


# How EpiCypher Accelerated Assay Development with Basepair's Custom NGS Analysis Platform

EpiCypher, a biotech company that develops cutting-edge technologies for epigenetic and chromatin biology, needed a specialized pipeline built for their internal team and their clients.



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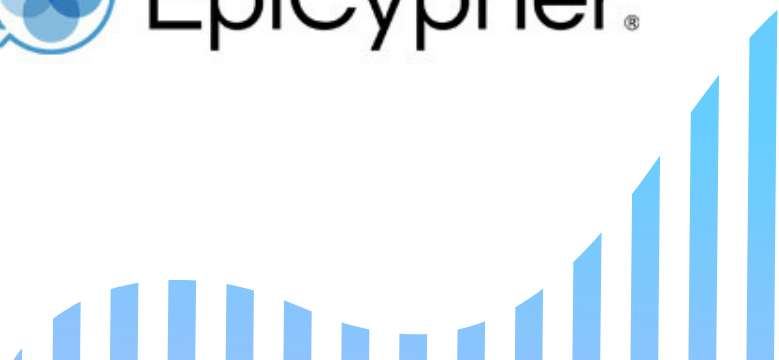
EpiCypher considered multiple options while seeking bioinformatic support for SNAP-ChIP analysis, including partnering with other startups and cloud-based computing companies, working with NGS service providers, and hiring their own bioinformatician. Finally, they chose Basepair to create a robust yet easy-to-use solution.

**“We found Basepair to be the most competent, nimble, and overall impressive team to work with. The user-friendly pipelines, option to customize analysis workflows, build custom portals, and rapid cloud-based computing were all factors that made it an easy decision for us.”**

– Martis Cowles, PhD, Chief Business Officer at EpiCypher



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## A Custom Pipeline for SNAP-ChIP®

EpiCypher's flagship product, SNAP-ChIP, is a next-generation spike-in control for ChIP-Seq assays, built for antibody performance monitoring and quantitative sample normalization. While SNAP-ChIP offers a greatly needed control for one of the most widely used assays in the epigenetics space, the technology is centered on the use of DNA-barcoded recombinant nucleosomes for ChIP-Seq assay quantification, which requires specialized analysis.

Like with many other NGS assays, the problem is multifold, and the bottleneck is data analysis. EpiCypher partnered with Basepair to develop a custom "one-click" analysis solution. This allowed EpiCypher—a firm with no in-house bioinformatics resources—to immediately speed up assay development. Not only can EpiCypher now run SNAP-ChIP analyses with a click of a button, but their customers have the ability to do the same. And since all processing and storage is hosted on Basepair's cloud servers, EpiCypher doesn't need to build up additional infrastructure for heavy NGS analysis tasks.

**“Without Basepair, we would have needed to build a bioinformatics team in-house, which would be expensive and slow. During our first call with them, we were impressed by the expertise of Basepair's scientists. They understood the challenges well — then planned and executed the project smoothly.”**

– Martis Cowles, PhD, Chief Business Officer at EpiCypher



## Building the Custom Pipeline

Basepair built the pipeline in two phases:

- 1) Basepair worked closely with scientists at EpiCypher to create an analysis pipeline suitable for SNAP-ChIP data. The results were verified and approved by EpiCypher's research team.
- 2) Basepair then made the custom pipeline available on its automated SaaS platform. Now, customers using SNAP-ChIP would be able to run the pipeline with a simple, user-friendly UI.

**“The automated pipeline developed by Basepair has accelerated our R&D efforts. This ‘one-click’ solution was easy to implement and allows our team to rapidly analyze SNAP-ChIP-seq data. Further, bioinformatic experts from the Basepair team are readily available for troubleshooting, customization, and expert feedback. This has really helped increase the pace and quality of our efforts to identify best-in-class histone PTM antibodies.”**

– Andrea Johnstone, Director, Product Development at EpiCypher



## Custom solutions are sometimes a necessity.

Hiring bioinformaticians and developers to build a tailored data analysis pipeline helps your team in the short term. But in the long run, maintaining custom pipelines will require new hires and continuous versioning.

Basepair makes things easier for you and your clients. You'll be working with a team of highly experienced bioinformaticians and developers to create an airtight pipeline built on peer-reviewed research and industry best practices, hosted on Basepair's automated online platform.

Our team handles any updates and improvements, so you can stay focused on results—not hiring new temps to maintain an in-house solution. Reach out today to set up a call with Basepair's team to go over your custom NGS data analysis needs.

### Contact Us



### Request a Demo

