**REPORT ON EXPEDITION / PROJECT / CONFERENCE**

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| **Expedition/Project/ Conference Title:** | Mitotic Spindle: From Living and Synthetic Systems to Theory |
| **Travel Dates:** | 24 – 27 March 2019 |
| **Location:** | Split, Croatia |
| **Group member(s):** | Thibault Legal |
| **Aims:** | Give an oral presentation to present my PhD work |
|  | Meet other researchers in the cell division field  |
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| **OUTCOME (not less than 300 words):** |

The mitotic spindle conference took place in Split, Croatia from 24th to 27th March 2019. Around 100 people from the cell division field attended this conference. The main focus of this conference was to gain insights into how microtubules and chromosomes organise themselves throughout mitosis. This conference brought together scientists working on biophysics and mathematical modelling, cell biology and quantitative imaging, biochemistry and in vitro reconstitution of protein complexes.

The conference was divided in sessions focusing on different aspects of the mitotic spindle such as its architecture, chromosome-microtubule attachments, proteins associated to the spindle and its physical properties. A very relevant talk to me was from Marin Barisic who is working on CENP-E, a protein that I am also studying. He showed that it was important for microtubule flux, a yet unknown property of CENP-E. I also enjoyed the talk given by Thomas Surrey who could reconstitute microtubule bundles observed in anaphase by adding only two proteins to microtubules.

Twenty five different poster were presented over 3 poster sessions. I talked to a lot of scientists who were working on different projects. I mainly enjoyed the posters looking at the shape of the mitotic spindle and how elastic it is. This was tested using expansion microscopy and by applying force on top or on the side of cells.

I gave an oral presentation on the second day of the conference. I talked about my project which focuses on how CENP-E can localise to the kinetochore; the centromeric region of the chromosome. I received good feedback on my project and was given ideas of experiments to carry out.

On the third day of the conference, we had the opportunity to go to a guided tour of the city centre. Split is a beautiful city with many buildings that were built in the 4th century AD.

During the poster sessions, dinners and free time, I had opportunities to network with experts in the field of cell division and exchange my views on different aspects of the research being carried out.

Overall, I enjoyed this conference very much and I am grateful for the support I received from the James Rennie Bequest.