COMMODITY DESCRIPTION

H.S. NO	ITEM NO.	DESCRIPTION	QUANTITY	UNIT
		Human cell & Tissue culture incubator(Embryo time-lapse)	1	System

A . FEATURES :

1. This equipment is a culture system that maintains and monitors an environment mimicking the biological environment (minimizing external stimuli for embryo culture) for the in vitro culture of embryos.
2. It precisely maintains the set temperature and CO_2 concentration, minimizes the evaporation of the culture medium, and automatically manages the humidity inside the chamber using a sensor.
3. The optimized light source is equipped with an amber/red wavelength, and because the total energy output is lower compared to conventional microscopes, it reduces light-induced damage to embryos in the early developmental stages that are vulnerable to light.

B. CONSIST OF

1. Embryo incubator — 1 set
2. Management server (OS: Linux or MS Windows Server) — 1 set
   - Assessment SW (including 200 cycles or equivalent)
   - Storage (more than 8 TB)
3. Accessories
   1) 2-A or 2-B
   - 2-A) Water bottle — 12 ea
   - 2-A) Dish — 20 ea
   - 2-B) Slide — 40 ea
   - 2-B) Label printer + resin foil — 1 set
   2) Client PC (OS: MS Windows11Pro recommended) — 1 set
   - All-in-one PC or small form factor (Intel core i5 13th generation or newer)
   3) Operation Manual — 1 copy
   4) Service Manual (Included circuitary information for trouble-shooting) — 1 copy

C. SPECIFICATIONS :

1. Embryo incubator
   1) Capacity : 6 dishes * 16 wells or more
   2) Camera
   - Monochrome CMOS
   - Resolution : 2,048 x 1,088 or more
   - Image capture
     : Image of up to 11 focal planes of each embryo at every 10 minutes
   - Light exposure time : 0.1 sec/image or less
   - Light source : 550~650 nm
   3) Filter

사용부서 : 산부인과 의공기술검토자 : 성기웅

- HEPA filter retains 99.97% particles 〉 0.3㎛

4) Chamber temperature

- Temperature sensor range : about +36°C ~ + 39°C
- Temperature sensor accuracy : ± 0.2°C or preciser
- Temperature setting : about +36°C ~ + 39°C, 0.1°C inc.
- Chamber environment : humid or dry

5) Gas control

- CO_2 range : about 3~10% controllable
- O_2 range : about 5~20% controllable
- Gas concenturation accuracy : ±0.5% or preciser
- Gas stabilization time : 5min at CO_2 or less

2. Management server : HP, PowerEdge T360 or equivalent

D. REMARKS :

1. Installation
   - Supplier or contractor should be responsible for installation of this equipment.
2. Warranty
   - Supplier or contractor should be responsible for free of charge after - service whatever there is any defect or any trouble for three years after being accepted by customer.
   - If contractor and supplier do not supply appropriate service manual, the period of time for warranty is six years.
   - If a warranty of less than three years is provided for all or part of the equipment, it is separately described in section B. Consist of.
3. Etc.
   - If there is a request from the user department, the supplier provides hospital computer data linkage (1-year warranty) such as EMR, PACS, and LIS free of charge, and the procedures of data link should be proceeded with the department of medical information in KYUNGPOOK NATIONAL UNIVERSITY HOSPITAL.
   - The operating system required for operating the equipment should be based on Win11Pro. In case of lower versions, the supplier must report to the KNUH Information Security Team and should perform free upgrades of the operating system and operating software according to future equipment updates.