



IFCC WORLDLAB 2024 MAY 26-30

In cooperation with



26th International Congress of
Clinical Chemistry and Laboratory Medicine

17th Congress of Arab Federation of Clinical Biology

10th Saudi Society for Clinical
Chemistry Annual Meeting

8th UAEGDA International Genetic
Disorders Conference

Dubai World Trade Centre (DWTC)
DUBAI - UAE



LIST OF
CONTENTS

Congress President Message	1
Congress Co-Chairs Messages	2
President Arab Federation of clinical biology message	4
Founder and Chairperson of UAE Genetic Disease Association Message	5
Scientific Program Committee Co-Chairs Message	6
Committees & Executive Boards	7
Week Agenda	10
Scientific Program	12
Abstract	42
Congress Venue	44
General Information	45
Registration Fees	46

DATES TO
FOCUS ON

March 15th, 2024

Deadline for reduced registration fees

Congress President
Message

It gives me an immense pleasure and a great honour to invite you to attend the 26th International Congress of Clinical Chemistry and Laboratory Medicine (ICCCLM) - IFCC WorldLab Congress which will be organized jointly with the 17th Congress of the Arab Federation of Clinical Biology (AFCB); 10th Annual Meeting of the Saudi Society for Clinical Chemistry (SSCC) and 8th International and UAE Genetic Disorders Conference in partnership with MZ Events to be held in Dubai World Trade Centre (WTC) in May 26-30, 2024. 3rd IFCC FORUM for Young Scientists is also planned to be held before the congress. The IFCC WorldLab will deliver a world-wide forum for the free and open exchange of information on the science and technology of clinical chemistry and laboratory medicine in the academic, clinical, and industrial settings; will enable an international forum for clinical laboratory scientists and physicians to interact with their peers; and will provide a forum to promote human health.

The Scientific Program Committee will put together a fantastic multidisciplinary program covering a broad range of important themes such as fundamental concepts, advanced diagnostics and techniques used in laboratory medicine. The program will feature plenary lectures, symposiums on cutting-edge topics, oral presentations, posters and high-level educational workshops. Distinguished international speakers and key opinion leaders will deliver presentations in health care, on recent diagnostic technologies, scientific advances, and challenges. The program will be designed to be interactive allowing sufficient time for discussions giving opportunity to the participants to learn, to understand, to contribute. and question the direction of Laboratory Medicine worldwide.

In Vitro Diagnostic (IVD) Sector will organize a great exhibition providing the attendees a great opportunity to explore the recent novel technological advances and practical solutions fitting to the needs of clinical laboratories. The IVD Sector will support the Congress organizing also high-level Educational Workshops on important topics with eminent speakers presenting the latest scientific advances in all disciplines pertinent to laboratory medicine. I look forward to meeting all the IFCC members worldwide from six IFCC Regional Federations who will participate in this exciting IFCC WorldLab Congress to be held in the Region of the Arab Federation of Clinical Biology. I am confident that you will find your time rewarding and worthwhile enjoying inspirational scientific program, all presentations, discussions, exhibition, networking, and social activities.

Professor Tomris Ozben



Prof. Tomris Ozben
Congress President



Congress Organizing Committee Co-chair Message

It is my great pleasure to welcome all attendees of the XXVI IFCC WorldLab Congress, jointly hosted by the IFCC, Arab Federation of Clinical Biochemistry, Saudi Society of Clinical Chemistry, and the UAE Genetics Association. This is the first time the WorldLab is being held in the Middle East, bringing experts from around the world together in the opulent city of Dubai, now one of the most vibrant and technologically advanced cities in the world. The 2024 WorldLab Congress will bring together laboratory professionals and scientists from the UAE and countries across the Arab Federation, as well as all other regional federations within IFCC including Africa, Europe, North America, Central/South America, and Asia-Pacific. It promises to be the most successful IFCC WorldLab ever held outside Europe.

This is a fast-evolving time for the field of clinical chemistry and laboratory medicine, as we face many scientific and technological advancements that allow for a much greater role for our professionals as partners at the centre of healthcare. This timely congress is an excellent opportunity to gather in an international forum to discuss these advancements and foster collaboration with other colleagues. Without a doubt, the biannual WorldLab congress has proven to be one of the leading forums to bring together scientists, laboratory specialists, clinicians, and industry colleagues in the field of clinical chemistry and laboratory medicine. Bringing all of us together in forums like this enables scientific exchange and ensures that our organization and the field of clinical chemistry and laboratory medicine remain at the cutting edge.

During the congress, attendees will experience an outstanding scientific program, featuring innovative and diverse educational opportunities that incorporate the best of clinical laboratory medicine and in vitro diagnostics, including lectures, symposia, recent advancements in clinical practice and science, poster presentations, and much more. Special emphasis will be placed on technological advancements, as this meeting aims to connect the latest technological breakthroughs in diagnostic laboratory technology with the best minds in laboratory medicine to help attendees learn and implement the latest and greatest in clinical laboratory science, technology, and medicine. In addition to the scientific program, the cosmopolitan metropolis of Dubai has something to offer for every visitor, and excellent social opportunities have been organized for attendees to enjoy its many attractions.

I hope you all enjoy the excellent scientific and social programs curated by the congress organizing and scientific committees, and I wish you all a productive conference and a pleasant stay in Dubai.

Prof Khosrow Adeli

*Prof. Khosrow Adeli
Co-Chair
Congress Organizing
Committee*

Congress Organizing Committee Co-chair Message

Dear Colleagues and Friends,

On behalf of the Saudi Society for Clinical Chemistry (SSCC) it is our great pleasure to invite you to the IFCC WorldLab in Dubai from May 26th to 30th, 2024.

The 26th International Congress of Clinical Chemistry and Laboratory Medicine will be an extraordinary as it will be in the Arab world for the first time since the IFCC congress started in 1954 and jointly hosted with the 17th Arab Federation for Biological Sciences (AFBC), the 10th Annual meeting for the SSCC, and the 8th UAE Genetic Disorders Conference.

Worldlab conference organizing committee together with the scientific committee are keen to develop an exciting scientific program and to cover the most relevant aspects in clinical laboratory, medicine, and patient care. For this purpose, local and international key leaders in clinical laboratory were selected to shape a scientific program covering current & future changes in clinical laboratory science, new emerging lab technologies, updated diagnostic strategies, discussing regional health problems, recent quality applications and digitalization of clinical laboratories. The congress will provide you a chance to make remarkable changes, update your scientific skills by our outstanding experts and to develop new personal relationships within the region and other parts of the world with the advantage of exchange in experience, knowledge, and skills. Dubai is a fascinating peaceful city and geographically easily accessible from all over the world. We are confident about our attendees' comfort with Dubai cultural diversity, breathtaking architecture, safety, amazing shopping experience, hospitality, and other top tourists' attractions.

Hosting the 26th IFCC Worldlab Meeting is in line with the Saudi Vision 2030 that aims to achieve a world-class healthcare system and establish the Kingdom as a pioneering healthcare destination in the region, and the world.

SSCC is dedicated to making Worldlab 2024 an unforgettable meeting for all attendees and truly we hope to see you in Dubai next year.

Dr Anwar Borai



*Dr Anwar Borai
Co-Chair
Congress Organizing
Committee*



President Arab Federation of Clinical Biology Message

Dear Colleagues and Friends,

On behalf of the Arab Federation of Clinical Biology (AFCB), it gives me a great honor to invite you to attend the 26th International Congress of Clinical Chemistry and Laboratory Medicine (WorldLab) in Dubai, the sun-soaked metropolis like no other and one of the most popular destinations worldwide these last years.

The scientific committee will spare no effort to provide you with a top-level program that meets your expectations in terms of innovation and quality. Not only will you have the opportunity to meet key opinion leaders and listen to international speakers, but you will also discover the world of medical research in the Arab countries, and have the chance to forge new collaborative networks in a context that is surprisingly rich in scientific opportunities, and is as diverse as the twenty-two countries it covers with their half a billion citizens.

Submerged hotel, world's tallest tower, artificial peninsulas, largest fountain, ski resort, wonderful museums... Truly, nothing is too crazy for this effervescent futuristic city of Dubai born out of the desert a few decades ago and whose expansion seems to have no limits. So from the various symposia and satellite events, to the young scientists' forum, everything in the scientific program had to be focused on the future as well. The laboratory medicine had to adopt a flawless modernity in this context of constantly evolving city of skyscrapers and challenges.

We hope the 2024 WorldLab Conference will provide us not only a chance to discover new horizons, learn top-of-the art skills from experts but also discuss latest developments in all areas of laboratory medicine and broaden our knowledge by sharing what the years of experience have taught each of us.

Dubai and its IFCC Worldlab is the place to be in 2024, I wish you will all enjoy the outstanding scientific conference program, experience the amazing pride to belong to the IFCC in this really amazing city!

Christian Haddad, MD, MHS

*Dr. Christian Haddad
President Arab
Federation of Clinical
Biology*

Chairperson UAE Genetic Diseases Association Message

Dear attendees, colleagues, and friends,

On behalf of all the people in the United Arab Emirates, it is with great pleasure and anticipation that we extend our warmest welcome to the World lab International Federation of Clinical Chemistry (IFCC) conference for the first time over the past 70 years scheduled to be held in our vibrant city of Dubai in 2024! Dubai, known for its awe-inspiring architecture, rich cultural heritage, and remarkable hospitality, will set the stage for this prestigious gathering of esteemed professionals, researchers, and experts from around the globe. As one of the leading international conferences in the field, we are thrilled to have you join us for this enriching and innovative event being held in the Middle East for the first time. The IFCC, the Arab Federation of Clinical Biochemistry, the Saudi Society of Clinical Chemistry, and the UAE Genetic Disease Association have prepared an exceptional conference program filled with insightful presentations, cutting-edge research, and engaging discussions that will shape the future of clinical chemistry, clinical molecular biology, and laboratory medicine. Renowned speakers from a wide variety of disciplines will share their expertise, providing invaluable access to the latest advancements, breakthrough technologies, and best practices in our ever-evolving field. In this fast-paced world, it has never been more important to come together and share our collective library of knowledge - to push at the boundaries of our understanding and drive our ambitions for the future. In addition to the exciting scientific program, the conference will offer ample networking opportunities for you to meet like-minded professionals, exchange ideas, and forge new collaborations. The event will be held at a world-class venue, providing a conducive environment for learning, sharing, and fostering meaningful connections.

Dubai itself presents a unique blend of old-world charm and modern innovation. It is an inspiring city, where ideas are welcomed and made into reality. From the iconic Burj Khalifa to the awe-inspiring Palm Jumeirah, you will have the chance to explore the city's stunning landmarks and experience its vivid culture. Indulge in delectable cuisine, enjoy luxury shopping or embark on a desert safari for a taste of true adventure - Dubai has something for everyone.

We sincerely hope that you will be able to join us at the 26 International Congress of Clinical Chemistry and Laboratory Medicine Conference in Dubai, UAE. Your presence will undoubtedly contribute to the success of this event, and we look forward to sharing an unforgettable experience together.

Thank you for your commitment to advancing the fields of clinical chemistry, clinical molecular biology, and laboratory medicine. We eagerly await your arrival in 2024.

Dr. Maryam bin Matar



*Dr. Maryam bin Matar,
M.D, PhD,
Founder and Chairperson
of UAE Genetic Diseases
Association.*



*Professor Christa
Cobbaert
Co-Chairs Scientific
Program Committee*



*Dr Samia Sobki
Co-Chairs Scientific
Program Committee*

Invitation Scientific Program Committee co-Chairs Message

We are delighted to extend this invitation to join us at the IFCC WorldLab in Dubai from May 26 through May 30, 2024. Along with the organizing committee, the scientific program committee for the Dubai conference is eager to create a stimulating scientific agenda that covers the most important trends and innovations in clinical laboratory medicine and patient care. The fundamental goal of the conference has been to globalize medical knowledge in Clinical Chemistry and Laboratory Medicine through a carefully structured system of ongoing scientific education. The Scientific Committee will work hard to create an amazing, challenging, and inspiring program. A scientific program addressing the present and future developments in clinical laboratory science, novel emerging lab technologies, updated diagnostic methodologies, discussion of global health issues, contemporary quality applications, and digitalization of clinical laboratories. The congress will provide lots of educational opportunities as renowned international speakers, inventors and innovators will update you on the state-of-science in laboratory medicine. Attendees will enjoy an amazing scientific program as presented in the infographic. The titles and speakers of the plenaries are displayed; the symposia are balanced and will specifically cover the themes of Emerging Technologies & Biomarkers, Data Science and Medical Leadership, among others. These educational opportunities will combine the best of clinical laboratory medicine and in vitro diagnostics. The congress will provide the attendees opportunity to make significant improvements, refresh their scientific knowledge with our excellent specialists, and build new personal ties within the area and throughout the world via the sharing of experience, information, and skills. As well, the congress will promote the development of Clinical Chemistry and Laboratory Medicine. We sincerely hope you will join us to exchange experiences, to network, and to participate in the most cutting-edge research in laboratory medicine.

All of our international and national participants attending IFCC WorldLab will undoubtedly have a rewarding and memorable experience. We are eager to meet you at the IFCC WorldLab in Dubai.

*Professor Christa Cobbaert
Dr Samia Sobki*



COMMITTEES

Conference Organizing Committee (COC)

Tomris Ozben, Congress President
Khosrow Adeli, Co-Chair
Anwar Borai, Co-Chair
Paivi Laitinen
Alexandre Haliassos
Samia Sobki
Christian Haddad
Osama Najjar
Maryam Matar
Angel De La Fuente
Vincent Chen
Stefano Montalbetti

United Arab Emirates (UAE) Advisory Group to COC & SPC

Hady Elkhodary
Aaron Han
Rita Tanios
Laila Abdel Wareth
Fayha Salah Ahmed
Rana Nabulsi
Jyoti Shetye
Mahammad Althahyabat

Scientific Program Committee (SPC)

Samia Sobki, Co-Chair
Christa Cobbaert, Co-Chair
Salam Saadaddin
Nader Rifai
Mario Plebani
Abderrazek Hedhili
Myrna Germanos Haddad
Santiago Fares Taie
Shaikha Almazrouei

International Scientific Advisory Board (ISAB)

Anna Carobene (EFLM)
Snezana Jovicic (EFLM)
Michel Langlois (EFLM)
Abdurrahman Coskun (EFLM)
Timo Kouri (EFLM)
Tze-Ping Loh (APFCB)
Endang Hoyaranda (APFCB)
Tony Badrick (APFCB)
Bolonghoge Dayanath (APFCB)
Leslie Lai (APFCB)
José Francisco Muñoz-Valle (COLABIOCLI)
Marlene Vélez de la Vega (COLABIOCLI)
Cecilia Tapia Paredes (COLABIOCLI)
Cristina Servetto (COLABIOCLI)
Alvaro Justiniano Grosz (COLABIOCLI)
Rajiv Erasmus (AFCC)
Adekunle Okesina (AFCC)
Tahir Pillay (AFCC)
Vanessa Steenkamp (AFCC)
Mari DeMarco (NAFCC)
Stacy E. Melanson (NAFCC)
Qing Meng (NAFCC)
AbdulRazaq A. H. Sokoro (NAFCC)
Alison Woodworth (NAFCC)



IFCC Executive Board

Tomris Ozben, President
Khosrow Adeli, Past President
Sergio Bernardini, Secretary
Alexander Haliassos, Treasurer
Tricia Ravalico, Corporate Representative
Rajiv Erasmus, African Federation of Clinical Chemistry (AFCC)
Osama Najjar, Arab Federation of Clinical Biology (AFCB)
Tony Badrick, Asia-Pacific Federation for Clinical Biochemistry and Laboratory Medicine (APFCB)
Mario Plebani, European Federation of Clinical Chemistry and Laboratory Medicine (EFLM)
Eduardo Freggiaro, Latin-American Confederation of Clinical Biochemistry (COLABIOCLI)
David Grenache, North American Federation of Clinical Chemistry and Laboratory Medicine (NAFCC)

AFCB Board

Christian Haddad, President
Imad Itani, Honorary President
Abderrazek Hedhili, Vice- President
Osama Najjar, Past-President
Touimi Benjelloun, General Secretary
Akil Zoghaib, Treasurer
Imad Fadl-Elmula, Scientific Committee President
Youssef Bilto, Member
Abdelhalim Chachou, Member
Aayad Abbud, Member
Adnan Al-Khatib, Member
Samia Sobki, Member

SSCC Board

Samia Hasan Sobki, President
Ali Fahad Alothaim, Vice President
Nawaf Dakhelallah Alotaibi, Treasurer
Zuhair Ahmed Awan, Secretary of the Board
Salam Mohammed Saaddeen, Member Board
Waleed Saleh Alomaim, Member Board
Ali Mohammed Alshangity, Member Board
Khalid Khalaf Alharbi, Member Board
Malak AtaallahAlmashali, Member Board



Abstract Evaluation Committee

Adekunle Bashiru Okesina	M. Azzam Kayasseh
Abderrazek Hedhili	Manal Al Kindi
Abdurrahman Coskun	Marco Cantù
Ana Lena	Mario Plebani
Ana Ninic	Matteo Vidali
Andrea Mosca	Michel Langlois
Angela Fung	Mohamedi Begum Rafiq Ahmed
Antonio Fortunato	Mohammed Qutub
Ashlin Rampul	Myrna Germanos
Ayman W. El-Hattab	Nader Rifai
Benjamin Jung	Nafila Bazdawi Al Riyami
Bremadesam Raman Lakshmi	Nicasio Mancini
Christa M. Cobbaert	Paola Pezzati
David Vauzour	Patrick Bossuyt
Davide Giavarina	Pavai Sthaneswar
Endang Hoyaranda	Pieter Vermeersch
Enza Pavanello	Renee Ruhaak
Ettore Capoluongo	Rifat Hamoudi
Evelyne Bischof	Riikka Kurkijärvi
Fahad Al Zadjali	Rivak Punchoo
Fatima Jamali	Ronda Greaves
Ferruccio Ceriotti	Sander de Bruyne
Florent van Stapel	Shereen Hassan Atef
Giuseppe Banfi	Snezana Jovicic
Greg Ward	Solveig Linko
Hanan Jambi	Subashini C. Thambiah
Ian Young	Tahir Pillay
Iva Perovic Blagojevic	Thomas Streichert
Janne Cadamuro	Timo Kouri
John Anetor	Tina Lockwood
Jorge Hernández-Bello	Tommaso Fasano
Joris Delanghe	Tommaso Trenti
Jun Guan Tan	Tony Badrick
Kari Pulkki	Udara Senarathne
Laila Osama AbdelWareth	
Laura Sciacovelli	
Leslie Lam	
Li Jieli	
Lotta Joutsu-Korhonen	

Vanessa Steenkamp
Vera Lukić
Wafaa Ayesha
Waleed Tamimi
Xavier Bossuyt
Yahya Kiwan



Congress Secretariat

MZ Events s.r.l.
Via C. Farini 81 - 20159 Milano (Italy)
Phone: +39 02 66802323
E-mail: info@dubai2024.org

For information on any specific topic,
please refer to the following e-mails:
General information: info@dubai2024.org
Abstracts & Posters (info only): posters@dubai2024.org
Companies: companies@dubai2024.org
Registrations: registrations@dubai2024.org
Hotel reservation: ostoyanova@kenes.com Attn: Olina Stoyanova

SUNDAY 26 MAY 2024

17.00	ROOM E
20.00	Opening Ceremony Welcome Cocktail

MONDAY 27 MAY 2024

	ROOM E	ROOM A	ROOM C	ROOM D	ROOM B	ROOM G	ROOM F
9.00 11.00	IFCC SYM 1	SYM 1	SYM 2	AFCB SYM 1	WASPaLM	EFLM SYM	Genetic Association
11.00	Break						
11.30 12.30	PL 1						
12.30 13.00	Poster Session Lunch						
13.00 14.00		Lunch Workshop 1	Lunch Workshop 2	Lunch Workshop 3	Lunch Workshop 4		
14.30 15.30	IFCC SYM 2	EDUW 1	EDUW 2	EDUW 3	EDUW 4	SYM 3	Genetic Association
16.00 17.00		EDUW 5	EDUW 6	EDUW 7	EDUW 8		

EXHIBITION HALL 10.00 - 17.30 Exhibition open

TUESDAY 28 MAY 2024

	ROOM E	ROOM A	ROOM C	ROOM D	ROOM B	ROOM G	ROOM F
9.00 11.00	IFCC SYM 3	SYM 4	SSCC SYM 1	SYM 5	UAE 1	APFCB SYM	Genetic Association
11.00	Break						
11.30 12.30	PL 2						
12.30 13.00	Poster Session Lunch						
13.00 14.00		Lunch Workshop 5	Lunch Workshop 6	Lunch Workshop 7	Lunch Workshop 8		
14.30 15.30	IFCC SYM 4	EDUW 9	EDUW 10	EDUW 11	EDUW 12	SYM6	Genetic Association
16.00 17.00		EDUW 13	EDUW 14	EDUW 15	EDUW 16		

EXHIBITION HALL 10.00 - 17.30 Exhibition open

WEDNESDAY 29 MAY 2024

	ROOM E	ROOM A	ROOM C	ROOM D	ROOM B	ROOM G	ROOM F
9.00 11.00	IFCC SYM 5	SYM 7	SYM 8	AFCB SYM 2	SYM 9	COLABIOCLI SYM	Genetic Association
11.00	Break						
11.30 12.30	PL 3						
12.30 13.00	Poster Session Lunch						
13.00 14.00		Lunch Workshop 9	Lunch Workshop 10	Lunch Workshop 11	Lunch Workshop 12		
14.30 15.30	AFCC SYM	EDUW 17	EDUW 18	EDUW 19	SYM 10	NAFCC SYM	Genetic Association
16.00 17.00		EDUW 20	EDUW 21	EDUW 22			

EXHIBITION HALL 10.00 - 17.30 Exhibition open

THURSDAY 30 MAY 2024

	ROOM E	ROOM A	ROOM C	ROOM D	ROOM B	ROOM G	ROOM F
9.00 11.00	SYM 11	SYM 12	SSCC SYM 2	SYM 13	SYM 14	UAE 2	Genetic Association
11.00	Break						
11.30 12.30	PL 4						
12.30 13.00	Closing Ceremony						



SUNDAY 26 MAY 2024

Opening Ceremony

17:00-19:00 Welcome addresses
Awards Ceremony

Opening Lecture

Pushing forward the frontier of cfDNA diagnostics

Dennis Lo (Hong Kong, China)



Professor Dennis Lo is the
Li Ka Shing Professor of Medicine of
The Chinese University of Hong Kong (CUHK).

His research interests focus on the biology and diagnostic applications of cell-free nucleic acids in plasma. In particular, he discovered the presence of cell-free fetal DNA in maternal plasma in 1997 and has since then been pioneering non-invasive prenatal diagnosis using this technology. This technology has been adopted globally and has created a paradigm in prenatal medicine. He has also made many innovations using circulating nucleic acids for cancer detection, including the screening of early stage nasopharyngeal cancer.

In recognition of his research, Professor Lo has been elected as Fellow of the Royal Society, Foreign Associate of the US National Academy of Sciences, Fellow of The World Academy of Sciences (TWAS) and Founding Member of the Academy of Sciences of Hong Kong. Professor Lo has won numerous awards, including the 2014 King Faisal International Prize in Medicine, the 2016 Future Science Prize in Life Science, the 2019 Fudan-Zhongzhi Science Award, the 2021 Breakthrough Prize in Life Sciences, the 2021 Royal Medal, the 2021 ESHG Mendel Award, the 2022 ISPD Pioneer Award and the 2022 Lasker-DeBakey Clinical Medical Research Award.

SCIENTIFIC PROGRAM

MONDAY 27 MAY 2024

IFCC SYMPOSIUM 1



09:00-11:00 PRESENT AND FUTURE OF CHRONIC KIDNEY DISEASE AND ACUTE KIDNEY INJURY DETECTION

Chair: Joe M. El-Khoury (USA)

Updates on new eGFR equations and acute kidney injury definitions
Joe M. El-Khoury (USA)
 An update on albuminuria as a chronic kidney disease marker
Joris Delanghe (Belgium)
 Everything is acute until it becomes chronic – biomarkers of kidney injury
Rajeevan Selvaratnam (Canada)
 Using machine learning methods and leveraging electronic health records for acute kidney injury detection and management
Lama Ghazi (UK)

SYMPOSIUM 1

09:00-11:00 THE PROMISE OF - OMICS BIOMARKERS

Chairs: Hans Jacobs (the Netherlands), Sergio Bernardini (Italy)

Glycomics and glycoproteomics: a new biomarker domain debuts in translational research
Manfred Wuhrer (the Netherlands)
 Dynamic monitoring of myeloma minimal residual disease with targeted mass spectrometry
Hans Jacobs (the Netherlands)
 Integration of artificial intelligence and plasma steroidomics with Laboratory Information Management Systems: application to primary aldosteronism
Graeme Eisenhofer (Germany)
 Two oral communications from abstracts

SYMPOSIUM 2

09:00-11:00 APTAMERS BASED DIAGNOSTIC FOR BIOMEDICAL APPLICATIONS

Chair: Mohammed Zourob (Saudi Arabia)

Development of diagnostics for SARS-CoV-2 with high-affinity DNA aptamers
Yingfu Li (Canada)
 Continuous, real-time drug measurements in situ in the living body
Kevin Plaxco (USA)
 Development of rapid and low-cost aptameric biosensors for biomedical applications
Mohammed Zourob (Saudi Arabia)
 Two oral communications from abstracts

AFCB SYMPOSIUM 1



09:00-11:00 METABOLIC DISEASES IN ARABIC COUNTRIES

Chair: Myrna Germanos (Lebanon)

Rare genetic diseases in the MENA region
Andre Megarbane (Lebanon)
 Inborn errors of immunity in highly consanguineous populations: from diagnosis to intervention
Mohamed Ridha Barbouche (Bahrain)
 Epidemiology of the lysosomal storage disorders (LSDs) IN NORTH Africa
Layachi Chabraoui (Morocco)
 Overweight and Obesity: the Weight of Genes
Mohamed Makrelouf (Algeria)

WASPaLM SESSION



09:00-11:00 THE ROLE OF CLINICAL LABORATORY IN THE DEVELOPMENT OF NEW DRUGS
Chair: Roberto Verna (Italy)

The Laboratory in Clinical Research
Roberto Verna (Italy)
The Role of Microbiota in Human Health
Luigina Romani (Italy)
Cultures in Space: Production of New Molecules with Possible Pharmacological Action,
Mariano Bizzarri (Italy)
Revolutionizing Antibiotic Strategies: The Power of Innovative Technologies
Veronica Seija (Uruguay)

EFLM SESSION



09:00-11:00 GREEN LABS. IMPLEMENTING SUSTAINABLE PRACTICES IN MEDICAL LABORATORIES
Chair: Tomris Ozben (Turkey)

Green labs: Implementing sustainable practices in medical laboratories
Tomris Ozben (Turkey)
Striking the Right Balance: Sustainability and Innovation
Ffion Jackson (UK)
Strategies for energy conservation and sustainability
Snezana Jovicic (Serbia)
Waste management for clinical laboratories
Alistair Gammie (UK)

09:00 - 09:15 Opening Message
Sara AlAmeri

UAE GDA SESSION

DIET & LONGEVITY

Moderator: Sean Ng

09:15 - 09:30 Landscape of Longevity Medicine in UAE
Jaffer Khan
09:30 - 09:45 Biomarkers of Aging & Longevity
Alexi Zhavoronkov (USA)
09:45 - 10:00 Nutrigenomics
Sumantra Ray (UK)
10:00 - 10:15 Lipidomic
Vincenzo Di Donna (Italy)



UAE GDA SESSION

MICROBIOME & EPIGENETICS

Moderator: Shaikha Almazrouei

10:15 - 10:30 The world's most advanced 3D bioprinted human skin models for testing microbiome, vaccines and health
Collin McGukin (France)
10:30 - 10:45 Gut Microbiome Mediated Epigenetic Modifications
M. Azzam Kayasseh
10:45 - 11:00 Epigenetics and Cancer
Ali Hamiche



Plenary Lecture

11:30-12:30 **Precision, Prevention and Women's Cardiovascular Health: A Global Perspective**
Samia Mora (USA)



Dr. Mora

Dr. Mora is a cardiologist and molecular epidemiologist conducting translational research in the prevention of cardiometabolic disease. She is Professor of Medicine at Harvard Medical School, the Director of the Center for Lipid Metabolomics and Director of the Biorepository, Divisions of Preventive and Cardiovascular Medicine, Brigham and Women's Hospital. She received her undergraduate degree from Harvard University, and her medical degree from Harvard Medical School. Dr. Mora completed an internal medicine residency at Massachusetts General Hospital and cardiovascular disease fellowship at Johns Hopkins Hospital, where she also obtained an MHS degree (Epidemiology) from the Johns Hopkins Bloomberg School of Public Health. Dr. Mora is board certified in cardiovascular disease and echocardiography, and serves on the Editorial Boards of JAMA Internal Medicine and Atherosclerosis. She is an Elected Member of the American Society for Clinical Investigation and the Association of University Cardiologists.

12:30 - 13:00 **POSTER SESSION + LUNCH**

13:00 - 14:00 **WORKSHOPS + LUNCH**
History & Basic of Genetics | Molecular Genetic Tools & technology
Lova Satyanarayana Matsa

UAE GDA SESSION

ELEVATING LONGEVITY: STEM CELLS, BRAIN HEALTH, AND SMART AGING

Moderator: *Jaffe Khan*



- 14:00 - 14:30 Stem Cell Treatment & Longevity
Sean Ng (Malaysia)
- 14:30 - 15:00 Novel strategies to delay brain ageing and cognitive decline
David Vauzour (UK)
- 15:00 - 15:30 Mitochondrial Transplantation
Giuseppe Orlando
- 15:30 - 16:00 Cellular smart aging
Helen Margaret Blau
- 16:00 - 16:45 Panel discussion: Smart aging & longevity
David Vauzour (UK), Sean Ng (Malaysia), Helen Margaret Blau, Alex Zhavoronkov (USA), Sumatra Ray (UK)



IFCC SYMPOSIUM 2

14:30-16:30 FLOWCYTOMETRY PRINCIPLES AND ITS ROLES IN PRECISION MEDICINE

Chairs: Claude Lambert (France), Heba Raslan (Saudi Arabia)

Principle of flow cytometry and issues in diagnosis

Claude Lambert (France)

FCM in characterizing Lymphoproliferative disorders

Mohamed Brahimi (Algeria)

FCM in diagnosis of immunological disorders and biotherapies

Najla Mekki (Tunisia)

FCM in characterizing acute leukemic disorders

Heba Raslan (Saudi Arabia)

SYMPOSIUM 3

14:30-16:30 THOUGHTS ON MAINTAINING INNOVATION AND AVAILABILITY OF MEDICAL TESTS OR HOW TO MEET REGULATORY CHALLENGES FOR LAB-DEVELOPED-TESTS

Chairs: Michael Neumaier (Germany), Alexander Haliassos (Greece)

Regulatory considerations for Laboratory-Developed Tests from an international perspective: Opportunities and risks for patient care

Folker Spitzenberger (Germany)

Impact of diagnostic regulations on laboratory developed tests in the US

Tina Lockwood (USA)

Off-label Diagnostics - an analogy to individualized therapeutic medicine: the oncology case

Michael Neumaier, Ralf Hofheinz (Germany)

Two oral communications from abstracts

TUESDAY 28 MAY 2024

IFCC SYMPOSIUM 3

09:00-11:00 THE POTENTIAL OF SINGLE CELL AND SPATIAL BIOLOGY IN THE EVOLUTION OF CLINICAL MEDICINE

Chairs: Andrew South, Paolo Fortina (USA)

Using single-cell RNA-sequencing to interrogate biologic drug response in psoriasis

Raymond Cho (USA)

Understanding chronic wounds and wound healing using single cell profiling

Ignacia Fuentes (Chile)

Deconvolution of Cell Populations in Non-Melanoma Skin Cancer Using single cell RNA-Seq and Nanostring digital spatial profiling

Bonnie LaFleur

Determining the mechanism of action of cancer therapeutics through single cell profiling

Paolo Fortina (USA)

SYMPOSIUM 4

09:00-11:00 THE ROLE OF LABORATORY MEDICINE IN DIRECT-TO-CONSUMER TESTING (DTCT)

Chair: Sverre Sandberg (Norway)

What is Direct To Consumer Testing, DTCT and is it compatible with the "choose wisely" campaign?

Sverre Sandberg (Norway)

The variety and range of direct-to-consumer testing

Patti Shih (Australia)

We must speak up – what is the role of laboratory medicine in DTCT?

Matthias Orth (Germany)

Two oral communications from abstracts





SSCC SYMPOSIUM 1

09:00-11:00 INBORN ERRORS OF METABOLISM IN SAUDI ARABIA

Chair: Ali Alothaim (Saudi Arabia)

Novel inborn errors of metabolism discovery in Saudi Arabia

Majid Alfadhel (Saudi Arabia)

Landscape of Mitochondrial disorders in Saudi Arabia

Naif Almontashiri (Saudi Arabia)

Overview of Newborn screening program in Saudi Arabia

Faud Almutairi (Saudi Arabia)

Integrates genomic and Metabolomics technologies to unravel the diagnostic odyssey in rare diseases

Malak Alghamdi (Saudi Arabia)

SYMPOSIUM 5

09:00-11:00 MACHINE LEARNING AND CLINICAL DECISION SUPPORT: TECHNOLOGIES THAT GENUINELY MAKE PEOPLE'S LIFE BETTER

Chair: Hernán Fares Taie (Argentina)

Clinical decision support and Machine Learning: Improving medical decisions and enhancing the value of the clinical laboratory in healthcare

Hernán Fares Taie (Argentina)

Navigating Through Current ML Applications in Clinical Labs: From Preanalytical to Post-analytical Phases

Deniz Ilhan Topcu (Turkey)

Machine Learning in healthcare: Current applications and future perspectives

Stephen Master (USA)

Two oral communications from abstracts

UAE SYMPOSIUM 1

09:00-11:00 METABOLIC AND NONCOMMUNICABLE DISEASES

Chair: Fayha Salah Ahmed (UAE)

UAE cardiometabolic guidelines

Hani Sabbour (UAE)

The burden of Non-alcoholic fatty liver disease: screening, diagnosis and management.

Fayha Salah Ahmed (UAE)

Diabetes in UAE

Riad Bayoumi (UAE)

Markers of Alzheimer and neurological disorders.

Laila AbdelWareth (UAE)

APFCB SESSION



09:00-11:00 CLINICAL DECISION SUPPORT

Chair: Kay Weng Choy (Australia)

Clinical decision support in clinical practice: a systematic review

Adriana Esho (Australia)

Electronic clinical decision support for pathology requesting

Ken Sikaris (Australia)

Automated intelligent validation and verification of results

Wei Cui (China)

Considerations for result interpretation clinical decision support

Tze Ping Loh (Singapore)

09:00 - 09:15 **Opening message**
Sean Ng



UAE GDA SESSION
STEM CELLS & REGENERATIVE MEDICINE
Moderator: Saba Habibollah

- 09:15 - 09:30 Embryonic Stem Cells
Majlinda Lako (USA)
- 09:30 - 09:45 Limbal Stem Cells
Sajjad Ahmad
- 09:45 - 10:00 Human Embryonic Stem Cells Genetics
Nissim Benvenisty (Israel)
- 10:00 - 10:15 Umbilical Cord Stem Cells
Marko Strbad

UAE GDA SESSION
CELLULAR TRIUMPHS: ADVANCING CANCER CARE
Moderator: Shaikha Almazrouei



- 10:20 - 10:40 Cellular Therapy
Sean Ng (Malaysia)
- 10:40 - 11:00 Bone Marrow Transplant
Shahrukh Hashmi (UAE)
- 11:00 - 11:20 Cancer Immunotherapy
Carl H. June (USA)

Plenary Lecture

11:30-12:30 **Genomics in the Middle East: A report card**
Fowzan Sami Alkuraya (Saudi Arabia)



Fowzan S Alkuraya

Fowzan S Alkuraya is a Professor of Human Genetics at Alfaisal University and the Chairman of the Department of Translational Genomics at King Faisal Specialist Hospital and Research Center. He joined medical school (King Saud University) before turning 15 and graduated first in his class with first class honor. He did his pediatric residency at Georgetown University Hospital, followed by a fellowship in clinical genetics and another in molecular genetics at Harvard Medical School. He also did a postdoctoral research fellowship in the area of developmental genetics in the lab of Prof. Richard Maas at Harvard Medical School. He returned to his native Saudi Arabia to establish the Developmental Genetics Lab, which later evolved into the Center for Genomic Medicine at KFSHRC. He is an authority in the area of Mendelian genetics with more than 520 published manuscripts that describe his lab's discovery of hundreds of novel disease genes in humans as well as many other seminal contributions to the field of human genetics as featured in profiles published by The Lancet and Science. He is a frequently invited speaker at local, regional and international conferences, on the editorial board of prominent human genetics journals, and the recipient of numerous prestigious awards including William King Bowes Award in Medical Genetics (first non-US based winner), King Salman Award for Disability Research and Curt Stern Award (first non-US based winner).



13:00 - 14:00 **WORKSHOPS + LUNCH**
Workshop 2: Genetics for Cancer & Pharmacogenomics
Saba Habibollah

UAE GDA SESSION

INNOVATIVE HEALTH SOLUTIONS: 3D MODELS, STEM CELLS, AND PRECISION THERAPIES

Moderator: Marco Strbad

- 14:00 - 14:30 3D Printed Colorectal Cancer Model for Screening Oncolytic Viruses
Nico Forraz (France)
- 14:30 - 15:00 Stem Cells & ASD
Salman
- 15:00 - 15:30 Autoimmune & Vascular Diseases
Dominique Farge (France)
- 15:30 - 16:00 T Cell Engineering & CART
Michel Sadelain
- 16:00 - 16:45 Panel Discussion - Stem Cells & Regenerative Medicine
Colin McGukin (France), Majlinda Lako, Sajjad Ahmad, Salman, Michel Sadelain (USA)

IFCC SYMPOSIUM 4

14:30-16:30 **ON THE WAY TO CARDIOVASCULAR PRECISION DIAGNOSTICS**
Chairs: Tony Badrick (Australia), Patrick Bossuyt (the Netherlands)

Urgent need for Cardiovascular Precision Diagnostics to address Residual Cardiovascular Risk.
Christa M. Cobbaert (the Netherlands)
Establishing an SI-traceable Reference Measurement System for 7 Serum Apolipoproteins.
Renee Ruhaak (the Netherlands)
Evaluating the Clinical Effectiveness of Cardiovascular Precision Diagnostics.
Patrick Bossuyt (the Netherlands)
Demonstrating the clinical value of a multiplexed serum Apolipoprotein Panel in the Odyssey Outcome Study.
Esther Reijnders (the Netherlands)

SYMPOSIUM 6

14:30-16:30 **DIGITAL COMPETENCE AND ARTIFICIAL INTELLIGENCE IN LABORATORY MEDICINE**
Chairs: Damien Gruson (Belgium), Santiago Fares Taie (Argentina)

Embracing the Digital Frontier: Unveiling Unmet Needs in Laboratory Medicine's AI Journey
Andrea Padoan (Italy)
Revolutionizing Diagnostics: The Clinical Value of Artificial Intelligence in Laboratory Medicine
Damien Gruson (Belgium)
Efficiency Amplified: Unleashing Operational Benefits through Digital Competence and AI in Laboratory Medicine
Shaikha Almazrouei (UAE)
Two oral communications from abstracts

WEDNESDAY 29 MAY 2024

IFCC SYMPOSIUM 5



09:00-11:00 BIOMARKERS FOR NEURODEGENERATIVE DISEASES - IDENTIFICATION, STANDARDIZATION OF PREANALYTICAL AND ANALYTICAL PROCEDURES AND CLINICAL VALIDATION
Chair: Hans Frykman (Canada)

The different clinical types of dementia – epidemiology.
Socratis Papageorgiou (Greece)
Metrological standardization of AD biomarkers - current status future perspectives.
Henrik Zetterberg (Sweden)
Identifying clinically useful biomarkers in neurodegenerative diseases - moving from CSF to blood.
Kaj Blennow (Sweden)
Biomarker panels: analytical and clinical validation against clinically relevant reference standards.
Hans Frykman (Canada)

SYMPOSIUM 7

09:00-11:00 MEETING THE CHALLENGE OF DEMONSTRATING VALUE IN LABORATORY MEDICINE
Chair: Maurice O'Kane

The challenges of delivering value through better test implementation
Maurice O'Kane
The EFLM TE-WG Evaluation Framework and Clinical Needs Assessment Strategy; Key Practical Tools for Value-Based Biomarker Implementation.
Phillip Monaghan (UK)
How we harnessed laboratory data to improve health and economic outcomes
David G. Grenache (USA)
Two oral communications from abstracts

SYMPOSIUM 8

09:00-11:00 HOW TO IMPROVE ACCESS TO LAB TESTING IN MIDDLE & LOW INCOME COUNTRIES?
Chairs: Mario Plebani (Italy), Michael Wilson (USA)

The Lancet Commission on Diagnostics
Michael Wilson (USA)
A Global Diagnostics Alliance
Mikashmi Kohli (Switzerland)
The WHO model list of essential in vitro diagnostics and its role in improving access to lab testing in LMICs
Ana Aceves Capri (Switzerland)
Two oral communications from abstracts

AFCB SYMPOSIUM 2



09:00-11:00 EPIDEMIC AND PANDEMIC INFECTIOUS IN ARABIC REGIONS
Chair: Abderrazek Hedhili (Tunisia)

Earthquakes, wars, and emerging infectious disease
Christian Hadad (Lebanon)
Evolution of the epidemiology of viral diseases in relation to migratory movements in the Arab Maghreb countries
Abdelhalim Trabelsi (Tunisia)
Prevalence and incidence Rate of infectious diseases in the Middle east and North Africa: Management of such diseases in low-income countries
Ghassan Shannan (Syria)
Viral transmission from animal to humans (zoonosis) in Middle East Challenges and risks
Robin Abu Ghazaleh (Palestine)



SYMPOSIUM 9

09:00-11:00 HEALTHCARE DELIVERY IN THE 21 CENTURY AND THE ROLE OF THE CLINICAL LABORATORY
Chair: Nader Rifai (USA)

Implementation of Emerging Technologies
Ronda Greaves (Australia)
Sustainability and Environmental Impact of the Clinical Laboratory
Ian Young (UK)
The Role of the Clinical Laboratory in Supporting Equity in the Delivery of Healthcare
Christina Pierre (USA)
Two oral communications from abstracts

COLABIOCLI SESSION

09:00-11:00 EMERGING AND RE-EMERGING DISEASES IN LATIN AMERICA, A VIEW FROM PUBLIC HEALTH
Chair: Maria Elizabeth Meneses (Brazil)

Current Molecular Diagnosis of Dengue, Zika and Chikungunya in the Region of the Americas
Maria Elizabeth Meneses (Brazil)
Molecular and Epidemiological Aspects of Dengue Infection
Moisés Ramos Solano (Mexico)
Advances in the study of innate immunity against Mycobacterium tuberculosis
Luisa María Nieto Ramirez (Colombia)
Zika a Virus that changed the History of a Generation
Martha Ospina Ramirez (Colombia)



09:00 - 09:15 Opening Message
Ayman El-Hattab

UAE GDA SESSION RARE DISEASE

Moderator: Ayman El-Hattab

09:15 - 09:30 Caring for Inborn Error of Metabolism in UAE
Summer Marshall (UAE)
09:30 - 09:50 Genetics of Pediatric Cardiomyopathy: New Findings and Challenges
Alireza Haghighi (USA)
09:50 - 10:05 Genetics of Polycystic Kidney Disease
Hamad Ali Yaseen (Kuwait)
10:05 - 10:20 Autosomal Recessive Disorders
Musallam Al Araimi
10:20 - 10:35 The Past Decade of Rare Disease in China
Boya Yu (China)
10:35 -10:50 Neurogenetic Disorders in Children
Arif Khan



Plenary Lecture

11:30-12:30 **Obesity: novel developments in diagnostics of underlying causes and treatment**
Elisabeth van Rossum (the Netherlands)



Prof Liesbeth van Rossum, MD PhD

Prof Liesbeth van Rossum, MD PhD, is internist-endocrinologist and professor in the field of obesity and stress hormone research at the Erasmus University Medical Center, Rotterdam, Netherlands. She is co-founder of the Obesity Center CGG, an internationally recognized academic center of expertise for diagnostics of underlying causes of obesity and personalized treatments.

Currently, Van Rossum holds various societal and board positions, amongst which European lead of the theme Obesity, Diabetes, Nutrition and Metabolism of the European Society for Endocrinology, member of the European Policy Working Group for obesity, chair of the National Obesity Guideline, and president of the Partnership Overweight Netherlands, an umbrella organization of 20 associations of health care organisations, with an advisory role to the Ministry of Health Welfare on obesity policy. She received multiple international awards and grants for her scientific research, is a frequently invited speaker on scientific congresses, (inter)national media, TEDx, and published with colleague Mariette Boon an international award-winning book "FAT, the secret organ".

13:00 - 14:00 **WORKSHOPS + LUNCH**
Workshop 3: Treasure of Life
(Introduction & History; Diseases treatable with Stem Cell)
Saba Habibollah

UAE GDA SESSION

WGS FOR INFANTS WITH RARE DISEASES IN UAE

14:00 - 14:30 A Rapid Whole-Genome Sequencing Service for Infants with Rare Diseases in UAE
Ahmad Abou Tayoun

UAE GDA SESSION

POPULATION BASED GENOMICS

14:30 - 15:00 Population Based Genomic approaches to study complex diseases
Youssef Idaghdour (UAE)

UAE SESSION

GENETICS & RARE DISEASES

Moderator: Ahmad Abou Tayoun

15:00 - 15:20 Dystrophin mutation in DMD patients in Thailand, Rare Diseases & Importance of an early diagnosis
Thanyachai Sura (Thailand)

15:20 - 16:00 Neuromuscular Diseases
Jon Andoni Urtizberea (France), Debra Regier (USA)

16:00 - 16:40 Metabolic Disorders in UAE
Ayman El-Hattab, Lakshmi



AFCC SESSION

14:30-16:30 INBORN ERRORS OF METABOLISM IN AFRICA
Chair: A.B. Okesina (Nigeria)

Challenges in National Newborn Screening Program in Africa
A.B. Okesina (Nigeria)
Prevalence of Inborn Errors of Metabolism in Africa
John I. Anetor (Nigeria)
Clinical, Laboratory and Molecular Spectrum of Galactosaemia in Newborns in Africa
R.T. Erasmus (South Africa)
Requirements for the establishment of Newborn Screening Program in Africa
G.T. Akalu (Ethiopia)

SYMPOSIUM 10

14:30-16:30 TOXICOLOGY ENVIRONMENTAL AND HEALTH EFFECTS
Chair: Abderrazek Hedhili (Tunisia)

Use of Per- and polyfluoroalkyl substances (PFASs) in medical technologies, what are the challenges with finding alternatives, how these technologies containing PFAS are handled at the end of life and how risks are managed
Aldo Tomasi (Italy)
Environmental and health effects of PFOS/PFAS (Mechanisms of action, clinical effects, biological perturbations, diagnosis, therapy, prevention and measurement)
Nolwenn Noisel (Canada)
Biomedicine and as Biomarker in Clinical Practice and in Environmental Pollution
Alessio Bocedi (Italy)
The evolution of human biomonitoring and its impact on clinical laboratory medicine,
David Kinniburgh (Canada)

NAFCC SESSION

14:30-16:30 LABORATORY MEDICINE ADVANCING GLOBAL HEALTH ACROSS THE LIFESPAN
Chair: Octavia M Peck Palmer (USA)

Pediatric health: Vitamin and Trace element testing
Kamisha Johnson-Davis (USA)
New chance at life: Infectious disease testing
Allison A Venner (Canada)
Maternal-fetal health: Early detection of pre-eclampsia
Paul M. Yip (Canada)
Medically underserved populations: Delivering evidence-based care via point of care testing
Octavia M Peck Palmer (USA)



SYMPOSIUM 11

09:00-11:00 CIRCULATING CANCER BIOMARKERS: QUO VADIS?
Chair: Ron HN van Schaik (the Netherlands)

Liquid biopsy / cell free DNA analysis: too hot to handle, or right up our alley?
Ron HN van Schaik (the Netherlands)
Liquid biopsy: from discovery to clinical implementation
Klaus Pantel (Germany)
Integrating liquid biopsy with advanced imaging analysis to improve the prediction of response to immune therapy in patients with NSCLC
Marzia del Re (Italy)
Two oral communications from the abstracts

SYMPOSIUM 12

09:00-11:00 PREVENTING KIDNEY DISEASE USING ADVANCED URINE SCREENING AND KIDNEY DAMAGE MARKERS
Chair: Joris Delanghe (Belgium)

Update to laboratory assessment of kidney diseases
Joris Delanghe (Belgium)
Preventing diabetic nephropathy, follow-up with laboratory markers
Marc De Buyzere (Belgium)
Urine particle analysis in detection of kidney diseases
Rosanna Falbo (Italy)
Two oral communications from abstracts

SSCC SYMPOSIUM 2

09:00-11:00 DYSGLYCEMIA - NOVEL BIOMARKERS FOR DIAGNOSIS AND MONITORING PROGNOSIS
Chair: Suhad Bahijri (Saudi Arabia)

Epidemiology of Diabetes in the Arabian Gulf Countries: Challenges and Opportunities
Yousef Al Saleh (Saudi Arabia)
Use Of Glycated Products In Diagnosis
Nafila Al Riyami (Oman)
Use of 1-hour glucose challenge test in diagnosis and predicting future complications
Jaakko Tuomilehto (Finland)
Novel Biomarkers to improve diagnosis and monitor prognosis
Suhad Bahijri (Saudi Arabia)

SYMPOSIUM 13

09:00-11:00 PERFORMANCE SPECIFICATIONS OF MEDICAL TESTS BASED ON CLINICAL OUTCOME STUDIES
Chair: Andrea Rita Horvath (Australia)

Outcome-based analytical performance specifications - current status and future directions
Andrea Rita Horvath (Australia)
Testing related outcomes and analytical performance - the linked evidence approach
Patrick Bossuyt (the Netherlands)
A practical approach to determining blood ketone performance specifications
Eric Kilpatrick (Qatar)
Two oral communications from abstracts



SYMPOSIUM 14

09:00-11:00 UTILIZATION MANAGEMENT AND SUCCESSFUL APPROACHES TO CHANGE AND IMPROVE TEST REQUESTING

Chair: Mario Plebani (Italy)

Utilization management and appropriateness in clinical laboratory: state-of-the-art

Mario Plebani (Italy)

How to deal with inappropriate laboratory retesting?

Ivana Lopic (Croatia)

The noble art of leaving out

Prabath Nanayakkara (the Netherlands)

Two oral communications from abstracts

UAE SYMPOSIUM 2

09:00-11:00 AI & MACHINE LEARNING APPLICATIONS IN LABORATORY MEDICINE

Chair: Laila AbdelWareth (UAE)

Case study of machine learning and AI application in pathology

Ayub Nahal (UAE)

AI and Decision support systems

Hady Elkhodary Dubai (UAE)

Intraoperative Mass Spectrometry; Recent updates and Challenges to Implementation

Shereen Hassan Atef (UAE)

Medical Laboratories between shrinking workforce and Artificial Intelligence

Ola Elgaddar (UAE)

09:00 - 09:15 Opening Message

Mazin Gadir (UAE)



UAE GDA SESSION

GLOBAL HEALTH AI: UNITING NATIONS FOR GENOMIC INSIGHTS AND DATA GOVERNANCE

Moderator: Mazin Gadir (UAE)

09:15 - 09:30 AI and Genomic Insight: Enhancing Public Health through International Partnership

Alireza Haghighi

09:30 - 09:45 Artificial Intelligence and Big Data

Mark Bartlett

09:45 - 10:00 Genomic Data Privacy & Security (Emirati Genom Project)

Tiago R. Magalhaes

10:00 - 10:15 International Collaboration in AI & Healthcare Data Governance

Mazin Gadir (UAE)

UAE GDA SESSION

DIGITAL HEALTH HARMONY: INNOVATIONS IN DATA SHARING AND INTEROPERABILITY

10:15 - 10:30 Digital Health & Innovations

Osama ElHassan (UAE)

10:30-1045 Data sharing & Interoperability

Patrick Maloney

UAE GDA SESSION

PANEL DISCUSSION ON CHARTING THE ETHICAL HORIZON: NAVIGATING DATA PRIVACY, SECURITY, AND GOVERNANCE IN HEALTHCARE

Moderator: Osama ElHassan (UAE)

10:45 - 11:30 Charting the Ethical Horizon: Navigating Data Privacy, Security, and Governance in Healthcare

Nouf Al-Numiar, Filippo Castiglione, Alexi Zhavoronkov, Erik Koornneef

Plenary Lecture

11:30-12:30 Making molecular diagnostics faster

Carl Wittwer (USA)



Carl Wittwer

MD, PhD is Professor Emeritus of Pathology at the University of Utah.

Carl Wittwer, MD, PhD is Professor Emeritus of Pathology at the University of Utah. With more than 200 articles focusing on technique and instrument development in molecular diagnostics, he developed rapid PCR (15 min) in the 1990s and was the primary inventor of the LightCycler® system, with over 10,000 units placed worldwide by Roche. Carl holds over 40 US patents and their foreign equivalents. He introduced SYBR Green, hybridization probes, and melting analysis to real-time PCR and continues to develop extreme PCR (< 1 min) and high-speed DNA melting (<5 s). Carl co-founded BioFire Diagnostics and served as Chairman of the Board from 2012 until its acquisition by bioMérieux in 2014, most notable for the FilmArray syndromic diagnostic platform with over 20,000 placements worldwide. He is an Associate Editor of Clinical Chemistry and chair of the Scientific Advisory Board of CoDiagnostics. Much of his work can be found at www.dna-utah.org.

CLOSING CEREMONY

12:30-13:00 Closing Remarks
Welcome to WorldLab 2026
Farewell cocktail



ABSTRACT SUBMISSION

Congress delegates are cordially invited to submit abstracts of their scientific work for presentation as a free communication at the IFCC Worldlab 2024 Congress.

An unlimited number of abstracts may be submitted provided the presenting author applies for "full registration" or "young registration".

Abstracts are welcome in all fields of clinical chemistry, haematology, clinical molecular biology and laboratory medicine, in the broader sense. Free communications are primarily presented via poster. A limited number of abstracts will be selected for oral presentation during congress symposia. Authors wishing to compete for these oral communication slots should mark the appropriate field on the on-line abstract-submission form.

ABSTRACT TOPICS

- Accreditation, Patient Safety, Risk management, Quality Assurance, Audit
- Artificial intelligence, clinical decision support and machine learning
- Clinical Chemistry
- Data Science, Digital health, big data and smart technologies
- Demand/test utilization management
- Direct to consumer testing
- Disease specific biomarkers: autoimmune, bone, cardiac, cancer, diabetes, neurological, sepsis, traumatic brain injury, ...
- Emerging & Analytical technologies, applications and limitations
- Emerging biomarkers (-omics type, ...)
- Endocrinology
- Evidence based medicine, including Guidelines
- Genetic diseases
- Geriatric testing
- Green laboratories
- Healthcare reform: from curative to preventive
- Hematology and hemostasis
- Immunology
- Integral Diagnostics, radiomics, ...
- Kidney diseases and transplantation, urinalysis, urinary biomarkers
- Laboratory consolidation, Total lab automation and process design
- Laboratory Information Systems and globalization of NPU
- Laboratory Management, Medical leadership
- Metabolic diseases
- Metrological traceability and test standardization/harmonization
- Microbiology - Infectious diseases including COVID 19
- Molecular diagnostics, including CTC and ctDNA
- Neonatal and paediatric laboratory medicine, including prenatal testing
- Nutrition Trace Elements and Vitamins
- Point of Care testing, critical care, emergency medicine
- Precision Diagnostics and Precision Medicine
- Recruitment, Education and Training of workforces in Laboratory Medicine
- Regulations and Regulatory Science, including suboptimal tests and post-market follow-up
- Remote monitoring and preanalytical challenges
- Test Evaluation, outcome studies, clinical utility of biomarkers
- Total Test process, including preanalytics, analytics and postanalytics
- Toxicology and TDM
- Trends towards regional/national/global ICT connectivity and networks
- Others
- Rare Diseases
- Epigenetics
- Aging & Longevity
- Gut Microbiome
- Biological Cellular Therapies

GENERAL REQUIREMENTS

The text must be clear, concise, and written in proper English. The content must not have been previously published in academic journals or subject to peer review. Significant technical information must not be withheld. Abstracts must absolutely contain results. Statements such as "results will be discussed" are not acceptable and will lead to rejection.

GENERAL INFORMATION

DEADLINE FOR RECEIPT

Abstracts should be submitted by **15th January 2024, 18:30 CET.**

CONFIRMATION OF RECEIPT

Receipt of the abstract will be acknowledged by e-mail immediately after submission.

NOTIFICATION OF ACCEPTANCE OR REJECTION

Authors will be notified of acceptance or rejection before

28th February 2024.

REGISTRATION

The presenting author of each abstract must register for the congress with "Full Registration" or "Young Registration".

HOW TO PREPARE AND SUBMIT AN ABSTRACT

It is important to carefully follow the instructions below. Incorrectly prepared abstracts will be rejected.

- Abstracts should be prepared off-line in advance;
- Prepare your abstract on a word processor (such as Microsoft Word);
- Do not include title, authors' names and affiliations in the abstract file
- Tables and figures are not allowed;
- References are not allowed;
- When abbreviations are used, spell out the full word at first mention in the text followed by the abbreviation in parentheses. Thereafter, use the abbreviation throughout.

When the on-line system requires the abstract to be entered, copy and paste your text.

Abstracts are limited to 2300 characters, spaces included (title, authors' names and affiliations excluded). The system will automatically notify you if the abstract exceeds this number of characters. Title, author(s) and affiliation(s) must be added separately at the appropriate step.

IMPORTANT NOTICE

Abstract authors are asked to indicate the most suitable topic for presentation of their work and will also be asked whether they wish apply for an oral presentation during the scientific symposia. In that case, authors must also select the symposium in which they would like to give their presentation.

**Abstracts should be submitted via the on-line submission system only.
Do not send in an abstract more than once!
Submit your abstract at www.dubai2024.org**



Congress
Venue

Dubai World Trade Centre
Trade Centre – Trade Centre 2
Dubai – United Arab Emirates

GETTING
THERE

Dubai metro

Dubai's public transport is both a safe and cost-effective way to reach
With the dedicated metro station, Dubai's metro system is a quick and efficient option. The world's longest driverless train system is clean, quiet and fully air conditioned. Trains run every few minutes, from 5 am to 11 pm using a Nol Card, which can be obtained easily from any station.
You may also want to combine your metro trip with a ride on one of Dubai's many bus routes. For specific journey planning to and from Dubai World Trade Centre, visit the link below.

Dubai taxi

Metered taxis are easy to find, regulated, clean and comfortable. They also provide a great opportunity to take in the sights of the city.
With more than 5,300 RTA taxis available, hailing a cab is never a problem. Almost all drivers are familiar with our location and the various drop off points around Dubai World Trade Centre. Female passengers can also opt for a Ladies-only taxi, should they prefer to.

REGISTRATION
DESK

- The registration desk will be open during the congress as follows:

26 May 2024	11:00 - 19:00
27 May 2024	08:00 - 18:00
28 May 2024	08:00 - 18:00
29 May 2024	08:00 - 18:00
30 May 2024	08:30 - 14:00

CONGRESS
LANGUAGE

- The congress' official language is English.

NAME
BADGE

- A name badge will be required for access to the congress area. Participants will receive a name badge when they check in at the registration desks/ kiosks. It must be worn at all times.

INDUSTRY
EXHIBITION

- Participants are encouraged to visit the large industry exhibition, which will be open as follows:

27 May 2024	10:00 - 17:30
28 May 2024	10:00 - 17:30
29 May 2024	10:00 - 17:30

Access to the exhibition area is free of charge for participants registered to the congress.
All the other visitors will be given the possibility to print a free visitor badge in advance or to collect it at a dedicated desk situated at the entrance of the area.

CERTIFICATE OF
ATTENDANCE

- All properly registered attendees, for the day(s) they actually take part in the congress, will be entitled to receive a certificate of attendance.

VISAS
REQUIREMENTS

- Depending on the nationality of the delegates it may be necessary to obtain a visa before leaving.
We recommend asking your country's Embassy or visiting the Emirates Visa Online website.

PERSONAL
INVITATION FOR
VISA PURPOSES

- An official letter of invitation will be sent to you upon request. The invitation letter may be used by visitors to raise travel funds or to obtain a visa, but is not a commitment on the part of the organisers to provide any financial support.
Please contact the Organising Secretariat, registrations@dubai2024.org, to request a letter of invitation.

OFFICIAL
CARRIER

- Emirates has been appointed as Official Carrier. Further details on benefits available on the congress website.



REGISTRATION FEES

All delegates must register for the congress. Registration fees are as follows:

	Until 15 March 2024	After 15 March 2024	On-site registration
Full Registration	€500,00	€650,00	€750,00
Young Registration	€250,00	€325,00	€375,00
Day Registration	€175,00	€225,00	€250,00

The full registration and young registration fees include:

- entrance to plenary lectures, symposia, lunch & educational workshops, poster sessions and exhibition
- possibility to submit abstracts
- certificate of attendance
- coffee and tea service during intermissions
- Opening Ceremony (Sunday, 26 May 2024)
- Closing Ceremony (Thursday, 30 May 2024)

The day registration fee includes, for the day of registration only:

- entrance to plenary lectures, symposia, lunch & educational workshops, poster sessions and exhibition
- certificate of attendance
- coffee and tea service during intermissions

REMITTANCE

Registration fees shall be paid by credit card or bank transfer through the on-line system available on the congress web site. When paying by bank transfer, a copy of the transfer receipt must be sent to registrations@dubai2024.org. Registrations without proof of payment will not be accepted. On-site registrations may be paid only by credit card or cash. Cheques will not be accepted. The organising secretariat will send registration receipt upon receipt of payment, via e-mail. Be sure your e-mail address is filled in correctly.

CANCELLATION AND REFUND

Cancellations must be sent in writing to registrations@dubai2024.org. The amount equal to 80% of the fee paid will be refunded for cancellations received by 15 March 2024. Until 30 April, 2024 a refund of 50% of the fee will be granted. After 30 April 2024 no refunds will be issued. All refunds will be paid in euros after the congress.

CURRENCY

Registration fees and charges for all events related to the IFCC Worldlab 2024 Congress as well as hotel cost must be paid in euros.

LIABILITY AND INSURANCE

Registration fees do not include the insurance of participants against personal accidents, sickness and cancellations by any party, theft, loss or damage to personal possessions. Participants are advised to take out adequate personal insurance to cover travel, accommodation, cancellation and personal effects.

CANCELLATION OF THE CONGRESS

The congress secretariat reserves the right to cancel the congress, shift venue, or change dates without notice, in case of "force majeure". Neither MZ Events nor the Congress Organizing Committee shall be liable for any damage claims.

On-line registration is available on the congress website <https://www.dubai2024.org>
Registration can be submitted on-line only

HOTEL
ACCOMMODATION



KENES GROUP

Rue François-Versonnex 7
1207 Geneva | Switzerland
Phone: +41 22 908 0488 Ext 292
Website: www.kenes.com

Olina Stoyanova
Hotel Sales
E: ostoyanova@kenes.com
T: 0041 22 908 0488

DESTINATION PARTNER



