



OUR MISSION IS TO BE THE LEADING ORGANIZATION IN THE FIELD OF CLINICAL CHEMISTRY AND LABORATORY MEDICINE WORLDWIDE

eNewsletter



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## July August 2010 issue

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### **Professor Jocelyn M Hicks honored by a Degree of Doctor Science Honoris Causa by the Royal Holloway, University of London**

Professor Hicks, PhD, DSc, FRCPath, is the Immediate Past-President of IFCC, Past-President of the American Association for Clinical Chemistry (AACC), and the founder and Past-President of the International Association of Pediatric Laboratory Medicine. Among other tasks, she has served the IFCC over the years serving as Chair of the Publications Division, and introducing the IFCC Website and the IFCC e-Journal together with Dr. Donald Young. She was Treasurer and a Board member of the IFCC from 2003–2005. She was the first woman President of IFCC and served in this position 2006–2008. Within the AACC, her involvement in the founding of the

Van Slyke Foundation is worth mentioning as it illustrates her foresight in the need of supporting young clinical chemists to attend national meetings as well as to further their education and encourage their interest in research.

Professor Hicks was most recently the Chief Operating Officer of the Genetics and Fairfax Identity Divisions of The Genetics and IVF Institute in Fairfax, Virginia. Prior to that, she was Chair of Laboratory Medicine and Pathology and Executive Director of the Center for Complex Diseases at the Children's National Medical Center (CNMC), Washington, DC., of which she is now the Executive Director Emeritus. Professor Hicks is currently President of JMBH Associates, a laboratory management consulting company. She is also a scientific and marketing adviser to several major international diagnostic companies.

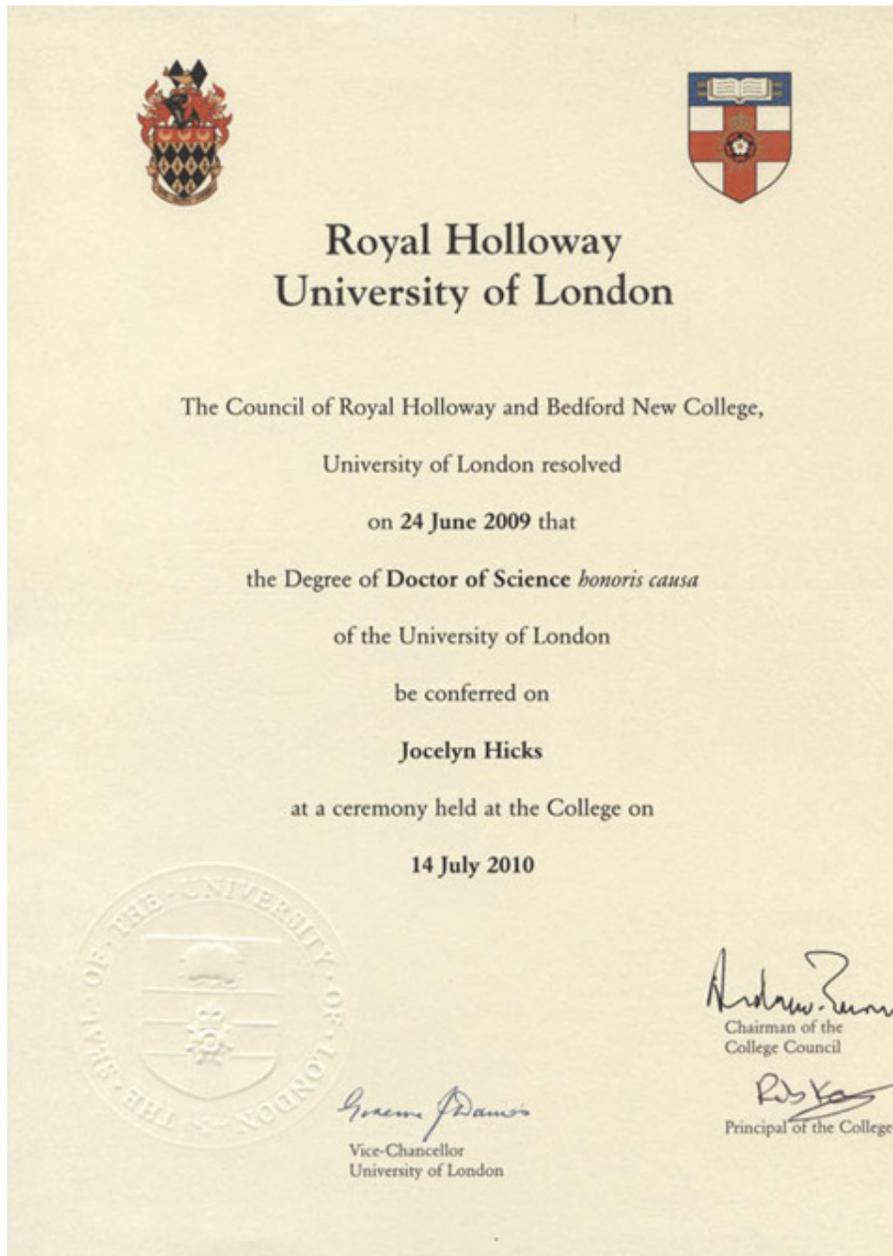
Professor Hicks obtained a BSc. (Honors) in Physiology and her MSc. in Biochemistry from the University of London (UK), and a PhD in Physiology and Biophysics from Georgetown University Medical School (US). She has over 90 peer-reviewed publications, and many books, including Point-of-Care Testing, The Directory of Rare Analyses, and Pediatric Reference Values.

Professor Hicks' many honors include honorary memberships in the Association of Clinical Biochemists (UK), the Israel Society of Clinical Biochemistry, the Portuguese Association of Clinical Pathology, The Egyptian Society of Clinical Chemistry, the Egyptian Society of Laboratory Medicine, the Croatian Society of Medical Biochemists, the French Society of Biological Chemistry, the Tunisian Society of Clinical Biology, the Italian Society of Clinical Biochemistry and Clinical Molecular Biology, the Spanish Society of Clinical Biochemistry and Pathology, the Guatemalan Association of Chemical Biologists and the South African Association of Clinical Biochemistry. She has received many honors and awards, including three of the AACC's national awards, and is frequently invited to speak both nationally and internationally.

Professor Hicks' exemplary career has recently been rewarded by being conferred on July 14th a Degree of Doctor Science Honoris Causa by the Royal Holloway, University of London. This honor reflects on the entire IFCC community and confirms the recognition of clinical chemistry and laboratory medicine as a scientific sphere of influence.

Congratulations Jocelyn.





**Citation for Professor Jocelyn Hicks on the Conferment of the  
Degree of Doctor Science Honoris Causa.  
Royal Holloway, University of London  
14 July 2010**

Acting Principal, it is my pleasure to present to you Professor Jocelyn Hicks, a former student of Bedford College, one of our two parent colleges. The reasons for this honour are her distinguished services to clinical biochemistry to medical administration and medicine generally.

Jocelyn started her life in the Midlands but the family moved to Cambridge when she was 12. She went to Cambridge High School having overcome her parents' wish to have their daughter educated outside the State system. When she came to choosing a career, she initially chose medicine but her school talked her out of this on the grounds she was too soft-hearted – she frequently rescued wounded animals. She applied to read biochemistry at Cambridge where, that year, there was only one place for a woman – and she came third out of 2000! Her second choice was Bedford College for Physiology (there was no biochemistry on offer at that time) because it was known to be very good for the sciences and better than Oxford. Thus she came under the influence of Professor Murray and Mrs Edkins who she describes as fantastic teachers. Perhaps the strongest memory of that period is of my colleague George Darlow telling her after one experiment on herself – “Miss Bingley, you have very efficient kidneys”

Upon graduation Murray advised her to apply to the Postgraduate Medical School. She also advised her to remove her engagement ring and nail varnish if we she wanted to be successful at interview. Jocelyn did neither, since she wished to be her own woman and she got her place for a Master's degree in biochemistry. After this, she continued work in the Medical School where she was involved with a child who died. This experience remained with her even to remembering his name. When a visitor from Georgetown University came to the medical school, he was impressed by the modern laboratory facilities and invited her to that University to sort their laboratories out. She went for just one year. However towards the end of that year the Director tried to persuade her to do a Ph.D. in the medical school. She was not keen but the next morning the Director arrived with the forms all completed except for her signature. She signed.

The time as a Ph.D. student in the medical school was a great success. The man who interviewed her for the place, she subsequently married. Her first year examination in Physiology, she came top of her group – reflecting she felt the excellence of teaching at Bedford College.

Now with a doctorate Jocelyn moved to the Department of Laboratory Medicine and Pathology at the centre for complex diseases at the Children's National Medical Centre (University of Washington) as Director of Clinical Chemistry – she felt that her hands on experience in London secured her the job. Here she worked her way

up the ladder ultimately becoming part of the executive management of the hospital.

Jocelyn has made significant contributions to clinical chemistry. She felt that too much blood was taken for analyses, particularly from babies and small children and pioneered the introduction of micro-methods to limit the amount. Despite opposition from doctors, she successfully created the first phlebotomy team in a US children's hospital in the U.S.

One of her passions has been improving the standard of clinical chemistry laboratories in the third world where bad chemistry led to incorrect diagnoses. Although initially concerned with countries in Asia and South America, it has been Africa where she felt she has made a significant contribution.

Her contributions to clinical chemistry and laboratory administration in the U.S. and internationally have brought recognition from her professional colleagues. She has been President of the American Association for Clinical Chemistry and so far she is the only woman to have been elected President of the International Federation of Clinical Chemistry and Laboratory Medicine. She is the founder and former President of the International Association of Pediatric Laboratory Medicine. She is the author of many papers and books in clinical chemistry and paediatrics.

In retirement Jocelyn has not sought an easy life. She continues as President of her laboratory management consulting company (JMBH Associates) and acts as consultant. However, the activity that has been most important for her has been trying to help developing countries. Looking back to her days at Bedford College, she says she received an outstanding education that provided the basis for her future success.

In recognition, therefore, of her services to Clinical Science and to medicine, and for acting as an Ambassador for Bedford College may I invite you, Acting Principal, to confer the Degree of Doctor of Science, *Honoris Causa*, of the University of London on Professor Jocelyn Hicks.

Dr John Prebble

Honorary Fellow and Former Vice-Principal

## News from Regional Federations and National Associations



Confederación Unificada Bioquímica de la República Argentina

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### About Us (Who Are We?)

The Confederación Unificada Bioquímica de la República Argentina (CUBRA) is composed of Federations, Colleges, and Biochemistry Associations from each province of our country.

#### Our Goals and Objectives:

- To encourage the advancement and development of our scientists, social guilds and biochemical associations.
- Promoting and supporting a spirit of unity, solidarity, and cooperation of all biochemical organizations in our country.
- Developing professional and social accord, and awareness, which encourages biochemical integrity of the highest order.
- To connect the biochemistry hierarchy to the general public and public authorities.
- Promoting and organizing the formation of cooperative supply stores throughout country.
- To promote and organize the formation of social services, pensions, and general assistance, for the benefit of biochemical professionals and their families.

### How do actions initiated by CUBRA affect biochemists?

CUBRA affects biochemists in a variety of ways. Some can manifest directly, such as through the various insurances (liability, malpractice, subsidies for high-cost illnesses, etc), and through the biochemical services which are provided at a very affordable price, in the order of 30% cheaper than if the colleague would have to pay individually.

Although CUBRA is not a direct service provider, it does provide guidelines for institutions, to assist in the negotiation of provincial contracts, such as arrangements with Social Works and Pre-Pay. A clear example of this is the

new performance based agreement with PAMI, which directly yielded biochemical sector contracts.

Another important function of CUBRA is its participation in various governmental committees dealing with subjects related to professional biochemical activities, such as certification and re-certification, accreditation of laboratories, and the advisory committee for the supervision of Health Services to study the costs of distinct biochemical benefits.

CUBRA is continually involved in ongoing review and preparation of proposals for new tariffs, to offset the continuing deterioration of our professional remuneration. This work is presented in Biochemical Nomenclature Unico (NBU), which elaborates to codify and consolidate biochemical fees. We study the costs of each of the biochemical practices and techniques, and make determinations as to obsolescence, while at the same time incorporating new technology. Additionally, we have defined a new (unique) unit of remuneration, the Biochemistry Unit, with which updated rates can be calculated so as to comply with a new civil code which has been implemented in the 001 "Biochemical Act". This act provides for the pre- and post-analytical stages, which were previously unrecognized in our tariffs.

### **Our Confederation comprises:**

- La Unión de Instituciones Bioquímicas Argentinas, affiliated with ALAC, CALAB, ABA, and Coordinadora de Colegios de Ley. This organization acts in the appropriate Ministry sectors.
- COLABIOCLI (Confederación Latino Americana de Bioquímica Clínica)
- IFCC (Federación Internacional de Química Clínica)



From left to right: Dr. Alberto Eduardo Pintado, Dr. Jorge Ricardo Alegre, Dr. Carlos Daniel Navarro, Dr. Maria Alejandra Arias, Dr. Felix Acuña, Dr. Antonio Alberto Casado

### Current Officers:

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## News from the Canadian scene

Contributed by Edgard Delvin, IFCC eNewsletter Editor

### The CSCC Vitamin D Working Group: purpose and objectives

Vitamin D supplements are highly publicized as being beneficial not only for bone health but also for a wide array of conditions including cancer and diabetes. This has caused an ever-increasing demand for vitamin D measurements that have reached untenable levels for most clinical laboratories in terms of staffing and funding.

Calcidiol (25OHD), produced in the liver, adequately reflects the vitamin D status insofar as enterohepatic cycle and absorption processes are normal. As calcitriol [1,25(OH)2D] production is tightly controlled by the kidney, circulating concentrations do not, under normal circumstances, increase in response to increased vitamin D intake or sun exposure.

Questions at hand are the clinical pertinence of the requests and the clinical utility of the results since, the turn-around time for reporting 25OHD and 1,25(OH)2D values exceeds 2 to 3 weeks in some areas of the country. Furthermore, most clinical laboratories are using immunoassays with varying analytical performance, leading to potential misclassification of patients.

Hanley *et al.* (1) have recently published an excellent systematic review on vitamin D and osteoporosis in which these topics are mentioned.

The Canadian Society of Clinical Chemists (CSCC) has therefore created a Working Group (VitD WG) to propose a set of guidelines addressing clinical indications and frequency of 25OHD and 1,25(OH)2D measurements.

The founding members of the VitD WG are: Drs. Edgard Delvin (Coordinator), Khosrow Adeli, Ed Randell, Pete Kavsak, Ted Dunn, Denis Lehotay, Yu Chen, Paul Yip, Sheila Boss, Lufang Yang, Isolde Seiden Long, Laurel Thoralcus, Curtis Oleschuck and Mary-Ann Sanfaçon. Two industry representatives are included: Scott Gillingwater and John Vukovic (Waters Corporation)

1. Hanley DA, Cranney A, Jones G, Whiting SJ, Leslie WD, Cole DEC et al. Vitamin D in adult health and disease: a review and guideline statement from Osteoporosis Canada. CMAJ 2010; DOI:10.1503/cmaj.080663.

## IFCC Task Force for Young Scientists

In this issue of the eNewsletter, we highlight the opinions and vision of young scientists through a collection of texts that they have provided and that have been assembled by Dra Rosa Sierra-Amor and Dr. Damien Gruson.

### Opinions: "Visions from Young Scientists"

Muñoz-Valle JF, Universidad de Guadalajara, Mexico.



“It is important that clinical chemistry and laboratory medicine (CCLM) in Latin America grows in accordance to the development of the needs to establish specialized laboratory facilities around the country. For this purpose, an important field of development is the diagnosis of immunity diseases, which applies to the

Immunology related to Rheumatic Diseases (RD). Over the past few years, several new auto-antibodies have been described in patients with rheumatoid arthritis (RA) such as antiperinuclear factor antibodies, antikeratin antibodies, and anti-RA33, and their clinical value assessed, They however have not been successfully incorporated into routine clinical practice.

The most important autoantibody used in RA is the rheumatoid factor (RF), and this is included in the classification criteria published by Arnett in 1988. However, recently anti-cyclic citrullinated peptide antibody (anti-CCP), yet another autoantibody has generated interest as, in several studies, it has exhibited a better diagnostic value than RF, and a good correlation with radiological joint damage.

Based on this knowledge, we consider that, in Latin-America, it is important to reinforce the field of immunology and that our efforts should be focused on the organization of courses in this area. Training of young clinical chemists requires time and dedication. Hence, we aim to offer training in this field of laboratory medicine to enhance the clinical application of immunology techniques and thus provide highly competent specialized services to help clinicians in establishing early diagnosis and adequate follow-up during treatment.

Our objective is to disseminate the knowledge of immunology tests in the Latin–American region, thus allowing laboratories to create networks that will help understanding the methodology involved and the clinical utility of these biomarkers. Ultimately, such an endeavor will benefit the population affected by RA that unfortunately is growing and lacking of good laboratory services.

McCudden C.; University of North Carolina, USA



“Current trends in the laboratory are consolidation, point-of-care testing, automation, and value added service. I envision the future will continue these trends requiring a breadth and depth of skills for clinical laboratorians. Consolidation improves efficiency by limiting duplication of services. Large hospital systems within a small geographic area tend to benefit from consolidation, where a single laboratory may provide testing for a region. This trend will continue as it offers not only standardization and efficiency, but also cost savings. With respect to point of care, it will remain a challenge to maintain quality and control of devices outside the reaches of a clinical laboratory. Improvements in technology will no doubt help this situation, but there will remain a need for an awareness of the strengths and limitations of POC methods, particularly as more tests become available.

Another growing trend is laboratory automation, where samples are processed, centrifuged, and analyzed on ever larger and more complex systems. As this technology matures, the capabilities will increase allowing staff to focus on problems and implement more complex testing. While not a new concept, the future will bring an increasing need for clinical consultation and test interpretation. As more tests and therapies become available, it is essential that the laboratory be able to effectively communicate how individual results should be used and integrate multiple results with clinical information. Laboratories will need to provide more of this interpretative information to facilitate clinical staff comprehension and use results effectively for patient care. Together with these knowledge services will be wider implementation of cutting edge technology. For example, as mass spectrometric methods become more robust and less laborious, they will be utilized in routine laboratory practice.

As new methods supplement or supplant current standards, laboratorians will need to serve as information sources on how tests are used clinically. This information will need to be communicated verbally, in scientific papers, the internet, and medical records. Adaptability, experience, and communication, will be the keys to success of future laboratorians.”

Edited by Edgard Delvin eNewsletter Editor

## the IFCC Professional Scientific Exchange Programme (PSEP)

Contributed by Dra. Angela Montenegro Cárdenas, microbiologist, Member of the National College of Bacteriology (CNB)–Colombia



I am grateful to The IFCC and its PSEP for having given me the unique opportunity to pursue a 6-month training in microbiology at the Medical Research Center (CICMED), within the Autonomous University of the Mexico State (UAEMex) in Toluca, Mexico, under the supervision of Dr. Hugo Mendieta Zerón, Ph.D., Manager of the Laboratory of Molecular Biology. My project addressed the identification of the risk factors, clinical and laboratory skills for early and accurate detection of influenza A (H1N1)"

During the initial four months of my stay I had the opportunity to participate in various academic and research courses, scientific development and certificate training with advanced technology that included design of primers, extraction and quantification of genetic material by end point PCR and Real-Time PCR, protein electrophoresis. More specifically, it allowed me to be introduced to advanced molecular techniques used in the diagnosis of influenza at the Institute of Epidemiological Diagnosis and Reference (INDRE)–Mexico City, using Real-Time PCR with the Roche Light Cycler and the Applied Biosystem 7500 equipment. I was also given the opportunity to participate in research seminars related to the metabolic syndrome and oxidative stress, and evaluate the effect of these clinical conditions

on the outcome of patients affected by the influenza A virus (H1N1). In addition I attended courses on interactive molecular Biology and on writing a scientific paper.

The academic surroundings that I benefited during my stay have allowed me to apply for the Master Degree in Chemistry at the UAEMex. The benefits for my country, Colombia, are numerous. I have acquired skills and expertise in advanced technology in molecular biology that I will implement back at home. Indeed, the climatic and geographical conditions shared by Colombia and Mexico allow the development common protocols that will allow us to identify key clinical, epidemiological circumstances that might have influenced the spread of infection influenza virus A (H1N1) in Mexico. In this spirit, this training period creates the possibility of creating a young investigator Latinamerican scientific network with among other partners the Latinamerican Scientific Society (ASCILA) and the CNB – Colombia.

I have also been invited to speak last May at the Symposium "Quality Management in Health Systems" within the framework of the 3rd International Congress of Bioethics, UAEMex., and to have 2 manuscripts accepted for publication: "Experience from the 2009 Influenza Outbreak in Mexico: One year later" ICU Management Magazine. May–2010; and "Status of quality management systems of health institutions in Colombia," Journal: "BIOQCLIVAT" College of Clinical Chemists, Toluca Valley. June–2010.

I also wish to acknowledge the contributions of the Autonomous University of Mexico State (UAEMex) and the Medical Research Center (CICMED). Toluca, State of Mexico; and to thank warmly M. C. G. Gerardo Huitrón Bravo C, Coordinator of the CICMED; Hugo Mendieta Zeron, PhD, Head of the Laboratory of Molecular Biology, (CICMED); Ma. Victoria Domínguez García, PhD, Researcher at the CICMED; Gilberto Felipe Vazquez de Anda, PhD, Researcher at the CICMED and Dr. Rosa Sierra Amor, IFCC representative in Mexico for their invaluable generous support and help.

Edited by Edgard Delvin Ph.D., FCACB, FACB  
*IFCC* eNewsletter Editor

## Letter to the Editor

### Is copeptin a promising biomarker?

Contributed by Damien Gruson, Université de Louvain Member of the IFCC eNewsletter WG  
gruson\_damien@yahoo.fr



Emergency department (ED) overcrowding is common worldwide and may result in ambulance diversion and impaired ED responsiveness. In addition, ED overcrowding may also be associated with increased patient mortality. Patients attending the ED with chest pain indicating a possible acute coronary syndrome (ACS) are very common, and accurate diagnosis may require hours. Those patients may contribute to queuing at the ED and to elevated hospital costs because of an extensive length of stay and delay in their admission. Copeptin, has been highlighted in different congresses in 2010 as an emergent

biomarker in having a potential added value to rule out a suspected ACS in patients admitted to ED.



Copeptin, a 39-amino acid glycopeptide, is the C-terminal part of arginine-vasopressin pro-hormone, also termed antidiuretic hormone, has haemodynamic as well as osmoregulatory effects, and reflects the individual response to stress. It mirrors vasopressin levels, but is more stable in plasma and serum.

In 2009, Reichlin et al. (1) published a study investigating the value of incremental serum concentrations of copeptin in rapidly ruling out acute myocardial infarction

(AMI). The examination of copeptin concentration in 487 consecutive patients presenting to ED with symptoms suggestive of AMI, revealed that circulating levels below 14 pmol/l, in combination with troponin T concentrations below or equivalent to 0.01 mg/l, correctly ruled out AMI with a sensitivity of 98.8% and provided a negative predictive value of 99.7%.

This year, Keller et al. (2), confirmed these results by showing that the combined measurement of copeptin and Troponin T on admission improved the c-statistic from 0.84, for Troponin T alone, to 0.93 in establishing the diagnosis for AMI in 299 patients out of 1386 consecutively ED admitted patients.

Last, Enhörning et al. (3) have recently revealed another potential facet of copeptin utility. By reporting that increased circulating copeptin concentration predicts increased risk for diabetes mellitus independently of established clinical risk factors, including fasting glucose and insulin.

Copeptin testing is stimulating in 2010 both physicians and laboratorians. Nevertheless, as for every emerging and promising biomarker, careful validation of the analytical performances and reference values as well as the confirmation of its clinical value will be required.

## References

1. Reichlin T, Hochholzer W, Stelzig C, Laule K, Freidank H, Morgenthaler NG *et al.* Incremental value of copeptin for rapid rule out of acute myocardial infarction. *J Am Coll Cardiol* 2009;54:60–8.
2. Keller T, Tzikas S, Zeller T, Czyz E, Lillpopp L, Ojeda FM *et al.* Copeptin improves early diagnosis of acute myocardial infarction. *J Am Coll Cardiol* 2010;55:2096–106.
3. Enhörning S, Wang TJ, Nilsson PM, Almgren P, Hedblad B, Berglund G *et al.* Plasma copeptin and the risk of diabetes mellitus. *Circulation* 2010;121:2102–8.