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Winnipeg
Manitoba
R3B 0T6
Bid Fax: (204) 983-0338

SOLICITATION AMENDMENT

MODIFICATION DE L'INVITATION

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

Vendor/Firm Name and Address
Raison sociale et adresse du
fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution
Public Works and Government Services Canada -
Western Region
Room 100
167 Lombard Ave.
Winnipeg
Manitoba
R3B 0T6

Title - Sujet Miscellaneous Lab Equipment	
Solicitation No. - N° de l'invitation A7100-164083/A	Amendment No. - N° modif. 002
Client Reference No. - N° de référence du client A7100-164083	Date 2017-01-27
GETS Reference No. - N° de référence de SEAG PW-\$WPG-016-10118	
File No. - N° de dossier WPG-6-39269 (016)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2017-02-27	Time Zone Fuseau horaire Central Standard Time CST
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Hall, Marlene	Buyer Id - Id de l'acheteur wpg016
Telephone No. - N° de téléphone (204) 230-0147 ()	FAX No. - N° de FAX (204) 983-7796
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Wills Transfer Ltd. 3100 Swansea Crescent Ottawa, ON. K1G 3W4 c/o Claudette Weedmark	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

This **amendment # 002** is raised to provide the Bidder's Conference Minutes and Canada's response to questions and issues brought forward.

1) Bidder's Conference Minutes

Date: January 26, 2017 at 10:00 A.M CST
Location: Web-ex

The following are the minutes as a result of the Bidder's Conference.

A) Attendance:

Nikoo Cicarelli	VWR
Rosa Vommaro	VWR
Andrée Lamoureux	VWR
Santino Ciciarella	INAC/CHARS - Project Authority
Shaveta Dhir	INAC/CHARS - Observer
Marlene Hall (Contracting Authority)	PSPC - Host
Zeljka Omerzo (Contracting Officer)	PSPC - Minutes

B) Opening remarks and introductions

- Introductions were made;
- Review of Request for Proposal and amendments;
- Question and answer period

The following information will form part of the solicitation and should be considered when preparing response submissions:

2) The following are questions and issues submitted.

- Q1. Is it acceptable to provide a product that is slightly different than the specifications? Can an equivalent product be offered?
- A1. The product offered must meet each mandatory performance specification. If the product offered is slightly different and you want to know if the difference is acceptable, send an email to the Contracting Authority, before bid closing, identifying the difference in the specifications asking if this is acceptable. The Contracting Authority will consult with the client and advise accordingly through an amendment
- Q2. If some of the products cannot be provided, will the proposal be considered non-compliant?
- A2. Bidders can bid on one item or more than one item. Bidders do not have to bid on all items identified in the compliance matrix. Each item will be evaluated independently of each other.

3) Compliance Matrix – MINIMUM MANDATORY PERFORMANCE SPECIFICATIONS

Delete: Delete in its entirety.
Insert: Replace with the following:

	<p><u>Completion and submission of Mandatory Performance Specification is required to be considered responsive and for your offer to be given further consideration.</u></p> <p>a. Bidder must cross reference where in their technical offer, the performance specification is located.</p> <p>b. Provide the specification being offered which meets or exceeds <u>and cross-reference as to where the supporting documentation is found within your proposal</u>. If there is insufficient space in the table, assign SIR # (Supplementary Information Reference) and provide the appropriate details on a separate page in your offer. Where published supporting documentation is not available in the form of brochures, technical data sheets etc., prepare a written narrative complete with a detailed explanation of how its offer demonstrates compliance.</p>	
	<p><u>All work and materials herein specified must meet and maintain minimum Canadian and Provincial certification(s) and approval(s) as applicable by Industry Standards.</u></p>	
Item	Specifications	Bidder Response: indicate how they meet the specifications addressed below/ cross-reference where this technical specification is indicated in their bid documentation
1	Laboratory table-top lyophilizer integrated system (pump, trap, rotor & centrifugal evaporator)	
1.1	Monobloc and compact configuration	
1.2	External dimensions: <ul style="list-style-type: none"> Width : 775mm ±50mm (30.5in ±2in) Depth : 675mm ±50mm (36.6in±2in) Height : 475mm ±75mm (18.7in ±3in) 	
1.3	Temperature range: 45°C to 80°C ±5°C (113°F to 176°F ±3°F)	
1.4	Integrated cold trap: <ul style="list-style-type: none"> Trap capacity: 4L ±0,5L (0.14ft3 ±0.02ft3) Trap operating temperature: -50°C ±5°C (-58°F ±3°F) 	

1.5	<p>Built-in oil free and maintenance free diaphragm vacuum pump:</p> <ul style="list-style-type: none"> • 2 headed pump with Ethylene tetrafluoroethylene (ETFE) diaphragms • Pump capacity: 36L/min \pm 3L/min (0.02ft³/s \pm 0.002ft³/s) • Expected vacuum level: 10Torr or less (13mBar, 1.3kPa, 0.013Atm) 	
1.6	<p>Inner chamber:</p> <ul style="list-style-type: none"> • Teflon coated aluminium • Radiant glass cover with solvent resistant seal • Polypropylene (PP) fittings 	
1.7	<p>Concentrator:</p> <ul style="list-style-type: none"> • Overall volume: 1.5 to 500ml • Maximum tube capacity: 200 or more 1.5-2.0ml tubes • Maximum microplate capacity: 12 or more shallow-well microplates 	
1.8	<p>Control and display:</p> <ul style="list-style-type: none"> • Programmable • Minimum of five (5) ramp rate • Temperature setting 45°C to 80° in 5°C increments • Real time LED display: <ul style="list-style-type: none"> - Separate for heating and running - Continuous and up to 10hours by 1minute increments 	
1.9	Exterior construction made of baked powder painted steel or epoxy coated steel	
1.10	Four (4) anti-slip foot pads	
1.11	Maintenance free induction motor	
1.12	<p>Electrical requirement:</p> <ul style="list-style-type: none"> • 120V/60Hz • CSA approved or equivalent (i.e. cUL compliant) 	
1.13	<p>Preselected rotors w/ all the necessary rotor blocks, carrier sets and assemblies for:</p> <ul style="list-style-type: none"> • minimum 8 shallow or deepwell microplates • minimum 100 11x39mm microcentrifuge tubes • minimum 75 16x100 conical 15ml centrifuge tubes • minimum 20 30x115 conical 50ml centrifuge tubes • minimum 2 100ml flask 	

1.14	If required for operation of proposed model, one (1) Liter of heat transfer fluid	
1.15	Manual (English language): <ul style="list-style-type: none"> • Installation, Operation/User Manual • Service Manual 	
2	Ultra-purified ASTM Type I water dispenser, 120L/h (2LPM) capacity	
2.1	External dimensions: <ul style="list-style-type: none"> • Width : 425mm ±25mm (16.7in ±1in, excluding dispensing system, if any) • Depth : 450mm ±25mm (17.7in ±1in) • Height : 700mm ±50mm (27.6in ±2in) 	
2.2	Production: <ul style="list-style-type: none"> • Ultra-purified water qualifying as ASTM type I (from ASTM Type II feed) • Resistivity 18.2MOhms-cm @25°C • Total Organic Content (TOC) : 5ppb or less ±10% • Bacteria: less than 0.1cfu/ml • Pyrogens free • RNases free • DNases free • 2LPM ±0.2L (0,5GPM ±0,05GPM) 	
2.3	Automated internal monitoring: <ul style="list-style-type: none"> • Feed water conductivity • Product water conductivity • Product water resistivity • Total Organic Content (TOC): <ul style="list-style-type: none"> ○ Accurate detection range; 1-10ppb ±10% 	
2.4	Display: <ul style="list-style-type: none"> • Unit status • Resistivity • Temperature • TOC : 1-999ppb ±10% • Volume dispensed 	
2.5	Self-standing	
2.6	Wall or bench-top mounted	
2.7	Articulated dispensing arm: <ul style="list-style-type: none"> • Manual dispense capable • Automated dispense capable • Flow control feature 	

2.8	Electrical requirement: <ul style="list-style-type: none"> • 120V/60Hz • CSA approved or equivalent (i.e. cUL compliant) 	
2.9	Mandatory accessories – Each instrument must include: <ul style="list-style-type: none"> • One (1) wall-mounting kit per unit • One (1) wall-mounting kit per unit for the dispensing arms if independent from unit • All the necessary final polishing filters per unit • Complete replacement cartridge kit • One (1) UV light replacement kit for the lot 	
2.10	Manual (English language): <ul style="list-style-type: none"> • Installation, Operation/User Manual • Service Manual 	
3	Self-standing meat band saw	
3.1	External dimensions: <ul style="list-style-type: none"> • Width : 850mm ±25mm (33.5in ±1in) • Depth: 850mm ±25mm (33.5in ±1in) • Height : 1750mm ±50mm (68.9in ±2in) 	
3.2	Cutting clearance: <ul style="list-style-type: none"> • Length :340mm ±25mm (12.5in ±1in) • Width : 500mm ±25mm (20in ±1in) • Height : 380mm ±50mm (15.25in ±2in) 	
3.3	Open frame, water and rust resistant stainless steel construction	
3.4	Made to be operated in a cold and humid environment	
3.5	Made to withstand hose down cleaning	
3.6	Four (4) leveling feet w/ a minimum of 50mm (2in) available for height adjustment	
3.7	Carriage: <ul style="list-style-type: none"> • Safety pusher plate • Tri-rail w/ lock 	
3.8	Split rear table	

3.9	<p>Motor:</p> <ul style="list-style-type: none"> • Minimum 3HP • Direct gear drive transmission • Helical gear reduction • Sealed unit • Water resistant • Pivot mounted • Moisture resistant heated control 	
3.10	<p>Blade and blade mechanism:</p> <ul style="list-style-type: none"> • 16mm \pm3mm (5/8in \pm1/8in) Wide x 3200mm \pm100mm (126in \pm4in) Long • Blade tension control • Water resistant • Center crown • Enclosed upper and lower pulley • Moisture resistant heated control 	
3.11	<p>Electrical requirement:</p> <ul style="list-style-type: none"> • 208V/60Hz • CSA approved or equivalent (i.e. cUL compliant) 	
3.12	<p>Mandatory accessories:</p> <ul style="list-style-type: none"> • Five (5) extra blades • Saw repair kit 	
3.13	<p>Manual (English language):</p> <ul style="list-style-type: none"> • Installation, Operation/User Manual • Service Manual 	
4	Wheeled necropsy table for large animals w/ scissor-action lift, 1135kg (2500lbs) load capacity	
4.1	<p>External dimensions:</p> <ul style="list-style-type: none"> • Length: 2150mm \pm25mm (84in \pm1in) • Width : 915mm \pm25mm (36in\pm1in) • Height : 375 to 1220mm \pm25mm (15 to 48in \pm1in) 	
4.2	Load capacity: 1135kg \pm 25kg (2500lbs \pm 55lbs)	
4.3	Self-standing	
4.4	<p>Top:</p> <ul style="list-style-type: none"> • Rectangular • 304-16Ga stainless steel or better • Raised edge 	
4.5	<p>Undercarriage:</p> <ul style="list-style-type: none"> • 304 stainless steel or better 	

4.6	<p>Scissor-action lift:</p> <ul style="list-style-type: none"> Hydraulic W/ shielded self-contained power unit Allowing for 2-way tilt Foot control pedals 	
4.7	Minimum one (1) drain port	
4.8	<p>Casters:</p> <ul style="list-style-type: none"> Four (4) heavy duty 150mm \pm10mm (6in \pm0,5in) diameter Locking swivel Non marking Retractable 	
4.9	<p>Electrical requirement:</p> <ul style="list-style-type: none"> 120V/60Hz CSA approved or equivalent (i.e. cUL compliant) 	
4.10	<p>Mandatory accessories:</p> <ul style="list-style-type: none"> Two (2) spare casters 	
4.11	<p>Manual (English language):</p> <ul style="list-style-type: none"> Installation, Operation/User Manual Service Manual 	
5	Wheeled adjunct necropsy table (or mobile exam table), fixed height	
5.1	<p>External dimensions:</p> <ul style="list-style-type: none"> Width : 1530mm \pm25mm (60in \pm1in) Depth : 915mm \pm25mm (36in\pm1in) Height : 890mm \pm25mm (35in \pm1in) 	
5.2	Load capacity: minimum 150kg (330lbs)	
5.3	Self-standing	
5.4	<p>Top:</p> <ul style="list-style-type: none"> 304-16Ga stainless steel #4 satin finish Recessed («marine edge»)10mm \pm3mm (0.4in \pm0.1in) 	

5.5	<p>Undercarriage:</p> <ul style="list-style-type: none"> • 304-16Ga stainless steel • #4 satin finish • w/ three (3) stainless steel storage drawers: <ul style="list-style-type: none"> ◦ Width: 500mm ±25mm (20in ±1in) ◦ Depth: 550mm ±25mm (22in ±1in) • w/ one (1) storage cabinet: <ul style="list-style-type: none"> ◦ Width: 500mm ±25mm (20in ±1in) ◦ Depth: 550mm ±25mm (22in ±1in) ◦ w/ one (1) stainless steel adjustable shelf and stainless steel door 	
5.6	<p>Casters:</p> <ul style="list-style-type: none"> • Four (4) heavy duty 125mm ±10mm (5in ±0.5in) diameter • Locking swivel • Non marking 	
5.7	Two (2) spare casters	
5.8	User manual	
6	Wheeled wet table, stainless steel	
6.1	<p>External dimensions:</p> <ul style="list-style-type: none"> • Width : 1220mm ±25mm (48in ±1in) • Depth : 762mm ±25mm (30in±1in) • Height (w/ 2% slope): 892 to 915mm ±25mm (35 to 36in ±1in) 	
6.2	Load capacity: 165kg ±10kg (364lbs ±22lbs)	
6.3	Self-standing	
6.4	<p>Top:</p> <ul style="list-style-type: none"> • Table top sloped (2%) toward drain port • 304-14Ga stainless steel • #4 satin finish • Recessed (marine edge)10mm ±3mm (0.4in ±0.1in) 	
6.5	<p>Undercarriage:</p> <ul style="list-style-type: none"> • 304 stainless steel • #4 satin finish 	
6.6	<p>Drain port:</p> <ul style="list-style-type: none"> • PVC ball valve on drain port 	
6.7	<p>Four (4) heavy duty 125mm ±10mm (5in ±0.5in) diameter locking swivel casters</p> <ul style="list-style-type: none"> • Non marking casters 	

6.8	Mandatory accessories: <ul style="list-style-type: none"> One (1) stainless steel bucket, minimum 8L (8qts) One (1) Stainless steel bucket holder Two (2) spare casters 	
6.9	User manual	
7	Vibration dampening mount	
7.1	Dimensions: <ul style="list-style-type: none"> Width: 475mm \pm25mm Depth: 500mm \pm50mm Thickness: 65mm \pm15 mm 	
7.2	Load capacity: up to 16kg \pm 1kg	
7.3	Construction: <ul style="list-style-type: none"> Dense rock or aggregate material Polish surface Scratch and chemical resistant w/ four (4) cushioning feet 	
7.4	Vibration dampening capacity: <ul style="list-style-type: none"> Down to 13Hz w/ 16kg load Down to 25Hz w/ less than 16kg load 	
8	Pipet plugger	
8.1	Dimensions: <ul style="list-style-type: none"> Width: 250mm \pm25mm Depth: 275mm \pm25mm Height: 250mm \pm25mm 	
8.2	Portable	
8.3	Minimum 3 speed settings	
8.4	Use "Geneva mechanism"	
8.5	Belt-operated	
8.6	Fit most laboratory glass pipets sizes (minimum 2ml, 5ml, 10ml and 25ml)	
8.7	Electrical requirement: <ul style="list-style-type: none"> 120V/60Hz CSA approved or equivalent (i.e. cUL compliant) 	

8.8	Mandatory accessories – must be included: <ul style="list-style-type: none"> • Five (5) rolls of roving cotton • Two (2) stuffer pin replacements • Two (2) scissor blades replacement set • Three (3) replacement belts 	
8.9	Manual (English language): <ul style="list-style-type: none"> • Installation, Operation/User Manual • Service Manual 	
9	Rotary microtome, semi-motorized	
9.1	Dimensions: <ul style="list-style-type: none"> • Width: 450mm ±50mm • Depth: 650mm ±50mm • Height: 325mm ±25mm 	
9.2	Section thickness range: 0,5-100µm ±5µm (upper limit only)	
9.3	Trimming section thickness range: 1-600µm ±25µm (upper limit only)	
9.4	Object feed: 28mm ±3mm	
9.5	Maximum specimen size: 50mmL x 40mmW x 60mmH	
9.6	Vertical stroke: 70mm ±5mm	
9.7	Sectioning modes: <ul style="list-style-type: none"> • Manual • Conventional mode w/ full handwheel rotation • Rocking mode 	
9.8	Finger protection guard on blade holder	
9.9	Control panel: <ul style="list-style-type: none"> • Programmable section thickness • Variable incrementation of section thickness depending on micro-range • Programmable trimming section thickness • Section thickness totalizer indicator • Section counter 	
9.10	Horizontal motorized feeder: <ul style="list-style-type: none"> • Two speed setting: 300µm/s or 900µm/s 	
9.11	Electrical requirement: <ul style="list-style-type: none"> • 120V/60Hz • CSA approved or equivalent (i.e. cUL compliant) 	

9.12	<p>Mandatory accessories – must include:</p> <ul style="list-style-type: none"> • Two (2) Universal cassette clamp • Two (2) Standard specimen cassette clamp • Two (2) knife holder for high & low profile disposable blades w/ lateral displacement • Disposable profile “c” blades for cassette embedded sample in paraffin - low profile, one (1) set of 50 • Disposable profile “c” blades for cassette embedded sample in paraffin - high profile, one (1) set of 50 • One (1) knife holder for Tungsten Carbide blades for resin or plastic embedded samples • Disposable profile “c” Tungsten Carbide-65 (TC-65) blades for resin or plastic embedded samples, one (1) set of 5 	
9.13	<p>Manual (English language):</p> <ul style="list-style-type: none"> • Installation, Operation/User Manual • Service Manual 	
10	Mobile adjunct OT lamp, 140,000Lux	
10.1	<p>Mobile base stand dimensions:</p> <ul style="list-style-type: none"> • Width: 800mm ±50mm • Depth: 800mm ±50mm 	
10.2	<p>Height and reach:</p> <ul style="list-style-type: none"> • Maximum lamp elevation: 2500mm ±100mm • Minimum lamp elevation: 850mm ±100mm • Vertical swivelling range of the lamp arm: 1200 ±100mm • Horizontal pivoting range: minimum 270° • Cupola xial swivelling range: minimum 180° • Working distance range: 600-1500mm ±100mm • Focusable light field size: 150-300mm ±30mm 	
10.3	<p>LED light source:</p> <ul style="list-style-type: none"> • Central light intensity at 1m: 140,000Lux ±15,000Lux • Dimming range: 5-100% • 5 colour rendering: <ul style="list-style-type: none"> ○ 3750K ±200K ○ 4000K ±200K ○ 4250K ±200K ○ 4500K ±200K ○ 4750K ±200K • Color rendering index «R9»: 95 ±5 • Color rendering index «Ra»: 95 ±5 (where Ra is the average of R1 to R9 indexes) 	
10.4	<p>Electrical requirement:</p> <ul style="list-style-type: none"> • 120V/60Hz • CSA approved or equivalent (i.e. cUL compliant) 	

10.5	Two (2) replacement sterilizable lamp handles	
10.6	Manual (English language): <ul style="list-style-type: none"> • Installation, Operation/User Manual • Service Manual 	
11	Gel documentation system, highly versatile	
11.1	Instrument overall dimensions: <ul style="list-style-type: none"> • Width: 550mm ±100mm • Depth: 550mm ±100mm 	
11.2	Maximum of two (2) distinct components (imager and computer)	
11.3	Available image area: minimum 275mm x 275mm ±25mm	
11.4	Intended uses, but not limited to, : <ul style="list-style-type: none"> • Nucleic acid documentation • Protein gel documentation • Blots (western, northern, southern) • In-gel Westerns (IGW) • Chemiluminescence • Fluorophore and multiple dyes detection (red, blue, green channels) • Cell-based quantitative immunofluorescent assays • Tissue section • RNAi analysis • ELISA • EMSA 	
11.5	Camera OR Laser based (specify which): <ul style="list-style-type: none"> • If camera: <ul style="list-style-type: none"> ○ Supercooled CCD camera ○ Peltier effect cooling system ○ Image resolution: minimum 4 Megapixels or better ○ Automated focusing 	
11.6	Acquisition system and software allow for: <ul style="list-style-type: none"> • Pre-setted protocol • Scan/image overlay • Colorimetry • Densitometry • Chemilumiscence • Gel documentation • Multiplex documentation 	

11.7	<p>Analysis software:</p> <ul style="list-style-type: none"> • Total signal quantitation • Total lane signal intensity calculation • Intensity normalization • Density ratio calculation 	
11.8	<p>Electrical requirement:</p> <ul style="list-style-type: none"> • 120V/60Hz • CSA approved or equivalent (i.e. cUL compliant) 	
11.9	<p>Mandatory accessories per instrument:</p> <ul style="list-style-type: none"> • One (1) acquisition computer w/ screen, keyboard and mouse fully compatible with the proposed softwares and the expected tasks • One (1) Darkroom • One (1) Acquisition software • Minimum one (1) Analysis software license • One (1) Thermal printer • Sixteen (16) printer paper rolls • Every necessary cables (imager to computer, imager to printer) • One (1) Replacement UV 302nm lamp • One (1) Replacement white light lamp 	
11.10	<p>Manual (English language):</p> <ul style="list-style-type: none"> • Installation, Operation/User Manual • Service Manual 	
12	Submerged horizontal gel electrophoresis cell ("wide mini-sub")	
12.1	<p>Can accommodate gel dimensions:</p> <ul style="list-style-type: none"> • Width: 150mm ±10mm • Length: minimum 70mm up to 100mm ±10mm 	
12.2	<p>Gel trays:</p> <ul style="list-style-type: none"> • UV transparent • w/ comb slots 	
12.3	Can accommodate pre-cast agarose gels	
12.4	<p>Intended use:</p> <ul style="list-style-type: none"> • Nucleic acid agarose gel 	
12.5	<p>Electrodes:</p> <ul style="list-style-type: none"> • Made of platinum • Minimum 0.25mm diameter 	

12.6	Mandatory accessories per system: <ul style="list-style-type: none"> One (1) electrophoresis cell w/ safety lid & electrical cables Two (2) running UV transparent running trays Two (2) 8-wells fixed height combs x 1.5mm thick Two (2) 15-wells fixed height combs x 1.5mm thick Two (2) 20-wells fixed height comb x 1.5mm thick 	
12.7	Manual (English language): <ul style="list-style-type: none"> Installation, Operation/User Manual Service Manual 	
13	Basic power supply for submerged horizontal electrophoresis	
13.1	Required features: <ul style="list-style-type: none"> Maximum output: 75W \pm5W Intended for submerged horizontal electrophoresis Can accommodate four (4) electrophoresis cells in parallel Timer: 0 to 999minutes in 1min increments LED display Stop button Run/Pause mode button Volt, current or time programmable mode Constant V or A selector w/ automatic crossover No load detector w/ error message Overload protection Small footprint (< 0.06m²) 	
13.2	Voltage: <ul style="list-style-type: none"> Minimum 10Volts Maximum 300Volts \pm10% Adjustable in 1 volt increments Voltage accuracy: \pm2% of reading, minimum 3Volts 	
13.3	Current: <ul style="list-style-type: none"> Minimum 4milliAmp Maximum 400milliAmp \pm10% Adjustable in 1mA increments Current accuracy: \pm2% of reading, minimum 3mA 	
13.4	Electrical requirement: <ul style="list-style-type: none"> 120V/60Hz CSA approved or equivalent (i.e. cUL compliant) 	
13.5	Mandatory accessories per system: <ul style="list-style-type: none"> Power cord Replacement fuse 	

13.6	Manual (English language): <ul style="list-style-type: none"> • Installation, Operation/User Manual • Service Manual 	
14	Vertical gel electrophoresis and transfer cell	
14.1	Intended use: <ul style="list-style-type: none"> • Polyacrylamide gel electrophoresis • Western transfer • 1st dimension of 2-D electrophoresis • Electroelution 	
14.2	Must accommodate all intended uses in 1 tank and lid kit	
14.3	Must accommodate 1 to 4 polyacrylamide gels in parallel	
14.4	Can accommodate pre-cast Polyacrylamide gels	
14.5	Gel dimensions: <ul style="list-style-type: none"> • Width: 80 ±6mm • Stacking length: 30mm ±5mm • Running length: 70mm ±5mm • Thickness: 0.75mm to 1.5mm (depending on available spacers) 	
14.6	Tank and lid: <ul style="list-style-type: none"> • Made of clear and transparent material • Power cables integrated to lid 	
14.7	Electrodes: <ul style="list-style-type: none"> • Made of platinum • Minimum 0.25mm diameter 	
14.8	Mandatory accessories per system: <ul style="list-style-type: none"> • All the necessary parts and components as required to prepare and perform one (1) to four (4) 0,75mm thick gel electrophoresis parallel run(s) w/ chosen samples • All the necessary parts and components as required to prepare and perform one (1) to two (2) parallel gel transfer run(s) • Four (4) 5-wells combs x 0.75mm thick • Four (4) 10-wells combs x 0.75mm thick • Four (4) 15-wells combs x 0.75mm thick • One (1) Casting device for 0.75mm gels • One (1) Transfer cooling device, if any 	
14.9	Manual (English language): <ul style="list-style-type: none"> • Installation, Operation/User Manual • Service Manual 	

15	Power supply for vertical electrophoresis	
15.1	<p>Required features:</p> <ul style="list-style-type: none"> Required output: <ul style="list-style-type: none"> 500V \pm10% 2500mA \pm10% 500W \pm10% Principal intended uses: electrophoresis and transfer Can accommodate four (4) electrophoresis cells in parallel Timer: <ul style="list-style-type: none"> Continuous mode 0 to 99:59hours in 1min increments 99999 volt-hour LED display Stop button Run/Pause mode button Volt, current or time programmable mode Constant Volt, current or power selector w/ automatic crossover No load detector w/ error message Overload protection Small footprint (< 0.10m²) 	
15.2	<p>Voltage:</p> <ul style="list-style-type: none"> Minimum 10Volts Maximum 500Volts Adjustable in 1 volt increments Voltage accuracy: \pm2% of reading, minimum 3Volts 	
15.3	<p>Current:</p> <ul style="list-style-type: none"> Minimum 10milliAmp Maximum 2500milliAmp Adjustable in 1mA increments Current accuracy: \pm2% of reading, minimum 3mA 	
15.4	<p>Power:</p> <ul style="list-style-type: none"> Minimum 1W Maximum 500W Adjustable in 1W increments 	
15.5	<p>Electrical requirement:</p> <ul style="list-style-type: none"> 120V/60Hz/single phase CSA approved or equivalent (i.e. cUL compliant) 	
15.6	<p>Mandatory accessories per system:</p> <ul style="list-style-type: none"> Power cord One (1) replacement fuse 	

15.7	Manual (English language): <ul style="list-style-type: none"> • Installation, Operation/User Manual • Service Manual 	
16	Ice machine (flaker) w/ storage bin	
16.1	External dimensions: <ul style="list-style-type: none"> • Width : 575mm ±25mm (33.5in ±1in) • Depth : 875mm ±25mm (33.5in ±1in) • Height : 1850mm ±50mm (68.9in ±2in) 	
16.2	Self-standing	
16.3	External stainless steel construction (condenser and bin)	
16.4	Four (4) leveling feet	
16.5	Storage bin: <ul style="list-style-type: none"> • Stainless steel internal construction • 135kg ±15kg (300lbs ±33lbs) storage capacity • Wide access panel • Melt drain outlet 	
16.6	Air-cooled condenser: <ul style="list-style-type: none"> • Top-mounted • W/ removable and cleanable air filter • CFC-Free environment friendly coolant • Condensate outlet drain port 	
16.7	Ice maker: <ul style="list-style-type: none"> • Ice flakes maker • Daily volume production @ 21°C ambient and 10°C water: 200kg ±20kg (440lbs ±44lbs) • Stainless steel breaker 	
16.8	Status indicator panel: <ul style="list-style-type: none"> • Ice level adjustment control • Ice making status • Water feed status • Power status 	
16.9	Electrical requirement: <ul style="list-style-type: none"> • 120V/60Hz/single phase • CSA approved or equivalent (i.e. cUL compliant) 	

16.10	Mandatory accessories: <ul style="list-style-type: none"> One (1) power cord per unit <ul style="list-style-type: none"> Minimum 1830mm (6ft) Long Four (4) scale remover kits If applicable to proposed model: <ul style="list-style-type: none"> Two (2) breaker bearing kits Two (2) bearing greasing kits One (1) replacement photo-electric eye Two (2) ice scoops 	
16.11	Manual (English language): <ul style="list-style-type: none"> Installation, Operation/User Manual Service Manual 	
17	Table-top, freeze dryer, 9L capacity, -85°C and two-stage rotary vane pump	
17.1	External dimensions: <ul style="list-style-type: none"> Width : 375mm ±50mm (14.7in ±2in) Depth : 700mm ±50mm (27.6in±2in) Height : 450mm ±75mm (17.7in ±3in) 	
17.2	Integral condenser chamber: <ul style="list-style-type: none"> Maximum condenser capacity: 9L ±1L (9.5qts±1,1qt) Maximum ice condensing capacity per day: 5L ±0.5L (5.3qts; ±0,5qt) Condenser made of stainless steel 304 Internal condenser coil made of stainless steel 316L Lowest condenser temperature: -85°C ±5°C (121°F ±10°F) 	
17.3	Compressors: <ul style="list-style-type: none"> 2-stages (high and low) with a minimum combined output of 525W ±25W Minimum 1/3HP each Hermetic / sealed unit Non-CFC environmentally friendly refrigerant/coolant 	
17.4	Control and display: <ul style="list-style-type: none"> PLC-based controller Programmable Touch pad display 	
17.5	Exterior construction made of baked powder painted steel or epoxy coated steel	
17.6	Four (4) anti-slip foot pads	
17.7	Electrical requirement: <ul style="list-style-type: none"> 208V/60Hz CSA approved or equivalent (i.e. cUL compliant) 	

17.8	Mandatory accessories: <ul style="list-style-type: none"> One (1) Stainless steel drum manifold, 18-port One (1) Stainless steel bulk shelf rack, 3 shelves, unheated One (1) Stainless steel Tree-Type vertical manifold, 8-port Four (4) 1L (1qt) bottles of oil for the proposed vacuum pumps (start-up and replacement) 	
17.9	Manual (English language): <ul style="list-style-type: none"> Installation, Operation/User Manual Service Manual 	
18	Clean bench laminar flow hood, class ISO100, 1200mm (4ft) wide work surface	
18.1	External dimensions: <ul style="list-style-type: none"> Width : 1250mm ±25mm (49.2in ±1in) Depth : 800mm ±25mm (31.5in ±1in) Height: 2050mm ±50mm (80.7in ±2in) 	
18.2	Internal dimension: <ul style="list-style-type: none"> Width : 1175mm ±25mm (46.3in ±1in) Depth : 500mm ±25mm (19.7in ±1in) Height: 725mm ±50mm (28.5in ±2in) 	
18.3	Outward horizontal laminar flow: <ul style="list-style-type: none"> Factory set at 0,46m/s ±10% (90FPM±10%) Providing ISO 100 conditions in the working area w/ integrated 99.99% Hepa filter w/ removable fiberglass pre-filter Protected by fiber or metal grill 	
18.4	Control Panel: <ul style="list-style-type: none"> With the following information and switches: <ul style="list-style-type: none"> Blower circuit breaker Blower switch Fluorescent /LED lightning power switch Minihelic gauge Airflow control potentiometer Control panel must be non-proprietary Ergonomic location and access of control switches/toggles from working position 	
18.5	Fluorescent or LED light providing 1850Lux ±10% (175 foot-candle ±10%) on the work surface	
18.6	304-16Ga Stainless steel work surface	
18.7	External surfaces made of powder coated painted steel (except for the work area clear side walls)	

18.8	Powder coated painted steel base stand;	
18.9	w/ Four (4) leveling feet;	
18/.10	Commutated Motor (ECM) brushless DC blower motor;	
18.11	Electrical requirement: <ul style="list-style-type: none"> • 120V/60Hz • CSA approved or equivalent (i.e. cUL compliant) 	
18.12	Mandatory accessories: <ul style="list-style-type: none"> • One (1) replacement 99.99% HEPA filter • One (1) replacement fiberglass pre-filter 	
18.13	Manual (English language): <ul style="list-style-type: none"> • Installation, Operation/User Manual • Service Manual 	
19	Stainless steel table	
19.1	Stainless steel bench table	
19.2	Self-standing	
19.3	3 pen drawers under the work surface (75 mm (3") high)	
19.4	Minimum 200 kg (441 lb.) capacity	
19.5	Minimum 75 mm (3") high backsplash	
19.6	Not required to be wired or piped for utilities	
19.7	Dimensions: 1220 mm W x 760 mm D x 890 mm H \pm 5 0mm for all dimensions (48" W x 30" D x 35" H \pm 2")	
20	Stainless steel table (large)	
20.1	Stainless steel bench table	
20.2	Self-standing	
20.3	3 pen drawers under the work surface (75 mm (3") high)	
20.4	Minimum 200 kg (441 lb.) capacity	
20.5	Minimum 75 mm high backsplash	

20.6	Not required to be wired or piped for utilities	
20.7	Dimensions: 1530 mm W x 760 mm D x 890 mm H \pm 50 mm for all dimensions (60" W x 30" D x 35" H \pm 2")	
21	Water bath, 12L, digital	
21.1	External Dimensions: 375 mm W x 387 mm D x 248 mm H \pm 25 mm for all dimensions (14.75" W x 15.25" D x 9.75" H \pm 1")	
21.2	Minimum 12 L (3.2 gal) capacity	
21.3	Stainless steel interior	
21.4	Digital control and display	
21.5	Temperature range from ambient to 99.9°C	
21.6	Temperature precision: \pm 0.1°C	
21.7	Countertop water bath	
21.8	Connects to NEMA 5-15P 120V/60Hz/15A receptacle	
22	Dry bath, two blocks	
22.1	Countertop dry block heater	
22.2	Temperature range from ambient to 130°C	
22.3	Temperature precision: \pm 0.5°C	
22.4	Digital control and display	
22.5	External Dimensions: 220 mm W x 360 mm D x 90 mm H \pm 25 mm for all dimensions (8.7" W x 14.2" D x 3.6" H \pm 1")	
22.6	Connects to NEMA 5-15P 120V/60Hz/15A receptacle	
22.7	Includes: tapered bottom centrifuge blocks <ul style="list-style-type: none"> • 20 x 1.5 ml • 30 x 0.5 ml and 20 x 0.2 ml 	

Solicitation No. - N° de l'invitation
A7100-164083/A
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A7100-164083

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002
File No. - N° du dossier
WPG-6-39269

Buyer ID - Id de l'acheteur
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CCC No./N° CCC - FMS No./N° VME

23	Magnetic heating stir plate	
23.1	260 mm x 260 mm \pm 25 mm (10.25" x 10.25" \pm 1") surface	
23.2	Heating capacity: up to 6 L from ambient to 400°C	
23.3	Stirring speed: 60 to 1200 rpm	
23.4	External Dimensions: 290 mm W x 410 mm D x 100 mm H \pm 25 mm for all dimensions (11.38" W x 16.25" D x 4" H \pm 1")	
23.5	Electrical requirements: 110-120V/60Hz	

ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME