 2007  
*“Evolution of Mechanisms of Arrhythmias – Emphasis on the Newest Mechanism and Its Relevance to Atrial Fibrillation”*
- Cardiovascular Section Fellows Lecture – November 20, 2006  
*“The Long QT Syndrome”*
- MedicalCV, Inc., Las Vegas – September 30, 2006  
*“Electrophysiologic Considerations of Atrial Fibrillation”*
- American College of Cardiology Scientific Meeting March 12, 2006  
*“The Long QT Syndrome”*
- North Texas Electrophysiology Society, Dallas, TX – January 2006  
*“Arrhythmia Mechanisms Old and New”*
- Virtual Teaching Session on AF – Tampa, FL – November 2005  
*“Importance of Epicardial Ganglia in Curing Atrial Fibrillation”*

Cardiology Grand Rounds – Gainesville, FL – August, 2005  
*“Arrhythmia Mechanisms Old and New”*  
 21<sup>st</sup> Annual Frontiers of Cardiology – Winter Park, CO – January 2005  
*“Catheter Ablation Therapy Updates”*

Geriatric Medicine Update VII: Cardiac Problems of the Aged – Oklahoma City – May 2004  
*“Atrial Fibrillation in the Elderly”*  
 Heart Rhythm Society annual meeting – San Francisco, CA – May 2004  
*“Risk Stratification and Management of the Long QT Syndrome”*  
 1<sup>st</sup> International Cardiovascular Congress – China – September 2003  
*“Mechanisms of Arrhythmias-2003: Electrical Potentials, Currents and the Cell Membrane”*  
 19<sup>th</sup> Annual Frontiers of Cardiology – Winter Park, CO – January 2003  
*“Arrhythmia Management Messages from Recent Clinical Trials”*  
 Cardiology Grand Rounds – New York, NY – October 2002  
*“Mechanisms of Arrhythmias Old and New”*  
 Advanced Clinical Cardiac Electrophysiology and Catheter Ablation – Bethesda, MD 2002  
*“Mechanism of Antiarrhythmic Drug Actions: Use Dependency...”*  
*“Channelopathies-Genetic Abnormalities Responsible for Long QT”*  
*“Atrial Fibrillation: Pharmacologic v Nonpharmacologic Management”*  
 The “New Frontiers” of Arrhythmias – France – 2002  
*“(Dis) Use of Induction of Ventricular Tachyarrhythmias to Guide Pharmacotherapy – Lessons from Clinical Trials”*  
 18<sup>th</sup> Annual Frontiers of Cardiology – Winter Park, CO – January 2002  
*“Progress in Catheter Ablation to Cure Atrial Fibrillation”*  
 Cardiology Grand Rounds – Omaha, NB – November 2001  
*“Atrial Fibrillation: Evolution of Mechanisms and Management”*  
 Advanced Clinical Cardiac Electrophysiology and Catheter Ablation – Bethesda, MD 2001  
*“Mechanisms of Atrial Fibrillation”*  
*“Ion Channels: Structure and Function”*  
*“Cellular & Intercellular Electrophysiology in the Genesis of Cardiac Arrhythmias”*  
 12<sup>th</sup> Annual Scientific Meeting Puerto Rico Chapter, ACC – June 2001  
*“Arrhythmia Risk: Mechanisms and Management in Genetic Primarily Electrical Cardiac Diseases”*  
 Cardiology Grand Rounds – Los Angeles – March 2001  
*“The Evolution of Mechanisms of Cardiac Arrhythmia & Impact on Therapy”*

17th Annual Frontiers of Cardiology – Winter Park, CO –  
January 2001  
*“Primary & Secondary Prevention of Sudden Cardiac Death”*  
Electrophysiology Research Conference – Chicago 2000  
*“Long QT Syndromes: Mechanisms and Management”*  
Muskogee General Hospital lecture – Muskogee, OK - September  
2000  
*“Cardiac Arrhythmias: Current Management Update”*  
University of PA School of Medicine – Philadelphia –  
September 2000  
*“The Long QT Syndrome”*  
Advanced Clinical Cardiac Electrophysiology and Catheter Ablation –  
Bethesda, MD 2000  
*“Mechanisms of Atrial Fibrillation”*  
*“Ion Channels: Structure and Function”*  
*“Cellular & Intercellular Electrophysiology in the Genesis of Cardiac  
Arrhythmias”*  
Cardiology Grand Rounds – Louisville, KY – April 2000  
*“Cardiac Arrhythmias: Current Management Update”*  
Update on Atrial Fibrillation symposium – Germany –  
March 2000  
*“Risk of Proarrhythmias Following Cardioversion of Atrial Fibrillation”*  
The “New Frontiers” of Arrhythmias 2000 – Italy –  
February 2000  
*“Should EPS-Guided Pharmacotherapy Survive in the New Mellinium”*  
16th Annual Frontiers of Cardiology – Winter Park, CO –  
January 2000  
*“Catheter Ablation Therapy Update”*

### **Consultantships**

CV Therapeutics  
Proctor & Gamble  
Reliant Pharmaceuticals  
Sanofi-Aventis

### **Professional Service to the Community**

Reliant Pharmaceuticals lecture – December 2005  
*“Treatment Options for Atrial Fibrillation”*  
OU Physicians Outreach Program lecture – March 2003

## **XI. ADMINISTRATION (College and University Service)**

Medical Director, Heart Rhythm Institute (formerly Cardiac Arrhythmia  
Research Institute) 1998-present  
Section Chief, Cardiovascular Diseases 1978-1998

## **XII. MEMBERSHIPS, HONORS, AWARDS, AND SPECIAL RECOGNITION**

### **Scholarly, Professional and Scientific Memberships**

American College of Cardiology  
American Heart Association  
American Society for Clinical Investigation  
Association of American Physicians  
Association of University Cardiologists  
Cardiac Electrophysiology Society  
European Society of Cardiology  
Heart Rhythm Society

### **Awards, Honors, Special Recognition**

Professor of Medical Ethics, Xinjiang Medical University, Xinjiang, P.R. China - 2008  
Earl Beard Lecture Award – Frontiers of Cardiology 2008  
Who's Who in Medicine and Healthcare – 2005, '06, '07, '08, '09, '15  
Best Doctors in America – 2004, 2007  
Best Doctors in Oklahoma – 2004, 2007  
OU Regents Professor of Medicine– 2003  
Distinguished Scientist Award, Heart Rhythm Society (formerly NASPE) - 1999  
Paul Dudley White Award, Association of Military Surgeons – 1990  
Natalie O. Warren Professor of Medicine – 1989  
George Lynn Cross Professor of Research – 1988  
OU Regents Award for Superior Research – 1984

## **XIII. PROFESSIONAL GROWTH AND DEVELOPMENT**

Weekly Department of Medicine Grand Rounds  
Weekly Cardiovascular Grand Rounds  
American College of Cardiology annual meetings  
American Heart Association annual meetings  
Frontiers of Cardiology symposium annual meetings  
Heart Rhythm Society (formerly NASPE) annual meetings  
Cardiac Arrhythmia Mechanisms: Translational Aspects of Cardiac Arrhythmia Research – Lucca, Italy (2009)  
American College of Cardiology annual meeting, (2008)  
*“Expert Perspectives on Managing Atrial Fibrillation”*  
Pfizer Pharmaceuticals Presentation, Oklahoma City, OK (2008)  
*“An Evidenced-Based Approach to Reducing CV Risk”*  
VII International Meeting on Atrial Fibrillation, Bologna, Italy (2007)  
Atherosclerosis Thought Leader Market Research meeting (2006)  
A Virtual Teaching Session on Atrial Fibrillation (2005)  
Cardiac Arrhythmia Mechanisms symposium (2005)  
14<sup>th</sup> World Congress in Cardiac Electrophysiology (2004)

American College of Cardiology Oklahoma Chapter meeting (2002)  
Columbia University College of Physicians & Surgeons (2001)  
*"Informed Consent, Provider Interaction, Supervision and Control, Disclosure"*  
American College of Cardiology Foundation  
*"Advanced Clinical Cardiac Electrophysiology and Catheter Ablation"*  
University of Rochester Medical Center (2001)  
*"Protecting Study Volunteers PSV051"*  
Future of Cardiac Arrhythmology conference, The Netherlands (2000)  
Barnett International  
*"Investigator Responsibility in Clinical Research & GCP Training"*  
Asian Pacific Symposium on Electrophysiology and Pacing, Taiwan (1999)  
Physicians Liability Insurance Company (1998)  
*"High Risk Malpractice Cases"*  
ACC Annual Scientific Meeting of Pennsylvania Chapter (1996)  
*"Integrating New Information into Clinical Practice"*  
OU Office of Continuing Medical Education (1992)  
*"Radiofrequency Catheter Ablation of Arrhythmias"*  
*"Interventional Strategies for Atherosclerosis, Thrombosis & Arrhythmias"*  
Ochsner Medical Foundation (1991)  
*"Hypertension Update '91: The Cardiovascular Risk Continuum"*  
OU Office of Continuing Medical Education (1991)  
*"19<sup>th</sup> Annual Oklahoma Physicians Winter Seminar"*  
St. Anthony Hospital (1988)  
*"Managing Heart Disease in the Community"*  
World Congress of Cardiology (1986)  
St. Anthony Hospital (1981)  
*"Diagnosis and Management of Cardiac Arrhythmias"*

#### **XIV. OTHER**

Member, original Test Committee for Clinical Cardiac Electrophysiology Board Exam – American Board of Internal Medicine (1992)