REFERENCE OF TENDER	DESCRIPTION OF TENDER	TIME PERIOD OF TENDER	DEPARTMENT/ DIVISION/UNIT REQUESTING TENDER	FEES	CLOSING DATE NOT LATER THAN 12.00AM	FOCAL PERSON
KK/84/2024/DSS	TO SUPPLY, DELIVER, INSTALL, TEST AND COMMISSION ONE(1) UNIT OF GENETIC ANALYSER FOR HUMAN IDENTIFICATION (HID) FOR FORENSIC BIOLOGY SECTION, DEPARTMENT OF SCIENTIFIC SERVICES, MINISTRY OF HEALTH	-	DEPARTMENT OF SCIENTIFIC SERVICES	$50.00	21ST MAY 2024	*Vianaliza Abd Rajak/Nuramalina Sawal* *Forensic Biology/DNA Section* *Department of Scientific Services* *Ministry Of Health* *Negara Brunei Darussalam* *Contact No: 2382424 Ext: 6078/6068 Fax: 2381946* *e-mail:* *vianaliza.rajak@moh.gov.bn / nuramalina.sawal@moh.gov.bn*

NOMBOR TAWARAN : KK/84/2024/DSS

KEMENTERIAN KESIHATAN
NEGARA BRUNEI DARUSSALAM

TO SUPPLY, DELIVER, INSTALL, TEST AND COMMISSION ONE(1) UNIT OF GENETIC ANALYSER FOR HUMAN IDENTIFICATION (HID) FOR FORENSIC BIOLOGY SECTION, DEPARTMENT OF SCIENTIFIC SERVICES, MINISTRY OF HEALTH

YURAN TAWARAN: $50.00

NOMBOR RESIT :

TARIKH TUTUP : HARI SELASA, 21HB MAY 2024

JAM : 2.00 PETANG

KEPADA :

PENGERUSI LEMBAGA TAWARAN KECIL
PETI TAWARAN, TINGKAT BAWAH
BANGUNAN KEMENTERIAN KESIHATAN
COMMONWEALTH DRIVE
BANDAR SERI BEGAWAN BB 3910
NEGARA BRUNEI DARUSSALAM

(CLUSTERING)

SECTION 2

SPECIFICATIONS AND REQUIREMENTS

TENDER REFERENCE NO: KK/84/2024/DSS

INVITATION TO TENDER

TO SUPPLY, DELIVER, INSTALL, TEST AND COMMISSION ONE (1) UNIT OF GENETIC ANALYSER FOR HUMAN IDENTIFICATION (HID) FOR FORENSIC BIOLOGY SECTION, DEPARTMENT OF SCIENTIFIC SERVICES, MINISTRY OF HEALTH

NAME OF ITEM	GENETIC ANALYZER FOR HUMAN IDENTIFICATION (HID)

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS
1	**GENERAL**
1.1	Genetic Analyser for Human Identification (HID) used to perform fragment analysis of forensic samples by capillary electrophoresis.
1.2	This system shall comprise of the following: • Genetic Analyser for Human Identification (HID) Instrument. • Data management and acquisition system. • Accessories. • Method validation and training. • Consumables, reagents and kits • Documentation of full developmental validation for forensic human identification use.
2	**GENETIC ANALYSER FOR HUMAN IDENTIFICATION SPECIFICATIONS**
2.1	Fluorescence-based capillary electrophoresis system.
2.2	Must be able to run on 8-capillary array, upgradeable to 24-capillary when required.
2.3	Allow the use of polymer 4 and polymer 6 for HID (human identification) analysis, fragment analysis and sequencing applications.
2.4	Allow the use of capillary arrays of 36 cm and 50 cm for different fragment analysis and sequencing applications.
2.5	Allow DNA fragment analysis of up to six unique dyes simultaneously.
2.6	Capillary arrays must be able to be used for no less than 160 injections.
2.7	DNA fragment analysis run time of ≤ 40 minutes each.
2.8	Plate capacity of at least two 96-well plates.
2.9	Allow samples to be automatically injected directly from 96-well plates or 8-strip tubes.
2.10	User-friendly consumable installation.
2.11	Consumable tracking with RFID technology.
2.12	Fully automated from reagent loading and replacement, DNA separation, detection and data analysis to generate base-called or size-called results.

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS
2.13	Instrument output files shall be compatible with the GeneMapper ID-x Software v1.6 or equivalent for data processing.
2.14	Long-life, single-line 505nm, solid-state laser excitation source.
2.15	Up to 20kV electrophoresis voltage.
2.16	Active oven temperature control from 18°C to 70°C.
3	**DATA MANAGEMENT AND ACQUISITION SYSTEM**
3.1	Data management and acquisition system must be supplied for the control of the genetic analyser instrument and its auxiliary equipment as well as allowing users for recording and reviewing of the analysis data.
3.2	**The system should include:** • Two (2) units of stand-alone desktop PC with specifications following equipment manufacturer's recommendation. • Communication interface via LAN or WiFi. • Latest processor compatible with the genetic analyser data collection software and GeneMapper ID-x Software v1.6 or equivalent. • One (1) unit of minimum 27" LED monitor screen and one (1) unit of minimum 34" LED monitor screen. • Standard keyboard and mouse. • Genuine latest Microsoft Windows software compatible to use with GeneMapper ID-x Software v1.6 or equivalent. • Two (2) units of high speed external solid state drive with at least 1TB capacity.
3.3	**Software Package should include:** • Simplified workflow for HID with preconfigured validated protocols and assays for AmpFlSTR® kits. • Preliminary data analysis to allow user to evaluate data in real time.
4	**ACCESSORIES**
4.1	One (1) unit of uninterrupted power supply (UPS) with suitable power supply rating and surge protector must also be provided and connected to the instrument system and workstation.
5	**METHOD VALIDATION & TRAINING**
5.1	On-site method validation by Human Identification specialists to evaluate the system with Applied Biosystems™ Quantifiler™ Trio, GlobalFiler™ and Yfiler™ Plus Amplification Kits in accordance with the Scientific Working Group DNA Analysis Methods recommendation and/or Quality Assurance Standards for Forensic DNA Testing Laboratories.
5.2	The method validation shall include but is not limited to: • Standard Curve and Quality Metrics • Contamination Study • Minimum Threshold and Contamination Study • Sensitivity and Stochastic Study • Precision Study: Repeatability and Reproducibility • Accuracy Study: NIST Samples • Known and Non-Probative Sample Study • Mixture Study • Assessment of Non-Allelic Peaks
5.3	On-site training for ALL staff members expected to handle the machine. Please ensure that adequate time is allocated such that training will take place in small groups to minimize staff shortage in the laboratory.
5.4	Certificate of competence is to be issued to all trainees after completion of training.
	The successful tenderer needs to ensure the key users are updated on the current or relevant information related to the system used. They should provide **ONE** (1) off-site

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS
	benchwork training for **TWO** (2) key users. All expenses for attending the benchwork training shall be borne by the vendor; full registration, air ticket, daily allowance, accommodation, transport to and from the airport and place of training.
6	**CONSUMABLES, REAGENTS & KITS**
6.1	The successful tenderer needs to supply all necessary consumables, reagents and kits required for installation and commissioning, method validation and training.
7	**DOCUMENTATION & CERTIFICATION**
7.1	Operation manual (1 original and 1 copy).
7.2	Availability of Developmental Validation paper documenting validation studies based on requirements listed in the FBI Quality Assurance Standards for Forensic DNA Testing Laboratories and guidelines outlined by the Scientific Working Group on DNA Analysis Methods.
7.3	To be supplied during delivery/installation.
8	**SITE PREPARATION & ELECTRICAL REQUIREMENTS**
8.1	The tenderer shall ensure that the site preparation for the placement of the system taking into the consideration on the safety of the end user during operation of the instrument.
8.2	It is MANDATORY for the tenderer to do site visit prior to tender submission to discuss site requirements. A site visit form will be provided during the visit as evidence. Non-attendance will be considered as non-compliance.
8.3	The site preparation details should be listed in the quotation / document submitted.
8.4	All works involving additional electrical supply including wiring, outlets and isolators, fabrication and/or modification of work bench and any other deemed necessary to ensure successful and safe installation and operation of the system should be included.
8.5	Must be able to utilise mains power supply of 220 - 240 V AC, 50 - 60 Hz. Otherwise, tenderer to include the necessary arrangements to ensure appropriate power supply required by the equipment.
9	**WARRANTY**
9.1	A minimum of one (1) year warranty for manufacturer's defect on the hardware, software and all cost of repairs and/or replacements should be included.
9.2	After-sales services must be provided for the product after one (1) year.
9.3	One (1) on-site preventive maintenance to be carried out just before or soon after the one-year warranty period. Scope of work to follow manufacturer's manual / recommendation specific for the equipment offered, which includes but is not limited to: • Supply, delivery and installation of preventive maintenance kits and/or consumables • Software update (to obtain prior authorization from user and BME) • Inspection • Cleaning • Alignment • Calibration • Any other related preventive maintenance works required
11	**DELIVERY**
11.1	Items offered **MUST be delivered within** _____ from date of approval. (Vendor to indicate the delivery period.)
12	**PRICE VALIDITY**
12.1	Price validity MUST NOT BE LESS THAN 180 days or six (6) months.

NO.	GENERAL SPECIFICATIONS
A	Total Price: B$
B	Delivery Period:
C	Model & Brand:
D	Country of Origin:
E	Where marketed:
F	Year of Manufacture:
G	Warranty:
H	Power Requirement:
I	Battery Back-up:
J	International Safety Standard:
K	Technical Support:
L	Equipment Whole Life Support:
M	Dimensions (WxHxD) cm:
N	User Manuals:
O	Service Manuals:
P	Spare-parts & Consumables Listing:
Q	Technical Training On-Site:
R	Site Requirements:

*To all participating companies, please fill in the table above along with your other documents during submission of tender.

Bahagian/Unit	Forensic Biology Section	
Bil. Rujukan Bahagian/Unit:	DSS/FOR/PR/2024/01	
Pegawai di rujuk	Nama : Vianaliza Rajak / Nuramalina Sawal	
	E-mail : Vianaliza.rajak@moh.gov.bn/ Nuramalina.sawal@moh.gov.bn	
	Tel. No.: 2382424 ext 6079	Fax No. : 2381946

SECTION 3

TENDER FORM

To:

TENDER REFERENCE NO: KK/84/2024/DSS

INVITATION TO TENDER

TO SUPPLY, DELIVER, INSTALL, TEST AND COMMISSION ONE (1) UNIT OF GENETIC ANALYSER FOR HUMAN IDENTIFICATION (HID) FOR FORENSIC BIOLOGY SECTION, DEPARTMENT OF SCIENTIFIC SERVICES, MINISTRY OF HEALTH

TENDER OF *(name of tenderer)* *:* _____

Company/Business Registration No. : _____

Tender Closing Date : _____

NAME OF ITEM	

NO.	**ITEM DESCRIPTIONS AND SPECIFICATIONS**	**VENDOR'S OFFER**			
		COMPLY (Please tick √) (Provide evidence for compliance(s))		**ITEM DESCRIPTIONS AND SPECIFICATIONS**	**PRICE (B$)**
		YES	**NO**		
1	**GENERAL**				
1.1	Genetic Analyser for Human Identification (HID) used to perform fragment analysis of forensic samples by capillary electrophoresis.				

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS	VENDOR'S OFFER			
		COMPLY (Please tick √) (Provide evidence for compliance(s))		ITEM DESCRIPTIONS AND SPECIFICATIONS	PRICE (B$)
		YES	NO		
1.2	This system shall comprise of the following: • Genetic Analyser for Human Identification (HID) Instrument. • Data management and acquisition system. • Accessories. • Method validation and training. • Consumables, reagents and kits • Documentation of full developmental validation for forensic human identification use.				
2	**GENETIC ANALYSER FOR HUMAN IDENTIFICATION SPECIFICATIONS**				
2.1	Fluorescence-based capillary electrophoresis system.				
2.2	Must be able to run on 8-capillary array, upgradeable to 24-capillary when required.				
2.3	Allow the use of polymer 4 and polymer 6 for HID (human identification) analysis, fragment analysis and sequencing applications.				
2.4	Allow the use of capillary arrays of 36 cm and 50 cm for different fragment analysis and sequencing applications.				

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS	VENDOR'S OFFER			
		COMPLY (Please tick √) (Provide evidence for compliance(s))		ITEM DESCRIPTIONS AND SPECIFICATIONS	PRICE (B$)
		YES	NO		
2.5	Allow DNA fragment analysis of up to six unique dyes simultaneously.				
2.6	Capillary arrays must be able to be used for no less than 160 injections.				
2.7	DNA fragment analysis run time of ≤ 40 minutes each.				
2.8	Plate capacity of at least two 96-well plates.				
2.9	Allow samples to be automatically injected directly from 96-well plates or 8-strip tubes.				
2.10	User-friendly consumable installation.				
2.11	Consumable tracking with RFID technology.				
2.12	Fully automated from reagent loading and replacement, DNA separation, detection and data analysis to generate base-called or size-called results.				
2.13	Instrument output files shall be compatible with the GeneMapper ID-x Software v1.6 or equivalent for data processing.				
2.14	Long-life, single-line 505nm, solid-state laser excitation source.				
2.15	Up to 20kV electrophoresis voltage.				

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS	VENDOR'S OFFER			
		COMPLY (Please tick √) (Provide evidence for compliance(s))		ITEM DESCRIPTIONS AND SPECIFICATIONS	PRICE (B$)
		YES	NO		
2.16	Active oven temperature control from 18°C to 70°C.				
3	**DATA MANAGEMENT AND ACQUISITION SYSTEM**				
3.1	Data management and acquisition system must be supplied for the control of the genetic analyser instrument and its auxiliary equipment as well as allowing users for recording and reviewing of the analysis data.				
3.2	**The system should include:** • Two (2) units of stand alone desktop PC with specifications following equipment manufacturer's recommendation. • Communication interface via LAN or WiFi. • Latest processor compatible with the genetic analyser data collection software and GeneMapper ID-x Software v1.6 or equivalent. • One (1) unit of minimum 27" LED monitor screen and one (1) unit of minimum 34" LED monitor screen. • Standard keyboard and				

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS	VENDOR'S OFFER			
		COMPLY (Please tick √) (Provide evidence for compliance(s))		ITEM DESCRIPTIONS AND SPECIFICATIONS	PRICE (B$)
		YES	NO		
	mouse. • Genuine latest Microsoft Windows software compatible to use with GeneMapper ID-x Software v1.6 or equivalent. • Two (2) units of high speed external solid state drive with at least 1TB capacity.				
3.3	**Software Package should include:** • Simplified workflow for HID with preconfigured validated protocols and assays for AmpFlSTR® kits. • Preliminary data analysis to allow user to evaluate data in real time.				
4	**ACCESSORIES**				
4.1	One (1) unit of uninterrupted power supply (UPS) with suitable power supply rating and surge protector must also be provided and connected to the instrument system and workstation.				
5	**METHOD VALIDATION & TRAINING**				
5.1	On-site method validation by Human Identification				

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS	VENDOR'S OFFER			
		COMPLY (Please tick √) (Provide evidence for compliance(s))		ITEM DESCRIPTIONS AND SPECIFICATIONS	PRICE (B$)
		YES	NO		
	specialists to evaluate the system with Applied Biosystems™ Quantifiler™ Trio, GlobalFiler™ and Yfiler™ Plus Amplification Kits in accordance with the Scientific Working Group DNA Analysis Methods recommendation and/or Quality Assurance Standards for Forensic DNA Testing Laboratories.				
5.2	The method validation shall include but is not limited to: • Standard Curve and Quality Metrics • Contamination Study • Minimum Threshold and Contamination Study • Sensitivity and Stochastic Study • Precision Study: Repeatability and Reproducibility • Accuracy Study: NIST Samples • Known and Non-Probative Sample Study • Mixture Study • Assessment of Non-Allelic Peaks				
5.3	On-site training for ALL staff members expected to handle the machine. Please ensure				

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS	VENDOR'S OFFER			
		COMPLY (Please tick √) (Provide evidence for compliance(s))		ITEM DESCRIPTIONS AND SPECIFICATIONS	PRICE (B$)
		YES	NO		
	that adequate time is allocated such that training will take place in small groups to minimize staff shortage in the laboratory.				
5.4	Certificate of competence is to be issued to all trainees after completion of training.				
	The successful tenderer needs to ensure the key users are updated on the current or relevant information related to the system used. They should provide **ONE** (1) off-site benchwork training for **TWO** (2) key users. All expenses for attending the benchwork training shall be borne by the vendor; full registration, air ticket, daily allowance, accommodation, transport to and from the airport and place of training.				
6	**CONSUMABLES, REAGENTS & KITS**				
6.1	The successful tenderer needs to supply all necessary consumables, reagents and kits required for installation and commissioning, method validation and training.				
7	**DOCUMENTATION & CERTIFICATION**				

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS	VENDOR'S OFFER			
		COMPLY (Please tick √) (Provide evidence for compliance(s))		ITEM DESCRIPTIONS AND SPECIFICATIONS	PRICE (B$)
		YES	NO		
7.1	Operation manual (1 original and 1 copy).				
7.2	Availability of Developmental Validation paper documenting validation studies based on requirements listed in the FBI Quality Assurance Standards for Forensic DNA Testing Laboratories and guidelines outlined by the Scientific Working Group on DNA Analysis Methods.				
7.3	To be supplied during delivery/installation.				
8	**SITE PREPARATION & ELECTRICAL REQUIREMENTS**				
8.1	The tenderer shall ensure that the site preparation for the placement of the system taking into the consideration on the safety of the end user during operation of the instrument.				
8.2	It is MANDATORY for the tenderer to do site visit prior to tender submission to discuss site requirements. A site visit form will be provided during the visit as evidence. Non-attendance will be considered as non-compliance.				
8.3	The site preparation details should be listed in the				

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS	VENDOR'S OFFER			
		COMPLY (Please tick √) (Provide evidence for compliance(s))		ITEM DESCRIPTIONS AND SPECIFICATIONS	PRICE (B$)
		YES	NO		
	quotation / document submitted.				
8.4	All works involving additional electrical supply including wiring, outlets and isolators, fabrication and/or modification of work bench and any other deemed necessary to ensure successful and safe installation and operation of the system should be included.				
8.5	Must be able to utilise mains power supply of 220 - 240 V AC, 50 - 60 Hz. Otherwise, tenderer to include the necessary arrangements to ensure appropriate power supply required by the equipment.				
9	**WARRANTY**				
9.1	A minimum of one (1) year warranty for manufacturer's defect on the hardware, software and all cost of repairs and/or replacements should be included.				
9.2	After-sales services must be provided for the product after one (1) year.				
9.3	One (1) on-site preventive maintenance to be carried out just before or soon after the one-year warranty period.				

NO.	ITEM DESCRIPTIONS AND SPECIFICATIONS	VENDOR'S OFFER			
		COMPLY (Please tick √) (Provide evidence for compliance(s))		ITEM DESCRIPTIONS AND SPECIFICATIONS	PRICE (B$)
		YES	NO		
	Scope of work to follow manufacturer's manual / recommendation specific for the equipment offered, which includes but is not limited to: • Supply, delivery and installation of preventive maintenance kits and/or consumables • Software update (to obtain prior authorization from user and BME) • Inspection • Cleaning • Alignment • Calibration • Any other related preventive maintenance works required				
11	**DELIVERY**				
11.1	Items offered **MUST be delivered within** _____ from date of approval. (Vendor to indicate the delivery period.)				
12	**PRICE VALIDITY**				
12.1	Price validity MUST NOT BE LESS THAN 180 days or six (6) months.				
				TOTAL PRICE (B$)	

NO.	GENERAL SPECIFICATIONS	VENDOR'S OFFER
A	**Total Price: B$**	
B	**Delivery Period:**	
C	**Model & Brand:**	
D	**Country of Origin:**	(leave blank)
E	**Where marketed:**	
F	**Year of Manufacture:**	
G	**Warranty:**	
H	**Power Requirement:**	
I	**Battery Back-up:**	
J	**International Safety Standard:**	
K	**Technical Support:**	
L	**Equipment Whole Life Support:**	
M	**Dimensions (WxHxD) cm:**	
N	**User Manuals:**	
O	**Service Manuals:**	
P	**Spare-parts & Consumables Listing:**	
Q	**Technical Training On-Site:**	
R	**Site Requirements:**	

*To all participating companies, please fill in the table above along with your other documents during submission of tender.

1. We offer and undertake on your acceptance of our Tender to provide the above mentioned services in accordance with your Invitation To Tender.

2. Our Tender is fully consistent with and does no contradict or derogate from anything in your Invitation To Tender. We have not qualified or changed any of the provisions of your Invitation To Tender.

3. OUR OFFER IS VALID FOR **TWELVE (12)** CALENDAR MONTHS FROM THE TENDER CLOSING DATE.

4. When requested by you, we shall extend the validity of this offer.

5. We further undertake to give you any further information which you may require.

Dated this_____day of_____, _____

_____ Tenderer's official stamp

Signature of authorised officer of Tenderer
Name:
Designation: