DRAFT - Statement of Work (SOW) - DRAFT

Title: NCCIH – Electrophysiology System Setup
Agency: NIH/NCI/NCCIH/SCC

Requiring Activity Name: National Institutes of Health (NIH), National Center for Complementary and Integrative Health (NCCIH) Chesler Lab, Section on Sensory Cells and Circuits (SSC)

1. Scope

This requirement is for the purchase of a Single Cell Electrophysiology System that includes the following: An Axon Multiclamp 700b System, Digidata 1550b1 Data Acquisition System, and pClamp 11 software operating system.

2. Background

The National Institutes for Health (NIH), National Center for Complementary and Integrative Health (NCCIH), a center at the National Institutes of Health, requires the purchase of

The purpose of the acquisition is to characterize neuronal properties in more depth NCCIH seeks to investigate the electrical properties of single neurons. The electrophysiology instruments that NCCIH seeks to procure will allow the Section on Sensory Circuits and Cells to identify and characterize which channels are expressed in specific neurons and to further our understanding about how single neurons behave in the neuronal circuits under study.

3. Objectives

To understand the neural mechanisms underlying pain behavior, neural recordings must be performed in awake behaving mice. The NCCIH Chesler Lab, Section on Sensory Cells and Circuits (SSC) performs optical imaging as a readout of neural activity in living animals.

This acquisition is for the Single Cell Electrophysiology System configured to specific technical specifications of hardware and software, with delivery to an NCCIH office in Bethesda, MD.

Brand Name Justification: Recording electrical activity requires a specialized signal amplifier to measure the small electrical changes that take place across the plasma membrane. Since these electrical measurements are analog signals, they must be converted to digitized information before they can be recorded on a computer. This operation requires specialized software that communicates with the digitizer and allows the experimenter to control various parameters. The devices must be compatible to existing equipment of existing systems utilizing the Axon Multiclamp 700b amplifier, Digidata 1550b1 digitizer, and pClamp 11 software currently in use for the requirement. Currently the NCCIH, Section on Sensory Cells and Circuits has 3 other systems to which the equipment to be purchased must match to ensure data continuity.

4. Requirements

Contractor shall provide an Axon Multiclamp 700b System, Digidata 1550b1 Data Acquisition System, and pClamp 11 software:

Specifications:

1. Multiclamp 700b System including the following:
   - Microelectcrode Amplifier
   - Resistor Feedback
   - Computer Controlled, Two (2) Channels, Two (2) Headstages (CV 7B)
   - Region-Specific Power Cord

- Accessory Kit Containing:
  - USB Cable
  - Two (2) Baseplates for attaching headstages to manipulator
  - Two (w) HL-U Electrode Holders
  - Two (2) 1mm Pins MultiClamp
  - Commander Software CD
- One-Year Warranty covering parts and labor by the manufacturer

2. Digidata 1550B1 Low-Noise Data Acquisition System plus 1-Channel Humisilencer Adaptive Noise Cancellation
   - Digidata 1550B1 Rack-Mountable Main Unit containing:
     - USB 2.0 Cable
     - Region-Specific Power Cable
     - AxoScope 10 software CD
     - Quick-Start Guide
   - One-Year Warranty covering parts and labor

3. pClamp 11 Acquisition Software
   - Clampex 11 USB Security Key
   - Clampfit Advanced Analysis Module 11 SB Security Key
   - One-Year Warranty covering parts and labor

5. Contract Type

Firm Fixed-Price (FFP)

6. Administration – Points of Contact (POC)

Contracting Officer (CO): Michael Collins
Email: michael.collins3@nih.gov

Contracting Officer Representative (COR): James Thompson
Email: james.thompson@nih.gov

7. Packaging, Packing, and Shipping Instructions

The Contractor shall ensure that all items are preserved, packaged, packed and marked in accordance with best commercial practices to meet the packing requirements of the carrier and to ensure safe and timely delivery at the intended destination. All data and correspondence submitted shall reference:

1. The Agency Delivery Order Number
2. The ECS III Delivery Order Tracking Number
3. The government end user agency
4. The name of the COR

Containers shall be clearly marked as follows:

1. Name of contractor
2. Attn: NIH/NCCIH, Attn: Max Nagel
3. The name of the COR, James H Thompson
4. The Agency Delivery Order Number
5. The ECS III Delivery Order Tracking Number
6. Description of items contained therein

7. Consignee(s) name and address NIH/NCCIH 35 Convent DR, Bldg 35a RM 1D804, Bethesda, MD 20892, ATTN: Max Nagel

The contractor **shall ship by trackable or schedulable package-service with inside-delivery** (for example: FedEx or UPS), so that NCCIH can arrange appointments to receive the delivery. “Inside Delivery” must include delivery to the lobby entry door of the suite described in the delivery address.

The Contractor shall provide by email to the Point-of-Contract (POC) listed herein all tracking numbers or delivery arrangements to the COR no later than 24 hours before delivery, to ensure NCCIH staff is present to receive the shipment, due to current public health emergency orders. Contractor shall provide tracking numbers via email to POC prior to 24 hours from delivery. Phone calls for this purpose are not acceptable for providing notice of delivery.

ECS III – Shipping Address

Title: NCCIH – Electrophysiology System Setup

Agency: NIH/NCI

NCCIH – Electrophysiology System Setup delivered to:

NIH/NCCIH, Attn: Max Nagel
35 Convent Dr, BLDG 35a RM 1D804
Bethesda, MD 20892
POC Email: max.nagel@nih.gov

Delivery Date(s): Delivery shall occur within 60 calendar days from date of award.

8. Inspection and Acceptance Criteria

Acceptance Criteria: NCCIH will examine the manufacturer’s build-sheet and physically examine sample systems to compare them against the SOW requirements for acceptance.

9. Accounting and Appropriation Data and Invoicing

Base Funds are available under Purchase Request # TBD.

10. Other Pertinent Information or Special Considerations

All prices shall be all inclusive – Including but not limited to any shipping, handling, special delivery fees, customs, FedEx, UPS etc.

NCCIH’s custom configuration selections and the resultant requirements are based on equipment, software and options available on 21 APR 2021. Discontinuation or replacement of a manufacturer’s model line may alter the configuration options available. Any substitution shall meet or exceed the performance, capability, or capacity of the original requirement.