Cohort study support services

extraction • sequencing • genotyping

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Cohort studies
Convenient service packages for cost-effective generation of accurate results

At LGC we are proud of the role we have played in facilitating cohort studies over the past 10 years. With a suite of DNA extraction, SNP discovery and genotyping service modules, we have successfully facilitated both small and large cohort studies from as few as 1,000 to over 75,000 patient samples. Each module delivers a service package that enables a complete outsourcing solution. Specifically for cohort studies we have included shipping, storage, sample tracking and project management, facilitating inclusion of the maximum number of patient samples within your budget.

What we offer...

- A full suite of genomic and sample management services
  - Extraction
  - Genotyping
  - SNP discovery
  - Testing for non-genetic markers
  - Biobanking / sample management services.

- Direct knowledge and experience facilitating cohort studies
  - We have supported numerous cohort studies over the past ten years and have many satisfied customers willing to recommend our capabilities, expertise, and reliability.

- A proven track record of delivering timely data and value
  - With LGC your project will be done right and on time, and we will lower your cost per data point as well, so you can process even more samples.
Nucleic acid extraction

Our nucleic acid extraction service package includes several elements required for cohort studies such as quantification, normalisation, backup storage and genotyping quality control (QC). With our proprietary extraction chemistries we can deliver high quality and high yield very cost effectively.

Key benefits:

- Full pilot project on 12 - 48 samples
- Pickup service (optional)
- Extraction from blood, saliva, buccal swabs, buffy coats, tissue, serum and more
- Sample volumes up to 10 mL (with higher volumes optional)
- Standardised QC check to assure DNA quality
- Quantification (UV measurement standard; alternative methods optional)
- Normalisation at preferred concentration (<1mL)
- Delivered and / or stored in 2D barcoded 96 tube racks
- Backup aliquot storage options
- Convenient data delivery.
SNP discovery

For cohort studies that do not yet have a defined set of markers, we can support SNP discovery efforts through our in-house sequencing capabilities or through array-based genome wide analysis using an established partner.

Key benefits:
- Full pilot project to ensure process integrity prior to implementation
- Pickup service (optional)
- Whole exome NextGen sequencing
- Sanger sequencing
- Array based genome wide analysis
- Convenient data delivery.

Genotyping

Using our accurate and cost-efficient KASP™ genotyping chemistry, we will design and validate genotyping assays for all SNPs and/or InDels you wish to score and then screen your DNA samples for those markers. We will then analyse the data generated and deliver genotype scoring data for every sample in a convenient format.

Key benefits:
- Full pilot project to ensure process integrity prior to implementation
- Pickup service (optional)
- Genotyping based on our unique KASP chemistry
- Convenient data delivery.
Testing of non-genetic markers

Should there be a need to test for non-genetic markers, such as proteins or metabolites, we can offer these testing services through our LGC bioanalytical sciences division.

Cohort study references

LGC is the preferred service partner for many of the world’s most prestigious cohort studies. The following are just a few we actively support and who have expressed their satisfaction by allowing us to list them as references.

- **GEFOS** ([www.gefos.org](http://www.gefos.org))
  GEnetic Factors for OSteoporosis consortium

- **WHITEHALL II** ([www.ucl.ac.uk/whitehallII](http://www.ucl.ac.uk/whitehallII))
  The Whitehall II study was established in 1985 by Professor Sir Michael Marmot and his UCL team to investigate the importance of social class for health by following a cohort of 10,308 working men and women.

- **EPIGEN** ([www.epigenchlamydia.eu](http://www.epigenchlamydia.eu))
  Contribution of molecular epidemiology and host-pathogen genomics to understand *Chlamydia trachomatis* disease

Contact details

For price enquiries or to make an appointment with your cohort manager today, please contact us via email: cohortstudies@lgcgenomics.com.
## Genomics - products and services

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<th>Services</th>
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<tbody>
<tr>
<td>• KASP SNP and InDel genotyping</td>
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<tr>
<td>• DNA and RNA extraction services</td>
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<tr>
<td>• Sanger sequencing</td>
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<tr>
<td>• Next-generation sequencing services (Roche 454, Illumina HiSeq &amp; MiSeq)</td>
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<td>• Whole Genome Amplification (WGA)</td>
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<tr>
<td>• KASP SNP and InDel genotyping chemistry</td>
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<tr>
<td>• DNA extraction products (sbeadex™, Kleargene™ and mag™ kits)</td>
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<tr>
<td>• Enzymes and PCR reagents (KlearKall™, KlearTaq™, KlearTaq™ HiFi)</td>
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<tr>
<td>• Whole Genome Amplification (WGA) kits and services</td>
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<tr>
<td>• Microtitre plates and seals for heat and laser sealing (96, 384 &amp; 1536)</td>
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<tr>
<td>• SNPline PCR workflow instrumentation:</td>
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<tr>
<td>- Plate heat sealers (Kube™)</td>
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<td>- Plate laser sealer (Fusion3™)</td>
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<tr>
<td>- Thermal cycling instruments (Hydrocycler™)</td>
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<td>- Assay dispensing systems (Meridian™)</td>
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<tr>
<td>- Software (SNPviewer™, KlusterCaller™, Kraken™)</td>
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<td>- DNA extraction instruments (oKtopure™ and Genespin™)</td>
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<td>- DNA plate replicating robot (repliKator™)</td>
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