

Installed Sequencing Technologies in the GenePool

The GenePool performs sequencing on three platforms:

Sanger (dideoxy) sequencing, and genotyping, on ABI 3730 instruments

Illumina SOLEXA short read sequencing on the Illumina GAI and GAIIX platforms

Roche 454 pyrosequencing on the Roche 454 Titanium platform.

Platform	Specifications and applications
ABI 3730	<ul style="list-style-type: none"> • DNA sequencing from PCR products, plasmids and other templates up to 800 bases. • We offer services from sequence analysis only (we run your completed reactions) to full shotgun analysis of large insert clones (including construction of shotgun libraries and assembly). • Samples may be submitted individually or in 96 well plates. • We also perform analysis of fluorescently labeled genotyping experiments (microsatellites or AFLP).
Illumina GAI	<ul style="list-style-type: none"> • The instrument can generate up to 8 million reads per lane, and there are 8 lanes per run. • Sequences can be from 18 bases to 50 bases (and soon longer) • Sequences can be generated from both ends of inserts (paired-end sequencing, 50 bases from each end). • The instrument can generate over 5 Gbase per week. • Applications include <ul style="list-style-type: none"> <i>de novo</i> genome sequencing genome resequencing and targeted genome resequencing RNA-Seq (transcriptome sequencing) deep SAGE (digital transcriptomics) smallRNA sequencing (microRNA sequencing) ChIP-Seq (chromatin immunoprecipitation sequencing) RNA-IP_Seq (RNA immunoprecipitation sequencing) and variants thereof.
Roche 454 Titanium	<ul style="list-style-type: none"> • The instrument can generate up to 800000 reads per run • Sequence lengths are up to 450 bases, and can be generated from both ends of inserts (paired-end sequencing, 200 bases from each end). • Each run can be split into up to 16 lanes. • Each run can generate up to 400 Mbase of sequence. • Applications include <ul style="list-style-type: none"> <i>de novo</i> genome sequencing genome resequencing and targeted genome resequencing transcriptome sequencing mass sequencing of PCR products for (e.g.) biodiversity surveys and variants thereof.

Contact us for more information and a quotation genepool@ed.ac.uk



The Gene Pool (The University of Edinburgh Sequencing Facility)
Ashworth Laboratories, King's Buildings, Edinburgh, Scotland EH9 3JT, UK

phone 0131 6513633 | email genepool@ed.ac.uk | <http://genepool.bio.ed.ac.uk/>
The University of Edinburgh is a charitable body, registered in Scotland, with registration number SC005336.