

The OpenHelix Blog

at OpenHelix

Video Tip of the Week: StratomeX for genomic stratification of diseases

The [Calyedo](#) team and the tools they develop have been on my short list of favorites for a long time. I've been talking about their clever visualizations for years now. My first post on their work was [in 2010, with the tip I did](#) on their Calyedo tool that combined gene expression and pathway visualization. They've continued to refine their visualizations, and enable new data types to be brought into the analysis, and earlier this year we featured [Entourage](#), [enRoute](#), [LineUp](#), and also [StratomeX](#). They have lots of options for wrangling "big data". But recently they published a paper on StratomeX and a nice video overview, so I wanted to bring it to your attention again now that the paper is out.

The emphasis in this paper is cancer subtype analysis, using some data from The Cancer Genome Atlas ([TCGA](#)). But it's certainly not limited to cancer analysis—any research area that's currently flooded with multiple types of data and outcomes could be run through this stratification and visualization software. I find the weighting of the lines and connections among the subsets to be really effective for me when thinking about relationships among the data types. That schizophrenia work that recently did that sort of stratification and clustering thing to [suss out the relationships among different sub-types](#), was the kind of thing that's going to be really useful (but I don't know what software they used, [because pay-wall...](#)). And I expect that strategy to become increasingly important for a lot of conditions.

So have a look at this new paper (below), and their well-crafted video with examples.

If you are going to start working with StratomeX, be sure to also [see their documentation pages](#). There are some features and options there that aren't covered in the intro video and that you'll want to know about.

The team is a cross-institutional and international bunch: this is a joint project between a lab at Harvard, led by Hanspeter Pfister, Peter Park's lab at the Center for Biomedical Informatics at Harvard Medical School, and collaborators at Johannes Kepler University in Linz and the Graz University of Technology (both in Austria). And look for upcoming tools from them as well—there's new stuff over at their site. They keep developing useful items, and I expect to be highlighting those in future Tips of the Week.

Quick links:

StratomeX project page: <http://caleydo.org/projects/stratomex/>

Caleydo tools homepage: <http://www.caleydo.org/>

Reference:

Marc Streit, Alexander Lex, Samuel Gratzl, Christian Partl, Dieter Schmalstieg, Hanspeter Pfister, Peter J Park & Nils Gehlenborg (2014). Guided visual exploration of genomic stratifications in cancer, *Nature Methods*, 11 (9) 884-885. DOI: <http://dx.doi.org/10.1038/nmeth.3088>

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