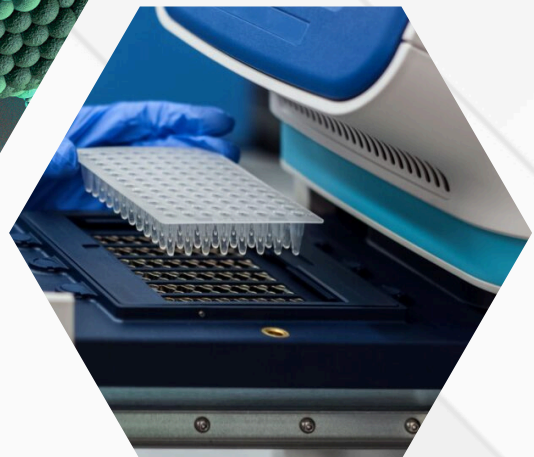
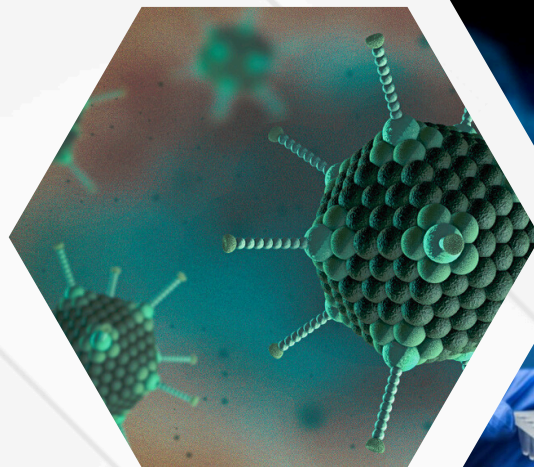




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# SERVICE CATALOGUE

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**PASSION FOR SCIENCE  
SCIENCE IN ACTION**

ISO 15189:2022 ISO 9001:2015

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# **Introduction**

# Welcome to Geneflux Biosciences

## To Our Valued Clients,

Ever since our establishment, Geneflux Biosciences emphasized Quality as our core value and we aim to deliver accurate results on time. We understand that our services are not only business, but are also critical towards patient care.

As part of the Malaysian Society for Quality in Health (MSQH) and MS ISO 15189 accreditation requirements, Geneflux Biosciences continuously participated in strict External Quality Assurance programs. In addition, all our tests are validated through daily quality control panels to ensure that results released are of the highest quality and reliability. Our dedications to provide services that add value to our clients are all part of our caring from the heart practices across the group.

We encourage any feedback and welcome you to contact us for further information. In improving our services we believe that communication between our clients and us are essential. Thank you for engaging in our services.

## Vision

To provide diagnostic services

- ✓ Equitable
- ✓ Affordable
- ✓ Efficient
- ✓ Technologically appropriate
- ✓ Environmentally adaptable
- ✓ Customer-friendly

## Mission

- ✓ To discover and develop novel biotechnological approaches for the betterment of mankind, plants and animal.
- ✓ To create and or improve a quality health system by integration of principles of life and medical sciences.
- ✓ To build partnerships for developing molecular diagnostic kits and biochips for screening and detection of infections and coronary/metabolism diseases.
- ✓ To provide "Point Of Care" services to the people to sustain their health status, so that they can enjoy a better quality of life.

# **Corporate Overview**



**Geneflux Biosciences Sdn. Bhd.**  
Company registration number: 0769382V / 200701011378



**April 13, 2007**



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# **Certifications**



**BioNexus Status Company Award by Biotech Corp, 2008**



**Enrolment Certificate by RCPA, Quality Assurance Programs PTY Limited, Australia for Microbiology, Serology**



**Best Practices Award by Frost & Sullivan, 2010**



**Certificate of Achievement in “Pre-Commercial validation of MyDENkit ” by MOSTI, 2008**



**ISO 9001: 2015**



**ISO 13485: 2003**



**MS ISO/IEC 17025: 2005**



**MS ISO 15189:2022**

# Milestones

## 2007

Established in Malaysia and India.

## 2008

Set-up Biotechnology and Molecular Pathology Laboratory in Enterprise 4, Technology Park Malaysia (TPM), Malaysia.

MOSTI (Ministry of Science, Technology and Innovation, Government of Malaysia) recognized and awarded Technofund-Pre-commercialization grant for the project entitled "Pre-commercial validation of MyDENKit™ in six locations across different countries in the world".

BioNexus status awarded by Biotech Corp (Malaysian Biotechnology Corporation), Ministry of Finance, Government of Malaysia.

## 2009

Biotech Corp awarded Seed Grant for setting up of manufacturing facility for production of Molecular diagnostics kits and marketing of test kits.

Set-up and launch of "Molecular Diagnostic Laboratory" as per International Standard requirements.

## 2011

Achieved certification of ISO 9001: 2008 for "Provision of Molecular Diagnostic Services and Manufacturing Diagnostics Kits" by ACS Registrars Limited, United Kingdom.

Recipient of Frost & Sullivan's "2010 Asia Pacific Frost & Sullivan Niche Company of the year Award in Molecular Diagnostics".

## 2012

Accreditation of MS ISO/IEC 17025: 2005 for laboratory quality management system (Field of Testing: Nucleic acid assay) by Department of Standards Malaysia, Malaysia.

## 2012

Recipient of Frost & Sullivan's award as "2012 Frost & Sullivan South East Asian Fastest Growing Company in Molecular Diagnostics for Infectious Disease".

Achieved certification of ISO 13485: 2003 for "Design, Development, Manufacturing of Diagnostic Kits and Molecular Diagnostic Services" by Alberk QA International Technical Control and Certification Limited.

## 2020

Established routine laboratory consisting of Hematology, Biochemistry, Immunoassay and Urine Analysis sections.

Selected as one of the laboratories to run Covid-19 specimens from Makmal Kesihatan Awam Kebangsaan (MKAK).

# Services

## Molecular Diagnostics

Molecular diagnostics testing uses sensitive and specific clinical laboratory techniques to detect and identify biomarkers at the most basic level, that of nucleic acids (DNA and RNA). Common applications of molecular methods include medical diagnosis, establishing prognosis, monitoring the course of disease, and selecting optimal therapies.

We detect for infectious diseases including hepatitis, tuberculosis, human immunodeficiency virus (HIV), human papilloma virus (HPV), *Chlamydia*, *Neisseria gonorrhoea*, and methicillin-resistant *Staphylococcus aureus* (MRSA) can all be identified faster and more accurately using molecular techniques as compared to traditional culture or antibody assays.

## Food Intolerance

Food intolerance also known as food sensitivity can result from your body reacting adversely to certain foods. Often the foods we include regularly in our diet, maybe the ones causing the problem. Research has shown that food intolerance can be linked to IgG antibodies produced when these “problem” food are eaten. Normally these antibodies do not have any ill-effects, but if the immune or digestive system are not working efficiently their presence may cause a wide range of symptoms.

## Health Screening

The analysis of bodily fluids such as blood and urine to diagnose and monitor diseases. This branch of pathology focuses on the chemical processes and substances in the body, evaluating organ function and metabolic health. Tests include glucose levels for diabetes, lipid profiles for cardiovascular risk, liver function tests, and kidney function panels, providing vital information for the detection and management of various conditions.

# **Information**

## 1. Special instructions

- All swabs must be placed in Universal Transport Medium (UTM)
- Swabs in gel are not suitable for PCR
- All samples shall be transported at 4°C - 8°C
- All samples should reach lab within 24 hours
- Any sample or fluid to be collected in sterile, leak proof container : the cap should be tightened and sealed with parafilm

## 2. Rejection criteria of samples

Samples that fall into the following criteria will be rejected by laboratory:

- Insufficient volume of sample
- Spillage
- Empty container
- Test request form missing
- Incomplete test request form
- Sample without label (patient details)
- Mislabeled specimen
- Unsuitable sample (incorrect sample for test requested)
- Haemolyzed
- Clotted sample
- Cloudy or Yellow UTM (Universal Transport Medium)

## 3. Turnaround Time (TAT)

- For **Urgent Samples**, the results will be released within **24 hours** upon the receipt of the sample at the laboratory.
- Delay in reporting shall be expected when there is a need to repeat the test.
- Excluding Saturday, Sunday and Public Holidays.

## 4. Collection of samples

Pick-up of samples will be between 8.00 AM to 5.30 PM, including Saturday, Sunday and Public Holidays.

## 5. Cut-off Time

## Respiratory Panels PCR Cut-off Time

| Test Code                                       | PCR Test   | TAT for MONDAY - SATURDAY   |
|---|--|---|
| GF-RP33<br>GF-RV19<br>GF-RB7<br>GF-H1N1-FLU A/B | Respiratory Panel 33<br>Respiratory Viruses 19<br>Respiratory Bacterial 7<br>Influenza A,B & RSV Panel | For samples that reach the lab before 01:00 PM, the results will be released on the same day before 06:00 PM. |
|   |  | For samples that reach the lab after 01:00 PM, the results will be released on the next day before 06:00 PM.  |

| Test Code                                       | PCR Test   | TAT for SUNDAY  |
|---|--|---|
| GF-RP33<br>GF-RV19<br>GF-RB7<br>GF-H1N1-FLU A/B | Respiratory Panel 33<br>Respiratory Viruses 19<br>Respiratory Bacterial 7<br>Influenza A,B & RSV Panel | For samples that reach the lab before 12:00 PM, the results will be released on the same day before 06:00 PM. |
|   |  | For samples that reach the lab after 12:00 PM, the results will be released on the next day before 06:00 PM.  |

## Covid-19 PCR Cut-off Time

| Test Code | PCR Test | TAT   |
|-----------|----------|---|
| GF-COV19  | Covid-19 | <b>MONDAY - SATURDAY</b><br>For samples that reach the lab before 04:00 PM, the results will be released on the same day before 06:00 PM.<br>For samples that reach the lab after 04:00 PM, the results will be released on the next day before 06:00 PM. |
|           |          | <b>SUNDAY</b><br>URGENT samples must reach the lab before 12:00 PM and the results will be released on the same day before 06:00 PM.  |

**Bloodborne & Herpes Viral Tests and  
Sexually Transmitted Infections Panels Cut-off Time**

| Test Code | PCR Test  | TAT  |
|-----------|---|--|
| GF-BKJC   | BK & JC Detection & Quantitation  | <p align="center">Scheduled days for PCR run:<br/><b>Monday, Wednesday and Friday</b> morning.</p> <p>For samples that reach the lab before 09:00 AM on the scheduled day, the results will be released on the same day before 06:00 PM.</p> <p>For samples that reach the lab after 09:00 AM on the scheduled day, the results will be released on the following scheduled day before 06:00 PM.</p> |
| GF-CMV    | Cytomegalovirus Detection & Quantitation  |  |
| GF-EBV    | Epstein Barr Virus (EBV) Detection & Quantitation   |  |
| GF-HSV    | Herpes Simplex Virus Detection, Typing & Quantitation   |  |
| GF-VZV    | Varicella Zoster Virus Detection & Quantitation   |  |
| GF-HBV    | Hepatitis B virus Detection & Quantitation  |  |
| GF-HCV    | Hepatitis C virus Detection & Quantitation  |  |
| GF-IMSP   | Immunosuppressed Panel (Detection & Quantitation)<br>BK & JC<br>CMV<br>EBV  |  |
| GF-EYE    | Eye Panel (Detection & Quantitation)<br>CMV<br>HSV<br>VZV   |  |
| GF-ST17   | <i>Chlamydia trachomatis</i><br><i>Neisseria gonorrhoea</i><br><i>Trichomonas vaginalis</i><br><i>Mycoplasma genitalium</i><br><i>Mycoplasma hominis</i><br><i>Ureaplasma urealyticum</i><br><i>Ureaplasma parvum</i>                 |  |
| GF-ST19   | <i>Chlamydia trachomatis</i><br><i>Neisseria gonorrhoea</i><br><i>Trichomonas vaginalis</i><br><i>Mycoplasma genitalium</i><br><i>Mycoplasma hominis</i><br><i>Ureaplasma urealyticum</i><br><i>Ureaplasma parvum</i><br>HSV-1, HSV-2 |  |
| GF- HIV   | HIV detection and viral load  | <p align="center">Scheduled day for PCR run:<br/><b>Friday</b> morning.</p>  |

# **Respiratory Tests**

| Test Code | PCR Test  | TAT             | Specimen  |
|-----------|---|-----------------|---|
| GF-RP33   | <u>Respiratory Panel 33</u><br>Human Coronavirus (NL63,OC43,229E,HKU1)<br>Parainfluenza virus (1,2,3,4)<br>Rhinovirus<br>Influenza Virus (A,B,C,H1N1)<br>Influenza A Subtype H1N1 (2009 H1N1)<br>Metapneumovirus (A,B)<br>Adenovirus<br>Bocavirus<br>Enterovirus<br>Respiratory syncytial virus A (RSV A)<br>Respiratory syncytial virus B (RSV B)<br>Human parechovirus<br><i>Streptococcus pneumonia</i><br><i>Staphylococcus aureus</i><br><i>Haemophilus influenza</i> (A-F & B)<br><i>Salmonella</i> sp.<br><i>Pneumocystis jirovecii</i> (PCP)<br><i>Moraxella catarrhalis</i><br><i>Mycoplasma pneumonia</i><br><i>Bordetella</i> spp.<br><i>Chlamydophila pneumonia</i><br><i>Legionella</i> spp.<br><i>Klebsiella pneumoniae</i> | Within 24 hours | <ul style="list-style-type: none"> <li>• Sputum (1-3 mL)</li> <li>• Throat swab in UTM (1 mL)</li> <li>• Nasal swab in UTM (1 mL)</li> <li>• Bronchoalveolar lavage fluid in sterile container (1-3 mL)</li> <li>• Tracheal aspirate in sterile container (1-3 mL)</li> </ul> |
| GF-RP26   | <u>Respiratory Panel Assay</u><br>Influenza A virus (Flu A)<br>Influenza B virus (Flu B)<br>Respiratory syncytial virus A (RSV A)<br>Respiratory syncytial virus B (RSV B)<br>Flu A-H1<br>Flu A-H1pdm09<br>Flu A-H3<br>Adenovirus<br>Enterovirus<br>Parainfluenza virus (1,2,3,4)<br>Metapneumovirus<br>Bocavirus<br>Rhinovirus<br>Coronavirus (NL63,OC43,229E)<br><i>Mycoplasma pneumonia</i><br><i>Chlamydophila pneumonia</i><br><i>Legionella pneumophila</i><br><i>Streptococcus pneumonia</i><br><i>Bordetella pertussis</i><br><i>Bordetella parapertussis</i>   | Within 24 hours | <ul style="list-style-type: none"> <li>• Nasopharyngeal swab in UTM (1 mL)</li> <li>• Nasopharyngeal aspirate in sterile container (1-3 mL)</li> <li>• Sputum (1-3 mL)</li> </ul>   |

| Test Code | PCR Test  | TAT             | Specimen   |
|-----------|---|-----------------|--|
| GF-RV19   | <u>Respiratory Viruses 19</u><br>Adenovirus<br>Influenza A virus (Flu A)<br>Influenza B virus (Flu B)<br>Parainfluenza virus (1,2,3,4)<br>Rhinovirus A/B/C<br>Respiratory syncytial virus A (RSV A)<br>Respiratory syncytial virus B (RSV B)<br>Bocavirus 1/2/3/4<br>Metapneumovirus<br>Coronavirus (NL63,OC43,229E)<br>Enterovirus | Within 24 hours | <ul style="list-style-type: none"> <li>Nasopharyngeal aspirate in sterile container (1-3 mL)</li> <li>Nasopharyngeal swab in UTM (1 mL)</li> <li>Coughed up sputum from adults in sterile container (1-3 mL)</li> <li>Bronchoalveolar lavage fluid in sterile container (1-3 mL)</li> <li>Tracheal aspirate in sterile container (1-3 mL)</li> <li>Respiratory tissue biopsy in sterile container (min 2 mm x 2 mm)</li> </ul>   |
| GF-RB7    | <u>Respiratory Bacterial 7</u><br><i>Mycoplasma pneumonia</i><br><i>Chlamydia pneumonia</i><br><i>Legionella pneumophila</i><br><i>Bordetella pertussis</i><br><i>Bordetella parapertussis</i><br><i>Haemophilus influenza</i><br><i>Streptococcus pneumoniae</i>   | Within 24 hours | <ul style="list-style-type: none"> <li>Nasopharyngeal aspirate in sterile container (1-3 mL)</li> <li>Bronchoalveolar lavage fluid in sterile container (1-3 mL)</li> <li>Nasopharyngeal swabs in UTM (1 mL)</li> <li>Sputum (1-3 mL)</li> </ul>   |
| GF-TB     | <i>Mycobacterium tuberculosis</i> and<br>Nontuberculous Mycobacteria Detection  | Within 4 days   | <ul style="list-style-type: none"> <li>Sputum/ induced sputum in sterile container (5 mL)</li> <li>Blood in heparin tube (3-5 mL)</li> <li>Bronchoalveolar lavage in sterile container (5 mL)</li> <li>Tracheal wash in sterile container (5 mL)</li> <li>Pleural fluid in sterile container (5 mL)</li> <li>Pus from abscess (5 mL)</li> <li>Synovial fluid from joint (5 mL)</li> <li>Respiratory tissue biopsy in sterile container (2 mm x 2 mm)</li> <li>Cerebrospinal fluid in sterile container (2 mL)</li> <li>Bone marrow in sterile container (0.5-1 mL)</li> <li>Lymph node aspirate (0.5-1 mL)</li> <li>Early morning first void urine in sterile container (10 mL)</li> </ul> |

| Test Code           | PCR Test  | TAT                | Specimen  |
|---------------------|---|--------------------|---|
| GF-H1N1-<br>FLU A/B | <u>Influenza A, B &amp; RSV Panel</u><br>Influenza A virus (Flu A)<br>Influenza B virus (Flu B)<br>Respiratory syncytial virus A (RSV A)<br>Respiratory syncytial virus B (RSV B)<br>Subtype of Influenza:<br>H1, H3, H1 2009 pdm | Within 24<br>hours | <ul style="list-style-type: none"> <li>Nasopharyngeal aspirate in sterile container (1-3 mL)</li> <li>Nasopharyngeal swab in UTM (1 mL)</li> <li>Nasal swab in UTM</li> <li>Throat swab in UTM (1 mL)</li> <li>Respiratory tissue biopsy in sterile container (min 2 mm x 2 mm)</li> <li>Tracheal aspirate in sterile container (1-3 mL)</li> <li>Bronchoalveolar lavage (1-3 mL)</li> <li>Sputum (1-3 mL)</li> </ul> |
| GF-H7N9             | H7N9  | Within 2<br>days   | <ul style="list-style-type: none"> <li>Nasopharyngeal swabs in UTM (1 mL)</li> <li>Nasopharyngeal aspirate in sterile container (1-3 mL)</li> <li>Tracheal aspirate in sterile container (1-3 mL)</li> <li>Bronchoalveolar lavage fluid in sterile container (1-3 mL)</li> </ul>  |
| GF-MCoV             | MERS - CoV  | Within 24<br>hours | <ul style="list-style-type: none"> <li>Nasopharyngeal swabs in UTM (1 mL)</li> <li>Combined nose/ throat swab in UTM (1 mL)</li> <li>Nasopharyngeal aspirate in sterile container (1-3 mL)</li> <li>Tracheal aspirate in sterile container (1-3 mL)</li> <li>Bronchoalveolar aspirate/ lavage fluid in sterile container (1-3 mL)</li> </ul>  |
| GF-COV19            | Covid-19: <ul style="list-style-type: none"> <li>Normal sample</li> <li>Urgent sample</li> </ul>  | Refer page<br>13   | <ul style="list-style-type: none"> <li>Nasopharyngeal swab in UTM (1-3 mL)</li> <li>Oropharyngeal swab in UTM (1-3 mL)</li> </ul>   |

# **Bloodborne & Herpes Viral Tests**

| Test Code | PCR Test  | TAT           | Specimen  |
|-----------|---|---------------|---|
| GF-BKJC   | BK & JC Detection & Quantitation                      | Within 2 days | <ul style="list-style-type: none"> <li>EDTA blood (3-5 mL)</li> <li>Serum (3-5 mL)</li> <li>Cerebrospinal fluid in sterile container (0.5-1 mL)</li> <li>Urine in sterile container (1-3 mL)</li> </ul>   |
| GF-CMV    | Cytomegalovirus Detection & Quantitation              | Within 2 days | <ul style="list-style-type: none"> <li>EDTA blood (3-5 mL)</li> <li>Urine in sterile container (3 mL)</li> <li>Eye vitreous fluid (min 0.2 mL)</li> <li>Tissue biopsy (min 2 mm x 2 mm)</li> <li>Amniotic fluid (min 0.2 mL)</li> <li>Bronchoalveolar lavage fluid in sterile container (1-3 mL)</li> <li>Cerebrospinal fluid in sterile container (1-3 mL)</li> <li>Saliva</li> <li>Semen</li> <li>Swab in UTM or dry swab</li> </ul>                                    |
| GF-EBV    | Epstein Barr Virus (EBV) Detection & Quantitation     | Within 2 days | <ul style="list-style-type: none"> <li>Plasma (3 mL)</li> <li>EDTA blood (3-5 mL)</li> <li>Cerebrospinal fluid in sterile container (1-3 mL)</li> <li>Bronchoalveolar lavage fluid in sterile container (1-3 mL)</li> </ul>   |
| GF-HSV    | Herpes Simplex Virus Detection, Typing & Quantitation | Within 2 days | <ul style="list-style-type: none"> <li>Vesicle fluid (3-5 mL)</li> <li>Vesicle swab from oral/ skin/ genital lesions in UTM (1 mL)</li> <li>Throat swab in babies in UTM (1 mL)</li> <li>High vaginal swab (1 mL)</li> <li>Corneal swab in UTM</li> <li>Corneal scraping</li> <li>Eye vitreous fluid (min 0.2 mL)</li> <li>Amniotic fluid (min 0.2 mL)</li> <li>Cerebrospinal fluid in sterile container (1-3 mL)</li> <li>Urine in sterile container (3-5 mL)</li> </ul> |
| GF-VZV    | Varicella Zoster Virus Detection & Quantitation       | Within 2 days | <ul style="list-style-type: none"> <li>EDTA blood (3-5 mL)</li> <li>Whole blood (3-5 mL)</li> <li>Skin scraping/ scab</li> <li>Vesicle fluid in sterile container (1-3 mL)</li> <li>Vesicle swab from oral/ skin/ genital lesions in UTM (1 mL)</li> <li>Amniotic fluid (min 0.2 mL)</li> <li>Eye vitreous fluid (min 0.2 mL)</li> <li>Cerebrospinal fluid in sterile container (1-3 mL)</li> </ul>   |
| GF-HBV    | Hepatitis B Virus Detection & Quantitation            | Within 2 days | <ul style="list-style-type: none"> <li>EDTA blood/ plasma (3-5 mL)</li> <li>Serum (3 mL)</li> </ul>   |
| GF-HCV    | Hepatitis C Virus Detection & Quantitation            | Within 2 days | <ul style="list-style-type: none"> <li>EDTA blood/ plasma (3-5 mL)</li> </ul>   |

| Test Code      | PCR Test   | TAT           | Specimen   |
|----------------|--|---------------|--|
| GF-HBV-HCV     | Hepatitis B and Hepatitis C Combo Test<br>Virus Detection & Quantitation   | Within 2 days | <ul style="list-style-type: none"> <li>EDTA blood/ plasma (3-5 mL)</li> </ul>  |
| GF-IMSP        | <u>Immunosuppressed Panel</u><br>Detection & Quantitation of:<br>BK & JC<br>CMV<br>EBV   | Within 2 days | <ul style="list-style-type: none"> <li>EDTA blood (2 x 3 mL)</li> <li>EDTA plasma (2 mL)</li> <li>Cerebrospinal fluid in sterile container (1-3 mL)</li> </ul> |
| GF-EP          | <u>Eye Panel</u><br>Cytomegalovirus (CMV) Detection & Quantitation<br>Varicella Zoster Virus (VZV) Detection & Quantitation<br>Herpes Simplex Virus (HSV) Detection, Typing & Quantitation | Within 2 days | <ul style="list-style-type: none"> <li>Eye vitreous fluid (min 0.2 mL)</li> <li>Corneal scraping</li> <li>Eye swab (dry swab or swab in UTM)</li> </ul>        |
| GF-HIV         | HIV detection and viral load   | Within 5 days | <ul style="list-style-type: none"> <li>EDTA blood/ plasma (3 x 3 mL)</li> </ul>  |
| GF-HIV-CD4/CD8 | Combo HIV, CD4 and CD8   | Within 8 days | <ul style="list-style-type: none"> <li>EDTA blood (3 x 3 mL)</li> </ul>  |

# **Sexually Transmitted Infections Panels**

| Test Code          | PCR Test  | TAT           | Specimen  |
|--------------------|---|---------------|---|
| GF-HPV             | Human Papillomavirus (28 Genotypes)<br><br><u>19 High Risk- HPV</u><br>16, 18, 26, 31, 33, 35, 39, 45, 51, 52, 53,<br>56, 58, 59, 66, 68, 69, 73, 82<br><br><u>9 Low Risk- HPV</u><br>11, 40, 42, 43, 44, 54, 6, 61, 70   | Within 2 days | <u>In Male</u><br><ul style="list-style-type: none"> <li>Genital swab (dry swab)</li> <li>Oral swab (dry swab)</li> </ul> <u>In Female</u><br><ul style="list-style-type: none"> <li>Genital swab (dry swab)</li> <li>Paraffin embedded sections</li> <li>Liquid based cytology specimen e.g. ThinPrep and SurePath (1-3 mL)</li> <li>Oral swab (dry swab)</li> </ul> |
| GF-Pap Smear       | Pap Smear   | Within 7 days | <ul style="list-style-type: none"> <li>SurePath</li> </ul>  |
| GF-HPV + Pap Smear | HPV + Pap Smear Combo Test  | Within 5 days | For HPV <ul style="list-style-type: none"> <li>Genital swab (dry swab)</li> <li>Oral swab (dry swab)</li> </ul> For Pap Smear <ul style="list-style-type: none"> <li>Liquid based cytology specimen e.g. ThinPrep and SurePath (1-3 mL)</li> </ul>  |
| GF-STI             | <u>Genital Ulcer STI Panel</u><br>HSV-1, HSV-2<br><i>Haemophilus ducreyi</i><br><i>Treponema pallidum</i><br>Lymphogranuloma venereum<br>Cytomegalovirus<br>Varicella Zoster Virus  | Within 3 days | <ul style="list-style-type: none"> <li>Urethral swab in UTM (1 mL)</li> <li>Vaginal swab in UTM (1 mL)</li> <li>Cervical swab in UTM (1 mL)</li> <li>Early morning first void urine in sterile container (5 mL)</li> <li>Liquid based cytology specimen e.g. ThinPrep and SurePath (1-3 mL)</li> </ul>  |
| GF-STI7            | <i>Chlamydia trachomatis</i><br><i>Neisseria gonorrhoea</i><br><i>Trichomonas vaginalis</i><br><i>Mycoplasma genitalium</i><br><i>Mycoplasma hominis</i><br><i>Ureaplasma urealyticum</i><br><i>Ureaplasma parvum</i>   | Within 2 days | <u>In Male</u> <ul style="list-style-type: none"> <li>Genital swab (dry swab)</li> <li>Early morning first void urine in sterile container</li> <li>Lymph node aspirate in sterile container (min 0.5 mL)</li> </ul>  |
| GFSTI9             | <i>Chlamydia trachomatis</i><br><i>Neisseria gonorrhoea</i><br><i>Trichomonas vaginalis</i><br><i>Mycoplasma genitalium</i><br><i>Mycoplasma hominis</i><br><i>Ureaplasma urealyticum</i><br><i>Ureaplasma parvum</i><br>HSV-1, HSV-2   | Within 2 days | <u>In Female</u> <ul style="list-style-type: none"> <li>Genital swab (dry swab)</li> <li>Endocervical swab in UTM</li> <li>High vaginal swab (1 mL)</li> <li>Pelvic peritoneal fluid at Laparoscope for infertility, PID cases (1 mL)</li> <li>Early morning first void urine in sterile container (5 mL)</li> </ul>  |
| GF-HPV-STI7        | <u>HPV and STI7 Combo</u><br>Human Papillomavirus (28 Genotypes)<br><i>Chlamydia trachomatis</i><br><i>Neisseria gonorrhoea</i><br><i>Trichomonas vaginalis</i><br><i>Mycoplasma genitalium</i><br><i>Mycoplasma hominis</i><br><i>Ureaplasma urealyticum</i><br><i>Ureaplasma parvum</i> | Within 2 days | <ul style="list-style-type: none"> <li>Early morning first void urine in sterile container (5 mL)</li> </ul> <u>In both Gender</u> <ul style="list-style-type: none"> <li>Pharyngeal swab in UTM</li> </ul>   |

# **Tropical Diseases & Fever Panels**

| Test Code        | PCR Test  | TAT           | Specimen  |
|------------------|---|---------------|---|
| GF-DEN           | Dengue Virus Detection & Typing   | Within 2 days | <ul style="list-style-type: none"> <li>• EDTA blood (2 x 3 mL)</li> <li>• EDTA plasma (2 mL)</li> <li>• Whole blood (2 x 3 mL)</li> <li>• Serum (2 mL)</li> </ul> |
| GF-CHIK          | Chikungunya Virus Detection   | Within 3 days |   |
| GF-ZIKA          | Zika Virus Detection  | Within 3 days |   |
| GF-DEN-CHIK      | Dengue Virus Detection<br>Chikungunya Virus Detection   | Within 3 days |   |
| GF-DEN-CHIK-ZIKA | Dengue Virus Detection<br>Chikungunya Virus Detection<br>Zika Virus Detection   | Within 3 days |   |
| GF-MEL           | <u>Melioidosis</u><br><i>Burkholderia pseudomallei</i> Detection  | Within 3 days | <ul style="list-style-type: none"> <li>• Plasma (3 mL)</li> <li>• EDTA blood (3-5 mL)</li> </ul>  |
| GF-LEPT          | <u>Leptospirosis</u><br><i>Leptospira</i> Detection   | Within 3 days | <ul style="list-style-type: none"> <li>• EDTA blood/ plasma (3 mL)</li> <li>• Early morning first void urine in sterile container (5 mL)</li> </ul>               |
| GF-TFP           | <u>Tropical Fever Panel</u><br>Leptospirosis ( <i>Leptospira</i> spp.)<br>Melioidosis ( <i>Burkholderia pseudomallei</i> )<br>Typhoid ( <i>Salmonella</i> spp.)<br>Malaria ( <i>Plasmodium</i> spp.)<br>Dengue Virus Detection & Typing | Within 3 days | <ul style="list-style-type: none"> <li>• Plasma (3 mL)</li> <li>• EDTA blood (3-5 mL)</li> </ul>  |

# **Gastrointestinal Panels**

| Test Code       | PCR Test   | TAT            | Specimen  |
|-----------------|--|----------------|---|
| GF-HEL          | <i>Helicobacter pylori</i><br>Antibiotic Resistance Genes:<br>Metronidazole - frxA & rdxA<br>Tetracycline - 16S rRNA<br>Clarithromycin - 23S rRNA<br>Fluoroquinolone - gyrA & gyrB<br>Amoxicillin - pbb1, ftsI, pbb2<br>Rifampicin - rpoB  | Within 3 weeks | <ul style="list-style-type: none"> <li>Gastric biopsy in sterile container (min 2 mm x 2 mm)</li> <li>Tissue biopsy in sterile container (min 2 mm x 2 mm)</li> </ul> |
| GF-VIRUS        | <u>Gastrointestinal Pathogen Assay-<br/>Virus Panel</u><br>Adenovirus<br>Astrovirus<br>Norovirus GI/GII<br>Rotavirus<br>Sapovirus  | Within 2 days  | <ul style="list-style-type: none"> <li>Stool sample in sterile container (1-3 mL)</li> </ul>  |
| GF-PARA<br>SITE | <u>Gastrointestinal Pathogen Assay-<br/>Parasite Panel</u><br><i>Cryptosporidium</i> spp.<br><i>Cyclospora cayetanensis</i><br><i>Entamoeba histolytica</i><br><i>Giardia lamblia</i><br><i>Blastocystis hominis</i><br><i>Dientamoeba fragilis</i>  | Within 2 days  | <ul style="list-style-type: none"> <li>Stool sample in sterile container (1-3 mL)</li> </ul>  |
| GF-BA1          | <u>Gastrointestinal Pathogen Bacterial<br/>Panel I</u><br><i>Campylobacter</i> spp.<br><i>Clostridium difficile</i> Toxin B<br><i>Salmonella</i> spp.<br><i>Yersinia enterocolitica</i><br><i>Vibrio</i> spp.<br><i>Shigella</i> /Enteroinvasive <i>E. coli</i> (EIEC)<br><i>Aeromonas</i> spp.            | Within 2 days  | <ul style="list-style-type: none"> <li>Stool sample in sterile container (1-3 mL)</li> </ul>  |
| GF-BA2          | <u>Gastrointestinal Pathogen Assay Bacteria<br/>Panel II</u><br><i>E. coli</i> O157<br><i>Clostridium difficile</i> hypervirulent<br>Enterohemorrhagic <i>E. coli</i> (EHEC)<br>Enteropathogenic <i>E. coli</i> (EPEC)<br>Enterotoxigenic <i>E. coli</i> (ETEC)<br>Enterohemorrhagic <i>E. coli</i> (EHEC) | Within 2 days  | <ul style="list-style-type: none"> <li>Stool sample in sterile container (1-3 mL)</li> </ul>  |

| Test Code | PCR Test   | TAT           | Specimen   |
|-----------|--|---------------|--|
| GF-GPP-25 | <p>Gastrointestinal Pathogen Panel Assay-25 (GPP-25)</p> <p><u>Bacteria</u><br/> <i>Campylobacter</i> spp.<br/> <i>Clostridium difficile</i> Toxin B<br/> <i>Salmonella</i> spp.<br/> <i>Yersinia enterocolitica</i><br/> <i>Vibrio</i> spp.<br/> <i>Shigella</i>/Enteroinvasive <i>E. coli</i> (EIEC)<br/> <i>Aeromonas</i> spp.<br/> <i>E. coli</i> O157<br/> <i>C. difficile</i> hypervirulent<br/> Enteroaggregative <i>E. coli</i> (EAEC)<br/> Enteropathogenic <i>E. coli</i> (EPEC)<br/> Enterotoxigenic <i>E. coli</i> (ETEC)<br/> Enterohemorrhagic <i>E. coli</i> (EHEC)</p> <p><u>Viruses</u><br/> Adenovirus 40/41<br/> Astrovirus<br/> Norovirus GI<br/> Norovirus GII<br/> Rotavirus<br/> Sapovirus</p> <p><u>Parasites</u><br/> <i>Cryptosporidium</i> spp.<br/> <i>Cyclospora cayetanensis</i><br/> <i>Entamoeba histolytica</i><br/> <i>Giardia lamblia</i><br/> <i>Blastocystis hominis</i><br/> <i>Dientamoeba fragilis</i></p> | Within 2 days | <ul style="list-style-type: none"> <li>Stool sample in sterile container (1-3 mL)</li> </ul> |

| Test Code | PCR Test   | TAT          | Specimen   |
|-----------|--|--------------|--|
| GF-RPGPP  | <p>Gastrointestinal Pathogen Panel (RPGPP)</p> <p><u>Bacteria</u><br/> <i>Campylobacter (jejuni, coli &amp; upsaliensis)</i><br/> <i>Clostridium difficile</i> (Toxin A/B)<br/> <i>Plesiomonas shigelloides</i><br/> <i>Salmonella</i><br/> <i>Yersinia enterocolitica</i><br/> <i>Vibrio (parahaemolyticus &amp; vulnificus)</i><br/> <i>Vibrio cholerae</i></p> <p><u>Diarrheagenic E. coli/ Shigella</u><br/> <i>E. coli</i> O157<br/> Enteroaggregative <i>E. coli</i> (EAEC)<br/> Enteropathogenic <i>E. coli</i> (EPEC)<br/> Enterotoxigenic <i>E. coli</i> (ETEC)<br/> It/st<br/> Shiga-like toxin producing <i>E. coli</i> (STEC) stx1/stx2<br/> <i>Shigella</i>/Enteroinvasive <i>E. coli</i> (EIEC)</p> <p><u>Viruses</u><br/> Adenovirus F 40/41<br/> Astrovirus<br/> Norovirus G1/GII Rotavirus A<br/> Sapovirus (I, II, IV and V)</p> <p><u>Parasites</u><br/> <i>Cryptosporidium</i><br/> <i>Cyclospora cayetanensis</i><br/> <i>Entamoeba histolytica</i><br/> <i>Giardia lamblia</i></p> | Within 1 day | <ul style="list-style-type: none"> <li>Stool sample in sterile container (1-3 mL)</li> </ul> |

# Other Tests

| Test Code | PCR Test   | TAT                | Specimen   |
|-----------|--|--------------------|--|
| GF-MP     | Monkeypox  | Within 2 days      | <ul style="list-style-type: none"> <li>• Lesion or vesicle swab in UTM (1 mL)</li> <li>• Oropharyngeal swab (1-3 mL)</li> </ul>                |
| GF-HFMD   | HFMD   | Within 2 days      | <ul style="list-style-type: none"> <li>• Oropharyngeal swab (1-3 mL)</li> </ul>  |
| GF-BRCL   | <i>Brucella</i> Detection  | Within 7 days      | <ul style="list-style-type: none"> <li>• EDTA blood (3-5 mL)</li> <li>• Cerebrospinal fluid in sterile container (0.5-1 mL)</li> </ul>         |
| GF-TOXO   | <i>Toxoplasma gondii</i>   | Within 4 days      | <ul style="list-style-type: none"> <li>• EDTA blood/ plasma (3-5 mL)</li> <li>• Cerebrospinal fluid in sterile container (0.5-1 mL)</li> </ul> |
| GF-ME     | Meningitis/ Encephalitis Panel<br><br><u>Bacteria</u><br><i>Escherichia coli</i> K1<br><i>Haemophilus influenza</i><br><i>Listeria monocytogenes</i><br><i>Neisseria meningitides</i><br><i>Streptococcus agalactiae</i><br><i>Streptococcus pneumonia</i><br><br><u>Viruses</u><br>Cytomegalovirus<br>Enterovirus<br>HSV-1, HSV-2<br>Human herpesvirus 6<br>Human parechovirus<br>Varicella Zoster Virus<br><br><u>Yeast</u><br><i>Cryptococcus neoformans/gattii</i> | Within 24 hours    | <ul style="list-style-type: none"> <li>• Cerebrospinal fluid in sterile container (0.5-1 mL)</li> </ul>  |
| GF-CNS    | Detection of:<br>HSV-1, HSV-2<br>VZV<br>CMV<br>EBV<br>Enterovirus<br>Adenovirus<br>Parechovirus<br>Human herpesvirus 6<br>Human herpesvirus 7<br>Parvovirus (B19)<br><i>Neisseria meningitidis</i><br><i>Streptococcus pneumonia</i><br><i>Haemophilus influenzae</i><br><i>Streptococcus agalactiae</i><br>(Group B <i>Streptococcus</i> / GBS)<br><i>Listeria monocytogenes</i><br><i>Escherichia coli</i><br>Mumps  | Within 1-3 days    | <ul style="list-style-type: none"> <li>• Cerebrospinal fluid in sterile container (2 mL)</li> <li>• EDTA blood (3-5 mL)</li> </ul>             |
| GF-MRSA   | MRSA:<br>Individual test<br>100 samples in a week  | Within 7 - 14 days | <ul style="list-style-type: none"> <li>• Dry swab from nasal/ groin/ axilla</li> <li>• Pus swab</li> <li>• Whole blood (3-5 mL)</li> </ul>     |

# **Health Screening**

| Test Code | Test   | TAT           | Specimen  |
|-----------|--|---------------|---|
| GF-SP1    | <b>Special Package 1</b><br>Full Blood Count<br>Renal Function Test<br>Liver Function Test<br>Lipid Studies<br>Fasting Blood Sugar<br>Urine FEME<br>HbA1c  | Within 2 days | <ul style="list-style-type: none"> <li>• 8 mL Plain</li> <li>• 4 mL EDTA</li> <li>• 2 mL Fluoride</li> <li>• 50 mL Midstream Urine</li> </ul>     |
| GF-SP2    | <b>Special Package 2</b><br>Full Blood Count<br>Renal Function Test<br>Liver Function Test<br>Lipid Studies<br>Fasting Blood Sugar<br>Urine FEME<br>HbA1c<br>ABO & Rhesus<br>RPR (Syphilis)<br>TPHA (if RPR reactive)<br>Hepatitis B (Ag & Ab)<br>TSH<br>Rheumatoid Factor   | Within 3 days | <ul style="list-style-type: none"> <li>• 2 x 8 mL Plain</li> <li>• 4 mL EDTA</li> <li>• 2 mL Fluoride</li> <li>• 50 mL Midstream Urine</li> </ul> |
| GF-SP3    | <b>Special Package 3</b><br>Full Blood Count<br>Renal Function Test<br>Liver Function Test<br>Lipid Studies<br>Fasting Blood Sugar<br>Urine FEME<br>HbA1c<br>ABO & Rhesus<br>RPR (Syphilis)<br>TPHA (if RPR reactive)<br>Hepatitis B (Ag & Ab)<br>TSH<br>Rheumatoid Factor<br>HIV 1 & 2 (Ag & Ab)<br>Alpha Fetoprotein (AFP)<br>Troponin I | Within 3 days | <ul style="list-style-type: none"> <li>• 2 x 8 mL Plain</li> <li>• 4 mL EDTA</li> <li>• 2 mL Fluoride</li> <li>• 50 mL Midstream Urine</li> </ul> |
| GF-AT(FD) | <b>Food Detective</b><br>Test reaction up to 59 types of foods   | Within 2 days | <ul style="list-style-type: none"> <li>• 4 mL EDTA</li> </ul>   |

## Contact

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