

CURRICULUM VITAE

Revised: 12/16/05

1. **Name:**
Fernando Mera, MD, FACC

Date of Birth: 11-20-62
2. **Office Address:**
Baptist Medical Arts Building
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3. **E-mail Address**
fernandom@miamicardiology.net
4. **Citizenship:**
Spain
5. **Current Titles and Affiliations:**
Assistant Professor of Medicine

Academic appointments:
Assistant Professor of Medicine

Primary appointments:
Internal Medicine/Cardiology

Clinical appointments:
Staff Physician, Emory Clinic, 2/2001
Director, Arrhythmia Center at Crawford Long Hospital, 6/2002
6. **Previous Academic and Professional Appointments:**
Assistant Professor of Medicine
7. **Previous Administrative and/or Clinical Appointments:**
Staff Physician, Emory Clinic, 2/2001
Director, Arrhythmia Center at Crawford Long Hospital, 6/2002

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8. Licensures/Boards:

1996	Georgia	42664
2005	Florida	93189

9. Specialty Boards:

1994	American Board of Internal Medicine
1997	Cardiovascular Diseases
1998	Clinical Cardiac Electrophysiology

10. Education:

3/1975 – 12/1980	BS	St. Mary's College of Montevideo Montevideo, Uruguay
3/1981 – 10/1989	MD	Universidad de la Republica-School of Medicine, Montevideo, Uruguay

11. Postgraduate Training:

7/1991 – 6/1992	Medical Internship Sinai Hospital of Baltimore The Johns Hopkins University Institutions, Baltimore, Maryland
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7/1992 – 6/1994	Medical Residency Sinai Hospital of Baltimore The Johns Hopkins University Institutions, Baltimore, Maryland
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7/1994 – 6/1996	Cardiology Fellow University of South Florida College of Medicine Tampa, Florida
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7/1996 – 6/1998	Electrophysiology Fellow Emory University School of Medicine, Atlanta, Georgia
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12. Committee Memberships:

Heart Center Planning Research & Technology Advancement Subcommittee
Emory University School of Medicine

13. Society Memberships:

North American Society for Pacing and Electrophysiology

Fellow, American College of Cardiology

14. Organization of National or International Conferences:

Administrative positions:

Co-Director, Carlyle Fraser Heart Program, 2/2001

Director, Arrhythmia Center at Crawford Long Hospital, 6/2002

15. Research focus:

Areas of research interest: (1) atrial fibrillation , catheter ablation and the pathophysiology of endothelial dysfunction of the left atrium stroke prevention (2) Cardiac Resynchronization Therapy , development of new leads and delivery systems for left ventricular pacing.

16. Grant Support:

Active support:

Biventricular pacing improves left ventricular function by increasing epicardial sympathetic activity compared to right ventricular pacing in patients with congestive heart failure (Principal Investigator).

Left Ventricular-Based Cardiac Stimulation Post AV Node Ablation Evaluation (PAVE) – St. Jude (Co-Investigator).

Device Evaluation of CONTAK RENEWAL 2 and EASYTRAK 2: Assessment of Safety and Effectiveness in Heart Failure (DECREASE-HF) – Guidant , (Co-Investigator).

VENTAK PRIZM AVT US Investigation Plan (PRIZM AVT) – Guidant (Principal Investigator).

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Clinical Study Evaluating Cardiac Resynchronization Therapy for Heart Failure Patients (INSYNC ICD) – Medtronic (Co-Investigator).

InSync Registry – Medtronic (Co-Investigator).

InSync ICD Registry – Medtronic , (Co-Investigator).

VENTAK CHF/CONTAK CD CHF/AICD Automatic Implantable Cardioverter Defibrillator (AICD) Biventricular Pacing (CONTAK CD) – Guidant , (Co-Investigator).

CONTAK CD/EASYTRAK Post-Approval Study (PAS) – Guidant , (Co-Investigator).

Comparison of Medical Therapy, Pacing, and Defibrillation in Heart Failure (COMPANION) – Guidant , (Co-Investigator)

Investigation of the long-term benefits of biventricular pacemakers in patients with chronic congestive heart failure: a two-year follow-up from the MIRACLE trial , (Co-Investigator).

InSync III/Attain OTW Study, Medtronic (Co-Investigator).
(InSync III) – Medtronic (Co-Investigator).

Multicenter Automatic Defibrillator Implantation Trial II (MADIT II) – Guidant, (Co-Investigator).

Chronicle Offers Management to Patients with Advanced Signs and Symptoms of Heart Failure (COMPASS-HF) – Medtronic, (Co-Investigator).

Model 4194 Lead – Medtronic (Principal Investigator)

Multidisciplinary Study of Arrhythmogenic Right Ventricular Dysplasia (ARVD) – NIH (Co-Investigator).

Fluid Accumulation Status Trial (FAST) – Medtronic (Principal Investigator.)

High-percentage of Overdrive Pacing Evaluation (HOPE) – Biotronik, (Co-Investigator).

Predictors of Response to CRT (PROSPECT) – Medtronic, (Co-Investigator).
Microvolt T Wave Alternans Testing for Risk Stratification of Post MI Patients (MASTER) – Medtronic, (Co-Investigator).

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InSync III Marquis ICD Model 7279 – Medtronic, (Co-Investigator).

Rhythm ICD/QuickSite Left Heart Lead Model 1056K – St. Jude Medical , (Co-Investigator).

Microvolt T Wave Alternans Testing for Risk Stratification of Post Myocardial Infarction patients – Medtronic Inc. (Co-Investigator).

17. Clinical Service Contributions:

2/2006-present Clinical Cardiac Electrophysiologist
Miami Cardiology Group

2/2001–10/2005 Clinical Cardiac Electrophysiologist
Emory Clinic/Crawford Long Hospital

6/2002 – present Director, Arrhythmia Center
Emory Clinic/Crawford Long Hospital

18. Formal Teaching:

Weekly Cardiac Electrophysiology Conference, Crawford Long Hospital
Core curriculum lectures for Cardiology fellows
Attending physician and supervising faculty in training of clinical cardiac electrophysiology fellows.

Medical Student Teaching

Attending Grand Rounds
Medical Surgery Conference
Electrophysiology Conference

19. Supervisory Teaching:

2000 - 2002 Narandra Kanuru, MD. Private Practice, Kennestone, GA
2000 – 2002 Brandan O’Cochlan, MD. Private Practice, Louisville, MS
2002 – 2003 Robert Schwartz, MD. Private Practice, Louisville, KY
2002 – 2004 Robert McSwain, MD. Emory University, Atlanta, Georgia
2002 - 2004 Joon Ahn, MD. Emory University, Atlanta, Georgia
2002 – 2004 Heather Bloom, MD. Emory University, Atlanta, Georgia

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20. Lectureships, Seminar Invitations, Invitations to National or International Conferences:

59th Annual International Scientific Assembly of the American College of Chest Physicians, Abstract Presenter, October 1993, Orlando, Florida.

American College of Physicians, 11th Annual Maryland Associates Meeting, Abstract Presenter, 1993, Baltimore, Maryland.

American Academy of Neurology Annual Meeting, Original Investigations Session, Abstract Presenter, 1995, Seattle, Washington.

NASPE 17th Annual Scientific Sessions, Original Investigations Session, Abstract Presenter, May 1996, Seattle, Washington.

NASPE 19th Annual Scientific Sessions, Original Investigations Session, Abstract Presenter, May 1998, San Diego, California

Cardiostim Meeting, Core Curriculum Sessions, Nice, France, June 1998.

NASPE 20th Annual Scientific Sessions, Original Investigations Session, Abstract Presenter, May 1999, Toronto, Canada.

Symposium Faculty: Cardiac Arrhythmia in the Emergency Room. Uruguayan Society of Cardiology, Montevideo, August 1999.

Symposium Faculty: Diagnosis and mechanisms of Atrial Tachycardias, Instituto Nacional de Cirugia Cardiaca, Montevideo, October 1999.

Symposium Faculty: Cardiac Arrhythmia Management in the New Millennium: Today and Tomorrow. North American Society for Pacing and Electrophysiology, Uruguayan Society of Cardiology, Punta del Este, December 1999.

Course Faculty: "Interpretation of the Electrocardiogram for the Practicing Internist", American College of Physicians, American Society of Internal Medicine, Annual Scientific Sessions, Atlanta, Georgia, March 2001.

Symposium Faculty: "A Problem Solving Approach to Cardiac Arrhythmias: Advances in the pharmacological treatment of Atrial Fibrillation". Emory University School of Medicine, Atlanta, Georgia, April 2001.

Symposium Faculty: "Cardiac Resynchronization Therapy, Live Cases" Emory University School of Medicine, Atlanta, Georgia, March 2002.

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Grady Memorial Hospital. Cardiology Grand Rounds: “Advances in the treatment of Atrial Fibrillation”, Atlanta, Georgia, May 2002.

North American Society for Pacing and Electrophysiology, Annual Scientific Sessions, Effect of Intrinsic Atrioventricular Conduction and Biventricular Pacing Activation Fusion on Left Ventricular Function. NASPE Scientific Sessions: May 2002

Symposium Faculty: “Cardiac Resynchronization Therapy, Live Cases, “Vascular access for Biventricular pacemaker implantation, b) Managing complications”, Emory University School of Medicine, Atlanta, Georgia, October 2002.

Symposium Faculty: “Cardiology in Primary Care, Patient-Based Learning – Management of Atrial Fibrillation, Session Coordinator, Emory University School of Medicine, Atlanta, Georgia, November 2002.

Grady Memorial Hospital, Cardiology Grand Rounds: “Ventricular Arrhythmias in myocardial ischemia, infarction and reperfusion”. Atlanta, Georgia, January 2003.

Symposium Faculty: “Breakthroughs in Cardiac Care”, Evolution of Therapy to prevent Sudden Cardiac Death”, Carlyle Fraser Heart Center at Crawford Long Hospital, Emory University School of Medicine, March 2003.

Symposium Faculty: “Cardiac Resynchronization Therapy, Live Cases, Carlyle Fraser Heart Center, Emory Crawford Long Hospital, Emory University School of Medicine, Atlanta, Georgia, April 2003

Invited speaker: “Cardiac Resynchronization: what it means to the interventional cardiologist”, Symposium “Approaches for success in complex coronary intervention”, Atlanta, April 2003.

Cardiology in Primary Care, Symposium Faculty: “Patient-based learning- Management of Atrial Fibrillation”, Emory Heart Center, Emory University School of Medicine, November, 2003.

Medtronic Japanese Scholars Program, Cardiac Resynchronization therapy: “Implantation technique for Left Ventricular Leads” and “Complications and Management of LV lead implantation”, November 13-14, 2003

Symposium Faculty: “Cardiac Resynchronization Therapy, Live Cases, Emory Crawford Long Hospital, Emory University School of Medicine, Atlanta, Georgia, February 2004.

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Symposium Faculty: Tips and Tricks of Cardiac Resynchronization Therapy, Live Cases, Emory Crawford Long Hospital, Emory University School of Medicine, Atlanta, Georgia, April 2004.

Faculty, Educational Forum: Recent developments in the Prevention of Sudden Cardiac Death, Emory University School of Medicine, Atlanta, April 2004.

Faculty, Medtronic Japanese Scholars Program, Cardiac Resynchronization therapy: Live cases, Emory Crawford Long Hospital, Carlyle Fraser Heart Center, Atlanta, Georgia, June 29, 2004.

Symposium Faculty: “Cardiac Resynchronization Therapy, Left Ventricular Implantation technique: Live Cases, Emory Crawford Long Hospital, Emory University School of Medicine, Atlanta, Georgia, August 2004.

Symposium Faculty: Cardiac Resynchronization Therapy – Live Symposium, Emory University School of Medicine, Atlanta, Georgia, October 2004.

Metronome 2004 – Managing Cardiac Rhythm, Carlyle Fraser Heart Center at Emory Crawford Long Hospital. Faculty: “Atrial Fibrillation: Which drugs to maintain sinus rhythm?”, Atlanta, November 2004.

Grady Memorial Hospital, Cardiology Grand Rounds: “Ventricular tachycardia in coronary artery disease”. Atlanta, Georgia, January 2005.

Symposium Faculty: “Device based alternatives in preventing Sudden Cardiac Death – Lessons from recent clinical trials.” Emory Crawford Long Hospital, Emory University School of Medicine, Atlanta, Georgia, January 2005

21. Bibliography:

a. Published manuscripts in refereed journals and Book Chapters:

1. **Mera F**, Pratt J, Israel W, Dubin JD. Atrial Septal Aneurysm Simulating a Left Atrial Mass Diagnosed by Transesophageal Echocardiography. *American Heart Journal*, 1993; Nov: 1224-1225.
2. DeLurgio DB, Sathavorn C, **Mera F**, Walter PF, Leon AR, Langberg JJ. Incidence and Implications of Abrasion of Implantable Cardioverter-Defibrillator Leads. *The American Journal of Cardiology*, 1997; 79: 1409-1411.
3. **Mera F**, Walter PF, Langberg JJ. Protrusion without Fracture of the Accufix Atrial “J” Retention Wire. *Journal of Cardiovascular Electrophysiology* 1997;8:1062-1064.

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4. **Mera F**, Leon, AR, Resident and Staff Physician, Review Article: “Radiofrequency Catheter Ablation of Cardiac Arrhythmias”. 1998; 44:35-43.
5. **Mera F**, Walter PF, Langberg JJ. Right Ventricular Outflow Tract Tachycardia as a Result of Blunt Chest Trauma.
Pacing and Clinical Electrophysiology 1998; 21 (Pt I):2147-48.
6. Bollman A, Sathavorn C, Marx A, DeLurgio DB, **Mera F**, Walter PF, Langberg J. Patient Discomfort following Pectoral Defibrillator Implantation using Conscious Sedation.
Pacing and Clinical Electrophysiology 1999; 22 (Pt 2):212-5.
7. **Mera F**, DeLurgio DB, Merlino JD, Wade Margaret, Leon AR. A Comparison of Ventricular Function During High Right Ventricular Septal and Apical Pacing after His Bundle Ablation for Refractory Atrial Fibrillation.
Pacing and Clinical Electrophysiology, August 1999;22(8):1234-9.
8. **Mera F**, DeLurgio DB, Langberg JL, Moss EA, Leon AR. Transvenous Cardioverter Defibrillator Lead Malfunction due to Terminal Connector Damage in Pectoral Implants. *Pacing and Clinical Electrophysiology*, 1999; 22: 1797-1801.
9. **Mera F**, Langberg JJ. “ Future Trends in Radiofrequency Ablation.”
In Huang SKS and Wilbur D (eds): Radiofrequency Catheter Ablation of Cardiac Arrhythmias: Basic Concepts and Clinical Applications, Chapter 39, 2nd ed. Armonk, NY: Futura Publishing Company, Inc., 2000.
10. Leon AR, Greenberg JM, Kanuru N, Baker CM, **Mera FV**, Smith AL, DeLurgio DB. Cardiac Resynchronization in Patients with Congestive Heart Failure and Chronic Atrial Fibrillation: Effect of Upgrading to Biventricular Pacing after Chronic Right Ventricular Pacing.
Journal of the American College of Cardiology, April 2002.
11. Cai H. Li Z. Goette A. **Mera F**. Honeycutt C. Feterik K. Wilcox JN. Dudley SC Jr. Harrison DG. Langberg JJ. Downregulation of endocardial nitric oxide synthase expression and nitric oxide production in atrial fibrillation: potential mechanisms for atrial thrombosis and stroke.
Circulation. 106(22):2854-8, 2002 Nov 26.
12. Leon AR, DeLurgio DB, **Mera F**. Practical Approach to Implanting Left Ventricular Pacing Leads for Cardiac Resynchronization.
Journal of Cardiovascular Electrophysiology 16: 100-105, January 2005

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b. Manuals, videos, computer program, and other teaching aids:

Medtronic Cardiac Resynchronization Live, October 2002
Carlyle Fraser Heart Center Program, March 2003
Guidant Cardiac Resynchronization Live, April 2003
Medtronic CRT Program, June 2003
CRT Live, October 2004
Device based alternatives in Heart Failure, January 2005

c. Other publications: (May include published abstracts)

1. **Mera F**, Aarons D, Juanteguy J, Lewis R, Veltri E. Is there a gender gap in Implantable Cardioverter Defibrillator recipients? *Chest* 1993, Abstracts of Original Investigations.
2. **Mera F**, Wityk R, Porges S. Abnormal Heart Rate Variability in brainstem Injury. *Neurology* 1995, April, 45 (Suppl 4).
3. **Mera F**, Earne P, Gursoy S. Family Screening, Electrophysiological Testing and Follow-up in the Inherited Form of Arrhythmogenic Right Ventricular Dysplasia. *Pacing and Clinical Electrophysiology*, Abstracts of Original Investigations, 1996.
4. **Mera F**, DeLurgio DB, Patterson RE, Merlino JD, Hanson K, Leon AR. Hemodynamic Comparison of High Right Ventricular Septum vs. Apical Pacing after His Bundle Ablation in Patients with Refractory Atrial Fibrillation. *Pacing and Clinical Electrophysiology*, Abstract of Original Investigations, 1998.
5. Delurgio DB, Hanson KJ, **Mera F**, Pena EA, Langberg JJ, Leon AR. Simultaneous Transthoracic Shocks from Two Defibrillators for Conversion of Refractory Atrial Fibrillation. *Circulation*, Abstract of Original Investigations, 1998.
6. **Mera F**, De Lurgio DB, Patterson RE, Merlino JD, Hanson K, Leon AR. High Right Ventricular Septum vs. Apical pacing after His Bundle Ablation in Patients with Refractory Atrial Fibrillation. *Archives des maladies du Coeur et des Vaisseaux*, 1998, 91 (III):337.
7. **Mera F**, DeLurgio DB, Langberg JJ, Moss EA, Leon AR. Transvenous Cardioverter Defibrillator Lead Malfunction due to Terminal Connector Damage in Pectoral Implants. *Pacing and Clinical Electrophysiology*, 1999; 22 (4):869.
8. Cai H. Li Z. Goette A. **Mera F**. Honeycutt C. Feterik K. Wilcox JN. Dudley SC Jr. Harrison DG. Langberg JJ. Downregulation of endocardial nitric oxide synthase

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expression and nitric oxide production in atrial fibrillation: potential mechanisms for atrial thrombosis and stroke.

Circulation 2001;104(suppl II):II-402

9. Greenberg JM, Baker CM, **Mera FV**, Smith AL, DeLurgio DB, Langberg JJ, Leon AR. Cardiac Resynchronization Improves Ventricular Function and Symptoms of CHF in the Absence of any Mechanical Atrial Contribution. *JACC* 2002; 39(5)77A. American College of Cardiology Scientific Sessions 2002.
10. Greenberg JM, **Mera FV**, DeLurgio DB, Leon AR. Left Ventricular Remodeling During Cardiac Resynchronization Therapy: Effect on Ventricular Dimension and Stimulation Threshold Chronically after Biventricular Pacing. *JACC* 2002; 39(5)107A. American College of Cardiology Scientific Sessions 2002.
11. Greenberg JM, Deffer O, Khan MA, Jayawant AM, Lattouf O, **Mera FV**, Smith AL, DeLurgio DB, Langberg JJ, Leon AR. Emory Experience with Cardiac Resynchronization Therapy: A Report of 500 Cases. 13th International Congress Cardiostim: June 2002.
12. DeLurgio DB, Chinchoy E, Ransom SA, **Mera FV**, Smith AL, Leon AR, Hill M. Stability of the Optimal Right Ventricular to Left Ventricular Timing Sequence during Biventricular Pacing for CHF as Determined by Doppler-Derived Stroke Volume. NASPE Scientific Sessions: May 2002
13. Greenberg JM, De Lurgio DB, **Mera FV**, Ransom SA, Shih A, Leon AR. Left Ventricular Lead Location in Biventricular Pacing with Variable RV-LV Timing Does Not Affect Optimal Stroke Volume. NASPE Scientific Sessions: May 2002
14. Kanuru NK, De Lurgio DB, Ransom SA, **Mera FV**, Smith AL, Leon AR. Right Ventricular Septal versus Right Ventricular Apical Pacing in Biventricular Pacing Systems does not Affect Patient Functional Improvement. NASPE Scientific Sessions: May 2002.
15. **Mera FV**, Baker CM, Greenberg JM, Kanuru N, Ransom SA, Underwood J, De Lurgio DB, Leon AR. Effect of Intrinsic Atrioventricular Conduction and Biventricular Pacing Activation Fusion on Left Ventricular Function. NASPE Scientific Sessions: May 2002.
16. De Lurgio DB, Kieck GK, Greenberg J, Leon AR, **Mera FV**, Ransom SA. Sequential Bi-Ventricular Pacing Increases Acute Stroke Volume Compared to Isolated Left Ventricular Pacing. NASPE Scientific Sessions: May 2002.

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17. Notabartolo D, Merlino JD, **Mera F**, DeLurgio DB, Smith AL, Martin RP, Leon AR. The role of the left ventricular peak velocity gradient as an effective predictor of response to cardiac resynchronization therapy. *Journal of Coronary Artery Disease* 2003;5 (1):168.
18. DeLurgio DB, Chinchoy E, Ransom S, **Mera FV**, Smith AL, Hill M, Leon AR. Stability of the optimal right ventricular to left ventricular timing sequence during cardiac resynchronization as determined by doppler derived volume. *Cardiostim* 2002. *Europace*, Vol. 3: 46/5.
19. Jayawant M, DeLurgio DB, **Mera FV**, Guyton RA, Leon AR, Latouff O. Thoracoscopic Implant of LV Pacing leads for cardiac resynchronization. *Cardiostim* 2002. Vol. 3: 148/2.
20. Notobartolo D, Merlino J, Smith A, **Mera F**, DeLurgio D, Martin R, Leon AR. Echocardiographic Evidence of Sustained Reverse Remodeling after Two Years of Cardiac Resynchronization Therapy. *Circulation* 2003; 108 (17):IV-336.
21. Dudley SC, Diamandopoulos L, Dikalov S, Fink B, Fink N, McCann LA, Honeycutt C, **Mera F**, Harrison DG. Atrial Fibrillation Causes Increased Oxidative Stress and Decreased Nitric Oxide Bioavailability in the Left Atrial Appendage. *Circulation* 2003, 108 (17): IV-147.
22. Notobartolo D, Merlino J, Smith A, **Mera F**, DeLurgio D, Martin R, Leon AR. A Novel Method to Predict Response to Cardiac Resynchronization Therapy. *Circulation* 2003; 108 (17): IV-593.
23. Notobartolo D, Merlino J, Smith AL, DeLurgio DB, **Mera F**, Martin R, Leon AR. Myocardial Strain and Displacement Following Cardiac Resynchronization Therapy. *JACC* 2004, 43 (5):333A-162.
24. McSwain RL, Schwartz RA, Delurgio DB, **Mera F**, Langberg JJ, Leon AR. Cardiac resynchronization therapy does not increase the incidence of polymorphic ventricular tachycardia in patients with Congestive Heart Failure: Analysis of stored electrograms from ventricular arrhythmia episodes in patients from the InSync-ICD and Contak-CD clinical evaluations. *Heart Rhythm* 2004, 1 (1):184, S60.
25. McSwain RL, Schwartz RA, Delurgio DB, **Mera F**, Langberg JJ, Leon AR. Epicardial Left Ventricular pacing during cardiac resynchronization therapy does not prolong repolarization (QT interval): An analysis from the combined InSync ICD and Contak-CD studies. *Heart Rhythm* 2004, 1 (1): 797, S250.