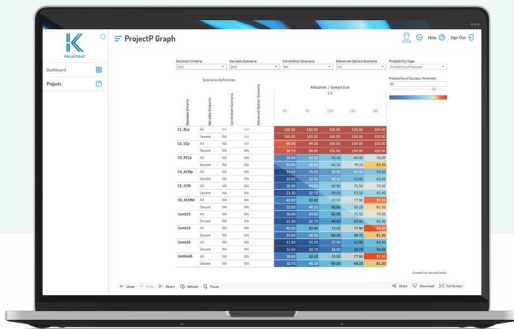




## Cheat Sheet



### What is KerusCloud?

**KerusCloud** is a uniquely powerful cloud-based study simulation platform that allows clinical development teams to explore multiple study design and analysis options in a virtual environment. Its use supports data-driven decisions early in clinical protocol development so that real clinical studies are fully optimised statistically from the outset to maximise their chances of success.

### How does KerusCloud do this?

**KerusCloud** generates highly realistic synthetic data sets (virtual populations) which closely mimic the complexity of real patient data sets. These populations provide the basis for simulating study scenarios, where the effect of changing many combinations of study criteria/variables can be explored in detail, in parallel, *in silico*, in minutes. Results are viewed in an interactive heatmap which summarises the probability of achieving success for the different scenarios or criteria sets. This allows development teams to quickly identify factors critical to success to create a fully optimised study design and analysis plan.

### Where does the data come from for its virtual study populations?

**KerusCloud** generates virtual populations by using statistical models and correlations to describe

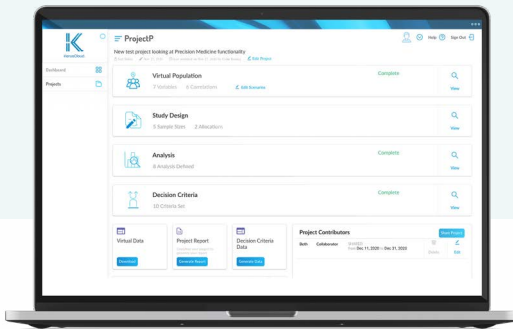
the characteristics of the populations. Patient level data can also be integrated in the form of summary statistics automatically via our Kerus Data importer (KDi). Real data is sourced from the scientific literature, a range of databases, including patient registries, and from exclusive partnerships developed between Exploristics and data providers. Researchers can also use their own internal databases.

### How is KerusCloud different from other commercially available software?

**KerusCloud** is the only statistical software that can evaluate thousands of study design and analysis criteria sets in parallel. No other software can process and simulate so many complex multiple correlated study criteria/variables and outcomes. It is also the only tool that uses cloud computing to speed up simulation. This means that only KerusCloud can fully optimise real clinical studies statistically for success and has been shown to increase the probability of study success by over 40%. With the current attrition rate for treatments in development standing at around 90%, **KerusCloud** can help to eliminate a totally preventable reason for study failure, inappropriate study design.



## Cheat Sheet



### What do other simulation tools offer?

Other simulation tools do not fully support modern clinical trial designs which generate increasingly complex data. They simulate data and perform statistical tests in a limited way which either involves simulation of single variables or multiple independent variables which are only a crude reflection of real clinical studies. **KerusCloud** can process multiple correlated variables as well as subgroups and missing data to give exceptionally realistic and informative simulations which closely mimic the complexity of biological, clinical and real-world data.

### Why are KerusCloud's extra capabilities necessary?

New development approaches, like Precision Medicine, need studies that can answer multiple questions. However, most tools assume that only one factor influences treatment response. This means that simplistic, fixed assumptions are made about the relationship between that factor and response that do not account for the multiple sources of uncertainty in real studies. In contrast, **KerusCloud** handles many sources of uncertainty when

designing a study and provides statisticians with a visual tool that facilitates evidence-based decision-making by all stakeholders in clinical development earlier to de-risk real studies with better design.

### Who has KerusCloud been designed for?

**KerusCloud** is useful for any sized life sciences organisation seeking to accelerate development of medicines, diagnostics or medical devices by improving clinical study success and so R&D ROI. Although designed principally for statisticians it can be mastered by other users with appropriate support.

### How can KerusCloud improve R&D productivity?

**KerusCloud** can be used either as a standalone product or alongside other statistical software. It improves productivity by comprehensively de-risking real studies at the design stage using a rigorous evidence-based approach. It places statistical considerations at the heart of the protocol development process, enabling statisticians to refine trial design faster and more efficiently than by writing and validating their own code.