The IFCC and EFCC Award Recipients for 2011

On behalf of IFCC and EFCC we have pleasure and pride in introducing the IFCC and EFCC Awards recipients for 2011. All nine of these Awards recognise outstanding achievement in clinical chemistry and laboratory medicine in clinical, scientific and/or educational endeavour.

Each of the Awards recipients was selected by an independent panel of experts after open advertisement. Many high quality nominations were received and so the Awards recipients selected from this process may truly be considered as worthy winners who are deserving of our and your congratulations.

We are grateful to the many listed sponsors who have contributed generously to enable us to give appropriate recognition to the outstanding achievements of these Awards recipients.

Graham Beastall  Rita Horvath
(President of IFCC)    (President of EFCC)
The Federation presents seven distinguished awards to scientists and clinicians who work in clinical chemistry and laboratory medicine or related disciplines. These triennial or annual awards are the highest honours that our federation can bestow to colleagues worldwide in recognition of their outstanding achievements, to publicize their exceptional research and other contributions that have improved medicine and healthcare, and to stimulate and encourage other scientists to accelerate their efforts in advancing clinical chemistry and laboratory medicine. The sponsors of these awards have made it possible for IFCC to honour these extraordinary colleagues; their support illustrates the commitment and partnership between our profession and the industry for the growth and advancement of Clinical Chemistry and Laboratory Medicine worldwide.

IFCC Awards
Awards presented by the IFCC include:

1. IFCC Distinguished Clinical Chemist Award
2. IFCC - Henry Wishinsky Award For Distinguished International Services
3. IFCC Award for Distinguished Contributions in Education
4. IFCC - Abbott Award for Significant Contributions in Molecular Diagnostics
5. IFCC Distinguished Award for Laboratory Medicine and Patient Care
6. IFCC - Robert Shaffer Award for Outstanding Achievements in the Development of Standards for Use in Laboratory Medicine
7. IFCC - Roche Young Investigator Award (new from 2011)

Except for the Molecular Diagnostics Award that has been annual (until 2011), all other six awards are triennial. Conferment is held at the triennial International Congress of Clinical Chemistry, or regional congresses.

IFCC Awards Committee
Prof C W K Lam (HK), Chairman
Prof J C Forest (CA)
Prof V Palicka (CZ)
Prof M Shaarawy (EG)
Dr R Sierra-Amor (MX)
Consultant:
Prof Y M D Lo (HK)
IFCC is pleased and honoured to announce that Professor Ulf-Håkan Evald Stenman, MD, Professor Emeritus, has been selected to receive the 2011 IFCC Distinguished Clinical Chemist Award. This award recognizes an individual who has made outstanding contributions to the science of Clinical Chemistry and Laboratory Medicine, or the application of Clinical Chemistry to the understanding or the solution of medical problems.

Professor Stenman has made significant and lasting contributions to clinical chemistry through his research on tumour markers, endocrinology and on immunoassay development and standardization (hCG, TATI/SPINK1 and PSA). As the chairman of the IFCC Working Group for Standardization of hCG Assays (1992-2002), he introduced value assignment of protein hormones in molar concentrations. This work led to the introduction of six new hCG preparations that have been approved by WHO as new reference reagents. He was also a member of the Working Group for Standardization of PSA Assays, which resulted in WHO standards for free and complexed PSA. He was a member of the IFCC Scientific Division from 2003–2008 and supervised several standardization projects. He served on the board of the International Society of Oncodevelopmental Biology and Medicine (ISOBM) for 15 years, being the President from 1996-98. He also chaired two ISOBM working groups for mapping of the epitopes of antibodies to hCG and PSA. As a result of these projects, commercial immunoassays for these analytes can now be exactly specified and this has also led to improved assay standardization.

Professor Stenman and colleagues also have performed groundbreaking research on other gonadotropins and have discovered that LH is detectable in serum from pre-pubertal boys and girls and that increased serum LH is the first sign of pubertal development. Their group was also the first to determine the proportions of free and complexed forms of PSA that are now used worldwide for improving the cancer specificity of PSA.

Professor Stenman has further performed pioneer work developing algorithms based on logistic regression and neural networks which further improve the diagnostic validity of PSA.
In 1995 he initiated the Finnish part of the European Randomized Screening Study for Prostate Cancer (ERSPC). Recently Dr. Stenman's group has embarked on development of peptides that stimulate the activity of PSA using phage display. The aim of this research is to develop new methods for imaging and targeting of prostate cancer.

Professor Stenman was Chairman of the Department of Clinical Chemistry at the Helsinki before his retirement in 2009. He has served as the President of the Scandinavian Society for Clinical Chemistry (1986-1988) and the Finnish Medical Association, and remained a member of the editorial board of 9 international scientific journals including leading journals in clinical chemistry, tumour biology and urology. He has published over 600 refereed papers accruing an h-index of 55.
IFCC HENRY WISHINSKY AWARD FOR
DISTINGUISHED INTERNATIONAL SERVICES

Sponsor: Siemens Healthcare Diagnostics
Presented to: Doctor Carl A Burtis, PhD

IFCC is pleased and honoured to announce that Doctor Carl Burtis, PhD will receive the 2011 Henry Wishinsky Award for Distinguished International Services. This award honours an individual who has made unique contributions to the promotion and understanding of Clinical Chemistry and Laboratory Medicine throughout the world.

Dr Burtis has been an international leader in our discipline for four decades and has devoted his career to enhancing our profession and to serving health care internationally. Within IFCC, Dr Burtis has served in many capacities including member and Chairman of the Expert Panel on Instrumentation, Chairman of the Committee on Analytical Systems, Chairman of the Scientific Division, and two terms as Vice President. Currently he is serving as a member of the Task Force on Ethics. Within AACC he has served in numerous capacities including President in 1989 and General Chairman of the Organizing Committee of the memorable IFCC-AACC 9th International Congress on Clinical Chemistry held in San Francisco in 1990. From 1994–1997, he was Chairman of the Board of Editors of Clinical Chemistry. Dr Burtis has been the senior editor of four editions of the authoritative “Tietz Textbook of Clinical Chemistry and Molecular Diagnostics”. He has also been the senior editor of all five editions of “Tietz Fundamentals of Clinical Chemistry”, the leading textbook for students and colleagues of clinical laboratory science, and editor of “Fundamentals of Molecular Diagnostics”. These books have been translated into multiple languages including Korean, Portuguese and Turkish. Dr Burtis devotes enormous amounts of time and energy to ensuring that these books are a trusted reference source and a valuable educational tool for colleagues around the world. In addition, he has represented our profession in multiple organizations including the International Union of Pure and Applied Chemistry, the (US) Clinical Laboratory Standards Institute (CLSI), and the (US) National Institute of Standards and Technology (NIST). He served from 1979-1981 on the Special Study Section on Bioanalytical Chemistry of the (US) National Institutes of Health which awards research grants to institutions around the world.
Dr. Burtis received his BSc degree in nutrition from Colorado State University (1959) and MSc (1964) and PhD (1967) degrees in biochemistry from Purdue University.

In 2004 he was conferred an honorary DSc degree by Purdue University. He has held positions as a senior chemist at Varian Aerograph in Walnut Creek, California and for three years as the chief of the Analytical Biochemistry Branch for the Centers for Disease Control and Prevention in Atlanta. He has been on the staff of the Oak Ridge National Laboratory for 40 years and is currently a Senior Associate in its Health Services Division.

Those who know Dr. Burtis are aware of his high ethical standards, his dedication to service to the profession and his warm personality. He is perpetually interested in people wherever he is around the world, and remains energized by new ways to bring laboratory testing to people.
IFCC AWARD FOR DISTINGUISHED CONTRIBUTIONS IN EDUCATION

Sponsor: Abbott Diagnostics
Presented to: Professor Mary F Burritt, PhD

IFCC is pleased and honoured to announce that Professor Mary F Burritt, PhD has been selected to receive the 2011 IFCC Award for Distinguished Contributions in Education. This award honours an individual who has made extraordinary contributions in establishing and developing educational materials for our discipline to improve training and educational programs worldwide or in a region.

Professor Burritt received her PhD degree in Biochemistry in 1974 from the University of Illinois Medical Center in Chicago, IL, USA, and pursued post-doctoral fellowships in Immunology and Clinical Chemistry at the Mayo Clinic in Rochester, MN. Since 1996 she has been Professor of Laboratory Medicine and Director of Clinical Chemistry at the Mayo Clinic, Scottsdale, AZ. Previously, she directed the Central Clinical Laboratory and the Metals Laboratory at the Mayo Clinic in Rochester, MN, and served on the staff there for over 30 years.

Throughout her career, Professor Burritt has been involved in educating and training clinical chemists, pathologists and allied health professionals. For example, she served as the Director of the Mayo Clinic Post-Doctoral Training Program in Clinical Chemistry from 1991-1999 and mentored many young clinical chemists. In addition, she has lectured extensively both nationally and internationally and helped organize several international symposia on electrolytes and blood gases in conjunction with the IFCC Working Group on ISEs and the AACC Electrolyte/Blood Gas Division.

Professor Burritt served as the Associate Dean of the Mayo School of Health Sciences (MSHS) from 2000-2006. The MSHS has approximately 1000 allied health students in more than 48 different programs on three different campuses, including several programs that award masters and clinical doctorate degrees. She also served on the Mayo Clinic Rochester Education Committee as a member and Vice Chairman, and the Mayo Clinic Continuing Medical Education Committee. She was Chairman of the Visiting Lecturer Program of the IFCC from 2000-2006 and served as a member and Vice Chairman of the IFCC Education and Management Division from 2002-2007.
Professor Burritt served as President of the AACC (1996), as the AACC Representative to ISO TC/212, and also as President of the National Academy of Clinical Biochemistry (NACB, 2005). She has been active in the Clinical and Laboratory Standards Institute (CLSI; formerly NCCLS) serving as a member and chairman of several subcommittees and as the Chairman of the Area Committee on Clinical Chemistry. She has received several awards from the AACC including the Outstanding Lifetime Achievement Award in Clinical Chemistry and Laboratory Medicine and the Award for Outstanding Contributions through Service to the Profession of Clinical Chemistry, and in 2009 she received the Professor Alvin Dubin Award for Outstanding Contributions to the Profession and the Academy from the NACB. She has published more than 195 peer-reviewed articles, abstracts, and chapters.
IFCC MOLECULAR DIAGNOSTICS AWARD FOR SIGNIFICANT CONTRIBUTIONS TO MOLECULAR DIAGNOSTICS

Sponsor: Abbott Molecular
Presented to: Professor Michael Neumaier, MD, PhD

IFCC is pleased and honoured to announce that Professor Michael Neumaier, MD, PhD will receive the 2011 IFCC Award for Significant Contributions to Molecular Diagnostics. This currently annual award honours an individual who has made unique contributions to the promotion and understanding of Molecular Biology and its application in Clinical Chemistry and Laboratory Medicine worldwide.

Professor Neumaier obtained his MD degree from the University of Bonn, Germany in 1986 and MD-PhD degree in Clinical Chemistry and Immunology from the University of Hamburg in 1994. Since 2002 he has served as Professor and Chairman of Clinical Chemistry at the University of Heidelberg and Director of Clinical Chemistry and Head of the Central Laboratories at the University Medicine Mannheim.

Throughout his academic and professional career, Professor Neumaier has contributed significantly to the advancement of molecular diagnostics. Since 1996 he has been very active in establishing External Quality Assurance Programs (EQAP) for molecular diagnostics. His program on genotyping has become the largest molecular EQAP in Europe serving over 270 laboratories in Europe, North America, Asia and Australia. In addition, he has also successfully contributed to the implementation of ring trials on quantitative rtPCR and designed the first DNA sequencing trials in 2005. The latter ring trials now serve over 300 laboratories worldwide and his laboratory has been designated an IFCC reference laboratory for Molecular Diagnostics.

Professor Neumaier has served in several international and national working groups aiming to guide and improve the dispersion and implementation of molecular diagnostics into clinical practice. In addition, he was involved in the organization of several important educational courses and meetings on molecular diagnostics. As chairman of the IFCC Education and Management Division (EMD) Committee for Clinical Molecular Biology Curriculum (C-CMBC), Professor Neumaier initiated a new workshop program offering comprehensive training of clinical chemists to perform and validate genotyping assays for their own molecular diagnostics portfolio. He has published over 100 papers in the general area of molecular diagnostics.
IFCC is pleased and honoured to announce that Professor Ronald J.A. Wanders, PhD will receive the IFCC Distinguished Award for Laboratory Medicine and Patient Care. This award recognizes an individual who has made unique contributions in laboratory medicine that have improved patient care and had a worldwide impact in clinical medicine.

Professor Wanders received his MSc and PhD degrees in Biochemistry from the State University of Amsterdam, The Netherlands in 1977 and 1982, respectively. He joined the staff of the Laboratory Genetic Metabolic Diseases at the Academic Medical Centre of the University of Amsterdam in 1983 and was appointed full professor in 1996. In 2003, Professor Wanders became Head of the Laboratory, which is a combined diagnostic/research laboratory that also houses the Centre for Metabolomics.

Professor Wanders' research activities are very extensive and substantial having published > 850 peer-reviewed papers (h-index = 65) and 50 book chapters in laboratory medicine and patient care. His most significant research areas are 1) the biogenesis and metabolic functions of peroxisomes and defects therein in patients suffering from a peroxisomal disorders and 2) the enzymology of the mitochondrial fatty acid oxidation system with special interest in the enzymatic diagnosis of patients and the pathophysiologial consequences of defects in the mitochondrial fatty acid beta-oxidation system. More recently, his interests have also been focused on the development of rapid and specific enzymatic methods for following-up patients identified by neonatal screening. This and other significant methodological developments have allowed reliable discrimination between true and false positive test results with a worldwide impact on neonatal screening, or other translational applications in patient care.

Prof. Wanders has been honoured with many awards for his research achievements in inherited metabolic diseases: the Noel Raine Award, Society for the Study of Inborn Errors of Metabolism Award (twice), Ortho-Dutch Foundation of Clinical Chemistry Award, and the Miami Hospital for Sick Children Award. He has been a member of the Editorial Board of many journals including Journal Inherited Metabolic Disease; Molecular Genetics and Metabolism; and Human Molecular Genetics. He has to-date supervised and graduated 32 PhD students.
IFCC - ROBERT SCHAEFFER AWARD FOR OUTSTANDING ACHIEVEMENTS IN THE DEVELOPMENT OF STANDARDS FOR USE IN LABORATORY MEDICINE

Sponsors: National Institute of Standards and Technology (NIST)
Clinical and Laboratory Standards Institute (CLSI)
Presented to: Professor Linda Thienpont, PhD

IFCC is pleased and honoured to announce that Professor Linda Thienpont, PhD has been selected to receive the IFCC Robert Schaffer Award for Outstanding Achievements in the Development of Standards for Use in Laboratory Medicine. This award is named after Robert Schaffer, an organic chemist at the NIST who dedicated his career to the development of reference methods and materials for use in the clinical laboratory. It honours an individual who has made unique contributions to the advancement of reference methods and/or reference materials for laboratory medicine to facilitate improved quality of clinical diagnostics and therapies, which would in turn lead to reduced costs and improved patient care.

Professor Thienpont received her BSc and PhD degrees in Pharmacy from the University of Ghent, Belgium in 1976 and 1981, respectively. In 1986 she became certified in clinical chemistry and laboratory medicine. In 1991 she was appointed full professor in the Faculty of Pharmaceutical Sciences at the same university and Director of the Laboratory for Analytical Chemistry and the Isotope Dilution-Mass Spectrometry (ID-MS) Reference Laboratory.

Professor Thienpont’s main research interests have focused on 1) development and application of SI-traceable reference measurement procedures (RMPs) based on ID-MS, 2) development of standardization and harmonization concepts for SI- and non SI-analytes, 3) role of analytical specifications in method development and standardization/establishment of metrological traceability, and 4) development of Excel-based statistical education in laboratory medicine. All of the RMPs developed in Professor Thienpont’s laboratory are listed in the Database of the Joint Committee for Traceability in Laboratory Medicine (JCTLM). They include those for the diagnosis and management of diabetes (e.g. RMPs for glucose, C-peptide, insulin), chronic kidney disease (RPMs for creatinine, vitamin D2 & D3), coronary disease (RPM for cholesterol) and many endocrine diseases, such as thyroid dysfunction (RMP for free-thyroxine) and fertility disorders (RPMs for estradiol, progesterone, testosterone).
She has published over 150 peer reviewed papers in these areas. Professor Thienpont is currently chairman of the IFCC Working Group for Standardization of Thyroid Function Tests (WG-STFT). Other international standardization programs in which she has served include the 1) European Commission (EC) Community Bureau of Reference, 2) Clinical Laboratory Standards Institute (CLSI), 3) American Diabetes Association (ADA), 4) European Association for the Study of Diabetes (EASD), 5) Centre for Disease Control and Prevention (CDC), 6) College of American Pathologists (CAP) and 7) other European/American/Canadian/Australian External Quality Assessment Schemes. In addition she was a founding member of the JCTLM and is currently co-chairman of the JCTLM Working Group on Reference Measurement Services, chairman of the CLSI Subcommittee on Measurement of Free Thyroid Hormones and C45-A, and a member of the AACC Harmonization Steering Committee. The laboratory of Professor Thienpont will also serve as reference laboratory in the 2011 Vitamin D Standardization Program of the National Institutes of Health (NIH) – Office of Dietary Supplements (ODS).
IFCC YOUNG INVESTIGATOR AWARD

Sponsor: Roche Diagnostics
Presented to: Professor Rossa W.K. Chiu, MBBS, PhD

IFCC is pleased and honoured to announce that Professor Rossa Chiu, MBBS, PhD has been selected to receive the 2011 IFCC Young Investigator Award. This new award recognizes and encourages the academic and professional development of a young investigator (under 40 years of age) who has demonstrated exceptional scientific achievements in Clinical Chemistry and Laboratory Medicine early in his / her career.

Professor Chiu graduated from the University of Queensland, Australia in 1997 with First Class Honors in Bachelor of Medicine and Bachelor of Surgery. She pursued specialist’s training in Chemical Pathology at The Chinese University of Hong Kong from 1999 and became Fellow of the Royal College of Pathologists of Australasia in 2004 and Fellow of the Hong Kong College of Pathologists and the Hong Kong Academy of Medicine (Pathology) in 2005. Dr Chiu received her PhD degree in Chemical Pathology from The Chinese University of Hong Kong in 2004 and was appointed Professor in 2008. She also serves as an Honorary Consultant at the New Territories East Cluster of Hospitals, Hong Kong, where she is involved in the delivery of the Chemical Pathology service.

Professor Chiu has made significant achievements in research on circulating fetal nucleic acids for non-invasive prenatal diagnostic approaches, novel molecular diagnostic strategies and innovative applications of molecular analysis tools. She was the first to develop strategies for the noninvasive prenatal diagnosis of fetal autosomal recessive diseases, including congenital adrenal hyperplasia and beta-thalassemia. Her studies were breakthroughs at the time when it was generally viewed that interference by a co-existing background of maternal DNA in maternal plasma would render it challenging to diagnose fetal autosomal recessive diseases noninvasively. Similarly, in spite of the challenges posed by the low abundance and low proportion of fetal DNA in maternal plasma, Professor Chiu successfully developed approaches for the direct detection of fetal aneuploidies through circulating fetal nucleic acid analysis. Recently, she developed a strategy based on massively parallel sequencing of maternal plasma DNA to achieve noninvasive prenatal detection of Down syndrome. She conducted a large scale international study to demonstrate that the sequencing based approach was accurate, robust and practical.
Professor Chiu has to date published over 100 peer-reviewed research articles (h-index =27) and 15 books or monographs (including chapters in Tietz Textbook of Clinical Chemistry), and has 19 granted patents or patent applications. She has published in prestigious journals: Lancet, BMJ, Science, Science Translational Medicine, Nature Medicine, Nature Reviews Genetics, Proceedings of the National Academy of Sciences of the USA and others. She served as the President of the Hong Kong Society of Clinical Chemistry from 2003 to 2004, and has been a member of the Task Force on Medical Genetics of the Hong Kong Accreditation Service.
EFCC Awards Programme

The European Federation of Clinical Chemistry and Laboratory Medicine presents two distinguished awards to scientists and clinicians who work in clinical chemistry and laboratory medicine or related disciplines.

EFCC – Roche Scientific Award for Laboratory Medicine

This award has been created to honour an individual, who is a member of an EFCC National Society, and who has made unique contributions to the promotion and understanding of clinical chemistry throughout Europe or who has made one or more contributions that have had a major impact on clinical chemistry. The nominee’s role in promoting clinical chemistry on European basis or his or her contributions should be well-known and demonstrated by measurable outputs e.g. scientific or clinical achievements, policy creation or quality initiatives. The award is given on the occasion of the biennial EUROMEDLAB Congress of Clinical Chemistry.

Former recipients of the award were:

2009 Dr. Rob Jansen (The Netherlands)
2007 Prof. Mathias Muller (Austria)
2005 Dr. Graham Beastall (United Kingdom)
2003 Dr. Gerard Sanders (The Netherlands)
2001 Prof. Dr. Hermann Wisser (Germany)

EFCC - Labs Are Vital Award for Excellence in Outcomes Research in Laboratory Medicine

The Award is given to the best published paper, as judged by an independent panel of experts, which demonstrates improved outcomes (clinical and/or economic) arising out of the application or improved utilisation of an in-vitro diagnostic test.

The award was launched at EUROMEDLAB 2009 in Innsbruck, and is presented for the first time at IFCC WORLDLAB/EUROMEDLAB 2011 in Berlin. Thereafter it will be awarded every two years at an EFCC conference.
EFCC-ROCHE SCIENTIFIC AWARD FOR LABORATORY MEDICINE

Sponsor: Roche Diagnostics
Presented to: Mike Hallworth, MA, MSc, FRCPath EurClinChem

The European Federation of Clinical Chemistry and Laboratory Medicine is pleased and honored to announce that Mike Hallworth, MA MSc FRCPath Eur Clin Chem, has been selected to receive the 2011 EFCC-Roche Scientific Award for Laboratory Medicine.

The EFCC-Roche Award has been created to honour a distinguished colleague who has made unique contributions to the promotion and understanding of clinical chemistry throughout Europe, or who has made one or more contributions that have had a major impact on clinical chemistry.

As Chair of the European Communities Confederation of Clinical Chemistry and Laboratory Medicine (EC4) he is acknowledged as the outstanding leader who facilitated the emergence in 2007 of the European Federation of Clinical Chemistry and Laboratory Medicine (EFCC) from EC4 and the Forum for European Societies of Clinical Chemistry (FESCC). He was welcomed by all as the President of the new organization in 2008 and has led from the front in promoting EFCC’s objectives to provide European leadership in clinical chemistry and laboratory medicine to national professional societies, to the diagnostic industry and to governmental and non-governmental organizations. He has been a strong contributor in the lengthy negotiations with the European Union relating to the Directive on Recognition of Professional Qualifications and the recognition of the EC4 Register as an instrument of professional self-regulation. Mike Hallworth is a co-author of published articles on the code of conduct and the guide to the register of specialists in Clinical Chemistry and Laboratory Medicine across Europe. He is recognised within the Association for Clinical Biochemistry (ACB) as the outstanding clinical biochemist of his generation and was ACB chair from 2000-2003. His numerous achievements are at all times motivated by his drive to promote wider understanding and raise awareness of the contribution of clinical chemistry and laboratory medicine to healthcare. As Chair of the Lab Tests On Line UK project from 2002 – 2008 he saw the web site achieve its millionth “hit” in 2009 and he has been instrumental in extending its application to European sites. He is a recognised expert in therapeutic drug monitoring, has written a highly...
regarded text book on the subject and has lectured widely across the world on its application and value. In 2008 the UK’s Department of Heath recognized his contributions by awarding him the title ‘Healthcare Scientist of the Year’ and, most recently he chaired the organising committee of the Annual Meeting of the American Association for Clinical Chemistry in 2010. Mike Hallworth is widely admired for his sincerity, integrity and dedication.
2011 EFCC Labs are Vital Award for Excellence in Outcomes Research in Laboratory Medicine

Sponsor: Abbott
Presented to: Professor Steve Goodacre, MB, ChB, MRCP, DipIMC, FCEM, MSc, PhD

The European Federation of Clinical Chemistry and Laboratory Medicine (EFCC) is pleased and honoured to announce that Dr. Steve Goodacre, MB, ChB, MRCP, DipIMC, FCEM, MSc, PhD, as the submitting author of the paper entitled “The Randomised Assessment of Treatment using Panel Assay of Cardiac Markers (RATPAC) trial: a randomised controlled trial of point-of-care cardiac markers in the emergency department”, has been selected to receive the 2011 EFCC Labs are Vital Award for Excellence in Outcomes Research in Laboratory Medicine. This award is given to the best published paper, as judged by an independent panel of experts, which demonstrated improved outcomes (clinical and/or economic) arising out of the application or improved utilisation of an in-vitro diagnostic test.

Steve Goodacre is Professor of Emergency Medicine at the University of Sheffield, United Kingdom, and Consultant in Emergency Medicine at the Northern General Hospital in Sheffield. He is also a Deputy Editor for the Emergency Medicine Journal, Consulting Editor for Annals of Emergency Medicine and a member of the UK Health Technology Assessment Clinical Evaluation and Trials Board. His current major research projects are the 3Mg Trial of intravenous or nebulised magnesium sulphate in acute severe asthma, the DAVROS study (Development and Validation of Risk-adjusted Outcomes in Systems of emergency care), cost-effectiveness of diagnostic strategies for suspected acute coronary syndrome and a scoping review of the emergency planning literature in health care. His recent major research projects include the RATPAC Trial (Randomised Assessment of Treatment using Panel Assay of Cardiac markers), cost-effectiveness of management strategies for minor head injury, the PAINTED study (Pandemic Influenza Triage in the Emergency Department), evaluation of the National Angioplasty Infarct Pilot Project and the ESCAPE study of chest pain units in the UK National Health Service.

The RATPAC Trial (Randomised Assessment of Treatment using Panel Assay of Cardiac markers): a randomised controlled trial of point-of-care cardiac markers
markers in the emergency department Steve W Goodacre, Mike Bradburn, Elizabeth Cross, Paul Collinson, Alasdair Gray and Alistair S Hall on behalf of the RATPAC Research Team

Chest pain due to suspected myocardial infarction is responsible for a substantial and increasing number of emergency department attendances and hospital admissions. A point-of-care cardiac biomarker panel consisting of CK-MB, myoglobin and troponin can safely rule out myocardial infarction in patients with acute chest pain within ninety minutes of presentation to hospital. The aim was to determine whether using this point-of-care cardiac biomarker panel would increase the rate of successful discharge home after emergency department assessment, and affect the use of cardiac tests and treatments, subsequent attendance at or admission to hospital, and major adverse events.

A pragmatic multicentre randomised controlled trial in six acute hospitals in the United Kingdom was performed. Patients attending with acute chest pain due to suspected myocardial infarction (N=2243) were randomised to either diagnostic assessment using the point-of-care biomarker panel measured at baseline and ninety minutes, or to standard care without the point-of-care panel. The primary outcome was successful discharge home, defined as having left hospital or awaiting transport home by four hours after attendance and no major adverse events up to three months. Secondary outcome measures included length of stay, use of coronary care, cardiac interventions and inpatient beds, emergency department attendances, subsequent admissions, outpatient visits and major adverse events.

Point-of-care panel assessment was associated with an increased rate of successful discharge (358/1125 (32%) versus 146/1118 (13%); odds ratio 3.81; 95% CI 3.01 to 4.82; p<0.001), reduced median length of initial hospital stay (8.8 versus 14.2 hours, p<0.001) and greater use of coronary care (50/1125 (4.0%) versus 31/1118 (3.0%), p=0.041), but no difference in mean length of the initial stay (29.6 versus 31.7 hours, p=0.462), mean inpatient days over follow-up (1.8 versus 1.7, p=0.815) or major adverse events (36 (3%) versus 26 (2%), odds ratio 1.31; 95% CI 0.78 to 2.20; p=0.313).

In conclusion, point-of-care panel assessment for patients with acute chest pain due to suspected myocardial infarction increases the proportion successfully discharged home and reduces median length of stay, but does not alter overall hospital bed use.