Dynacare®

Genetics and Specialty Services

Clinically Actionable Genetic Testing

As one of Canada's largest medical laboratory and health solutions companies, Dynacare takes care of more than 10 million Canadians every year through the accurate and timely delivery of medical laboratory testing and other health-related services. Clients include hospitals, healthcare professionals, insurance companies, corporate workplace wellness programs, and patients. Through Dynacare Genetics & Specialty Services, we have created a genetic centre of excellence and are continually expanding our test menu as new technologies and information with proven clinical utility are identified.

We offer scientifically proven clinical genetic testing and genetic counselling support in the following areas:

Prenatal (NIPT) and Fertility Testing

Harmony

As the first non-invasive prenatal test **approved by Health Canada**, Harmony provides accurate screening for Down Syndrome, Trisomy 18 and 13, and sex chromosome abnormalities.

MaterniT® 21 Plus

MaterniT®21 Plus provides accurate non-invasive screening for Trisomy 13, 16, 18, 21 and 22, sex chromosome abnormalities, and 7 clinically relevant microdeletions. The additional reflex option to MaterniT® Genome, called Genome-Flex, offers a new NIPT high risk pathway for when late stage anomalies are suspected without needing a new. I MaterniT®21 Plus includes options for twins and higher order multiples.

MaterniT® Genome

Achieve all the benefits of MaterniT® 21 Plus, as well as the added confidence of testing all 23 pairs of chromosomes (genome-wide) with sub-chromosomal CNV's ≥7 Mb. MaterniT® The high depth of genome-wide sequencing provides leading sensitivities, specificities for all findings.

Paternity Testing

Dynacare offers identification tests for paternity, maternity, and other family relationships (legal and non-legal) as well as NIPPT (non-invasive prenatal paternity testing) through our Orchid Pro DNA brand.

Other IVF Clinic Tests

For a comprehensive IVF Clinic test list, click here.

Precision Medicine

Hereditary Disease

Whole-Exome and Genome Sequencing, Established and Custom NGS Panels

Whole exome and genome sequencing as well as established and customized NGS panel options. NGS options include targeted and exome/ genome-wide options for mtDNA sequencing, repeat expansion detection, and copy number analysis to diagnose inherited disorders.

RNA Sequencing

Clinically validated RNA sequencing, including MNG transcriptome, panel-specific RNA sequencing, and gene-specific RNA sequencing.

In addition to our standard turnaround time, STAT options are available, which provides results in 10-14 days.

Test	Features	Turnaround Time
MNG Exome™ Proband, Duo, & Trio	• Assessment of >99% targeted regions with 160 fold average coverage • Uniparental disomy detection • Copy number analysis • Optional mitochondrial sequencing and deletion analysis	2-4 weeks
MNG STAT Exome™ Proband, Duo, & Trio	• Same great features as MNG Exome™ • Prenatal and postnatal specimen options available for STAT cases with written reports provided upon completion of testing • Acceptable prenatal specimens include cultured amniocytes, chorionic villi, extracted DNA, and cord blood	10-14 days
MNGenome™ Proband, Duo, & Trio	• Sequencing of >99% of uniquely mappable regions at >30X coverage • Uniparental disomy detection • Repeat expansion detection and confirmation • Mitochondrial sequencing, depletion, and deletion analysis	2-6 weeks
MNG Transcriptome	• Complete clinical RNA Transcriptome sequencing that can be ordered at the time of initial testing as a reflex to any NGS panel, or in conjunction with the MNG Exome or MNGenome™	2-4 weeks
Gene Specific RNA Sequencing	• Analysis of up to five genes for variant investigation following a report with a VUS identified in a splice site or intronic region	2-4 weeks

Oncology

Hereditary Cancer Syndromes

Dynacare Genetics & Specialty Services provides access to various NGS panels for hereditary cancer syndromes. These panels range in size from minimal genes to over 30. Dynacare also offers fast, inexpensive testing of single genes and familial mutations and variants.

- Hereditary cancer risk, including breast, ovarian, colorectal, pancreatic, and other cancers (Color) Learn More
- BAP1 Tumour Predisposition Syndrome (BAP1-TPDS) Learn More
- Unilateral and Bilateral Retinoblastoma Learn More

Somatic Cancer Testing

- Lynch Syndrome (MLH1/MSH2/MSH6/PMS2/EPCAM Somatic/Germline MMR Sequencing and Deletion/Duplication) Learn More
- Unilateral and Bilateral Retinoblastoma Learn More
- Uveal Melanoma Prognostic Tumor Testing Learn More
- Comprehensive immune and genomic profiling of cancer patients – Somatic tumour testing (OmniSeq) Learn More

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Pharmacogenomics

Mental Health - Genecept Assay®

The Genecept Assay® assists with clinician decision-making when prescribing medications and treatments for mental health conditions and chronic pain. The genetic test covers a wide range of psychiatric disorders, including depression, anxiety, obsessive-compulsive disorder (OCD), attention deficit hyperactivity disorder (ADHD), bipolar disorder, post-traumatic stress disorder (PTSD), autism spectrum disorder, schizophrenia, substance abuse and chronic pain. Learn More

Genetic Counselling

Dynacare offers genetic counselling services to support both patients and physicians by:

- Identifying genetic risks
- Explaining appropriate genetic testing options
- Continuing education in a fast-moving field
- Discussing the implications of genetic test results
- Helping patients make healthcare decisions that are best for them and their families

Clinical Trial Services

Our Clinical Trials team supports pharmaceutical research and drug development companies in Canada with timely, efficient and innovative laboratory testing services for their clinical trial programs.

We offer a broad menu of routine safety and complex esoteric tests across all therapeutic areas to support drug development trials. In addition, we provide a broad portfolio of state-of-the-art laboratory services to provide full-service support of centralized testing that includes:

- Phase I-IV trials;
- Esoteric testing;
- New method development
- Companion diagnostics

Learn More

Get More Information

For more information, including how to order, contact genetics@dynacare.ca