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#### Tender

# Tender for the Supply and Installation of a Preclinical Ultrasound Imaging System - University of Birmingham

THE UNIVERSITY OF BIRMINGHAM

F02: Contract notice Notice identifier: 2022/S 000-019185 Procurement identifier (OCID): ocds-h6vhtk-035199 Published 13 July 2022, 2:39pm

## Section I: Contracting authority

### I.1) Name and addresses

THE UNIVERSITY OF BIRMINGHAM

**Chancellors Close** 

BIRMINGHAM

B152TT

Contact

Kseniya Samsonik

Email

K.Samsonik@bham.ac.uk

Telephone

+44 1214146899

Country

United Kingdom

#### NUTS code

UKG31 - Birmingham

#### Internet address(es)

Main address

https://www.birmingham.ac.uk/index.aspx

## I.3) Communication

The procurement documents are available for unrestricted and full direct access, free of charge, at

http://www.in-tendhost.co.uk/universityofbirmingham

Additional information can be obtained from the above-mentioned address

Tenders or requests to participate must be submitted electronically via

http://www.in-tendhost.co.uk/universityofbirmingham

## I.4) Type of the contracting authority

Body governed by public law

## I.5) Main activity

Education

## Section II: Object

## II.1) Scope of the procurement

#### II.1.1) Title

Tender for the Supply and Installation of a Preclinical Ultrasound Imaging System - University of Birmingham

Reference number

SC10849/22

#### II.1.2) Main CPV code

• 33112000 - Echo, ultrasound and doppler imaging equipment

#### II.1.3) Type of contract

Supplies

#### II.1.4) Short description

Please be aware that the award of this project will be conditional, based on whether the bid for funding is successful.

(This project is funded by the Medical Research Council and the procurement is dependent on the final funding agreement.)

The University of Birmingham invites tenders for supply of an ultrasound imaging system to image small preclinical disease models with high frame rates to accurately image small mobile structures with fast frequency cyclic changes. The equipment will be used for echocardiography and imaging of tissue structures and blood flow.

The workstation should perform image acquisition, data storage and in-line as well as offline data analysis to derive functional parameters. It should allow for a future upgrade of the setup, both in terms of hardware (especially transducers) and software.

#### II.1.5) Estimated total value

Value excluding VAT: £301,612

#### II.1.6) Information about lots

This contract is divided into lots: No

## II.2) Description

#### II.2.3) Place of performance

NUTS codes

• UKG31 - Birmingham

Main site or place of performance

**Delivery Location is:** 

**Biomedical Service Unit** 

Vincent Drive

University of Birmingham

Edgbaston

Birmingham

B15 2TT

#### II.2.4) Description of the procurement

The University of Birmingham invites tenders for supply of an ultrasound imaging system to image small preclinical disease models with high frame rates to accurately image small mobile structures with fast frequency cyclic changes. The equipment will be used for echocardiography and imaging of tissue structure and fluid (blood) flow, also in other organs.

General characteristics

A workstation needs to fit the footprint of the existing, obsolete system (VisualSonics, Vevo 2100). This equipment will be traded in as part of the purchase.

It will be a stand-alone system

Specification

i. Imaging station

1) Capabilities for carrying out ultrasound imaging in small preclinical models in the Biomedical Services Unit

2) Capabilities for using high frequency ultrasound (>40 MHz) to image small structures (approx. 1 - 10 mm) dynamically at high resolution in vivo, with the ability to upgrade to higher frequencies (~ 70 MHz)

- 3) Visualization of images in real time on screen
- 4) Ability to monitor physiological parameters (ECG, respiratory rate, core temperature)
- 5) Possibility to move platform around easily
- 6) Customizable touch screen controls during the image acquisition

7) Ability to attach more than one transducer to the system at a time to allow for quick change between analysis programmes

ii. Data analysis

8) Software platform that allows for on-line and off-line data analysis, with ability to upgrade to multiple users; compatible with Windows laptops and PC used as standard at the University of Birmingham

9) Ability to store and back up data on hard drives and file servers

10) Ability to gate for ECG and respiratory motion in echocardiography, hence to provide 3D info on highly dynamic small structures, with ability to reconstruct volumes at framerates 100-300 fps

11) Ability to visualize fluid (blood) flow via Doppler ultrasound with information of directionality of flow

12) Ability to analyze tissue function through strain analyses

13) Ability to perform M- and B-mode analysis as well as AM-mode analysis for customizable angle dependent measurements

14) Ability to analyze blood vessels with vascular strain tools, for stiffness and anatomical composition

15) Ability to derive left ventricular functional parameters (e.g. Cardiac Output, Stroke Volume, Ejection Fraction from image recordings in automated form

16) EKV (ECG-gated Kilohertz Visualisation) mode enabled to reach optimal frame-rate processing for fast moving structures during B-mode analysis

- iii. Options for future upgrade
- 17) Ability to add other transducers for higher resolution or better image depth
- 18) Ability to add software packages for oncology
- 19) Ability to add contrast imaging option

#### II.2.5) Award criteria

Price is not the only award criterion and all criteria are stated only in the procurement documents

#### II.2.6) Estimated value

Value excluding VAT: £301,612

#### II.2.7) Duration of the contract, framework agreement or dynamic purchasing system

Start date

22 August 2022

End date

31 March 2023

This contract is subject to renewal

No

#### II.2.10) Information about variants

Variants will be accepted: No

#### II.2.11) Information about options

Options: No

## Section IV. Procedure

### **IV.1) Description**

#### IV.1.1) Type of procedure

Open procedure

#### IV.1.8) Information about the Government Procurement Agreement (GPA)

The procurement is covered by the Government Procurement Agreement: Yes

### IV.2) Administrative information

#### IV.2.2) Time limit for receipt of tenders or requests to participate

Date

10 August 2022

Local time

12:00pm

#### IV.2.4) Languages in which tenders or requests to participate may be submitted

English

#### IV.2.7) Conditions for opening of tenders

Date

10 August 2022

Local time

12:01pm

## Section VI. Complementary information

## VI.1) Information about recurrence

This is a recurrent procurement: No

### VI.4) Procedures for review

### VI.4.1) Review body

The University of Birmingham

University of Birmingham

Birmingham

B15 2TT

Country

United Kingdom