Why do we need performance?
- Uses of genomic data: research, personalized medicine, forensics
- High throughput: $3 \times 10^5$ nucleotides/sec
- Fast analysis will lead to more scientific insights

Why do we need privacy?
- Reveals personal information: identity, diseases, relatives
- Remains sensitive for a long time
- Influences decisions: insurance, jobs
- Information leakages are not reversible

Sequencing
Sensitive variations masking
Storage and computation adjusted to sensitivity

DNA Analysis Workflow

Reads information leakage

Different levels of security according to data sensitivity.

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