

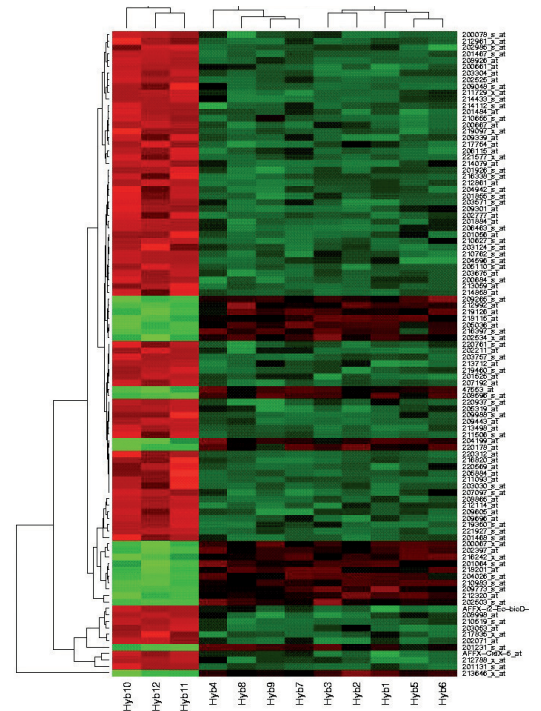
## Bioinformatics Service

### General Information

The handling of data from high-throughput sequencing projects or microarray experiments requires a thorough expertise in statistics, bioinformatics and information technology. ATLAS Biolabs can offer you this expertise in a standardised manner for expression profiling experiments as well as Single Nucleotide Polymorphism (SNP) genotyping. This insures that our customers receive fast and reliable results upon completion of microarray analyses.

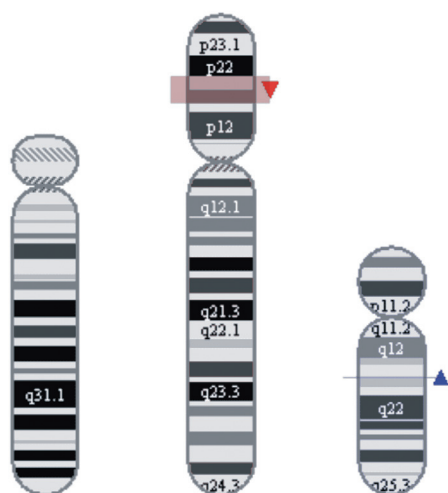
### Why Choose ATLAS Biolabs' Services?

- 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 further data analysis and interpretation



### Bioinformatics Service Portfolio

Expression Data Analysis	CNV / LOH Data Analysis	Bioinformatics Support
Comprehensive analysis of Affymetrix or Agilent expression data	Sophisticated analysis of Affymetrix or Illumina SNP data	Additional service: data analysis, data mining, development
Standardised analysis reports based on over 10 years of experience	Easily identify aberrations with affected genes and SNPs	Statistics, bioinformatics or IT support for customer specific project needs
Easily interpret data across multiple gene expression experiments	Graphical representation of aberrations across chromosome	Custom analyses (sequencing, expression, exon or genotyping data)
Evaluate quality of experiment through statistical methods		Project definition (consulting, specification, setup)
Comprehensive data annotation for the most top significant genes (UniGene, Entrez Gene, Uniprot, GeneOntology, etc.)		Software engineering, testing and validation
Graphical data representations (heat map, principal component analysis, hierarchical clustering)		Data hosting in managed data centre



## Service Range

Furthermore, these processes can be optimised to meet your individual project needs. Our bioinformatic service is continuously extended and validated. Analysed data can comprehensively be annotated with information from various data sources, e.g. NCBI Unigene, Entrez Gene, UniProt, Ensembl, OMIM, KEGG Pathways etc. Data can be provided in different formats as MS Excel spreadsheet or as comma or tabulator separated value lists.

- **Expression Data Analysis:** Based on customer expression data a report of standard statistical methods (M versus A analysis, Principal Component analysis, Clustering, t-test, ANOVA, False Discovery Rate) as well as most statistically significant genes (Annotation, Metabolic Pathways, Gene-Ontologies) is generated.
- **CNV / LOH Data Analysis:** Based on customer SNP array data, a report with detected chromosomal aberrations is generated. The aberrations are annotated with affected genes and SNPs. The report includes a genomewide chromosome view indicating aberrations.

## Data Delivery

- Timeline: 3–4 weeks after processing of samples (for > 100 samples, please inquire)
- CD-ROM/DVD/external HDD sent to customer includes all original data (raw data), as well as the genotype data in XLS or TXT format

## Related ATLAS Biolabs Services

- Affymetrix 3' Expression Profiling Service
- Agilent Expression Profiling Service
- Affymetrix SNP Genotyping Service
- Illumina SNP Genotyping Service

	A	B	C	D	E	F	G
1	Affy Id	p-Value	log(fc)	fc	Hyb C1	Hyb C2	Hyb T
2	117_at	1,761E-007	3,22331	9,33930	23,34286	35,54684	226,253
3	207569_at	2,007E-002	-1,41523	-2,66702	11,24536	21,80691	9,292
4	208538_at	2,007E-002	-1,39874	-2,63671	30,29017	25,38373	9,076
5	233518_at	3,814E-002	1,32483	2,50503	4,23015	10,22419	14,634
6	200799_at	3,814E-002	1,27778	2,42466	1157,38424	1068,64681	4010,08
7	200666_s_at	1,313E-002	1,21330	2,31868	384,66041	387,75161	1016,08
8	216638_s_at	3,814E-002	1,12222	1,72215	2,31869	Signal	intensity
9	1566597_at	2,981E-002	log fold change	and fold change	12,88266	18,41321	1,028
10	202859_x_at	2,268E-002			24,48955	33,16578	98,956