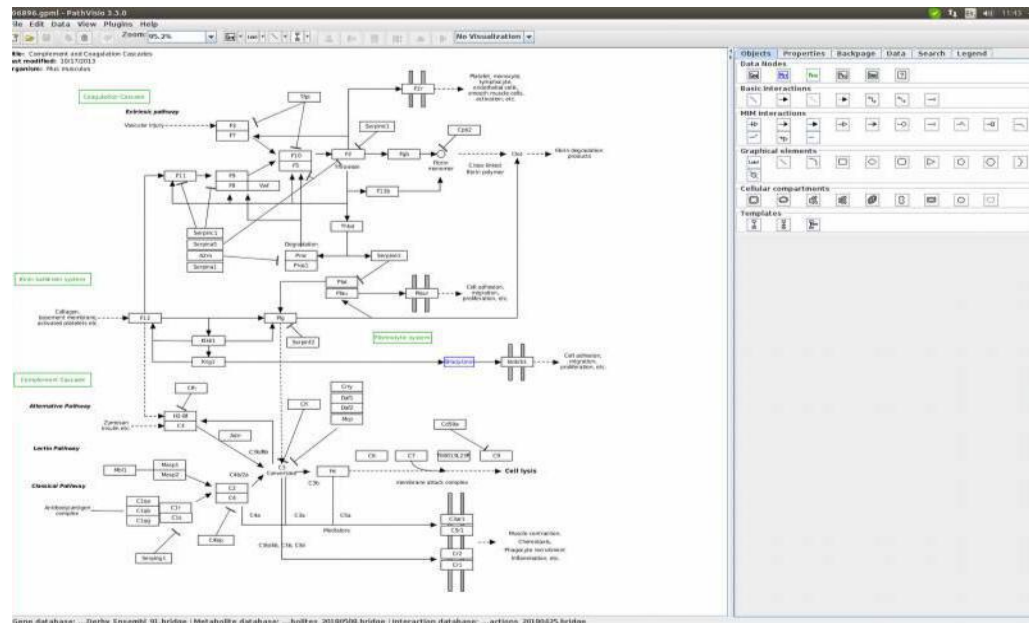
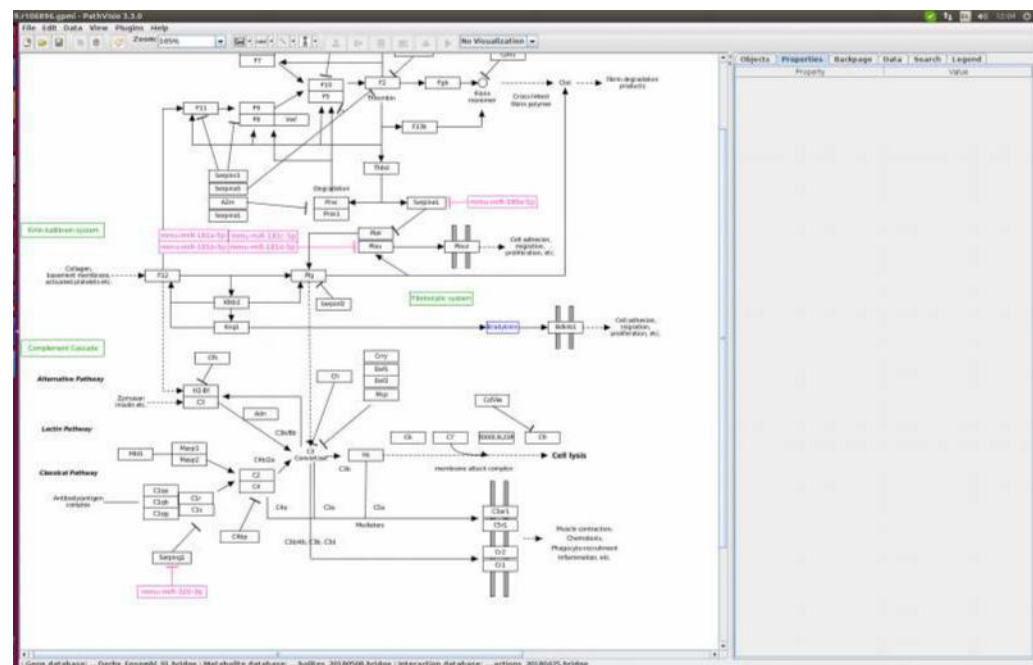
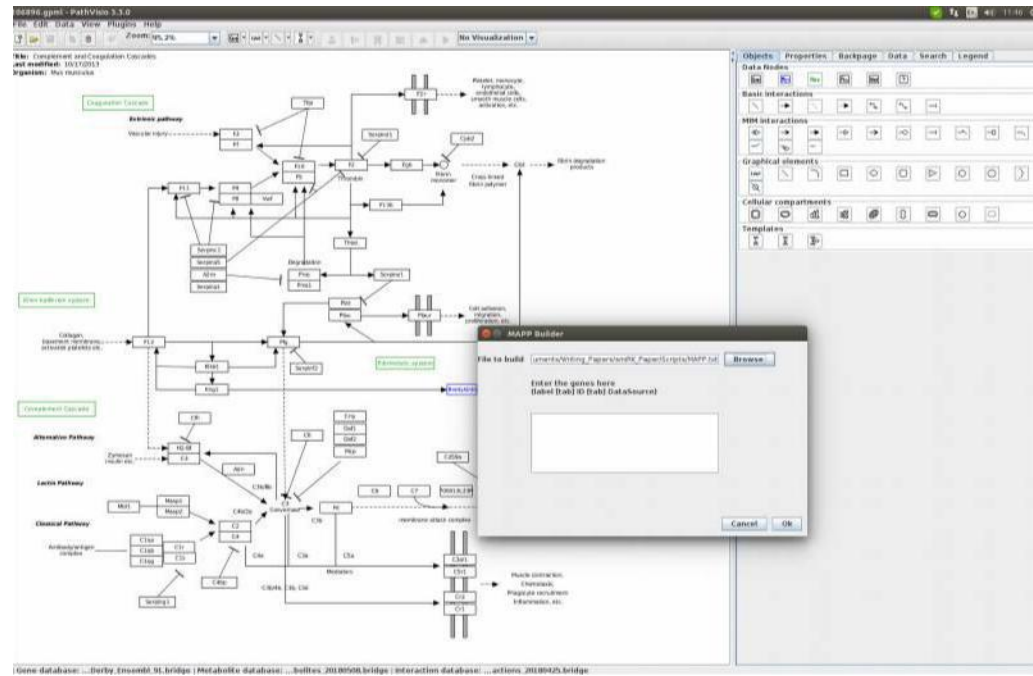


TimiRGeN - Pathvisio GRN creation guide:

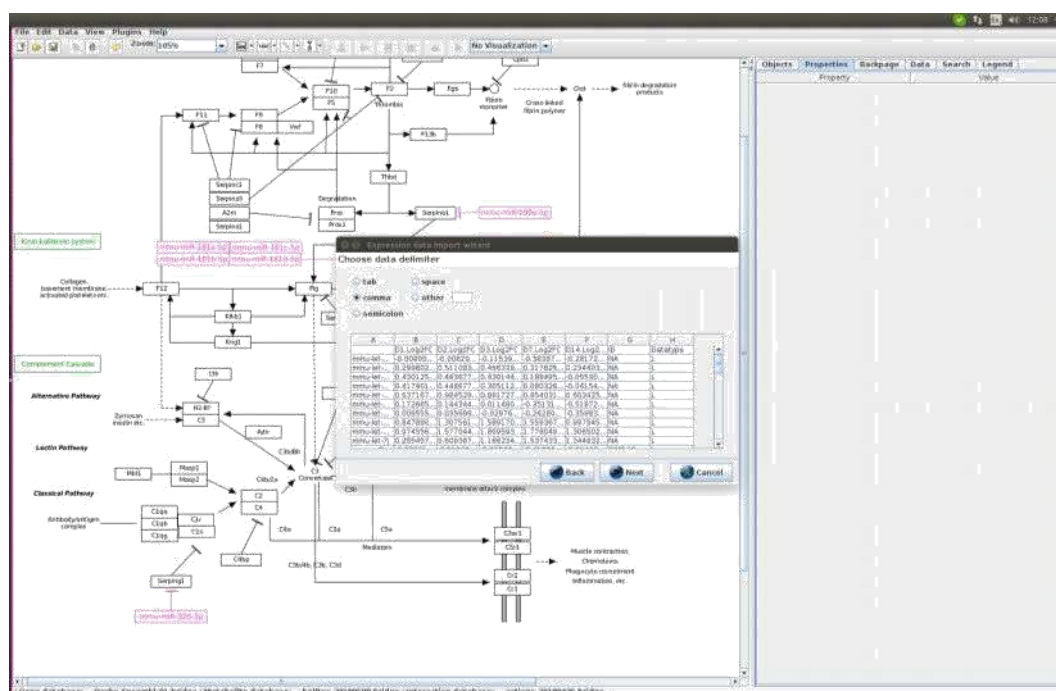
Open selected pathway in Pathvisio. Use the set up instructions found on the pathvisio website. You can download your pathway as a gpml format from wikipathways or use the wikipathways app in pathvisio to import the pathway (1, 2). Can download the wikipathways app if the plugin is unavailable here

[illegible]

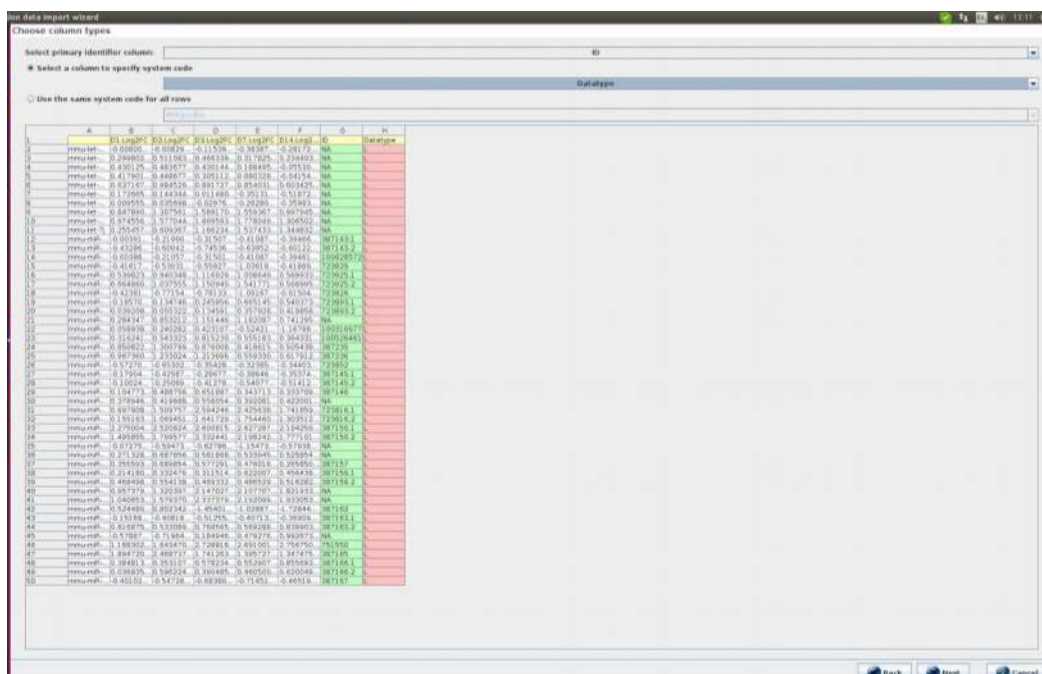
3) Use the MAPP app on Pathvisio to import the MAPP txt file created with TimiRGeN. Can be downloaded from [here](#) if plugins are unavailable



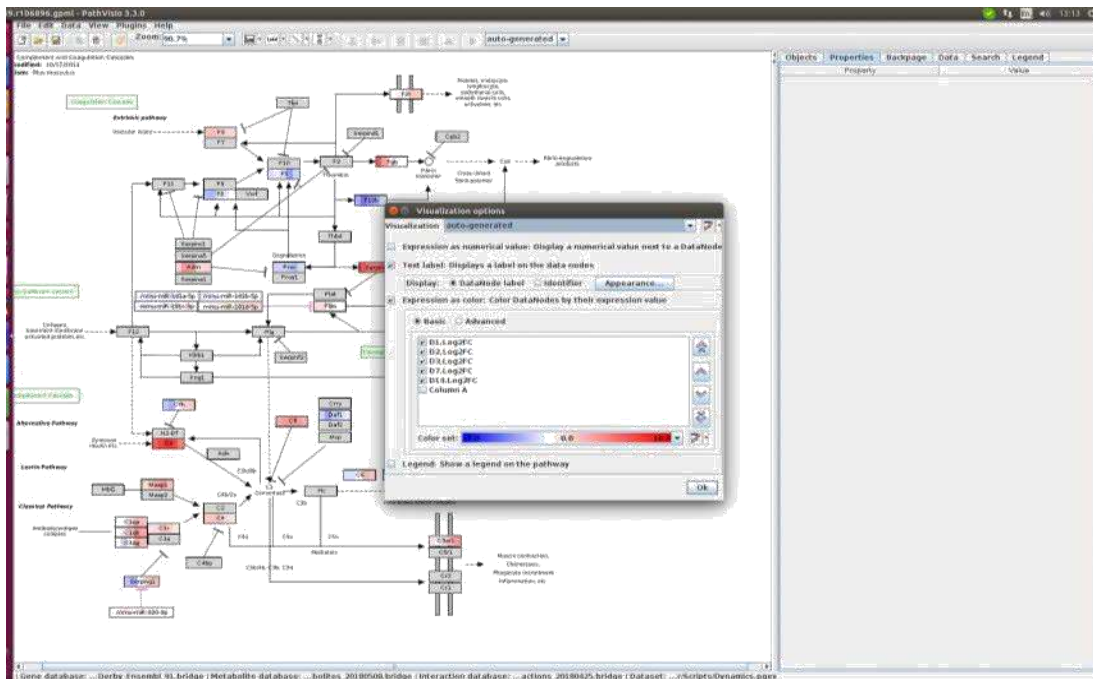
5) Import the dynamics file (Data > Import expression data). Select comma.



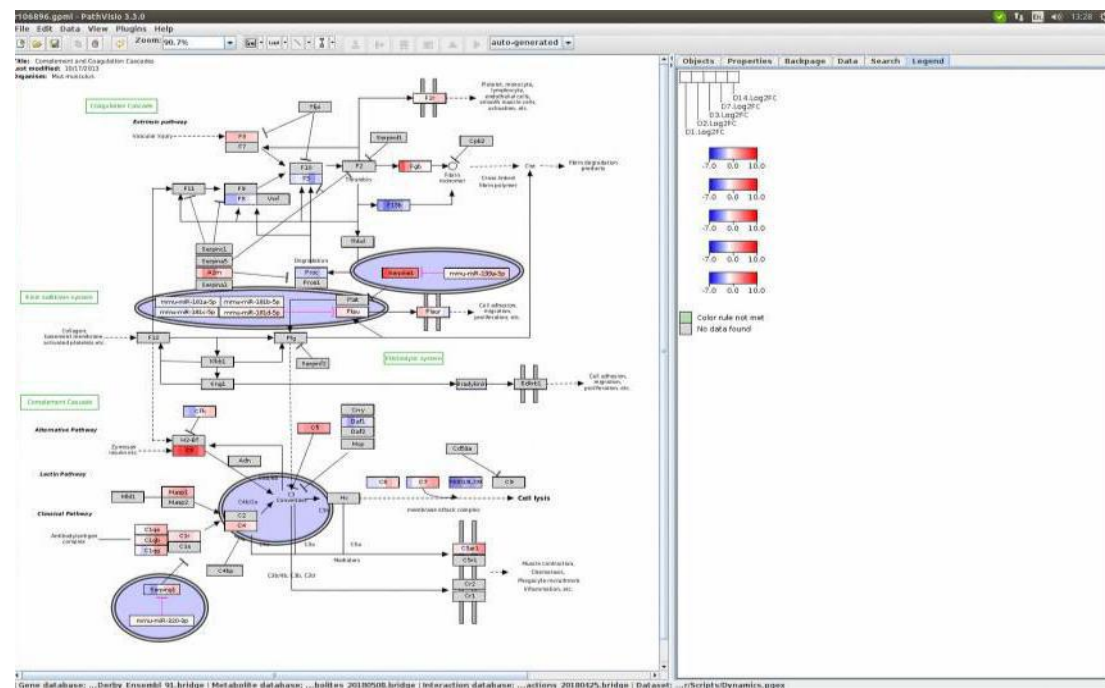
6) Choose Primary identifier column (Green) as ID and column to specify system code as Datatype (red).



7) Select a suitable colour palette to represent the time series. The segments will be shown in an order which matches the Dynamic file. (Data > Visualization options)



8) Isolate key parts of the pathway for bottom-up GRN construction. In this example, the interactions of the miR-mRNA target's can be seen to effect the biogenesis of C3 convertase.



References

- 1) Slenter DN, Kutmon M, Hanspers K, et al. WikiPathways: a multifaceted pathway database bridging metabolomics to other omics research. *Nucleic Acids Res.* 2018;46(D1):D661D667. doi:10.1093/nar/gkx1064
- 2) van Iersel MP, Kelder T, Pico AR, et al. Presenting and exploring biological pathways with PathVisio. *BMC Bioinformatics.* 2008;9:399. Published 2008 Sep 25. doi:10.1186/1471-2105-9-399

