

Network Diagram

The Pigment Cell Gene Network is an online, interactive diagram that consists of compiled data on the transcriptional regulation of pigment cell genes. Specifically, the diagram seeks to visually represent experimentally verified data describing the gene regulatory networks of melanocytes and RPE cells.

This diagram is a work in progress; data will be routinely added as manual curation occurs. Suggestions and requests for inclusion of additional data from the research community are greatly appreciated.

Instructions for Viewing the Network

To view the network, click on the ([“Network Diagram Using the BioTapestry Interactive Network Viewer”](#)). Accept the prompts that follow to allow the BioTapestry Java Web Start File to open. This network viewer is a simplified version of the full-featured network editor, which is available from [BioTapestry.org](#).

Once the BioTapestry Viewer is open, the full network diagram is visible. Subsets of data may be viewed by selecting them from the menu at the left (i.e. Neural crest, melanoblasts, RPE; Full Genome returns to showing all interactions). The option bar items include tools for viewing at different magnifications and for searching the network.

Control-click (Mac) or right-click (PC) on any gene, and a menu will appear allowing selection of **Experimental Data**. Selecting this heading displays the primary reference(s) supporting the data for a given gene. Future versions of the Pigment Cell Gene Network may also include in situ images, QPCR data or temporal expression profile data under the Experimental Data heading. Additional items in this menu (appearing after control-clicking (Mac) or right-clicking (PC) on any gene) also allow highlighting of specific data; i.e. **Select Sources** highlights all the genes with regulatory input to a selected gene, and **Select Targets** highlights all the target genes regulated by a selected gene.

The Pigment Cell Gene Network data file is available upon [request](#).

BioTapestry Information

BioTapestry is an interactive software program that allows the user to construct visual representations of genetic regulatory networks. Specifically, BioTapestry is designed to model developmental networks, and has the capacity to represent large scale, detailed systems and to incorporate temporal and spatial differences ([Longabaugh et al. 2005](#), [Longabaugh and Bolouri. 2006](#), [Longabaugh et al. 2009](#)). BioTapestry is an ongoing joint project of the Institute for Systems Biology and the Davidson Lab at Caltech ([BioTapestry.org](#)).