International Federation of Clinical Chemistry and Laboratory Medicine

Handbook
2015-2017

IFCC will provide worldwide leadership in clinical chemistry and clinical laboratory medicine to professional societies, the diagnostic industry, governmental and non-governmental organisations to serve the public interest in health care.

www.ifcc.org
1 May, 2015

IFCC HANDBOOK 2015-2017
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Note:

The order of this Handbook has been largely determined by the IFCC Numbering System that was originally designed and implemented by Prof. Mathias M. Müller. Wherever possible the numbering of Chapters and Paragraphs complies with this system. Where this is not possible the appropriate IFCC Number is given in brackets alongside the Handbook entry.

It is helpful to use the IFCC Numbering System when corresponding with IFCC about any topic. A summary of the full IFCC Numbering System is included in Chapter 16 of this Handbook (Paragraph 16.8).

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Contents

Chapter 1: Organisation, Structure and Function of IFCC 9
1.1. Introduction 11
1.2. Organisation of IFCC 12
1.3. The IFCC Executive Board 2015-2017 (EB) 14
1.4. Clinical Chemistry and Laboratory Medicine: Role in Healthcare 26
1.5. Mission Statement and Aims of IFCC 28
1.6. Overall Strategic Plan for IFCC 29
1.7. Strategic Objectives 2015-2017 30
1.8. A Brief History of IFCC 33

Chapter 2: National Members 39
2.1. Full Members of IFCC 41

Chapter 3: Corporate Members 53
3.1. Corporate Members of IFCC 54
3.2. Profiles of IFCC Corporate Members 59

Chapter 4: Affiliate Members 75
4.1. Affiliate Members of IFCC 77

Chapter 5: Regional Organisations 79
5.1. Asian Pacific Federation of Clinical Biochemistry and Laboratory Medicine (APFCB) 81
5.2. Latin-American Confederation of Clinical Biochemistry (COLABIOCLI) 83
5.4. European Federation of Clinical Chemistry and Laboratory Medicine (EFLM) 86
5.5. Arab Federation of Clinical Biochemistry (AFCB) 90
5.6. African Federation of Clinical Chemistry (AFCC) 92
5.7. North American Federation of Clinical Chemistry and Laboratory Medicine (NAFCC) 93

Chapter 6: International Organisations 95
6.1. International Organisations that work with IFCC 97

Chapter 7: Congresses and Conferences 99
7.1. Congresses and Conferences Executive (C-CC) 102
7.2. International Congresses of Clinical Chemistry and Laboratory Medicine 103
7.3. Regional Congresses of Clinical Chemistry and Laboratory Medicine 104
7.4. IFCC Specialised Conferences 106
7.5. Congress Guidelines and other documents 108
7.8. IFCC Auspices 108
7.9. General Conference 109
Chapter 1
Organisation, Structure and Function of IFCC
1.1. INTRODUCTION

The International Federation of Clinical Chemistry and Laboratory Medicine (IFCC) is a worldwide, non-political organisation for clinical chemistry and laboratory medicine. As such, it has a range of roles that include (1) global standard setting in collaboration with other international organisations, (2) supporting its members through scientific and educational endeavour, and (3) providing a series of congresses, conferences and focused meetings in order for laboratory medicine specialists to meet and present original findings and best practice.

The IFCC relies very heavily on volunteers to run the organisation and to undertake its range of activities and programmes. Those volunteers are constantly changing and so a reference document is required to assist people who want to learn more about IFCC and its operation. That reference document is this IFCC Handbook.

The production of the IFCC Handbook occurs once every three years to coincide with the term of each Executive Board. However, IFCC is a dynamic organisation that evolves constantly. The most up to date information about IFCC is always available from the IFCC website (www.ifcc.org).

The Handbook puts in one place all the information about the function and operation of IFCC. This includes the organisation of IFCC and its aims and strategic objectives over the three year life of the Executive Board. Also, it includes details of IFCC programmes and projects. The Handbook lists, in logical order, IFCC Regional Organisations, Divisions, Committees, Working Groups and Task Forces. The Full Members, Corporate Members and Affiliate Members are also included. Contact names and addresses are included for the many people who work with and for IFCC. Finally the necessary Statutes and Rules of the IFCC are published in the Handbook.

We thank the many individuals responsible for preparing this useful document.

Maurizio Ferrari
President

Sergio Bernardini
Secretary
1.2. ORGANISATION OF IFCC

The IFCC contains three Membership categories.
• Full Members that are recognised and established national societies of clinical chemistry and laboratory medicine.
• Corporate Members, that are individual companies, corporate entities or research establishments concerned with the field of clinical laboratory practice.
• Affiliate Members, that are allied international or national societies or groupings interested in the science and practice of laboratory medicine.

The organisational structure of IFCC is illustrated in Figure 1. The governing body is the Council that consists of one Representative appointed by each Full Member (voting), Affiliate Member, and Corporate Member. It convenes at the triennial International Congress of Clinical Chemistry and Laboratory Medicine. Between Council meetings, the business of IFCC is conducted by the Executive Board that is elected by the Council. Any important questions that arise between Council meetings, such as the admission of new Full Members to the Federation, approval of recommendations, and changes or amendments of statutes are decided by ballot of the Full Member Representatives voting on behalf of their societies.

Membership of IFCC is accorded to National Societies of Clinical Chemistry and/or Laboratory Medicine, each of which pays dues related to the number of members in its society. A Society applying for Full Membership of IFCC must show that it is recognised as the main society responsible for clinical chemistry and/or laboratory medicine in that country, and satisfy the Executive Board that its statutes and by-laws are in accordance with the principles of the Federation.

The Executive Board comprises the President, Past President or President Elect, Secretary, and Treasurer and three Members plus an individual representing Corporate Members. The Executive Board normally meets three times a year; the Chairs of the IFCC Divisions attend at least one meeting per year.

The IFCC carries out much of its business through its Divisions and Committees. There are currently three Divisions, each of which has an Executive that reports directly to the Executive Board.
• Scientific Division
• Education and Management Division
• Communications and Publications Division

The Committee for Congresses and Conferences also reports directly to the Executive Board.

Every three years, the Executive Board appoints two further committees, namely, the Nominations Committee to prepare a slate of candidates for elections for the next Executive Board, and the Awards Committee to select the recipients of the IFCC awards. The Executive Board may also appoint Special Project Committees and Task Forces.

Much of the work of the Divisions is delegated to Committees, which report to the Division Executive. These Committees have broad responsibility areas and tend to function for several years. Members of the Division Executives, together with the Chairs of the Committees reporting to Divisions, are appointed by the Executive Board; ordinary members of Committees reporting to Divisions are appointed by the Division Executives. Divisions may also appoint Working Groups to work on defined projects or...
to do less formalised work. Working Groups are dissolved when their specific projects are completed, although their work may lead to the establishment of Committees or other activities funded by IFCC.

All IFCC Members (Full, Corporate and Affiliate) are invited to suggest candidates to serve on Division Executives, Committees and Working Groups. Appointment is according to merit without respect to nationality or other affiliation. Members (Full, Corporate and Affiliate) are also invited to participate in the work of Division Committees and Working Groups by appointing Corresponding Members. Division Executives and Committees are funded by the IFCC, most of the work of Working Groups is done without financial support from the IFCC.

The other key part of the organisation is the IFCC Office which is located in Milan (IT). This office is responsible for most of the daily and organisational matters and is the point of contact for all IFCC activities. The IFCC Office has responsibilities for supporting the Executive Board, Division Executives and Committees, for maintaining the IFCC website and for all relevant documentation. The IFCC Office also supports the organisation of some IFCC Conferences. IFCC part funds the staff member of the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM), which is co-located with the IFCC Office.

The address of the Office is:

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The current Office Staff are:
Mrs Paola Bramati paola.bramati@ifcc.org
Mrs Silvia Cardinale cardinale@ifcc.org
Mrs Silvia Colli Lanzi colli-lanzi@ifcc.org

**Figure 1: IFCC Organisational Structure**
Maurizio Ferrari, M.D., is Full Professor of Clinical Pathology, University Vita Salute San Raffaele, Director of Clinical Molecular Biology and Cytogenetics Laboratory, and Head of Genomic Unit for the Diagnosis of Human Pathologies, Division of Genetics and Cell Biology, IRCCS San Raffaele, Milan, Italy. He received his Degree in Medicine at the Milan University, is specialised in Paediatrics, Haematology and Medical Genetics. He was Post-doc at Hospital Paul Brousse, Villejuif, Paris and Honorary Registrar in Haematology at UCH, London. He was Scientific Coordinator of Clinical Research, IRCCS H San Raffaele, Milan (1996-1999), Chairman of Committee on Clinical Molecular Biology Curriculum of IFCC (2002-2007), member of the Education and Management Division of IFCC (2008-2011). He was Chairman of the Education and Management Division of IFCC (2012-2014), member of IFCC Task Force on Pharmacogenetics (from 2008), advisor of CLSI Committee on Molecular Methods. He is Dean of Master Degree in Molecular and Cellular Medical Biotechnology (2008 at present) and President of the European Society of Predictive Medicine (2009 at present). He received in 2004 the IFCC-Abbott Award for Significant Contributions in Molecular Diagnostics. His scientific interests are oriented mainly on molecular diagnostic methods, nucleic acid circulating in maternal plasma, molecular studies of several genetic pathologies. He developed methods for DNA analysis as multiplex PCR and capillary electrophoresis also in a temporal thermal gradient, set up a method involving the ligase chain reaction (LCR) and developed a new method known as double-gradient DGGE (DG-DGGE) for the identification of unknown mutations. In the last 4-5 years he has focused his research activity on the detection of foetal DNA in maternal plasma for non-invasive prenatal diagnosis and for diagnostic application in the genetic and oncology field. At present, his research is focused on the development of diagnostic tests with the application of the next generation sequencing. He is author of 849 publications: peer reviewed journals: 246, other journals: 67, book: 1, chapter’s book: 45 and 490 abstracts at International and National Congress. Total I.F. 1113,83; h-index: 42 (scholar Google); citations: 8846; i-10 index: 131.
Doctor Graham Beastall (BSc, PhD, CSci, EurClinChem, FRCPath, FRCP, CBE), currently serves as professional adviser on laboratory medicine for the Department of Health in the UK. Immediately prior to becoming IFCC President he was the Clinical Lead for the multi-site network Department of Clinical Biochemistry in North Glasgow, Scotland, United Kingdom (UK).

He received his BSc and PhD degrees from the University of Liverpool in the late 1960s. After postdoctoral study he moved to Glasgow in 1972 as a University lecturer and became an employee in the National Health Service (NHS) as the rapid expansion of clinical chemistry practice required experienced leaders. He has specialised in biochemical endocrinology and in 1979 he formed and led the Scottish specialist endocrine laboratory based at Glasgow Royal Infirmary.

Doctor Beastall gained Mastership and then Fellowship of the Royal College of Pathologists (FRCPath), the highest professional postgraduate qualification in laboratory medicine in the UK. His breadth of experience enabled him to become Consultant Clinical Scientist and then Clinical Lead for the largest department of clinical chemistry in the UK. In this role he developed an active interest in evidence-based medicine and in the policy of adding value to the role of clinical laboratories.

He is a registered Clinical Scientist with the Health Professions Council and a Chartered Scientist (CSci) with the UK Science Council. He is also a European Specialist in Clinical Chemistry and Laboratory Medicine. In addition, he has held honorary positions with the University of Glasgow and has taught clinical chemistry to both medical and science students and supervised several postgraduate students. He has co-authored 185 peer-reviewed original publications; a number of books, chapters and review articles and has given more than 100 invited lectures and served on the editorial board of a number of journals.

Doctor Beastall has held a number of professional representative roles in the UK including Chairman, President and Past President of the Association for Clinical Biochemistry and Laboratory Medicine (ACB). He was the first non-medical Vice President of the Royal College of Pathologists (RCPPath) and has chaired the clinical chemistry steering committee for the UK National External Quality Assurance Schemes (UK NEQAS). He has been a board member and longstanding assessor for Clinical Pathology Accreditation (UK) Ltd (CPA), which accredits laboratories to ISO 15189 standards.

At the international level Doctor Beastall has served as the Secretary of the European Communities Confederation of Clinical Chemistry and Laboratory Medicine (EC4) for several years during its formative stage. He also has...
served Chair of the IFCC Congress and Conference Division and was Secretary of the organising committee for the 16th International Congress of Clinical Chemistry and Laboratory Medicine held in London in 1996. In 2005, he chaired the organising committee for EuroMedLab 2005, which was held in his home city of Glasgow. Doctor Beastall has received a number of honours including the ACB Foundation Award and the EC4 Distinguished Officer Award. He also received the 2005 FESCC European Distinguished Clinical Chemist Award and became an honorary Fellow of the Royal College of Physicians (FRCP). In 2007, he became a Commander of the Order of the British Empire (CBE) for his services to medical science in the UK and received his award from the Queen at Buckingham Palace. In 2009 he became an Honorary Member of the ACB.

Graham is married to Judith, a retired schoolteacher. They have two grown sons. He has been involved in Scouting for more than 50 years and continues to work with children from one of the deprived areas of Glasgow. His other interests include gardening, hill walking and a passion for Liverpool Football Club.
Chapter 1: Organisation, Structure and Function of IFCC

**Secretary**

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Professor **Sergio Bernardini** (MD, PhD), is a full professor of Clinical Biochemistry and Clinical Molecular Biology at the Department of Internal Medicine of The University of Rome Tor Vergata, and the head physician of the Clinical Molecular Biology Unit at the Tor Vergata University Hospital. He received his degree in Medicine in 1986 and the PhD in Paediatric Sciences in 1995. He has specialised in Paediatrics (1990) and in Clinical Chemistry and Biochemistry (1998). Professor Bernardini serves as the president of the undergraduate course in “Diagnostic laboratory techniques in the medical field” and, as a clinical laboratory research consultant with Bambino Gesu’ Children’s Hospital in Rome.

He is a member of (1) the Italian Society of Clinical Biochemistry (SiBioC), (2) the SiBioC Committee of Clinical Molecular Biology, (3) the Italian Society of Biochemistry (SIB) and (4) the Italian Society of Allergology and Immunology (SIAIC). His international activities include membership of the Editorial Advisory Board of The Encyclopedia of Life Sciences. Prof Bernardini served his first term on IFCC EB between 2012 and 2014 as IFCC Secretary.

As a professor he has several teaching responsibilities including a Bachelor’s course in diagnostic laboratory techniques in the medical field, degree courses in medicine, medical biotechnologies, movement sciences and postgraduate courses in Clinical Biochemistry, Gastroenterology, Neurology, Medical Genetics, Allergology and Immunology, and Paediatrics. Professor Bernardini’s research interests are diverse in nature and have included work in paediatric endocrinology with particular interest in growth hormone and insulin like growth factors and their binding proteins. He has also worked on apoptotic pathways in oncology, in particular neuroblastoma, as well as on glutathione transferases, a family of enzymes involved in cell detoxification and in the control of the programmed cell death. Also, he has collaborated in the application of molecular biology and proteomic methods and techniques in research applied to neurodegenerative diseases, oncology and pharmacogenetics. Since 2009 he has collaborated in the application of molecular biology and biochemical methods to monitoring of sport training and performance. Sergio is married to Elisabetta since 1998 and has a son, Andrew 23 years old, and a daughter Marta aged 21. His personal interests include football, theatre and travelling.
Professor Tomris Ozben Tomasi, PhD, DSc. is a full professor since 1990 at the Dept. of Clinical Biochemistry, Faculty of Medicine, Akdeniz University, Antalya Turkey. She obtained her BSc. degree from American University “Robert College” in Istanbul, Turkey; Ph.D. in Biochemistry from Ege University, Izmir, Turkey; and Specialty in Clinical Biochemistry from Marmara University, Istanbul Turkey. During her tenure at Akdeniz University, she has been Vice Rector, Director of Research Funds, Chairman of the Dept. of Clinical Biochemistry and Founding Director of Central Laboratory at Akdeniz University Hospital which includes Clinical Chemistry, Microbiology, Virology, Toxicology, Haematology, Immunology, Coagulation, Therapeutic Drug Monitoring, Emergency, Preanalytical and Point of Care Services. She has worked for more than 10 years in the Ethical Committee of Akdeniz University Hospital and Medical School on themes concerning drug research in clinical trials. She has served as the Commission Member of the Turkish Ministry of Health for restructuring Medical Education and Teaching and Member-Elect of the Turkish High Educational Council for four years. She has been appointed as the National Representative by the Scientific and Technological Research Council of Turkey (TUBITAK) with the approval of the Ministry of Foreign Affairs since 2008.

Teaching Clinical Laboratory Medicine to medical and non-medical students, residents, and fellows has been a primary activity in her career. She delivers lectures on a variety of topics to clinicians and laboratory scientists. She serves as a mentor to numerous graduate students and takes part at Post-Graduate Education Programmes (Specialty and PhD) at Akdeniz University. Currently, she is Director at Akdeniz University Hospital Central Laboratory and the principal investigator of many research projects. In 2003, she received “Akdeniz University Outstanding Contribution” award, and in 2006 “Akdeniz University Science” award. She is the author of 240 peer-reviewed manuscripts, 12 book chapters and editor of 3 books published by the International Publishers (Plenum Press, New York; IOS Press, Amsterdam). She has attended more than 200 international congresses as an invited speaker. She has organised several International Congresses, Courses, Workshops, Young Scientists Forums and Meetings supported by FEBS-IUBMB-NATO-TUBITAK-BCLF and served as an Organising and Scientific Committee Member of several EuroMedLabs (Innsbruck 2009; Berlin 2011; Milan 2013; Paris 2015); WorldLabs (Fortaleza 2008; Berlin 2011; Istanbul 2014); IFCC General Conferences (Antalya 2008; Corfu 2010; and Kuala Lumpur 2012); Steering Committee Member of IFCC-Roche Bergmeyer Conferences (2008- present); Member of the International Advisory Board of the 18th
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Chapter 1: Organisation, Structure and Function of IFCC

ICCCLM 2002, Kyoto, Japan; IFCC/AACC 2005, Orlando, USA; EuroMedLab 2005 Glasgow, UK.
She has been the President (2000-2003), Past-President (2003-2006) and Executive Board member (2006-present) of Balkan Clinical Laboratory Federation (BCLF); Advisory Board member of Forum of European Societies of Clinical Chemistry and Laboratory Medicine (FESCC; 2001-2008); Advanced Courses Committee member of Federation of European Biochemical Societies (FEBS; 1997-2001); American Biographical Institute, Research Board of Advisors since 2001. She is member of the Editorial and Advisory Boards of many Scientific Journals, reviewer for several journals, and scientific projects evaluator for the Italian Ministry for University Education and Research (MIUR; 2003-present), Ministry of Science and Environmental Protection of Republic of Serbia (2005-present) and Israel Science Foundation (2012-present).
She has been serving actively IFCC since 2001, as the Chair of IFCC Committee on Congresses & Conferences (C-CC) (for two consecutive terms, six years); previously as Full Member (three years) and Corresponding Member (three years). In 2014, she has been elected as the IFCC Treasurer by the IFCC Council.
She is married to Prof. Dr Aldo Tomasi having a daughter and twin sons, all three medical doctors.
**Rolf Hinzmann**, MD, PhD, is Head of Global Medical Affairs, Glucose Monitoring and Science for Roche Diabetes Care based in Mannheim, Germany. In his current role he provides medical support for Roche Diabetes Care in the field of self-monitoring of blood glucose and continuous glucose monitoring.

Dr. Hinzmann studied Medicine and Biochemistry at Hannover Medical School and Hannover University, Germany. He completed his PhD in Biochemistry at the Max Planck Institute for Experimental Endocrinology in Hannover on the fluctuation of the estradiol receptor expression in the porcine ovary during the menstrual cycle. Thereafter, he worked in the field of laboratory diagnostics (clinical chemistry, immunology, haematology, immunohaematology, blood banking, microbiology, serology, molecular biology) and internal medicine at Hannover Medical School and qualified as Clinical Pathologist (in German: Arzt für Laboratoriumsmedizin).

In 1996 Dr. Hinzmann continued his medical career in the in-vitro diagnostic industry where he spent the past 18 years in various management positions: at Beckman Coulter in Munich, Germany, as a European Scientific Marketing Manager, at Sysmex Europe as Medical Director Europe, and since 2010 in the above-mentioned position at Roche.

For several years Dr. Hinzmann represented Beckman Coulter and Sysmex Europe, respectively, in the Working Group Science & Technology in the Association of German Diagnostic Manufacturers (VDGH). He also served as a Member of the Area Committee Haematology in the Clinical and Laboratory Standards Institute (CLSI).

Dr. Hinzmann has many publications in the field of clinical chemistry, haematology and diabetes and is a requested lecturer at scientific conferences. Several times he was rated distinguished speaker by the American Association of Clinical Chemistry AACC.

His special interests are evidence-based medicine, cardiovascular disease, diabetes and metabolism, standardisation of laboratory tests, point-of-care testing, self-empowerment of patients and behavioural change, screening and risk assessment in medicine, didactics and philosophy of science.

Since 2001 Dr. Hinzmann held various positions in the IFCC: as Corporate Representative of the Executive of the Scientific Division (2001-2006), as Corporate Representative of the Executive of the Education & Management Division (2007-2012) and as Member of the Task Force POCT (2013-2014).

In his role as Executive Board Corporate Representative he acts as the interface between IFCC and the in-vitro diagnostic industry.
Daniel Mazziotta is Professor of Clinical Chemistry at National University of La Plata (1989), Director of the External Quality Assessment Programme of the Argentine Biochemical Foundation (1987) and Director of the Reference and Standardization Laboratory in Clinical Biochemistry of Argentine Biochemical Foundation (1997). He graduated in Chemistry in 1974 and Biochemistry, Clinical Orientation in 1976 at the National University of La Plata, Argentina. From 1974 to 1982, he served the Central Laboratory Service of the Hospital San Juan de Dios of La Plata working for the Intensive Care Unit and the Heart and Lung Functional Exploration Service. He became a member of the Central Commission of External Quality Control of the Ministry of Health of Province of Buenos Aires in 1978 and he was the organiser of External Quality Control Programme for the same Ministry from 1980 to 1986.

Professor Mazziotta was a member of the Executive Board of the Specialists on Biological Analyses Association between 1984 and 1986. Also, he was Secretary of the Biochemical Federation of the Province of Buenos Aires from 1986 to 1992. He has been member of the Permanent Scientific Section of the Latin-American Confederation of Clinical Biochemistry since 1987. He was National Representative of Argentina in several IFCC General Conferences.

He is member of the Editorial Board of Acta Bioquimica Clinica Latinoamericana, the official journal of the Latin-American Confederation of Clinical Biochemistry (COLABIOCLI). He was Member of the Intercontinental Board of Accreditation and Quality Assurance journal. He received the American Association of Clinical Chemistry International Fellowship Award in 2000. He was designed as Honorary National Member of the Argentine Medical Association and Member of Honor of the Cuban Society of Clinical Pathology in 2004. In 2006 receives the award to the Professional Career in Argentina.

He has developed intensive post-graduate education courses on Quality Control covering all Argentina as well many Latin-American countries, including Bolivia, Chile, Paraguay, Uruguay, Dominican Republic, Ecuador, Guatemala, Costa Rica, Honduras, Mexico, Venezuela and Brazil. He acts as adviser and professor for the Pan-American Health Organisation in Guatemala and Ecuador. Professor Mazziotta has been active in the IFCC since 1992 when he was a corresponding member of the Committee on Analytical Quality (C-AQ) of the Education and Management Division. In 1994 he became member of the Nomination Committee and in 1997 became a
member of the C-AQ. Between 1998 and 2002, he was the chairman of the same committee (C-AQ). In 2002, he was elected to a three year term as a Member of the IFCC Executive Board and was re-elected to that position in 2005 for the term 2006-2008 and in 2014 for the term 2015-2017.
Rosa Isabel Sierra-Amor, Clinical Biochemist, received her MSc. and PhD degrees from the Autonomous University of Mexico, UNAM. She did a fellowship in biochemistry at the Department of Endocrinology and Metabolism, Jewish Hospital and Washington University School of Medicine in St. Louis Mo. In the USA (1982), and a post graduated course in clinical chemistry, University of Reading, England (1986). From 1980 to 1990, she worked as faculty and Head of the laboratory, Nephrology and Mineral Metabolism Department of the National Institute of Medical Sciences and Nutrition SZ in Mexico City; from 1990-2003, she directed the Bone and Mineral Metabolism Research Laboratory at the Division of Neonatology, Department of Pediatrics, University of Cincinnati, and Children’s Hospital Medical Center in Cincinnati, Oh. USA. Since 2004, she is board member of Laboratory LAQUIMS, S.C. and QC/QM Consultant. In Mexico, she has collaborated closely with the Mexican Accreditation Entity as member of the National Assessment Panel, and former Board Member www.ema.org.mx; she acted as external consulting member for the postgraduate programme in clinical laboratory science at the University of Veracruz. With BIO RAD Mexico and Latin America, she initiated the International Conference on Quality with the auspices of IFCC (2006 - ); she has lectured on laboratory accreditation, quality topics, and bone and mineral metabolism in Mexico, Latin America, and internationally; in 2012, she was elected president of the Mexican Association of Clinical Laboratory Sciences (2013-2014) www.cmclcmx.org. In IFCC, she participated as member of the EB (1997-2002), e.JIFCC WG News, JIFCC Editorial Board, Awards Committee, and WG-IANT/RIA. She served as Member, WHO Laboratory Services Advisory Panel (1997-2001); she is member AACC Latin American WG (2010), former AACC Treasurer, Materno-Fetal Division, former Chair Membership awards, Ohio Valley Section, and former AACC International Relations Committee. She was awarded with the Latin American Ames Award (1993), the AACC International Fellowship Award (1996), and by several other professional and health organisations from Mexico.
Professor Vanessa Steenkamp (PhD) obtained her MSc in Biochemistry at the University of Pretoria in 1991. Her first staff position was at the South African Institute for Medical Research, now the National Health Laboratory Services in the Department of Endocrinology. Later, she was appointed Lecturer in the Department of Chemical Pathology, University of the Witwatersrand and obtained her PhD in Clinical Toxicology. She returned to the University of Pretoria as Senior Lecturer in the Department of Urology and five years later transferred to the Department of Pharmacology, where she is currently Associate Professor and Head of the Phytopharmacology Unit. Her research interest and publications have been in the area of traditional herbal remedies and their effect on patients, as well as the development of methods for the detection of these active compounds in biological fluids. In addition, she is involved in pre-clinical testing of traditional herbal remedies which includes the isolation of active compounds and development of new drugs.

Throughout her career she has been active in promoting professional activities, especially with regards to developing country needs. She was the Treasurer of the South African Association of Clinical Biochemistry (SAACB) from 2001 to 2005, where after she served as President until 2010 and is currently Past-President. Nationally she also holds board positions as Vice-President of the Toxicology Society of South Africa (TOXSA), Vice-President of the South African Society for Basic and Clinical Pharmacology (SASBCP) and Treasurer of the Federation of the South African Societies of Pathology (FSASP). Internationally her activities include serving as Director of Education on the Council of the International Association of Therapeutic Drug Monitoring and Clinical Toxicology (IATDMCT), and Chair of the Drugs of Abuse and Clinical Toxicology Committee and member of the Standards of Laboratory Practice Committee in this Association.

Prof. Steenkamp started her association with the IFCC as country representative for South Africa during 2005 to 2011. She served on the Committee for Congresses & Conferences (C-CC) for the term 2009–2011. She was first elected President of the African Federation of Clinical Chemistry (AFCC), a regional Federation of the IFCC, at its inauguration in October 2009 and was re-elected for a second term. She currently serves as Past-President. Prof Steenkamp served her first term on IFCC EB between 2012 and 2014.

Prof. Steenkamp has written more than 105 publications and serves on the editorial board of six journals related to Toxicology and Ethnopharmacology. She acts as invited
reviewer for several journals and has lectured worldwide at congresses and international forums. She has and continues to serve as organising member on the scientific advisory boards of national and international congresses.

She is the mother of four boys and the manager of a provincial chess team. Her personal interests include gardening, nature and reading.
1.4. CLINICAL CHEMISTRY AND LABORATORY MEDICINE: ROLE IN HEALTHCARE

Clinical Chemistry and Laboratory Medicine is the application of chemical, molecular and cellular concepts and techniques to the understanding and the evaluation of human health and disease.

At the core of the discipline is the provision of results of measurements and observations, together with interpretation and informed clinical advice relevant to:

• The maintenance of health
• The cause of disease
• The diagnosis of disease
• Predicting and monitoring the response to therapy
• Follow up investigations

The discipline is committed to deepening the understanding of health and disease through fundamental and applied research. The use of chemical techniques to examine biological fluids may be traced back more than 300 years. However, it is only in the past 100 years that reliable quantitative assays have become established for constituents in blood and urine. It was in the late 1940s that the first scientific societies and the first journals bearing the title Clinical Chemistry were established. The International Federation of Clinical Chemistry (IFCC) was established in 1955.

In the past 60 years there has been a rapid expansion in Clinical Chemistry and also in other disciplines of Laboratory Medicine including Haematology, Transfusion Medicine, Immunology, Medical Microbiology and Clinical Genetics. These disciplines often use similar technology and may be used in combination to assist the investigation and management of patients. As a result the term Laboratory Medicine is becoming more widely adopted, although its exact definition varies between countries. In recognition of this development the Federation changed its name in 1996 to the International Federation of Clinical Chemistry and Laboratory Medicine, although it maintained the abbreviation IFCC. Today it is widely accepted that approximately 70% of clinical decisions in healthcare are informed by Laboratory Medicine.

Advances in Clinical Chemistry and Laboratory Medicine have occurred as a result of improved knowledge and understanding of the pure sciences (mathematics, physics, chemistry); related medical sciences (biochemistry, physiology, genetics, cellular and molecular biology); and technology (instrumentation, automation, information technology, nanotechnology). As a result modern medical laboratories incorporate highly sophisticated equipment and methodologies. High throughput analytical platforms capable of performing tens of thousands of tests per day sit alongside state of the art mass spectrometers, cell counters and micro-array systems. Consequently, modern medical laboratories require highly trained and skilled medical practitioners, scientists and technologists, including specialists in analysis, clinical application, information management, proteomics and bioinformatics.

Furthermore, the advances in technology have enabled increasing amounts of Clinical Chemistry and Laboratory Medicine to be delivered outside medical laboratories, closer to the patient. Point of care testing now occurs in hospital wards, clinics, doctor’s offices, community pharmacies, places of work and in the home. Whilst point of care testing is designed for use by non-specialists considerable education and support is required to ensure high quality results and an understanding of their clinical significance.

The diversification of Clinical Chemistry and Laboratory Medicine has created a natural and positive partnership between Laboratory Medicine specialists in clinical laboratories and in the in-vitro diagnostics industry. Typically original science in research laboratories leads companies to develop new diagnostic products that are translated into service and validated in medical laboratories.
In the modern era of Clinical Chemistry and Laboratory Medicine results are not enough. The quality of results has to be assured. Quality assurance is an all embracing agenda that includes:

- Internal quality control
- External quality assessment
- Quality management and laboratory accreditation
- International method standardisation to the highest level of traceability
- Harmonisation of nomenclature, properties and units

Quality results are still not the finished product because they need to be converted into knowledge that is then used to shorten patient pathways and lead to improved patient outcomes. Knowledge management includes:

- The application of evidence-based medicine
- The development of practice based clinical guidelines
- Participation in multidisciplinary teams
- Translational research
- The development of personalised medicine
- Promoting the contribution of Clinical Chemistry and Laboratory Medicine to healthcare

As the leading worldwide professional organisation for Clinical Chemistry and Laboratory Medicine IFCC has a responsibility to be at the front end of international scientific and clinical development whilst providing education and management support to its members to improve the quality of their service and to convert that quality into transferable and clinically valuable knowledge. The following paragraphs on the IFCC Mission, Strategic Plan and Strategic Objectives explain how IFCC discharges that responsibility.
1.5. MISSION STATEMENT AND AIMS OF IFCC

Mission statement

Our mission is to be the leading organisation in the field of Clinical Chemistry and Laboratory Medicine worldwide.

Aims of IFCC

“Through leadership and innovation in science and education we will strive to enhance the scientific level and the quality of diagnosis and therapy for patients throughout the world. We will build on the professionalism of our members to provide quality services to patients. We will aim to communicate effectively with our members, other healthcare providers and the public to ensure knowledge of our excellent scientific and educational achievements. We will focus always on scientific standards, publications, education and communications. We will communicate effectively through a variety of electronic media. We will hold outstanding congresses and conferences to bring the efforts of IFCC to the global community”.

The specific aims of IFCC are:
• To complement and enhance the activities of its members
• To transcend the boundaries of a single nation or a single corporation, or a geographical, cultural or linguistic group of nations in developing the field of Clinical Chemistry and Laboratory Medicine
• To provide a forum for standardisation, in the broadest sense, at a high level
• To disseminate information on “best practice” at various levels of technology and of economic development
• To promote a vision of Clinical Chemistry and Laboratory Medicine that extends beyond traditional narrow perceptions of the field.

IFCC achieves these aims by:
• Publishing information and guidelines relating to the education of clinical chemists and laboratory physicians
• Defining principles and publishing recommendations for the standardisation of analytical procedures and for the interpretation of analytical results
• Promoting meetings of clinical chemists and laboratory scientists through congresses, symposia and workshops in Clinical Chemistry and Laboratory Medicine, and by encouraging dialogues with clinicians on matters of common interest.

IFCC has a major responsibility for co-ordinating the development of Clinical Chemistry and Laboratory Medicine on an international basis. In fulfilling this responsibility, it co-operates with many other international, regional and national organisations, particularly in the fields of education and standardisation.

IFCC also assists and encourages the creation and organisation of national societies of Clinical Chemistry and Laboratory Medicine in countries where these do not yet exist, and establishes and maintains contact with individual clinical scientists in parts of the world where there is no professional body specifically concerned with Clinical Chemistry and Laboratory Medicine.

IFCC is a non-political organisation that believes in high ethical standards, equal opportunities and freedom of movement for scientists and doctors around the nations of the world.
1.6. OVERALL STRATEGIC PLAN FOR IFCC

The original IFCC strategic plan was conceived and refined during the period 1990-1994 by the Executive Board and reviewed by National Societies and Corporate Member. This strategic plan was subsequently developed by successive Executive Boards. The ongoing strategic plan is intended to achieve a number of principal objectives, with the priorities and tactical implementation being guided by the IFCC Membership. These internal and external changes are all intended to maintain IFCC as a valid and credible resource of expertise for the improvement of patient care through laboratory medicine.

Principal objectives of the strategic plan:

• To improve and maintain the multidisciplinary and international leadership of IFCC in standardisation activities.
• To ensure that its standardisation and research activities are more oriented towards the patient and towards the health of the individual.
• To ensure consistency between its activities and the stated expectations of the IFCC members, recognising the needs of both developed and developing countries.
• To develop and maintain IFCC communications, to promote publications and products from IFCC, including publications and reference materials, and to set up joint promotion activities with international organisations such as WHO, WASPaLM, IUPAC, IRMM, CLSI and others.
• To establish collaborations, joint meetings and projects with international organisations having interest in the field of Laboratory Medicine such as IUPAC, ISTH, IATDM, IRMM, CLSI.
• To promote IFCC through international and regional congresses.
• To promote Members' activities.
• To encourage professional development of individuals in National Societies and the recruitment of new members and experts to IFCC operating units.
• To develop and maintain Public Relations.

Each new IFCC Executive Board revisits and interprets these principal objectives so that they are fresh and relevant to current issues, challenges and opportunities. The result is a series of specific strategic objectives for the three year period of an Executive Board.
1.7. STRATEGIC OBJECTIVES 2015-2017

The Executive Board for 2015-2017 has identified and agreed the following strategic objectives for its term of office. They are in accord with the overall IFCC strategic plan and the principal objectives outlined in Section 1.6. They are intended to be in addition to the ongoing work of Division Executives.

Introduction
This document has been developed from a gathering of ideas session held at the Executive Board (EB) meeting held in January 2015. It represents the thoughts of EB on its future priorities for the next three years. The document concentrates on EB priorities and it is intended to complement the planning and action of IFCC Divisions, Committees and Working Groups. Some of the identified priorities overlap with the work of Divisions and dialogue is required to agree a co-ordinated approach.

The document identifies 33 strategic actions which have been classified into the following four broad areas:
• A. Supporting our Membership
• B. Broadening our Horizons
• C. Improving the Quality of Laboratory Medicine
• D. Improving the effectiveness of IFCC

Each strategic action has been assigned a timescale over the period February 2015 – December 2017. Each strategic action has also been assigned a member of EB who will lead that particular initiative.

Progress with, and review of the strategic development plan will be an integral part of all future EB meetings during 2015-2017. It is intended that the plan may be modified in the light of changing circumstances.
Area A: Supporting our Membership

<table>
<thead>
<tr>
<th>Number</th>
<th>Strategic Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agree and implement a procedure to enable the future election of Regional Federation representatives to the Executive Board.</td>
</tr>
<tr>
<td>2</td>
<td>Continue to conduct one/two surveys of Members opinion each year, one of which should relate to identifying the ways in which IFCC can best support its members.</td>
</tr>
</tbody>
</table>
| 3      | a) Maintain support materials and web-based tools to demonstrate the benefits of IFCC membership to all countries.  
b) Use and evaluate effectiveness of new support materials. |
| 4      | Extend to all countries the register of expertise amongst individuals in IFCC that may be of value to Members. |
| 5      | a) Deliver the e-academy as the platform to support IFCC educational materials  
b) Develop and present a series of webinars to meet the needs of Members. |
| 6      | Organise at least one opportunity each year for the Executive Board to meet with the Presidents of each of the IFCC Regional Federations to identify opportunities for collaboration. |
| 7      | a) Improve communication with COLABIOCLI and with Members in Latin America.  
b) Support at least one major new project in the Region in 3 year term. |
| 8      | a) Improve communication with AFCB and with Members in Arab countries.  
b) Support at least one major new project in the Region in 3 year term. |
| 9      | a) Improve communication with AFCC and with Members in African countries.  
b) Support at least one major new project in the Region in 3 year term. |
| 10     | Devise and introduce a strategy to increase the attractiveness of IFCC to Corporate members |
| 11     | Devise and introduce a strategy to encourage participation of countries in the 2017 Council meeting |
| 12     | Increase the presence of IFCC Officers’ at meetings granted auspices / national congresses |
| 13     | Improve the visibility of IFCC in National Societies by encouraging them to include a short IFCC news section in their national newsletter or website |
| 14     | Produce and publish an e-booklet to encourage young scientists to undertake research |
| 15     | Consolidate the mentoring programme as a Special Project and promote its gradual expansion |

Area B: Broadening Our Horizons

<table>
<thead>
<tr>
<th>Number</th>
<th>Strategic Action</th>
</tr>
</thead>
</table>
| 16     | a) Further develop and promote “Shaping the Future of Laboratory Medicine”  
b) Agree and present a strategy to demonstrate the benefits of expanded IFCC Full Membership |
| 17     | Identify, resource, prepare and deliver one new project each year in areas of laboratory medicine other than clinical chemistry |
| 18     | a) Develop a plan to increase collaboration between IFCC and international clinical organisations  
b) Establish at least one new collaboration each year with an international clinical organisation |
| 19     | Invite organisations from outside laboratory medicine to contribute to IFCC meetings to promote better interaction with healthcare professionals. |
| 20     | Agree and deliver a new work programme in the area of promoting the clinical effectiveness of laboratory medicine. |
| 21     | Increase the number of young scientists participating in IFCC Committees and Working Groups. |
| 22     | Collaborate with CLMA to agree and promote a programme of leadership development training. |
| 23     | Conclude and sign an agreement with the North American Federation of Clinical Chemistry and Laboratory Medicine (NAFCC) |
Area C: Improving the Quality of Laboratory Medicine

<table>
<thead>
<tr>
<th>Number</th>
<th>Strategic Action</th>
</tr>
</thead>
</table>
| 24     | a) In conjunction with others, develop a route to laboratory accreditation for countries with limited resources - DQCML  
       | b) Apply the resource material at least once per year and evaluate its effectiveness |
| 25     | Establish new high level project with WASPaLM that aims to promote the quality of laboratory medicine through global harmonisation |
| 26     | Establish at least one new project with ILAC that aims to improve the application of quality management and laboratory accreditation |
| 27     | Strengthen the links and collaboration with the World Health Organization (WHO) |
| 28     | Establish a WG on the harmonisation of interpretive comments EQA and publish a report with recommendations. |

Area D: Improving the Effectiveness of IFCC

<table>
<thead>
<tr>
<th>Number</th>
<th>Strategic Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>Review IFCC finances and identify opportunities to improve financial performance. Identify opportunities for at least one new income stream</td>
</tr>
<tr>
<td>30</td>
<td>Launch and promote the Foundation for Emerging Nations as a new income stream for IFCC.</td>
</tr>
<tr>
<td>31</td>
<td>Devise and introduce a scheme to recognise the contribution of individuals who have given outstanding service to IFCC</td>
</tr>
<tr>
<td>32</td>
<td>Invite an external body to perform a wide-ranging SWOT analysis of IFCC, evaluate the findings and publish a report with recommendations.</td>
</tr>
<tr>
<td>33</td>
<td>Solicit nominations for, and conduct the election of the first President Elect</td>
</tr>
</tbody>
</table>
1.8. A BRIEF HISTORY OF THE IFCC

1.8.1. Introduction

In 1952, Professor E J King of the Royal Postgraduate Medical School in London suggested that the then emerging national societies of clinical chemistry should organise into an international body under the auspices of the International Union of Pure and Applied Chemistry (IUPAC). This was accomplished on July 24, 1952, at the Second International Congress of Biochemistry in Paris, by the formation of the International Association of Clinical Biochemists. A year later, in Stockholm, it was resolved to change the name to the International Federation of Clinical Chemistry, and this was formally adopted at the next meeting which took place in 1955 in Brussels. The initial objectives of the Federation were to “advance knowledge and promote the interests of biochemistry in its clinical (medical) aspects”. In the early years, IFCC was closely associated with the IUPAC Commission (later Section) of Clinical Chemistry, and initially, the Committee of IFCC comprised the members of the IUPAC Commission. It was recognised, however that the IFCC should become independent, but would retain its contacts with IUPAC through affiliation as an Associate Member. This was accomplished in 1967, when the two organisations were formally separated. With time, the organisational structure of IFCC developed so that its efforts in science, education, and publishing, as well as its financial affairs, and congress activities were dealt with by Divisions or Committees and, where appropriate, supported by other Committees and groups responsible for specific tasks. IFCC is now a Federation of 89 Full Member national societies of Clinical Chemistry and Laboratory Medicine and 9 Affiliate Members, representing about 45,000 individual clinical chemists, laboratory scientists, and laboratory physicians and 52 Corporate Members covering the major areas of clinical laboratory developments. In 2002 John Lines and Jacques Heeren published “IFCC Celebrating 50 Years”. This book is a more comprehensive history of the Federation and is available from the IFCC office.

1.8.2. IFCC Presidents

The history of IFCC must include reference to the eminent clinical chemists who have served as President and guided its development. Professor E J King conceived the idea of the Federation, brought it into being, and guided it through its early years to become the group to which all national societies of Clinical Chemistry could look for guidance. His untimely death created a vacuum which Professor Monroe Freeman ably filled for three years.

He was followed by Professor J E Courtois until 1967, during which time the statutes and bylaws, upon which the whole working of IFCC is based, were created. During the seven to eight years of the presidency of Professor Martin Rubin, IFCC became accepted as a major international organisation and was recognised as a non-governmental organisation in official relations with the World Health Organisation (WHO). It became a member of the Council of the International Organisations of Medical Sciences and established its own regular Newsletter, developed education programmes in South America; formed Expert Panels became authoritative groups in their own fields, and established constructive relationships with industry.

In 1976, Dr Jörg Frei was elected President after an eight year period as Secretary. Dr Rene Dybkaer followed him in 1979 after six years as Vice-President. During these years the collaboration with industry was formalised by creation of Corporate Membership, IFCC Archives were established, Congress Guidelines were formulated, an IFCC Travelling Lectureship implemented, a major educational programme
conducted in Thailand, and the IFCC Distinguished International Services Award established in addition to the earlier Distinguished Clinical Chemist Award. As a new concept, a General Conference of IFCC Officers, Divisions and Committees, together with Associate Members, was launched in Denmark in 1982. Finally, a Task Force prepared new Articles for the Federation which were approved by Council in 1984. Dr Donald Young became President in 1985, after a three year term as Vice-President. During his six years as President, Dr Young reorganised the committee structure of the IFCC. The previous Expert Panels were redefined as Committees and an integrated structure was formed to allow better communications and delegation of responsibility and activity. Dr Young initiated a further review and modification of the IFCC Statutes which was completed in 1993. During Dr Young’s tenure IFCC initiated the publication of its own journal - Journal of the International Federation of Clinical Chemistry. A broader interpretation of clinical chemistry to include other areas of laboratory medicine was developed. Formal associations were initiated with clinical chemistry organisations in Latin America and the Asian and Pacific region. Professor G. Siest, who was President from 1991 to 1996, worked with the Board and Members to develop a Strategic Plan which would guide the organisation into the 21st Century. This involved the identification of six key Strategic issues, relating to: Scientific Credibility, Linkage of Clinical Chemistry to Improved Patient Care, Communication, Promotion of IFCC Products and Services, People and Succession, and Finance. New agreements with the European region (FESCC) and the Latin American Region (COLABIOCLI) were signed. The strategic plan was endorsed by the IFCC Council in 1996. From 1997-99 the President was Professor Matthew McQueen who was previously a member of the Scientific Committee from 1982-87, Treasurer from 1989-90 and Vice President 1991-96. During his Term the Executive Board translated the Strategic Plan into specific actions. These included increasing scientific activity in the areas of standardisation and reference materials and improved scientific cooperation with other international laboratory professional organisations. The Education and Management Division expanded its role in the pre-analytical and post-analytical phases, while the Communication and Publications Division restructured to meet the challenges of electronic publication. One highlight was the very important name change to the International Federation of Clinical Chemistry and Laboratory Medicine, highlighting the clinical relevance and importance of our profession. The Statutes of the Federation were modified to implement “term limits” for members of the Executive Board. Representatives from the Corporate members were formally included in the structure of each Division. This Executive Board successfully concluded discussions with the World Association of Societies of Pathology and Laboratory Medicine producing a joint policy statement on “Principles of Clinical Laboratory Accreditation”. This clearly stated that the Laboratory could be directed by Scientists or Physicians, with the appropriate initial qualifications and specialised post-graduate professional education and training in clinical laboratory work. Prof. Mathias M. Müller served as President for the period 2000 - 2005, having previously served the Federation as Secretary, Vice-President, and Vice-Chair and Chair of the Scientific Division. Under his guidance the Federation continued to stress high quality scientific endeavour as the backbone of the Federation. Since 2000, the Executive Board emphasised the interdisciplinary character of our discipline and has focused on clinically relevant topics. In this context, the establishment of reference systems for glycated haemoglobin and enzyme activity measurements as well as a global campaign for monitoring diabetes mellitus were initiated. With the growing complexity of IFCC projects, the requirement for an intellectual property policy became evident. This has been developed. A working relationship with the National Committee for Clinical Laboratory Standards/NCCLS (now known as the Clinical and Laboratory Standards Institute/CLSI) was formalised.
and joint NCCLS IFCC projects started. Standardisation on high metrological levels has always been a major undertaking and has contributed to the credibility of IFCC. As a consequence of this policy, collaboration with the Bureau International des Poids et Mesures (BIPM), the National Institute of Standards and Technology (NIST), the Institute of Reference Materials and Measurements (IRMM), European, American and Japanese IVD Associations, and the International Laboratory Accreditation Cooperation (ILAC) is being established for the implementation of traceability in Laboratory Medicine. New awards for significant contributions in molecular diagnostics, in education and in patient care were created. With the opening of the IFCC Office in Milan the IFCC Web site was restructured becoming the main communication vehicle between the Federation and the membership.

Professor Jocelyn Hicks served as President from 2005 to 2008. She also served the Federation as Chair of the Publications Division and as Treasurer. She continued to encourage the scientific excellence for which IFCC is justifiably proud. She assembled a group of clinicians from the key diabetes bodies to develop a consensus statement regarding the use of the new standard for glycated haemoglobin. As President she worked to enhance the quality of laboratory testing worldwide with the able assistance of the Education and Management Division. Under her direction the Communications and Publications Division took public relations and communications to a new level. They, for example, published a PR brochure in many languages. She considered assistance to the lesser developed country Members to be paramount, as it is the patient who benefits. Under her leadership the Visiting Lecturer Programme was greatly expanded with the substantial grant from Abbott Laboratories. Travel scholarships to attend major IFCC Congresses were introduced with a generous grant from Roche Diagnostics GmbH. These were awarded on a competitive basis to young scientists from developing countries. Siemens Healthcare Solutions assisted us greatly with starting a distance e-learning programme for all members, but with emphasis on topics to assist those in developing countries. A new conference that links the clinician with the clinical laboratory was started with the substantial grant from Ortho Clinical Diagnostics. The first of these was held in Birmingham in the UK in 2008. The topic was on Cardiac Biomarkers. Two new awards were introduced, one in Laboratory Medicine and Patient Care sponsored by Ortho Clinical Diagnostics and one on outstanding contributions to Standardization sponsored by The National Institute on Standards and Technology and the Clinical Laboratory Standards Institute.

Professor Hicks developed a new programme for National and Corporate Representatives to be involved actively in the General Conference in 2008. This Conference was organised with the assistance of The Congress and Conference Committee, the Turkish Association and the IFCC Office. A successful International Congress of Clinical Chemistry and Laboratory Medicine was held in Brazil in 2008 with the able assistance of the Brazilian Association. The number of full Members grew from 72 to 83 during this period. Professor Hicks visited many of our Member countries. The number of Corporate Members also increased despite many mergers. All of these activities were made possible with the assistance of the Executive Board, the Divisions, the Committees, working Groups and the IFCC office.

Dr Graham Beastall from the UK served as President from 2009-2014, during which time the number of Full Members grew to 89 and the number of Corporate Members grew to 52. Dr Beastall increased transparency and accountability of the Executive Board to the Members. He oversaw changes to the composition of the Executive Board; the introduction of electronic voting; and the introduction of differential membership fees. Devolution of responsibility to the Regional Federations was a key programme, which greatly increased the number of individuals who are actively involved in the ‘family of IFCC’. The IFCC WorldLab congresses in Berlin (2011) and Istanbul (2014)
were hugely successful and the General Conferences held in Corfu (2009) and Kuala Lumpur (2012) played an important role in IFCC understanding the needs and priorities of its Members.

IFCC communications and publications improved significantly during this period. A much improved website was introduced and the quality of IFCC News and the electronic journal of IFCC both advanced. Distance learning programmes were developed and an e-Academy was conceived and developed. The Scientific Division enhanced its international reputation, especially in the area of method standardisation. The Education and Management Division increased its educational support to developing countries through a range of programmes, including the Visiting Lecturer Programme, educational scholarships and a new mentorship scheme. Dr Beastall encouraged greater focus on the clinical importance and clinical effectiveness of laboratory medicine. New cross-Divisional Task Forces were created to collaborate with international clinical organisations. Adding value to high quality laboratory medicine services through the application of ‘SCIENCE’ was Dr Beastall’s flagship programme.

1.8.3. IFCC Office

As the scope of the Federation’s activities has expanded, so has the requirement for the exchange of information and the documentation of the various activities which were taking place. As with most other professional groups, the initial secretarial functions were provided by the individual officers and scientists within the Federation. A considerable debt is owed to these individuals and their employing organisations. However, it was obvious to the Executive Board that for the Federation to continue its development, a Secretariat was required. The Federation was fortunate originally to be supported by Radiometer A/S of Copenhagen, which agreed to provide office space and secretarial support. This facility was generously placed at the disposal of the Executive Board and became known in 1983 as the IFCC Technical Secretariat. During this period, the Federation was fortunate in obtaining the services of Mrs Maj-Britt Petersen, who provided invaluable support, in particular for the Scientific Division. In order to facilitate the appropriate distribution of documents, the Technical Secretariat also kept a master file of names and addresses of all those who play a part in the Federation’s affairs. During 1988-1990 the Executive Board devoted considerable effort to determining the role and structure of a central office. In 1990 a new Technical Secretariat was established in Nancy, France with the assistance of Prof Gerard Siest. The opening of this office was a major event for the IFCC as for the first time the IFCC employed its own staff. The Technical Secretariat was transferred into the hands of Mrs Chantal Thirion and remained in Nancy until 2001. In 2001 when additional professional administrative services were needed, the Office was transferred to Milan, Italy where it shares resources with a major Professional Conference Organiser. The IFCC Office currently employs three members of staff, Mrs Paola Bramati, Mrs Silvia Cardinale and Mrs Silvia Colli Lanzi.

1.8.4. External Links

The IFCC has maintained its relations with WHO and transferred its International Medical Laboratory Information System to WHO. In addition, it has expanded its support of regional organisations and regular regional congresses that are held in Europe, in the Arab Region, in the Asian and Pacific Region, in the Latin American Region and in Africa. IFCC has signed Memoranda of Understanding with its Regional Federations.

The IFCC has accepted the ICSU Principles of free circulation of scientists and has
assured the attendance of visiting scientist at all meetings. The interests of IFCC continue to expand. It has addressed the policy of patenting key products for analytical methods, and continues to work collaboratively with many international organisations to sponsor major educational programmes. The IFCC is also working with a number of other International Organisations such as IRMM, NIST, CLSI and BIPM in developing new standards and in the area of standardisation of methods. The IFCC continues to be very influential in defining and reviewing appropriate terminology in Laboratory Medicine and other fields of chemistry. In addition, the management structure of the Federation has been reorganised continuously to enable it to respond effectively to contemporary issues.

IFCC has signed Memoranda of Understanding agreements with ILAC and WASPaLM to formalise and improve collaboration.

1.8.5. Membership of IFCC Executive Boards

President

<table>
<thead>
<tr>
<th>Name</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>EJ. King (UK)</td>
<td>1952 - 1960</td>
</tr>
<tr>
<td>ME. Freeman (US)</td>
<td>1960 - 1963</td>
</tr>
<tr>
<td>JE. Courtois (FR)</td>
<td>1963 - 1967</td>
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<td>M. Rubin (US)</td>
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<tr>
<td>J. Frei (CH)</td>
<td>1976 - 1978</td>
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<tr>
<td>R. Dybkaer (DK)</td>
<td>1979 - 1984</td>
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<tr>
<td>DS. Young (US)</td>
<td>1985 - 1990</td>
</tr>
<tr>
<td>G. Siest (FR)</td>
<td>1991 - 1996</td>
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Vice President

<table>
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<tr>
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<tbody>
<tr>
<td>E. Werle (DE)</td>
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<td>V. Palicka (CZ)</td>
<td>2006 - 2008</td>
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<td>2009 - 2011</td>
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<td>1985 - 1990</td>
</tr>
<tr>
<td>H. Morris (AU)</td>
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Secretary

<table>
<thead>
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<tbody>
<tr>
<td>IDP. Wootton (UK)</td>
<td>1952 - 1958</td>
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<td>ME. Freeman (US)</td>
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<td>O. Zinder (IL)</td>
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<td>J. Whitfield (AU)</td>
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<tr>
<td>R. Bais (AU)</td>
<td>2000 - 2005</td>
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<tr>
<td>PH. Laitinen (FI)</td>
<td>2006 - 2011</td>
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<td>S. Bernardini (IT)</td>
<td>2012 - 2017</td>
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Assistant Secretary

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>G. Siest (FR)</td>
<td>1972 - 1975</td>
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<tr>
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<td>1976 - 1978</td>
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</tbody>
</table>
Chapter 1: Organisation, Structure and Function of IFCC

Treasurer

PMG. Broughton (UK)  1972 - 1975  P. Mocarelli (IT)  1997 - 2002
RG. Edwards (AU)  1976 - 1978  JMB. Hicks (US)  2003 - 2005
JG. Hill (CA)  1979 - 1981  G. Shannan (SY)  2006 - 2011
ML. Castillo de Sanchez (MX) 1985 - 1987  T. Ozben (TR)  2015 - 2017
MJ. Mc Queen (CA)  1988 - 1990

Members of Executive Board

NF. Maclagan (UK)  1960 - 1967  RI. Sierra Amor (MX)  1997 - 2002
SH. Jackson (CA)  1960 - 1967  CWK. Lam (HK)  2000 - 2005
SS. Brown (UK)  1985 - 1990  T. Brinkmann (DE)  2009 - 2014
J. Jaervisalo (FI)  1985 - 1990  U. Tuma (BR)  2009 - 2014
D. Scheuch (DE)  1985 - 1990  L. Kricka (US)  2012 - 2014
HP. Lehmann (US)  1990 - 1994  RI. Sierra-Amor (MX)  2015 - 2017

Until 1967 the Titular Members of the Commission on Clinical Chemistry of IUPAC also functioned as the Executive Board of IFCC.