

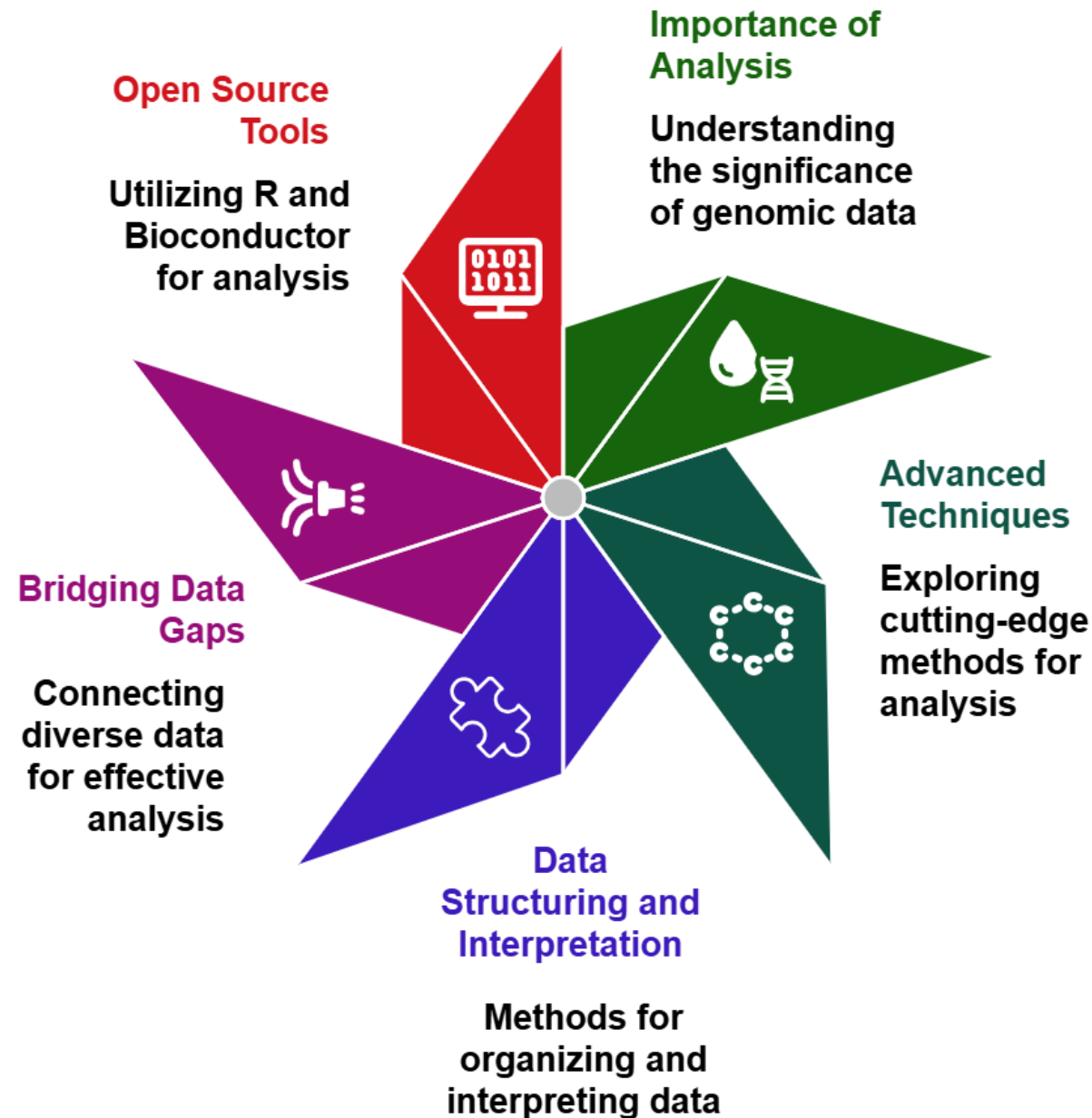


Bioinformatics

Genomic Data Analysis

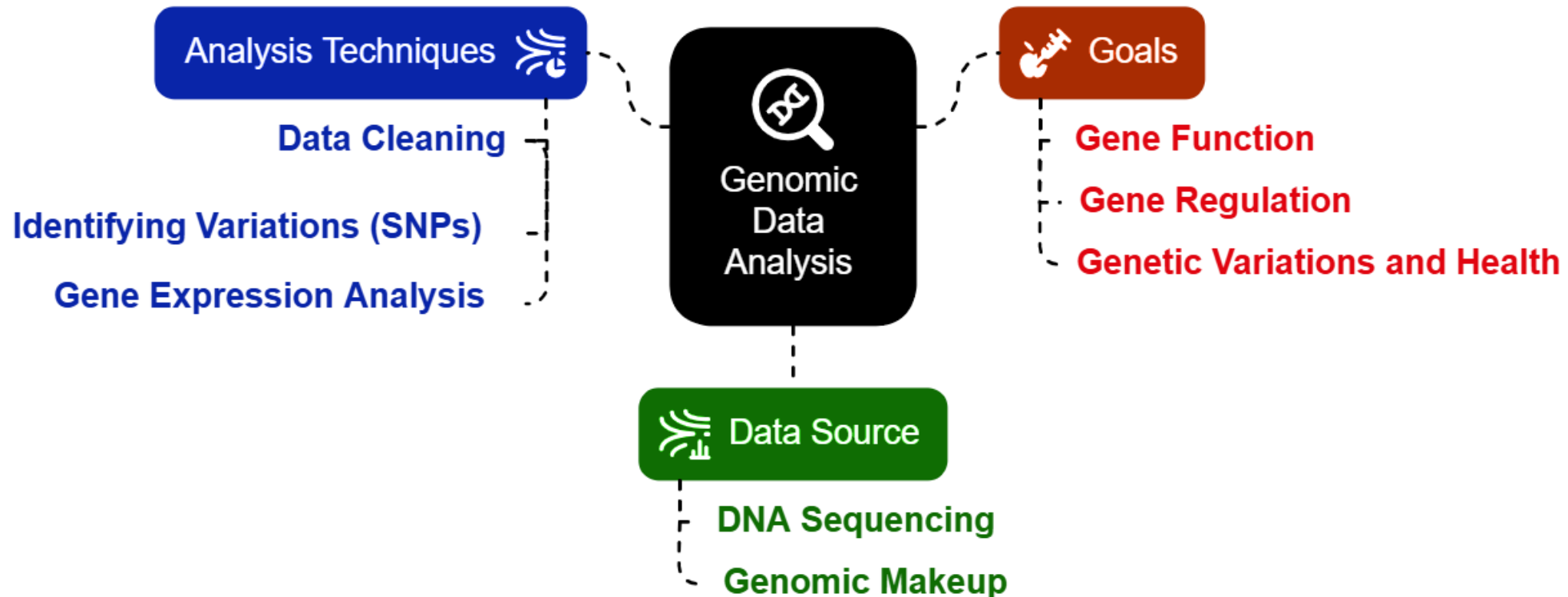
Assis. Prof. Dr. Labeed Al - Saad

The objectives



What is Genomic Data Analysis?

Genomic Data Analysis: is essentially the process of cracking the code hidden within an organism's DNA.



Why this analysis is important?

Impact of Genomic Data Analysis on Healthcare and Intelligent Medical Systems

Risk Prediction Models

Improves healthcare by forecasting disease risks.



Intelligent Diagnosis Systems

Enhances diagnosis accuracy through advanced algorithms.



Basic Genomic Data Analysis

Provides foundational insights with limited healthcare impact.

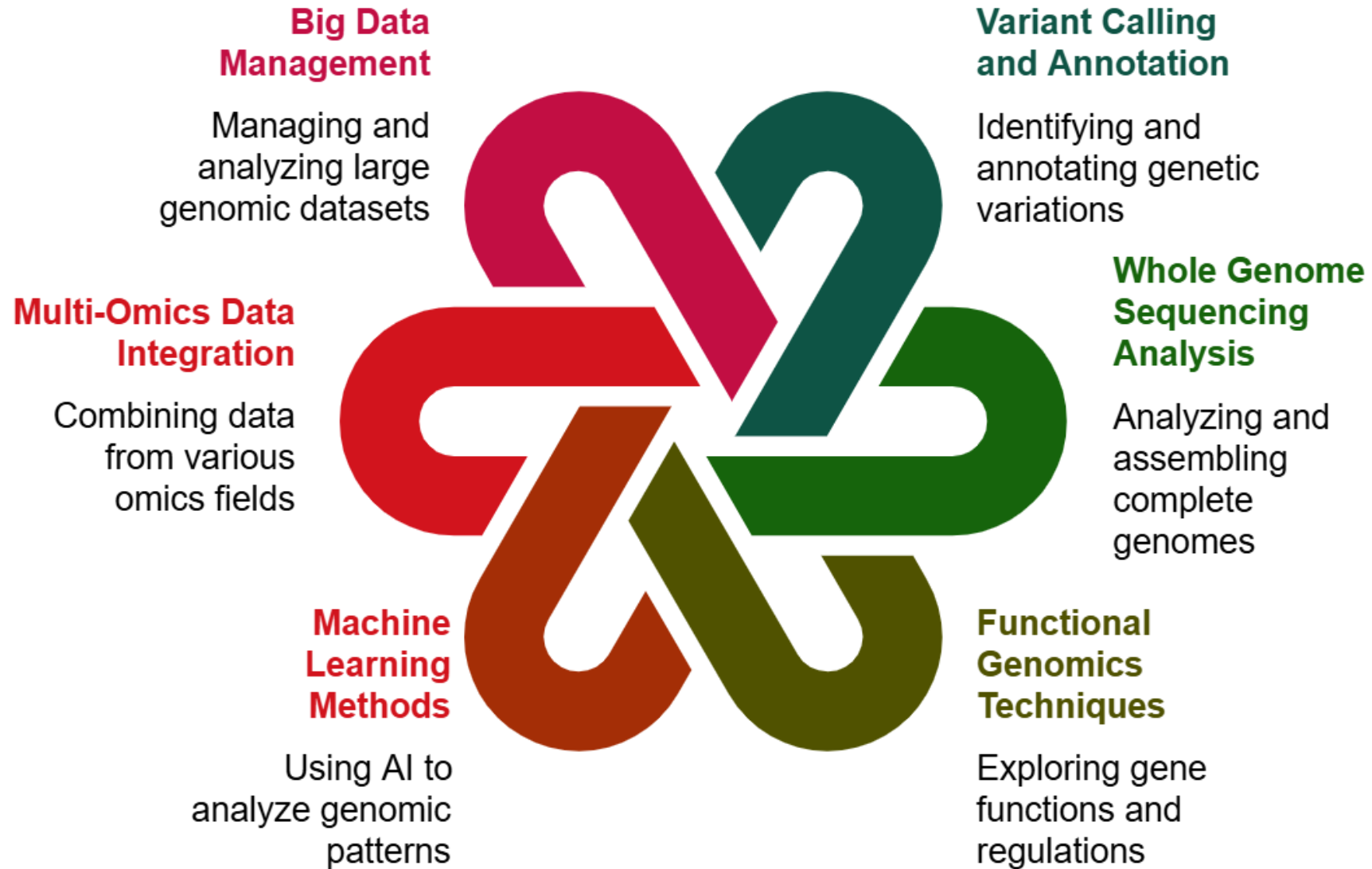


Personalized Medicine Development

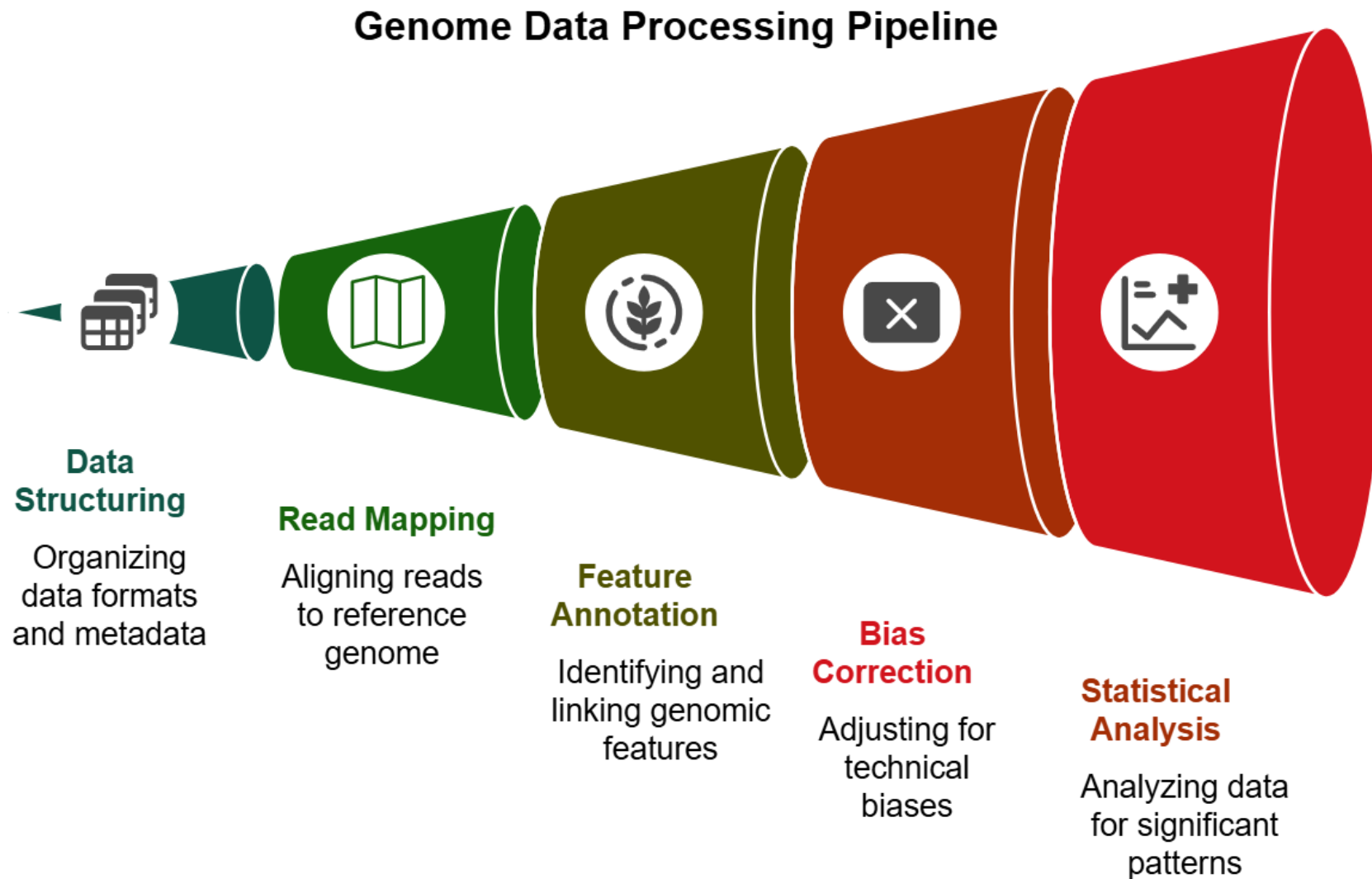
Revolutionizes healthcare with tailored treatment plans.



What are the Advanced techniques to analyze genomic data?



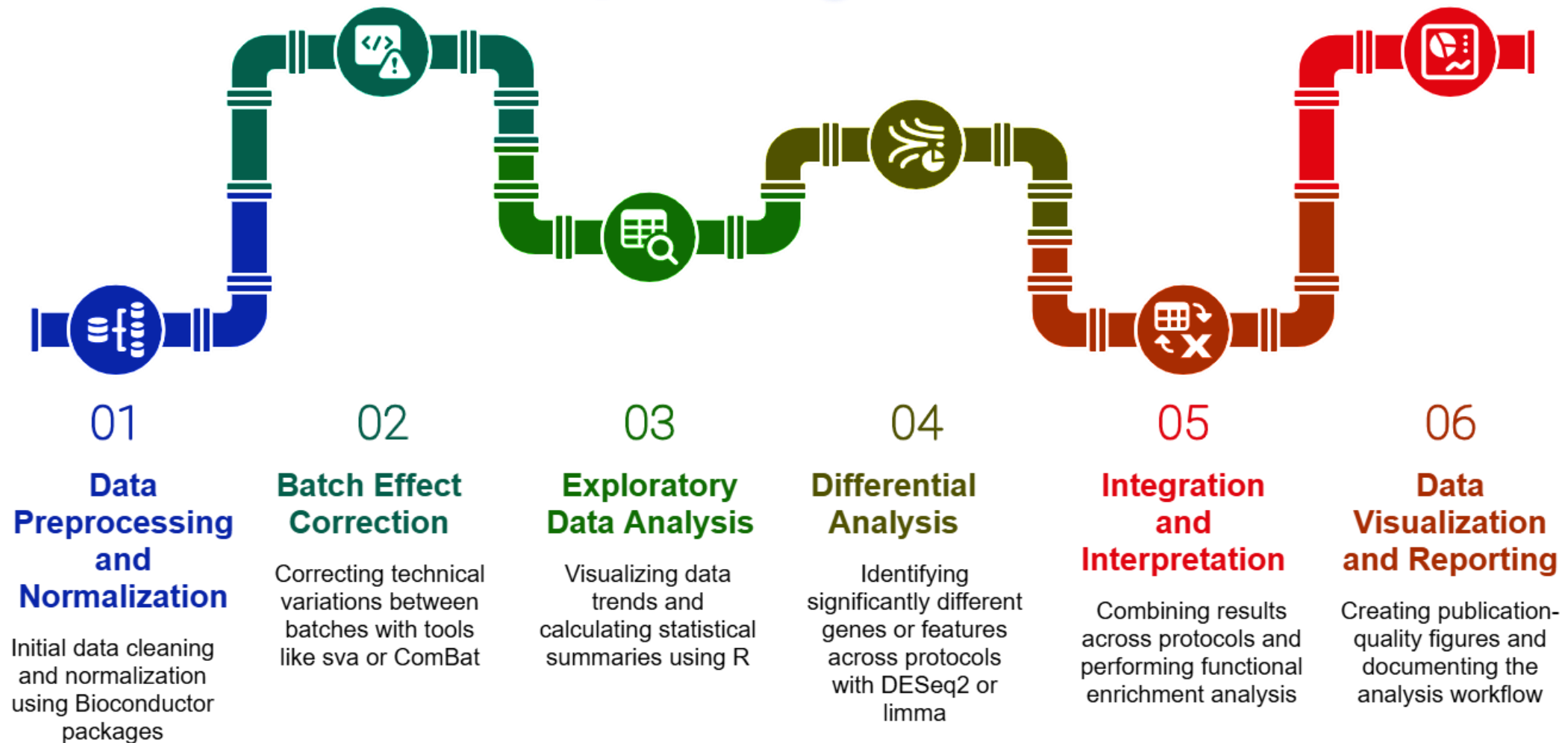
How to structure, annotate, normalize, and interpret genome-scale assays



Bridging the gap between diverse genomic data and effective analysis/presentation



How to analyze data from several experimental protocols, using open source software, including R and Bioconductor?



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Additional Tips:

- **Utilize online resources and tutorials:** Bioconductor offers extensive documentation and tutorials specific to different data types and analysis methods.
- **Leverage online communities:** Connect with the R and Bioconductor community forums for troubleshooting and seeking help from other users.
- **Consider seeking bioinformatics support:** Complex analyses might benefit from collaboration with bioinformaticians who can guide you through the process and ensure robust data analysis.



THANK YOU!