

## **Letter from the President: 2015 – 2018**

My term of the IFSM presidency from 1 January 2015 to 31 December 2018 has gone quickly, and I have passed the job on to my successor Angus Kirkland, who was elected at the General Assembly (IFSM-GA) in Sydney 2018. I would like to congratulate him on his presidency and wish him all the best for the next four years from 1 January 2019 to 31 December 2022.

It is my great pleasure to thank the Executive Committee (EC) Members of Barry Carter (Vice-President), Angus Kirkland (General Secretary), Paul Fischione (Treasurer), Jose Carrascosa, Pavel Hozak, John Mansfield, Syo Matsumura, Joachim Mayer, Paul Midgley, Eva Olsson, Simon Ringer, Guillermo Solórzano and Debbie Stokes for all of their support in every activity undertaken by the IFSM over the last four years.

In particular, I would like to deeply thank Simon Ringer and his team for organizing the 19th International Microscopy Congress (IMC19), which was held in Sydney, Australia, 9-14 September 2018. Everyone agreed that the meeting was a complete success and we were given positive feedback on the new styles used in several events. Moreover, I would like to renew my thanks to all the companies who participated which includes but is not limited to Hitachi, JEOL, Thermo and Zeiss. They were all very collaborative and fostered a friendly atmosphere at the IMC19 exhibition.

I am thinking it useful to leave the following message for all of the members of IFSM -- EC Members, Representatives of Regional Committees and the 39 Member Societies.

### **ICS\* Membership and Centenary of Microscopy**

(\* The ICSU changed its name to International Science Council (ISC) in 2018 as the result of the merger with the International Social Science Council)

In 2004, I was in charge of organizing the IMC16, Sapporo in 2006, and was trying to obtain governmental supports from the Science Council of Japan (SCJ) to strengthen and raise the status of the meeting. The first comment from the SCJ was the “Non-regular membership” of IFSM in the International Council for Science (ICSU). This was the first time for me to recognize the importance of the international status of scientific federations. When I was elected as the President at the IFSM-GA during the IMC18 in Prague and then took up my post on 1 January 2015, my first task was to apply for the regular membership of IFSM in the ICSU. An official application was immediately prepared and sent to the ICSU in February 2015. I also got in touch with some ICSU executive members to recommend the IFSM for eligibility in one of the Member Unions, such as IUPAC, IUPAP, IUMRS and so on. The reply from the ICSU executive committee came by the end of April, 2015. There was no objection from the committee, but the IFSM must get at least 12 recommendations from ICSU Members. And the application had to be approved at the General Assembly of the ICSU (ICSU-GA) in 2017.

I reported the response of the ICSU at the EC meeting held at M&M 2015 in Portland, and then the IFSM started collecting as many recommendations as possible. As of August 2016, their earnest and continued efforts for more than one year resulted in 26 recommendations. This was reported at the next EC meeting held at EMC 2016 in Lyon.

IFSM was invited to the ICSU-GA in Taipei, Taiwan, 23-26 October 2017, and I gave a short presentation about the IFSM to all the representatives from around the world. Immediately after, our proposal was approved, more than 90% voting in favor. IFSM is now the 31st Member Union. This membership will benefit IFSM by providing a global forum to further promote our activities and to engage with complementary unions and federations.

One more clear value in becoming a regular member of the ICSU is the “International Year of Microscopy”. This

is because the ICSU is associated with UNESCO which is a key organization that establishes the formal international year of sciences. All of us know that the first electron microscope was invented in 1931 in Berlin, Germany. The timing of our approval is relevant for the IFSM as the Federation marks “the year of 2031” as the centenary of the invention of electron microscopy.

### **IFSM Featured Events in IMC19**

The third EC meeting in 2017 was held at the same time as M&M in St. Louis. Simon Ringer and his team for IMC19 came over from Sydney and discussed the detailed plan for IMC19. One important proposal was digital posters. Since more than 1500 presentations were expected, Simon proposed having 16 digital poster terminals in the exhibition area to make it easy for the audiences to access the posters at their convenience. Eventually, the introduction of the digital system integrated with the exhibition was very useful not only for IMC19, but for future IMCs. IFSM and the IMC organizers should continue such efforts to increase the impact of our meetings.

Simon also reported the progress of the selection of the Plenary Speakers for IMC19. Based on IMC tradition, four speakers were selected and the lectures were allocated to the morning of Monday to Thursday, i.e. Dan Shechtman (Monday), Jennifer Dionne (Tuesday), Zhiwei Shan (Wednesday), Misty Jenkins (Thursday). *The details were found in the official IMC19 report by Simon and the organization committee.*

One of the events where the IFSM is proactively involved was the “IFSM awards” which honor the outstanding contributions of individual scientists and their achievements in the field of microscopy and related techniques. The awards were devoted to four areas/fields: diffraction physics (John Cowley Medal), new developments in optics and instrumentations (V. Ellis Cosslett Medal), solid state physics (Hatsujiro Hashimoto Medal) and life sciences (Eduard Kellenberger Medal). The winners were selected following a vote by the EC Members and each recipient was invited to deliver a talk at the IFSM Symposium on Friday morning. Joachim Mayer worked very hard on the selection process and the distinguished scientists were finally chosen as follows:

The John Cowley Medal	Archie Howie (The University of Cambridge, UK)
The V. Ellis Cosslett Medal	Les J. Allen (The University of Melbourne, Australia)
	Christian Colliex (CNRS Laboratoire de physique des solides, France)
The Hatsujiro Hashimoto Medal	Yuichi Ikuhara (The University of Tokyo, Japan)
	Frances Ross (IBM, Thomas J. Watson Research Center, USA)
The Eduard Kellenberger Medal *** The Nobel prize winners***	Joachim Frank (Columbia University, USA)
	Richard Henderson (MRC Laboratory of Molecular Biology, UK)
	Jacques Dubochet (Université de Lausanne, Switzerland)

I want to point out two major differences with the previous award selection in Prague, 2014. The first is that two individual scientists were rewarded with the Cosslett and Hashimoto Medals. It was very difficult to choose one due to the wide spreading scientific fields and the significant progress in microscopy over the last four years. Another is the Kellenberger Medal given to a group of scientists who received the Nobel Prize in 2017 after the IFSM decision.

The second important event was, of course, the young scientists support. The last three IMCs were always preceded by a day-long school for Young Scientists (YS). Based on the ideas put forward by Eva Olsson, IFSM changed its style to focus on group discussion, and named it the Young Scientists Assembly (YSA). 177 applications for the YSA were received before the deadline. After a review by the EC Members, Eva Olsson made the final decision on the top 50 successful applications.

The event started with an informal get-to-know-you dinner on the Captain Cook Cruise on Saturday 8 September, and was followed by the presentations and discussions for the “global aspect on microscopy” on the next day. Since the practical goal is to encourage the YS to further expand their international network by engaging in discussions, the 50-YS divided into several groups and discussed the proposed topics: “What was your pathway into microscopy?”, “What has been the greatest challenge of your career?” and “What has brought you the most joy from your career, to date?”. Moreover, the 50-YS were asked to submit an image for a ‘favorite image’ competition followed by a vote. The 2 winning images were then posted on the website. This style of the YSA is new and has received positive feedback. Such progressive changes must be carried on in future IMCs.

### **The IFSM General Assembly in Sydney**

The IFSM-GA was held on Thursday 13 September 2018. The representatives of the Member Societies elected the EC Members for the next term as follows: Angus Kirkland (President), Kazuo Furuya (Vice-President), Eva Olsson (General Secretary), Paul Fischione (Treasurer), Jordi Arbiol, Kamanio Chattopadhyay, Reinhard Rachel, Virginie Serin (New Members), Pavel Hozak, John Mansfield, Syo Matsumura, Paul Midgley, Simon Ringer (Continuing Members) and Inderpreet Gill (ICMA). Congratulations to all of them !

The bid presentations were held for the 20th International Microscopy Congress (IMC20). Five societies from Korea, The Netherlands, South Africa, Spain and the USA had a very tough competition. The quality of all bids was very high and their motivation was clearly demonstrated, showing us the bright future of the IFSM and microscopy. I thank all of them for their sincere proposals for IMC20. Finally, I would like to congratulate the Korean Society of Microscopy (KSM), who won the bid for the year of 2022. IMC20 will be held in Busan, Korea, 25-30 September 2022. Keesam Shin (IMC20) is appointed to be one of the EC Members. *The details were found in the minutes of the General Assembly held in Sydney, 13 September 2018.*

I have reported the recent IFSM activities on the membership in the International Science Council (ISC) and summarized the discussion at the EC about the declaration of 2031 as an official UNESCO year of Microscopy. The IFSM-GA noted that IMC22 would be held in 2030 in accordance with the normal four yearly cycle. In 2031, a number of special events would then be hosted celebrating the centenary of the first electron microscope. Further discussion should be continued to initiate the IFSM proposal for the formal year of microscopy in 2031.

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My last words are for Professor Hatsujiro Hashimoto, who was the President of IFSM from 1982 to 1986 and passed away on 15 April 2017. His contribution to the IFSM was promoting the activity of Asian-Pacific Microscopy, in particular that in China. *The Obituary is found on the IFSM web-site.* I pray that his soul may rest in peace and find a place for electron microscopy in the other world.

According to the IFSM rules, I will remain active as the Vice-President for a further term of office of four years. I will try to use this opportunity to assist the new EC team, possibly on the centenary in 2031, which is based on a long and rich accumulated history of electron microscopy and will definitely create a bright future for science.

I will meet with all of you at the IFSM meetings and IMC20 in Busan in 2022 !

Kazuo Furuya  
Tsukuba, Japan on 12 April 2019