**Gerstein lab experience in minor splicing analysis**

 The Gerstein lab has worked closely with the research groups led by Drs. Mark Rubin and Rahul Kanadia to study systematic differences in gene expression associated with minor-intron-containing genes (MIGs). This work was published in *Molecular Cell* (Augspach et al, 2023). In the context of this study, we used silhouette scores to rigorously demonstrate that MIGs exhibit stronger differential gene expression across cancer types and stages of cancer development, relative to genes that do not contain minor introns (that is, relative to non-MIG genes).

**Gerstein lab experience in GENCODE and annotating pseudogenes throughout the genome**

The Gerstein lab has extensive experience in annotating pseudogenes throughout the genome. Along these lines, we are one of the major participants of the GENCODE project. As part of our 15-year involvement in GENCODE, our focus has been on pseudogenes (Sisu et al, 2014; Pei et al, 2012) and genome annotation (Frankish et al, 2019). We have published several papers on pseudogene annotation, analysis, and regulatory annotation throughout the genome (Lam et al, 2009; Liu et al, 2009; Balasubramanian et al, 2009; Balasubramanian et al, 2011; Abyzov et al, 2013; Khurana et al, 2010; Zheng et al, 2007). In particular, we developed the PseudoPipe tool (Fig. 1) to find the pseudogenes (Zhang et al, 2006), and it is one of the major tools used to annotate pseudogenes in GENCODE (Frankish et al, 2019).



**Fig. 1: Workflow of PseudoPipe.**

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