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LABORATORY LOCATION:
(PERMANENT LABORATORY)

1) INSTITUTE FOR MEDICAL RESEARCH
BLOK C, KOMPLEKS INSTITUT
KESIHATAN NEGARA (NIH)
NO. 1, JALAN SETIA MURNI U13/52
SEKSYEN U13, SETIA ALAM
40170 SHAH ALAM
SELANGOR DARUL EHSAN
MALAYSIA

2) INSTITUTE FOR MEDICAL RESEARCH,
JALAN PAHANG
50588 KUALA LUMPUR
MALAYSIA

FIELD(S) OF MEDICAL TESTING: HAEMATOLOGY, MEDICAL MICROBIOLOGY,
CHEMICAL PATHOLOGY, MOLECULAR
GENETICS & HISTOPATHOLOGY

The standard used for assessment of this laboratory is MS ISO 15189:2014 (ISO 15189:2012 IDT).

A medical laboratory's fulfillment of the requirements of ISO 15189:2012 means the laboratory meets both the technical competence requirements and the management system requirements necessary for it to consistently deliver technically valid test results. The management system requirements in ISO 15189 (Section 4) are written in a language relevant to a medical laboratory's operations and meet the principles of ISO 9001:2008 Quality management systems - Requirement and are aligned with its pertinent requirements (Joint IAF-ILAC-ISO Communiqué issued in 2015)

SCOPE OF MEDICAL TESTING: HAEMATOLOGY (CANCER RESEARCH CENTER / HAEMATOLOGY UNIT)

Specimen Tested	Type of Test/ Properties Measured	Test Methods, Specifications/ Equipment/Techniques Used
Blood	Detection of Beta Thalassaemia	Multiplex-GAP PCR as documented in IMR/CaRC/HAEM/22/2201/03(08)

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Laboratory Key Personnel:

	Name	Designation
1.	Pn. Yusnita Yakob	Quality Manager / Chief Document Controller
2.	Dr. Julaina Abdul Jalil	Deputy Quality Manager
3.	Dr. Ezalia Esa	Laboratory Director / Technical Manager
5.	Dr Yuslina Mat Yusoff	Deputy Laboratory Director / Deputy Technical Manager
6.	Dr. Gowrisankari Navaretnam	Document controller

Laboratory Clinical Personnel:

	Name	Discipline
1.	Dr. Ezalia Esa	Haematology
2.	Dr. Yuslina Mat Yusoff	Haematology
3.	Dr. Norafiza Mohd Yasin	Haematology
4.	Dr Ermi Neiza Mohd Sahid	Haematology
5.	Dr Aizan Naila Md Nor	Haematology
6.	Dr. Ruzanaz Syafira Ruzman Azlee	Haematology
7.	Dr. Gowrisankari Navaretnam	Haematology
8.	Dr Nurul Hidayah Musa	Haematology
9.	Dr Ulfatul Khusna Samuri	Haematology

SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (INFECTIOUS DISEASES RESEARCH CENTER / BACTERIOLOGY UNIT)

Specimen Tested	Type of Test/ Properties Measured	Test Methods, Specifications/ Equipment/Techniques Used
Clinical specimens	Fungal culture	Conventional Culture Method as documented in IMR/IDRC/BACT/SOP/03/Part1
Fungal isolates for identification	Fungal identification	Conventional Culture Method as documented in IMR/IDRC/BACT/SOP/03/Part 2
Yeast isolates	Antifungal susceptibility test for yeast	Sensititre Microboth Dilution method as documented in Conventional Susceptibility Testing procedure IMR/IDRC/BACT/SOP/03/Part4
Serum	Detection of total antileptospiral antibody using the microagglutination test (MAT)	In-house Microagglutination Test (MAT) as documented in IMR/IDRC/BACT/SOP/34
Bacteria isolates	Identification of aerobes for reference identification	Conventional Culture identification Method as documented in IMR/IDRC/BACT/SOP/23
Bacteria isolates	Verification of antimicrobial susceptibility testing	Conventional Culture identification Method as documented in IMR/IDRC/BACT/SOP/04
NPA, pernasal swab	Bordetella pertussis PCR	Real Time PCR Methods as documented in IMR/IDRC/BACT/SOP/35
Sputum, pus, CSF & other body fluids	Mycobacterium tuberculosis (MTB) PCR	Real Time PCR Methods as documented in IMR/IDRC/BACT/SOP/13

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Laboratory Key Personnel:

	Name	Designation
1.	Dr Rohaidah Hashim	Laboratory Director / Technical Manager
2.	Dr Salina Mohamed Sukur	Deputy Laboratory Director / Deputy Technical Manager
3.	Dr Nur Nadia Jamil	Document Controller

Laboratory Clinical Personnel:

	Name	Discipline
1.	Dr Rohaidah Hashim	Medical Microbiology
2.	Dr Salina Mohamed Sukur	Medical Microbiology
3.	Dr Siti Roszilawati Ramli	Medical Microbiology
4.	Dr Murnihayati binti Hassan	Medical Microbiology
5.	Dr Habib Abdul Hakim bin Esa	Medical Microbiology
6.	Dr Noraliza Zabari	Medical Microbiology
7.	Dr Meruwan Amin bin Shoib	Medical Microbiology
8.	Dr Nur Nadia Jamil	Medical Microbiology
9.	Dr Mohamad Hilmi bin Abdul Razak	Medical Microbiology
10.	Dr Sharifah Ummairah Zawawi binti Syed Abdul Fattah	Medical Microbiology
11.	Dr Nadia Syahirah Suhaimi	Medical Microbiology

SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (ALLERGY AND IMMUNOLOGY RESEARCH CENTER / PRIMARY IMMUNODEFICIENCY UNIT)

Specimen Tested	Type of Test/ Properties Measured	Test Methods, Specifications/ Equipment/Techniques Used
Blood	Lymphocyte Subset Enumeration (TBNK)	Flowcytometry as documented in IMR/AIRC/PID/SOP/1

Laboratory Key Personnel:

	Name	Designation
1.	Dr. Adiratna Mat Ripen	Laboratory Director / Technical Manager
2.	Dr. Mohd Farid Baharin	Deputy Laboratory Director / Deputy Technical Manager
3.	Dr. Chear Chai Teng	Document Controller

Laboratory Clinical Personnel:

	Name	Discipline
1.	Dr. Adiratna Mat Ripen	Immunology
2.	Dr. Mohd. Farid Baharin	Immunology
3.	Dr Masita Arip	Medical Microbiology & Immunology

SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (ALLERGY AND IMMUNOLOGY RESEARCH CENTER / TRANSPLANTATION IMMUNOLOGY UNIT)

Specimen Tested	Type of Test/ Properties Measured	Test Methods, Specifications/ Equipment/Techniques Used
Blood Blood/ saliva/ buccal swab	Human Leukocyte Antigen (HLA) Crossmatch Test HLA typing Class I and II	Microlymphocytotoxicity Test as documented in IMR/AIRC/TI/SOP/1 Polymerase Chain Reaction (PCR) as documented in IMR/AIRC/TI/SOP/2

Laboratory Key Personnel:

	Name	Designation
1.	Dr. Norhazlin Mustafa	Laboratory Director / Technical Manager
2.	Dr. Muhammad Zhafri Md Zakariah	Deputy Laboratory Director / Deputy Technical Manager/ Document Controller

Laboratory Clinical Personnel:

	Name	Discipline
1.	Dr. Norhazlin Mustafa	Medical Microbiology & Immunology
2.	Dr. Muhammad Zhafri Md Zakariah	Immunology
3.	Dr. Zurina Shamsuddin	Immunology
4.	Dr Masita Arip	Medical Microbiology & Immunology

SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (ALLERGY AND IMMUNOLOGY RESEARCH CENTER / ALLERGY UNIT)

Specimen Tested	Type of Test/ Properties Measured	Test Methods, Specifications/ Equipment/Techniques Used
Serum / Plasma	Total Immunoglobulin E (Ig E)	Fluoro Enzyme Immunoassay as documented in IMR/AIRC/AL/SOP/1
	Specific Immunoglobulin E (Ig E)	Fluoro Enzyme Immunoassay as documented in IMR/AIRC/AL/SOP/2

Laboratory Key Personnel:

	Name	Designation
1.	Dr. Noormalin Abdullah	Laboratory Director / Technical Manager
2.	Dr. Husna Farhanah Ahmad	Deputy Laboratory Director / Deputy Technical Manager
3.	Ili Munirah Mazlan	Document Controller

Laboratory Clinical Personnel:

	Name	Discipline
1.	Dr. Noormalin Abdullah	Immunology
2.	Dr. Husna Farhanah Ahmad	Medical Microbiology & Immunology
3.	Dr Masita Arip	Medical Microbiology & Immunology

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SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (ALLERGY AND IMMUNOLOGY RESEARCH CENTER / AUTOIMMUNE UNIT)

Specimen Tested	Type of Test/ Properties Measured	Test Methods, Specifications/ Equipment/Techniques Used
Serum Cerebrospinal fluid	Anti-N-Methyl-D-Aspartate Receptor Antibody	Indirect immunofluorescence (IIF) as documented in IMR/AIRC/AI/SOP/NMDAR-1
Serum Cerebrospinal fluid	Anti-Aquaporin-4 Antibody	Indirect immunofluorescence (IIF) as documented in IMR/AIRC/AI/SOP/AQ4-2
Serum Cerebrospinal fluid	Paraneoplastic Neurological Syndrome Antibodies Amphiphysin, CV2, PNMA (Ma2/Ta), Ri, Yo, Hu, recoverin, SOX1, titin, zic4, GAD65 and Tr (DNER).	Immunoblot as documented in IMR/AIRC/AI/SOP/PNS-3

Laboratory Key Personnel:

	Name	Designation
1.	Dr. Siti Fatimah binti Abdullah	Laboratory Director / Technical Manager
2.	Dr Ainur Yusniza Yusof	Deputy Laboratory Director / Deputy Technical Manager/ Document Controller

Laboratory Clinical Personnel:

	Name	Discipline
1.	Dr. Siti Fatimah binti Abdullah	Medical Microbiology & Immunology
2.	Dr. Ainur Yusniza Yusof	Immunology
3.	Dr Masita Arip	Medical Microbiology & Immunology

SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (INFECTIOUS DISEASES RESEARCH CENTER / VIROLOGY UNIT)

Specimen Tested	Type of Test/ Properties Measured	Test Methods, Specifications/ Equipment/Techniques Used
Serum / Plasma	HIV Ab & Ag	Electrochemiluminescence Immunoassay (ECLIA) / Roche Cobas e411 as documented in IMR/IDRC/VIRO/SOP/HIV/01
	HIV Ab	Particle Agglutination Assay (PA) as documented in IMR/IDRC/VIRO/SOP/HIV/02
	HIV Ab (Confirmatory)	Western Blot (WB) / Platform Shaker as documented in IMR/IDRC/VIRO/SOP/HIV/03 and IMR/IDRC/VIRO/SOP/HIV/04
	HIV-1 RNA PCR	Real-time Polymerase Chain Reaction (PCR)/ Abbott m2000 Real Time System as documented in IMR/IDRC/VIRO/SOP/HIV/07
	HIV Viral Load	Real-time Polymerase Chain Reaction (PCR)/ Cobas 4800 System & Abbott m2000 Real Time System as documented in IMR/IDRC/VIRO/SOP/HIV/09
Plasma	HIV Genotypic Resistance – Protease and Reverse Transcriptase	Polymerase Chain Reaction (PCR) and Population-based Genome Sequencing / Eppendorf Mastercycler X50s thermal cycler as documented in IMR/IDRC/VIRO/SOP/HIV/10
	HIV Genotypic Resistance – Integrase	Polymerase Chain Reaction (PCR) and Population-based Genome Sequencing / Eppendorf Mastercycler X50s thermal cycler as documented in IMR/IDRC/VIRO/SOP/HIV/11

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SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (INFECTIOUS DISEASES RESEARCH CENTER / VIROLOGY UNIT)

Specimen Tested	Type of Test/ Properties Measured	Test Methods, Specifications/ Equipment/Techniques Used
Serum / Plasma	HAV IgM	Electrochemiluminescence Immunoassay (ECLIA) / Roche Cobas e 411 as documented in IMR/IDRC/VIRO/SOP/HEP/01
	HBsAg	Electrochemiluminescence Immunoassay (ECLIA) / Roche Cobas e 411 as documented in IMR/IDRC/VIRO/SOP/HEP/02
	HBsAg Confirmatory	Electrochemiluminescence Immunoassay (ECLIA) / Roche Cobas e 411 as documented in IMR/IDRC/VIRO/SOP/HEP/03
	HBsAb	Electrochemiluminescence Immunoassay (ECLIA) / Roche Cobas e 411 as documented in IMR/IDRC/VIRO/SOP/HEP/04
	HBeAg	Electrochemiluminescence Immunoassay (ECLIA) / Roche Cobas e 411 as documented in IMR/IDRC/VIRO/SOP/HEP/05
	HBeAb	Electrochemiluminescence Immunoassay (ECLIA) / Roche Cobas e 411 as documented in IMR/IDRC/VIRO/SOP/HEP/06
	HBcAb (Total)	Electrochemiluminescence Immunoassay (ECLIA) / Roche Cobas e 411 as documented in IMR/IDRC/VIRO/SOP/HEP/07
	HBcAb (IgM)	Electrochemiluminescence Immunoassay (ECLIA) / Roche Cobas e 411 as documented in IMR/IDRC/VIRO/SOP/HEP/08
	HCV Ab	Enzyme Immunoassay (EIA) / ELISA washer, ELISA reader, 37°C incubator as documented in IMR/IDRC/VIRO/SOP/HEP/09
	HCV RNA Qualitative and Quantitative	Real-time Polymerase Chain Reaction (PCR)/ Cobas 4800 / Abbot m2000rt Real Time System as documented in IMR/IDRC/VIRO/SOP/HEP/10
	HCV Genotyping	Polymerase Chain Reaction (PCR) / Cobas 4800 System as documented in IMR/IDRC/VIRO/SOP/HEP/11

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SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (INFECTIOUS DISEASES RESEARCH CENTER / VIROLOGY UNIT)

Specimen Tested	Type of Test/ Properties Measured	Test Methods, Specifications/ Equipment/Techniques Used
Nasopharyngeal Swab (NPS) / Nasopharyngeal Aspirate (NPA) / Nasal Swab (NS) / Nasal Wash / Throat Swab (TS) / Sputum / Rectal Swab (RS) / Stool / Cerebrospinal fluid (CSF) / Blood in EDTA / Urine / Bronchoalveolar Lavage (BAL) / Body fluids / Vesicular Swab (VS) / Urethral Swab / Cervical Swab / Tissue Biopsy	Virus Isolation and Identification: Human Influenza and other respiratory viruses, Polioviruses, Enteroviruses, CMV, HSV	Isolation as documented in IMR/IDRC/VIRO/SOP/TC/05-13
Bronchoalveolar Lavage Tracheal Aspirates Sputum Nasopharyngeal / Oropharyngeal Aspirates / Washes Nasopharyngeal / Oropharyngeal Swabs	Influenza Real-Time RT PCR	Real Time RT PCR as documented in IMR/IDRC/VIRO/SOP/MOL/02 and IMR/IDRC/VIRO/SOP/MOL/12
Serum/plasma/ cerebrospinal fluid (CSF) / tissue biopsies	Dengue Multiplex RT-PCR (Inclusive of DEN1, DEN2, DEN3, and DEN4)	Real Time RT-PCR Polymerase Chain Reaction (PCR) as documented in IMR/IDRC/VIRO/SOP/MOL/07

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Laboratory Key Personnel:

	Name	Designation
1.	Dr Rozainanee Mohd Zain	Laboratory Director / Technical Manager
2.	Dr Tan Chin Liong	Deputy Laboratory Director / Deputy Technical Manager
3.	Dr Nor Aziyah binti Mat Rahim	Document Controller

Laboratory Clinical Personnel:

	Name	Discipline
1.	Dr Rozainanee Mohd Zain	Medical Microbiology
2.	Dr Banusha Vanukuppal	Medical Microbiology
3.	Dr Kamal Haikal bin Mat Rabi	Medical Microbiology
	Dr Khayri Aziz Kamel	Medical Microbiology
5	Dr Tan Chin Liong	Medical Microbiology
6	Dr Safiah Abdullah	Medical Microbiology
7.	Dr Wan Nabilatul Huda Wan Ghazali	Medical Microbiology
8.	Dr Fatin Amirah Suib	Medical Microbiology

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SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (INFECTIOUS DISEASES RESEARCH CENTER / PARASITOLOGY UNIT)

Specimen Tested	Type of Test/ Properties Measured	Test Methods, Specifications/ Equipment/Techniques Used
Serum/Plasma	Anti-parasitic antibody levels: Amoebiasis IgG	Enzyme-Linked Immunosorbent Assay / BIOTEK ELISA Machine Method as documented in IMR/IDRC/PST/SOP/1-4

Laboratory Key Personnel:

	Name	Designation
1.	Dr R. Shamilah R. Hisam	Laboratory Director / Technical Manager
2.	Dr Noor Azian Md. Yusuf	Deputy Laboratory Director / Deputy Technical Manager
3.	Pn Aqidah Kep	Document Controller

Laboratory Clinical Personnel:

	Name	Discipline
1.	Dr R. Shamilah R. Hisam	Medical Microbiology (Parasitology)

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SCOPE OF MEDICAL TESTING: HISTOPATHOLOGY (CANCER RESEARCH CENTER / STOMATOLOGY UNIT)

Specimen Tested	Type of Test/ Properties Measured	Test Methods, Specifications/ Equipment/Techniques Used
Formalin fixed specimen tissue (biopsy specimen from oral and maxillofacial region)	Histopathology to detect pathology in tissue section using haematoxylin and eosin staining.	Haematoxylin and eosin staining inclusive of immunohistochemistry and special stain (if required) as documented in Stomatology Laboratory Manual.

Laboratory Key Personnel:

	Name	Designation
1.	Dr Ajura Abdul Jalil	Laboratory Director / Technical Manager
2.	Dr Salina Din	Deputy Laboratory Director / Deputy Technical Manager
3.	Cik Nur Intan Syakirah Zulhilmi	Document Controller

Laboratory Clinical Personnel:

	Name	Discipline
1.	Dr Ajura Abdul Jalil	Histopathology
2.	Dr Hans Prakash a/l Sathasivam	Histopathology
3.	Dr Salina Din	Histopathology
4.	Dr EB Robson Gubod	Histopathology
5.	Dr Nik Raihan Nik Roslan	Histopathology

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LABORATORY LOCATION:
(PERMANENT LABORATORY)**2) INSTITUTE FOR MEDICAL RESEARCH
JALAN PAHANG 50588
KUALA LUMPUR MALAYSIA****FIELD(S) OF MEDICAL TESTING: CHEMICAL PATHOLOGY & MOLECULAR
GENETICS**

The standard used for assessment of this laboratory is MS ISO 15189:2014 (ISO 15189:2012 IDT).

A medical laboratory's fulfillment of the requirements of ISO 15189:2012 means the laboratory meets both the technical competence requirements and the management system requirements necessary for it to consistently deliver technically valid test results. The management system requirements in ISO 15189 (Section 4) are written in a language relevant to a medical laboratory's operations and meet the principles of ISO 9001:2008 Quality management systems - Requirement and are aligned with its pertinent requirements (Joint IAF-ILAC-ISO Communiqué issued in 2015)

**SCOPE OF MEDICAL TESTING: CHEMICAL PATHOLOGY (SPECIALISED
DIAGNOSTICS CENTRE/ SPECIAL PROTEIN UNIT)**

Specimen Tested	Type of Test/ Properties Measured	Test Methods, Specifications/ Equipment/Techniques Used
Special Chemistry Serum	Alpha-1-Antitrypsin Phenotyping Transferrin Isoform	A1AT Isofocusing as documented in IMR/SDC/PK/SOP-10 (SEBIA HYDRASIS electrophoresis system) Capillary Electrophoresis as documented in IMR/SDC/PK/SOP-9 (SEBIACAPILLARYS SYSTEM)

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Laboratory Key Personnel:

	Name	Designation
1.	Puan Yusnita Yakob	Quality Manager / Chief Document Controller
2.	Dr. Julaina Abdul Jalil	Deputy Quality Manager
3.	Dr. Noor Hafizah Hassan	Laboratory Director / Technical Manager
4.	Dr Nurul Izzati Hamzan	Deputy Laboratory Director / Deputy Technical Manager
5.	Dr. Siti Nurwani Ahmad Ridzuan	Document Controller

Laboratory Clinical Personnel:

	Name	Designation
1.	Dr. Noor Hafizah Hassan	Chemical Pathology
2.	Dr. Saraswathy A/P Apparow	Chemical Pathology
3.	Dr. Siti Nurwani Ahmad Ridzuan	Chemical Pathology

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SCOPE OF MEDICAL TESTING: CHEMICAL PATHOLOGY (SPECIALISED DIAGNOSTICS CENTRE / BIOCHEMISTRY UNIT)

Specimen Tested	Type of Test/ Properties Measured	Test Methods, Specifications/ Equipment/Techniques Used
Dried Blood Spot	Total galactose	Enzymatic End Point as documented in IMR/SDC/BC/SOP-13(1) / Tecan F200 Spectrofluorometer
	GALT	Enzymatic End Point as documented in IMR/SDC/BC/SOP-13(2) / Tecan F200 Spectrofluorometer
	Free Amino Acids	Ion Exchange Chromatography as Documented in IMR/SDC/BC/SOP-1 (IE) / Biochrom 30
Plasma / Serum / CSF / Urine		Reverse-phase Chromatography as Documented in IMR/SDC/BC/SOP-1 (RP) / Agilent 1260 HPLC with Fluorescence Detector
	Homocysteine (Total)	Reverse-phase Chromatography as Documented in IMR/SDC/BC/SOP-4 / Agilent 1260 HPLC with Fluorescence Detector
Serum / Plasma	Carnitine (Total & Free)	Enzymatic end-point as documented in IMR/SDC/BC/SOP-3/ Spectrophotometer
	Glycosaminoglycans (GAG) Quantitation	Complex with Dimethylmethylene Blue (DMB) as documented in IMR/SDC/BC/SOP-5/ Spectrophotometer
	GAG Separation	High Resolution Electrophoresis as documented in IMR/SDC/BC/SOP-6/ Multiphor II Electrophoresis System
	Organic Acids	Derivatisation with BSTFA as documented in IMR/SDC/BC/SOP-9/GCMS Agilent 7890B
	Orotic Acids	Reverse-phase Chromatography as Documented in IMR/SDC/BC/SOP-10/ Agilent 1200 HPLC with Diode Array Detector

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Laboratory Key Personnel:

	Name	Designation
1.	Dr. Azzah Hana Abu Yamin	Laboratory Director / Technical Manager
2.	Cik Marleena Mamat @ Mohamad	Deputy Laboratory Director / Deputy Technical Manager
3.	Cik Noornatisha Salleh	Document Controller

Laboratory Clinical Personnel:

	Name	Discipline
1.	Dr. Anasufiza Habib	Chemical Pathology
2.	Dr. Azzah Hana Abu Yamin	Chemical Pathology
4.	Dr. Hamizah Idrus	Chemical Pathology
5.	Dr. Saraswathy A/P Apparow	Chemical Pathology
6.	Dr. Nurul Aina Khalid	Chemical Pathology
7.	Dr. Ahmad Kamal Maula Abd Rahim	Chemical Pathology
8.	Dr. Noor Mohd Firdaus Othman	Chemical Pathology
9.	Dr. Noor Hafizah Hassan	Chemical Pathology
10.	Dr. Siti Nurwani Ahmad Ridzuan	Chemical Pathology

SCOPE OF MEDICAL TESTING: MOLECULAR GENETICS (SPECIALISED DIAGNOSTICS CENTRE / MOLECULAR DIAGNOSTICS UNIT)

Specimen Tested	Type of Test/ Properties Measured	Test Methods, Specifications/ Equipment/Techniques Used
Blood	Fragile X Syndrome (FRAXA)	CGG Repeats Analysis For Fragile-X Syndrome (FMR1/FRAXA Gene) as documented in IMR/SDC/UMD/SOP-14
	Prader Willi Syndrome	Methylation-specific –MLPA as documented in IMR/SDC/UMD/SOP-20
	Angelman Syndrome	Methylation-specific –MLPA as documented in IMR/SDC/UMD/SOP-20
	Spinal Muscular Atrophy	Gene Dosage by MLPA as documented in IMR/SDC/UMD/SOP-19
	Mitochondrial Diseases (MELAS, MERRF, NARP, Leigh Syndrome, LHON)	PCR and Sanger Sequencing as documented in IMR/SDC/UMD/SOP-1 and IMR/SDC/UMD/SOP-17
	DNA Sequencing (Sanger)	PCR and Sanger Sequencing as documented in IMR/SDC/UMD/SOP-1 and IMR/SDC/UMD/SOP-17
	Spinocerebellar Ataxia (Type 1,2,3,6 and 7)	Fragment Analysis as documented in IMR/SDC/UMD/SOP-29
	POLG-related Disorders	PCR and Sanger Sequencing as documented in IMR/SDC/UMD/SOP-1 and IMR/SDC/UMD/SOP-17

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Laboratory Key Personnel:

	Name	Designation
1.	Pn Yusnita Yakob	Laboratory Director / Technical Manager
2.	Pn Nor Azimah Abd. Azize	Deputy Laboratory Director / Deputy Technical Manager
3.	Pn Siti Aishah Abd. Wahab	Document Controller

Laboratory Clinical Personnel:

	Name	Discipline
1.	Dr. Ilia Nazihah Mohamad Ayob	Molecular Genetics