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Tender Details

Date : 22-Dec-2021 10:45 AM

Print

Basic Details			
Organisation Chain	Department of Biotechnology Institute for Stem Cell Biology and Regenerative Medicine (inStem)		
Tender Reference Number	INS/F-5435/2021-2022(Y)		
Tender ID	2021_MST_638914_1		
Tender Type	Open Tender	Form of contract	Supply
Tender Category	Goods	No. of Covers	2
Payment Mode	Not Applicable	Is Multi Currency Allowed For BOQ	No
Is Multi Currency Allowed For Fee	No		

Cover Details, No. Of Covers - 2			
Cover No	Cover	Document Type	Description
1	Fee/PreQual/Technical	.xls	Square Wave Pulse Generator System (Technical Bid)
2	Finance	.xls	Square Wave Pulse Generator System (Financial Bid)

Tender Fee Details, [Total Fee in ₹ * - 0.00]				EMD Fee Details			
Tender Fee in ₹	0.00			EMD Amount in ₹	0.00	EMD Exemption Allowed	NA
Fee Payable To	NA	Fee Payable At	NA	EMD Fee Type	NA	EMD Percentage	NA
Tender Fee Exemption Allowed	NA			EMD Payable To	NA	EMD Payable At	NA

Work /Item(s)					
Title	Square Wave Pulse Generator System				
Work Description	Square Wave Pulse Generator System				
Pre Qualification Details	Please refer Tender documents.				
Tender Value in ₹	17,22,300	Product Category	Equipments (Hospital / Lab)	Sub category	Equipment
Contract Type	Tender	Bid Validity(Days)	60	Period Of Work(Days)	30
Location	inStem	Pincode	560065	Pre Bid Meeting Place	NA
Pre Bid Meeting Address	NA	Pre Bid Meeting Date	NA	Bid Opening Place	inStem

Critical Dates			
Publish Date	22-Dec-2021 12:00 PM	Bid Opening Date	18-Jan-2022 02:30 PM
Document Download / Sale Start Date	22-Dec-2021 12:00 PM	Document Download / Sale End Date	18-Jan-2022 02:00 PM
Clarification Start Date	22-Dec-2021 12:00 PM	Clarification End Date	13-Jan-2022 02:00 PM
Bid Submission Start Date	22-Dec-2021 12:00 PM	Bid Submission End Date	18-Jan-2022 02:00 PM

Tender Documents				
NIT Document	S.No	Document Name	Description	Document Size (in KB)
	1	Tendernotice_1.pdf	Square Wave Pulse Generator System	5277.9

Work Item Documents	S.No	Document Type	Document Name	Description	Document Size (in KB)
	1	Tender Documents	F-5435 (Tender Document).pdf	Square Wave Pulse Generator System	5277.9

Tender Inviting Authority

Name	Director
Address	inStem, NCBS Campus, GKVK New Bellary Road, Bengaluru-560 065.

Tender Creator Details

Created By	NIRMALA K.SRIRAMAIAH
Designation	CLERK B
Created Date	22-Dec-2021 10:26 AM

Ref: **INS/F-5435/2021-2022(Y)**

Date: 21/12/2021

GLOBAL TENDER ENQUIRY

Dear Sirs,

Please let us have your lowest Quote/Proforma Invoice indicating cost including packing, insurance, estimated airfreight charges, handling charges, etc. CIF/CIP upto inStem Stores for the following materials.

SI.No	Cat.No	Item Description	Make/Model	Item Qty	UOM
1	-	Square Wave Pulse Generator System (Specifications Attached)	-	2.00	Nos.
2	-	FOOTSWITCH-BTX GEMINI, (Specifications Attached)	-	2.00	Nos.
3	-	TWEEZERTRODE CABLE (Specifications Attached)	-	2.00	Nos.

Remarks:

Please also indicate specifically the following :

1. The bids / quotation addressed to **"THE HEAD-PURCHASE"** with Tender / Enquiry Ref No and Item Description should reach us before submission Date and Time. The bids / quotation are liable to be rejected, if not addressed to **"THE HEAD-PURCHASE"**.
2. **EXIM CODE -8 digit customs tariff Number -HSN (Harmonised System Nomenclature)**
3. Country of origion
4. Place of Shipment
5. Name, address,telephone number and fax numbers of your bankers.
6. Your Account number and swift number with the bank (required for payment purposes if the order materialises on your firm).
7. **Please Indicate frieght and insurance charges seperately.**
8. Please Indicate the Warranty Period and Delivery Period.
9. Kindly expedite sending your Quote/Proforma Invoice/Invoice by courier so as to reach us latest by **18/01/2022 till 2.00 p.m.**

Important Note

10. Shipping by AIRFREIGHT ONLY-CARGO MODE
11. Port of Entry for Customs clearance is -BANGALORE
12. Please use International Freights which arrive directly into Bangalore. Ex. Lufthansa Airlines Cargo, Singapore Airlines Cargo.



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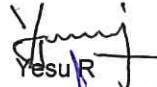
Date: 21/12/2021

13.NO SHIPMENT SHOULD BE MADE THROUGH COURIER COMPANIES LIKE FEDEX, TNT, UPS, DHL ETC.SHIPMENTS SENT THROUGH FEDEX, TNT, UPS, DHL, ETC. WILL NOT BE ACCEPTED BY INSTEM.

Since we are a public funded research institution, we are exempted from paying Customs Duty (Except advolerum duty of 5% + 2% cess and CVD @4% vide Notification No.51/96 with latest amendments) and excise duty vide Notification No.10/97 CENTRAL EXCISE dated 01-03-1997 for all scientific Equipments, technical instruments, Equipments (including computers), their accessories, spares, consumables and software. Hence, please offer your prices taking this option into consideration.

Yours faithfully

For and on behalf of Institute for Stem Cell
Science and Regenerative Medicine



Yesu R

GKVK, Bellary Road, Bangalore-560065,INDIA

Phone No. : 91-80-23666341/344/345/346

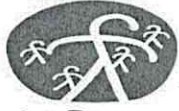
Email Id: purchase@instem.res.in

Fax : 91-80-23636662

Website : www.instem.res.in

PLEASE NOTE THAT PAYMENT terms will be 90% against delivery; balance 10% on Installation subject to receipt of PBG for 3% Order Value.





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Terms and Conditions:

1. The Technical and Financial / Price Bids shall be submitted simultaneously in two (2) cover (sealed) system. The proposals shall be evaluated in two stages: (1) Technical and (2) Price / Financial. Technical evaluation will be carried out and technically qualified vendors will qualify for Price Bid opening. Thereafter, Financial Proposal shall be evaluated. The Commercially LOWEST BIDDER shall be the first preferred Vendor for award of Order.
2. **first sealed cover – Cover I**, and super scribed as **“Technical Bid”** and should contain Complete Technical details of the Instrument offered (Specifications, Technical Parameters, Advantages, etc.,)
3. The **second sealed cover – Cover II** super scribed **'Price Bid'** should contain **only rates** (should be duly signed with seal and filled with date wherever necessary)
4. THESE TWO COVERS SHALL BE AGAIN PUT INTO A SINGLE WAX SEALED COVER super scribed **“Square Wave Pulse Generator System.”** and should reach **INSTEM on or before 18-01-2022 before 02.00 P.M”**. This should be addressed to the Purchase Officer, inStem, NCBS campus, GKVK Post, Bellary Road, Bangalore – 65.
5. **Original Equipment Manufacturer or Authorised Dealers should provide Authorized Distribution Certificate along with the Quotation.**
6. Quotations must be submitted giving complete details using enclosed tender papers.
7. **The rates quoted should remain valid for a period of 60 days from the date of Price Bid opening.**
8. Each page of the tender except the Price & Delivery part shall be on printed letterheads or forms and bear the signature, date, name and designation of the person signing the offer. If they are not on letterheads, a rubber stamp indicating full name, address and phone No., Telex No., Fax No. etc. of the firm shall be affixed at the end of each page. The price & delivery part shall be as Annexure B attached.
9. Bids containing erasures or alterations are liable to be rejected unless countersigned by the Authorised signatory.
10. All rates and total amount should be written both in figures and in words and if there is any discrepancy between the two, the lowest amount only will be considered.
11. If the item offered is to be imported, arrangements for import will be made by the Institute. Import duty and customs clearance will be under purchaser's scope.
12. We reserve the right to place order for part/reduced quantity than what is specified in the tender and also reserve the right to split the order to more than one supplier.
13. Please return the tender papers including Conditions of Tender as well as the Annexures with your signature, rubber stamp and date affixed on each page.
14. All bids in response to this invitation of tender should be submitted in a manner and method specified. Tender which do not comply with the above conditions are liable to be rejected.
15. Late and delayed tenders will not be considered. Therefore, tenderers shall ensure that the tender reaches the Purchaser on or before the due date and time stipulated for receipt of bids.





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TENDERS RECEIVED LATE OR AFTER THE DUE DATE WILL NOT BE CONSIDERED. INSTEM RESERVES THE RIGHT TO ACCEPT, REJECT ANY OR ALL TENDERS WITHOUT ASSIGNING ANY REASONS THERE OF.

16. Individuals signing the bid form and other supporting documents must specify the capacity in which they sign, like -
- Whether signing as a Sole Proprietor of the firm or his attorney.
 - Whether signing as a partner of the firm or his attorney
 - Whether signing for the firm as Agent.
 - Whether signing as Director of a Limited Company.
17. CATALOGUE/TECHNICAL LITERATURE
All necessary catalogue/drawing literature/data and details of item/s as are considered to be essential for full and correct evaluation of the bid shall invariably accompany the bid.
18. AUTHORITY OF AGENTS
In case where a bid is submitted by an Indian Agent on behalf of his foreign principal, such bid should be supported with a letter of Authority from the principal that the Indian Agent has been authorised to submit the bid on behalf of the principal. The indigenous manufacturers shall submit their bids directly.
19. PRICE
The tender to be quoted in foreign currencies & any other currencies approved/traded by RBI-USD/Euro/JPY/GBP/SGD/CAD/INR. The price/s quoted shall be firm till the complete execution of the order. All details relating to price, price breakup, inland transportation, documentation, taxes and duties, levies, Road/AIR/Marine freight charges, delivery terms (ex-works/F.O.R/F.O.B/CIP) mode of payment, mode of Dispatch, Insurance, Agency Commission, if any, should be clearly stated. For indicating the price, the tenderers may choose any/all of the following:
- Ex-works (all other charges to be indicated separately).
 - F.O.R. site (i.e. Freight, Packing & Forwarding, loading on to the transport, documentation etc. included.) Internal transportation, Freight, Insurance, etc. to be shown separately.
 - F.O.B (cost of goods, Packing & Forwarding, Inland Transportation, Documentation, etc. till the item is loaded on to the cargo carrier). Freight & Insurance charges to be separately indicated.
 - CIP (cost of goods, packing & forwarding, documentation, freight, insurance, etc. all included). However, freight & insurance charges to be indicated separately.
- INSURANCE TO BE COVERED TILL inStem STORES.**
20. VALIDITY OF BIDS
The bids should be valid for a period of 60 days from the date of opening of the Price bids. Bids with shorter validity period are liable for rejection.
21. DELIVERY
The tenderer should clearly mention the time required for supplying the item. The period of delivery will be counted (a) from the date of receipt of the order in case of Indian supplier and (b) from the date of opening of letter of credit/receipt of order (in the case of sight draft/advance draft) for foreign suppliers. The delivery date is the date at which the equipment should be delivered at INSTEM.
22. PACKING
The item should be packed appropriately so that it can sustain transit hazards, multiple landing, warehousing, etc. during transit.
23. PLACE OF DELIVERY
In the case of items indigenously manufactured, ALL DELIVERIES shall be effected to the Institute for Stem Cell Science and Regenerative Medicine, GKVK, Bellary Road, Bangalore-560065, whereas the





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foreign suppliers shall effect delivery up to Bangalore Airport, India by AIR only unless otherwise specified.

24. GUARANTEE/WARRANTY

The item/s covered under this tender shall be subject to a guarantee for trouble free performance, workmanship, material etc., fulfilling the specifications mentioned in this tender for min. **24 months** from the date of commissioning. If any defect is found in the material, workmanship or performance during the guarantee period the same may either be repaired/replaced by the supplier as the case may be free of charge. The guarantee period for replacement of parts or repair work shall be same as above. A guarantee certificate to this effect should be forwarded to us with your invoice. For order placed on foreign suppliers, the supplier shall specifically confirm that their Indian representatives, if any, will provide with after sales service and will attend to any repairs or technical problems that may arise.

25. PERFORMANCE B/G

The successful bidder shall have to execute a performance B/G in accordance with the guarantee/warranty for 3% value of the order. This B/G has to be executed on an appropriate value of stamp paper in terms of a bank guarantee drawn on any Nationalized Bank or first class Foreign Bank and shall remain valid till the completion of the Defect Liability period/warranty period, with **6 months** claim period.

26. TAXES AND DUTIES

The Centre shall deduct all taxes and duties, as applicable, from time to time from the bills payable.

27. PAYMENT TERMS

90% against delivery; balance 10% on Installation subject to receipt of PBG for 3% Order Value.

28. CLARIFICATIONS

After opening the bids, if it becomes necessary for the purchaser to seek clarifications from the bidders, the same will be sought from the bidders. In such an event, the bidders will furnish all technical information / clarifications to the purchaser to reach on or before the due date fixed for that purpose, indicating the Purchaser's tender reference. If the technical clarifications sought do not reach on or before the date fixed, the bids shall be summarily rejected without any further notice.

29. RISK CLAUSE

Notwithstanding the other terms therein, the Centre at its option will be entitled to terminate the contract and to avail from elsewhere; at the risk and cost of contractor; either the whole of the contract or any part which the contractor has failed to perform within the time stipulated or if the same performance is not available, the best and the nearest available substitute thereof. The contractor shall be liable for any loss which the Centre may sustain by reason of such risk contract in addition to penalty.

30. DISPUTE AND RESOLUTION

Any dispute or differences between the parties that cannot be settled by mutual discussion at appropriate levels shall be referred to the sole arbitration of the Director, INSTEM or his nominee and his decision in the matter shall be final and binding upon the parties to the dispute. The venue of arbitration proceedings shall be Bangalore. In respect of any matters pertaining to such arbitration, the courts of law in Bangalore will have exclusive jurisdiction.

31. For imported items, final price after totaling the prices of the individual items has to be mentioned with estimated freight, insurance, etc. The price shall be FOR CIF/CIP BANGALORE AIRPORT.

32. INSTEM reserves the right to split the quantities or reject one or more offers in full or part without any reasons. Therefore, INSTEM decision is final and binding.





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33. The quantity mentioned in the tender may be decreased/increased while ordering. However, the price quoted should be firm irrespective of change in the quantity.
34. **ACCEPTANCE OF TENDERS**
INSTEM does not pledge itself to accept the lowest/ any tenders and reserves to itself the right to accept the whole or part of the tenders or a part of the quantity offered.
35. The firm may quote in Foreign Currency for direct import on CIF/CIP basis as well as in Rupees on FOR INSTEM basis for local supply. Please indicate insurance, freight and other charges separately for direct import.
36. Your Service Engineer should be fully trained to install the equipment and capable of maintaining the equipment during / after the warranty period.

37. LIQUIDATED DAMAGES:

The successful bidder will have to agree that in case the item is not supplied within the agreed delivery schedule and after a grace period of seven days, then Liquidated Damages (not in terms of penalty) will be imposed automatically and be deducted from their bill at the rate of 0.5% per week subject to a maximum of 10% of the order value.

Since INSTEM is a Public Funded Research Organisation, registered under Government of India Notification No.51/96 – Customs and 10/97 – for Central Excise is applicable for the items listed in the notification.

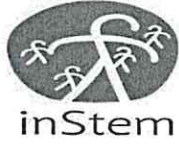
For and on behalf of
Institute for Stem Cell Science and Regenerative Medicine



Purchase Officer

GKVK Post, Bellary Road, Bangalore 560 065. India
Phone +91-80-23666341 /344/345/346
purchase@instem.res.in . www.instem.res.in





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As per O.M No. F.No.6/18/2019-PPD, dt.23/07/2020, the following condition to be fulfilled and the bidder to submit the following declaration on their Letter head.

I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is Registered with the Competent Authority.

II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

III. "Bidder from a country which shares a land border with India" for the purpose of this Order means:-

a. An entity incorporated, established or registered in such a country; or

b. A Subsidiary of an entity incorporated, established or registered in such a country; or

c. An entity substantially controlled through entities incorporated, established or registered in such a country; or

d. An entity whose beneficial owner is situated in such a country; or

e. An Indian (or other) agent of such an entity; or

f. A natural person who is a citizen of such a country; or

g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.





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Annexure – 1

Bid Security Declaration for Order Value > Rs.5 Lakh
(to be submitted on Company's Letter Head)

I/We the undersigned hereby declare that if we withdraw or modify the bids during the period of its validity, or if we are awarded the contract and fail to sign the contract, or to submit a performance security before the deadline defined in the request for bids document or fail to execute the contract, we will be suspended for the period of time specified in the request for bids document from being eligible to submit bids for contracts with the entity that invited the bids.

Name and Signature
of Authorized Signatory
and Company Seal



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Declaration of Compliance of Order (Public Procurement No.1, 2 & 3) dtd 23-Jul-2020 & 24 Jul 2020 on Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017

This declaration must form part of all tenders & it contains general information and serves as a declaration form for all bidders. (Before completing this declaration, bidders must study the General conditions. Definitions, Govt Directives applicable in respect of Public Procurement No.1, 2 & 3) dtd 23 Jul 2020 & 24 Jul 2020 on Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017 & prescribed tender conditions).

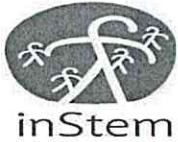
DECLARATION BY AUTHORISED SIGNATORY OF THE FIRM

I, the undersigned, (full names), do hereby declare, in my capacity as of M/s. (name of bidder entity), that:

- 1) The facts contained herein are within my own personal knowledge.
- 2) I have read the Order (Public Procurement No.1, 2 & 3) dtd 23 Jul 2020 & 24 Jul 2020 on the subject of Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017 regarding restrictions on procurement from a bidder of a country which shares a land border with India and comply to all the provisions of the Order.
- 3) I certify that M/s. (name of bidder entity) ***is not from such a country or, is from such a country (strike out whichever is not applicable)***, has been registered with the Competent Authority. I hereby certify that the SUPPLIER fulfills all requirements in this regard and is eligible to be considered. (Where applicable, evidence of valid registration by the Competent Authority is attached).
- 4) I understand that the submission of incorrect data and / or if certificate / declaration given by M/s. (name of bidder entity) is found to be false, this would be a ground for immediate termination and further legal action in accordance with law as per clause 12 of the Public Order on Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017.

AUTHORISED SIGNATURE: _____ **DATE:** _____

Seal / Stamp of Bidder



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ANNEXURE-A-SPECIFICATIONS

Square Wave Pulse Generator System -Qty 02 Nos.

1. The Electroporation system should be a square wave pulse generator designed for in vitro and in vivo applications, viz. for gene, drug and protein delivery includes: CRISPR, mammalian cells, in vivo, ex vivo tissue, zebra fish tissue and embryos, nuclear transfer, embryo manipulation, plant protoplast and basic bacteria and yeast transformations.
2. The Electroporation system generator coupled with the **Petri Pulsar electrode** or the **adherent cell electrode** allows researchers to avoid the trypsinisation of their cell by electro orating adherent cells directly in the dish they are growing in.
3. The Electroporation system can be combined with the **Pulse Switcher** to incorporate automatic bipolar switching into electroporation protocols. Polarity switching enhances transfection efficiency by preventing transfectant accumulation at a single electrode and enhancing delivery to the target cells or tissue.
4. Should have Ready-to-use optimised protocol is available for successful nucleofection in wide variety of samples including skeletal muscles, lymphoid cells, blood cells, yeast cells, fibroblasts, Jurkat cells, Bone marrow cells and many more.
5. Should possess below salient features:
 - A wide range of voltages from 5 to 3,000 V.
 - Pre-Pulse Resistance Check, Over-Current Pulse Abort, and Instrument Arc Protection Safety Features.
 - Easy to use touchscreen user interface.
 - Logs of every pulse delivered for QC and troubleshooting.
 - Display Type: 7 inch color touchscreen user interface.
 - Power Source Voltage: 100 to 240 VAC, 50 to 60 Hz, CAT II Power 500 W (Pulsed), 50 W (Idle).
 - Fusing: Type 3AG, 5 A, 250 V; Type T (time delay).
 - Operating Temperature: 10°C to 40°C.
 - Cooling: Convection through metal case.
 - Relative Humidity: 60%.
 - Altitude: 2,000 m (operating).
 - Footprint: 12.75" x 11.25" x 8.5" (W x D x H).
 - Weight: 16.0 lb (7.3 kg).
 - Charge Time LV <7 s, HV <4 s.
 - Pulse Length: Range 10 μ s – 999 μ s LV Mode/ 1 μ s resolution 1 msec – 999 msec LV Mode/ 1 msec resolution 1 sec – 10 sec LV Mode/ 0.1 sec resolution 10 μ s – 600 μ s HV Mode/ 1 μ s resolution.
 - Multiple Pulsing: 1 – 99.
 - Pulse Interval: 100 msec – 10 sec.
 - Programmability: Storage up to 1000 User Defined Protocols.
 - Safety: Pre-pulse Sample Resistance check, Over-current Pulse Abort, Instrument Arc Protection
 - Capacitance: 3,775 μ F LV, 85 μ F HV.
6. Should come with Foot Pedals & Footswitches (2 no), for hands-free system operation of electroporation and microinjection systems when conducting in vivo/in ovo gene delivery or nuclear transfer/cloning when both hands are needed for sample manipulation. It functions like the “Start” button on the front of the instrument. Once all the parameters are dialed in, simply press and release to activate pulse delivery or abort a pulse sequence.
7. Should be accompanied with one Platinum Tweezertrode, 5 mm Diameter, which may be used for many in vivo applications, including in utero and ex-vivo gene transfection, electroporation therapy, and transdermal drug delivery. Along with 2 no. of Adapter Banana Plug Cables, Red and Black.





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8. With below Proprietary features:

- Proprietary AC wave form for benign electrophoretic alignment of cells.
- Automatic Polarity Switching to enhances transfection efficiency by preventing transfectant accumulation
- Enhancer Monitoring System to tracks key parameters including waveform, pulse lengths, peak amplitude, pulse intervals, field strength, and AC duration.
- HT system comes with an advantage for processing multiple samples in seconds.
- In ovo, in utero applications with specialty electrodes.
- Specialty electrodes (Platinum Tweezertrodes™ and Genepaddles™) for improved transfection.
- System can be used for Gene Silencing with inhibition and cell viabilities of up to 90%.
- System designed to perform transfection even with least voltage of 5 V, Arc Quenching™ mechanism minimizes sample damage caused by arcing
- Designed with plug and play system to facilitate transition between standard cuvettes and 96 or 25well electroporation plates using HT plate handler.





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INFORMATION TO TENDERERS

The Tender shall be evaluated under 2 (Two) Bid System

I Technical Bid

II Financial Bid

TECHNICAL SPECIFICATIONS FOR 2 PART TENDER FOR “Square Wave Pulse Generator System - Qty 02 Nos”.

Technical Specifications

1. The Electroporation system should be a square wave pulse generator designed for in vitro and in vivo applications, viz. for gene, drug and protein delivery includes: CRISPR, mammalian cells, in vivo, ex vivo tissue, zebra fish tissue and embryos, nuclear transfer, embryo manipulation, plant protoplast and basic bacteria and yeast transformations.
2. The Electroporation system generator coupled with the **Petri Pulsar electrode** or the **adherent cell electrode** allows researchers to avoid the trypsinisation of their cell by electro orating adherent cells directly in the dish they are growing in.
3. The Electroporation system can be combined with the **Pulse Switcher** to incorporate automatic bipolar switching into electroporation protocols. Polarity switching enhances transfection efficiency by preventing transfectant accumulation at a single electrode and enhancing delivery to the target cells or tissue.
4. Should have Ready-to-use optimised protocol is available for successful nucleofection in wide variety of samples including skeletal muscles, lymphoid cells, blood cells, yeast cells, fibroblasts, Jurkat cells, Bone marrow cells and many more.
5. Should possess below salient features:
 - A wide range of voltages from 5 to 3,000 V.
 - Pre-Pulse Resistance Check, Over-Current Pulse Abort, and Instrument Arc Protection Safety Features.
 - Easy to use touchscreen user interface.
 - Logs of every pulse delivered for QC and troubleshooting.
 - Display Type: 7 inch color touchscreen user interface.
 - Power Source Voltage: 100 to 240 VAC, 50 to 60 Hz, CAT II Power 500 W (Pulsed), 50 W (Idle).
 - Fusing: Type 3AG, 5 A, 250 V; Type T (time delay).
 - Operating Temperature: 10°C to 40°C.
 - Cooling: Convection through metal case.
 - Relative Humidity: 60%.
 - Altitude: 2,000 m (operating).
 - Footprint: 12.75" x 11.25" x 8.5" (W x D x H).
 - Weight: 16.0 lb (7.3 kg).
 - Charge Time LV <7 s, HV <4 s.
 - Pulse Length: Range 10 μ s – 999 μ s LV Mode/ 1 μ s resolution 1 msec – 999 msec LV Mode/ 1 msec resolution 1 sec – 10 sec LV Mode/ 0.1 sec resolution 10 μ s – 600 μ s HV Mode/ 1 μ s resolution.
 - Multiple Pulsing: 1 – 99.
 - Pulse Interval: 100 msec – 10 sec.
 - Programmability: Storage up to 1000 User Defined Protocols.
 - Safety: Pre-pulse Sample Resistance check, Over-current Pulse Abort, Instrument Arc Protection
 - Capacitance: 3,775 μ F LV, 85 μ F HV.





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6. Should come with Foot Pedals & Footswitches (2 no), for hands-free system operation of electroporation and microinjection systems when conducting in vivo/in ovo gene delivery or nuclear transfer/cloning when both hands are needed for sample manipulation. It functions like the "Start" button on the front of the instrument. Once all the parameters are dialed in, simply press and release to activate pulse delivery or abort a pulse sequence.
7. Should be accompanied with one Platinum Tweezertrode, 5 mm Diameter, which may be used for many in vivo applications, including in utero and ex-vivo gene transfection, electroporation therapy, and transdermal drug delivery. Along with 2 no. of Adapter Banana Plug Cables, Red and Black.
8. With below Proprietary features:
 - Proprietary AC wave form for benign electrophoretic alignment of cells.
 - Automatic Polarity Switching to enhances transfection efficiency by preventing transfectant accumulation
 - Enhancer Monitoring System to tracks key parameters including waveform, pulse lengths, peak amplitude, pulse intervals, field strength, and AC duration.
 - HT system comes with an advantage for processing multiple samples in seconds.
 - In ovo, in utero applications with specialty electrodes.
 - Specialty electrodes (Platinum Tweezertrodes™ and Genepaddles™) for improved transfection.
 - System can be used for Gene Silencing with inhibition and cell viabilities of up to 90%.
 - System designed to perform transfection even with least voltage of 5 V, Arc Quenching™ mechanism minimizes sample damage caused by arcing
 - Designed with plug and play system to facilitate transition between standard cuvettes and 96 or 25well electroporation plates using HT plate handler.





inStem

Ref: INS/F-5435/2021-2022(Y)

COVER – II PRICE BID

Square Wave Pulse Generator System -Qty 02 Nos

Sl. No.	Item Description	Qty	Unit Price	Total Price

Please enter Unit Price, Total Price and Grand Total in figures as well as words. Unit price and Total Price may be entered below each item.