

## Affymetrix Expression Profiling Service

### General Information

Affymetrix Inc. pioneered the field of oligonucleotide microarrays and has been the microarray “gold standard” for fifteen years now. Affymetrix’ GeneChip™ technology applies a combination of photolithography and combinatorial chemistry to directly synthesise 25mer oligonucleotides on a glass surface. Up to 6.5 million different oligonucleotides are synthesised on a 1.7 cm<sup>2</sup> surface – an area as small as a thumbnail. Moreover, GeneChip™ technology excels with an outstandingly high degree of automation and reproducibility. More than twenty thousand peer-reviewed publications in high-ranking scientific journals are based on Affymetrix GeneChip™ data.

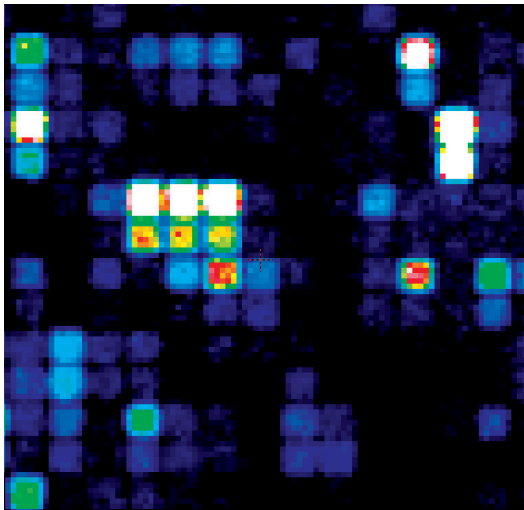
### Why Choose ATLAS Biolabs’ Services?

- ATLAS Biolabs is an Authorised Affymetrix Service Provider
- ATLAS Biolabs is certified according to the international standard DIN EN ISO 9001:2008
- ATLAS Biolabs’ personnel have successfully analysed tens of thousands of microarrays since 2001
- Our service is fast (processing of up to 100 samples per day) and extremely reliable
- We offer professional assistance for both planning experiments as well as further data analysis and interpretation



### Affymetrix Expression Profiling Service Portfolio

Single cartridge format		96well plate format	
3'IVT arrays	Exon arrays	Gene arrays	High throughput
<p>Classical 3' approach based on poly(T) priming</p> <p>Available for more than 25 organisms including model organisms, production animals and agricultural crops</p>	<p>Investigation of all known and putative splice variants in man, mouse and rat</p>	<p>More complete coverage of genes than 3'VT arrays</p> <p>More accurate view of total transcription activity than 3'VT arrays</p>	<p>Available for man, mouse and rat</p> <p>Human U219 array plate: based on RefSeq version 36 (July 2009)</p> <p>Human and mouse gene 1.1 ST array plates: 16, 24, or 96 samples at a time</p>



### Service Range

- **Full Service:** Customer sends total RNA or mRNA. ATLAS Biolabs takes over the complete processing procedure incl. sample labelling, array hybridisation, washing, staining, scanning and basic data analysis.
- **Core Service:** Customer sends labelled cRNA/cDNA. ATLAS Biolabs performs array hybridisation, washing, staining, scanning and basic data analysis.
- **Small Sample Service:** available for very limited amounts of total RNA (10–20 ng).
- **Data Analysis:** is offered at various levels; starting from the simple determination of the transcriptional status of a gene (absent/present) via calculation of significantly up- and downregulated genes, to more sophisticated analyses such as hierarchical clustering or principal component analysis.

### Quality control

**ATLAS Biolabs is certified according to the international standard DIN EN ISO 9001:2008.** Our processes are subject to rigorous quality control at all steps:

- Quality and quantity of each RNA sample sent to ATLAS Biolabs will be determined by analysis on an Agilent 2100 Bioanalyzer and by photometric analysis.
- Customers receive a QC report documenting the quality of each single hybridisation.
- All quality assurance procedures are electronically documented and available for our customers on demand.

### Data Delivery

- Timeline: 3-4 weeks after receipt of samples (for >50 samples, please inquire)
- CD-ROM/DVD/external HDD sent to customer including all original data (except from the dat file), as well as the results in XLS or TXT format

