

20th IFCC-EFLM European Congress of Clinical Chemistry and Laboratory Medicine 45th Congress of the Italian Society of Clinical Biochemistry and Clinical Molecular Biology (SIBioC)

Euromedlab 2013 opens

Wellcome Address

Dear Colleagues,
On behalf of the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC), the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM) and of the Italian Society of Clinical Biochemistry and Clinical Molecular Biology (SIBioC), it is my great pleasure to welcome you to the 20th EuroMedLab - European Congress of Clinical Chemistry and Laboratory Medicine here in Milano at the MiCo Convention Centre. Putting on this congress, which represents the most important European meeting in the field of Laboratory Medicine, takes more than three years of hard work by several groups of Colleagues and MZ Congressi Organizing Secretariat staff. The Congress Organising Committee members did an invaluable work by covering the different items of the organization. In particular, I am deeply indebted with my colleagues and friends:
– Dr. Ferruccio Ceriotti, Chair of Scientific Programme Committee,
– Prof. Andrea Mosca, Chair of the Abstract Evaluation Committee,

– Dr. Alberto Dolci, acting as Congress Executive Manager.

I want to further mention the Scientific Programme Committee, the International Scientific Advisory Board and the Abstract Evaluation Committee. I am grateful to all of them for the invaluable contribution.

We are really proud of the scientific programme that includes one Opening and four Plenary Lectures, 23 Symposia and 48 Educational Workshops, involving more than 200 outstanding international speakers. Plenary Lectures feature internationally recognized speakers who relate to a specific disease or pathophysiological condition, combining clinical laboratory, research and future developments with their own clinical experience. Classical symposia cover a list of important topics in medicine and clinical science, also involving young scientists presenting selected oral communications. Educational workshops, organized in close cooperation with diagnostic industry, deal with more practical topics exploring several interesting emerging aspects of laboratory science.

About 1300 posters are presented during the poster sessions, many of those by young colleagues as first authors. Plus don't forget that there are six pre- and post-congress Satellite Meetings organised in different beautiful venues near Milan.

Despite today's huge economic challenges, the EuroMedLab 2013 congress location hosts a large exhibition of diagnostic products involving 90 international and national companies. Together with the scientific programme, this permits the congress to deliver a unique mix of educational information and more interesting opportunities offered by the in vitro diagnostic market. We have so far more than 4300 pre-registered participants and we expect some additional attendants on the next days. Their geographical origin is approximately 75% from Europe and the rest from extra-European countries.

I especially welcome young scientists attending the congress and presenting their research findings. A number of bursary programmes and free registrations have been planned to support their presence at the congress and I hope that this effort made by the Congress Organizing Committee in cooperation with various supporting organizations is appreciated.



A very special social programme has been developed for attendees. You had already enjoyed the performance of the Milan's Giuseppe Verdi Orchestra during the Opening Ceremony and on Wednesday night you may attend the Congress Party in the suggestive and unique venue of the Sforzesco Castle. I hope that during your stay in Milan you enjoy the excellent scientific programme and also experience the history and the culture of our dynamic city. Once again, I wish to thank you very much for being here and contributing to make this congress a very special event.

Mauro Panteghini
Congress President

TODAY'S PROGRAMME OVERVIEW

9:00 - 11:00 PARALLEL SYMPOSIA

- **Room Gold**
SYMPOSIUM 1
BIOMARKERS OF RENAL FUNCTION AND INJURY
- **Room Silver**
SYMPOSIUM 2
FUTURE AND QUALITY OF POCT
- **Auditorium**
SYMPOSIUM 3
TESTING FOR DRUGS OF ABUSE
- **Room Brown 3**
SYMPOSIUM 4
EPIGENETICS IN CANCER
- **Room Brown 1-2**
IFCC SESSION
HARMONIZATION IN AUTOIMMUNE TESTING

11:45 - 12:30 **PLENARY LECTURE**
Iron metabolism and pathophysiology
T. Ganz (USA)

13:30 - 14:30 **POSTER WALK DISCUSSIONS**
ALLERGY/AUTOIMMUNE DISEASE
GENETIC DISEASE
INFECTIOUS DISEASES
ONCOLOGY 1
ONCOLOGY 2

PHARMACOGENETICS/PHARMACOGENOMICS/
TOXICOLOGY, DRUGS OF ABUSE
VITAMINS AND NUTRITION
RENAL FUNCTION AND INJURY

15:00 - 17:00 SYMPOSIUM

- **Room Silver**
EFLM SESSION
THE RECOGNITION OF PROFESSIONAL QUALIFICATIONS ACROSS EUROPE

14:30 - 18:30 EDUCATIONAL WORKSHOPS

Roche Diagnostics
Randox Laboratories
Siemens AG Healthcare Sector
Beckman Coulter
DiaSorin
A. Menarini Diagnostics
Abbott
Horiba Medical
Instrumentation Laboratory
BD Diagnostics
Bio-Rad Laboratories

POSTER TOPIC DISPLAYED

Allergy
Autoimmune disease
Genetic disease
Infectious disease
Oncology
Pharmacogenetics/pharmacogenomics
Renal function and injury
Toxicology, drugs of abuse
Vitamins and nutrition
Miscellaneous

LAST CHANGES

9:00 - 11:00

Room Brown 3 SYM 4

The session closes at 10:45
The last presentation is cancelled

15:00 - 17:00

Room Silver EFLM Session

The beginning of the session is postponed to 15:30
G. Wieringa's presentation is canceled

15:45 - 16:45

Room Amber 7-8 EDU W 40

DiaSorin
M. Bidlingmaier is replaced by G. Rossi

16:00 - 17:00

Room Brown 1-2 EDU W 8

Abbott
C. Grandone is replaced by A. Orzechowski

17:30 - 18:30

Room Amber 5-6 EDU W 3

Horiba Medical
G. Guidi (Chair) is replaced by C. Zuppi

HOT TOPICS IN LABORATORY MEDICINE

Translating Evidence-Based Laboratory Medicine into Routine Practice

Christopher P Price

Department of Primary Care Health Sciences, University of Oxford, New Radcliffe House, Radcliffe Observatory Quarter, Woodstock Road, Oxford, OX2 6GG, United Kingdom

The principles of evidence-based laboratory medicine (EBLM) are the foundation of the many facets of laboratory medicine practice that contribute to improving patient outcomes. They are summarised in the cycle of **ask** (about the problem), **acquire** (the evidence), **appraise** (the quality of the evidence), **apply** (the evidence), and **audit** (the quality of practice). At the core of EBLM is a culture based on understanding the problems that leads the clinician to call upon the laboratory medicine service. The quality of that service is determined by (i) understanding of the problem – as that defines the medical tests (investigations) employed, (ii) the evidence that underpins the choice of test, and (iii) application of the knowledge gained from

use of the test in the clinical decision made and subsequent action taken.

The life cycle of a medical test comprises four phases (i) invention and innovation, (ii) guiding practice on how, where and when a test is used, (iii) commissioning, or adopting a service, and (iv) performance management and quality improvement. A medical test may fulfil a number of roles (utilities) during the course of the patient's care pathway, and effective use of an appropriate test should have a significant impact on the processes involved in delivering that pathway. Understanding the patient care pathway from an EBLM perspective therefore helps to define the unmet need, and can prompt the search for solutions in the form of

new biomarkers and/or sensing devices. This is the core of invention (**ask** and **acquire**).

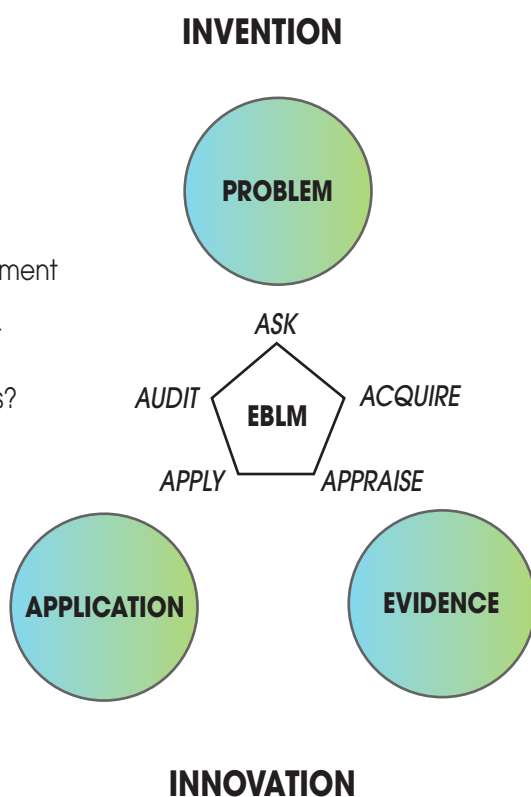
The utility of a medical test must be linked with the clinical decisions and actions taken to deliver the best outcome. Delivering the best outcome for the patient depends on successfully meeting the many challenges that are found in the organisation and delivery of healthcare – which comprise three core facets of improving quality and outcomes – knowledge, resources and processes. The choice of resources and processes involved in a care process are made on an individual patient basis, guided by knowledge gained from evidence of clinical and cost effectiveness, embodied in a clinical practice guideline, and combined with clinical expertise and experience (**ask**, **acquire** and **appraise**).

Adoption of a medical test comprises the introduction into the care pathway, which is invariably linked with a change in clinical practice. This can include choice of a new treatment, choice of an alternative treatment, change in amount of treatment, withdrawal of treatment, and/or delivery of treatment in a different setting, e.g. at home. The change in care delivery, a consequence of changing the test-and-treat intervention, represents one of the major challenges of innovation, and can be key to delivering the value associated with innovation (**ask**, **acquire**, **appraise** and **apply**). The complexity of the process of care, or an inability to follow the practice guideline can lead to errors and a failure to reach the expected level of outcomes. Constant commitment to performance management and quality improvement can help to reduce the number of errors, as well as highlighting the possibility for additional process improvement (**ask**, **acquire**, **appraise**, **apply** and **audit**).

The core activities of EBLM are central to all aspects of laboratory medicine practice from invention and innovation through to routine practice and continuous quality improvement.

OUTCOME

- Continuous quality improvement
- Performance management
- Key performance indicators?
- Implementation plan?
- Commissioning?
- Decommissioning?
- Resource reallocation?



PATIENT

- Clinical setting?
 - screening?
 - diagnosis?
 - prognosis?
 - monitoring?
- Critical pathway?
- Outcomes:
 - clinical?
 - operational?
 - economic?
- Effectiveness
 - clinical?
 - cost?

THE OPENING CEREMONY



The Gold Room ready for the Opening Ceremony

The Opening Ceremony in the Gold Room of the MiCo Center has been really a memorable one. There was the possibility to celebrate a few historical personalities of the



The "laVerdi" Concert

Italian Society of Clinical Chemistry (SIBioC) and of the European Federation of Laboratory Medicine. The profiles of the awardees are listed on pag. 8 of the journal.



Prof. Tanaka giving his presentation

The "laVerdi" Concert has been breathtaking; it was really the most appropriate way to celebrate the Giuseppe Verdi bicentennial in Milan. At the Ceremony conclusion, we

had the pleasure to hear the prof. K. Tanaka outstanding lecture on the role of proteasome in vertebrate, one of the most interesting topics in Science.

Educational Workshop
20 MAY 2013

16:00 – 17:00
Room Brown 3

THE AUTOMATION OF URINARY SEDIMENT ANALYSIS

Chairs: *G. Fogazzi (Italy) – T. Kouri (Finland)*

16:00 - The clinical relevance of urinary sediment examination
G. Fogazzi (Italy)

16:20 - Automated urinalysis: experience in 50,000 samples
J. Gras (Belgium)

16:40 - Experiences of screening for urinary tract infections with
the sediMAX automated digital image analyser
R. Falbo, A. Tessari (Italy)

COME SEE US
MiCo SOUTH LEVEL 0 - BOOTH N. 28



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EduW 8: Total Quality Solution for Total Testing Process

Chair: M. Plebani (Italy), J. Qeralto (Spain)
Speakers: David Hamer, Anthony Orzechowski, James Westgard
Time: Monday, 16:00-17:00 (Room Brown 1-2)

EduW 9: Challenge & Impact of IT Solutions in Modern Laboratories

Chair: V. Tanjore (Germany), A. Haliassos (Greece)
Speakers: Jonathan Kay, Ulf Oesinghaus
Time: Monday, 17:30-18:30 (Room Brown 3)

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Monday 20th May 14:30 – 15:30

Use of genetic profiling in determining cardiovascular risk

Chair: J.V Lamont C (UK) and E. Capoluongo (Italy)

Room: Amber 5-6

- Genetic testing for risk of coronary heart disease: fact or fiction?
S. Humphries (UK)
- Gene-gene interactions can modify the effect of a single-nucleotide polymorphism associated with blood pressure levels
S. Visvikis-Siest (France)



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MONDAY 20 MAY

Room Gold 11:45-12:30 **PLENARY LECTURE**

Chair: C. Camaschella (Italy)

Iron Metabolism and Pathophysiology

Tomas Ganz, PhD, MD

Departments of Medicine and Pathology, David Geffen School of Medicine, University of California, Los Angeles, USA



Extracellular concentrations of iron are regulated by the peptide hormone hepcidin. Hepcidin controls the transfer of iron from cells to plasma by regulating the cell membrane concentration of the sole known iron exporter, ferroportin. Hepcidin binding to ferroportin causes their endocytosis and proteolysis, trapping iron inside cells that normally transport iron to plasma: duodenal enterocytes, macrophages recycling erythrocyte iron, and hepatocytes that store iron. Iron consumption, mainly for hemoglobin synthesis, then depletes plasma of iron causing hypoferrremia and limiting iron delivery to tissues. Hepcidin production is transcriptionally induced by iron-transferrin through a complex pathway centered on the bone morphogenetic protein (BMP) receptor, interacting

directly or indirectly with iron sensors transferrin receptors 1 and 2, and associated modulators HFE, hemojuvelin, TMPRSS6/matriptase 2, BMP-6, and others. Another unknown pathway regulates hepcidin in response to intracellular iron concentrations in the liver, partly by modulating the secretion of BMP-6. As a mediator of innate immunity, hepcidin is greatly increased by inflammation, predominantly through IL-6. Finally, hepcidin is suppressed during stress erythropoiesis, induced by endogenous or exogenous erythropoietin. Hepcidin suppression with resulting iron overload is a pathological manifestation of ineffective erythropoiesis, e.g. in thalassemias. Hereditary hemochromatosis is an iron overload syndrome commonly caused by hepcidin defi-

ciency leading to hyperabsorption of dietary iron. Hepcidin is deficient because of mutations in one of its regulators or rarely the hepcidin gene itself. Iron-loading anemias result from the suppression of hepcidin production by hyperactive but ineffective erythropoiesis. Erythrocyte transfusions partially relieve the erythropoietic suppression of hepcidin but cause severe iron loading because of their high content of iron. Iron-restrictive anemias result from excessive hepcidin production due to inflammation or mutations in matriptase 2/TMPRSS6, causing hypoferrremia that limits iron delivery to hemoglobin synthesis. Understanding of these regulatory pathways is leading to improvements in diagnosis and treatment of disorders of iron homeostasis.

Open Wifi Milano



Reze Pubblica
Milanese



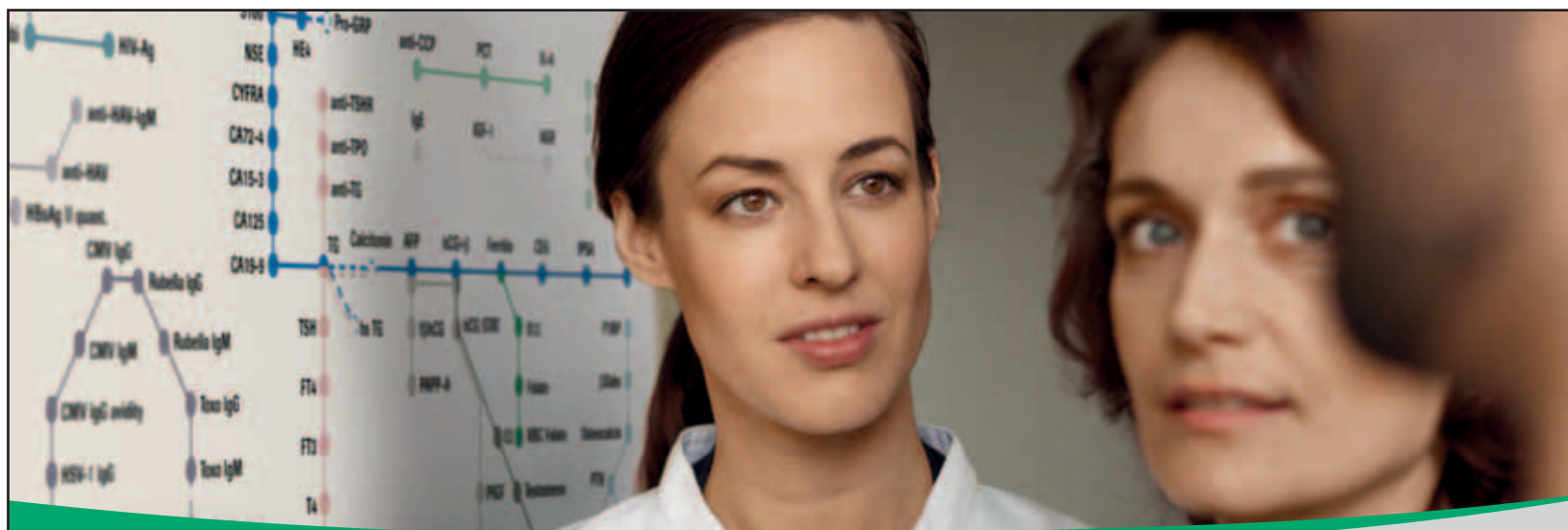
Open Wifi Milano is a free WiFi service provided by the Municipality of Milano allowing to surf on the Internet

from several sites in the city area.

The service is active in several areas of the city.

Further information and details about the areas at info.openwifimilano.it/en/index.aspx

Ideas and suggestions to savour Milanese lifestyle to the full @ www.wheremilan.com



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Today: The Launch Event!

Don't miss the launch of a major product at the Roche Exhibition booth Nr. 65. From 12:00-13:00 we will welcome you to the live revealing of another milestone instrument.

Topic of the day:

• **Infectious Diseases**

Symposium of the day:

• **Infectious Diseases workshop:**
Monday, May 20th, 14.30-15.30, Auditorium

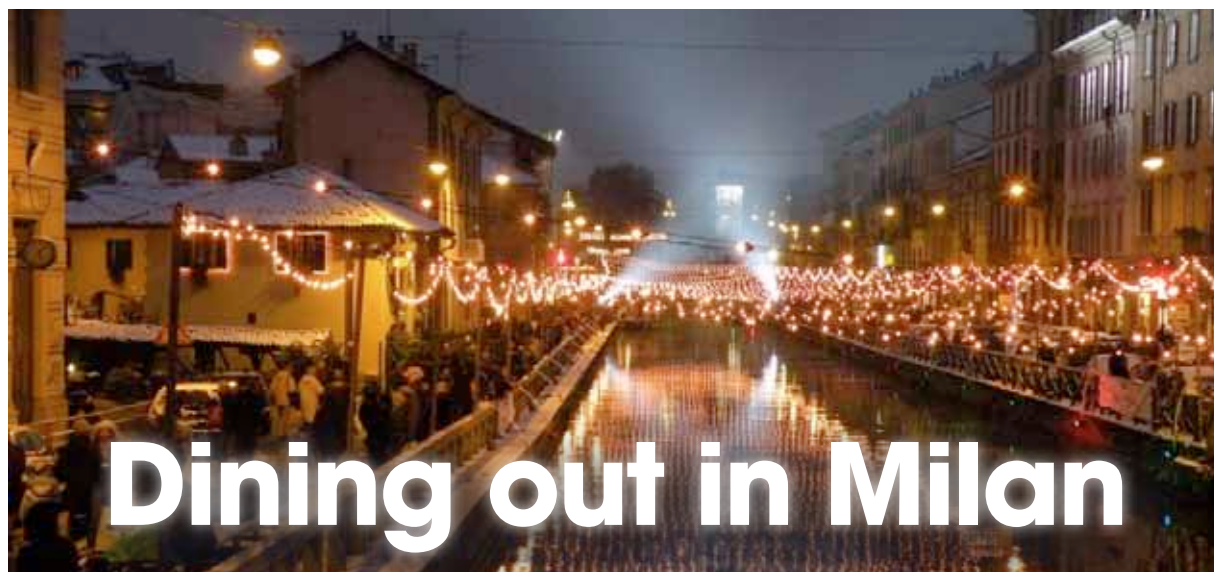
• **Cardiac workshop:**

Monday, May 20th 16.00-17.00, Auditorium

**Roche
exhibition
booth
Nr. 65**



Life needs answers



Dining out in Milan

You can reach the Navigli zone by metro (Green Line 2, Porta Genova stop).

The characteristic Navigli area, which still features several shipping canals, was once a very important crossroads in the Lombard economy, as well as a source of inspiration for artists. Today, the Navigli are famous for their "Trattoria" music, night clubs, and art studios. One can still see hydraulic engineering works, such as drawbridges, sluices, and dams, that bear witness to the advanced knowledge of hydraulics that was achieved centuries ago. The most popular places are Alzaia Naviglio Pavese, Alzaia Naviglio Grande, the Darsena, and Ripa di Porta Ticinese, which offer a large number of pubs, nightclubs, restaurants, wine shops, and bars.



NEWS FROM ASIA

JAPAN PLEDGES 2 BILLION USD IN SUPPORT OF AFRICAN RESOURCE DEVELOPMENT

TOKYO - The Japanese government pledged to provide 2 billion U.S. dollars to support resource development projects by Japanese companies in Africa over the next five years. The plans were announced during a meeting that brought together ministers and representatives from Japan and 15 African countries in charge of resource issues. The event was held ahead of a summit-level international conference on African development next month in Yokohama. The government also plans to promote the development of human resources in Africa, with the goal of training 1,000 people over the next five years. It also offers cooperation in the areas of environmental protection at mine sites and worker safety.

NEWS FROM EUROPE

HOLLANDE SIGNS SAME-SEX MARRIAGE LAW IN SWEEPING SOCIAL REFORM

PARIS - French President Francois Hollande signed the bill on gay marriage into law on Saturday after it was approved by the Constitutional Council on Friday, the president's office announced. The bill is the most important social reform in France since the abolition of the death penalty in 1981, making France the ninth country in Eu-

rope and the 14th globally to legalize same-sex marriage. The bill was legally challenged by opponents who doubt its consistency with the constitution, saying it changed the definition of marriage. But they were turned down by the Constitutional Council who ruled that "the law allowing same-sex conforms with the constitution."



WEATHER

SUMMARY FOR THE INCOMING WEEK

MILAN - Generally, weather in the city consists of four seasons and it is typical of European countries. But this year the weather in Milan (and in all North Italy) is incredibly wet and it shows a tremendous increase in the rainfall (+49%). So, for the incoming week make sure to carry an umbrella if you are out. Milan weather forecaster is reporting Monday 20th May to be the wettest day of the week with around 16.40mm (or 0.6 inches) of rainfall.

Day	Weather	Temp (C/F)	Chance of Rain	Wind
Mon May 20	PM 1 Storms	18°C / 65°F, 12°C / 54°F	80%	SSE at 8 km/h
Tue May 21	Showers	19°C / 66°F, 12°C / 53°F	60%	WNW at 6 km/h
Wed May 22	Partly Cloudy	22°C / 72°F, 14°C / 57°F	0%	WSW at 6 km/h
Thu May 23	Sunny	22°C / 72°F, 14°C / 58°F	0%	NW at 10 km/h

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IFCC
 International Federation of Clinical Chemistry and Laboratory Medicine

SIBIOC AWARDEES

Pierangelo Bonini



For his strategic view and his skills in international relations, which have greatly contributed to enhancing SIBioC's worldwide reputation

Carlo Franzini



For his scientific rigour and dedication to developing and promoting clinical biochemistry, making SIBioC a reference point in Italy and around the world

Paolo Mocarrelli



For his unique contribution to SIBioC's development and to spreading the society's ideas at the international level

Franco Salvatore



For his invaluable contribution to Italian clinical biochemistry and his substantial help in moving SIBioC into the era of clinical molecular biology

Guido Tettamanti



For bringing teaching and research experience into SIBioC and for making the society and the clinical laboratory known to the academic world

EFLM AWARDEES

Vic Blaton



For his unique contribution which significantly impacted the profession at scientific/clinical/educational/quality and organisational level and supported the promotion and understanding of Clinical Chemistry and Laboratory Medicine throughout Europe

Nicholas Mills



For the article "Implementation of a sensitive Troponin I assay and risk of recurrent myocardial infarction and death in patients with suspected acute coronary syndrome" By Mills NL, Churchhouse AM, Lee KK, Anand A, Gamble D, Shah AS, Paterson E, MacLeod M, Graham C, Walker S, Denvir MA, Fox KA, Newby DE. Implementation of a sensitive troponin I assay and risk of recurrent myocardial infarction and death in patients with suspected acute coronary syndrome. JAMA 2011;305:1210-6.

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