

181787-2026 - Result

Finland – Laboratory, optical and precision equipments (excl. glasses) – High-throughput microelectrode array (MEA) and impedance equipment

OJ S 53/2026 17/03/2026

Contract or concession award notice – standard regime

Supplies

1. Buyer

1.1. Buyer

Official name: University of Helsinki

Email: hankinnat@helsinki.fi

Legal type of the buyer: Body governed by public law

Activity of the contracting authority: Education

2. Procedure

2.1. Procedure

Title: High-throughput microelectrode array (MEA) and impedance equipment

Description: High-throughput microelectrode array (MEA) and impedance equipment will be acquired for University of Helsinki (new notice with an updated price). Microelectrode array (MEA) systems are novel tools in electrophysiology that will help the basic and preclinical research on brain and cardiac diseases with a goal to efficiently translate preclinical research findings into efficient treatment, prevention and diagnosis. Electrophysiological techniques allow comprehensive understanding of the biological basis of functioning of these cell types in health and in pathological conditions. MEA technology is one of the core methods to study e.g. electrophysiological characteristics of neuronal and cardiac cells and their function both in normal and diseased conditions. High-throughput MEA instruments allow also drug discovery for neurological and cardiovascular diseases and investigation of novel therapeutic targets /treatments in human cell-based models in vitro. Instrument with integrated impedance technology allows also cell viability and neuro/cardio-toxicity analysis, which are highly relevant for early safety assessment of new drug leads. Minimum technical specifications required from the high-throughput microelectrode array (MEA) and impedance equipment to be purchased are:

- Enables medium to high throughput analysis i.e. at least 96-well format capacity. This throughput is needed for screening compound libraries where compound stock volumes are limited.
- Enables measurements with several plate formats mimicking standard well culture plates (at least 12, 24, 48, 96 well formats). This flexibility is required to enable experiments with various cell models some of which cannot be established in high-throughput format
- >700 measurement electrodes per MEA plate to allow high quality data output with high number of electrodes per well
- At least 12.5 kHz data sampling frequency to identify fast occurring electrophysiological events in neuronal and cardiac cells
- Ability to induce and measure cardiac local extracellular action potentials (LEAP) on any and every electrode in a plate
- Capable of monitoring live cell function parameters in real time including cell proliferation, cytotoxicity, cell adhesion, receptor based functional assays, immune cell killing, ADCC, viral neutralizing antibody detection, cell migration, wound healing, and barrier function through impedance with at least 96-well plate capacity
- Optogenetic stimulator for customizable light stimulation
- Temperature and gas environment control for measurement chamber to enable stable long-term measurements
- Option for transparent sample area in

wells for imaging cell growth, morphology for identification • Possibility to use customised MEA plates, e.g. organ-on-a-chip platforms for co-cultures and tissue models • Advanced, license-free analysis software packages specifically designed for neuronal and cardiac cell analysis, cell viability and impedance measurements.

Procedure identifier: 7b6cab4f-3044-43d0-b411-52534fc7d740

Previous notice: 38d72048-9117-46b3-bf6e-14aa417a2560-01

Internal identifier: 600218

Type of procedure: Negotiated without prior call for competition

2.1.1. Purpose

Main nature of the contract: Supplies

Main classification (cpv): 38000000 Laboratory, optical and precision equipments (excl. glasses)

2.1.2. Place of performance

Country subdivision (NUTS): Helsinki-Uusimaa (FI1B1)

Country: Finland

2.1.4. General information

Legal basis:

Directive 2014/24/EU

5. Lot

5.1. Lot: LOT-0000

Title: High-throughput microelectrode array (MEA) and impedance equipment

Description: High-throughput microelectrode array (MEA) and impedance equipment will be acquired for University of Helsinki (new notice with an updated price). Microelectrode array (MEA) systems are novel tools in electrophysiology that will help the basic and preclinical research on brain and cardiac diseases with a goal to efficiently translate preclinical research findings into efficient treatment, prevention and diagnosis. Electrophysiological techniques allow comprehensive understanding of the biological basis of functioning of these cell types in health and in pathological conditions. MEA technology is one of the core methods to study e.g. electrophysiological characteristics of neuronal and cardiac cells and their function both in normal and diseased conditions. High-throughput MEA instruments allow also drug discovery for neurological and cardiovascular diseases and investigation of novel therapeutic targets /treatments in human cell-based models in vitro. Instrument with integrated impedance technology allows also cell viability and neuro/cardio-toxicity analysis, which are highly relevant for early safety assessment of new drug leads. Minimum technical specifications required from the high-throughput microelectrode array (MEA) and impedance equipment to be purchased are: • Enables medium to high throughput analysis i.e. at least 96-well format capacity. This throughput is needed for screening compound libraries where compound stock volumes are limited. • Enables measurements with several plate formats mimicking standard well culture plates (at least 12, 24, 48, 96 well formats). This flexibility is required to enable experiments with various cell models some of which cannot be established in high-throughput format • >700 measurement electrodes per MEA plate to allow high quality data output with high number of electrodes per well • At least 12.5 kHz data sampling frequency to identify fast occurring electrophysiological events in neuronal and cardiac cells • Ability to induce and measure cardiac local extracellular action potentials (LEAP) on any and every electrode in a plate • Capable of monitoring live cell function parameters in real time including cell proliferation, cytotoxicity, cell adhesion, receptor based functional assays, immune cell killing,

ADCC, viral neutralizing antibody detection, cell migration, wound healing, and barrier function through impedance with at least 96-well plate capacity • Optogenetic stimulator for customizable light stimulation • Temperature and gas environment control for measurement chamber to enable stable long-term measurements • Option for transparent sample area in wells for imaging cell growth, morphology for identification • Possibility to use customised MEA plates, e.g. organ-on-a-chip platforms for co-cultures and tissue models • Advanced, license-free analysis software packages specifically designed for neuronal and cardiac cell analysis, cell viability and impedance measurements.

Internal identifier: 600218

5.1.1. Purpose

Main nature of the contract: Supplies

Main classification (cpv): 38000000 Laboratory, optical and precision equipments (excl. glasses)

5.1.2. Place of performance

Country subdivision (NUTS): Helsinki-Uusimaa (FI1B1)

Country: Finland

5.1.6. General information

Procurement Project not financed with EU Funds.

The procurement is covered by the Government Procurement Agreement (GPA): yes

5.1.7. Strategic procurement

Social objective promoted: Human rights due diligence in global supply chains

Innovation procurement: The procured works, supplies or services are novel or significantly improved compared to other works, supplies, or services already on the market.

5.1.10. Award criteria

Criterion:

Type: Quality

Name: minimum quality

Description: the only device that meets the minimum requirements

Category of award weight criterion: Order of importance

Award criterion number: 1

Justification for not indicating the weighting of the award criteria: direct procurement

5.1.15. Techniques

Framework agreement:

No framework agreement

Information about the dynamic purchasing system:

No dynamic purchase system

5.1.16. Further information, mediation and review

Review organisation: Markkinaoikeus

Information about review deadlines: party must request rectification of procurement within 14 days of receiving notice of the decision of the contracting entity (together with instructions for appeal) or of some other resolution made in the procurement procedure.

6. Results

Value of all contracts awarded in this notice: 287 973,50 EUR

Direct award

:

Justification for direct award: The contract can be provided only by a particular economic operator because of an absence of competition for technical reasons

Other justification: Minimum technical specifications required from the high-throughput microelectrode array (MEA) and impedance equipment to be purchased are:

- Enables medium to high throughput analysis i.e. at least 96-well format capacity. This throughput is needed for screening compound libraries where compound stock volumes are limited.
- Enables measurements with several plate formats mimicking standard well culture plates (at least 12, 24, 48, 96 well formats). This flexibility is required to enable experiments with various cell models some of which cannot be established in high-throughput format
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Axion Biosystems Maestro Pro is the only instrument in the market which meets all the most critical technical requirements fulfilling the needs of the research groups at the Faculty of Pharmacy. These are: flexible selection of different plate formats up to 96-well plates and also customised plates, suitability for electrophysical as well as impedance based measurements, possibility for both voltage-drive and optogenetic simulation and data collection from significant number of electrodes per plate (768). Axion Biosystems is the sole manufacturer and distributor of the Maestro Pro in Europe and North America.

6.1. Result lot identifier: LOT-0000

Winner selection status: At least one winner was chosen.

6.1.2. Information about winners

Winner:

Official name: Axion Biosystems

Tender:

Tender identifier: Tender Axion Biosystems

Identifier of lot or group of lots: LOT-0000

Value of the tender: 287 973,50 EUR

Subcontracting: Not yet known

Contract information:

Identifier of the contract: Agreement with Axion Biosystems

Date on which the winner was chosen: 25/02/2026

6.1.4. Statistical information

Received tenders or requests to participate:

Type of received submissions: Tenders

Number of tenders or requests to participate received: 1

8. Organisations

8.1. ORG-0001

Official name: Markkinaoikeus
Registration number: 3006157-6
Postal address: Radanraketantatie 5
Town: Helsinki
Postcode: 00520
Country subdivision (NUTS): Helsinki-Uusimaa (FI1B1)
Country: Finland
Email: markkinaoikeus@oikeus.fi
Telephone: +358 295643300
Internet address: <https://www.markkinaoikeus.fi>

Roles of this organisation:

Review organisation

8.1. ORG-0002

Official name: Axion Biosystems
Size of the economic operator: Medium
Registration number: EIN 30-0472344
Town: Atlanta, GA
Postcode: 30309
Country: United States

Roles of this organisation:

Tenderer

Winner of these lots: LOT-0000

8.1. ORG-0003

Official name: University of Helsinki
Registration number: 0313471-7
Postal address: Fabianinkatu 33
Town: Helsinki
Postcode: 00100
Country subdivision (NUTS): Helsinki-Uusimaa (FI1B1)
Country: Finland
Contact point: Hankinnat
Email: hankinnat@helsinki.fi
Telephone: +358 503188076
Internet address: <https://www.helsinki.fi/en>

Roles of this organisation:

Buyer

8.1. ORG-0004

Official name: Hansel Oy (Hilma)
Registration number: FI09880841
Postal address: Mannerheiminaukio 1a
Town: Helsinki
Postcode: 00100
Country subdivision (NUTS): Helsinki-Uusimaa (FI1B1)
Country: Finland

Contact point: eSender
Email: tekninen@hankintailmoitukset.fi
Telephone: 029 55 636 30
Internet address: <http://hankintailmoitukset.fi>
Roles of this organisation:
TED eSender

Notice information

Notice identifier/version: 8d539f4e-421f-43e2-954f-fde5eb9c1f34 - 01
Form type: Result
Notice type: Contract or concession award notice – standard regime
Notice subtype: 29
Notice dispatch date: 16/03/2026 10:10:10 (UTC+00:00) Western European Time, GMT
Notice dispatch date (eSender): 16/03/2026 10:10:23 (UTC+00:00) Western European Time, GMT
Languages in which this notice is officially available: English
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