Sam Maron Class of 2017

Weatherall Institute of Molecular Medicine
Oxford University,
Oxford, UK
Summer 2015





Top: walk to John Radcliffe Hospital

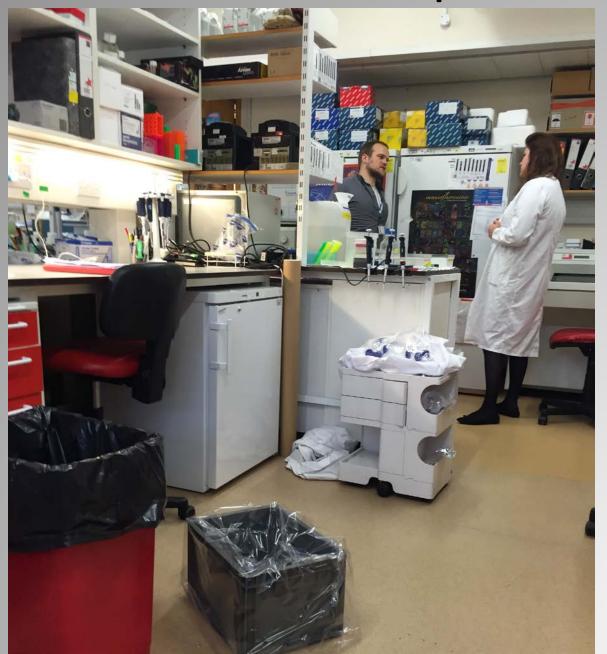
Bottom: Front sign

of WIMM

Work and Responsibilities

- Help postdoc and PhD students in De Bruijn Lab with their projects on hematopoietic stem cell (HSC's) regulation
- Methodologies included:
 - PCR (polymerase chain reaction)
 - Cryostat sectioning
 - Immunofluorescence (section and "whole-mount"
 - Analysis of 3-D whole-mount images using 'Imaris' program
 - ES (embryonic stem) cell tissue culture
 - FACS (fluorescence activated cell sorting)/Flow Cytometry

PhD Students Discuss Experiments



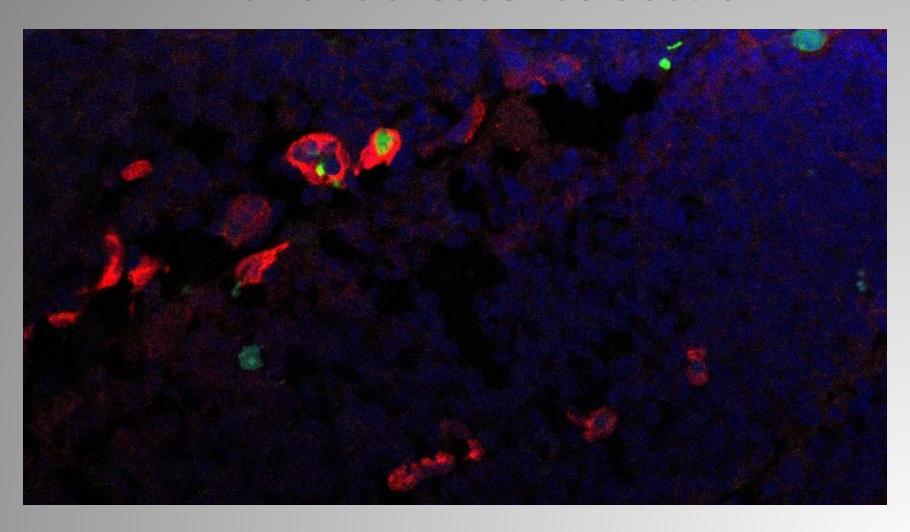
Rewarding Experience

- Postdoc who I worked most closely with went on holiday for over 2 weeks
- Left me with a list of immunofluorescence and embryology experiments
- Completed them entirely independently using the knowledge I had learned from the other members of the lab during the first month

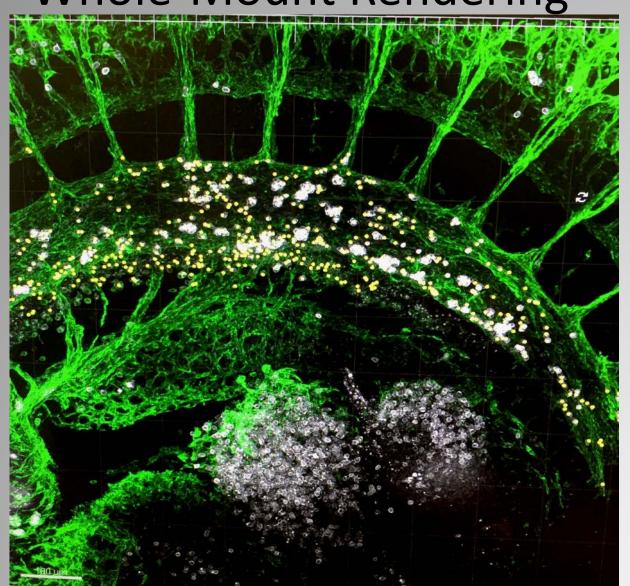
My Impact

- Established useful antibodies for use in future experiments
- Completed HSC experiments on mouse embryos and placentas
- Completed 'Imaris'-based analyses of HSC datasets for presentations
- Became largely independent member of lab able to learn quickly and help lab members efficiently with experiments

E10.5 Mouse Embryo Immunofluorescence Section



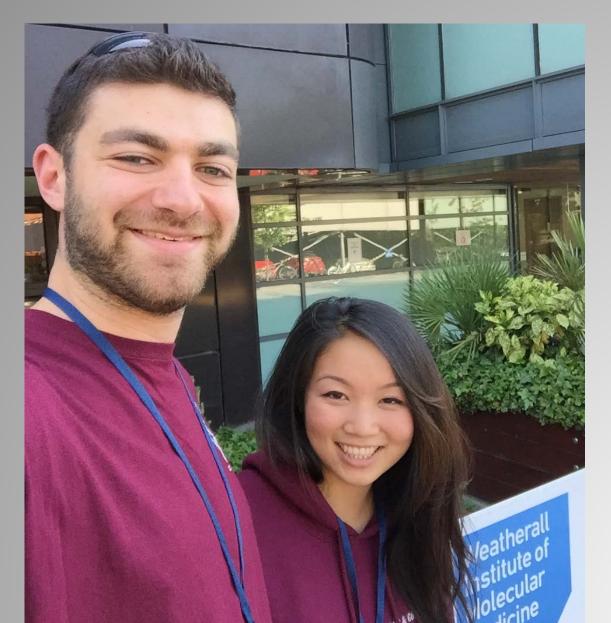
E10.5 Embryo Aorta in 3-D 'Imaris' Whole-Mount Rendering



Impact On My Career Plans

- Came in with an interest in pursuing an MD/PhD
- While I immensely enjoyed my time at the WIMM it taught me that I did not have an interest in pursuing a PhD in molecular medicine or biology
 - Learned through the work itself and work routine
 - Learned from speaking with current PhD students

Shirley (IIP Intern) and Me



Concluding Remarks

- Most valuable insights gained through this experience not about scientific accomplishment per se
 - 1. Learned many methods of science that are good to know and useful to understand new research literature
 - 2. Learned that I don't want to do a PhD, but that I still have an interest in the content of the research

With gratitude to IIP, Princeton, the Weatherall Institute, and Dr. De Bruijn:

Thank You!