

Kilobases per day per machine

1,000,000,000
100,000,000
10,000,000
1,000,000
100,000
10,000
1,000
100
10

1980

1985

1990

1995

2000

2005

2010

Future

Year

Gel-based systems

Manual
slab gel

Automated
slab gel

Capillary sequencing

First-generation
capillary

Second-generation
capillary sequencer

Massively parallel
sequencing

Microwell
pyrosequencing

Short-read
sequencers

Single
molecule?