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# The CARE Newsletter

The Cardiovascular and Research Education Newsletter

## Cardiovascular Working Group John F. Keaney, Jr. M.D.

Special points of interest:

- CWG Updates:  
With John F. Keaney, Jr., MD
- Faculty Spotlight:  
Cynthia Ennis, MD
- Fellows Corner:  
Heather Hunt Swales, MD

News & Information

- CWG Meeting Schedule



The past CVWG featured Marcus Cooper, M.D. Dr. Cooper spoke about LRP130, a transcription factor implicated in a rare genetic disorder. However, Dr. Cooper presented impressive data that LRP130 is required for the transcription of mitochondrial-encoded genes and the maintenance of normal mitochondrial function. Moreover, he found that LRP130 was important for energy metabolism and limiting reactive oxygen species production in mitochondria. Most impres-

sive, however, were his data that LRP130 is depressed in fatty liver disease and that reduced LRP130 alone is enough to turn on the inflammatory response known to be important for insulin resistance. Dr. Cooper's data provide an important new link between mitochondria and inflammation, and this link is likely to have important clinical implications and serve as a target for diabetes treatment.



## Faculty Spotlight Cynthia Ennis, M.D.

Dr. Cynthia Ennis is a cardiologist and cardiac electrophysiologist whose interests include cardiac resynchronization therapy, device therapy, and cardiac resuscitation. Dr. Ennis' current research interests include fac-

tors associated with ICD implantation and how electromagnetic interference relates to ICD function.

While primary prevention ICDs have been shown to reduce mortality in high risk

populations, the percentage of candidates receiving



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devices has not been well studied. According to industry estimates, only 10-33% of those eligible for prophylactic ICD implant actually receive one. Dr. Ennis' research was focused on what variables were associated with ICD implant. Last year, Dr. Ennis presented two abstracts on this topic at the American Heart Association (Resuscitation Symposium) in New Orleans.

More recently, Dr. Ennis is currently working on a manuscript for the *Pace Journal* relating to presence of electromagnetic interference in the hybrid vehicle and how this affects ICD function.

Dr. Ennis has also completed research in collaboration with Massachusetts General Hospital with Dr. MacGillivray regarding atrial fibrillation, anticoagulation and left ventricu-

lar assist devices. This research was presented at the International Society of Heart and Lung Transplant Scientific Meeting in Paris, France in May of this year.

Dr. Ennis recently authored a chapter on **EMedicine** in collaboration with Dr. Rosenthal on atrial flutter.



### Recent Abstracts/Publications:

S.C. Ennis, J.N. Baker, K.M. Gonczarek, L. Kleinkauf, C.A. Ennis, K.M. Lam, S.A. Moore, T.E. MacGillivray. *Trend or Treason: No Increase in Thromboembolic Events in LVAD patients with Atrial Fibrillation Off Coumadin*; Oral presentation ISHLT 29th annual scientific meeting Paris, France 4/09

S.C. Ennis, J.N. Baker, J.M. Camuso, C.A. Ennis, K.M. Lam, S.A. Moore, T.E. MacGillivray. *Tackling Pseudomonas Infection in Our HeartMate II Patients*. Oral presentation ISHLT 29th annual scientific sessions Paris, France 4/09

**Ennis CA**; McGuiness, M; Vohora, R; Ennis, S; Rosenthal, L. *Factors Associated with Implantable Cardioverter-Defibrillator Implantation*. American Heart Association Scientific Sessions 2008; 81.

**Ennis CA**; McGuiness, M; Vohora, R; Ennis, S; Rosenthal, L. *ICD underutilization in primary prevention patients*. American Heart Association Scientific Sessions 2008

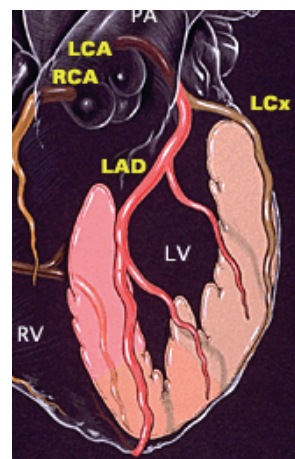
Ennis, CA; Rosenthal, LS. *Atrial Flutter*. **EMedicine** 11/08.

Bouchard JL, Aurigemma GP, Hill JC, **Ennis CA**, Tighe DA. *Usefulness of the Pulmonary Arterial Systolic Pressure to Predict Pulmonary Arterial Wedge Pressure in Patients with Normal Left Ventricular Systolic Function*. American Journal of Cardiology (in press).

Bouchard JL, Aurigemma GP, Goldberg RJ, Fournier JB, Vinch CS, Hill JC, **Ennis CA**, Meyer TE, Tighe DA. *Heart failure in the "oldest old": clinical and echocardiographic insights*. American Journal Geriatric Cardiology (in press).

Ennis SC, Moore SA, **Ennis CA**, Moukarbel GV, MacGillivray TE. *Are initial indications for left ventricular assist support necessary?* JACC (Suppl A) 2007; 49(9):1022-109.

Narayanan A, Aurigemma GP, Hill JC, Hurlburt HM, Bouchard JL, McNamee A, Zichittella Z, **Ennis CA**, Tighe DA. *Circumferential strain is independent of left ventricular geometry*. J Am Soc Echocardiography 2007; 20(5):586.



I will be collaborating with Dr. Thomas Wang from Massachusetts General Hospital on several projects, including investigating the relationship of NT-pro-BNP, plasma renin activity and aldosterone with coronary arterial and aortic calcification in patients from the Framingham Heart Study without clinically apparent cardiovascular disease. Additionally, we will be studying the effect of vitamin D supplementation on various metabolic risk factors in a young adult population with moderate to severe vitamin D deficiency.



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**Cardiovascular Working Group Meeting Schedule**

**Faculty Conference Room S1-342 University Campus**

Date & Time	Speaker	Topic
Nov. 10 5:00 p.m.	Nathan Lawson, MD	"Go with the flow: Integration of genetic and mech- anosensory signals to shape the cardiovascular system"
Dec. 15 5:00 p.m.	Jason Kim, PhD	"Role of Inflammation in Diabetic Heart."

