



REAL-LIFE CHALLENGES IN GENOMICS

LESSONS FROM THE TRENCHES

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JAPAN EARLY LEADER IN GENOMICS

Founding member of Human Genome Project

Riken Institute played a leading role

Sequenced chromosome 21

DDBJ – Large genomics data storage

WORKING IN A CANCER RESEARCH LAB



GENOMICS IS TRANSFORMING MEDICINE

Cancer – Early diagnosis, Precision medicine,

Reproductive Health – Carrier screening, embryo screening

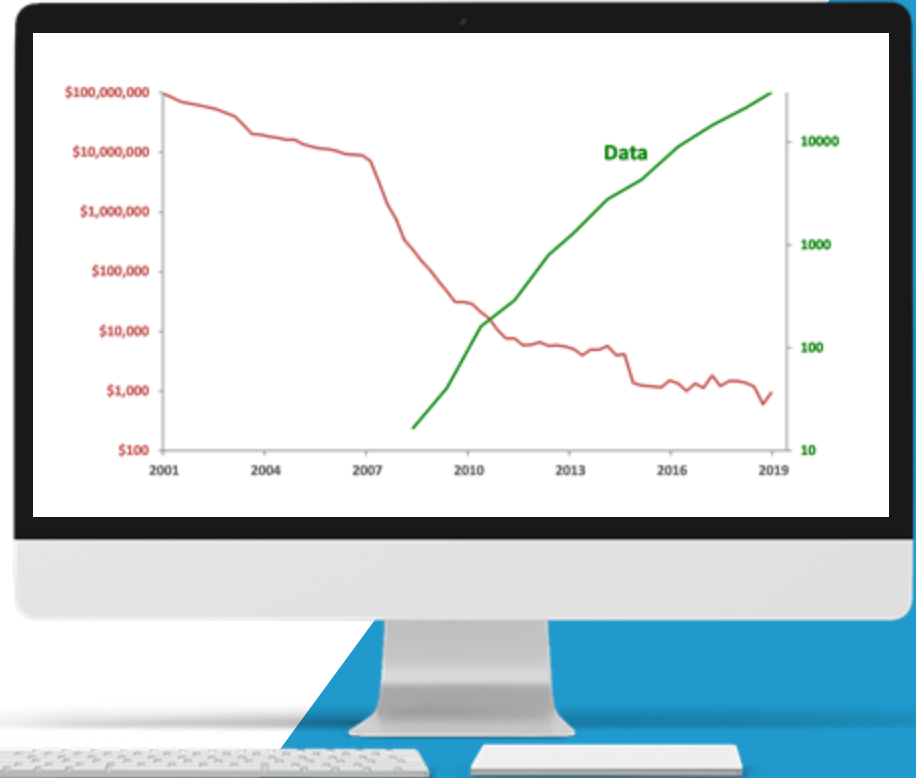
Infectious disease – Covid surveillance

GENOMICS IS GROWING EXPONENTIALLY

Sequencing will generate more data than YouTube

Disconnect between researchers and the data they generate

Democratize and automate genomic data analysis as much as possible

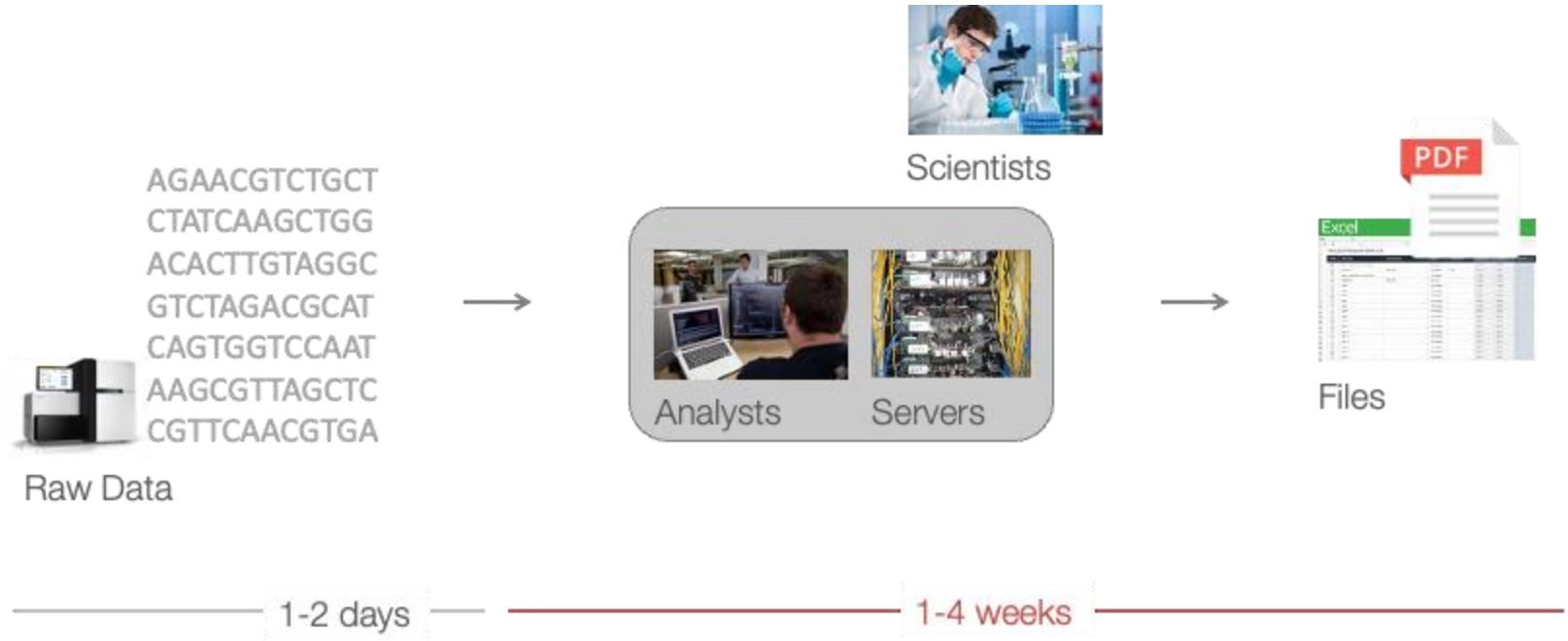


WHAT IS THE BIGGEST BOTTLENECK FOR NGS?

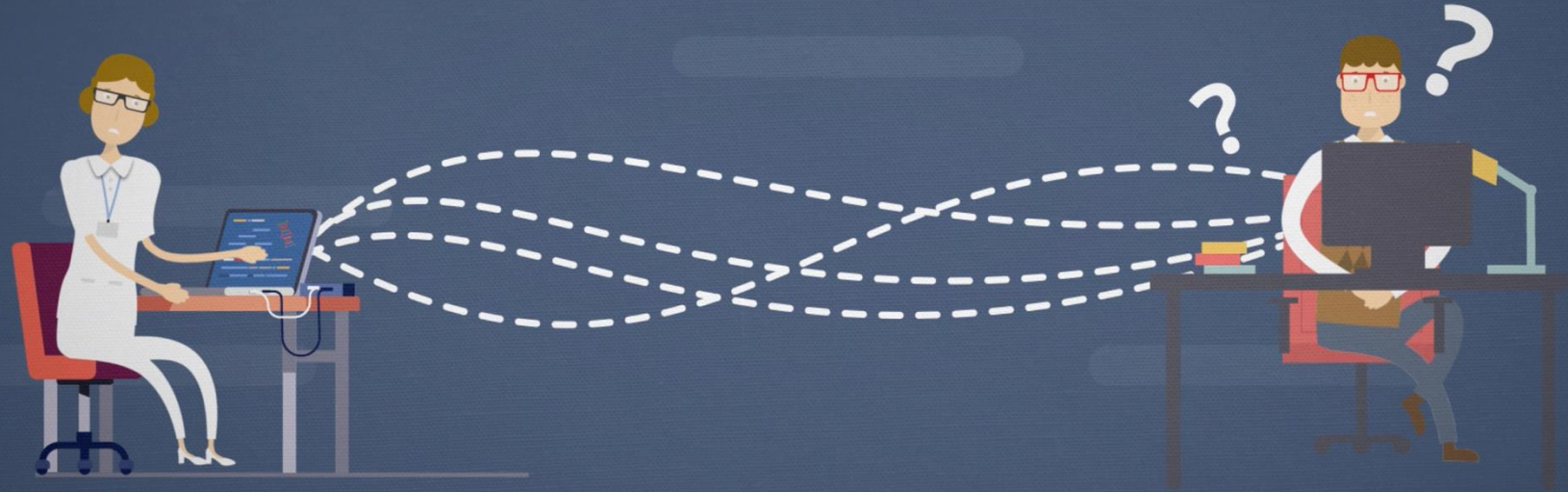
Answer Choices	
▼ Sampletracking throughout the entire NGS workflow	
▼ Sample intake / accessioning	
▼ Sample preparation	
▼ Library preparation	
▼ Sequencing	
▼ Post-sequencing data analysis and interpretation	
▼ I don't have any of these challenges	
▼ Other (please specify)	Responses
Total Respondents: 75	

FOR 1 IN 4 SCIENTISTS, ANALYSIS IS THE TOP BARRIER

Current processes are slow, expensive and clumsy



SCIENCE IS ITERATIVE





**BENCH
SCIENTISTS
NEEDS TO BE
EMPOWERED**



A woman with blonde hair, wearing a white lab coat, is looking through a microscope in a laboratory. The image is overlaid with a semi-transparent blue filter. The text "THANK YOU" is centered in white, bold, uppercase letters.

THANK YOU