SUNY DOWNSTATE Medical Center
University Hospital of Brooklyn

VIA EMAIL

DATE: June 16, 2014

TO: Prospective Proposers

FROM: Maureen Crystal
Director of Contracts

RE: Invitation for Bid (IFB) No. Q14-32
Type of Service: Magnetic Resonance Imaging System, Maintenance Agreement and Mobile MRI Unit

---

Addendum No. 2

IFB Q14-32 is hereby amended. The IFB is amended only as set forth in this Addendum No. 2:

- Consisting of Pages (4) pages (*Word/Excel Versions of bid not included in this number*), including this cover page.
- Revisions to Two (2) documents: (Attached to email).
  - *Detailed Technical Specifications (posted PDF pgs.5-15), and*
  - *Cost Proposal Form and Grid page 2 of 2 (posted PDF pg.18*).
- Revised Bidders Cost Proposal Certification (Attached).

All other terms and conditions of the RFP dated March 3, 2014 remain in full force and effect.

Immediately upon receiving this Addendum No. 2, please acknowledge such receipt by providing the information requested below and returning this page only via email to lisandra.reid@downstate.edu or fax at 718-270-3342

_____ _____ _____
Vendor's Name Contact Person Date

DMC Materials Management webpage: www.downstate.edu/materials

IFB Q14-32 IFB

Questions and Answers:

1) Please clarify in detail the new rigging requirements.
   There will be a total of Five (5) rigging:
   a. To install the Mobile MRI on the dunnage
   b. To remove the Mobile MRI off the dunnage after the Mobile MRI is no longer operational
   c. To remove the old MRI Machine and Chiller
   d. To install a new Chiller
   e. To install the new MRI machine

2) Please clarify in detail all of the new requirements pertaining to the mobile MR rental unit.
   New Requirements pertaining to the MRI Mobile Rental is the change from a 70 cm. bore opening to a standard (non-wide bore opening.)

3) Is it acceptable to quote substantially similar mobile MRI system to their proposed scanner (same OEM), vs the requested Siemens Espree.
   Yes, it is acceptable to quote similar MRI Mobile system vs the requested Siemens Espree. Please provide in comment section of MRI Unit Procurement Specifications Excel Grid, any necessary clarification.

4) If a vendor is able to quote a detachable patient table for the MR scanner, would you like vendors to include this patient safety feature
   Yes. We have altered the specifications for the Fixed MRI system to include a detachable patient table.

5) Part Q of the RFP (Procurement General Terms and Conditions). Section IV (Contract), subsection (b) requests that vendors accept the terms of the Customer's standard contract without exception, but also notes that in the event the vendor finds any clause or provision to be unacceptable, we submit a list of exceptions with alternative language proposed. Also, subsection (c) states that although vendor contracts will generally not be accepted as part of the final agreement, there are circumstances where a vendor may insist on using its form contract, in which case we must provide a copy of our contract (deleting terms that are inconsistent with the Customer's form agreement) and an explanation as to why we are incorporating our contract terms into the final agreement. Can SUNY explain this section?
   Due to our extremely aggressive timeline we are not accepting any changes to our Terms and Conditions. Our IFB supersedes our general Section IV subsection(b) and subsection(c)

End.

Q14-32 Part Q Procurement: Magnetic Resonance Imaging System, Rental of Mobile Unit and Maintenance Agreement
REVISED: Vendor Specifications

Background:

The Facility at SUNY- DMC seeks to immediately acquire a Magnetic Resonance Imaging System ("MRI") with a comprehensive Service and Maintenance Package ("Maintenance") and also all equipment, supplies, personnel and any other performance necessary, for the twelve (12) month rental of a Mobile MRI System ("System"), in a designated area located at UHB). The MRI must be either: (i) Siemen's Espree Class Open Bore Model, with specifications conforming to those set forth below; or (ii) a comparable model – one that is "sufficiently similar" (as defined hereinafter) to the above-listed model.

Without intending to limit the generality of the foregoing, and solely to facilitate Vendor's understanding of the performance required by SUNY-DMC hereunder, this Section along with the MRI unit Specification Grid describes in detail the specific requirements, **Contractor** responsibilities, and other pertinent information relative to the Services. The Bidder is solely responsible for meeting all the requirements in this IFB. All Services performed must be compliant and consistent with applicable local, state and federal laws and regulations.

Contract Provisions:

THE OFFEROR ACKNOWLEDGES THAT ITS OFFER IS PREFACED ON ACCEPTANCE ALL TERMS AND CONDITIONS OF SUNY DOWNSTATE FORM CONTRACT "AS IS". ANY CHANGES WILL BE CONSIDERED TO BE A NON-RESPONSIVE BID.

The Contract will contain language that ensures that, for no more than the pricing quoted in the Offeror's Proposal, the Offeror will provide all required services and deliverables of this IFB as described herein, and will perform according to the performance standards set forth in this IFB and the Offeror's proposal.

Vendor Detailed Specifications for Equipment, Maintenance and Rental of Mobile MRI UNIT

The proposed Vendor must meet the following criteria:

1. **MRI Equipment Requirements**: All prospective Bidders are required to provide, at minimum, all the following components or their market and functional equivalents of an MRI machine with the specifications listed below. Please see "MRI Equipment Specifications sheet" below.
    a. **Installation**: "Installation" shall be defined as the installation, calibration, and other setup, of all hardware and software components of the System. Installation shall not be deemed effective until SUNY-DMC's Acceptance of the System
2. **Maintenance Package:** The successful Bidder shall supply a comprehensive support, service, and maintenance package (collectively "Maintenance Package") including the following components 5 year service contract for MRI unit after expiration of the 1 year manufacturer's warranty ends: Please see "MRI Service Contract Details Specifications sheet" below
3. **Mobile MRI Unit**: Arrange for sub-contracting for Mobile MRI Unit according to specifications: Please see "Mobile MRI Unit Specifications" below.
4. **Transportation:** Notwithstanding anything to the contrary stated in IFB, Vendor shall provide for the transportation of all equipment and components thereof to UHB, upon SUNY-DMC's request and after due execution of the Contract.

1. MRI SPECIFICATIONS:

1. 48 channel 1.5 T MR System
2. Short and open appearance 1.5 T MR with 145 cm system -cover to cover - length and with 70 cm Open Bore Design.
3. 48 independent RF receiver channel with up to 204 elements connectivity.
   The force compensated gradient system with 33 mT/m peak amplitude with a slew rate of 125 T/m/s defined as per axis values.
4. External Interference Shield integrated into the magnet. Continuous compensation and automatic suppression of external magnetic field interferences during measurement caused by moving ferromagnetic objects or nearby power lines.
5. All RF transmit and receive components at the magnet.
   Optical RF system.
6. Cylindrically optimized homogeneity volume: no more 3 ppm in 32 cm3 sphere.
7. Comfortable patient table solution which fits the needs for patients up to 450 lbs supporting full weight capacity in vertical and horizontal movement.
8. MRI Safe Patient Monitor for critical patients and anesthesia procedures.
9. Integrated coils for fast patient preparation and enhanced user comfort and exams of patients. In addition, an integrated infusion stand.
10. Display at the magnet with user guidance for fast and efficient exam preparation and start of measurement at the scanner.
11. Display of physiological curves and guidance for patient set up of triggering device.
12. High-performance measurement and reconstruction system with at least 12,195 recons per sec for 256x256 matrix.
13. 48GB RAM for highest level performance for all data sets with efficient reconstruction of various high channel data sets.
14. Wireless Vector ECG / respiration and pulse sensors for physiologically synchronized imaging.
15. Chiller for Helium and Others elements needed to cool the MRI Unit.
16. MRI System software and Applications for use in standard imaging and would allow the modification of pulce sequences for research.
17. Complete range of clinically optimized sequences, protocols and workflow functionalities for virtually all clinical questions. To include various routine applications for Neurology, Angiography, Cardiac imaging, Body imaging, Medical and Radiation Oncology, Breast, Ortho , Pediatrics, etc.
18. Auto coil detection and switching.
19. Localizer for the whole body or large body regions such as the whole spine or the whole abdomen without laser light positioning to streamline the workflow: multi-service coils should be capable to perform the study on the entire spine (Cervical, Thoracic, and Lumbar).
20. Automatic subtraction of images, e.g. pre- and post-contrast enhancements.
21. MIP automatic image subtraction and following MIP in three orthogonal planes.
22. Prospective motion correction in real time.
23. Exchange of protocol data for updates via flashdrive, CDs, or other hard storage media by drag & drop clinical images.
24. Integrated Parallel Acquisition Technique • Two algorithms – Coil sensitivity and alrorith based – for maximum quality for all applications.
25. Software including for 3D volume imaging: Volumetric 3D imaging or comparable software for imaging in the abdominal region or in angiographic examinations.
26. Breath-hold times shorter than 10 seconds for abdominal imaging such as imaging of the Liver.
27. High spatial resolution with high contrast definition 3D imaging at short scan times , possibility to format data in all orientation with available contrast in T2, Dark Fluid , PD , T1 with True IR that can be useful for imaging of the Brain, Spine, Body, and Extremities.
28. User selectable 3D protocols such as "Double Inversion Recovery 3D protocols (DIR SPACE).
29. Inversion pulses for the simultaneous suppression of e.g. cerebro-spinal fluid and white matter.
30. Detection and correction software for respiratory motion of the heart, liver, etc. for free breathing high resolution 2D and 3D examinations in the diagnosis of diseases in moving organs and precise slice registration for multi breath-hold studies.

31. . Diffusion-weighted, readout-segmented (multi shot) EPI sequence for high-resolution susceptibility-insensitive DWI; insensitive to susceptibility effects to provide detailed anatomy-true diffusion imaging for brain, spine, breast and prostate.
32. Diffusion imaging for abdomen and whole body exams including in protocols with multiple b-values a different number of averages may be specified for each b-value.
33. Motion Correction software to improve image quality by minimizing and correcting for the effects of motion during an MR sequence acquisition. e.g. head, spine, orthopedic imaging , breast and the abdomen.
    a. For all coils and in all planes
    b. Supports T2-weighted, T1-weighted, STIR, and DarkFluid protocols
34. More than 512 x 512 resolution T2 / T1-weighted imaging for high resolution fluid-cartilage differentiation, such as Double Echo Steady State.
35. Guided and automated workflows for general brain examinations: Automatically slice positioning and aligns on the anatomically derived sagittal, coronal, and axial slices .The operator-free alignment and anatomical marking are consistent, independently of patient age, head position, or disease.
36. Composing software for creation of full format images useful for spine , central nervous system, and to create vessel trees for mapping of the vascular system.
37. Proton spectroscopy integrated software package with sequences and protocols with fully automated adjustments including localized shimming and adjustment of water suppression pulses. To include clinical applications for imaging of the brain, breast, and prostate with support for “Spin Echo and STEAM techniques.”
38. Comprehensive and user-friendly evaluation of spectroscopy data: display of CSI data as colored metabolite images or spectral overview maps, overlaid on anatomical images.
39. Extension of the Single Voxel Spectroscopy for optimal homogeneity of the larger CSI volumes including outer volume suppression and spectral suppression.
40. Hybrid CSI with combined voIume selection and Field of View (FoV) encoding: for optimal homogeneity of the larger CSI volumes . • Outer Volume Suppression• Spectral Suppression. • Protocols for prostate spectroscopy.
41. Automatic real-time calculation of z-score (t-test) maps for variable paradigms: examination of intrinsic susceptibility changes in different areas of the brain, induced by external stimulation (e.g. motor or visual).
42. Prospective Acquisition Correction with motion correction during the acquisition of a BOLD exam.
43. Comprehensive processing and visualization package for BOLD fMRI.
44. Sequences and protocols for advanced cardiac imaging including 3D and 4D functionalities: advanced techniques for ventricular function imaging, dynamic imaging, tissue characterization, coronary imaging, and plaque characterization.
45. Automatic real-time calculation of Global Bolus Plot (GBP), Percentage of Baseline at Peak map (PBP) and Time-to-Peak map (TTP)
46. Acquisition of data sets with multi-directional diffusion weighting to assess anisotropic diffusion properties of brain tissue. Measurement of up to 255 directions of diffusion weighting with up to 16 different b-values
47. Sequence and protocols for advanced time-resolved (4D) MR angiography and dynamic imaging in general with high spatial and temporal resolution . To offer temporal information of vessel filling in addition to conventional static MR angiography .
48. Software package with sequences and protocols for non-contrast enhanced 3D MRA with high spatial resolution, which will enable imaging of abdominal and peripheral vessel.
49. Inclusion of sequences for quantitative flow determination studies .Non-invasive blood / CSF flow quantification.
50. MR Coils for scanning of the torso, head, spine, and extremities.
51. . The 20-channel Head Neck coil with its 20 integrated pre-amplifiers combined with , Spine , Body, Flex L, Flex Small ,
52. The 32-channel Spine coil with its 32 integrated pre-amplifiers combined with Head / Neck.
53. Body -18: 18-channel design with 18 integrated preamplifiers, combined with Spine , Head / Neck.
54. High resolution flex large coil for imaging of medium to large shoulders, hip and knee- faster imaging which can be combined with Head / Neck Body.
55. High resolution flex large coil for imaging of small to medium shoulder , wrist elbow or ankle - faster imaging which can be combined with • Head / Neck • Body: 16 channel Ultra High Resolution Shoulder-16 Coil shaped in two different sizes to accommodate all type of patients which can be combined with 18 channel Body Coil for extension studies.
56. 16 channel Ultra High resolution hand and wrist imaging:
57. 16 channel Ultra High resolution foot and ankle imaging

58. 16 channel Ultra High resolution Knee imaging
59. 16 channel Breast Biopsy Coil: Ultra High Resolution Variable Coil Geometry Coil, Simultaneous imaging of both breasts in all directions • High-resolution 2D and 3D imaging.
60. Independent workstation to provide the following applications or similar applications:
61. Offline post-processing to generate and visualize parametric maps derived from the diffusion tensor in order to assess anisotropic diffusion properties of brain tissue.
62. Tractography visualization of multiple white matter tracts of the human brain based on data .Tractography to support the pre-surgical planning and to allow for neuro-physiological research with respect to connectivity and white matter pathology.
63. Comprehensive processing and visualization package for BOLD fMRI.
64. Evaluation software for automated image analysis of blood and cerebrospinal fluid (CSF) flow of MR data.
65. 4D Ventricular Function software that processes MR cine images of the heart and generates quantitative results for physicians in the diagnostic process
66. Detailed post-processing of brain perfusion data sets to include Color display of the relMTT, relCBV, and relCBF.
67. Comprehensive and user-friendly evaluation of spectroscopy data: Display of CSI data as colored metabolite images or spectral overview maps, overlayed on anatomical images.
68. TRADE-IN: offer trade-in for currently installed Siemens MR system.
69. Total costs to include RF & Magnetic Leakage, and must be approved by third party surveyor. Moreover rigging, removal of old systems, and placement of new magnet and system.
70. To provide onsite and offsite education support.
71. Inclusion of MR compatible Pressure/Power Injector unit:
72. Consulation and coordination with owner's, architect, and engineer to complete plans for space(s) that the unit will occupy.
73. 5 year service contract for MRI unit after expiration of the 1 year manufacturer's warranty ends: Please next page for service contract details. (see "Service Contract Details")
74. Arrange for sub-contracting for Mobile MRI Unit according specifications (see "Mobile MRI Unit Specifications).
75. The Gradient system with 33 mT/m peak aperture with sluw rate at 125 per Telsa/m/s.
76. Audio system included in scanner package
77. Dicom Storage, Dicom workflow, Dicom MPPS
78. ACR accreditation QC programs with appropriate phantoms which include large, small, or surface coil phantoms.
79. Zero helium boil-off
80. Active noise reduction software
81. One-Year Warranty
82. Detachable Patient Table that can be moved out of the MRI unit in case of an emergency.

2. Maintenance/Service Details:

1. Principal Coverage Period:
   8am-8pm Mon – Friday
2. Uptime Guarantee: 99%
3. Service call reply/response time: 15 minutes
4. Service on-site: Certified Service Engineer arrival time: 2 hours
5. Part(s) order requirement: by Noon Eastern Standard time to assure next day delivery.
6. Unlimited labor coverage on-site during the principle coverage period.
7. Provision of labor rates for service hours outside of principle coverage period, including holidays.
8. Pars Delivery: within 24 hours of part order.
9. Planned Maintenance: the manufacturer's recommended amount of PM's per year.
10. Technical Phone Support: 24 hours/7days per week including Holidays.
11. Real time technical support via remote service connection.
12. Software upgrades via remote update handling.
13. Single point of contact such as a centralized call center provided by the manufacturer for all service calls.

14. Quality Assurance supports to maintain the quality specification as per the equipment/unit specifications, which should include testing, physical safety, electrical, and support system evaluations. A log with the reporting of any findings and their corrective actions should be provided for quality assurance data generation and tracking.
15. Ancillary systems maintenance for all ancillary components of the magnet and coolant/refrigeration units.
16. American College Radiology accreditation assistance to aide in confirming quality of the systems to acquire images for the ACR. Moreover, unlimited technical and clinical application support pertaining to the readiness of the system, including tips and training relative to the ACR accreditation process.
17. Inclusion of an ARRT and NMTCB accredited self-study program that is relative to the latest trends in diagnostic and/or therapeutic imaging which will provide up to 24 category A credits.
18. Provision of system software upgrades, at least 1 successful system computer hardware replacement.
19. Application support including troubleshooting by a certified advanced applications expert, either remotely or direct (hands-on) via remote access to be providing during principle coverage period.
20. Coverage of manufacturers and coils provided by the manufacturer for the unit procurement, that includes their repair and replacement.
21. Subscription to internet learning for up to 3 technologists for up to 12 category A continuing education credits that are recognized by the ARRT and NMTCB annually.
22. Replacement of all spare parts.
23. Coverage of IT service calls concerning server hardware.
24. Scheduled training session provided for IT Administrator.
25. Access to a web-based portal or website that can provide utilization data including the ability to produce reports that can be exported or saved by the user. Moreover should have access to information related to diagnostic imaging equipment such as service, PM management tools, service documentation, service contract management tools, asset management tools, equipment performance reports, etc.
26. Provision of a workstation engines that can be used for post-image generation manipulation, including support of the licensed workstation engines.
27. Inclusion of travel time for Service Engineer to and from our facility during the principal coverage period.
28. Inclusion of on-site parts and labor costs during principle coverage period.

3. Mobile MRI Specifications:

System Requirements:

a. **Equipment Requirements**: For the duration of the rental, the successful bidder shall provide, as to equipment, the following,:

i. Bidder shall supply a mobile magnetic resonance imaging (MRI) system ("System") capable of conducting MRI within the unit in which it is transported and housed. Specifically, the MRI machinery must be mounted and installed upon a transportable unit, i.e. trailer, and capable of safely and accurately conducting MRI scans in said unit. Safety and accuracy shall be determined by SUNY-DMC's certified radiologists and physicists, in compliance with the industry-accepted standards and in consideration of factors such as magnetic fringe field and field homogeneity.

ii. System must, at minimum, meet the following hardware specifications.

1. System must be a Siemens Espree Class Open Bore model, or a system "sufficiently similar" thereto. For the purposes hereof, a sufficiently similar system shall be one that both: (i) is functionally and operationally comparable in all material respects; and (ii) would require less than six hours of training for professionals accustomed to operating the aforementioned model.
2. System must have field strength of 1.5T (15,000 gauss).
3. System must have standard (non-wide bore) opening.
4. System must have a 70 cm. bore opening.
5. System must have gradient strength of at least 30mT/m.
6. System's containing unit must be sufficiently shielded as to provide field homogeneity of less than 3 PPM of 35cm^3 VFOV.
7. System must contain a Patient Monitoring Unit, equipped with ECG, respiratory, and pulse triggering.
8. System must contain an Advanced Array Interface.
9. System must contain all the coils below. Please be advised that all coils must be, at minimum, 8 to 16 channel, where such configuration is manufactured.

a. CP head array coil;
b. CP spine array coil
c. CP neck array coil
d. CP body array coil;
e. CP extremity coil (for knee imaging);
f. CP large flex coil;
g. CP small flex coil;
h. CP breast coil;
i. Wrist coil;
j. Lower extremity coil (for foot and ankle imaging);
k. Large loop flex coil;

b. **Software Requirements**: For the duration of the rental, the successful bidder shall provide, as to software, the following:
   i. System must be equipped with Syngo software, preferably version 2004-revision-B, with corresponding iPAT software.
   ii. System must be equipped with 1-Dimensional and 2-Dimensional Prospective Acquisition Correction software.
   iii. System must be equipped with INLINE Processing software.
   iv. System must have CORE Basic and CORE Plus sequence and application packages generally associated with Siemens Syngo platforms.
   v. System must be equipped with Patient Observation software.
   vi. System must be equipped with a DICOM modality worklist.
   vii. System must be equipped with a DICOM query/retrieve provider with Storage SCP.
   viii. System must be equipped with 3D MPR, 3D SSD, and 3D MP.
   ix. System must be equipped with Advanced 3D, for specialized applications for inner ear and orthopedic studies.
   x. System must be equipped with an Advanced Angio package, for contrast enhanced angiography applications and advanced angio and abdomen applications.
   xi. System must be equipped with an Advanced Turbo package, for MRCP and other abdomen examinations.
   xii. System must be equipped with an Advanced Cardiac package, for comprehensive cardiac imaging.
   xiii. System must be equipped with a Care Bolus, for contrast enhancement of arterial vessels in contrast-enhanced MRA.
   xiv. System must be equipped with a Panoramic Table, for moving table applications such as peripheral vascular examinations.
   xv. System must be equipped with Echo Planar Imaging, for diffusion perfusion of brain scans.
   xvi. System must contain a Single Voxel Spectroscopy Package for spectroscopy imaging, with: (1) a Spectroscopy Evaluation Package for post-scan processing; and (2) a Chemical Shift Imaging Package, with multivoxel chemical shift imaging.
   xvii. System must be equipped with an ARGUS viewer, for flow quantification, and an ARGUS function for post-scan processing.
   xviii. System must be equipped with Advanced Shim, for high order shimming.
   xix. System must be equipped for Turbo Gradient Spin Echo (TGSE) sequences.

1. Service Package Requirements: The successful Bidder shall provide, as to the Services, the following:

a. **Software Support Package:** For all software used and associated with the operation of the System, Bidder shall supply a comprehensive support, service, and maintenance package

("Software Support Package") with the following specifications:

i. The Software Support Package shall commence from the complete installation of the system.
ii. The Software Support Package shall encompass, but not be limited to: (i) troubleshooting of all software malfunctions; and (ii) periodic updates, patches, and fixes necessary for the System's optimal functionality.
iii. The Software Support Package shall include an uptime guarantee of 99.99%.
iv. Technical support through the Software Support Package shall operate from Monday through Friday, from the hours of 8:00 A.M. E.S.T through 9:00 P.M. E.S.T.
v. Should SUNY-DMC seek support under the Software Support Package, Vendor shall react to SUNY-DMC's reports of the malfunctioning System by phone call, within twenty four (24) hours. If the malfunction cannot be remedied by Vendor's phone support, Vendor shall undertake the necessary on-site repair or dispatch of spare parts within one business day of such phone assessment. Should emergency repair be required, Vendor shall utilize best efforts to provide such service, with such emergency service to be charged at a reasonable rate demarcated in the Contract arising hereunder.
vi. Technical support through the Software Support Package shall be available both telephonically and in-person.

.

b. **Hardware Maintenance Package:** For all hardware used and associated with the operation of the System, Bidder shall supply a comprehensive support, service, and maintenance package ("Hardware Maintenance Package") with the following specifications:

i. The Hardware Maintenance Package shall commence upon the complete installation of the system.
ii. The Hardware Maintenance Package shall encompass, but not be limited to: (i) service visits upon SUNY-DMC's request, necessary to remedy malfunctions in the System; (ii) installation and replacement of all malfunctioning and/or necessary parts, to ensure the System's proper function; (iii) supply, delivery, and transportation of all necessary spare parts; (iv) two preventive maintenance visits per twelve month period; and (v) training, instruction, and assistance in the operation of the System, given by Vendor's licensed and trained personnel to SUNY-DMC's designated personnel.
iii. The Hardware Maintenance Package shall include an uptime guarantee of 99%.
iv. Technical support through the Hardware Maintenance Package shall operate from Monday through Friday, from the hours of 8:00 A.M. E.S.T through 9:00 P.M. E.S.T. .
v. Should SUNY-DMC seek support under the Support Package, Vendor shall react to SUNY-DMC's reports of the malfunctioning System by phone call, within twenty four (24) hours. If the malfunction cannot be remedied by Vendor's phone support, Vendor shall undertake the necessary on-site repair or dispatch of spare parts within one business day of such phone assessment.
vi. Technical support through the Hardware Maintenance Package shall be available both telephonically and in-person.

2. Contractor shall provide all permits necessary for the operation of the Mobile Unit

3. All training necessary for SUNY-DMC's operation of the system

4. At least sixty (60) days prior to the System's Installation, Contractor shall provide comprehensive information detailing the following requirements, necessary for the operation of the System: (a) power; (b) water; (c) Waste; (d) patient call system; (e) Fire alarm connects; and (f) telephony.

VENDOR SELECTION CRITERIA

- COST
- RESPONSIVE AND RESPONSIBLE VENDOR MEETING ALL CRITERIA

MRI Unit Key Specifications	Yes	No	Comments
48 channel 1.5 T MR System			
Short and open appearance 1.5 T MR with 145 cm system -cover to cover - length and with 70 cm Open Bore Design.			
48 independent RF receiver channel with up to 204 elements connectivity. The force compensated gradient system with 33 mT/m peak amplitude with a slew rate of 125 T/m/s defined as per axis values.			
External Interference Shield integrated into the magnet. Continuous compensation and automatic suppression of external magnetic field interferences during measurement caused by moving ferromagnetic objects or nearby power lines.			
All RF transmit and receive components at the magnet. Optical RF system.			
Cylindrically optimized homogeneity volume: no more 3 ppm in 32 cm3 sphere.			
Comfortable patient table solution which fits the needs for patients up to 450 lbs supporting full weight capacity in vertical and horizontal movement.			
MRI Safe Patient Monitor for critical patients and anesthesia procedures.			
Integrated coils for fast patient preparation and enhanced user comfort and exams of patients. In addition, an integrated infusion stand.			
Display at the magnet with user guidance for fast and efficient exam preparation and start of measurement at the scanner.			
Display of physiological curves and guidance for patient set up of triggering device.			
High-performance measurement and reconstruction system with at least 12,195 recons per sec for 256x256 matrix.			
48GB RAM for highest level performance for all data sets with efficient reconstruction of various high channel data sets.			
Wireless Vector ECG / respiration and pulse sensors for physiologically synchronized imaging .			
Chiller for Helium and Others elements needed to cool the MRI Unit.			
MRI System software and Applications for use in standard imaging and would allow the modification of pulce sequences for research.			
Complete range of clinically optimized sequences, protocols and workflow functionalities for virtually all clinical questions. To include various routine applications for Neurology, Angiography, Cardiac imaging, Body imaging, Medical and Radiation Oncology, Breast, Ortho , Pediatrics, etc.			
Auto coil detection and switching.			
Localizer for the whole body or large body regions such as the whole spine or the whole abdomen without laser light positioning to streamline the workflow: multi-service coils should be capable to perform the study on the entire spine (Cervical, Thoracic, and Lumbar).			
Automatic subtraction of images, e.g. pre- and post-contrast enhancements.			
MIP automatic image subtraction and following MIP in three orthogonal planes.			
Prospective motion correction in real time.			
Exchange of protocol data for updates via flashdrive, CDs, or other hard storage media by drag & drop clinical images.			
Integrated Parallel Acquisition Technique • Two algorithms – Coil sensitivity and alrorith based – for maximum quality for all applications.			
Software including for 3D volume imaging: Volumetric 3D imaging or comparable software for imaging in the abdominal region or in angiographic examinations.			
Breath-hold times shorter than 10 seconds for abdominal imaging such as imaging of the Liver.			
High spatial resolution with high contrast definition 3D imaging at short scan times , possibility to format data in all orientation with available contrast in T2, Dark Fluid , PD , T1 with True IR that can be useful for imaging of the Brain, Spine, Body, and Extremities.			

MRI Unit Key Specifications	Yes	No	Comments
User selectable 3D protocols such as "Double Inversion Recovery 3D protocols (DIR SPACE).			
Inversion pulses for the simultaneous suppression of e.g. cerebro-spinal fluid and white matter.			
Detection and correction software for respiratory motion of the heart, liver, etc. for free breathing high resolution 2D and 3D examinations in the diagnosis of diseases in moving organs and precise slice registration for multi breath-hold studies.			
Diffusion-weighted, readout-segmented (multi shot) EPI sequence for high-resolution susceptibility-insensitive DWI; insensitive to susceptibility effects to provide detailed anatomy-true diffusion imaging for brain, spine, breast and prostate.			
Diffusion imaging for abdomen and whole body exams including in protocols with multiple b-values a different number of averages may be specified for each b-value.			
Motion Correction software to improve image quality by minimizing and correcting for the effects of motion during an MR sequence acquisition. e.g. head, spine, orthopedic imaging , breast and the abdomen. •For all coils and in all planes • Supports T2-weighted, T1-weighted, STIR, and DarkFluid protocols			
More than 512 x 512 resolution T2 / T1-weighted imaging for high resolution fluid-cartilage differentiation, such as Double Echo Steady State.			
Guided and automated workflows for general brain examinations: Automatically slice positioning and aligns on the anatomically derived sagittal, coronal, and axial slices .The operator-free alignment and anatomical marking are consistent, independently of patient age, head position, or disease.			
Composing software for creation of full format images useful for spine , central nervous system, and to create vessel trees for mapping of the vascular system.			
Proton spectroscopy integrated software package with sequences and protocols with fully automated adjustments including localized shimming and adjustment of water suppression pulses. To include clinical applications for imaging of the brain, breast, and prostate with support for “Spin Echo and STEAM techniques.”			
Comprehensive and user-friendly evaluation of spectroscopy data: display of CSI data as colored metabolite images or spectral overview maps, overlaid on anatomical images.			
Extension of the Single Voxel Spectroscopy for optimal homogeneity of the larger CSI volumes including outer volume suppression and spectral suppression.			
Hybrid CSI with combined volume selection and Field of View (FoV) encoding: for optimal homogeneity of the larger CSI volumes . • Outer Volume Suppression• Spectral Suppression. • Protocols for prostate spectroscopy.			
Automatic real-time calculation of z-score (t-test) maps for variable paradigms: examination of intrinsic susceptibility changes in different areas of the brain, induced by external stimulation (e.g. motor or visual)..			
Prospective Acquisition Correction with motion correction during the acquisition of a BOLD exam.			
Comprehensive processing and visualization package for BOLD fMRI.			
Sequences and protocols for advanced cardiac imaging including 3D and 4D functionalities: advanced techniques for ventricular function imaging, dynamic imaging, tissue characterization, coronary imaging, and plaque characterization.			
Automatic real-time calculation of Global Bolus Plot (GBP), Percentage of Baseline at Peak map (PBP) and Time-to-Peak map (TTP)			
Acquisition of data sets with multi-directional diffusion weighting to assess anisotropic diffusion properties of brain tissue. Measurement of up to 255 directions of diffusion weighting with up to 16 different b-values			
Sequence and protocols for advanced time-resolved (4D) MR angiography and dynamic imaging in general with high spatial and temporal resolution . To offer temporal information of vessel filling in addition to conventional static MR angiography .			

MRI Unit Key Specifications	Yes	No	Comments
Software package with sequences and protocols for non-contrast enhanced 3D MRA with high spatial resolution, which will enable imaging of abdominal and peripheral vessel.			
Inclusion of sequences for quantitative flow determination studies .Non-invasive blood / CSF flow quantification.			
MR Coils for scanning of the torso, head, spine, and extremities.			
The 20-channel Head Neck coil with its 20 integrated pre-amplifiers combined with , Spine , Body, Flex L, Flex Small ,			
The 32-channel Spine coil with its 32 integrated pre-amplifiers combined with Head / Neck.			
Body -18: 18-channel design with 18 integrated preamplifiers, combined with Spine , Head / Neck.			
High resolution flex large coil for imaging of medium to large shoulders, hip and knee- faster imaging which can be combined with Head / Neck Body.			
High resolution flex large coil for imaging of small to medium shoulder , wrist elbow or ankle - faster imaging which can be combined with • Head / Neck • Body: 16 channel Ultra High Resolution Shoulder-16 Coil shaped in two different sizes to accommodate all type of patients which can be combined with 18 channel Body Coil for extension studies.			
16 channel Ultra High resolution hand and wrist imaging:			
16 channel Ultra High resolution foot and ankle imaging			
16 channel Ultra High resolution Knee imaging			
16 channel Breast Biopsy Coil: Ultra High Resolution Variable Coil Geometry Coil, Simultaneous imaging of both breasts in all directions • High-resolution 2D and 3D imaging.			
Independent workstation to provide the following applications or similar applications:			
Offline post-processing to generate and visualize parametric maps derived from the diffusion tensor in order to assess anisotropic diffusion properties of brain tissue.			
Tractography visualization of multiple white matter tracts of the human brain based on data .Tractography to support the pre-surgical planning and to allow for neuro-physiological research with respect to connectivity and white matter pathology.			
Comprehensive processing and visualization package for BOLD fMRI.			
Evaluation software for automated image analysis of blood and cerebrospinal fluid (CSF) flow of MR data.			
4D Ventricular Function software that processes MR cine images of the heart and generates quantitative results for physicians in the diagnostic process.			
Detailed post-processing of brain perfusion data sets to include Color display of the relMTT, relCBV, and relCBF.			
67. Comprehensive and user-friendly evaluation of spectroscopy data: Display of CSI data as colored metabolite images or spectral overview maps, overlayed on anatomical images.			
TRADE-IN: offer trade-in for currently installed Siemens MR system.			
Total costs to include RF & Magnetic Leakage, and must be approved by third party surveyor. Moreover rigging, removal of old systems, and placement of new magnet and system.			
To provide onsite and offsite education support.			
Inclusion of MR compatible Pressure/Power Injector unit:			
Consulation and coordination with owner's, architect, and engineer to complete plans for space(s) that the unit will occupy.			
5 year service contract for MRI unit after expiration of the 1 year manufacturer's warranty ends: Please next page for service contract details. (see "Service Contract Details")			

MRI Unit Key Specifications	Yes	No	Comments
Arrange for sub-contracting for Mobile MRI Unit according specifications (see "Mobile MRI Unit Specifications).			
The Gradient system with 33 mT/m peak aperture with sluw rate at 125 per Telsa/m/s.			
Audio system included in scanner package			
Dicom Storage, Dicom workflow, Dicom MPPS			
ACR accreditation QC programs with appropriate phantoms which include large, small, or surface coil phantoms.			
Zero helium boil-off			
Active noise reduction software			
ACR accreditation QC programs with appropriate phantoms which include large, small, or surface coil phantoms.			
Zero helium boil-off			
Active noise reduction software			
Detachable Patient Table that can be moved out of the MRI unit in case of an emergency.			
Service Contract Details:			
Principal Coverage Period: 8am-8pm Mon – Friday			
Uptime Guarantee: 99%			
Service call reply/response time: 30 minutes			
Service on-site: Certified Service Engineer arrival time: 4 hours			
Part(s) order requirement: by Noon Eastern Standard time to assure next day delivery.			
Unlimited labor coverage on-site during the principle coverage period.			
Provision of labor rates for service hours outside of principle coverage period, including holidays.			
Parts Delivery: within 24 hours of part order.			
Planned Maintenance: the manufacturer's recommended amount of PM's per year.			
Technical Phone Support with hardware & software: 24 hours/7days per week including Holidays.			
Real time technical support via remote service connection.			
Single point of contact such as a centralized call center provided by the manufacturer for all service calls.			
Quality Assurance supports to maintain the quality specification as per the equipment/unit specifications, which should include testing, physical safety, electrical, and support system evaluations. A log with the reporting of any findings and their corrective actions should be provided for quality assurance data generation and tracking.			
Ancillary systems maintenance for all ancillary components of the magnet and coolant/refrigeration units.			
American College Radiology accreditation assistance to aide in confirming quality of the systems to acquire images for the ACR. Moreover, unlimited technical and clinical application support pertaining to the readiness of the system, including tips and training relative to the ACR accreditation process.			
Inclusion of an ARRT and NMTCB accredited self-study program that is relative to the latest trends in diagnostic and/or therapeutic imaging which will provide up to 24 category A credits.			
Provision of system software upgrades, at least 1 successful system computer hardware replacement.			

MRI Unit Key Specifications	Yes	No	Comments
Application support including troubleshooting by a certified advanced applications expert, either remotely or direct (hands-on) via remote access to be providing during principle coverage period.			
Coverage of manufacturers and coils provided by the manufacturer for the unit procurement, that includes their repair and replacement.			
Subscription to internet learning for up to 3 technologists for up to 12 category A continuing education credits that are recognized by the ARRT and NMTCB annually.			
Coverage of IT service calls concerning server hardware.			
Annual web-based training session provided for PACS Administrator.			
Access to a web-based portal or website that can provide utilization data including the ability to produce reports that can be exported or saved by the user. Moreover should have access to information related to diagnostic imaging equipment such as service, PM management tools, service documentation, service contract management tools, asset management tools, equipment performance reports, etc.			
Provision of a workstation engines that can be used for post-image generation manipulation, including support of the licensed workstation engines.			
Non-Inclusion of travel time for Service Engineer to and from our facility during the principal coverage period.			
Inclusion of on-site parts and labor costs during principle coverage period.			
Mobile MRI Specifications:			
a. Equipment Requirements: For the duration of the rental, the successful bidder shall provide, as to equipment, the following,: 1.: Bidder shall supply a mobile magnetic resonance imaging (MRI) system ("System") capable of conducting MRI within the unit in which it is transported and housed. Specifically, the MRI machinery must be mounted and installed upon a transportable unit, i.e. trailer, and capable of safely and accurately conducting MRI scans in said unit. Safety and accuracy shall be determined by SUNY-DMC's certified radiologists and physicists, in compliance with the industry-accepted standards and in consideration of factors such as magnetic fringe field and field homogeneity.			
1. System must be a Siemens Espree Class Open Bore model, or a system "sufficiently similar" thereto. For the purposes hereof, a sufficiently similar system shall be one that both: (i) is functionally and operationally comparable in all material respects; and (ii) would require less than six hours of training for professionals accustomed to operating the aforementioned model.			
2: System must have field strength of 1.5T (15,000 gauss).			
3: System must have standard (non-wide bore) opening.			
4: System must have gradient strength of at least 30mT/m.			
5: System's containing unit must be sufficiently shielded as to provide field homogeneity of less than 3 PPM of 32cm3 VFOV.			
6: System must contain a Patient Monitoring Unit, equipped with ECG, respiratory, and pulse triggering.			
7: System must contain an Advanced Array Interface.			
8: System must contain all the coils below. Please be advised that all coils must be, at minimum, 8 to 16 channel, where such configuration is manufactured.			
a. CP head array coil;			
b. CP spine array coil			
c. CP neck array coil			
d. CP body array coil;			
e. CP extremity coil (for knee imaging);			

MRI Unit Key Specifications	Yes	No	Comments
f. CP large flex coil;			
g. CP small flex coil;			
h. CP breast coil;			
i. Wrist coil;			
j. Lower extremity coil (for foot and ankle imaging);			
k. Large loop flex coil;			
b. Software Requirements: For the duration of the rental, the successful bidder shall provide, as to software, the following:			
i. System must be equipped with Syngo software, preferably version 2004-revision-B, with corresponding iPAT software.			
ii. System must be equipped with 1-Dimensional and 2-Dimensional Prospective Acquisition Correction software.			
iii. System must be equipped with INLINE Processing software.			
iv. System must have CORE Basic and CORE Plus sequence and application packages generally associated with Siemens Syngo platforms.			
v. System must be equipped with Patient Observation software.			
vi. System must be equipped with a DICOM modality worklist.			
vii. System must be equipped with a DICOM query/retrieve provider with Storage SCP.			
viii. System must be equipped with 3D MPR, 3D SSD, and 3D MP.			
ix. System must be equipped with Advanced 3D, for specialized applications for inner ear and orthopedic studies.			
x. System must be equipped with an Advanced Angio package, for contrast enhanced angiography applications and advanced angio and abdomen applications.			
xi. System must be equipped with an Advanced Turbo package, for MRCP and other abdomen examinations.			
xii. System must be equipped with an Advanced Cardiac package, for comprehensive cardiac imaging.			
xiii. System must be equipped with a Care Bolus, for contrast enhancement of arterial vessels in contrast-enhanced MRA.			
xiv. System must be equipped with a Panoramic Table, for moving table applications such as peripheral vascular examinations.			
xv. System must be equipped with Echo Planar Imaging, for diffusion perfusion of brain scans.			
xvi. System must contain a Single Voxel Spectroscopy Package for spectroscopy imaging, with: (1) a Spectroscopy Evaluation Package for post-scan processing; and (2) a Chemical Shift Imaging Package, with multivoxel chemical shift imaging.			
xvii. System must be equipped with an ARGUS viewer, for flow quantification, and an ARGUS function for post-scan processing.			
xviii. System must be equipped with Advanced Shim, for high order shimming.			
xix. System must be equipped for Turbo Gradient Spin Echo (TGSE) sequences.			
1. Service Package Requirements: The successful Bidder shall provide, as to the Services, the following:			
a. **Software Support Package**: For all software used and associated with the operation of the System, Bidder shall supply a comprehensive support, service, and maintenance package ("Software Support Package") with the following specifications:			
i. The Software Support Package shall commence from the complete installation of the system, as defined above in paragraph 3 of this Section III(C), IFB Requirements/Detailed Specifications.			

MRI Unit Key Specifications	Yes	No	Comments
ii. The Software Support Package shall encompass, but not be limited to: (i) troubleshooting of all software malfunctions; and (ii) periodic updates, patches, and fixes necessary for the System's optimal functionality.			
iii. The Software Support Package shall include an uptime guarantee of 99.99%.			
iv. Technical support through the Software Support Package shall operate from Monday through Friday, from the hours of 8:00 A.M. E.S.T through 9:00 P.M. E.S.T. Vendors should also include rates associated with technical support provided outside of this time range.			
v. Should SUNY-DMC seek support under the Software Support Package, Vendor shall react to SUNY-DMC's reports of the malfunctioning System by phone call, within twenty four (24) hours. If the malfunction cannot be remedied by Vendor's phone support, Vendor shall undertake the necessary on-site repair or dispatch of spare parts within one business day of such phone assessment. Should emergency repair be required, Vendor shall utilize best efforts to provide such service, with such emergency service to be charged at a reasonable rate demarcated in the Contract arising hereunder.			
vi. Technical support through the Software Support Package shall be available both telephonically and in-person.			
vii. Out of Scope Services: Should SUNY-DMC require Vendor to render any services outside the hours contemplated herein, Vendor shall utilize best efforts to provide such services. SUNY-DMC shall compensate Vendor for these services at the rate provided in Vendor's Cost Proposal.			
b. : For all hardware used and associated with the operation of the System, Bidder shall supply a comprehensive support, service, and maintenance package ("Hardware Maintenance Package") with the following specifications:			
i. The Hardware Maintenance Package shall commence upon the complete installation of the system, as defined above in paragraph 3 of this Section III(C), IFB Requirements/Detailed Specifications.			
ii. The Hardware Maintenance Package shall encompass, but not be limited to: (i) service visits upon SUNY-DMC's request, necessary to remedy malfunctions in the System; (ii) installation and replacement of all malfunctioning and/or necessary parts, to ensure the System's proper function; (iii) supply, delivery, and transportation of all necessary spare parts; (iv) two preventive maintenance visits per twelve month period; and (v) training, instruction, and assistance in the operation of the System, given by Vendor's licensed and trained personnel to SUNY-DMC's designated personnel.			
iii. The Hardware Maintenance Package shall include an uptime guarantee of 95%.			
iv. Technical support through the Hardware Maintenance Package shall operate from Monday through Friday, from the hours of 8:00 A.M. E.S.T through 9:00 P.M. E.S.T. Vendors should also include rates associated with technical support provided outside of this time range.			
v. Should SUNY-DMC seek support under the Software Support Package, Vendor shall react to SUNY-DMC's reports of the malfunctioning System by phone call, within twenty four (24) hours. If the malfunction cannot be remedied by Vendor's phone support, Vendor shall undertake the necessary on-site repair or dispatch of spare parts within one business day of such phone assessment.			
vi. Technical support through the Hardware Maintenance Package shall be available both telephonically and in-person.			
Out of Scope Services: Should SUNY-DMC require Vendor to render any services outside the hours contemplated herein, Vendor shall utilize best efforts to provide such services. SUNY-DMC shall compensate Vendor for these services at the rate provided in Vendor's Cost Proposal.			

SUNY DOWNSTATE Medical Center
University Hospital of Brooklyn

Revised Cost Proposal Form

Procurement# Q14-32 IFB Title: MRI SYSTEM, MAINTENANCE AGREEMENT AND RENTAL MOBILE MRI UNIT

Vendor must complete and include this sheet with its response to this procurement. Attach additional sheets as necessary.

Company Name: _____ Point of Contact: _____

Street Address: _____ eMail Address: _____

City/State/Zip: _____ Telephone Number: _____

Fax Number: _____

Instructions: Vendor shall indicate below its proposed ***rates*** for services in the manner described in this procurement and in accordance with the terms of its Proposal.

Please complete the Proposers Cost Proposal Grid and attach to this Proposer Certification Form, and sign below.

CERTIFICATION: By submission of this proposal, the proposer and any person signing on its behalf (in case of joint proposals, each party thereto) hereby certifies under penalty of perjury, that to the best of his or her knowledge and belief:

1. The prices in this proposal have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other proposer, proposer or with any competitor;

2. Unless otherwise required by law, the prices which have been quoted in this proposal have not been knowingly disclosed by the proposer and will not knowingly be disclosed by the proposer prior to opening, directly or indirectly, to any other proposer, proposer or to any competitor;

3. No attempt has been made or will be made by the proposer to induce any other person, partnership or corporation to submit or not to submit a proposal for the purpose of restricting competition.

4. The attached State University of New York standard contract clauses contained in Exhibit "A" and Exhibit "A-1" are made a part of this RFP and by submitting this proposal the proposer accepts the terms contained therein.

By:

_____	_____	_____	_____
(Proposer's Officer Signature)	(Officer's Printed Name)	(Officer's Title)	(Date)

REVISED: Cost Proposal Grid

Q14-32 IFB: MAGNETIC RESONANCE IMAGING SYSTEM, MAINTENANCE AGREEMENT AND RENTAL MOBILE MRI UNIT.

1. **MRI Equipment with 1 year service warranty** **Total Cost $: _____**
   a. **Rigging for Removal of old MRI & Chiller** **Cost $: _____**
   b. **Rigging for Installation of New Chiller** **Cost $: _____**
   c. **Rigging for Installation of New MRI** **Cost $: _____**
   d. **Trade in Value of Old MRI** **Cost $: _____**

2. **5 Year Maintenance Agreement: Annual Cost $:_____ Total 5 yr. Cost $:_____**

3. **Rental Price of All Mobile MRI Unit : Annual Cost *$:_____ Total 5 yr. Cost* $:_____**
   Equipment and Components (including Installation and /or Implementation Fee's and all training costs)
   a. **Rigging to install Mobile MRI on dunnage** **Cost $: _____**
   b. **Rigging to take Mobile MRI off dunnage** **Cost $: _____**

   .

4. **Additional Hours as Need:**

Description	Rate	*Estimated Hours	Annual Cost	5 Yr Total Cost
Overtime hours : 8:01 PM- 7:59 AM	$	100	$	$
Weekend Hours: Saturday and Sunday	$	100	$	$
Holiday Hours: For holidays(New Year's Day, Presidents Day, Memorial Day, Independence Day, Labor Day, thanksgiving Day and Christmas Day)	$	168	$	$

***NOTE: The Number of hours listed above is for evaluation purposes only. No guarantee of actual hours is implied and may vary.**

NOTE - the final costs must be all-inclusive. Vendor's compensation under the Contract will be limited to the rates herein proposed, which rates shall remain fixed for the term of the Contract(s) (VENDOR'S SHALL NOT PROPOSE ANY ESCALATION).

THE OFFEROR ACKNOWLEDGES THAT IT'S OFFER IS PREFACED ON ACCEPTANCE ALL TERMS AND CONDITIONS OF SUNY DOWNSTATE FORM CONTRACT "AS IS". ANY CHANGES WILL BE CONSIDERED TO BE A NON-RESPONSIVE BID.

This form is to be submitted with the preceding page "Bidder's Cost Proposal Certification" eForm