韓国循環器センター
実施協議チーム報告書

昭和54年5月

国際協力事業団
医療協力部
JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

はしがき

韓国政府の要請に基づき，韓国循環器センター設置に伴うプロジェクト方式による技術協力の可能性を見極めるべく昭和53年8月に派遣した事前調査チームの報告（韓国聖パウロ病院循環器センター事前調査チーム報告書，昭和53年11月国際協力事業団医療協力部 医二 CR(2) 78－6）を検討の結果，協力すべしとの方針決定がなされたため，昭和54年2月に実施協議チームを派遣した。

同実施協議チームは韓国側当局者と協議を重ね，3月2日同チーム団長と韓国側実施機関の責任者である保健社会部医政局長との間で討議の取極めを行なった。

この討議議事録により韓国循環器センタープロジェクトが正式に発足をみるに至った。

以下は上記実施協議チームの報告であるが，団長始め団員各位並びに同チーム派遣に賜った関係諸機関の各位に深甚なる感謝の意を表すると共に，プロジェクトの実施についても引続き御協力賜わるようお願い申上げる次第である。

国際協力事業団

理事長 谷川正男

目　　次

協力の実施細目を協議中のチーム（右側）

討議議事録の署名

I　実施協議チームの編成

団　　長　　沢崎博次

日本電信電話公社

関東逓信病院長

団　　員　　大宮善吉

日本電信電話公社

関東逓信病院循環器内科部長

団　　員　　服部　淳

日本電信電話公社

関東逓信病院心臓血管外科部長

団　　員　　武井秀雄

国際協力事業団

医療協力部医療第一課長

同　　行　　山崎定雄

外務省経済協力局

技術協力第二課課長補佐

Ⅱ チ ー ム の 日 程

2月25日	(日)	17：55	ソウル着（CX 450）.
26日	(月)	11：00	日本国大使館にて打合せ
		14：00	外務部国際経済局長表敬
		15：00	科学技術処技術協力局長表敬
		15：30	保健社会部医政局長表敬・協議
27日	(火)	10：00	聖パウロ病院にて協議
		〃	
		17：00	
28日	(水)	10：00	保健社会部にて協議
		〃	
		12：00	
3月 1日	(木)		公　休　日
2日	(金)	14：00	保健社会部にてR／D署名
		15：00	日本国大使館に報告・打合せ
3日	(土)		事　務　整　理
4日	(日)	13：15	離　韓　（JL 952）

Ⅲ　協力に至るまでの主な経緯

昭和51年12月	韓国政府より外交ルートを通じ正式要請
昭和52年　9月	在韓大使宛事前調査チーム派遣予定を通報
昭和53年　8月	事前調査チーム派遣
12月	事前調査チーム報告書完成
昭和54年　1月	韓国政府に対し実施協議チーム調査方針を通報
昭和54年　2月	実施協議チーム派遣
昭和54年　3月	R／D署　名

Ⅳ 協議検討の経過

1. 報告の要旨

韓国循環器センターに対する技術協力実施の方針が決定されたことに伴い，本件プロジェクトに係る討議議事録（Record of Discussions＝R/D）を作成するため，実施協議チームが昭和54年2月25日より3月4日まで派遣され，わが方提案のR／Dを基に韓国側関係機関と協議検討の結果，わが方の基本方針のラインで合意に達したので，3月2日保健社会部において，同部医政局長と実施協議チーム団長との間で署名を了した。

署名に先立ち，本実施協議チームは本件プロジェクトの韓国側政府機関である外務部，科学技術処及び保健社会部と全般についての協議の後，聖パウロ病院と協力の実施要領に関する検討を行ない，更に引続いて保健社会部とR／D案の細目について協議検討した。

2. 全般的協議

各省共々わが国の協力に対する感謝の意を表明すると同時に，本件プロジェクトを重要視し，その成果に多大の期待を寄せている。本件プロジェクトの背景，開発計画の中の位置付け等は，先の事前調査チームの報告の通りであるが，保健医療の分野は国民福祉の増大を追求する政策の基本部分を占めるものであることから，国際協力による保健医療事業を，国際協力の理念の中での次元及び質の高い協力たらしめるべく積極的に推進して行きたいとし，これに当っては継続的な協力が是非共必要であるとしている。

3. 実施要領に関する検討

本件プロジェクトの協力の態様の特徴は，協力期間を二分し，前段において心臓内科を重点的に取上げ，その成果を見極めた上で後段の協力を検討することにある。従って，協力全期間の全体計画を検討することは困難であるが，後段に移行することを念頭において，前段としての事業計画及び事業計

画に見合う所要人員の配置，並びにわが方の協力による専門家の派遣，研修員の受入れ，機材の供与等について聖パウロ病院と協議検討を行なった。

(1) 事 業 計 画

先づ，心臓内科部門の充実を図り，後段への移行を可能ならしめることを前段のターゲットとする場合，換言すれば後段への移行が可能となる水準に心臓内科部門の充実化が行い得るか否かの観点から事業計画の検討を行った。このことは，事業内容とそのための関連措置の関係において検討されるべきものであるが，韓国側原案の事業内容に含まれる項目を若干変更し，上記ターゲットの達成が可能であろうとの見通しの下に，下記の通り調整した。

事業内容

第1年度事業項目

(イ) 心臓超音派診断

(ロ) ベクトル心電図分析

(ハ) ICU，モニター実施分析

(ニ) 心音図，心電図分析

第2年度事業項目

(イ) 心臓カテーテル検査実施分析

(ロ) 冠動脈撮影実施分析

(ハ) ペースメーカーによる治療

なお，第3～4年度の事業内容については，2年後の検討事項であるため，暫定的事業目標として下記の通り調整した。

第3年度事業項目

(イ) 心電図自動解析

(ロ) 心臓手術準備

第4年度事業項目

(イ) 高血圧診療研究

(ロ) 脳卒中診療研究

(ハ) 肺機能分析

(ニ) 心臓手術実施

(2) 所要人員の配置

第1年度に必要とする心臓内科，再活医学，電子医療機技士については各1名内定しており，近々センターに配属されることになっている。これら3名の要員を研修員としてわが国へ派遣することを韓国側は内定し，既にその準備を進めている。特に面接の機会を設けたが，資質，資格とも難点は見当らず，むしろ優秀な要員と見受けられる。

看護婦等その他の所要人員については，日本側の研修員受入枠等を考慮し，センター独自の計画による海外研修を含めて養成確保を検討している由である。

第2年度の所要人員に関しては，既に凡その目途はたっており，特に問題はないとしている。

(3) 日本側専門家派遣

前述の事業計画設定に合わせ，妥当と判断し得る派遣計画として下記の通りの成案をみた。なお，第1～2年度については実行計画とし，第3～4年度は暫定的なものとすることは，事業計画と同様の解釈に立っている。

派 遣 計 画

第1年度

(イ) 超音波診断専門家　　1 名

(ロ) 循環器病診断専門家　　1 名

第2年度

(イ) 冠動脈撮影専門家　　1 名

(ロ) 心臓カテーテル法専門家　　1 名

(ハ) 小児心臓学専門家　　1 名

第3年度

(イ) 心音図専門家　　1 名

(ロ) 心臓内科専門家　　1 名

(ハ) 心臓外科専門家　　1　名

第4年度

(イ) 高血圧専門家　　1　名

(ロ) 脳卒中専門家　　1　名

(ハ) 心臓外科専門家　　2　名

派遣期間は短期とし，第1年度の派遣の時期は，同年度の供与機材が稼動可能な時期（見込みとしては54 年度第4・四半期）とする。

(4) 研修員受入れ

専門家派遣計画案策定と同様の観点から，下記の通りの成案をみた。

受　入　計　画（受入期間は各々3ケ月）

第1年度

(イ) 心臓内科医　　1　名

(ロ) リハビリテーション医　　1　名

(ハ) 電子医療機技士　　1　名

第1年度の受入時期は54 年度第2・四半期を目標とする。

第2年度

(イ) 心臓内科医　　1　名

(ロ) 小児心臓病医　　1　名

(ハ) 放射線科医　　1　名

(ニ) 放射線科技士　　1　名

第3年度

(イ) 心臓内科医　　1　名

(ロ) 心臓外科医　　1　名

(ハ) 臨床検査医　　1　名

(ニ) 臨床検査技士　　1　名

第4年度

(イ) 麻　　酔　　医　　1　名

(ロ) 神経外科医　　1 名

(ハ) 心臓外科医　　1 名

(ニ) 医療技士　　1 名

(5) 機材供与

韓国側の作成による機材の要望リストは別掲の通りである。検討の結果，第1～2年度の機材については，事業計画に照らしほぼ妥当なものと考えられるが，第3～4年度分に関しては，前段の成果を見極めた上での再検討が必要である。なお，リスト外の所要機材の手当について，韓国側は最大の努力をする旨意志表示している。

年度別要望の規模（運賃保険料を除く）は下記の通りである。

第1年度	63,450,000円
第2年度	75,500,000円
第3年度	77,240,000円
第4年度	60,450,000円
計	276,640,000円

なお，第1年度の機材購送は54年度第3・四半期を目標として，韓国側がA4フォームによる要請手続を可及的速やかに取り進める。

供与機材の受取人の指定については，保健社会部長官とする案が同部より出されたが，韓国政府の規定に基づき科学技術処長官とすることが確認された。受取人の表記は下記の通りとする。

Minister, Ministry of Science and Technology (Korea Cardiovascular Centre, St. Paul Hospital).

3. R/D に関する協議

本件プロジェクトの韓国政府の責任機関は，保健社会部である。わが方提案のR/D について同部は科学技術処等関係省との協議を前以って了しており，基本的に異存はないとしながらも，(1) 本件協力の規模総額を明示して欲しい。本件プロジェクトの協力規模がどの程度になるのか承知しておく必

要があり，長官の最終決裁を得るに際してもこれが必要である。(2) 供与機材リストをAnnexとして添付して欲しい。若し無理ならば，本文を「相互が必要と合意する機材を供与する」に訂正して欲しい。(3) R/D 以外に政府間の合意文書の交換が望しい。コロンボ・プランによる要請手続を踏むにしても，R/D だけでは不安であり，このことは，日韓の立場をかえて考えてみれば，理解が得られると思う等々の指摘が医政局長よりなされた。

(1)の規模総額の明示は，わが国の予算制度上不可能であり，R/D 第8条第1項に照らしても無理であること，また(3)については，わが国の保健医療協力事業はすべてR/D 方式により協力を行なっていること，また実施において何れの国の何れのプロジェクトについても円滑に処理されており，何ら問題が起きていないこと等々説明し相手方の了解を得た。(2)の供与機材のリスト添付については，R/D 本文の変更は出来ないため，個々の機材リストの形ではなく部門別所要機材にくくることとし，下記の表現でAnnexに追加記載することとした。

- Equipment for basic research in cardiovascular diseases
- Equipment for diagnosis and treatment.
- Equipment for other cardiovascular related fields

なお，韓国側要員並びに韓国側が用意すべき土地建物等に係るAnnexについては，各々下記の通り追加記載することとした。

ANNEX IV LIST OF KOREAN STAFF

Category	Field
1. Director, Korea Cardiovascular Center, Cardiologist	
2. Experts	Cardiology
	Pediatric Cardiology
	Cardiac Surgery
	Radiology
	Anesthesiology
	Rehabilitation
3. Resident staff	
4. Medical Electronic Technicians	
5. Nurses	
6. Interpreter	
7. Service personnel	

ANNEX V LIST OF LAND, BUILDINGS AND FACILITIES

The Korean side offers enough land, buildings and facilities to the project.

1. Land — Land for Korea Cardiovascular Center in St. Paul's Hospital

2. Buildings

Main building
- X-ray rooms
- Clinical laboratory
- Operation rooms
- Coronary Care Unit
- Central supply room
- Rehabilitation room
- Inpatient wards

Annex building
- Outpatient department
- Diagnostic rooms
- Rooms for Director and staffs
- Room for the Japanese experts

3. Other necessary land and buildings to be mutually agreed upon between the authorities concerned.

以上の箇所以外は全てわが方の提案の通りとし，韓国側実施機関を代表して保健社会部医政局長がR/D に署名することに合意をみた。

署名を了したR/D の全文は別掲の通りである。

V 結　　び

本件プロジェクトを所管する保険社会部を始め科学技術処等関係省の幹部は，韓国の財政基盤が強化されるに伴い，おそらく5～6年の後には，この種プロジェクトに対しても財政援助が可能となるかもしれないとの抱負と見通しの披歴に加え，北欧3国の病院設置に対する協力が，韓国の病院設置，整備等のモデルとして重要な役割を果している事実が証明しているように，韓国としては外国の援助を決して無駄にすることなく，本件プロジェクトについても，成功に導くための最大の努力を惜しまないと語っている。本件プロジェクトに対する韓国政府の行政的支援体制，カソリック医科大学，カソリック・メディカルセンター等の関連機関の支援体制等の状況については，事前調査チームの報告の通りであるが，本件プロジェクトの主体者である聖パウロ病院（循環器センター）においても着々と準備を進め，文字通り真剣に取組んでいるため円滑な事業実施とその成果が期待出来るものと思われる。

（資　料）

1. 日韓両国間における討議議事録

THE RECORD OF DISCUSSIONS BETWEEN THE JAPANESE IMPLEMENTATION SURVEY TEAM AND THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF THE REPUBLIC OF KOREA ON THE JAPANESE TECHNICAL COOPERATION FOR THE KOREA CARDIOVASCULAR CENTER PROJECT

THE RECORD OF DISCUSSIONS
BETWEEN THE JAPANESE IMPLEMENTATION SURVEY TEAM
AND THE AUTHORITIES CONCERNED
OF THE GOVERNMENT OF THE REPUBLIC OF KOREA
ON THE JAPANESE TECHNICAL COOPERATION
FOR THE KOREA CARDIOVASCULAR CENTRE PROJECT

The Japanese Implementation Survey Team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as JICA) and headed by Dr. Hirotsugu SAWASAKI, President of the KANTO TEISHIN Hospital, visited the Republic of Korea from February 25th 1979 to March 4th 1979 for the purpose of working out the details of the technical cooperation program concerning the Korea Cardiovascular Centre Project in the Republic of Korea.

During its stay in the Republic of Korea, the Team exchanged views and had a series of discussions with the Korean authorities concerned in respect of the desirable measures to be taken by both Governments for the successful implementation of the above-mentioned Project.

As a result of the discussions, the Team and the Korean authorities concerned agreed to recommend to their respective Governments the matters referred to in the document attached hereto.

Seoul, March 2, 1979

H. Sawasaki

Dr. Hirotsugu SAWASAKI
Head of the Japanese
Implementation Survey Team

Kyong-Shik CHANG, MD, Ph. D.
Director General of the Bureau
of Medical Affairs,
Ministry of Health and Social
Affairs.

THE ATTACHED DOCUMENT

I. COOPERATION BETWEEN BOTH GOVERNMENTS

1. The Government of Japan and the Government of the Republic of Korea will cooperate with each other in implementing the Korea Cardiovascular Centre Project (hereinafter referred to as "the Project") for the purpose of contributing to the control of cardiovascular diseases and thus to promoting the health conditions in the Republic of Korea.

2. The Project will be implemented in accordance with the Master Plan which is given in Annex I.

II. DISPATCH OF JAPANESE EXPERTS

1. In accordance with the laws and regulations in force in Japan, the Government of Japan will take necessary measures through JICA to provide at its own expense services of the Japanese experts as listed in Annex II through the normal procedures under the Colombo Plan Technical Cooperation Scheme.

2. The Japanese experts referred to in 1 above and their families will be granted in the Republic of Korea the privileges, exemptions and benefits no less favourable than those accorded to experts of third countries working in the Republic of Korea under the Colombo Plan Technical Cooperation Scheme.

III.

III. PROVISION OF MACHINERY AND EQUIPMENT

1. In accordance with the laws and regulations in force in Japan, the Government of Japan will take necessary measures through JICA to provide at its own expense such machinery, equipment and materials necessary for the implementation of the Project as listed in Annex III, through the normal procedures under the Colombo Plan Technical Cooperation Scheme.

2. The articles referred to in 1 above will become the property of the Government of the Republic of Korea upon being delivered c.i.f. to the Korean authorities concerned at the ports and/or airports of disembarkation, and will be utilized exclusively for the implementation of the Project in consultation with the Japanese experts referred to in Annex II.

IV. TRAINING OF KOREAN PERSONNEL IN JAPAN

1. In accordance with the laws and regulations in force in Japan, the Government of Japan will take necessary measures through JICA to receive at its own expense the Korean personnel connected with the Project for technical training in Japan through the normal procedures under the Colombo Plan Technical Cooperation Scheme.

2. The Government of the Republic of Korea will take necessary measures to ensure that the knowledge and experience acquired by the Korean personnel from technical

training

training in Japan will be utilized effectively for the implementation of the Project.

V. MEASURES TO BE TAKEN BY THE GOVERNMENT OF THE REPUBLIC OF KOREA

1. In accordance with the laws and regulations in force in the Republic of Korea, the Government of the Republic of Korea will take necessary measures to provide at its own expense:

(1) Services of the Korean counterpart personnel and administrative personnel as listed in Annex IV;

(2) Land, buildings and facilities as listed in Annex V;

(3) Supply or replacement of machinery, equipment, instrument, vehicles, tools, spare parts and any materials necessary for the implementation of the Project other than those provided through JICA under III above;

(4) Transportation facilities and travel allowance for the Japanese experts for the official travel within the Republic of Korea;

(5) Suitably furnished accommodations for the Japanese experts and their families.

2. In accordance with the laws and regulations in force in the Republic of Korea, the Government of the Republic of Korea will take necessary measures to meet:

(1) Expenses necessary for the transportation within the Republic of Korea of the articles referred to in III above

above as well as for the installation, operation and maintenance thereof;

(2) Customs duties, internal taxes and any other charges, imposed in the Republic of Korea on the articles referred to in III above;

(3) All running expenses necessary for the implementation of the Project.

VI. ADMINISTRATION OF THE PROJECT

1. The Japanese experts will give necessary technical guidance and advice to the Korean staff associated with the Project pertaining to the implementation of the Project, and the Korean authorities concerned will be responsible for the administrative and managerial matters pertaining to the Project.

2. For successful implementation of the Project, the Coordinating Committee will be established with the members as listed in Annex VI.

The function of the Committee are as follows;

(1) To formulate the annual plan of works for the Project;

(2) To review the implementation of the Project;

(3) To advise the Korean authorities concerned about the implementation of the Project at all stages and at all levels.

VII.

VII. CLAIMS AGAINST JAPANESE EXPERTS

The Government of the Republic of Korea undertakes to bear claims, if any arises, against the Japanese experts engaged in the Project resulting from, occuring in the course of, or otherwise connected with the discharge of their official functions in the Republic of Korea except for those arising from the willful misconduct or gross negligence of the Japanese Experts.

VIII. MUTUAL CONSULTATION

1. There will be mutual consultation between the two Governments on any major issues arising from or in connection with this Attached Document.

2. After the lapse of two years since the initiation of the Project, the two Governments will review the progress of its first phase, and they will, on the result of the review, make necessary decisions on the modalities of the technical cooperation which will be extended to this Project at its second phase.

IX. TERM OF COOPERATION

The duration of the technical cooperation for the Project under this Attached Document will be four years from March 2, 1979.

ANNEX I MASTER PLAN

1. Objective

The Project aims to upgrade the technical level of diagnosis and treatment of cardiovascular diseases in the Republic of Korea through strengthening the function of the Korea Cardiovascular Centre.

2. Implementation

The Ministry of Health and Social Affairs of the Government of the Republic of Korea will have overall responsibilities for the implementation of the Project, taking into account the proposal made by the Coordinating Committee.

For implementing the Project, the Government of Japan will dispatch Japanese experts, accept Korean personnel for training in Japan and provide necessary equipment.

3. Activities under the Project

The Project will consist of the following activities;

(1) Improvement of the technical level of diagnosis and treatment of cardiovascular diseases.

(2) Technical guidance, advice and training to the doctors, nurses and other technical personnel assigned to the Project.

(3) Activities necessary for the Project mutually agreed upon.

ANNEX II JAPANESE EXPERTS

Experts

in cardiology

in cardiovascular surgery

in other related fields mutually agreed upon

as necessary

ANNEX III LIST OF THE ARTICLES

Machinery, equipment and materials for the Project mutually agreed upon as necessary.

1. Equipment for Basic Research in Cardiovascular diseases
2. Equipment for Diagnosis and Treatment
3. Equipment for other Cardiovascular related fields

ANNEX IV LIST OF KOREAN STAFF

Category	Field
1. Director, Korea Cardiovascular Centre, Cardiologist	
2. Experts	Cardiology
	Pediatric Cardiology
	Cardiac Surgery
	Radiology
	Anesthesiology
	Rehabilitation
3. Resident staff	
4. Medical Electronic Technicians	
5. Nurses	
6. Interpreter	
7. Service personnel	

ANNEX V LIST OF LAND, BUILDINGS AND FACILITIES

The Korean side offers enough land, buildings and facilities to the Project.

1. Land — Land for Korea Cardiovascular Centre in St. Paul's Hospital

2. Buildings
   - Main building
     - X-ray rooms
     - Clinical laboratory
     - Operation rooms
     - Coronary Care Unit
     - Central supply room
     - Rehabilitation room
     - Inpatient wards
   - Annex building
     - Outpatient department
     - Diagnostic rooms
     - Rooms for Director and staff
     - Room for the Japanese experts

3. Other necessary land and buildings to be mutually agreed upon between the authorities concerned.

ANNEX VI COMPOSITION OF THE COORDINATING COMMITTEE

Chairman: Director General of the Bureau of Medical Affairs,
Ministry of Health and Social Affairs

the Korean side	the Japanese side
President of Catholic Medical College	Experts
Director General of St. Paul's Hospital	
Medical Director of St. Paul's Hospital	
Director of Korea Cardiovascular Centre	

Note: (1) An official of the Embassy of Japan may attend the meeting of the Coordinating Committee as an observer.

(2) Proposal of vital importance should be made by the Coordinating Committee only with the presence of Dr. Hirotsugu SAWASAKI or his alternate at the Committee.

2. 韓国側機材要望リスト

List of JICA Aid Item Requested

by

St. Paul's Hospital

Cardio Vascular Center

(1979. 2.)

List of JICA Itemes Requested for the First Year

	Name of Equipment	Cat. No.	Qty.	Unit Price	Total
1.	Automatic High Purity Water Still with Water Tank	Sakura UP-II UT-50	1	2.000.000 ¥	2.000.000 ¥
2.	Freezing Microtome	Sakura CM-41	1	1.300.000	1.300.000
3.	Automatic Microtome Sharpemer	Sakura MN-72	1	580.000	580.000
4.	Binocular Research Microscope	Sakura (Chijoda)	3	300.000	900.000
5.	Paraffin oven	Sakura PK-3	1	570.000	570.000
6.	Ultrasonic Sector Scaner with V.T.R. and Poloride Camera	Toshiba SSH-11A	1	18.000.000	18.000.000
7.	Polygraph 6 Channel	SAN-EI 141-6	1	3.000.000	3.000.000
8.	Polygraph 8 Channel	SAN-EI 142-8	1	4.000.000	4.000.000
9.	AC-DC Electrocardio-graph	Fukuda FD-13-PD	3	330.000	990.000
10.	Vector Cardiograph	Fukuda VA-3FR	1	3.600.000	3.600.000
11.	ICU Monitorring System for 4 Beds	Fukuda			
	a) Central Monitoring System	ECU-600-R	1	12.000.000	12.000.000
	b) Bedside Monitoring System	ECU-600-6	4		
	c) Trolly	SE - 66			
12.	ECG/Phono/Puls 3 Channel System	Fukuda FD-31PD	1	1.300.000	1.300.000
13.	Pan View Fiberscope	Machida PFS-B1200II	1	1.800.000	1.800.000
14.	Fiberscope Auto-cleaner	Machida MC-10	1	740.000	740.000

Name of Equipment	Cat. No.	Qty.	Unit Price	Total
15. Examining Table for Fiberscope	Machida DR-700M	1	970.000 ¥	970.000 ¥
16. Ambulance Crown Delux 4 door light van	Toyota	1	1.500.000	1.500.000
17. Hydro brancarl	Yaesu PE-701A	1	7.000.000	7.000.000
18. Jet Streamer	Yaesu PE-9A	1	700.000	700.000
19. Moist Heat Therapy Unit	Yaesu PE-14A	1	1.450.000	1.450.000
20. Whirlpool	Yaesu PE-11A	1	1.050.000	1.050.000
			TOTAL	63.450.000 ¥

(1)

AUTOMATIC HIGH PURITY WATER STILL, UP-II WITH UT-50

SPECIFICATION

Fully automated Operation
Capacity : 35 lit./hr.
Stainless Steel body
With Purity Meter
Storage tank, UT - 50, 50 lit
With : Water Sofetender, Mark 9C

(2)

FREEZING MICROTOME COLDTOME CM-41

SPECIFICATION

Overall Dimensions :
625W x 800L x 1,160H mm

Microtome : Rocking type Microtome

Chamber Temperature : 0 - -30°C
adjustable

Cooling Unit : All sealed, air - cooling
type 600W

Interior Lamp : 10W Fluorescent Lamp

Sterilizing Lamp : 4W

Built-in automatic Defronst Device

Operating Window : With frost - free heater

Complete with standard accessories

(3)

AUTOMATIC MICROTOME KNIFE SHARPENER MN - 72

SPECIFICATION

Overall Dimensions :

532W x 380L x 402H mm

Grinding Range, Length : 80 - 250 mm

Thickness of crest of knife : 7.5 - 14 mm

Width : 32 - 55 mm

Grindstone : 74 mm diameter

Cylindrical artificial stone

Working Distance of Grindstone

0 - 250 mm

Rotational frequency of Grindstone :

250/300 r.p.m.

50/60 Hz

Drive Motor : Reversible, 40W

Edge angle indicating dial gauge :

Accuracy 1/100 mm

Complete with standard accessories

(4)

BINOCULAR MICROSCOPE MODEL NO, R21-BI-A

SPECIFICATION

Tube : binocular, magnification 1.25X

Objective : 4x, S plan 10x, SP40x, SP100x
one each

Eyepieces : Paired Hi-eye 8x, Hi-eye 10x

Adjustment of width of eyes :
Siedentopf system

Revolving nosepiece : quadruple (4x),
ball bearing type

Attach/detachment of
revolving nosepiece :
Sliding type

Illuminator : Built-in type, 8V, 40W

Transformer : Solid-state type

Condenser : Aplanatic N.A. 1.4
Swing-out low power lens

Stage : both sides co-axial control
knobs, 360° rotatable,

45° inclined binocular tube

(5)

PARAFFIN OVEN MODEL NO. PK-3

SPECIFICATION

Upper chamber, Overall Dimensions
625W x 370L x 510H mm
Inner Dimensions :
400W x 200L x 250H mm

Lower chamber, Overall Dimensions
1000W x 670L x 705H mm
Inner Dimensions :
600W x 600L x 500H mm

Thermoregulator, Robertshow Type 2 pcs.

Adjusting Heater : 200W in Upper chamber
500W in Lower chamber

SPECIFICATIONS

(6) ELECTRONIC SECTOR SCANNER SONALAYERGRAPH

Model SSH - 11A (Toshiba)

I. Composition

1) Main Unit
2) Electronic Scanning Unit
3) Probe
4) Camera
5) Accessories

II. Specifications

1) Scanning method

Real time phased - array sector scanning

2) Probe

Frequency : 2.4 MHz

Elements : 32

3) Sector format, Deph range

78° in azimuth 16 or 20 cm

4) Scanning lines

112 or 224 lines/flame

5) Frame rate

30 or 15 frames/sec

6) Display

B - made, M - made,

7) Monitor 2 set

8) Reference recording

Crass - section : 2 ch

M - mode : 4 ch

9) M - mode scan and Kymograph

4 - 20/sec/78° (Auto)

+ 39° - 39° (Manual)

III. Option

1) V.T.R. System

a) V.T.R. Toshiba CR - 6060

b) Food SC - TF

c) T.V. Camera

d) T.V. Monitor

e) Cart V.T.R. - 75

2) Recording System

a) Strip Chast recorder RF - 06A

b) Heating Processer 1219 Processer

c) Cart WSSL - 51A

d) Multiformat Camera XY - 410A

REASON OF SELECTION

(6) Name of Product : Sonolayergraph model SS-11A Electronic Sector Scanning Type

Name of Company : Toshiba Tokgo Shibaura Electric Co., Ltd. Tokyo, Japan

Cardiovascular Center of St. Paul's Hospital is sole facility in Korea specializing in cardiology. For examining cardiac movements as well as its functions, especially congenital heart disease, valvular disease, myocardiac infarction, cardiac hypertrophy and hypertension, Toshiba sonolayergraph is most useful for these diagnosis.

In order to obtain high sensitivity clinical data, Toshiba sonolayergraph employs precise delay time control having 20 nano quantum time and electronic focus.

Hand-held probe is specially designed to be applied to chest wall without costal hindrance, which shows 78 degree cross-sectional real time images. M-mode display can be obtained corresponding with scanning line selected. Four reference signals and patient id are also recorded with M-mode display these excellent functions will convince operations that Toshiba sonolayergraph is accurate and convenient ultrasound equipment.

It is desired that Toshiba sonolayergraph will be provided, for cardiac examination, in this Hospital.

(7)

Polygraph 6-channel San-Ei Type 141-6

SPECIFICATION

Description of Item	Cat. No.	Q'ty
1. Common Modules :		
1) Cabinet	7112	1
2) Safety unit	5726	1
3) Amplifier Nesting unit	7406A	1
2. Additional Modules :		
1) Electrode Junction Box	5212	1
2) Input box for Transducer	45053	1
3. Monitor		
1) Monitor Oscillogscope	2G47	1
4. Processing unit & Pre-Amplifiers :		
1) Bioelectric Physiological Amplifier	1205D	3
2) Phonecardiograph Amplifier	1207C	2
3) Ultrasonic Doppler Flowmeter Unit	1935	1
4) DC Amplifier	1103	1
5. Electrodes & Transducers :		
1) ECG Electrode Set	E-112	1
2) Phono-Apex Cardiogram Transducer	45046	1
3) Carotid Pulse Transducer	45047	1
4) Transducer Holding Set	45050	1
5) PCG Microphone	MA-250	1
6) Doppler Flowmeter Probe	45063	1
7) Doppler Flowmeter Probe	45065	1
8) Plethysmogram Pick-up	45013	1
9) Battery Box	45155	1

REASON OF SELECTION

(7) Name of Product : Polygraph 141-6 Type

Name of Company : San-Ei Co., Ltd.

This Circulation Organs Center of St. Paul Hospital is the only medical Specialist hospital of circulation organs in Korea, and it is very important for the surgeons to observe the human body-organs functions before, while and after the operations of the diseases in circulation organs, and this Polygraph is really necessary for the experimental study of the circulation organs, and it displays at the same time such as the electrocardiogram, the interior pressure of the ventricle of the heart, arterial pressure, blood quantity etc., and the mutual time-relation and the difference of the pressure are easily measured by this Polygraph, also it is much useful for the study of special stimulative conductivity like condusion vein.

This St. Paul Hospital is the medical hospital of Catholic Medical College, and we are cooperated in the study together with the Industrial Medical Center, which was established and operated under the medical instrumental cooperation of JICA for past 5 years from 1971 to 1975, and several Polygraphs were already purchased by this Center and these units were used for joint study by the both centers.

The Nam-Buk Medical Instruments Company, which is the Agency of San-Ei Co., Ltd. in Korea, having the Japanese dispatched technician, dealing with the medical electronic instruments with over 80% of the marketing share in Korea is a famous company, thus this Circulation Organs Center hereby desire to purchase the Polygraph 141-6 Type from San-Ei Co., Ltd., in viewing of the using purpose and the after-service system of this instrument.

(8)

POLYGRAPH 8-channel San-Ei Type 142-8

SPECIFICATION

Description of Item	Cat. No.	Q'ty
1. Common modules :		
1) Back cabinet	7113	1
2) Safety unit	5277	1
3) Amplifier case unit with power supply (110V use)	7407A	1
2. Additional modules :		
1) Free selector unit	5114A	1
2) Electrode Junction box w/floor stand	5207	1
3. Plug-in amplifier		
1) Integrating unit	1310	1
2) Pressure diffirentiator	1309	1
3) Doppler flowmeter w/Loud speaker	1935 w/2403	1
4) Blood pressure carrier amplifier	1236	1
5) Internal pressure carrier amplifier	1237	1
6) Bio-physiological amplifier	1205D	4
4. Pick-ups, electrodes, Transducers etc.		
1) ECG electrode set	E-112	1
2) Carotidogram transducer	45047	1
3) Battery box	45053	1
4) Blood pressure transducer :	MPU-0.5-290 LPU-0.1-350	2 1
5) Probe for doppler flowmeter :		
Pencil type	45064	2
Plate type	45065	2

Description of Item	Cat. No.	Q'ty
6) Respiratory curve pick-up :		
Chest lead type	45120	1
Battery box	45155	1
Anesthesia type	45100	1
7) Force transducer	45072	1
8) EEG electrode :		
Plate type (10 pcs./set)	45115	2
Needle type (10 pcs./set)	45139	2
9) EMG electrode :		
Mono-polar needle electrode		
30 mm (2 pcs./set)	45167	2
Bi-polar needle electrode		
30 mm (2 pcs./set)	45159	2
- ditto -, 50 mm (2 pcs./set)	45170	2
10) Transducer application	45050	1
11) 2-channel Blood pressure head stand	7360	1

REASON OF SELECTION

(8) Name of Product : Polygraph 142-8 Type

Name of Company : San-Ei Co., Ltd.

This Circulation Organs Center of St Paul Hospital is the only medical specialist hospital of circulation organs in Korea, and it is very important for the surgeons to observe the human body-organs functions before, while and after the operations of the diseases in circulation organs, and this Polygraph is really necessary for the experimental study of the circulation organs and it displays at the same time such as the electrocardiogram, the interior pressure of the ventricle of the heart, arterial pressure, blood quantity etc., and the mutual time-relation and the difference of the pressure are easily measured by this Polygraph, also it is much useful for the study of special stimulative conductivity like confusion vein.

This St. Paul Hospital is the medical hospital of Catholic Medical College, and we are cooperated in the study together with the Industrial Medical Center, which was established and operated under the medical instrumental cooperation of JICA for past 5 years from 1971 to 1975, and several Polygraphs were already purchased by this Center and these units were used for joint study by the both centers.

The Nam-Buk Medical Instruments Company, which is the Agency of San-Ei Co., Ltd. in Korea, having the Japanese dispatched technician, dealing with the medical electronic instruments with over 80% of the marketing share in Korea is a famous company, thus this Circulation Organs Center hereby desire to purchase the Polygraph 142-8 Type from San-Ei Co., Ltd., in viewing of the using purpose and the after-service system of this instrument.

(9)

AC-DC Electro cardiograph, Fukuda FD-13

SPECIFICATION

	Description of Item	Cat. No.	Q'ty
1.	Model FD - 13	FD - 13	3 sets
2.	Standard Accessory		3 sets

(10)

Vector Cardiograph, Fukuda VA-3FR

SPECIFICATION

	Description of Item	Cat. No.	Q'ty
1.	Model VA - 3FR	VA - 3FR	1
2.	Standard Accessory		1 set
	a) Polaroid Camera	OC - 105F	1
	b) Camera Hood	OF - 01	1
	c) Electrode	CP - 100C	1
	d) Power Cord		1
	e) Trolly		1

REASON OF SELECTION

(9) Model : 1-channel Electrocardiograph, FD-13
Manufacture/Distributor : Fukuda Denshi Co., Ltd.
Tokyo, Japan

Our Cardiovascular Diseases Center attached to Saint Paul Hospital is the first and only specialized hospital for Cardiovascular diseases in Korea, in which we are making every effort to detect illness and also treat patients in early stages day and night.

The above instrument is one-channel Electro-Cardiograph being Capable of examining the myocardial condition of patients in the most simple way.

We are now using the same type of equipment, Model : FD-13.
Judging from its performance and the adequate after sales services, we would like to order an additional one from Fukuda Denshi Co., Ltd.

This company occupies about 80% of the market share in the sales of electrocardiographs in Korea.
A well-trained sales engineer has also been stationing here fore some years.

The reason for our purchase selection of a new device.

(10) Model : Direct Writing Mode, Memory Vector Electrocardiograph, VA-3FR,

Manufacturer/Distributor : Fukuda Denshi Co., Ltd.
Tokyo, Japan

Our Cardiovascular Diseases Center attached to Saint Paul Hospital is the first and only specialized hospital for cardiovascular diseases in Korea, in which we are making every offert to detect Illness and also treat Patients in early stages day and night.

In order to distinguish hypertrophic heart and bundle branch block and to diagnose the affected parts of cardiac infarction in Cardiovascular diseases, it is necessary for us to use a direct writing mode, memory vector electrocardiograph that is capable of displaying brightly vector loops on the CRT and writing the data on the recording paper with a XY recorder.

Judging from the above purpose and the after sales services, we would like to order a "Direct Writing Mode, Memory Vector Electrocardiograph, VA-3FR from Fukuda Denshi, Co., Ltd., Tokyo, Japan. A sales engineer of this company has been stationing in this country for some years.

In addition, we are now working together with the Clinical Nutrition Research Center attached to the Central University in Seoul concerning the nutrition and effect to the human body. Thanks to the medical cooperation of your government, this center could be equipped completely with various devices.

We often borrow Fukuda's Vector Electrocardiograph, VA-30 of this center when we need it.

(11)

ICU Monitoring System for 4 Beds, Fukuda 600 Series

SPECIFICATION

Description of Item	Cat. No.	Q'ty
1. Central Monitoring System for 4 Beds	ECU-600-R	1 set
1) 4-channel Memoryscope	MS-45	1
2) Heart Rate Unit	HR-150	1
3) Respiration Rate Unit	RM-150	1
4) Temperature Unit	TA-150	1
5) Blood Pressure Unit	BP-150	1
6) Patient Selector Unit	PS-150	1
7) 1-channel Auto Recorder	AU-15	1
8) Cabinet Box	CB-4	1
9) Cabinet Box	CB-7	1
2. Bedside Monitoring System for 4 Beds	ECU-600-6	4 sets.
1) 2-channel Memoryscope	MS-15	4
2) Heart Rate Unit	HR-15	4
3) Respiration Rate Unit	RM-15	4
4) Temperature Unit	TA-15	4
5) Blood Pressure Unit	BP-15	4
6) Cabinet Box	CB-6	4
7) Signal Input Box	IB-15	4
8) Trolley	SB-66	4
9) Standard Accessory		
a) Rectal Temperature	Thermister	4
b) Blood Pressure Transducer	P-50	4
c) Physiological Skin Electrode		4
d) 5 Lead Electrode Patient Cable		4
e) Universal Limb Electrode		4 sets.

REASON OF SELECTION

(11) Model : Patient Monitoring System,
ECU-600-6R

Manufacturer/Distributor : Fukuda Denshi Co., Ltd.
Tokyo, Japan

Our Cardiovascular Diseases Center attached to Saint Paul Hospital is the first and only specialized hospital for cardiovascular diseases in Korea, in which we are making every effort to detect illness and also treat patients in early stages day and night.

We must monitor serious illness patients day and night and always graph their condition changing in process of time.

We are now working together with the Clinical Nutrition Research Center attached to the Central University in Seoul concerning patient Monitoring.

Thanks to the medical cooperation of your government, this center could be equipped completely with various devices.

Judging from the above purpose and the after sales services, we would like to order a "Patient Monitoring System, ECU-600-6R" from Fukuda Denshi Co., Ltd Tokyo, Japan.
A sales engineer of this company has been stationing in this country for some years.

(12)

" ECG/PHONO/PULSE 3-CHANNEL SYSTEM, FUKUDA FD-31PD "

SPECIFICATION

A) ELECTROCARDIOGRAPH (ECG)

Input Impedance	Greater than 50 Megohms
Recording Method	3-channel heat recording stylus
Lead Marker	Heated stylus manual marking system
Sensitivity	1/2, 1 & 2cm/mV ± 2%
Standardization	Calibration signal 1 mv
Amplitude Deflection	±20 mm
Recording Speeds	10, 25, 50, 100mm/sec
Linearity	better than 5% at ± 15 mm
Lead Selector	12-lead I,II,III,AVR,AVL,AVF,V1,V2, V3,V4,V5,V6, with STD Automatic base line reset between lead positions
Leakage Current	Less than 10 microamperes
D.C. Overload	Built-in input overload protection circuit
Frequency Response	0.05 to 100Hz. within 30% (-3dB)
Time Constant	Greater than 3.3 sec
Common Mode Rejection	Greater than 115dB
DC Input Level	20mV for 10mm
CRT Output	1V/mV
Dimensions	43cm (17 inch) wide, 43cm (17 inch) deep, 15.2cm (6 inch) high
Weight	Approx : 17 kg. (40 pounds)
Power Requirement	100-130/200-250 Volts, 50 or 60Hz, power consumption 100VA

B) PHONOCARDIOGRAPH (PCG)

Input Impedance	2 Megohms
Modulation	Envelope modulation
Modulation Frequency	90Hz ± 5Hz

Calibration Frequency .... 90Hz ± 5Hz

Earphone Output ..... 16 ohms 500mV

CRT Output 100mV/mV

Sensitivity ..... 15mm (P-P)/100uV, 400Hz, Filter at H

Sensitivity Control ..... 0-60dB, 21 steps

Calibration ..... 90Hz ± 5Hz internal cal

C) PULSE

Input Impedance ..... 20 Megohms or greater

Common Mode Rejection .... Greater than 60dB

Sensitivity 10mm/6mV

REASON OF SELECTION

(12) Model : 3-channel phono cardiograph, FD - 31PD

Manufacturer/Distributors : Fukuda Denshi Co., Ltd.,
Tokyo, Japan

Our Cardiovascular diseases center attached to Saint Paul Hospital in the first and only specialized hospital for Cardiovascular diseases in Korea.

In order to distinguish auscultation of the heart sound with Electrocardiogram for diagnosis of congenital or acquired heart diseases at in or out clinic.

This 3 channel direct Electrocardiogram phonocardiogram is very important equipment under diagnosis for auscultation of the heart sound.

Judging from the above purpose and the after sales services, we would like to order a 3 - channel phonocardiograph, FD - 31PD from Fukuda Denshi, Co., Ltd., Tokyo, Japan. A sales engineer of this company has been stationing in this country for some years.

In addition, we are now working together with the Clinical nutrition Research Center attached to the Central university in Seoul Concerning the nutrition and effect to the human body. Thanks to the medical cooperation of your government, this center could be equipped completely with various devices.

We after borrow Fukuda's 3 - channel phono cardiograph FD-31PD of this center when we need it.

(13)

PAN VIEW FIBERSCOPE P F S - B 1200 II

SPECIFICATIONS

Total Length	1440 mm
Working Length	1233 mm
Apical Metal, Diameter	13 x 14 mm
Length	11 mm
Flexible part, Diameter	12.8 mm
Angle Deflection, Up	140°
Down	60°
Right & Left	90°
Angle of Vision	at 3 mm 68°
	at Inf. 53°
Depth of Focus (Adjustable),	
Forward position	3 mm - Inf.
Side position	6 mm - Inf.
Forceps Control Range	10° - 90°
Biopsy Forceps Channel,	
maximum inner diameter	2.6 mm
Net Weight	6 kg

(Difference ± 5%)

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Standard Set

Pan View Fiberscope, PFS - B 1200 II	1 Pce.
Standard Biopsy Forceps, BF - 2417	2 Pcs.
Air Grip Pump	1 Pce.
Syringe, 50 cc	1 Pce.
Rubber Connecting Tube	1 Pce.
Cannulation Tube	2 Pcs.
Forceps Channel Cleaning Brush,	
WB - 3517	1 Pce.

Lens Cleaner	1 Pce.
Mouth Piece	1 Pce.
Carrying Case	1 Pce.

(Instruction Manual included)

(14)

CIRCLEAN, MC - 10

SPECIFICATIONS

Weight	75 kg
Dimension, W (Approx)	540 mm
H (Approx)	770 mm
D (Approx)	660 mm
Input	On request
Out put	100V 50 - 60Hz
Power	4A
Capacity of Chemical Tank	4,000 cc
Timer, Water Washing	30 - 150 sec
Chemical Washing	1 - 300 sec
Soaking	1 - 1,200 sec
Air (channel)	1 - 120 sec
Drainage (channel)	Free

STANDARD ACCESSORIES (Adaptors for Coupler) :

Adaptor for Forceps	3 kinds
Adaptor for Water Supply	2 kinds
Spare Rubber Tube	2 Pcs

(15)

ENDOSCOPIC ELECTROHYDRAULIC TABIE, DR - 700M

SPECIFICATIONS

Minimum Hight	640 mm
Stroke	375 mm
Reclining	80°
(Upwards from horizontal position)	
Tilt	
Head part downwards from horizontal position	25°
Foot part Upwards (95° downwards from horizontal position, foot part only)	25°
Rotation, Right and Left	360°
Head Cushion	Vinyl Leather
Foot Switch Operation	Up and down Reclining, Tilt, Auto-return and Pre - set
Weight	150 kg
Line Voltage	AC 100V/740W 50 - 60 Hz

(17)

HYDRO-BRANCARL PE - 701A

SPECIFICATION

Material : 18 - 8 Stainless Steel

Measurement : 2,700(L) x 1,750(W) x 880(H)mm
Inside : 2,350(L) x 1,630(W) x 465(D) mm

Tank Capacity : Approx. 1,000 l.

Rubbler : Single Phase 115V. 60Hz. 900W

Ejector Pump : Single Phase 115V. 60Hz. 370W

Life : Water Pressure Cylinder System

Operation Power for Lifting : 200 kg (at water pressure of 25 kgs/cm^2)

Lift Stroke : 480 mm

Weight : Approx. 340 kg

(18)

JET STREAMER, PE - 9A

SPECIFICATION

Pump Case : 18 - 8 Stainless Steel

Measurement : 600(L) x 400(W) x 400(H) mm

Pump : AC115V 400W - Condenser Induction Motor

Powercord : Three leads cord with ground —— 3 m

JET Streamer Unit : Universal nozzle (adjustable renge - 30°)
Height Adjustment - 200 mm

Suction and water Supply : with a hose of 38 1.5 m. 1 ea.

(19)

STEAM BATH APPARATUS, PE - 14A

SPECIFICATION

Material	: 18 - 8 Stainless Steel
Measurement	: 2,040(L) x 900(W) x 1,000(H) mm
Steam Pressure	: 0.5 km/cm^2
Accessories	: Japanese cypress drainboard, Vinyl leathered mat, pressure gauge, thermometer and piloow ..... 1 each.

(20)

WHIRLPOOL BATH, PE - 11A

SPECIFICATION

Material	: 18 - 8 Stainless Steel
Measurement	: 1,050(L) x 560(W) x 1,150 - 1,400(H) mm Inside : 800(L) x 520(W) x 690(D) mm
Tank Capacity	: 190 litres
Ejector Pump	: AC 100V 270W (50Hz) 370W(60Hz)
Power Cord	: Three leads cord with ground wire
Accessories	: Thermometer, Underwater chair, Seat board and Stainless Chair

List of JICA Items Requested for the Second Year

	Name of Equipment	Cat. No.	Qty.	Unit Price	Total
1.	X-ray for Cardiovascular System		1	53.000.000 ¥	53.000.000 ¥
2.	Ethylone Oxide Gas Sterilizer	Sakura EOA-100	1	4.200.000	4.200.000
3.	Ultra low Temperature Cabinet	Sakura UL-165A	1	1.700.000	1.700.000
4.	Vacuum Rotary	Sakura VRX-22	1	1.500.000	1.500.000
5.	General Laboratory Contrifuge	Hidachi 05PR-22	1	1.300.000	1.300.000
6.	Polygraph 6 Channel with Memory Scope	SAN-EI 146	1	6.000.000	6.000.000
7.	Cardiac Monitoring and Resuscitating Apparatus	San-EI 200	1	1.400.000	1.400.000
8.	ECG Telemeter Trend Recording System	San-EI 2E-31	1	1.900.000	1.900.000
9.	UV-Vis Spectrophotometer	Shimazu 150	1	1.500.000	1.500.000
10.	Surgical Microscope	Topcon	1	3.000.000	3.000.000
				TOTAL	75.500.000 ¥

List of JICA Aid Items Requested for the Third Year

	Name of Equipment	Cat. No.	Qty.	Unit Price	Total
1.	Computer Analysis System of ECG	Fukuda ECP-100	1	35.000.000 ¥	35.000.000 ¥
2.	ECG Aute Analysis System	Fukuda SCM-240	1	6.000.000	6.000.000
3.	X-ray Apparatus		1	25.000.000	25.000.000
4.	Automatic Slide Stainer	Sakura RSP-50	1	1.330.000	1.330.000
5.	Ultra-Washer	Sakura US-200S -200Y -200D	1	2.900.000	2.900.000
6.	Hot air Circulating Oven	Sakura NK-50F	1	360.000	360.000
7.	Automatic blood cell Stainer	Sakura RSG-50	1	500.000	500.000
8.	Tophon Fundus Camera	Topcon TRC-FF3	1	1.700.000	1.700.000
9.	Chemical balance	Shimatzu	1	700.000	700.000
10.	Endoscope Illuminator	Machida RX-500J(M)	1	2.300.000	2.300.000
11.	Fiber-Duodenoscope	Machida FDS	1	1.450.000	1.450.000
				TOTAL	77.240.000 ¥

List of JICA Items Requested for the Fourth Year

	Name of Equipment	Cat. No.	Qty.	Unit Price	Total
1.	Ultratomography	San-Ei	1	4.000.000 ¥	4.000.000 ¥
2.	EMG	San-Ei Ms-7	1	3.600.000	3.600.000
3.	Telemonitor System	San-Ei 276-3	1	5.000.000	5.000.000
4.	Residul Volume apparatus (Pulmonary Function System)		1	5.000.000	5.000.000
5.	Thermodilution Cardiac Output & Oximeter		1	7.000.000	7.000.000
6.	Autoclave (Cabinet type)	Sakura	1	3.000.000	3.000.000
7.	Glove dryer	Sakura G-45-DP	1	650.000	650.000
8.	Suction unit	Sakura SB-3	1	1.900.000	1.900.000
9.	TOA Micro-cell-Counter	TOA CC-108	1	2.500.000	2.500.000
10.	Condensa X-ray unit	Toshiba	1	3.000.000	3.000.000
11.	Auto Analyser	Hitachi 400	1	20.000.000	20.000.000
12.	Heart lung unit	Tonokura DV-2D (Auto DLXO)	1	3.300.000	3.300.000
13.	Coronary Perfusion Pump	Tonokura CP-2	1	1.500.000	1.500.000

TOTAL	60.450.000 ¥
1st Year amount :	63.450.000 ¥
2nd Year amount :	75.500.000
3rd Year amount :	77.240.000
4th Year amount :	60.450.000
GRAND TOTAL :	276.640.000 ¥