Leids Universitair Medisch Centrum

NL-LEIDEN: PROCUREMENT of Mass Spectrometer and Liquid Chromatography instruments – REFERENCE L-EU-26-29

Date: November 8th 2026

CPV-code	Omschrijving
38433100-0	Massaspectrometers
38432200-4	Chromatografen

ONDERHANDELINGSPROCEDURE ZONDER BEKENDMAKING VAN EEN AANKONDIGING VAN EEN OPDRACHT (ART. 2.32 AW 2012, GEWIJZIGD BIJ AANBESTEDINGSBESLUIT 2016)

Negotiated procedure without prior publication (Voluntary ex-ante transparency notice)

Description of needs:

For the analysis of complex glycomics, glycoproteomics and proteomics samples derived from biological material, we need a liquid chromatography-mass spectrometry (LC-MS) setup capable of high resolution and high-speed analysis at nanoscale. This setup needs to be able to perform high-quality MSn experiments for structural glycoproteomics and needs to provide complementary fragmentation strategies including higher-energy collisional dissociation, electron-transfer higher-energy collision dissociation and the option for infrared-aided fragmentation.

To satisfy these needs the LUMC intends to award a contract for the purchase of one (1) Orbitrap Tribrid Apex MultiOmics Mass Spectrometer and three (3) Vanquish Neo UHPLC systems for the 'Center for proteomics and metabolomics' (CPM) department to the company Thermo Fisher Scientific located in 4817 BL Breda, the Netherlands. It concerns the delivery of an advanced 'high speed' tribrid mass spectrometer and nano scale liquid chromatography systems for glycan, glycopeptide and peptide analysis in complex (glyco)peptide/protein mixtures.

These Orbitrap Tribrid Apex MultiOmics Mass Spectrometer and Vanquish Neo UHPLC systems will be used for the LC-MS characterization of glycoproteins and glycoproteomes. To that end, the instruments will be used for released glycan, glycopeptide and peptide analysis. In addition, the instrument will be used for intact analysis of large glycoproteins derived from complex clinical samples.

The contracting authority may use the negotiated procedure without prior publication (Voluntary ex-ante transparency notice) because there is no competition for the technical reasons outlined below, and the required goods/services can only be supplied by this specific provider:

Mass spectrometer

- Flexible MS analyzers including quadrupole mass filters, a dual-pressure linear ion trap, and high resolution trap mass analyzers, allowing unique combinations of high-sensitivity ion trap analyses, high-resolution trap analyses, and a broad range of MSn acquisition types.
- Parallelization of MS and MSn analyses allowing simultaneous handling of five ion packages for high sensitivity at high acquisition rates.
- Automated, remote, and hands-free calibration.
- Environmentally friendly, oil-free dry pumps.
- Data dependent data acquisition (DDA) and data independent data acquisition (DIA) MS/MS acquisition rates of up to 75 Hz.
- Resolution of at least 400,000 FWHM at *m/z* 200.
- Field upgradable laser ion activation source to support orthogonal ion activation.
- Resonant collision-induced dissociation (CID) and higher-energy collisional dissociation (HCD), ETD, including electron-transfer higher-energy collision dissociation (EThcD) and electron-transfer collision-induced dissociation (ETciD) at any MSn stage.
- Demonstrable performance of the instrument in different mass ranges with possibility of easy switch between them for small (i.e. glycopeptide) and large (intact MS) molecule applications.
- Control of ions entering the mass analyzer to prevent ion overloading.
- Commercial ion source compatible with nanoHPLC instrumentation.
- Stable m/z accuracy over time with <1 ppm RMS drift for at least 5 days independent of lab temperature.
- Adaptive retention time for dynamic adjustment of chromatographic peaks.
- Data independent data acquisition (DIA) and Parallel Reaction Monitoring (PRM) in one experiment
- Capability of pre-accumulation for MS2.
- Possibility to efficiently combine positive and negative mode MS analyses in one run.
- Flexible workflow programming for method adjustment/optimization.
- All the above-mentioned requirements in the same device.

Liquid chromatography

- Active flow range control from 1 nl to100 µL.
- Allowing 2 µL injections from 3 µL samples.
- Supporting chromatography at 900 bar.

Proposed contract

The Orbitrap Tribrid Apex MultiOmics Mass Spectrometer and three (3) Vanquish Neo UHPLC systems including software en accessories.

Final provisions

For the sake of completeness, LUMC wishes to inform you by means of this notice and provide you with the opportunity to lodge an objection to this intended award. If you object to the intended purchase from Thermo Fisher Scientific, you are requested to notify the procurement department no

later than 30 November 2026, before 14:00 (CET), via email at aanbestedingen@lumc.nl, stating the grounds for your objection, the relevant procurement reference, and the lead contracting authority / contact person (penvoerder). If no (successful) objection is lodged within the aforementioned period, LUMC shall be free to proceed with the award and procurement of the aforementioned contract.