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Data context is the key to success

Every Biotech is unique – the approach, the solution, the underlying set of data!

One of the risks is to be **unable to fully resolve the hidden patterns** in the data early on and continue to work with **incomplete information** and in turn have a higher risk to fail in clinical phases.

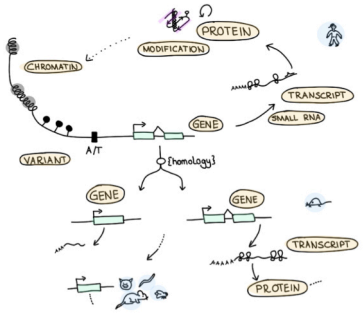
Much of the data originates from single-, Multiomics or high-throughput screenings, e.g. perturbation data, derived from human single cells, organoids, iPSCs, cell lines, tissues or disease models and more. These Big Data are available and bear the potential to **significantly increase the success rate** while addressing unmet medical needs. Even in understudied fields of research.

Fully resolving hidden patterns

The major challenge is to generate insights from the vast amounts of newly generated and established data. Much of the relevant data is fragmented, sits in silos and, on top, "speaks" many different (Multiomics) languages. As a result, many struggle to put their data into context, leaving the **unique data potential unresolved**.

The context data speaks Multiomics. The true challenge to **contextualize Multiomics and Multiomics-related data** is to resolve the many-to-many data links, which in turn requires advanced bioinformatic and AI graph mining expertise.

The **curse of complexity in Multiomics data** is real. Often analyses are limited to the novel, often referred to as "discovery", data, while only manually sifting through the established information to infer the hidden patterns and information.



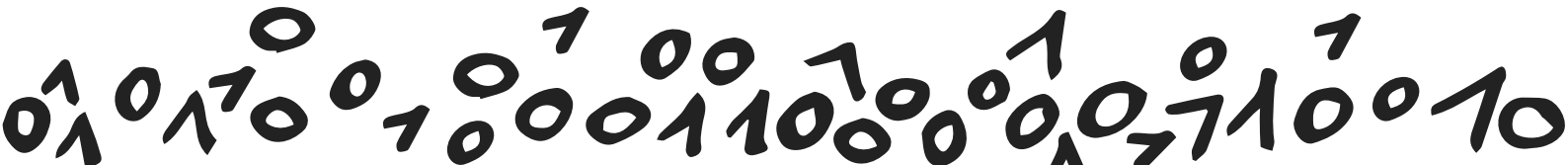
To navigate the **Multiomics data flood** and to extract meaningful insights of millions of data points in combination with established data and knowledge, a **sustainable solution is urgently needed**.

knowing01 solution

At knowing01 we developed an **elastic biodata model** that links data from the full range of Multiomics or Multiomics-related data of today and tomorrow. We **retain the uniqueness** of the novel and established data through **flexible analytics algorithms** that do not require a priori data transformations. Both power our analytics solution that elastically aligns novel and established data and biology.

Context is everything – an analogy

We know that the biggest challenge is to **miss the forest for the trees**! Whilst researchers are highly trained and highly **skilled experts** in **measuring features** of a tree, learning everything about a single tree to derive a tree profile (disease pattern/therapy options), the often-unknown necessity of the forest is often missed. Without the context of the forest – it's elements: soil, climate, birds, insects etc. – a single tree **can be easily misunderstood**.



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Inherently, our technology is designed to **quickly unlock encapsulated data potential** across the full Multiomics data space. As a result, clients can quickly link to and integrate with context data through the, so called, **Multiomics footprint**, which can be the breakthrough for novel and most comprehensive analysis strategies of tomorrow. Ultimately lowering the risk of early drug discovery, in three ways:

1. **Unlock unresolved data** to easily add established Multiomics(-related) data at marginal costs.
2. **Maximum flexibility** on the Multiomics data layer of choice brings context to unique focus areas.
3. **Significant reduction of workforce** needed reduces time to insight with automation.

Established in a project, low transfer costs to all projects brings a **sustainable data solution** to Biotechs.

Multiomics

Multiomics refers to the integration of data from **multiple measurement technologies**, such as genomics, epigenomics, transcriptomics, proteomics, and metabolomics, etc, to gain a more comprehensive understanding of biological systems. By combining information from different "omics" layers, researchers can identify relationships between genetic variations and disease, discover new biomarkers, and develop more effective therapies. However, the **sheer volume and complexity** of this data make it challenging to extract meaningful insights without the right tools and expertise.

Our technology effortless establishes billions of links in Big Data generating insight at scale for Biotechs.

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Introducing the groundbreaking spinoff from a renowned German research center, knowing01! Our team, led by a trailblazing female founder and expert in Multiomics data integration, has tackled the bioinformatic challenges that have plagued the industries for years. With our innovative software solution, Biotech's can finally gain control over their data, allowing for accurate insights and meaningful knowledge expansion. We've tackled the complex curse of dimensionality and turned it into a powerful solution for your success.

Our dedication is to sustainability and scalability ensure that our solution will grow with your company, providing the support you need to make a **real impact in the industry**. Join the revolution with knowing01!

We'd love to hear from you

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