

**The International Society for Extracellular Vesicle (ISEV) 7th Annual Meeting**

*2-6th May 2018, Barcelona, Spain*

**Meeting Report: Dr Rachel Crossland**

In May of this year I had the pleasure of attending the International Society for Extracellular Vesicles (ISEV) 7th Annual 2018 Meeting, in sunny Barcelona. The ISEV Annual Meeting is the world’s largest annual meeting that focuses on extracellular vesicles (EVs) and covers all biological basic aspects related EVs, as well as their clinical and translational applications. ISEV focusses on a broad, interesting and dynamic program that includes educational sessions, along with the latest advances of the field - representing both fundamental and clinical aspects.

I am currently a postdoctoral researcher, based at Newcastle University, UK. My research interest concerns the capacity of EVs as biomarkers for inflammatory disease, their role in disease pathology and their potential as novel therapeutics. I am particularly interested in the investigation of circulatory EVs within body fluids, and motivated by the potential to translate these results to a clinical setting. I had the pleasure of presenting our recent work at ISEV2018, entitled: “**The Molecular Composition of Mesenchymal Stem Cell Extracellular Vesicles and their Biological Impact on Cartilage Tissue Repair”.** This was an invaluable experience, as it allowed me to discuss our project as well as network with expert researchers in the field of EVs. This is particularly important, as EV research is a relatively new field, and some of the fundamental aspects such as the methodology for EV isolation and characterisation are still being developed. I therefore had the opportunity to discuss some of our protocols and approaches in detail and ensure they were in accordance with the new Minimal Information for Studies on Extracellular Vesicles (MISEV) 2018 guidelines, which were under revision at the time, based on consensus from over 380 ISEV members.

With such a packed EV-focussed parallel programme, I was able to attend some fantastic lectures delivered by experts in the field. I particularly enjoyed the keynote lecture by Dr Graca Raposo from the Institut Curie, who gave a wonderful overview on ‘advances on the cell biology of EVs’, allowing me to further my knowledge on recent developments in EV research. I also enjoyed the talk by Dr Elisa Lazaro-Ibanez, who described for the first time the discovery of dsDNA on both the inside and outside of EVs. It was also fantastic to attend the ‘Blood Biomarker Working Group’ session, led by Dr Rienk Nieuland, as this is directly related to my current research. In this session, leading experts described their consensus recommendations for sample preparation (Prof Aled Clayton), pre-analytical factors (Dr Kenneth Witwer) and pre-analytical recording (Prof An Hendrix). As a result, I have been able to incorporate these improved recommendations into my current experimental planning.

The event was also an invaluable opportunity to network with other researchers in the EV field, including a collaborator based in Boston, USA, who was travelling to the same meeting, and with whom I was able to dedicate time to discussing our ongoing research project in detail. This chance to network extended to the sponsor exhibitors, particular as the technology in the EV field is rapidly evolving. Indeed, as a result of my discussions with Merck at ISEV2018, I have been able to set up a collaborative project with some new equipment available here in Newcastle, and adapt this technology to an EV-specific project.

Finally, I’ve had the opportunity to disseminate my experience at ISEV both locally and nationally since returning from the meeting. I have presented the most interesting and relevant lectures within our Departmental research forum, and to the wider Institute of Cellular Medicine at Newcastle University. I am also on the board for the newly formed UK Society for Extracellular Vesicles (UKEV), as part of the Science Communication Team. A number of board members also attended ISEV and we were given the opportunity to launch our Society to the International EV community while at the event. I was also able to provide coverage of ISEV to other EV researchers in the UK by means of our UKEV live Twitter coverage and meeting reports for our website. I hope, therefore, that my attendance at ISEV has been able to benefit the UK EV community as a whole.

I’d like to thank The Pathological Society once more for the invaluable experience of attending ISEV2018, which has not only been instrumental to my scientific research, but also for my career development.