

RADIATION STERILIZATION OF HUMAN TISSUE FOR TRANSPLANTATION (SRL/7/003) E2

CORE FINANCING

YEAR	Experts		Equipment	Fellowships		Scientific Visits		Training	Sub-contracts	Misc. Comp.	Total US \$
	m/d	US \$	US \$	m/d	US \$	m/d	US \$	US \$	US \$	US \$	
1995	3/0	34,200	38,000	-	-	-	-	-	-	-	72,200
1996	2/0	24,000	5,000	-	-	-	-	-	-	-	29,000
1997	2/0	25,200	5,000	-	-	-	-	-	-	-	30,200
1998	1/0	13,200	8,000	-	-	-	-	-	-	-	21,200

First Year Approved: 94

Total expenditure to 30 September 1994:

\$419,595 (TACF)

OBJECTIVES: To establish a general human tissue bank and to use the established international distribution network to make low cost tissue grafts more widely available throughout the world.

BACKGROUND: Disabilities caused by degenerative diseases such as cancer and congenital defects such as malformed heart valves, as well as severe burns, fractures and nerve damage due to traumatic accidents and violence are all curable. The remedial intervention of choice in such cases is the use of sterile human tissue grafts. Tissue bank facilities, while relatively common in developed countries, are not generally available in the developing parts of the world, where the majority of cases are simply not treated. The Sri Lanka Eye Bank has been extremely successful for more than ten years in providing clinical quality, sterile corneal tissue for use in transplants to restore eyesight. This experience has placed the Eye Bank in a strong position technically for further development into a multi-tissue bank facility. The building to house the gamma irradiator was completed and a Gammacell-200 high dose rate research irradiator and 10,000 Ci cobalt-60 source were purchased and installed in 1994.

PROJECT PLAN: The main tasks for 1995-96 are training counterpart staff and production of amnion, skin and bone tissues. Later, production of dura and fascia, heart valves, aortic and other cardiovascular graft material will be undertaken. A total quality assurance system for good manufacturing practice will be established in accordance with international standards.

NATIONAL COMMITMENT: The Government and the Eye Bank Foundation together provided \$350,000 to acquire land and to build the necessary facilities. Basic laboratories exist and would be made available. Twenty specialists in different stages of tissue banking will participate. Protocols and guidelines developed for the removal, processing and radiation sterilization of corneal tissue have been adapted to other types of tissue. The Government will provide qualified staff, consumables, transport and all related maintenance and support, and will sustain operations in the facility after completion of the project.

AGENCY INPUT: The Agency will continue to supply expert services and consumable supplies, including tissue grafts sterilized abroad.

IMPACT: The immediate objective is to establish technical and economic self-sufficiency in the supply of radiation sterilized, clinical quality multi-tissue grafts to Sri Lanka within five years. The primary social benefit will be the increased availability of tissue grafts to victims of traumatic accidents, disease and congenital defects. The very low income portion of the population in Sri Lanka, which currently has almost no access to effective treatment, will benefit most. As Sri Lanka currently spends approximately \$200,000 per year on imported tissue grafts, considerable savings in foreign currency will be achieved. Sri Lanka would become a major supplier of a variety of tissue graft material for Southeast Asia and other parts of the world.