



Flow Cytometry Section Report 2020-21

Dr Karen Hogg

This is the end of my first year as Chair of the Flow Cytometry section. Our activities have been undertaken differently to previous years due to the Covid-19 pandemic era we are all living / working within; however, we have successfully engaged in a wide range of flow cytometry matters over the course of the year.

2021 started with the ever-popular Flow Facilities meeting held virtually on afternoon 7 – 8 January with UK organisers (Derek Davies, Peter O'Toole, Karen Hogg) and from the USA co-organisers Rachael Sheridan and Alexis Conway. Three-hundred and seventy-six delegates registered from forty-six countries met to hear about and discuss new and emerging technologies as well as the operational aspects of running and working in a flow cytometry facility. In addition to the global main event a UK centric morning session was held on 8 January (all delegates were welcome to attend) for an update from the British Isles flow cytometry society representatives, The Wellcome Trust and the BBSRC. This was followed by presentation (Andy Filby) on the issue of securing a grant as a non-academic University staff from and a general discussion: this was very beneficial and insightful as opinions, ideas and experiences from many delegates were shared.

January was a busy month even as it also included the Virtual Facility Managers Training Course Core ran in association with the LM and EM sections with scientific organisers Derek Davies, Joanne Marrison, Peter O'Toole, Alex Sossick, and Natasha Stephen. The course was split over 18-20 January with twenty delegates. Being virtual this allowed the lectures to be provided in advanced as pre-recorded videos, allowing the live-time to be highly interactive. The course covered the fundamentals needed for the development and running a core facility and again was oversubscribed. Note: check out the RMS Facilities database (<https://www.rms.org.uk/network-collaborate/facilities-database.html>) if yours is not there, please submit the details and add it.

As reported in the 2020 Flow Section AGM report the 2020 annual Face-to-Face Flow course at University of York was cancelled due to the pandemic but in its place we ran a virtual data analysis course held over four afternoons in September 2020. Feedback from this 2020 event showed it was well-received and we decided to run it twice more for 2021: 8-11 March and 13-16 September: organisers were Peter O'Toole, Karen Hogg, Derek Davies, Sukhveer Purewal. As in 2020 a parallel one-day Clinical Flow Cytometry data analysis course was organised by Stephen Couzens, David Bloxham and Dan Payne. The course was fully subscribed. Within sessions delegates either analysed the flow cytometry data files in real time or made notes to know-how later: software (FCS Express, FlowJo) and application specialist expertise for the course was provided by De Novo Software and BD Biosciences and we acknowledge and appreciate their support. The virtual logistics of this course are quite lengthy and so special thanks to the RMS team for their expertise and attention to all the details needed to aid the events success.

It was sadly necessary that mmc2021 was held virtually however the two Section organised sessions High-plex Cytometry and Multiplexed Imaging Flow Cytometry (organised by Karen Hogg and Ziv Porat, respectively) were well received and viewed by nearly fifty delegates each; although a face-to-face congress would have been preferred the virtual format enabled international invited speakers and delegates to easily contribute and participate; over 700 delegates from across the globe enjoyed a diverse scientific programme and an additional 500 viewed products and technology at the commercial virtual booths and workshop events.

The Flow Cytometry Section had two committee meetings virtually so far this year (January 25, May 17) and have an addition meeting scheduled for October 5. As many of the Flow Cytometry Section members have never been able to attend an RMS mmc event Allison Winton kindly presented an overview of the congress history and format of the event at the May 17 section meeting. The committee also meet virtually on June 28 for an RMS website review to provide feedback to the RMS team on how the profile of the section can be effectively represented on the RMS website: a flow cytometry section has been added to the Supporting Gender Equality in Microscopy data base.

A new addition to the Section event calendar has been the Virtual RMS Flow Facilities Coffee Club held bi-weekly, Tuesday at 4pm. These informal meetings have been well received by the Flow community; the structure of the meetings has been varied with some invited presentations, discussion on focused topics and time for general discussion on any other matters arising. This meeting style has also taken up by BiolmagingUK to great effect. Many thanks to Helen Ferry for requesting some form of virtual interaction, to Derek Davies, Peter O'Toole for being proactive in organising and publicising these events, also to Richard Grenfell for chairing some of the club sessions and to the RMS team for making them possible.

Still to come for 2021 we have two events: the online 'Open International Flow Cytometry Facilities Forum – Covid, One Year On' organised jointly by FlowCytometryUK and the RMS, scientific organisers: Derek Davies, Peter O'Toole, Rachael Walker and Jessica Black. The meeting will provide a forum to discuss which changes facilities have initiated during the last year, which restrictions are still in place and how the laboratories will look post-COVID.

November 2021 there is the *flowcytometryUK*2021 will be held online on November 17-18 at which we will present the Flow Cytometry Medal to Gert van Isterdael (VIB-UGent Center for Inflammation Research Ghent, Belgium).

Next year we will be looking forward to *flowcytometryUK*2022 which is due to be held at the University of Birmingham on 20-22 July 2022.

The Flow Cytometry Section are extremely grateful to the many companies that sponsored and participated in the events during 2021 it has been a difficult time for them to and we are grateful for their continued support.

I would like to thank all the Section Committee members who have worked hard to provide and participate in a range of scientific and training events during these challenging and rapidly changing times when time is often in short supply (as well as laboratory plastic ware).

Finally, we thank the RMS team lead by Allison Winton – you are all amazing with an outstanding level of expertise and professionalism.

Karen Hogg, Chair, Flow Cytometry Section
September 2021