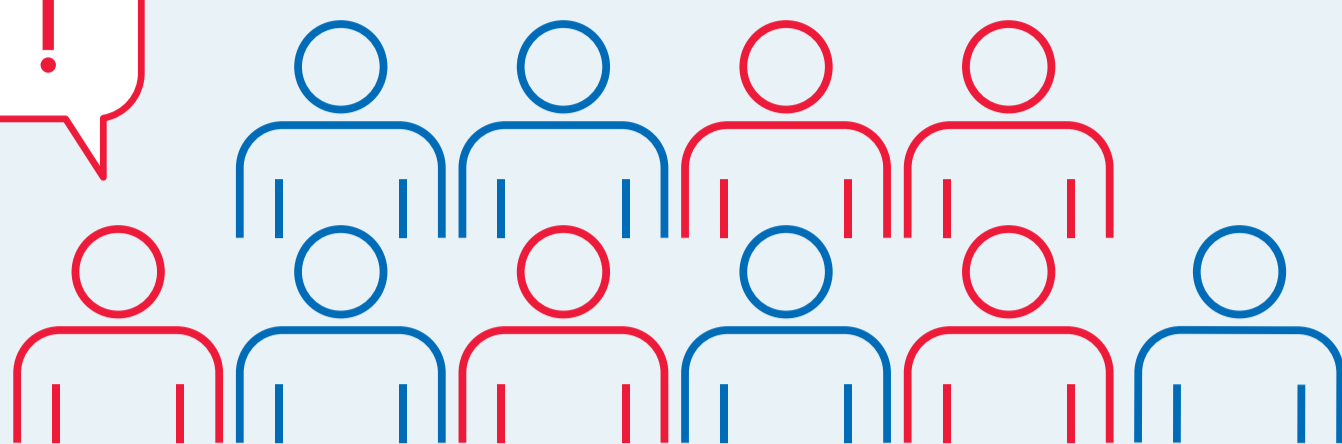


IRREPRODUCIBILITY

A **GROWING** CONCERN
AMONG SCIENTISTS



According to *Nature* magazine:

>70% of researchers have tried and **failed** to reproduce another scientist's experiments

>50% of researchers have **failed** to reproduce their own experiments

Pre-clinical studies worth

>28 billion USD

per year are not reproducible*

* Baker, M. (2016) 1,500 scientists lift the lid on reproducibility. *Nature* 533, 452-454

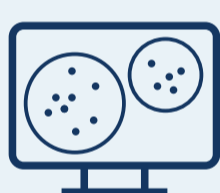
How to tackle irreproducibility in molecular research

Minimize errors and variabilities in PCR-based assays



Avoid handling variations

- Multiple procedural steps increase variables
- Undetected human errors are the worst



Remove biological variables

- Contaminating biomolecules alter results
- Inter-sample variations lead to misinterpretation
- Appropriate controls will help detect variations in performance

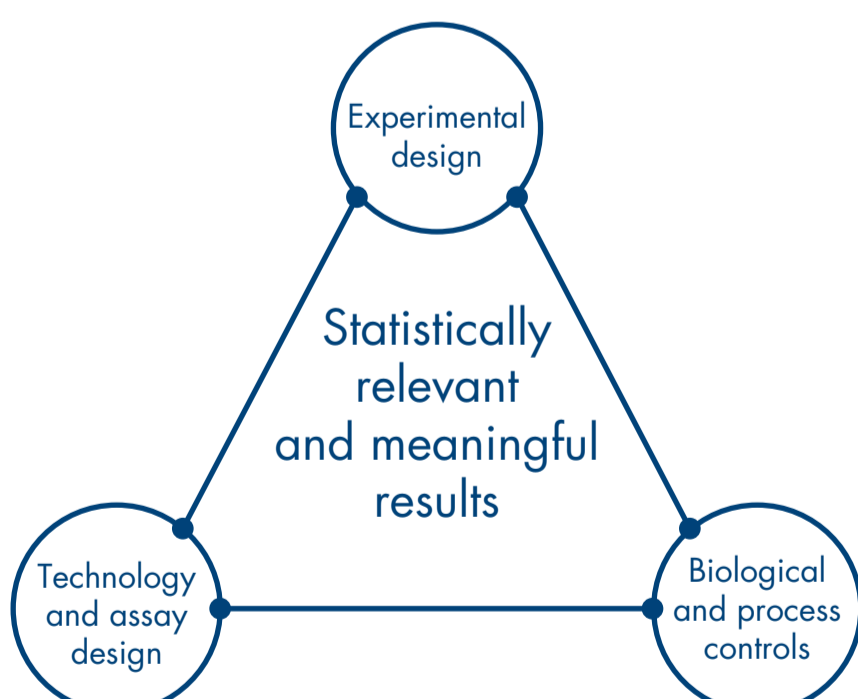


Select appropriate chemistry

- Robustness and reliability of components used is prerequisite to meaningful results
- Choose assay formats with bulletproof procedures

Base your research on facts – not artifacts

Design robust experiments



Read about it
[Click here](#)

Control sample quality

