

# Market consultation

Request for information

“Automation of hiPSC culture”

Reference L-EU-25-17

Date: 13-11-2025



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## 1. Introduction

This is the market consultation concerning Automation of hiPSC culture on behalf of the Leiden University Medical Center (hereafter LUMC). LUMC has the intention to publish a tender to acquire an Automation of hiPSC culture in Q1 of 2026. This Market Consultation is published with the purpose to collect information about specifications and capabilities of Automation of hiPSC culture available on the market.

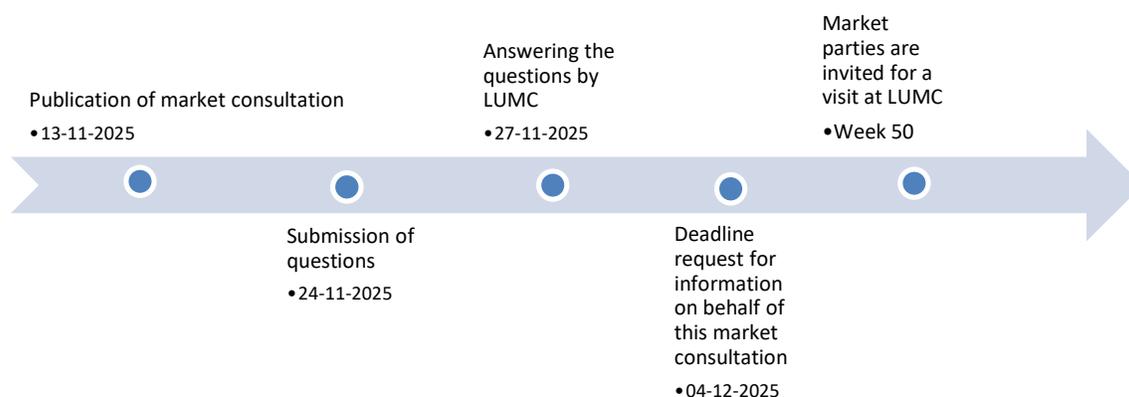
## 2. Goal & Purpose

The goal of this market consultation is threefold:

1. To receive information directly from suppliers to gain insight in the available automation systems;
2. To offer suppliers the possibilities to present LUMC relevant information which can be used for an exact and more precise Request for Proposal;
3. To share information on LUMC requirements with the market and the relevant suppliers in order to contribute and establish a level playing field for all interested parties that facilitates a successful commercial proposal from as many suppliers as possible.

### 2.1 Planning of the market consultation

We foresee the following planning, which is provisional and LUMC has the right to alter the dates and times at all time.



This Market Consultation is published on November 13th, 2025 and will be open until December 4th, 2025 at 14:00 CEST.

### 2.2 Contact

Single point of contact:

Please submit reactions to this Market Consultation by email to Pieter van den Berg and Maxime Cammeraat at [aanbestedingen@lumc.nl](mailto:aanbestedingen@lumc.nl).

### 3. Conditions

Participation is non-committal for any party concerned, including LUMC. Participation has no effect nor any consequence for an eventual (European) Tender. No party can claim any rights following the participation in this market consultation nor following the documents shared in this market consultation.

### 4. Procedure

The procedure will be as follows:

- This market consultation document is published on Ted, Tendered;
- The market parties will have the opportunity to ask questions about this market consultation document using the question & answer module on Ted, Tendered;
- The market parties formulate their answers to the questions from LUMC;
- The LUMC may request further information from (one of) the market parties if certain answers are not clear;
- The market parties that meet the needs and requirements described in this document are invited for a visit at LUMC for a further explanation of their product/solution. The meetings are planned in week 50;
- Any given information shall be dealt with in complete confidentiality. If information will be used in the final draft of the Request for Proposal this will be done anonymously with no reference to any specific supplier, brand or product. Parts of the information can thus be made public, a.o. via Ted, Tendered. In case this is undesirable kindly state specifically in your documents the specific passages concerned. LUMC shall not honor any claim concerning the usage of information or the matter of confidentiality;
- The participating parties will not receive any reimbursement for costs incurred. Participation in this market consultation is entirely without obligation. The participating parties may not claim preferential treatment in the tender procedure either.

### 5. Background

#### *About the LUMC*

The LUMC is a modern university medical center for research, education and patient care with an excellent quality profile and a strong scientific focus. With a unique research profile ranging from fundamental medical oriented research to applied clinical research, the LUMC is a global player in its field. The LUMC can hence also offer patient care and education based on the latest international insights and standards - and contribute to improving medicine and health care at its own institution and outside of it. The LUMC also acts as a knowledge center for social issues regarding public health, plays a regional guiding role and is a center for training and continued education for medical

professionals. The triangle formed with the University of Leiden and the Leiden Bio Science Park creates unique environment for medical innovation in and around Leiden.

#### *About the hiPSC Centre*

The Leiden hiPSC Centre LUMC is part of the hDMT INFRA StemCells infrastructure. The hDMT INFRA StemCells infrastructure serves to be used to conduct research and promote innovations related to human stem cells.

An important component of hDMT INFRA's capacity is realized by the (robotics-based) automation of several core services, including the mass generation of 'healthy' and 'diseased' human induced Pluripotent StemCells (hiPSCs). Lines generated from diseased donors will be genetically modified to remove disease mutations. These isogenic lines that can be used as controls in disease models. Via automation, we will be able to substantially improve the efficiency of our services and to standardize our services.

Our protocol consists of transfecting cells with Cas9 and HDR template. When the cells have recovered they will be cloned by use of the UP.SIGHT (Cytena). Cloning of the transfected lines is a necessity to achieve a genomic pure population. The clones are screened and correctly modified clones are expanded further for full QC analysis and freezing of stocks.

The current throughput limitation is the cell culture during the cloning and expansion phase of the project. During cloning multiple 96-well plates have to be combined to a single plate and replica split. Automating this step might make it possible to work with 384-well plates, necessitating less plates and culture media. This also is true for the expansion phase of the culture. By a more consistent way of culture less material will be lost and less consumables will be needed in general.

The Program of Requirements is based on a budget of €970.000 incl VAT given as a Grant by NWO for the project hDMT INFRA StemCells

#### *Objectives of the tender*

The LUMC hopes to achieve the following objectives with this tender and the Agreement stemming from it:

- a) We are looking to purchase an automated platform for culturing of human induced pluripotent stem cells after genetic modification
- b) We are looking for a supplier that can deliver all desired components and integrate the system, and is our single point of contact for maintenance and support
- c) The automated platform should focus on the tasks of cloning and culturing the cells, while maintaining high quality

- d) Preferably the Automated platform is scalable and flexible to accommodate changes in protocols or culture needs
- e) The platform should be able to prepare the cells for further (manual) handling.
- f) Compared to manual handling there should be less variation in hiPSC cell quality and experiment outcome when using the automated platform
- g) The automated platform should let us reduce costs by downscaling experiments and achieve a higher throughput by taking over bottleneck procedures.
- h) Purchasing professional support and proactive services;
- i) Get a high quality of service and maintenance;
- j) Concluding a legitimate agreement;

The LUMC translated these objectives into the demarcations of the Contract, the requirements placed on the execution of the Contract, the requirements placed on the Tenderers in order to be eligible for the Contract and the manner in which the most economically advantageous Tender will be chosen.

## 6. Questions and Answers

In case your company markets an Automation of hiPSC culture that meet the needs and requirements described above, you are invited to provide answers to the following questions:

\* Please provide data/proof, where possible.

1. Can you meet the attached program of technical requirements?
2. If you cannot meet the requirements, kindly specify and motivate the requirements you cannot meet.
3. Are the requirements clearly formulated? Please, motivate what is not clear;
4. Please specify in the Program of Requirements how the wishes can be configured in the provided system;
5. Please explain how the FAT and SAT will be executed;
6. Is long term media storage integrated in the system. Please elaborate;
7. Please provide a budget quotation for the complete system;
8. What innovations are expected to be integrated in the next 2/3 years;
9. Do you have a reference site of the suggested system;
10. We intend to incorporate a user test in the Tender. Do you have objective criteria for how the user test can be evaluated?
11. Please specify the time of delivery after contract signing.

## **Appendix**

Program of Requirements is enclosed separately.