

DEPARTMENT OF VETERANS AFFAIRS

Justification and Approval

For

Other Than Full and Open Competition

1. **Contracting Activity:** Department of Veterans Affairs, VISN 1 Contracting (650/90C), on behalf of Neuroscience Research (127A), West Haven, CT.
2. **Nature and/or Description of the Action Being Processed:** The proposed action is a new sole-source award of a firm-fixed price order to Micro Video Instruments, the authorized bioscience and clinical distributor and dealer of Nikon Instruments, Inc. for a complete, turnkey Nikon-Ti-E Inverted Microscope System and peripherals. This is a sole-source justification with respect to the peripheral items to be configured with the complete system and a Limited Source justification with respect to the Nikon-TI-E Inverted Microscope system under FSS schedule 66, a mandatory VA schedule (GS24F-1333C).
3. **Description of Supplies Required to Meet the Agency's Needs:** The vendor will supply the following items, in addition to complete set-up, extended training and warranty and FOB shipping:

(Schedule 66 Items)

Ti-E Inverted Microscope

- Ti-HUB-C/A Hub Controller A
- Ti-AC/A AC Adapter for HUB C/A
- Ti-AC120 Power Cord 120v
- Ti Shutter Trigger Cable/Sutte
- Ti-T-B Eyepiece Base Unit
- Ti-TD Eyepiece Tube D
- Cfi 10 X Eyepiece F.N. 22mm
- Ei-S-ER Motorized Stage with Encoders
- Ti-S-C Motorized Stage Controller
- Power Cord - 8ft
- Ti-SH Universal Holder for Motorized Stage
- Ti-SH Well Plate Holder for Motorized Stage
- Ti-SH Stage Ring Holder for Motorized Stage
- Ti-S-EJOY Joystick for Motorized Stage
- Ti-ND6-PFS Perfect Focus w/Motorized Nosepiece
- Ti-DH Dia Pillar 100w Illuminator
- Ti-CT-E Motorized Condenser Turret
- Ti-C-LWD LWD Lens Unit for System Condenser Turret
- Te-C Lwd Ph1 Module
- Te-C Lwd Ph2 Module
- Te-C Lwd Ph3 Module
- T-P2 DIC Polarizer
- Ti-A Analyzer Block Installs in Epi Fluor Turret

- T-C DIC Module LWD NR Dry
- D-DIC Slider 100x I-R
- CFI Plan Fluor DLL 10x Obj na 0.3 wd 16mm
- CFI Super Plan Fluor ELWD 20xc ADM Objective
- CFI Super Plan Fluor ELWD 40xc ADM Objective
- Ti-FLC-E Motorized Epi-Fluor Filter Turret
- Ti-FL Epi-Fluorescence Attachment
- C-HGFIB HG 100w Adapter
- Nikon Elements Software  
and Digital Imaging Workstation
- CPU: Pentium IV 3.2 GHz or higher
- RAM:1GB or higher
- OS:Windows XP Professional SP2
- Hard disk:600MB or more required for installation
- Video:1280X1024 dots, True Color mode
- NIS-A 6D NIS-Elements Module: 6D imaging-acquisition module for 6 dimensional imaging. Includes:  
time, channel
- NIS-D Shutter NIS-Elements Hardware Module: Wavelength Control
- Device control for Sutter, Prior and Uniblitz illumination devices including shutters and filter wheels.
- NIS-Elements Module AQI 3D Blind Decon - Widefield32 Bit

The Vendor will supply the following open market peripheral and support items along with configuration, training, set-up and technical support:

- CFI Plan Apo Lambda 100x Oil
- Immersion Oil 50 CC Type A Oil PCB Free
- DAPI Filter Set Hardcoat/Sputtered
- GFP/FITC Filter Set Hardcoat/Sputtered
- Red Shifted TRITC/DSRed Hardcoat/Sputtered
- Nikon cube / TE-Ti & i series
- RGB LED Illumination Source
- Lumencor Sola Illuminator
- 15,000 hour life on "bulb"
- Full Perimeter Enclosure
- With Temperature, CO2 and Humidity Control
- Nikon Environment with CO2 Flow Control

#### TMC ANTI-VIBRATION TABLE:

- TMC Anti-Vibration Table
- TMC Antivibration Table 30" X 48"
- Front Support Bar 48"
- Rear Support Bar 48"
- Armrest Pad
- Casters, Set Of 4
- Space Saver Rack System
- Kit to Mount Front & Rear Support Bar Option

#### LARGE-FORMAT, HIGH SENSITIVITY

- Cooled EM-CCD Monochrome Camera
- iXON X3 EMCCD Detector 1024x1024 - 13um
- ArrayBackthinned 95% QE
- TE Cooled -85 C
- Linear Gain
- Baseline Clamp
- Order CCI-23 Interface Separately
- PCI Express Card - iXON Camera
- 1.0x C-Mount F/Nikon 38mm Iso Port

#### CONFOCAL IMAGING WORKSTATION:

- Confocal Imaging Workstation 64bit PC Workstation supplied with Intel
- Core i7 SIPP 2.8 GHz processor, 16GB DDR3 RAM, Gigabit LAN adapter (2), USB keyboard and laser mouse, and 3D mouse. 1GB display adapter (supports two monitors), 16x BluRay/DVD/CD writer, RAID 1 mirrored 1 TB SATA hard drive, with integrated audio , and 7 outlet surge protector. Installed with Windows 7 64bit Professional
- LCD Flat Panel Monitor 27" 1920 x 1080 Native Resolution Dot Pitch
- Input Signal: RGB (Analog)
- DVI-D (Digital)
- Component Video
- S-Video
- Viewing Angle 178 Degrees Horizontal / 178 Degrees Vertical Wall-mountable - VESA
- 1920 x 1200 Native Resolution
- 16.7 Million Colors (24-bit)
- Aspect Ratio 16:10
- Contrast Ratio 1000:1
- Interface Ports: 1 x 15-pin D-Sub (HD-15) VGA
- o 1 x DVI-D
- o 1 x Component Video
- o 1 x S-Video
- o 1 x Composite Video
- o 1 x 4-pin USB
- o 2 x 4-pin USB

#### 4. Statutory Authority Permitting Other than Full and Open Competition:

With respect to the compulsory schedule 66 items a limited source justification is applicable under FAR 8.405-6; with respect to the ancillary, peripheral components of the systems, the authority is 41 USC 253(c)(1) Only One Responsible Source and No Other Supplies or Services Will Satisfy Agency Requirements, as implemented by FAR 6.302-1

5. Demonstration that the Contractor's Unique Qualifications or Nature of the Acquisition Requires the Use of the Authority Cited Above (applicability of authority): The research service requires a complete, turn-key Nikon Ti-E Research Inverted Microscope and imaging system that can acquire and analyze images of neurons while keeping them healthy on the microscope. The components described herein form a highly

capable and flexible long-term imaging system and solution to current research requirements. At present, the efforts of the Neuroscience Research Service (127A) is expanding to document the changes in sensory neuron morphology associated with expression of pain associated neuron channels. This requires an integrated microscope and imaging system that can acquire and analyze images of neurons while keeping them healthy on the microscope. The system described herein is a long-term live-cell system. Compatible, consistent peripheral support items are necessary. The laboratory is presently equipped with other Nikon equipment and the research team is adept and proficient in their use. In general, the NIKON instruments performs at a high and satisfactory level. To maximize compatibility with existing microscopes and imaging software it is required that this live-cell imaging system be based upon a NIKON system. The system is highly specialized. The components described above comprise a highly capable and flexible long-term live-cell imaging system. The system is built around an inverted microscope with many of its features automated so that it can be controlled by the fully featured image acquisition and analysis software. The system is further equipped with a high performance digital camera and the ability to maintain healthy cells while performing imaging. There are many (eight (8) inverted, three (3) upright and one (1) confocal) NIKON units in the laboratory's inventory; maintaining compatibility between the NIKON components described above with the NIKON microscopes already in inventory is required to enhance productivity and minimize disruption should a component fail. The peripheral equipment not manufactured by NIKON is specifically designed to work together with the NIKON instrument and should be purchased with the NIKON system. Most of the current microscopes are part of patch-clamp electrophysiology rigs that are under heavy use. The requested long-term live-cell imaging system will be enhanced but compatible with the current microscopes.

6. **Description of Efforts Made to ensure that offers are solicited from as many potential sources as deemed practicable:**

This action will be synopsisized to FedBizOpps, the Government Point of Entry (GPE). This justification will be posted to FBO. Interested vendors will be referred to the requesting service.

7. **Determination by the Contracting Officer that the Anticipated Cost to the Government will be Fair and Reasonable:** The requesting service has evaluated the price of the system and considers it fair and reasonable. A determination of price-reasonableness will be made with input from the requesting service, based upon the commercial price of the product with any discounts and prices paid by other medical facilities. The vendor is offering a 9.2% GSA Contract discount. Open market items contain a promotional discount.

8. **Description of the Market Research Conducted and the Results, or a Statement of the Reasons Market Research Was Not Conducted:** Dr. Estacion, a member of Dr. Stephen Waxman's research group, has extensive live-cell imaging experience and has actively monitored the on-going developments with live-cell imaging related vendors. A decision on compatibility was made, informed by a comparison of the subject acquisition and existing equipment and instruments and in view of the overall resources and needs of the research team. The decision on compatibility leads to the conclusion that the instrument and equipment described above represents the best capabilities and value to support the Neuroscience Research team (127A). On-going market research and surveillance continue.

9. **Any Other Facts Supporting the Use of Other than Full and Open Competition:** None.

10. **Listing of Sources that Expressed, in Writing, an Interest in the Acquisition:** See Section 6 above.

11. **A Statement of the Actions, if any, the Agency May Take to Remove or Overcome any Barriers to Competition before Making subsequent acquisitions for the supplies or services required:**

This is a onetime purchase. The members of the research team continue to monitor and survey the market for systems of this kind and for comparable instruments.

12. **Requirements Certification:** I certify that the requirement outlined in this justification is a Bona Fide Need of the Department of Veterans Affairs and that the supporting data under my cognizance, which are included in the justification, are accurate and complete to the best of my knowledge and belief.



\_\_\_\_\_  
Name: Stephen G. Waxman, MD, PhD

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Date: August 5, 2011

Title: Director, Center for Neuroscience and Regeneration Research

13. **Approvals in accordance with FAR 6.304**

a. **Contracting Officer's Certification: (required)** I certify that the foregoing justification is accurate and complete to the best of my knowledge and belief.

Emerson Joslin

Digitally signed by Emerson Joslin  
DN: cn=U.S. Government, ou=Department of  
Veterans Affairs, ou=Internal Staff,  
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c=Emerson Joslin  
Date: 2011.08.05 14:33:24 -0400'

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Name  
Title

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Date: August 5, 2011

b. **One Level above Contracting Officer:** I certify that the foregoing justification is accurate and complete to the best of my knowledge and belief.

Kristine  
Name  
Clark  
Title

Digitally signed by Kristine Clark  
DN: c=US, o=U.S. Government,  
ou=Department of Veterans Affairs,  
ou=Internal Staff,  
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Date

VISN QA: (Required \$3K and above): I certify that the foregoing justification is accurate and complete to the best of my knowledge and belief.

Mary J. Connors

Mary J. Connors, VISN 1 QA

Date: 9/14/11