

**Finland-Turun yliopisto: Microscopes**  
**OJ S 178/2023 15/09/2023**  
**Contract award notice**  
**Supplies**

**Legal Basis:**

Directive 2014/24/EU

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**Section I: Contracting authority**

**I.1. Name and addresses**

Official name: University of Turku  
National registration number: 0245896-3  
Postal address: Yliopistonmäki  
Town: Turun yliopisto  
NUTS code: FI1C1 Varsinais-Suomi  
Postal code: 20014  
Country: Finland  
E-mail: [procurement@utu.fi](mailto:procurement@utu.fi)  
**Internet address(es):**  
Main address: <http://www.utu.fi>

**I.4. Type of the contracting authority**

Body governed by public law

**I.5. Main activity**

Education

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**Section II: Object**

**II.1. Scope of the procurement**

**II.1.1. Title**

Laser-scanning confocal microscope with time-correlated single photon counting (TCSPC) based fluorescence lifetime imaging microscopy (FLIM)

**II.1.2. Main CPV code**

38510000 Microscopes

**II.1.3. Type of contract**

Supplies

**II.1.4. Short description**

The University of Turku and Åbo Akademi University (for Turku Bioscience) intend to jointly purchase a state-of-the-art laser-scanning confocal microscope that combines conventional confocal intensity imaging, with an extended imaging range from far-UV (>400 nm) to near Infrared (<850 nm), and a fully integrated solution for time-correlated single photon counting (TCSPC) based fluorescence lifetime imaging microscopy (FLIM). This microscope is to be placed in the Cell Imaging and Cytometry (CIC) multi-user core facility.

**II.1.6.**

## Information about lots

This contract is divided into lots: no

### II.1.7. Total value of the procurement

Value excluding VAT: 814 900,00 EUR

## II.2. Description

### II.2.2. Additional CPV code(s)

38000000 Laboratory, optical and precision equipments (excl. glasses)

### II.2.3. Place of performance

NUTS code: FI1C1 Varsinais-Suomi

### II.2.4. Description of the procurement

The University of Turku and Åbo Akademi University (for Turku Bioscience) intend to jointly purchase a state-of-the-art laser-scanning confocal microscope that combines conventional confocal intensity imaging, with an extended imaging range from far-UV (>400 nm) to near Infrared (<850 nm), and a fully integrated solution for time-correlated single photon counting (TCSPC) based fluorescence lifetime imaging microscopy (FLIM). This microscope is to be placed in the Cell Imaging and Cytometry (CIC) multi-user core facility. Thus, it is important that the purchased microscope can be configured to be broadly applicable to a large number of samples and imaging modalities, while a requirement for proven performance at technical specifications in similar research environments, ease of use, and ease of maintenance service and repairs is absolutely essential. The setup will be optimized for a broad range of sample types and imaging modalities, according to the research strongholds in Turku: I. Conventional confocal intensity imaging of live and fixed cells, tissue, zebrafish embryos, organoids, and spheroids II. Fluorescence lifetime imaging of a variety of biosensors and FLIM probes in live cells, tissue, spheroids, and zebrafish embryos III. Conventional confocal imaging of thicker cleared tissue samples For required flexibility and ease of use in a multi-user core facility, the system to be purchased must include a capability of conventional confocal imaging with an extended excitation range from 405 nm to at least 790 nm, and an associated extended emission detection range from about 400 nm to 850 nm. This system should furthermore enable TCSPC based FLIM imaging of an extended imaging excitation range from 440 nm to 790 nm, and an associated extended emission detection range from about 450 nm to 850 nm. To enable these capabilities, this system should include at least five dedicated high-sensitivity point detectors to enable simultaneous imaging of 5 partially spectrally overlapping fluorophores. These detectors should further be capable of both conventional integrated counting and photon counting measurements, have freely tuneable AOBS based detection ranges, and should include one or more optimized near-IR detectors. Furthermore, this system must incorporate a CW 405 nm laser in combination with a pulsed white light laser with a tuneable excitation range from around 440 nm to at least 790 nm. In addition, for required flexibility and ease of use in a multi-user core facility, this system must include a FLIM data analysis solution that integrates both standard FLIM analysis fitting approaches to TCSPC histograms, and fit-free FLIM Phasor Analysis approaches. This system must also include an integrated solution which enables improved imaging capabilities by providing a validated solution for enhanced contrast imaging by fluorescence lifetime-based separation of autofluorescence from specific fluorescence signal, and for enhanced multiplexing imaging capabilities much beyond the simultaneous imaging of 5 partially spectrally overlapping fluorophores by also enabling the differentiation of spectrally overlapping fluorophores from their differences in fluorescence lifetimes. Finally, for ease of use, in a multi-user core facility, and for ease of service maintenance, it is required that the purchased system is fully

integrated in a single software application package, both in terms of data acquisition and data analysis, and that the system can be supplied and fully supported by a single service provider.

#### **II.2.5. Award criteria**

Price

#### **II.2.11. Information about options**

Options: yes

Description of options:

Options include Software modules, warranty extensions and service contracts. The use of options is at the sole discretion of the buyer.

#### **II.2.13. Information about European Union funds**

The procurement is related to a project and/or programme financed by European Union funds:  
yes

Identification of the project: Recovery and Resilience Facility (RRF)

#### **II.2.14. Additional information**

### **Section IV: Procedure**

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

##### **IV.1.1. Type of procedure**

Award of a contract without prior publication of a call for competition in the Official Journal of the European Union in the cases listed below

- The works, supplies or services can be provided only by a particular economic operator for the following reason:
  - absence of competition for technical reasons

Explanation:

The microscope system to be purchased must include: 1. An integrated solution that combines conventional confocal imaging with TCSPC fluorescence lifetime imaging in a single acquisition software application with integrated hardware (i.e. lasers, AOBS, AOTF, and detectors) that support both measurement modalities (intensity & lifetime). 2. For required flexibility in a multi-user core facility, an integrated solution as per point 1 that incorporates a broad range of laser excitation combining a CW 405 nm laser with a freely tuneable pulsed white light laser with a range of 440 nm to 790 nm, and where at least eight laser wavelengths can be used simultaneously. 3. For required flexibility in a multi-user core facility and to meet an absolute requirement for simultaneous detection of at least 5 partially spectrally overlapping fluorophores, an integrated solution as per points 1 and 2 which incorporates at least five dedicated high-sensitivity point detectors optimized for an extended detection range from around 400 nm to 850 nm and where for required flexibility the detection range at each detector is freely tuneable. These detectors are required to function in both analogue gain mode and in photon counting mode. 4. For required flexibility and ease of use in a multi-user core facility, an integrated solution as per points 1-3 which incorporates a FLIM data analysis solution that integrates both standard FLIM analysis fitting approaches to TCSPC histograms, and fit-free FLIM Phasor Analysis approaches. 5. For required flexibility in a multi-user core facility, an integrated solution as per points 1-4 which enables improved imaging capabilities by providing a validated solution for enhanced contrast imaging by fluorescence lifetime-based separation of autofluorescence from specific fluorescence signal, and for enhanced

multiplexing imaging capabilities much beyond the simultaneous imaging of 5 partially spectrally overlapping fluorophores by also enabling the differentiation of spectrally overlapping fluorophores from their differences in fluorescence lifetimes. Leica STELLARIS 8 with FALCON Fast FLIM, FCS and Resonant Scanner microscope system, supplied by Immuno Diagnostica Oy, is the only instruments in the market that meet all the specific and necessary technical requirements to fulfil the uncompromising needs of the acquiring unit. According to the Act on Public Procurement and Concession Contracts (1397/2016) section 40 when only a certain supplier can implement the procurement for a technical reason, provided also that there are no reasonable alternatives or substitute solutions, and that the absence of competition is not due to an artificial narrowing of the terms and conditions of the procurement, Contracting authorities may award public contracts by a direct award. Prior to making decision the Contracting authorities have inspected the relevant markets and available products and after careful consideration found its' conclusion grounded.

#### **IV.1.3. Information about a framework agreement or a dynamic purchasing system**

#### **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.2.8. Information about termination of dynamic purchasing system**

#### **IV.2.9. Information about termination of call for competition in the form of a prior information notice**

### **Section V: Award of contract**

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#### **Title:**

Laser-scanning confocal microscope with time-correlated single photon counting (TCSPC) based fluorescence lifetime imaging microscopy (FLIM)

A contract/lot is awarded: yes

#### **V.2. Award of contract**

##### **V.2.1. Date of conclusion of the contract**

06/09/2023

##### **V.2.2. Information about tenders**

Number of tenders received: 1

Number of tenders received from SMEs: 1

Number of tenders received by electronic means: 1

The contract has been awarded to a group of economic operators: no

##### **V.2.3. Name and address of the contractor**

Official name: Immuno Diagnostic Oy

National registration number: 0499964-0

Town: Hämeenlinna

NUTS code: FI1C2 Kanta-Häme

Country: Finland

The contractor is an SME: yes

##### **V.2.4. Information on value of the contract/lot**

Total value of the contract/lot: 814 900,00 EUR

### **V.2.5. Information about subcontracting**

## **Section VI: Complementary information**

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### **VI.3. Additional information**

### **VI.4. Procedures for review**

#### **VI.4.1. Review body**

Official name: Markkinaoikeus

Postal address: Radanrakentajantie 5

Town: Helsinki

Postal code: 00520

Country: Finland

E-mail: [markkinaoikeus@oikeus.fi](mailto:markkinaoikeus@oikeus.fi)

Telephone: +358 295643300

Internet address: <http://www.oikeus.fi/markkinaoikeus>

### **VI.5. Date of dispatch of this notice**

11/09/2023