(4) Basic requirements of the procurement :
A The system must consist of the following components : the server system, the client system and the network devices.
B The server system must include the following components : the user authentication server, the file storage server, the backup server, the DNS server and the proxy server. The server system must accommodate 30,000 users and stably operate for 100 concurrent users.
C The client system must include monitors, PC terminals and the client administration server.
D The network devices must include switches, the united threat management (UTM) system and network cables.
E For all the PC terminals, the user authentication must apply the common authentication codes (user ID and password) managed by the Integrated Electronic Authentication System of the university. The password must be encrypted whenever they are transmitted through the network.
F The file storage server must have large enough storage space, and offer high-speed and stable access for concurrent 100 users. It must be implemented with redundant configuration for fault tolerance. The file storage server must be configured so that every user can access his or her own home area from each of the PC terminals. Each user must be assigned at least 1GB home area. The administrator must be allowed to set the disk quota for each user. The exterior disk devices for backup of the system area must be provided.
G More than 360 monitors and more than 100 PC terminals must be installed in the ICL laboratories, Multimedia Education and Research Complex of the university. A pair of one monitor and one terminal should be small-sized so that they can be installed on a desk of 65cm width and 60cm depth. The terminals should have substantial performance to execute simulation programs with large-scale data.
H The client system must be configured so that the administrator can manage the OS images of the client terminals through the client administration servers and that the client terminals are provided the OS images by the servers. The maintenance operation for the client software, including operating systems, must be simultaneously applied to all the client terminals.
I The network must be sufficiently high-speed and stable for 100 concurrent users.
J The system must be reliable, and the redundant configuration must be implemented for fault tolerance.
K Efficient and effective means for the system administration operation must be provided.
L All the devices on the system must be protected against malicious attacks and security threats.
M All the devices on the system must be properly infixed against earthquakes and theft.
(5) Time limit for the submission of the requested material : 17 : 00 13 February, 2024
(6) Contact point for the notice : Masamitsu Otomo, Procurement Services Office, Finance Department, Tohoku University, 2―1―1 Katahira Aoba-ku Sendai-shi 980―8577 Japan, TEL 022―217―4869

○第 10 号

1　調達内容
(1)　品目分類番号　24
(2)　導入計画物品及び数量　バイオバンキング自動分注システム　二式
(3)　調達方法　購入等
(4)　導入予定時期　令和６年７月以降
(5)　調達に必要とされる基本的な要求要件
A　当機構のコホート調査で使用している採血管及び採尿管より、血清、血漿、バフィーコート及び尿検体の分注ができること。
B　既存のバイオバンキング仕分け自動化システムと同等の分注プログラムを運用できること。
C　８chディスポチップ仕様でチップ間隔は採血管等試験管から96本入りチューブラックまで自動可変できること。
D　分注アームと独立したアームがあり、グリッピングアームの自動付け替えができること。
E　バフィーコート検体は血漿検体と同時に分注ができること。
F　バフィーコートを分注するために遠心分離後の採血管の血漿／赤血球の界面を計測する機能を有すること。
G　Ｆ項の計測スピードは１分当たり６本以上であること。
H　ＨＥＰＡフィルターを搭載しており、風量は0.4m／s以上であること。
I　96本のラック入り状態の２Ｄチューブ（Thermofisher社製　ＢＣ30661）のキャップを保持可能な装置を有すること。
J　プレートリーダーを組み込み蛍光色素（PicoGreen）によるＤＮＡ濃度測定及び希釈溶液の作成ができること。
K　当機構が構築する情報システムとの一体的運用ができること。
2　資料及びコメントの提供方法　上記１(2)の物品に関する一般的な参考資料及び同(5)の要求要件等に関するコメント並びに提供可能なライブラリーに関する資料等の提供を招請する。
(1)　資料等の提供期限　令和６年２月13日17時00分（郵送の場合は必着のこと。）
(2)　第９号に同じ。
3　説明書の交付　本公表に基づき応募する供給者に対して導入説明書を交付する。
(1)　交付期間　令和６年１月11日から令和６年２月13日まで。
(2)　交付場所　上記２(2)に同じ。
4　説明会の開催　本公表に基づく導入説明会を開催する。
(1)　開催日時　令和６年１月17日10時00分
(2)　開催場所　オンライン開催とする。（詳細は、導入説明書による。）
5　第９号に同じ。
6　Summary
(1) Classification of the products to be procured : 24
(2) Nature and quantity of the products to be purchased : Automatic Dispensing System for Biobanking 2 Sets
(3) Type of the procurement : Purchase
(4) Basic requirements of the procurement :
A Serum, plasma, buffy coat, and urine samples can be dispensed from the blood／ureter collection tubes which are used in our cohort study.
B The program equivalent to the existing system can be operated.
C It has an 8 ch disposable chip specification, and the chip spacing can automatically change for each collection tubes and 2D Matrix tubes (BC 30661 Thermofisher).
D It has an arm independent of the dispensing arm, and the arm can automatically replace the gripping parts.
E Buffy coat samples can be dispensed simultaneously with plasma samples.
F The plasma／erythrocyte interface can be measured for the blood collection tube to dispense a buffy coat, even if our barcode label is attached on the collection tube.
G The measurement of F) should have a speed with more than 6 tubes per minute.
H It has a HEPA filter and the air flow have a speed at 0.4 m／s or more.
I It has a device capable of holding the caps of 96　2D Matrix tubes in a rack.
J It has a plate reader, and can measure DNA concentration with a fluorescent dye (PicoGreen) and prepare diluted solutions with fixed concentration.
K It can be integrated to the laboratory information management system operated in the Tohoku Medical Megabank Organization.
(5) Time limit for the submission of the requested material : 17 : 00 13 February, 2024
(6) The same as the notice above No.9.