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Next generation Sequencing Data Analysis: A Practical Introduction *A report for the MRC-DTP Flexible Supplement Award*

One of the main benefits of this course was that a significant proportion of time was spent in teaching the basics of writing scripts. The course taught everything from basic programming languages to generating analysis pipelines for DNA and RNA sequencing data including quality control, alignment and data visualisation. This has equipped me with the skills to not only be able to carry out my data analysis but to also be able to troubleshoot if any issues were to arise during data handling. The other main benefit has been the hands on practical sessions which allowed me to put into practice the skills learned during the tutorials. This was incredibly useful- other shorter course that I have attended often relied heavily on “copy and paste” techniques so that during the course I felt able to do the analysis but unlike this course, I was not able to trouble shoot or vary independently from the list of commands given to us at the time.

Currently, I am much more confident in carrying out my own analyses and more importantly understand the foundations on which I can progress and develop solutions to my own data analysis problems. Armed with this knowledge, I have already begun using publicly available sequencing data sets (both ChIP and RNA seq) to generate hypotheses and insights in to how the gene of interest in my project (IKZF3) maybe contributing to autoimmunity.

I am extremely grateful for the MRC Flexible Supplement Award which has enabled me to do this course and gain the confidence to carry out analysis independently. Moreover, the course has given me a set of skills on which to build my bioinformatics and computing skills.