














# 2024 EQA Price List

(includes EQAs from 1<sup>st</sup> April 2024 - 31<sup>st</sup> March 2025)

For 2024, GenQA are delighted to offer 120 genomics external quality assessments (EQA) covering thirteen different disciplines which encompass the sample and patient journey. In addition we are offering a number of assessments for individual competency.

Free GenQA membership is required to purchase EQA. If you have any questions regarding membership or enrolment, please email [info@genqa.org](mailto:info@genqa.org).

Please see our live calendar at [www.genqa.org/calendar](http://www.genqa.org/calendar) for EQA distribution/assessment dates.

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## Clinical Genetics & Genetic Counselling

These multi-stage case scenarios follow the patient pathway from first consultation and request of appropriate genetic test(s) based on family history and clinical examination, through interpretation of test results, and finally to diagnosis and counselling of the patient.

- Cases designed to assess appropriate genomic testing requested based on clinical presentation and family history, interpretation of test results and relevant genetic counselling.
- 6 weeks to submit results
- Submitted results are assessed by an expert panel against recommended guidelines
- Each participant receives an Individual Centre Report (ICR) and EQA summary report

| External Quality Assessment (EQA)                                  | EQA Code   | Sample        | Results submission/assessment  | Distribution month | ISO 17043 Status | Fee (£) |
|--|------------|---------------|--|--------------------|------------------|---------|
| <b>Clinical Genetics - Cardiovascular disorders</b>                | 2024 CGC   | Case scenario | Online interpretation of cardiovascular disorders with a genetic aetiology.  | November           | Not accredited   | 155     |
| <b>Clinical Genetics - Dysmorphology</b>                           | 2024 CGD   | Case scenario | Online interpretation of syndromes involving dysmorphism with a genetic aetiology.                                       | May                | Not accredited   | 155     |
| <b>Clinical Genetics - Monogenic disorders</b>                     | 2024 CGM   | Case scenario | Online interpretation of syndromes involving single gene(s) disorders.   | November           | Not accredited   | 155     |
| <b>Clinical Genetics - Oncogenetic disorders</b>                   | 2024 CGO   | Case scenario | Online interpretation of cancers with a genetic predisposition or inherited.   | November           | Not accredited   | 155     |
| <b>Clinical Genetics – Inherited Metabolic disorders POSTPONED</b> | 2024 CGU   | Case scenario | Online interpretation of metabolic disorders with a genetic aetiology.   | November           | Pilot            | 155     |
| <b>Genetic counselling</b>   | 2024 CGG   | Case scenario | Online interpretation of pre and post- test counselling for Cancer, Prenatal Diagnosis, and Genomic disorders/ diseases. | May                | Not accredited   | 155     |
| <b>Genomic multi-disciplinary team (MDT) working<sup>^</sup></b>   | 2024 CGMDT | Case scenario | Online assessment of the full MDT process including pre-meeting, post-meeting and reporting.                             | November           | Pilot            | 155     |

<sup>^</sup>This EQA is now listed under the Multidisciplinary team (MDT) working specialty.

## Genomic and Inherited disorders

Assess testing and reporting of different genomic and inherited disorders, using various sample types and/or online case scenarios e.g. diagnostic and carrier testing. Cases based on real clinical scenarios, using validated samples.

- Suitable for molecular and/or cytogenomic techniques
- Each EQA may contain some or all the disorders/genes indicated.
- 6-16 weeks to submit results
- Submitted laboratory reports are assessed, by an expert panel, using international guidelines/recommendations.
- Each participant receives an Individual Laboratory Report (ILR) and EQA summary report

**Suitable for both cytogenomic and/or molecular testing (including Clinical Pathway EQAs):**

| External Quality Assessment (EQA)  | EQA Code  | Sample              | Assessment <sup>#</sup> | Results submission | Distribution month | ISO 17043 Status | Fee (£) |
|--|-----------|---------------------|-------------------------|--------------------|--------------------|------------------|---------|
| <b>Chromosome instability syndromes</b> (previously Chromosome breakage syndromes)<br><b>UPDATED</b><br>Fanconi anaemia, Bloom syndrome, Ataxia telangiectasia and Nijmegen syndrome, Robert syndrome, ICR, Cornelia de Lange syndrome, mosaic variegated aneuploidy and Seckel syndrome | 2024 GCI  | Images and DNA      | Full                    | Laboratory report  | April              | Accredited       | 390     |
| <b>Developmental delay</b> (previously Severe Developmental Delay)   | 2024 GDD  | Case scenario       | Full                    | Laboratory report  | April              | Accredited       | 390     |
| <b>Differences in Sex Development (DSD)</b> (previously Disorders of Sex Development)<br>Androgen insensitivity syndrome, Congenital adrenal hyperplasia, cytogenomic abnormalities and other disorders associated with a DSD NGS panel  | 2024 GDSD | Case scenario / DNA | Full                    | Laboratory report  | April              | Accredited       | 390     |
| <b>Hypotonic Infant</b><br>Spinal Muscular Atrophy type 1 (SMA), Prader Willi Syndrome (PWS) and Myotonic Dystrophy type 1 (DM1)   | 2024 GHI  | DNA                 | Full                    | Laboratory report  | April              | Accredited       | 390     |
| <b>Imprinting disorders</b><br>Angelman Syndrome (AS), Beckwith-Wiedemann Syndrome (BWS), Silver Russell Syndrome (SRS), Wilms tumour and Temple syndrome  | 2024 GIM  | DNA                 | Full                    | Laboratory report  | April              | Accredited       | 390     |
| <b>Infertility</b><br>Chromosomal mosaicism, <i>CFTR</i> , <i>FMR1</i> , Y-deletions   | 2024 GINF | Case scenario       | Full                    | Laboratory report  | April              | Accredited       | 390     |
| <b>Microdeletion syndromes</b><br>Prader-Willi syndrome, Angelman syndrome, Williams syndrome and Di-George syndrome   | 2024 GDEL | Fixed cells/DNA     | Full                    | Laboratory report  | May                | Accredited       | 390     |
| <b>Postnatal constitutional copy number variants (CNV) detection<sup>1</sup></b>   | 2024 GCNV | DNA                 | Full                    | Laboratory report  | May                | Accredited       | 455     |

<sup>#</sup>Full assessment of analytical/genotyping processes and clinical interpretation of results

<sup>1</sup>Provided in collaboration with EMQN

### Suitable for cytogenomic testing only:

| External Quality Assessment (EQA)                                   | EQA Code    | Sample | Assessment <sup>#</sup> | Results submission | Distribution month | ISO 17043 Status | Fee (£) |
|---|-------------|--------|-------------------------|--------------------|--------------------|------------------|---------|
| <b>Postnatal karyotyping</b><br>Structural chromosome abnormalities | 2024<br>GPK | Images | Full                    | Laboratory report  | May                | Accredited       | 390     |

<sup>#</sup>Full assessment of analytical/genotyping processes and clinical interpretation of results

### Suitable for molecular testing only:

| External Quality Assessment (EQA)  | EQA Code      | Sample        | Assessment <sup>#</sup> | Results submission | Distribution month | ISO 17043 Status | Fee (£) |
|--|---------------|---------------|-------------------------|--------------------|--------------------|------------------|---------|
| <b>Ataxia, including Hereditary Spastic Paraplegia (HSP)</b><br>Friedreich ataxia, spinocerebellar ataxia and hereditary spastic paraplegia  | 2024<br>GATAX | DNA           | Full                    | Laboratory report  | April              | Accredited       | 390     |
| <b>Calcium disorders</b><br>Hypercalcaemia and hypocalcaemia including: Familial hypoparathyroidism, Albright hereditary osteodystrophy, Pseudohypoparathyroidism, Pseudopseudohypoparathyroidism, Isolated hyperparathyroidism, Hypocalciuric hypercalcaemia, Calcium sensing receptor phenotypes | 2024<br>GCAL  | DNA           | Full                    | Laboratory report  | June               | Accredited       | 390     |
| <b>Cardiac disorders</b><br>Cardiomyopathies, arrhythmia and aortic dissection: Brugada syndrome, Long QT syndrome, Catecholaminergic polymorphic ventricular tachycardia (CPVT), Marfan syndrome and Ehlers Danlos syndrome   | 2024<br>GCARD | DNA           | Full                    | Laboratory report  | April              | Accredited       | 390     |
| <b>Charcot Marie Tooth disease and related sensory and motor neuropathies</b><br><i>PMP22, GJB1, MPZ, MFN2</i> and other associated genes  | 2024<br>GCMT  | Case scenario | Full                    | Laboratory report  | April              | Accredited       | 210     |
| <b>Cystic fibrosis and CFTR-related disorders</b>  | 2024<br>GCF   | DNA           | Full                    | Laboratory report  | June               | Accredited       | 390     |
| <b>Epilepsy disorders</b><br>Tuberous sclerosis, Rett syndrome, Dravet syndrome and focal seizures   | 2024<br>GEP   | Case scenario | Full                    | Laboratory report  | April              | Accredited       | 210     |
| <b>Eye disorders</b><br>Retinopathies, structural eye disorders, cataracts and albinism  | 2024<br>GEYE  | DNA           | Full                    | Laboratory report  | April              | Accredited       | 390     |
| <b>Familial colorectal cancer and polyposis</b><br>Lynch syndrome, Familial Adenomatous Polyposis and <i>MUTYH</i> -associated Polyposis (MAP)   | 2024<br>GCRC  | DNA           | Full                    | Laboratory report  | April              | Accredited       | 390     |
| <b>Familial endocrine tumour predisposition disorders</b><br>Von Hippel-Lindau disease (VHL), Multiple Endocrine Neoplasia (MEN) and Familial medullary thyroid carcinoma (FMTC)   | 2024<br>GEND  | DNA           | Full                    | Laboratory report  | June               | Accredited       | 390     |
| <b>Familial Hypercholesterolaemia</b><br><i>LDLR, APOB</i> and <i>PCSK9</i>  | 2024<br>GFH   | DNA           | Full                    | Laboratory report  | June               | Accredited       | 390     |

| External Quality Assessment (EQA)  | EQA Code   | Sample        | Assessment <sup>#</sup> | Results submission | Distribution month | ISO 17043 Status | Fee (£) |
|--|------------|---------------|-------------------------|--------------------|--------------------|------------------|---------|
| <b>Fragile X syndrome and FMR1-related disorders</b>   | 2024 GFRA  | DNA           | Full                    | Laboratory report  | June               | Accredited       | 390     |
| <b>Gastroenterology and hepatology disorders</b><br>Hereditary Pancreatitis, Gilbert, Cholestasis, Hirschsprung disease, Polycystic liver disease.   | 2024 GGH   | Case scenario | Full                    | Laboratory report  | April              | Accredited       | 210     |
| <b>Hereditary breast and ovarian cancer disorders</b><br>Familial Breast and Ovarian Cancer (BRCA1 and BRCA2), Cowden Syndrome and Li-Fraumeni   | 2024 GHBOC | DNA           | Full                    | Laboratory report  | April              | Accredited       | 390     |
| <b>Huntington disease and DRPLA</b>  | 2024 GHD   | DNA           | Full                    | Laboratory report  | June               | Accredited       | 390     |
| <b>Inborn errors of metabolism</b><br>MCADD, Fabry disease, galactosaemia and lysosomal storage disease  | 2024 GIEM  | DNA           | Full                    | Laboratory report  | April              | Accredited       | 390     |
| <b>Linkage analysis</b><br>Autosomal recessive, Autosomal dominant and X-linked disorders  | 2024 GLINK | Case scenario | Full                    | Laboratory report  | April              | Accredited       | 210     |
| <b>Mitochondrial disease</b><br>Mitochondrial and POLG-related disorders   | 2024 GMT   | DNA           | Full                    | Laboratory report  | April              | Accredited       | 390     |
| <b>Muscular dystrophies</b><br>DMD-related and other muscular dystrophies  | 2024 GMD   | DNA           | Full                    | Laboratory report  | April              | Accredited       | 390     |
| <b>Neurodegenerative disorders</b><br>Alzheimer disease, Frontotemporal dementia, Motor neurone disease/Amyotrophic lateral sclerosis (ALS), Parkinson disease and Spinal and bulbar muscular atrophy (SBMA) | 2024 GND   | DNA           | Full                    | Laboratory report  | April              | Accredited       | 390     |
| <b>Neurofibromatosis and rasopathies</b><br>Neurofibromatosis (types 1 and 2), Noonan syndrome and schwannomatosis   | 2024 GNF   | DNA           | Full                    | Laboratory report  | April              | Accredited       | 390     |
| <b>Primary Immunodeficiency disorders (PID)</b><br>Severe Combined Immunodeficiency (SCID), Agammaglobulinaemia, Hereditary angioedema, Chronic granulomatous disease and Hyper IgE syndrome                 | 2024 GPID  | DNA           | Full                    | Laboratory report  | April              | Accredited       | 390     |
| <b>Renal disorders</b><br>Haematuria, tubulointerstitial kidney disease, cystic renal disease and Alport syndrome  | 2024 GREN  | Case scenario | Full                    | Laboratory report  | April              | Accredited       | 210     |
| <b>Respiratory disorders</b><br>Pneumothorax, respiratory insufficiency, bronchiectasis (ciliopathies/PCD and surfactants) and pulmonary arterial disease  | 2024 GRESP | Case scenario | Full                    | Laboratory report  | April              | Accredited       | 210     |
| <b>Skeletal Dysplasias</b><br>FGFR2/FGFR3 related disorders, OI and other skeletal dysplasias  | 2024 GSKE  | DNA           | Full                    | Laboratory report  | April              | Accredited       | 390     |
| <b>X-inactivation</b><br>Determination of X-inactivation ratios  | 2024 GXI   | Case scenario | Full                    | Laboratory report  | April              | Accredited       | 210     |

<sup>#</sup>Full assessment of analytical/genotyping processes and clinical interpretation of results

## Haematological Neoplasms

Assess your testing and reporting of a broad range of haematological neoplasms, using various sample types and/or online case scenarios. Cases based on real clinical scenarios, using validated samples.

- Any suitable technique can be used
- 6 weeks to submit results
- Submitted laboratory reports are assessed, by an expert panel, using international guidance/recommendations
- Each participant receives an Individual Laboratory Report (ILR) and EQA summary report

| External Quality Assessment (EQA)   | EQA Code   | Sample   | Assessment <sup>#</sup> | Results submission | Distribution month | ISO 17043 Status | Fee (£) |
|---|------------|--|-------------------------|--------------------|--------------------|------------------|---------|
| <b>Acute Lymphoblastic Leukaemia (ALL)</b><br>Images for G-band chromosome and FISH analysis. DNA for whole genome copy number analysis | 2024 HALL  | DNA/<br>Images                                   | Full                    | Laboratory report  | May                | Accredited       | 390     |
| <b>Chronic Lymphocytic Leukaemia (CLL)</b><br>Images for G-band chromosome and FISH analysis. whole genome copy number analysis         | 2024 HCLLC | DNA/<br>Fixed cells/<br>Images                   | Full                    | Laboratory report  | September          | Accredited       | 390     |
| <b>Chronic Lymphocytic Leukaemia (CLL) IGHV mutation status<sup>2</sup></b>   | 2024 HCLLI | DNA/<br>cDNA <sup>3</sup> /<br>lyophilised cells | Full                    | Laboratory report  | September          | Accredited       | 390     |
| <b>Chronic Lymphocytic Leukaemia (CLL) TP53 analysis<sup>2</sup></b>  | 2024 HCLLT | DNA  | Full                    | Laboratory report  | September          | Accredited       | 390     |
| <b>Haematological Technical FISH</b><br>AML, CML, ALL, MDS, MPN   | 2024 HTF   | Fixed cells                                      | Summary of test results | Proforma           | May                | Accredited       | 390     |
| <b>Lymphoma</b><br>Images for G-band chromosome and supplementary FISH analysis. Fixed cells and FFPE for FISH analysis                 | 2024 HLYM  | Fixed cells/<br>FFPE/<br>Images                  | Full                    | Laboratory report  | September          | Accredited       | 390     |
| <b>Lymphoma Technical NGS</b><br>SNVs/CNVs/fusions associated with lymphoma   | 2024 HLYT  | FFPE   | Summary of test results | Proforma           | September          | Pilot            | 210     |
| <b>Myeloid disorders</b><br>Images G-band chromosome and FISH analysis. whole genome copy number analysis                               | 2024 HMD   | DNA/<br>Images                                   | Full                    | Laboratory report  | May                | Accredited       | 390     |
| <b>Myeloma</b><br>Images and fixed cells for FISH analysis and DNA for whole genome copy number analysis                                | 2024 HMM   | DNA/Fixed cells/<br>Images                       | Full                    | Laboratory report  | May                | Accredited       | 390     |

<sup>#</sup>Full assessment of analytical/genotyping processes and clinical interpretation of results

<sup>2</sup>Provided in collaboration with UKNEQAS LI. <sup>3</sup>Please contact GenQA for this sample type

## Molecular Newborn Screening

Assess the quality of your molecular testing using blood spotted onto neonatal screening cards. Multiple rounds of EQA per annum included. Cases based on real clinical scenarios, using validated samples.

- Any suitable technique can be used
- 4 distributions per annum
- 4 weeks to submit results
- Submitted results are assessed, by an expert panel.
- Each participant receives an Individual Laboratory Report (ILR) and EQA summary report

| External Quality Assessment (EQA)  | EQA Code  | Sample                   | Assessment <sup>#</sup> | Results submission            | Distribution month                 | ISO 17043 Status | Fee (£) |
|--|-----------|--------------------------|-------------------------|-------------------------------|------------------------------------|------------------|---------|
| <b>Molecular testing for cystic fibrosis (CF)</b><br><i>CFTR</i> variants  | 2024 NBSC | Neonatal screening cards | Genotyping              | Proforma or laboratory report | April, June, October, January 2025 | Accredited       | 870     |
| <b>Molecular testing for Medium-chain acyl-CoA dehydrogenase deficiency (MCADD)</b><br><i>c.985A&gt;G p.(Lys329Glu)</i> variant only | 2024 NBSM | Neonatal screening cards | Genotyping              | Proforma or laboratory report | April, June, October, January 2025 | Accredited       | 870     |
| <b>Molecular testing for Severe Combined Immunodeficiency (SCID)</b><br>T-cell Receptor Excision Circles (TRECs)                     | 2024 NBST | Neonatal screening cards | Full                    | Proforma                      | April, June, October, January 2025 | Not accredited   | 870     |
| <b>Molecular testing for Spinal Muscular Atrophy (SMA)</b><br><i>SMN1</i> deletion   | 2024 NBSS | Neonatal screening cards | Genotyping              | Proforma                      | April, June, October, January 2025 | Not accredited   | 210     |



## Molecular Pathology

Assess your molecular testing and reporting of a variety of genes in different tumour types. Cases based on real clinical scenarios, using validated samples.

- Any suitable molecular technique can be used
- 6 weeks to submit results
- Submitted laboratory reports are assessed, by an expert panel, using international recommendations
- Each participant receives an Individual Laboratory Report (ILR) and EQA summary report

| External Quality Assessment (EQA)   | EQA Code   | Sample            | Assessment <sup>#</sup>  | Results submission | Distribution month | ISO 17043 Status | Fee (£)          |
|---|------------|-------------------|--|--------------------|--------------------|------------------|------------------|
| <b>BRCA testing for ovarian and prostate cancer - somatic<sup>1</sup> UPDATED</b>   | 2024 TBS   | FFPE              | Full   | Laboratory report  | September          | Accredited       | 0 <sup>4</sup>   |
| <b>BRCA testing for ovarian, breast, prostate and pancreatic cancer - germline<sup>1</sup></b>  | 2024 TBG   | Germline DNA      | Full   | Laboratory report  | September          | Accredited       | 200 <sup>4</sup> |
| <b>BRCA testing in prostate cancer – cfDNA<sup>1</sup></b>  | 2024 TBP   | Artificial plasma | Full   | Laboratory report  | September          | Pilot            | 0 <sup>4</sup>   |
| <b>Breast cancer (PIK3CA testing)</b>   | 2024 TBCP  | FFPE              | Full   | Laboratory report  | October            | Accredited       | 275              |
| <b>Breast Cancer - Tumour expression profiling</b>  | 2024 TEP   | FFPE              | Full   | Laboratory report  | January 2025       | Pilot            | 210              |
| <b>Central Nervous System (CNS) tumours</b>   | 2024 TCNS  | FFPE              | Genotyping   | Laboratory report  | January 2025       | Accredited       | 390              |
| <b>Cholangiocarcinoma</b><br><i>FGFR2</i> fusions and/or <i>IDH1</i> hotspots   | 2024 TCC   | FFPE              | Full   | Laboratory report  | January 2025       | Not accredited   | 390              |
| <b>Colorectal cancer – core</b><br><i>KRAS</i> , <i>NRAS</i> and <i>BRAF</i>  | 2024 TCRC  | FFPE              | Full   | Laboratory report  | April              | Accredited       | 695              |
| <b>Colorectal cancer - MMR</b><br><i>KRAS</i> , <i>NRAS</i> and <i>BRAF</i> , MSI and <i>MLH1</i> promoter methylation  | 2024 TCMMR | FFPE              | Full   | Laboratory report  | April              | Accredited       | 830              |
| <b>Endometrial tumours</b><br>MSI, <i>MLH1</i> promoter methylation, <i>POLE</i> and <i>P53</i>   | 2024 TET   | FFPE              | Full   | Laboratory report  | January 2025       | Not accredited   | 390              |
| <b>Gastrointestinal Stromal Tumours (GIST)</b><br><i>KIT</i> and <i>PDGFRA</i>  | 2024 TGT   | FFPE              | Genotyping   | Laboratory report  | October            | Accredited       | 275              |
| <b>Genomic molecular tumour board (MTB) for lung cancer<sup>^</sup> NEW</b>   | 2024 TMTB  | Case scenario     | Online assessment of the full MDT process including pre-meeting, post-meeting and reporting. |                    | November           | Pilot            | 100              |
| <b>Lung cancer - EGFR</b>   | 2024 TLE   | FFPE              | Full   | Laboratory report  | April              | Accredited       | 695              |
| <b>Lung cancer – comprehensive molecular</b><br><i>EGFR</i> , <i>KRAS</i> , <i>BRAF</i> , <i>PIK3CA</i> , <i>ERBB2</i> , MET exon 14 skipping (DNA only), <i>TP53</i> , <i>STK11</i> and <i>KEAP1</i> | 2024 TLCM  | FFPE              | Full   | Laboratory report  | April              | Accredited       | 830              |

<sup>4</sup>This EQA is now listed under the Multidisciplinary team (MDT) working specialty.



## Molecular Pathology (cont.)

| External Quality Assessment (EQA)   | EQA Code   | Sample            | Assessment <sup>#</sup> | Results submission | Distribution month | ISO 17043 Status | Fee (£) |
|---|------------|-------------------|-------------------------|--------------------|--------------------|------------------|---------|
| <b>Lung cancer – fusions molecular</b><br><i>ALK, ROS1, RET, MET</i> (amplification and exon 14 skipping) | 2024 TLFM  | FFPE              | Full                    | Laboratory report  | October            | Accredited       | 695     |
| <b>Lung cancer – fusions FISH/IHC</b><br><i>ALK, ROS1, RET, MET</i> (amplification)                       | 2024 TLFF  | FFPE              | Full                    | Laboratory report  | October            | Accredited       | 275     |
| <b>Lung cancer - Circulating free (cf) DNA in lung cancer<sup>1</sup></b>                                 | 2024 TCFD  | Artificial plasma | Full                    | Laboratory report  | September          | Accredited       | 275     |
| <b>Melanoma</b><br><i>BRAF, KIT +/- NRAS</i>  | 2024 TM    | FFPE              | Full                    | Laboratory report  | April              | Accredited       | 695     |
| <b>Microsatellite Instability (MSI)</b><br><i>MSI, BRAF, MLH1</i> promoter methylation                    | 2024 TMSI  | FFPE              | Full                    | Laboratory report  | April              | Accredited       | 275     |
| <b>Molecular Tissue identification</b>  | 2024 TMT   | FFPE              | Full                    | Laboratory report  | January 2025       | Accredited       | 275     |
| <b>NTRK fusions</b>   | 2024 TNTRK | FFPE              | Full                    | Laboratory report  | January 2025       | Accredited       | 275     |
| <b>Renal tumours</b><br><i>TFE3</i> rearrangements  | 2024 TRT   | FFPE              | Full                    | Laboratory report  | January 2025       | Accredited       | 275     |
| <b>Sarcoma</b>  | 2024 TSA   | FFPE              | Full                    | Laboratory report  | October            | Accredited       | 275     |
| <b>Thyroid cancer</b><br><i>HRAS, NRAS, KRAS, BRAF, RET, TP53, TERT</i> promoter                          | 2024 TT    | FFPE              | Genotyping              | Laboratory report  | October            | Accredited       | 275     |

<sup>##</sup>Full assessment of analytical/genotyping processes and clinical interpretation of results. <sup>1</sup>Provided in collaboration with EMQN

<sup>4</sup>Sponsored by AstraZeneca and MSD

### Individual Competency Assessment:

|   |  |                  |                  |                 |
|---|--|------------------|------------------|-----------------|
| <b>Tumour content estimation and annotation of tissue samples</b> | <br>Individual online competency assessment | Spring<br>Autumn | Educational only | 555 for 3 users |
|---|--|------------------|------------------|-----------------|

## Pharmacogenomics

Assess your testing and reporting of clinically actionable pharmacogenomic variants/alleles. Cases based on real clinical scenarios, using validated samples.

- Any molecular technique can be used
- 6 weeks to submit results
- Submitted laboratory reports are assessed, by an expert panel
- Each participant receives an Individual Laboratory Report (ILR) and EQA summary report

| External Quality Assessment (EQA)   | EQA Code  | Sample | Assessment <sup>#</sup> | Results submission | Distribution month | ISO 17043 Status | Fee (£) |
|---|-----------|--------|-------------------------|--------------------|--------------------|------------------|---------|
| <b>Pharmacogenomics: Aminoglycoside ototoxicity</b><br>Includes m.1555A>G, m.1095T>C and m.1494C>T variants | 2024 PGXA | DNA    | Full                    | Laboratory report  | August             | Accredited       | 390     |
| <b>Pharmacogenomics: APOE NEW</b>   | 2024 PGXE | DNA    | Genotyping              | Laboratory report  | TBC                | Pilot            | 100     |
| <b>Pharmacogenomics: panel</b>  | 2024 PGXP | DNA    | Genotyping              | Proforma           | August             | Pilot            | 210     |
| <b>Pharmacogenomics: CYP2C19 NEW</b><br>CYP2C19 variants  | 2024 PGXC | DNA    | Full                    | Laboratory report  | August             | Pilot            | 100     |
| <b>Pharmacogenomics: DPYD</b><br>DPYD variants  | 2024 PGXD | DNA    | Full                    | Laboratory report  | August             | Accredited       | 390     |
| <b>Pharmacogenomics: TPMT and NUDT15</b><br>TPMT and NUDT15 variants  | 2024 PGXT | DNA    | Full                    | Laboratory report  | August             | Not accredited   | 390     |

<sup>#</sup>Full assessment of analytical/genotyping processes and clinical interpretation of results

## Preimplantation Genetic Testing (PGT)

Assess a range of preimplantation genetic testing scenarios, using various sample types, including embryo testing.

- Any suitable technique can be used
- 3-10 weeks to submit results
- Submitted laboratory reports are assessed, by an expert panel, using international recommendations.
- Each participant receives an Individual Laboratory Report (ILR) and EQA summary report

| External Quality Assessment (EQA)  | EQA Code   | Sample    | Assessment <sup>#</sup> | Results submission | Distribution month            | ISO 17043 Status | Fee (£) |
|--|------------|-----------|-------------------------|--------------------|-------------------------------|------------------|---------|
| <b>PGT for aneuploidies (PGT-A)</b>  | 2024 PGTA  | DNA       | Full                    | Laboratory report  | September                     | Accredited       | 390     |
| <b>PGT for blastomere FISH (Stages 1 and 2)</b><br>Structural rearrangements <10Mb   | 2024 PGTBF | Images    | Full                    | Laboratory report  | May: stage 1<br>June: stage 2 | Accredited       | 390     |
| <b>PGT for monogenic disorders (Stages 1 and 2)<sup>§</sup></b><br>Beta thalassaemia | 2024 PGTM  | DNA/Cells | Full                    | Laboratory report  | May                           | Accredited       | 390     |
| <b>PGT for structural rearrangements (PGT-SR)</b><br>Structural rearrangements >10Mb | 2024 PGTSR | DNA       | Full                    | Laboratory report  | September                     | Accredited       | 390     |

<sup>#</sup>Full assessment of analytical/genotyping processes and clinical interpretation of results

<sup>§</sup>If your laboratory is unable to perform Stage 2, then the cost of Stage 2 (£260) will be refunded.

## Reproductive Genetics

Assess various clinical pathways associated with reproductive genetics, using different sample types. Cases based on real clinical scenarios, using validated samples.

- Any suitable technique can be used
- 4-12 weeks to submit results
- Submitted laboratory reports are assessed, by an expert panel, using international recommendations
- Each participant receives an Individual Laboratory Report (ILR) and EQA summary report

| External Quality Assessment (EQA)  | EQA Code   | Sample                      | Assessment <sup>#</sup> | Results submission | Distribution month | ISO 17043 Status | Fee (£) |
|--|------------|-----------------------------|-------------------------|--------------------|--------------------|------------------|---------|
| <b>Abnormal ultrasound</b><br>Range of molecular and cytogenomics tests involved in the prenatal pathway   | 2024 RABU  | Case scenario               | Full                    | Laboratory report  | April              | Accredited       | 390     |
| <b>Carrier screening</b>   | 2024 RPCS  | DNA                         | Full                    | Laboratory report  | October            | Pilot            | 210     |
| <b>Maternal cell contamination (MCC) and fetal sexing</b>  | 2024 RMCC  | DNA                         | Full                    | Laboratory report  | April              | Accredited       | 390     |
| <b>Non-invasive prenatal testing (NIPT) for common aneuploidies<sup>1</sup></b><br>Chromosomal aneuploidies for 13, 18, 21, X and Y and fetal sexing | 2024 NIPTA | Plasma                      | Full                    | Laboratory report  | October            | Accredited       | 455     |
| <b>Non-invasive prenatal testing (NIPT) for common microdeletions</b>  | 2024 NIPTM | Plasma                      | Full                    | Laboratory report  | October            | Accredited       | 390     |
| <b>Non-invasive prenatal testing (NIPT) for fetal RhD status<sup>1</sup></b><br>Rhesus D antigen status  | 2024 NIPTR | Plasma                      | Full                    | Laboratory report  | October            | Pilot            | 300     |
| <b>Non-invasive prenatal testing (NIPT) for fetal sexing<sup>1</sup></b>   | 2024 NIPTS | Plasma                      | Full                    | Laboratory report  | October            | Accredited       | 455     |
| <b>Pregnancy loss</b><br>Images for G-band chromosome and FISH analysis, DNA for whole genome analysis and targeted aneuploidy                       | 2024 RNPL  | Images/<br>DNA              | Full                    | Laboratory report  | September          | Accredited       | 390     |
| <b>Prenatal constitutional copy number variant (CNV) detection</b><br>Whole genome analysis  | 2024 RCNV  | DNA                         | Full                    | Laboratory report  | September          | Accredited       | 390     |
| <b>Prenatal karyotyping</b><br>Images for G-band chromosome and FISH analysis.   | 2024 RK    | Images                      | Full                    | Laboratory report  | September          | Accredited       | 390     |
| <b>Rapid prenatal testing for common aneuploidies</b><br>Chromosomal aneuploidies for 13, 18, 21, X and Y and fetal sexing                           | 2024 RRA   | Fixed cell suspension / DNA | Full                    | Laboratory report  | October            | Accredited       | 390     |

<sup>#</sup>Full assessment of analytical/genotyping processes and clinical interpretation of results

<sup>1</sup>Provided in collaboration with EMQN

## Sample Handling

Assess the quantity and quality of your DNA extraction methods for different sample types and quantification processes.

- Any method can be used
- 3 weeks to submit results
- Each participating laboratory receives an Individual Laboratory Report (ILR) and EQA summary report

| External Quality Assessment (EQA)   | EQA Code  | Sample            | Assessment                     | Results submission | Distribution month | ISO 17043 Status | Fee (£) |
|---|-----------|-------------------|--------------------------------|--------------------|--------------------|------------------|---------|
| <b>cfDNA extraction from plasma<sup>#</sup> NEW</b>                       | 2024 DNAC | Artificial plasma | DNA quality and quantity       | Proforma and DNA   | TBC                | Pilot            | 0       |
| DNA extraction from venous blood  | 2024 DNAB | Blood             | DNA quality and quantity       | Proforma and DNA   | June               | Accredited       | 1135    |
| DNA extraction from blood for long read sequencing NEW                    | 2024 DNAL | Blood             | DNA quality and quantity       | Proforma and DNA   | June               | Pilot            | 0       |
| <b>DNA extraction from formalin-fixed paraffin embedded (FFPE) tissue</b> | 2024 DNAP | FFPE              | DNA quality and quantity       | Proforma and DNA   | November           | Accredited       | 610     |
| DNA extraction from fresh tissue  | 2024 DNAF | Fresh tissue      | DNA quality and quantity       | Proforma and DNA   | June               | Not accredited   | 610     |
| <b>DNA extraction from saliva</b>   | 2024 DNAS | Saliva            | DNA quality and quantity       | Proforma and DNA   | November           | Not accredited   | 610     |
| <b>DNA quantification</b><br>Measurement of DNA concentration             | 2024 DNAQ | DNA               | Accuracy of DNA quantification | Proforma           | April              | Not accredited   | 350     |

<sup>#</sup>Offered in collaboration with SeraCare

## Technical

**Next Generation Sequencing:** Assess the quality of your NGS sequencing using any platform or technology, in germline and somatic samples.

- Use any platform and technology
- Test single gene, gene panels, exome sequencing and/or whole genome sequencing
- Submit up to 3 different data files per EQA (excluding germline CNV EQA)
- 8 weeks to submit results
- Each participating laboratory receives a review of their submitted data and EQA summary report

**Optical Genome Mapping:** Assess the accuracy of your OGM bioinformatic algorithms and pipelines for structural and copy number aberrations in both haematological neoplasms and rare diseases.

- Data files provided
- 6 weeks to submit results
- Each participating laboratory receives an Individual Laboratory Report (ILR) and EQA summary report

| External Quality Assessment (EQA)   | EQA Code      | Sample                          | Assessment                           | Results submission      | Distribution month | ISO 17043 Status | Fee (£) |
|---|---------------|---------------------------------|--------------------------------------|-------------------------|--------------------|------------------|---------|
| <b>Next Generation Sequencing (NGS) for germline SNVs and indels<sup>1,2</sup></b><br>NGS of single genes, panels, exomes and whole genomes                     | 2024<br>NGSGS | Germline DNA                    | NGS data quality for SNV/indels      | Proforma and data files | September          | Accredited       | 700     |
| <b>Next Generation Sequencing (NGS) for germline CNVs<sup>1,3</sup> NEW</b>   | 2024<br>NGSGC | Germline DNA                    | NGS data quality for CNV             | Proforma and data files | September          | Pilot            | 500     |
| <b>Next Generation Sequencing (NGS) for somatic SNVs and indels – tumour testing only<sup>1,2,4</sup></b><br>NGS of hot spot panels                             | 2024<br>NGST  | Tumour DNA                      | NGS data quality (SNV/indels only)   | Proforma and data files | September          | Not accredited   | 700     |
| <b>Next Generation Sequencing (NGS) for somatic SNVs and indels – tumour with germline subtraction analysis<sup>1,2,4</sup></b><br>NGS and germline subtraction | 2024<br>NGSM  | Matched tumour and germline DNA | NGS data quality (SNV/indels only)   | Proforma and data files | September          | Not accredited   | 1,100   |
| <b>Optical Genome Mapping (haematological neoplasms and rare diseases)</b>  | 2024<br>OGM   | Data files                      | Analysis and summary of test results | Proforma                | To be confirmed    | Pilot            | 210     |

<sup>1</sup>Provided in collaboration with EMQN,

<sup>2</sup>Indels <50bp

<sup>3</sup>CNVs ≥50bp

<sup>4</sup>May include CNVs as a pilot

## Variant Classification & Interpretation

Assess the accuracy of your SNV and CNV classification and interpretation in germline and somatic scenarios. Cases created by State registered Clinical Scientists, based on real clinical scenarios, using validated samples.

- Use your standard procedures
- 6-16 weeks to submit results
- Submitted results are assessed by an expert panel against recommended guidelines (where applicable)
- Each participant receives an Individual Laboratory Report (ILR) and EQA summary report

| External Quality Assessment (EQA)   | EQA Code | Sample        | Assessment <sup>#</sup> | Results submission | Distribution month | ISO 17043 Status | Fee (£) |
|---|----------|---------------|-------------------------|--------------------|--------------------|------------------|---------|
| <b>Pathogenicity of somatic solid tumour SNVs, CNVs and SVs</b>             | 2024 VSC | Case scenario | Full                    | Proforma           | October            | Pilot            | 250     |
| <b>Pathogenicity of haematological neoplasm variants SNVs, CNVs and SVs</b> | 2024 VHC | Case scenario | Full                    | Proforma           | October            | Pilot            | 250     |

### Suitable for both molecular and cytogenomic interpretation

|  |            |               |      |                   |         |                |     |
|--|------------|---------------|------|-------------------|---------|----------------|-----|
| <b>Exome trio sequencing – prenatal UPDATED</b>  | 2024 VEXE  | DNA           | Full | Laboratory report | May     | Not accredited | 390 |
| <b>Exome trio sequencing - postnatal</b> (including neonatal and paediatric) <b>UPDATED</b>                                  | 2024 VEXO  | DNA           | Full | Laboratory report | May     | Not accredited | 390 |
| <b>Pathogenicity of postnatal CNVs<sup>3</sup></b>   | 2024 VPCNV | Case scenario | Full | Proforma          | October | Not Accredited | 250 |
| <b>Pathogenicity of prenatal CNVs<sup>3</sup></b>  | 2024 VCNV  | Case scenario | Full | Proforma          | October | Not Accredited | 250 |
| <b>Variant validation</b><br>Validation of variants (SNV and CNV) detected on a research basis and associated family studies | 2024 VVAL  | DNA           | Full | Laboratory report | May     | Accredited     | 390 |

### Suitable for molecular interpretation

|  |           |               |                         |                   |         |                |     |
|--|-----------|---------------|-------------------------|-------------------|---------|----------------|-----|
| <b>Classification of germline SNVs and indels<sup>2</sup></b>  | 2024 VGC  | Case scenario | Summary of test results | Proforma          | October | Accredited     | 200 |
| <b>Classification and Interpretation of germline SNVs and indels<sup>2</sup></b>   | 2024 VGI  | Case scenario | Full                    | Laboratory report | October | Accredited     | 250 |
| <b>Interpretation of RNA splicing variants</b><br>Interpretation of RNA analysis results to investigate the pathogenicity of splicing variants | 2024 VRNA | Case scenario | Full                    | Laboratory report | October | Not accredited | 250 |

<sup>#</sup>Full assessment of analytical/genotyping processes and clinical interpretation of results

<sup>2</sup>indels <50bp, <sup>3</sup>CNVs ≥50bp

### Nomenclature assessment

|   |            |               |                         |          |                |       |     |
|---|------------|---------------|-------------------------|----------|----------------|-------|-----|
| <b>ISCN</b><br>Determine the correct ISCN for the abnormalities described | 2024 VISCN | Case scenario | Summary of test results | Proforma | May<br>October | Pilot | 250 |
|---|------------|---------------|-------------------------|----------|----------------|-------|-----|




## Viral Sequencing

Assess the accuracy of SARS-CoV-2 sequencing using any platform or technology. Quality data will also be assessed where provided. A collaborative EQA run jointly by GenQA and UK NEQAS for Microbiology. Participants will be required to register with UK NEQAS for Microbiology for the 2024 EQA (a GenQA account will then be created). All invoicing and shipment costs will be via UK NEQAS for Microbiology and registration will open in early 2024.

| External Quality Assessment (EQA)              | EQA Code  | Sample                              | Assessment <sup>#</sup> | Results submission               | Distribution month                 | ISO 17043 Status |
|--|-----------|-------------------------------------|-------------------------|----------------------------------|------------------------------------|------------------|
| <b>SARS-CoV-2 sequencing</b><br><b>UPDATED</b> | 2024 SCOV | Freeze-dried inactivated SARS-CoV-2 | Sequencing accuracy     | Survey and sequencing data files | June, August, November, March 2025 | Pilot            |

<sup>1</sup>Provided in collaboration with UKNEQAS for Microbiology

### Individual Competency Assessment

|   |   |                            |   |                                      |
|---|---|----------------------------|---|--------------------------------------|
| <b>BRCA and HRR gene variant classification</b> |  <p>See <a href="http://www.genqa.org/genie">www.genqa.org/genie</a></p> | April<br>October           | Educational   | 0 <sup>4</sup>                       |
| <b>Germline SNV classification</b>              |   | Continuous                 | Educational<br>Variant<br>assessment<br>module      | £300<br>for 10<br>users <sup>5</sup> |
| <b>Germline CNV classification</b>              |   |                            |   |                                      |
| <b>HGVS nomenclature</b>                        |   | Trial version<br>available | Educational<br>nomenclature<br>assessment<br>module | 0 <sup>5</sup>                       |
| <b>ISCN nomenclature</b>                        |   |                            |   |                                      |

<sup>4</sup>Sponsored by AstraZeneca

<sup>5</sup>£300 for up to 10 user licences per year, £500 for 11-20 licences and £230 per additional 10 licences per year. Individuals can also purchase for £35 per year.

<sup>5</sup>When the continuous modules become available in early 2024, the cost will be £300 for up to 10 user licences per year, £500 for 11-20 licences and £230 per additional 10 licences per year. Individuals can also purchase for £35 per year.

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