

## Small RNA apps for the Illumina BaseSpace commercial store

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Every cell in a plant has the same DNA, yet some cells form flowers whilst others form leaves, stems or roots. The ability of different cells to form this variety of structures from the same DNA is that different genes are used at different times. Genes therefore need to be switched on or off by a cell at different times. Small RNAs are short molecules that are involved in switching genes on or off. Scientists therefore need efficient computational tools to analyse the small RNA data being produced by large scale research projects that seek to understand which genes are being controlled by which small RNAs.

Illumina, one of the major companies that provide machines to sequence DNA has developed a type of 'App Store' called BaseSpace. BaseSpace will enable scientists to access computer analysis tools to help them understand what is happening to the small RNAs in a cell. For many years UEA has been developing these type of tools. The NRP translational fund has given Prof. Vincent Moulton and his team £50,000 to adapt these tools for BaseSpace. This will enable the software to be more easily available to scientists across the world and help enhance research in a wide variety of sectors.