

The Gandel Charitable Trust Sequencing Centre

The Gandel Charitable Trust Sequencing Centre is one of the four centres forming the MHTP Medical Genomics Facility:

- The Gandel Charitable Trust Sequencing Centre
- ACRF Centre for Cancer Genomic Medicine
- MHTP High Content Screening Centre
- MHTP Microarray Centre

Located at the Monash Health Translation Precinct (MHTP) in Victoria, we are a not-for-profit facility using state-of-the-art technologies to service research Institutes throughout Australia. We maintain an excellent reputation for the provision of the highest quality genomic data and comprehensive client support.

The Centre was established in 1999 and provides a NATA accredited DNA Sequencing service. Complementary services include Fragment Analysis, Gene Expression and Cell Line Identification using Applied Biosystems 3130xl Genetic Analyzers and 7900HT RT-PCR systems.

Contact Us

Email medicalgenomics@monash.edu
Web <http://mhtpmedicalgenomics.org.au>
Tel +61 3 9902 4790 or +61 3 9594 3576

Gene Expression

The Gene Expression service utilises Applied Biosystems 7900HT Fast RT-PCR systems. These are high throughput PCR instruments equipped with Fast 96- and 384-sample blocks and a block for Taqman® Array 384-well cards.



The platform supports numerous expression analysis assays, including:

- Gene Expression Analysis with Taqman® Assays
- Gene Expression Analysis with SYBR® Green-Based Assays
- Protein Expression with Taqman® Assays
- MicroRNA Profiling with Taqman® Assays

Other applications using the Applied Biosystems 7900HT Fast RT-PCR systems include:

- Genotyping - detection of single nucleotide polymorphisms (SNPs)
- High Resolution Melt (HRM) - detection of genetic variation
- Copy Number Variation detection



Services include:

1. Instrument usage:

Use of the 7900HT Fast RT-PCR instrument is arranged via an easy online calendar booking system. Liquid handling instruments are also available to use for automated plate set-up and can be booked online. To obtain password access to the calendar, please email the Centre.

Click the instrument booking link at <http://mhtpmedicalgenomics.org.au>

Centre staff are available to train you on the use of the 7900HT Fast RT-PCR or liquid handling instruments.

2. RT-PCR consumables:

RT-PCR mastermix, reagents and plates are available for purchase at cost price from the Centre.

3. Software:

SDS Software
DataAssist™ Software
Primer Express® Software

The Applied Biosystems Sequence Detection System (SDS) Software version 2.4 is required to create a 7900HT plate document and for data analysis. It is free to download from the Applied Biosystems website.

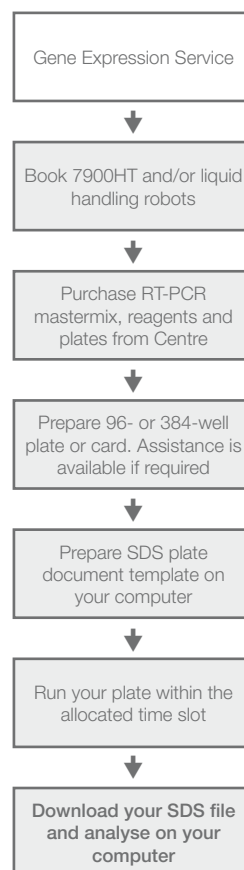
You will need a copy of the 7900HT Fast RT-PCR instrument serial number for registration, which can be obtained by emailing the Centre.

DataAssist™ Software is also free and is an easy to use data analysis tool that utilises the Comparative CT (ddCT) method to rapidly and accurately quantitate relative gene expression across a large number of genes and samples.

The Centre owns a single license for Primer Express® Software version 3.0, which allows you to design your own primers and probes using TaqMan® and SYBR® Green I dye chemistries for gene quantitation and allelic discrimination (SNP) RT-PCR applications. Please contact the Centre to arrange access

Data retrieval

The SDS file can be easily downloaded following completion of the run or transferred to our FTP site and accessed via the website link. Data in simple text form (for use in Excel) can be exported from the SDS file into spreadsheets for customised analysis.



Authorised Service Provider

The Gandel Charitable Trust Sequencing Centre is an Approved Gene Expression Service Provider and a member of the Taqman Service Provider Program.

MHTP Medical Genomics Facility

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