Our vision is a world without fragility fractures, in which healthy mobility is a reality for all.
Osteoporosis and pathologies increasing the risk of fragility fractures are a problem worldwide and, in many countries, as many as one in two women and one in five men aged 50 years or over will suffer an osteoporotic fracture.

- **OSTEOPOROSIS CAUSES APPROXIMATELY 9 MILLION FRACTURES EVERY YEAR, ONE EVERY 3 SECONDS WORLDWIDE**

- **FRACUTURES CAUSED BY OSTEOPOROSIS ARE LIFE-THREATENING AND ARE A MAJOR CAUSE OF PAIN, LONG-TERM DISABILITY, AND LOSS OF QUALITY OF LIFE AND INDEPENDENCE**

- **FRAGILITY FRACTURES CAN BE DEVASTATING FOR THE INDIVIDUAL, AND A HUGE BURDEND TO HEALTHCARE SYSTEMS AND SOCIETY AS A WHOLE**

- **DESPITE ITS SEVERE IMPACT, OSTEOPOROSIS REMAINS SEVERELY UNDERDIAGNOSED AND UNDERTREATED**

Together with its community of members, National Societies and other stakeholders, the International Osteoporosis Foundation (IOF) is strongly committed to battling against the devastating consequences of fragility fractures. IOF demonstrates this by supporting and developing research within the bone field, educating healthcare professionals and patients, and carrying out extensive advocacy efforts which underline our vision, a ‘world without fragility fractures in which healthy mobility is a reality for all’.
The International Osteoporosis Foundation is the world’s largest non-governmental organization dedicated to the prevention, diagnosis, and treatment of osteoporosis and related musculoskeletal diseases.

**Our vision is a world without fragility fractures, in which healthy mobility is a reality for all.**

**MISSION**
To promote bone and musculoskeletal health as a worldwide priority

**GOALS**

**Advancing research and best clinical practice**
IOF supports scientific research that sets global standards and assists healthcare professionals to provide the best patient care.

**Mobilizing global patient and healthcare professional societies**
IOF promotes the global network and supports national societies to maximize their effectiveness.

**Educating and training healthcare professionals**
IOF produces educational resources to advance understanding of osteoporosis and related musculoskeletal disorders, and to promote medical innovation and improved patient care.

**Advocating for improved prevention** to drive global healthcare policy IOF collaborates with national societies and organizations active in the bone and non-communicable disease arena to raise awareness amongst policy makers.

**Raising awareness to convene and mobilize the public**
IOF campaigns and empowers people to take action for prevention, diagnosis and treatment.
MESSAGE FROM THE PRESIDENT

This report highlights our strategic achievements in 2016. Although by necessity concise, it provides an excellent review of the year and reflects IOF’s strong commitment to its global stakeholders and to reducing the burden of fragility fractures due to osteoporosis.

Musculoskeletal diseases, including osteoporosis, are the second greatest cause of disability as measured by years lived with disability worldwide. Affecting over 1.7 billion people, the burden of these diseases is on the rise in almost all regions of the world and has increased by 45% from 1990 to 2010. IOF projects and programmes, often carried out in cooperation with the broader musculoskeletal and non-communicable disease community, make effective contributions to prevention and patient care in this critical field.

As well as thanking IOF members and staff for their tremendous work, I would like to highlight just a few of IOF’s many dynamic activities of the year. The World Osteoporosis Day 2016 campaign stands out for its dual focus, as it successfully raised public awareness of risk factors, while putting a spotlight on the global care gaps in fracture prevention. IOF’s stellar Capture the Fracture® (CTF) programme enjoyed remarkable growth, introduced a new series of multi-language webinars, and saw the launch of a unique mentorship programme. IOF also championed the cause of Skeletal Rare Disorders, launching new resources and holding a pilot training course to encourage progress in research and patient care.

As always, I am particularly proud of IOF’s scientific outreach which has contributed to IOF’s global reputation as a scientific leader in the bone arena. This is reflected in the continued growth and success of the World Congress (which again broke new records in the number and quality of abstracts), IOF’s strong scientific journals portfolio, and the influential outputs of IOF’s scientific Working Groups which resulted in eight major reviews, positions and statements in 2016 alone.

It should also be said that 2016 was a year of notable welcomes and farewells.

In April, we were delighted to welcome the newly elected Board members - Maria Luisa Brandi, Mary Bouxsein, Claudia Campusano, Michael McClung and Riyad Sulimani – to the Board for the period of 2016-2020. As well, we sadly bid farewell to several Board members after many years of outstanding service – John Bilezikian, Harry Genant, Socrates Papapoulos and José Zanchetta. It was with great regret that IOF announced the resignation of its CEO Judy Stenmark on October 1st. Both as COO and then as CEO, Judy contributed significantly to the growth and success of IOF over the course of more than seven years. Her energy and skills in bringing to life the vision of IOF are reflected in the activities which are today the basis of IOF’s many successful and varied programmes. In October we then welcomed Philippe Halbout to the role of new CEO. His long-term experience and strategic insights in the bone field will be invaluable to IOF as we strive towards achieving our newly defined strategic goals.

Although the bone field faces many challenges, we look to the future with optimism and inspiration. We are confident that, with the ongoing support of our Board, members, and partners, we will be ready for the challenges and achievements ahead.

John A. Kanis
President
MESSAGE FROM
THE CEO

I feel incredibly honoured to be a part of IOF, an organization which plays such a central role in spearheading global efforts in the field. The many achievements of 2016 which are outlined in this report could not have been accomplished without the dedication and remarkable energy of our stakeholders – the staff, members, partners, and of course the Board and Executive Committee which expertly guide our organization.

The bone field is facing major changes that unfortunately have impacted negatively on the prevention, diagnosis and management of osteoporosis. Concretely, this has meant that patients worldwide are not receiving the urgent care they need to prevent fragility fractures, which have a devastating and costly impact on quality of life, morbidity, and mortality.

Even today, despite the availability of more diagnostic and therapeutic options than ever before, approximately 80% of fragility fracture patients are not identified or treated for osteoporosis. Poor compliance is another major problem, with only 40% of patients taking treatment for more than one year, and therefore leaving themselves unprotected against a potential cascade of serious fractures.

In this context, one of the first priorities in 2016 has been to realign IOF’s strategy and vision to better target this critical issue. Osteoporosis must no longer be seen as a natural consequence of ageing, and the life-threatening repercussions of this ‘silent’ disease have to be communicated clearly, and loudly. We will continue to champion bone health at all stages of life. This means advancing programmes that raise awareness of bone health through nutrition and exercise, as well as targeting the needs of the high-risk population by focusing on fracture prevention and care through the implementation of Fracture Liaison Services as well as new diagnostic and therapeutic options. As well, we will build and reinforce collaboration with both the broader non-communicable disease community and a spectrum of related fields, including, among others, orthopaedics, geriatrics and skeletal rare disease.

As an organization IOF is in a unique position to amplify the messages and effectiveness of the entire bone-health community. From researchers and clinicians, to national societies and healthcare policymakers – all play a major and interconnected role in making bone health and fracture prevention a healthcare priority worldwide. We look forward to leveraging opportunities to work together in the future.

Finally, I would like to take this opportunity to warmly thank our core members - the national societies (CNS), scientific advisors (CSA), and corporate advisors (CCA). Your commitment and continued support is essential to our success. Together, we are a strong team. Together, we can work to realize the IOF vision of a world without fragility fractures, in which healthy mobility is a reality for all.

Philippe Halbout
Chief Executive Officer
DID YOU KNOW?

WCO-IOF-ESCEO Malaga 2016 – record number of abstracts and awards (p 12)
IOF Regionals – successful Asia-Pacific Osteoporosis Meeting (p 13)
Skeletal Rare Disorders – new resources and pilot course held (p 14)
IOF Scientific Working Groups publish influential reviews and positions (p 14)
Capture the Fracture® launches much-anticipated Mentorship Programme (p 15)
Capture the Fracture® holds new multi-language webinars for different world regions (p 17)
World Osteoporosis Day campaign with extensive global outreach (p 17)
Gaps & Solutions in Bone Health report draws global attention to treatment gap (p 21)
IOF extends its social media presence by up to 33% (p 19)
IOF Global Patient Charter consultation and development kicks off (p 20)
IOF grows and strengthens the global musculoskeletal disease community, working with all stakeholders to make bone health and osteoporosis prevention, diagnosis and treatment a worldwide healthcare priority. The IOF community comprises leading medical and scientific experts, as well as national patient and medical societies based in all regions of the world. IOF also engages with a large individual membership base and collaborates across the entire spectrum of the non-communicable disease arena.

BOARD OF GOVERNANCE

The IOF Board comprises internationally recognized experts and thought-leaders in the field. With twenty elected members, comprising four representatives from each of five world regions, the Board reflects the IOF commitment to maintaining a high level of international representation and coordination.

In 2016, IOF was pleased to present its newly elected board for the term 2016-2020. While extending its great appreciation to departing Board members, IOF warmly welcomed new members Prof. Maria Luisa Brandi (Italy), Prof. Mary Bouxsein (USA), Prof. Claudia Campusano (Chile), Dr. Michael McClung (USA), and Prof. Riyad Sulimani (Saudi Arabia).

Maria Luisa Brandi (Italy)
Mary Bouxsein (USA)
Claudia Campusano (Chile)
Michael McClung (USA)
Riyad Sulimani (Saudi Arabia)

IOF ORGANIZATIONAL STRUCTURE
ELECTED BOARD MEMBERS

ASIA-PACIFIC & S. AFRICA
- Peter Ebeling AUS
- Ambrish Mithal IND
- Hajime Orimo JPN
- Ego Seeman AUS

EUROPE
- Maria-Luisa Brandi ITA
- John Kanis GBR
- Eugene McCloskey GBR
- René Rizzoli CHE

LATIN AMERICA
- Claudia Campusano CHL
- Patricia Clark MEX
- Osvaldo Daniel Messina ARG
- Cristiano Zerbini BRA

MIDDLE EAST & AFRICA
- Gemma Adib SYR
- Basel Masri JOR
- Riyad Sulimani SAU
- Leith Zakraoui TUN

NORTH AMERICA
- Jonathan Adachi CAN
- Mary Bouxsein USA
- Bess Dawson-Hughes USA
- Michael McClung USA

EX-OFFICIO MEMBERS

COMMITTEE CHAIRS
- Chair CSA: Cyrus Cooper
- Vice-Chair CSA: Serge Ferrari
- Chair CNS: Jean-Yves Reginster
- Chair CNS Patient Societies Subcommittee: Famida Jiwa
- Chair CCA: Lorie Fitzpatrick
- Vice-Chair CCA: Pascale Richetta

JOURNAL EDITORS
- Felicia Cosman
- Stuart Ralston

EXECUTIVE COMMITTEE
- President: John Kanis
- Secretary General: Bess Dawson-Hughes
- Treasurer: René Rizzoli
- CSA Chair: Cyrus Cooper
- CNS Chair: Jean-Yves Reginster
REGIONAL ADVISORY COUNCILS

IOF supports its member societies and global constituency through a strong regional structure which is based on collaboration among the member associations. Currently, IOF has established Regional Advisory Councils (RAC) in three designated regions: Asia Pacific (APAC), Middle East and Africa (MEA), and Latin America (LA). The RACs, which are instrumental in developing programmes in their respective regions, elected new members in 2016.

ASIA-PACIFIC & S. AFRICA REGION
- Joon Kiong Lee MYS (CHAIR)
- Siok Bee Chionh SGP
- Hiroshi Hagino JAP
- Andrew Ho HKG
- Ko-En Huang TWN
- Sarath Lekamwasam LKA
- Nikhil Tandon IND
- Manju Chandran SGP (Co-op until December 2016)

Ex-officio IOF Board Members
- Peter Ebeling AUS
- Ambrish Mithal IND
- Hajime Orimo JPN
- Ego Seeman AUS

LATIN AMERICAN REGION
- Oscar Neira CHL América del Sur (ARG, CHL, URY):
- Luis Vidal Neira PER Région Andina (BOL, ECU, PER):
- Rosa Maria Pereira Brasil:
- Adriana Medina Orjuela COL Région Caribe (COL, VEN):
- Sonia Cerdas Pérez CRC América Central (CRI, PAN, DOM):
- Sergio Gutiérrez Ureña MEX Mexico:

Ex-officio IOF Board Members
- Claudia Campusano CHL
- Patricia Clark MEX
- Osvaldo Messina ARG
- Cristiano Zerbini BRA

MIDDLE EAST & N. AFRICA REGION
- Ahmad Al Mortagi EGY
- Farid Bedran LBN
- Nizar Abdulateef IRAQ
- Eghbal Taheri IRN

Ex-officio IOF Board Members
- Gemma Adib SYR
- Basel Masri JOR
- Riyad Sulmani SAU
- Leith Zakraoui TUN

COMMITTEE OF SCIENTIFIC ADVISORS (CSA)

IOF’s CSA is comprised of leading global experts in the field of osteoporosis, fragility fractures and musculoskeletal health. The 2016 CSA elections brought the total CSA membership to 146 members. See page 23 for list of CSA members.

The new members elected to the CSA in 2016 are Marlene Chakthoura (Lebanon), Bart Clarke (USA), Bernard Cortet (France), Cyrille Confavreux (France), Patrick Garnero (Switzerland), Gerold Holzer (Austria), Helena Johansson (Sweden) and Aliya Kahn (Canada).

The objectives of the CSA are to:
- Advise the Board in all scientific matters related to IOF
- Further the clinical and research objectives of IOF
- Support national policy changes relating to bone, muscle and joint health
- Provide recommendations for practice in the care of osteoporosis on a global scale

CSA Chair
Prof. Cyrus Cooper

CSA Vice-Chair
Prof. Serge Ferrari
These and other objectives are largely carried out through the Working Groups (page 15).

**COMMITTEE OF NATIONAL SOCIETIES (CNS)**

The CNS currently comprises 234 full or associate member societies in 99 countries, territories and regions worldwide. Members are independent, not-for-profit patient or medical societies which are dedicated to raising awareness, helping patients, or advancing medical research and best practice in osteoporosis as well as the broader scope of chronic musculoskeletal diseases. In 2016 IOF was pleased to welcome as a new member the Foundation for Awareness of Osteoporosis (Nigeria). See page 22 for list of member societies.

**CNS MEDAL AWARDED IN MALAGA**

The award recognizes an individual affiliated with IOF’s CNS who has made an important contribution to IOF through active participation in CNS activities and by extending IOF’s messages and outreach in his or her country. In 2016 IOF was pleased to present the award to Dr Elias Hanna Saba, Chief Executive Director of the Palastinian Prevention Society (POPS).

**SHOWCASING THE WORK OF MEMBER SOCIETIES AT THE CNS VILLAGE IN MALAGA AND SINGAPORE**

12 member societies presented their work to delegates and potential sponsors in a specially designated area of the exhibition hall during the WCO-IOF-ESCEO 2016 in Malaga, Spain. This was also a feature of the IOF Regionals held in Singapore, at which 14 societies presented their work.

**IOF WORLDWIDE CONFERENCE OF OSTEOPOROSIS PATIENT SOCIETIES (WWC)**

This much anticipated bi-annual event provides member patient societies with valuable information, new skills to heighten their effectiveness at the national level, and the opportunity to mingle and meet with their colleagues worldwide. The next WWC, planned for March 23-24, 2017 in Florence, Italy will be held in conjunction with the IOF business meetings and the WCO-IOF-ESCEO Congress.
ABOUT US
THE LARGEST ORGANIZATION DEDICATED TO OSTEOPOROSIS & MUSCULOSKELETAL DISEASES

FOUNDED IN 1998

TEAM OF 15 EMPLOYEES

GLOBAL REPRESENTATION
HEADQUARTERS IN EUROPE, & REGIONAL OFFICES IN LATIN AMERICA, ASIA PACIFIC AND MIDDLE EAST & AFRICA

MEMBER SOCIETIES
83% OF THE TOTAL WORLD POPULATION
REPRESENTING 6 BILLION VOICES

SCIENCE & RESEARCH
11 WORLD CONGRESSES
3 SCIENTIFIC JOURNALS
9 IOF REGIONAL MEETINGS
5 CONGRESS HIGHLIGHTS SLIDE KITS
13 SCIENTIFIC WORKING GROUPS
63 MODELS OF FRAX® IN 58 COUNTRIES

> 200 FRACTURE LIAISON SERVICES IN 35 COUNTRIES

7 TRAINING PROGRAMMES WITH CLOSE TO 9000 PARTICIPANTS
**OUR COMMUNITY**

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<td>PATIENT &amp; MEDICAL SOCIETIES</td>
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**COMMUNICATION & OUTREACH**

- 16 WORLDWIDE CONFERENCE OF OSTEOPOROSIS PATIENT SOCIETIES
- 500,000+ ANNUAL VISITORS TO THE IOF WEBSITE
- 7 INTERNATIONAL SURVEYS
- ~11,000 FOLLOWERS

**POLICY & ADVOCACY**

- 10 EUROPEAN UNION POLICY REPORTS
- 7 LANDMARK REGIONAL AUDITS
- MEMBER OF THE NCD ALLIANCE AS THE UNIQUE REPRESENTATIVE OF MUSCULOSKELETAL HEALTH
- FOUNDED IN 1998
- TEAM OF 83% OF THE TOTAL WORLD POPULATION REPRESENTING BILLION VOICES
WORLD CONGRESS ON OSTEOPOROSIS, OSTEOARTHRITIS & MUSCULOSKELETAL DISEASES

IOF’s annual Congress, WCO-IOF-ESCEO is the world’s leading clinical forum in the bone, joint and muscle field. Held in Malaga, Spain from April 14-17, 2016, the Congress welcomed 3817 registrants and 1259 abstracts, making it the most influential congress in the bone field.

The final programme included 9 plenary lectures, 15 clinically-focused Meet-the-Expert Sessions, and a large number of special sessions, including Educational Lectures, ESCEO Symposia, and the Committee of National Societies Special Plenary session. In addition, there were 16 non-sponsored workshops; 71 oral communications selected from outstanding abstracts and selected posters; 910 posters displayed and presented in scheduled sessions; and six satellite symposia. Key highlights of the 2016 edition of the WCO-IOF-ESCEO are available for viewing here: http://bit.ly/2joHMcp

As well as the record number of abstracts, the Congress also issued a record 596 prizes, fellowships and awards.

- 259 submitted abstracts
- 596 prizes, fellowships, scholarships and awards awarded

Looking ahead to 2017 and 2018, the WCO-IOF-ESCEO Congresses will be held in Florence, Italy (March 23-26, 2017) and in Krakow, Poland (April 19-22, 2018).

AWARDS IN RECOGNITION OF OUTSTANDING ACHIEVEMENTS

Every year the World Congress is the occasion at which IOF honours individuals for their remarkable work and achievements. The following individuals were recognized as the winners of IOF and ESCEO’s 2016 Awards:

IOF PRESIDENTS AWARD

This important award recognized eight outstanding individuals for their dedication to the work of IOF and to global osteoporosis awareness and education: A. Mithal (Asia), P. Mitchell (Oceania), P. Clark (Latin America), A. Ildikó Gáspárík (Eastern Europe), L. Zakraoui (Middle East & N. Africa), J. B. Cannata Andia (Southern Europe), T. Thomas (Western Europe), F. Jiwa (N. America).

HERBERT A. FLEISCH ESCEO-IOF MEDAL

René Rizzoli received this prestigious award which honours a researcher who has made outstanding and ground-breaking achievements in basic bone science. Prof. Rizzoli’s influential work in bone and mineral metabolism has contributed significantly to advances in the general management of osteoporosis.

IOF MEDAL OF ACHIEVEMENT

Eugene McCloskey was the winner of this annual award which honours an individual researcher who has significantly advanced the field of osteoporosis through original and outstanding scientific contributions. The award underlines
important aspects of IOF’s mission – to increase understanding and awareness of osteoporosis and to promote medical innovation and improved care.

ESCEO MEDAL OF EXCELLENCE
As one of the most cited researchers and key opinion leaders in the field, IOF President John A. Kanis was the deserving winner of the ESCEO Medal of Excellence. The Medal recognizes significant academic contributions to the field of osteoporosis and musculoskeletal science through original and outstanding scientific research.

IOF OLOF JOHNELL SCIENCE AWARD
This Award, which recognizes an individual who has made outstanding global contributions to the field of osteoporosis in a scientific or policy implementation area, was presented to Serge Ferrari. His research has led efforts to translate new findings on the biological and pharmacological mechanisms of action on bone into improved patient care in osteoporosis and metabolic bone disorders.

IOF-ESCEO PIERRE MEUNIER YOUNG SCIENTIST AWARDS
Elaine Dennison and Olivier Bruyère were named winners of this notable new Award. It recognizes young scientists who have carried out top-quality research in the field of musculoskeletal diseases, and who are expected to have a promising future as key opinion leaders in the field.

IOF REGIONALS 6TH ASIA-PACIFIC OSTEOPOOROSIS MEETING
The IOF Regionals have been a key educational and research forum in the Asia-Pacific region since 2010. Organized by IOF in cooperation with the Endocrine and Metabolic Society of Singapore (EMSS) and the Osteoporosis Society Singapore (OSS), the 6th Asia-Pacific Osteoporosis Meeting took place in Singapore from November 4-6, 2016. Meeting Co-chairs were Joon-Kiong Lee, (MYS) and John A. Kanis, (UK). The Local Organizing Committee was chaired by Siok-Bee Chionh, (SGP) and Serge Ferrari and Manju Chandru were the Scientific Programme co-chairs.

IOF was honoured to have Dr Amy Khor, Senior Minister of State, Singapore for Ministry of Health; Ministry of Environment and Water Resources as the Guest of Honour.

The comprehensive and high quality programme included the following new features: An IOF-ISCD Joint Session, a Non-Communicable Diseases Alliance Spotlight, Poster Guided Tour, “Office Hours”, and a Best Oral Communication Award. The latter was awarded to Heying Zhou from Japan, and a Best CNS Booth Award was presented to the Japanese Society for Bone & Mineral Metabolism.

Singapore key statistics
- 802 participants, from 46 countries – with greatest participation from Singapore, China, Australia, Japan and Indonesia
- 168 abstracts, 80% from the Asia Pacific
- 110 posters presented
- 22 hours EACCME credits, as well as Singapore Medical Council CME/CPE credits

IOF YOUNG INVESTIGATOR AWARDS
To reward and recognize research excellence, IOF presented the following five investigators with a USD 1000 travel grant and a certificate in recognition of their top ranking abstracts: P Singh, IND; F Wu, AUS; S Hosking, AUS; Y Su, HKG; H Tanigawa, JPN.
OSTEOPOROSIS ESSENTIALS – DENSITOMETRY, DIAGNOSIS & MANAGEMENT COURSE

This joint IOF-ISCD initiative provides high-quality clinical training to improve diagnosis and patient care. Since its launch in 2013, more than 116 courses have been held worldwide for close to 7500 participants. In 2016 a total of 23 courses were held in Australia, Brazil, Canada, China, Chinese Taipei, India, Indonesia, Ireland, Kuwait, Mexico, Romania, Singapore, South Africa, United Arab Emirates and the USA.

OSTEOPOROSIS ESSENTIALS IN SINGAPORE

A successful Osteoporosis Essentials Course was held from Nov. 2-3, 2016 preceding the IOF Regionals in Singapore. Course directors Manju Chandran, SGP and Joon-Kiong Lee, MYS, led the CME-accredited course.

JOINT SCIENTIFIC SESSIONS

WCO MALAGA, SPAIN:

- IOF-FFN: After the fracture – what does the patient need?
- IFCC-IOF-NBHA: The clinical value of bone turnover marker assays: latest developments from the IFCC-IOF working group and NBHA
- ISCD Meeting, Galway, Ireland: ISCD-IOF: Quality Matters
- ASBMR Atlanta: ASBMR-IOF: Fracture risk assessment to target treatment: effectiveness and cost utility
- IOF Regionals Singapore: IOF-ISCD Joint Session

DO-HEALTH

IOF is project partner of DO-HEALTH, the Vitamin D3-Omega3-Home Exercise - Healthy Ageing and Longevity Trial. This is a seven-centre European study (Zurich, Basel, Geneva, Berlin, Toulouse, Coimbra and Innsbruck) which is seeking evidence for three simple and low-cost strategies to prevent or delay chronic disease and prolong healthy life expectancy in seniors. The data will also provide insights on discrepancies in senior health across Europe, as well as information about differences between genders, and between those with a history of falling and non-fallers. The 4th Annual Meeting on March 11 showed that the Trial is progressing well with 100% of participants reaching the year 1 visit and 60% reaching the year 2 visit by that date. John A. Kanis, Bess Dawson-Hughes and Eugene McCloskey representing IOF, and René Rizzoli who attended on behalf of a recruiting center.

SKELETAL RARE DISORDERS RESOURCES AND PILOT COURSE

On February 29th, 2016 IOF marked World Rare Disease Day by launching a new online resource which features detailed information on close to 90 of the main rare diseases that affect the skeleton.

This was followed by a pilot course ‘Genetic disorders of bone and their adult expression’ on November 11 in Geneva, Switzerland. This unique course, restricted to 30 participants to allow for interaction and discussion, was the first IOF course designed to give a small group of participants a deeper understanding of rare bone disorders while outlining useful diagnostic strategies and appropriate targeted therapies. As well as the core faculty comprising M.L Brandi, S. Ferrari, K. Javid, L. Bonafé and A. Superti-Furga, presenters included L. Masi, S. Papapoulos, A. Trombetti and S. Unger.

IOF REGIONAL COURSES (LATIN AMERICA)

Every year, IOF organizes or collaborates with member organizations to hold a variety of educational courses. In 2016 these included:

- Advanced Training Course on Osteoporosis, Mexico, October 21-22
- IOF Expert Meeting on Bone Quality, Buenos Aires, August 22
- Updates on Bone Health for Residents in Rheumatology, Lima, Peru, July 2.
• Three IOF Symposia in cooperation with national congresses in Argentina (with SOGIBA/FIM and AAOMM/SAO), Brazil (ABRASSO).
• Two IOF LA Pediatric Bone Health Courses in Mexico City (with UNAM Medical School and the Mexican Pediatric Ass.)
• IOF Tour Updates: one in Uruguay (Update on Bone Health) and six in Brazil with FEBRASCO and ABRASSO
• A FRAX webinar was held in Mexico on October 27

IOF JOURNALS PORTFOLIO
IOF offers an extensive publication portfolio of leading journals in the field of osteoporosis and bone health. Our scientific journals are key assets in our mission to promote high quality research, medical innovation, and improved patient care.

OSTEOPOROSIS INTERNATIONAL
Leading forum for clinical research in the diagnosis, prevention and management of osteoporosis and related musculoskeletal diseases
Ranked 45th of 131 journals in the category Endocrinology and Metabolism
Editors-in-Chief: John A. Kanis, Felicia Cosman

CALCIFIED TISSUE INTERNATIONAL & MUSCULOSKELETAL RESEARCH
Cutting edge preclinical and translational research in the bone and muscle field
Ranked 62nd out of 131 journals in the category Endocrinology and Metabolism
Editors-in-Chief: René Rizzoli, Stuart H. Ralston

ARCHIVES OF OSTEOPOROSIS
A key forum for regional research and guidelines
Editors-in-Chief: John A. Kanis, Felicia Cosman
NEW: notable first Journal Citation Reports Impact Factor of 2.387! Already ranked 19th of 74 journals in the orthopaedics category and 84th of 131 journals in the endocrinology & metabolism category.

IOF SCIENTIFIC WORKING GROUPS
IOF’s Committee of Scientific Advisor (CSA) Working Groups formulate global policy guidance, scientific guidance and statements to update IOF positions and to develop educational and research projects of international relevance. Currently there are 12 active groups:
• Bone and Cancer
• Bone and Diabetes
• Chronic Inflammation and Bone Structure
• IOF/ECTS Compliance/Adherence
• Management of cessation treatment
• Fracture (Capture the Fracture®)
• IOF/ASBMR HR-pQCT (High Resolution Peripheral Quantitative Computer Tomography)
• Hip Bone Strength as a Therapeutic Target
• Sarcopenia and Impaired Mobility
• Skeletal Rare Diseases
• IOF-IFCC Standardization of Bone Markers Assays
• IOF-APOA Orthopaedics Initiative NEW

KEY IOF PUBLICATIONS OF 2016
The success of the working groups was reflected in the extensive number of publications over the duration of the year.

FRACTURE HEALING: A CONSENSUS REPORT FROM THE INTERNATIONAL OSTEOPOROSIS FOUNDATION FRACTURE WORKING GROUP.
MECHANISMS IN ENDOCRINOLOGY: MECHANISMS AND EVALUATION OF BONE FRAGILITY IN TYPE 1 DIABETES MELLITUS.

BISPHOSPHONATE DRUG HOLIDAYS: WE REAP WHAT WE SOW.

MECHANISMS OF DIABETES MELLITUS-INDUCED BONE FRAGILITY

BIOLOGIC THERAPIES AND BONE LOSS IN RHEUMATOID ARTHRITIS
Zerbini CA et al., IOF Chronic Inflammation and Bone Structure (CIBS) Working Group
Osteoporosis Int 2016

CLINICAL USEFULNESS OF BONE TURNOVER MARKER CONCENTRATIONS IN OSTEOPOROSIS
Morris HA et al., IFCC-IOF Working Group for Standardisation of Bone Marker Assays (WG-BMA)

THE ROLE OF CALCIUM SUPPLEMENTATION IN HEALTHY MUSCULOSKELETAL AGEING: AN EXPERT CONSENSUS MEETING OF THE ESCEO AND IOF
Harvey NC et al. Osteoporos Int. 2016

PAPERS PUBLISHED IN COLLABORATION WITH OTHER SOCIETIES:

REVISED GLOBAL CONSENSUS STATEMENT ON MENOPAUSAL HORMONE THERAPY IN COLLABORATION WITH THE IMS
de Villiers TJ et al., Maturitas 2016 and Climateric 2016

CASE-BASED REVIEW OF OSTEONECROSIS OF THE JAW (ONJ) AND APPLICATION OF THE INTERNATIONAL RECOMMENDATIONS FOR MANAGEMENT FROM THE INTERNATIONAL TASK FORCE ON ONJ.

CONGRESS HIGHLIGHTS MULTIMEDIA RESOURCES
In keeping with its mission to advance health professional education, IOF has prepared slide kits and video commentaries that highlight key research from the year’s two major bone meetings: WCO-IOF-ESCEO 2016, Malaga and ASBMR 2016, Atlanta, were developed in collaboration with a dedicated Committee of experts, including David Kendler, Atsushi Suzuki, Roland Baron, John Bilezikian, Bernard Cortet, Teresita M Bellido, Elaine Dennison, Carolina A Moreira, Mark Edwards, and Aldolfo Diez. The slides were made available in English, French, Japanese and Spanish.

CAPTURE THE FRACTURE®
Since 2012, the IOF-led Capture the Fracture® (CTF) programme has played a major role in promoting secondary fracture prevention through best practice guidance and recognition of Fracture Liaison Services around the world. Fracture Liaison Services, commonly known as FLS, are coordinator-based, secondary fracture prevention services implemented by health care systems for the treatment of osteoporotic patients. The FLS is designed to:

- Close the care gap for fracture patients, 80% of whom are currently never offered screening and/or treatment for osteoporosis
- Enhance communication between health care providers by providing a care pathway for the treatment of fragility fracture patients
With a dedicated website www.capturethefracture.org and internationally influential resources such as the Best Practice Framework (in nine languages), CTF is one of IOF’s landmark programmes.

Key achievements in 2016 include:

**GROWTH OF THE BEST PRACTICE RECOGNITION PROGRAMME**

CTF’s Map of Best Practice, a central pillar of the CTF programme, gives recognition to FLS, grades their level of service, and provides a CTF Seal of Recognition for participating FLS. The level of excellence obtained by the FLS is designated as gold, silver or bronze. By the end of 2016:

- A total of 184 FLS sites from 35 countries are showcased on the Map of Best Practice
- 86 new FLS participated in 2016 — a 44% growth

**COMMUNICATION AND OUTREACH ON THE RISE**

The CTF website was updated with a new layout. There was a 58% increase in page views, which totalled 3715 in 2016. Online media outreach expanded with an increasing use of Twitter (18,950 outreach), a greater number of Facebook posts, and a two-fold increase in CTF web newsletter recipients.

Three book chapters focused on CTF were published.

**WEBINARS**

Following on 2015’s series of successful webinars, eight more multi-language webinars were held throughout the year. More than 300 attendees attended the webinars, held in these eight languages: Dutch, English, French, Italian, Japanese, Polish, Portuguese and Spanish. Slides and videos were made available for viewing and download on the website (slides downloaded 373 times). Page views rose by 101%, with top downloads from Japan, Spain and the USA.

**UPDATED FLS QUESTIONNAIRE**

To facilitate the FLS reviewing process, the CTF team created an updated and more user-friendly questionnaire for newly submitting FLS available in multiple languages.

**LAUNCH OF CTF MENTORSHIP PROGRAMME**

A new programme to facilitate the transfer of knowledge and skills by connecting experienced FLS champions with institutions willing to establish a new FLS was announced. The Mentorship Programme includes on-site training and workshops within the same country.

- **On-site Training Day**

  This activity allows an FLS candidate (mentee) to benefit from a “one-day visit” at the FLS champion’s institution (mentor). Material and certificate will be provided. IOF will cover the travel cost for the FLS candidate. In 2016 the first On-site Training Day was held at the University Hospital of St. Etienne, France.

- **Ctf FLS Workshop**

  This workshop aims to teach the basic steps on FLS implementation to a group of 15-20 FLS candidates (mentees) within the same country. In close collaboration with a national society, the CTF FLS workshop will be customized to the health system of the country by including local experts within the speaker panel. Course materials and certificates of attendance will be provided to the mentees.

**FIRST CTF MENTORSHIP WORKSHOP IN RUSSIA**

IOF’s first CTF Mentorship Programme workshop took place in St Petersburg on November 28, 2016, in collaboration with the Russian Association on Osteoporosis, led by Prof. Olga Lesnyak. Close to 30 candidates from the Russian Federation joined the FLS workshop to understand more about how to effectively implement FLS at a local level. Key presentations were made by Prof. Olga Lesnyak (President of the Russian Osteoporosis Association), Dr Kassim M Javaid (FLS expert and co-chair of the CTF programme), Dr Ksenia Belova (Silver star recognised FLS from Russia Federation), and Muriel Schneider, IOF Capture the Fracture Coordinator.
WORLD OSTEOPOROSIS DAY

World Osteoporosis Day (WOD), marked on October 20th each year, is a key date in the bone, muscle and joint community agenda. It’s an occasion when people around the globe unite to put the spotlight on the immense burden caused by osteoporosis and related diseases. Sparking activities by member societies and organizations in 57 countries, IOF’s World Osteoporosis Day campaign generated widespread media attention as well as public and health professional awareness in all regions of the world.

HALLMARKS OF A SUCCESSFUL CAMPAIGN

The 2016 WOD campaign called on the general public to take early action to protect their bone and muscle health, in order to enjoy a good quality of life and independence in the future. It also called on health professionals and health authorities to prioritize osteoporosis and fracture prevention by ensuring that people at high-risk are assessed and appropriately treated.

DEDICATED WEBSITE AND A WIDE RANGE OF RESOURCES

Resources included a campaign toolkit, a video, posters, an educational brochure, expert report, three fact sheets and an infographic. WOD messages and resources were accessible on the dedicated multi-lingual, mobile-friendly WOD website, enhanced by wide use of social media. IOF member societies from more than 90 countries were invited to use the IOF artwork, available in 11 languages, for their own national campaigns around the world.

EXPERT REPORT: A VALUABLE EDUCATIONAL AND ADVOCACY TOOL

The 2016 thematic report Gaps and Solutions in Bone Health: A Global Framework for Improvement provides a global overview of the state of osteoporosis care for individuals at high-risk of suffering fragility fractures. Ten ‘gaps’ are presented together with associated solutions, providing a new Global Framework for tackling the impending catastrophic burden placed on the world’s population and economy.

COMMUNICATION & OUTREACH

IOF is committed to raising awareness and improving knowledge about the risk of fragility fractures and their consequences in terms of mortality and quality of life among patients, the general public, healthcare professionals and policy makers. Through dynamic multi-lingual campaigns and extensive media outreach, we communicate to billions of people in all regions of the world.
The report is available in multiple languages, in both electronic and print formats as a valuable resource for government representatives, healthcare professionals, policy makers and media – highlighting the unmet need to take action for prevention.

EXTENSIVE MEDIA AND PUBLIC AWARENESS CAMPAIGN

As well as issuing four WOD related online press releases, IOF made extensive use of social media channels including Facebook, Twitter, Instagram and YouTube to present WOD messages and resources. Extensive media outreach efforts resulted in:

- 1079 articles published
- 2 billion people reached

As part of the 2016 awareness raising efforts, IOF used a platform called Thunderclap to flood Facebook and Twitter to make osteoporosis heard on this year’s World Osteoporosis Day. IOF followers were encouraged to sign a dedicated Thunderclap page, and on October 20, a common message from all supporters was posted on social media. Some 156 supporters demonstrated their support, enabled a total social reach on 496,023 in order to help raise awareness about bone health!

COMMUNITY EVENTS AND LOCAL CAMPAIGNS WORLDWIDE

IOF’s global WOD campaign is accompanied by community events and local campaigns at the national level in all regions of the world. Member patient and medical societies, hospitals, clinics, schools and companies worldwide carried out varied events, many of which were featured in the World Osteoporosis Day website. Through IOF and community efforts, millions of consumers, patients, health professionals and policy makers received important prevention messages. A total of 197 WOD events in 57 countries were reported on the WOD website – an increase of 20% compared to 2015.

IOF MEDIA PRESENCE

24 press releases were issued in 2016 to promote key strategic priorities, scientific milestones and meetings resulting in a total 1240 articles published, with an overall reach of close to 2 billion readers.

IOF continued to develop its social media channels, primarily Facebook and Twitter resulting in an 18% increase of followers on all social media channels. IOF’s Twitter profile saw a 68% increase in overall engagement, and a 0.4% increase in total Facebook reach. In 2016 the IOF website received a 12% average increase in total viewers in comparison to 2015.

CALCIUM CALCULATOR APP

An updated version of the Calcium Calculator app was launched in October 2016 in a new design and format. The new, user-friendly version is available in more than 6 languages, and is integrated into the Apple Health app and available on Googleplay and the Appstore. Thanks to the enhanced Calcium Calculators app, there was a 34% increase in total downloads versus 2015.

IOF ONE MINUTE RISK TEST

A new version of the online interactive risk test was launched in conjunction with WOD 2016, in an interactive format. It is expected that it will help drive further awareness into 2017 and beyond.
POLICY & ADVOCACY

IOF is a leading advocate for policy change, working together with its members and other organizations in the non-communicable disease arena to prioritize musculoskeletal health and the prevention, diagnosis and treatment of osteoporosis and fragility fractures.

**NCD ALLIANCE**

In 2015 IOF joined the Non-Communicable Diseases (NCD) Alliance Supporters Group (SCG) as the first non-major NCD and the only member dedicated to musculoskeletal disease. The NCD Alliance is a network of more than 2000 organizations in 170 countries which works closely with the WHO and UN. IOF's involvement will help leverage the profile of musculoskeletal diseases within the global health and development community and will provide access to WHO/UN meetings. IOF has been represented on NCD Alliance digital platforms, and received help in disseminating World Osteoporosis Day resources to the broader NCD community. As an active member of the Supporters Consultation Group, IOF regularly joins in conference calls and in person meetings and participated in the following NCDA related activities:

- **NCD Spotlight Session in Singapore** on the occasion of the 6th Asia-Pacific Osteoporosis Meeting: Entitled “Addressing Osteoporosis as Part of the NCD Response: Successful Approaches for Integrated Prevention and Care”, session speakers included Prof. Cyrus Cooper, Dr. Tara Singh Bam, Deputy Regional Director, Asia Pacific, The Union, and Ms. Pei Yan Heng, Association of Diabetes Educators, Singapore.

- **NCD joint session with Alzheimers International** during the World Cancer Congress, Paris, November 1, 2016: Prof. René Rizzoli presented in the session ‘Strengthening Health Systems for Cancer and NCD co-morbidities.

**IOF GLOBAL PATIENT CHARTER**

In 2016 consultation and development on the launch of a Global Patient Charter began. This new initiative, which is being developed with the input of patients and national societies, will set out the key rights of people receiving care for osteoporosis, including a clear call for action in regard to secondary fracture prevention directed at healthcare professionals and policy makers. The official launch of the Charter will take place in March 2017 during the WCO-IOF-ESCEO Congress in Florence, Italy.

**CALL TO ACTION**

To address the crisis in the treatment of osteoporosis, IOF joined 35 organizations from around the world to sign and promote a “Call to Action”. The initiative, was launched at a press conference on September hosted by the ASBMR in Atlanta. IOF President John Kanis spoke at the event which called for intensified efforts and global collaboration to prevent fragility fractures by addressing the crisis in the treatment of osteoporosis. The initiative was followed up with a webinar on December 6th.
SKELETAL RARE DISEASE MEETING IN LISBON

On October 6, in conjunction with the ‘Congress OI in 2016’ in Lisbon, IOF convened a stakeholder group meeting to discuss common strategies and possible avenues of collaboration. IOF also became a proud partner of the Unbreakable Alliance, which hopes to stimulate cooperation with the common objective of improving the lives of people with Osteogenesis Imperfecta (OI).

GAPS & SOLUTIONS IN BONE HEALTH: A GLOBAL FRAMEWORK FOR IMPROVEMENT

The 2016 World Osteoporosis Day report ‘Gaps & Solutions in Bone Health: A Global Framework for Improvement’ was authored by Professors NC Harvey and E McCloskey. Highlighting the 10 care gaps which are preventing at-risk individuals from receiving timely diagnosis and osteoporosis treatment, the report calls for action by healthcare professionals and health authorities worldwide. It identifies the 10 major care gaps that are preventing early assessment and treatment, and outlines possible solutions that could be implemented by national health authorities worldwide. These include gaps related to poor case finding and management, suboptimal communication and low public awareness, neglect by national governments and healthcare systems, and lack of epidemiological data, particularly in the developing world.

Launched with a global press release that reached a potential audience of more than 28 million readers, the report was translated into 9 languages.

IOF REGIONAL AUDITS

IOF’s regional audits are unique publications and valuable advocacy tools for IOF’s membership in the respective regions. The reports detail key osteoporosis-related facts for individual countries and the region as a whole. Published for Europe, Asia-Pacific, Eastern Europe & Central Asia, Latin-America, and the Middle East, the reports are among the most downloaded publications on the IOF website.
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Laurence Triouleyre, Meetings Manager & Science Coordinator

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See Ting, Asia-Pacific Regional Assistant

Financial Statements: The complete annual report, including financial statements, will be available on the IOF website at www.iofbonehealth.org/annual-report