Using Galaxy to analyze TCGA data: the experience of a Brazilian center

Thais Talarico Hosokawa – ttalaric@gmail.com
Barretos Cancer Hospital

Introduction

Barretos Cancer Hospital (BCH) is a reference Cancer Center in Sao Paulo state, Brazil, that treats patients from all over the country at no cost. It’s maintained in part by governmental resources but mainly by donations.

In the last years, BCH has participated as tissue source in The Cancer Gene Atlas (TCGA) and it is also on ICGC.

Materials and methods

As the work comprises a sensitive, huge amount of data, a local instance was necessary.

The raw data access approval was granted.

Our experience using Galaxy involved the use of some tools available in toolshed integrated with our scripts. Planemo was used to wrap the necessary tools to perform and integrate the results from these analyses. Algorithms used to analyze data from these consortia involved some R packages.

Conclusion

Galaxy, as a web based genomic analysis platform, allowed the development of pipelines to analyze locally exome, transcriptome, and methylome from raw TCGA data of Brazilian cervical cancer samples.

Acknowledgments

(*) Thais Talarico Hosokawa – ttalaric@gmail.com