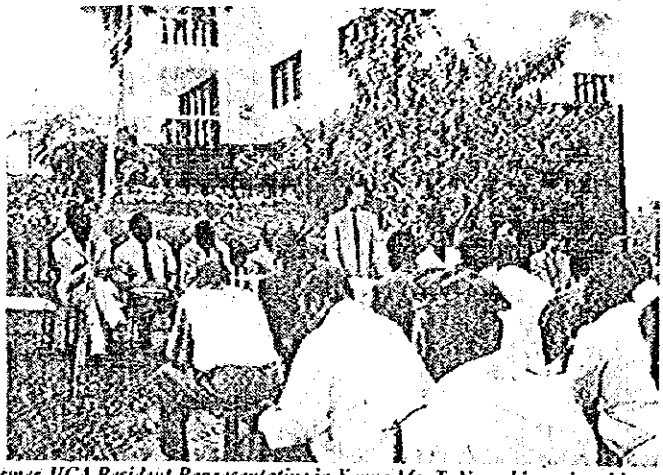
KEMRI NEWS
A Newsletter of the Kenya Medical Research Institute
No. 10 December 1995

Fourth KEMRI - JICA Project set to take off



Former JICA Resident Representative in Kenya Mr. T. Nagashima gives his speech during the official handing over ceremony of the Kwale guest house to KEMRI early last year. The house will greatly facilitate accommodation of research scientists on field activities in the Coast Province

Following the successful completion of the third phase of the KEMRI-JICA collaboration,KEMRI and JICA are discussing a proposal to further extend their joint efforts for another period of five years.

The third phase of the project, known as the *Research and Control of Infectious Diseases Project*, ran for five years from 1990, and is scheduled to end in March 1996, when the fourth phase is expected to begin.

The fourth phase will be a consolidation of various achievements realised since the two organisations started their joint efforts in 1979, but to include new areas of focus that have hitherto not been ventured into.

(Full story page 5)

New kit for the diagnosis of kala-azar is developed at KEMRI

True to its proclaimed mission of searching for better health, KEMRI has made another step forward following the development of a new diagnostic kit for the detection of visceral leishmaniasis (kala azar).

Visceral leishmaniasis is one of two forms of infections spread by a parasite of the genus *Leishmania*. The other is cutaneous leishmaniasis. Kala-azar is a serious disease that affects the soft internal organs such as the spleen, liver and lymph nodes. Infected persons experience weight loss, fever, anaemia and swelling of the affected organs. If untreated, this disease is fatal.

The most affected regions in Kenya are Machakos, Kitui, Baringo and some parts of Northern Kenya.

The new diagnostic kit is able to detect active cases of kala-azar, and unlike the better-known direct agglutination test (DAT), it does not remain positive after the cure of a patient. The basic ingredient is a molecule which is a component isolated from the *Leishmania* parasite, which, when coated on an ELISA plate, yields results that are both sensitive and specific.

The test has been tried with sera from patients with other parasitic diseases with negative results consistently, indicating its specificity.

The kit was developed by Dr. Elizabeth Odera, in the Immunology and Molecular Biology laboratory at the Biomedical Sciences Research Centre, under the supervision of Dr. Davy Koech, who is also KEMRI's Director. This kit is now in the process of being patented by KEMRI. Further studies are scheduled to improve the test material so that a finger-prick method is used.

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Comment

Ushering in the New Year - 1996

There are two major events planned to take place in KEMRI at the beginning of 1996. These are the 17th African Health Sciences Congress to be held from February 5th to 9th 1996, and the visit by a JICA Survey Team between January 19 to and 27, to discuss with KEMRI the Institute's proposal for a fourth phase of the KEMRI/JICA Project to cover the period from 1996 to 2001.

The African Health Sciences Congress has grown in stature from its humble beginnings of the *Annual Medical Scientific Conference*, then organised by KEMRI and KETRI, to its current status as the premier pan-African event for dissemination of health research information. The Congress is now organised by the African Forum for Health Sciences (AFHES), which also publishes the *African Journal of Health Sciences* (Afr. J. Health Sci.).

Over 500 participants are expected to converge at KEMRI for the Congress during the stated period. The participants will come from Ethiopia, Ghana, Japan, Nigeria, South Africa, Seychelles, Tanzania, Uganda, U.K., USA and the host country Kenya. There shall be over 80 oral and over 20 poster presentations at the Congress. There shall be two symposiums one on *Malaria* and the other one on *Use and Abuse of Social Drugs* to be staged at the Congress. The official opening of the Congress will be on Monday, 5th February 1996 at 11.00 a.m. This will be followed by a Keynote Address on *Mycotoxins in Foods in Africa* by Prof. W.F.O. Marasas of MRC, South Africa, who was the winner of the African Academy of Sciences (AAS) CIBA Prize for 1995. The 18th African Health Sciences Congress will be held in February 1995 in South Africa.

KEMRI will once again be pleased to host a JICA Survey Team from Japan which will visit the Institute between 19 and 27 January, 1996. The collaboration between KEMRI and JICA was started at the establishment of the Institute in 1979. It has been implemented in five-year phases of which the last (third) phase will expire in 1995. It is proposed to enter into a fourth phase to cover the period from 1996 to 2001. The project is the largest international collaborative research project at KEMRI in terms of research coverage and the level of resources involved.

The KEMRI/JICA Project has made a tremendous impact in the improvement of the health status in Kenya and particularly in the prevention, control, treatment and management of schistosomiasis, filariasis, viral diarrhoea, bacterial diarrhoea and viral hepatitis. The fourth phase of the project is proposed to focus on HIV/AIDS, Acute Respiratory Infections (ARI) and Hepatitis.

The Leader of the expected JICA Survey Team is Prof. Shunzo Chiba, Professor at the Department of Paediatrics, School of Medicine, Sapporo Medical University. Other members of the Team are Prof. Michitami Yano, Director, Clinical Research Department, Nagasaki Chuo National Hospital, Prof. Takashi Kurimura, Professor, Research Institute for Microbial Diseases, Osaka University, and Mr Katsuya Miyoshi from the Second Medical Co-operation Department of JICA, Tokyo. KEMRI looks forward to very fruitful discussions with the Survey Team during the visit.

The new year - 1996 - is, no doubt, beginning on a high and resounding note and KEMRI looks forward to yet another productive and successful year.

Joint action initiated to tackle fears of re-emerging diseases

With growing worldwide fear over emerging and re-emerging infections, the East African region, with the co-ordination of the World Health Organisation, is already putting together efforts to control the diseases that are common in the region.

In this direction, the first regional workshop on yellow fever diagnostics was held at KEMRI Headquarters between 19th and 30th of June this year.

The two-week workshop, which drew participants from various parts of Eastern and Central Africa, was officially opened by the Director of Medical Services, Dr. James Mwanzia and closed by the WHO Representative, Dr. Paul Chuke.

Yellow fever, first defined in the 16th century, is one of the re-emerging diseases causing concern. After nearly 50 years without a reported case, Kenya experienced an outbreak of yellow fever in 1992, resulting in at least 54 cases and 28 deaths. The fever broke out in Baringo and Elgeyo Marakwet.

Neighbouring countries have similar ecological conditions, hence they are also susceptible to the virus. Routine surveillance for the ocurrence of yellow fever in people living in the region has therefore been found necessary.

Transmission cycles

Like the infamous Ebola, yellow fever is a viral haemorrhagic fever which causes an estimated 30,000 deaths worldwide. In its mild form, the fever presents with headaches, fever, nausea and vomiting. Half of those with severe yellow fever eventually die.

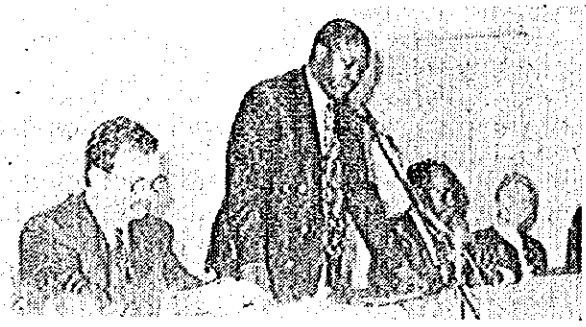
There are two patterns of transmission, known as the urban cycle and the forest cycle. In the former, the virus is transmitted when the mosquito bites an infected man and then one who is not infected. In the latter, the transmission is primarily through monkeys bitten by the mosquito. Monkeys are the main host.

During the workshop, participants deliberated on case definition and laboratory diagnosis, including serology testing. They also discussed guidelines pertaining to taking, separating, storing and transporting blood for virus studies.

Addressing participants at the opening ceremony, Dr. Mwanzia described yellow fever as a killer disease and yet yellow fever vaccination was not practised in the region except for travellers. He noted that it was important to incorporate yellow fever vaccination into the Kenya Expanded Programme on Immunisation.

The large sum of money required - close to Kshs. 1.6 billion - has limited the exercise to children within the areas where the disease was last detected.

The workshop facilitators included Dr. James LeDuc and Dr. Barbara Huk from WHO Geneva, Professor Tomori WHO (AFRO) and Mr. Bruce Cropp from CDC - Colorado among others.



On behalf of the Permanent Secretary in the Ministry of Health, Dr. D. Gesami addresses participants at the Opening Ceremony of the International Workshop on Lung Health, which was held in KEMRI last November

KEMRI to host reproductive health information disemmination centre

KEMRI has been chosen to coordinate the activities of a new body established in the country to collect and disseminate information on Reproductive Health and Nutrition. The Programme was initiated by the Commonwealth Regional Health Community Secretariat (CRHCS) in Arusha.

The Programme's goal is to strengthen the capacity within the region to collect, synthesize, re-package and disseminate information emanating from the member countries for better health care delivery.

This programme was started at the realisation that there was need for information provision to guide policy and programme development for better health care delivery management. It was felt that for this information to be of use to those who needed it to make the right decisions, it had to be availed at the right time and in the right format.

To collect and provide this information in a timely manner, the programme works through a network of Dissemination Centres that act as focal points for information, collection and advocacy in each country. In Kenya the Information and Dissemination Centre is based at KEMRI and is expected to work in collaboration with relevant institutions within the country.

CRHCS is a regional body whose major objective is to promote the highest standard of health among its member states in East, Central and Southern Africa (ECSA), which comprises of 13 countries.

International workshops on clinical monitoring, lung health held in KEMRI

KEMRI played host to two international workshops in December and April, on Research Methods for Promotion of Lung Health, and Clinical Monitoring of Tropical Diseases.

The workshop on lung health came at a time when the world is grappling with rising incidence of tuberculosis, mainly associated with HIV infection.

The general objective of the course was to strengthen the capacity of the specialists in public health and pulmonary medicine in effectively addressing the problem of TB and related lung diseases, through an international network situated in low-income countries.

In Kenya, the number of new cases of tuberculosis has doubled in the last ten years, according to the Director of Medical Services Dr. James Mwanzia, who officially opened the workshop.

According to WHO estimates, 30 million people will die from tuberculosis this decade.

The situation is worst in developing countries where, unlike the developed countries, there is an increase in the number of people who smoke.

The workshop was organised by the International Union Against Tuberculosis and Lung Diseases, KEMRI, and the American Thoracic Society.

It drew participants from South Africa, Zambia, Algeria, Turkey, Malawi, Uganda, Tanzania and Kenya.

And in April KEMRI hosted a WHO-sponsored Clinical Monitors Course which follows recent concern that some WHO-sponsored clinical trails on experimental drugs in the tropical disease research programme (TDR) viz leprosy, malaria, leishmaniasis, schistosomiasis and filariasis are not conducted as per protocols, thus affecting the validity of the results.

The purpose of the course was to equip the participants with the skills needed to monitor sites of clinical trials and ensure that the protocols are implemented correctly. Participants came from Colombia, Nigeria, Ghana, Phillipines and Iran.

Meanwhile in November, the Association of Kenya Medical Laboratory Scientific Officers held its sixth annual conference at KEMRI. The theme of the conference was *Focus for the Future Laboratory Services.*

HIV/AIDS challenge

Among the topics discussed included the control of methicillin-resistant *Staphylococcus aureus* in burns units, and the challenges facing technicians and technologists in the era of HIV/AIDS.

The conference was officially opened by the Permanent Secretary in the Ministry of Health Mr. Donald Kimutai, and was closed by the patron of the Association, who is also Kenya's Solicitor-General, Hon. Benjamin Kubo.

KEMRI has hosted the association's previous conferences.

Namibian, Zambian ministers on tour

The Namibian Minister for Science and Technology' Hon. Nahas Angula' in November visited KEMRI and toured various laboratories at the Headquarters.

The Minister's visit was part of his tour in the country where he aimed to familiarise himself with the country's science and technology policies, which he said his country is trying to set up.

He said the newly-independent country is still trying to develop its higher education, and needs to draw up its priorities and build capacity for research.

The Zambian Minister for Science and Technology and Vocational Training Hon. Gabriel Maka also visited KEMRI in July, on a familiarisation tour.

Both visitors expressed the need for African countries, which experience similar health problems, to cooperate and exploit each other's resources and respective expertise in solving regional problems.

KEMRI has a collaborative research agreement with the University Teaching Hospital of Zambia.

Dr. Frederick Okoth of the Virus Research Centre explains to the visiting Namibian Minister for Science and Technology Hon. Nahas Angula (second left) about the activities at the hepatitis laboratory

Special KEMRI-JICA Supplement

Kenyan and Japanese scientists at the Centre for Microbiology Research. Collaboration between the two has been going on for the last 15 years

Collaboration between JICA and KEMRI is as old as the Institute itself having started in 1979 at the inception of KEMRI. In terms of scope of activities it is the largest collaborative project with any single organization.

The partnership is one of the several project-type technical cooperation between the Government of Kenya and Government of Japan. The cooperation started with a request from the Kenya Government for assistance in setting up a national institute to undertake medical research following the collapse of the East African Community.

Before the collapse of the East Africa Community, medical research was conducted on a regional basis under the umbrella of the East African Medical Research Council, then a specialized arm of the defunct East African Community.

One of the most outstanding achievement of this cooperation was the construction of the present KEMRI Headquarters and Central Laboratories Complex completed in 1985 at a cost of about Shs 400 million as a grant- in-aid project from the people and Government of Japan to the people and Government of Kenya.

The complex has several specialized research laboratories, a model 40-bed hospital, a library, a 250 seat conference hall, an engineering workshop, an electron microscopy room, a medical illustration unit, an animal house, numerous offices and other facilities.

The collaboration covers a wide range of activities in medical research and includes development of human resources and the transfer and development of appropriate technology in the field of virology, bacteriology and parasitology.

The projects are run in five-year cycles. The first phase covered the period 1979 to 1985 and was known as *Communicable Diseases Research and Control Project*. The main research areas under this project were schistosomiasis and diarrhoeal diseases and helped to strengthen KEMRI's research capability in these two areas and in the control of communicable diseases in general.

Infrastructure

Under this project, a number of KEMRI staff members received technical training in Japanese institutions while KEMRI benefited from the service of 28 Japanese experts in various fields.

In terms of infrastructure and equipment, a research laboratory which is today the main laboratory of KEMRI's Centre for Microbiology Research was put up at a cost of about Kshs 5 million and KEMRI received equipment worth more than Kshs 10 million.

The completion of this first phase of the cooperation in 1984 prepared the ground for the second phase of the project whose broad title was *The Project of the Kenya Medical Research Institute* and it covered the 1985-90 period.

The second phase helped consolidated what was gained during the early stages of the collaboration and laid a firm foundation for technology transfer and development of vital strategies and techniques some of which are today being used in Kenya's health care delivery system.

Under this phase of the project progress was made in developing strategies and technologies for the control and prevention of viral hepatitis, viral and bacterial diarrhoea and urinary bilharzia.

A significant achievement made during this phase of the project whose main objective was to strengthen KEMRI's capability to develop widely applicable control measures against major communicable diseases in Kenya was the development of a test-kit that uses locally available material for the screening of hepatitis B virus in donated blood.

During this phase of the project, KEMRI also received equipment worth more than Kshs 44 million from JICA and 21 of her staff members undertook training in several Japanese institutions.

There were 57 Japanese experts who worked under the project for various durations.

The third phase of the project, which is now coming to a close, was launched in May 1990 and runs upto 1995. It is known as the *Infectious Diseases Research and Control Project*.

Although the overall objective has been the same throughout the successive five-year projects, the third phase stressed a multi-disciplinary approach in the prevention and control of infectious diseases.

Besides focusing on the traditional areas of the collaboration of virology, bacterial and parasitology, this phase incorporates other vital aspects of medical research such as public health, community participation, clinical management and socio-economic aspects of health care delivery. Under this phase, filariasis has been included as an additional component of the project.

The following pages feature highlights of activities and achievements in individual programmes in the past KEMRI-JICA Projects. The articles are abridged from the 'Final Report of the KEMRI-JICA Technical Cooperation in Research and Control of Infectious Diseases, which was published in May 1995

Viral hepatitis

Hepatitis is mainly transmitted through bodily fluids. It is estimated that upto 70% of the Kenyan adult population has come into contact with the virus in one way or the other. Chronic infection leads to scarring of the liver, and primary liver cancer. The main objective of this sub-project is to develop appropriate technology relating to the diagnosis and epidemiology of viral hepatitis and related diseases and to carry out intervention studies.

One of the greatest achievements of this project has been the development of the hepatitis B diagnostic kit (KEMRI Hep Cell) with locally available reagents, which has made it possible to screen blood for hepatitis B and thus prevent transmission of this disease through blood transfusion. So far, over 65,000 individuals have been screened in the provincial hospitals.

Four seminars/workshops on viral hepatitis and related diseases have been held in KEMRI (1991-1994) basically to train provincial physicians, laboratory technologists and technicians on the blood screening techniques and how to diagnose and treat liver cancer. These are in turn required to disseminate the techniques to the district hospital.

Provincial hospitals are regularly supplied with the reagents to screen donated blood. Mass production of these reagents is possible and KEMRI is looking into the feasibility of commercializing this product for sustaining research.

Hepatocellular carcinoma is common in Kenya and occurs in young people aged 20-40 years. A very strong association has been shown between hepatoma and hepatits B antigen. Early diagnosis of hepatocellular carcinoma is now possible in Kenya by use of portable ultrasound equipment and serologically by alfa-fetoprotein (AFP) technique.

One of the achievements of the Project was the provision of clean water to communities where schistosomiasis is prevalent, thus reducing disease transmission

A Liver Disease Diagnostic Centre has been established in KEMRI and this will be strengthened by providing personnel, equipment and central laboratory to serve as a referral centre for the country.

Studies on the epidemiology of hepatitis C and the development of a diagnostic kit for the virus are planned.

Viral diarrhoea

The main aim of this project is to study the epidemiology of viral diarrhoea and to advance diagnostic techniques in control strategies.

Research has established that rotavirus diarrhoea is prolonged due to the malnutrition status of children in the study sites. Studies have revealed that RV prevalence is higher in urban set up than rural areas mainly due to overcrowding and poor sanitation.

The project has also observed that vaccination against rotavirus diarrhoea would be ideal in infants younger than one year old who are generally more vunerable to infections.

There has been a decrease in indiscriminate prescription of antibiotics and anti-parasitic drugs. This awareness has reduced prevalence from 79% to 56% in Nanyuki.

An Electron Microscopy (EM) Workshop was held in 1993 for 14 participants drawn from local institutions to train them on the use and maintenance of EM.

Bacterial diarrhoea

This is one of the oldest collaborative programmes between KEMRI and JICA, started in 1979. The main aim of this programme is to investigate agents of diarrhoea in under five years of age in Malindi.

Some of the major achievements include the construction of a laboratory in Malindi Hospital. This hospital now serves as a referal centre for diarrhoea patients in Malindi. The presence of this laboratory has had a positive impact in training the local technicians and boosting the diagnostic services of the hospital. In addition, several student groups, Kenyans as well as Japanese have visited the laboratory and familiarised themselves with the extent and impact of microbial diseases at the coast region of Kenya.

Molecular biology aspects such as DNA probes and polymerase chain reaction (PCR) techniques have been introduced for the diagnosis of bacterial diarrhoea.

Health education was recently introduced in the study site to educate the community on the mode of transmis

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sion of diarrhoeal diseases.

Demographic survey was conducted to identify risk factors such as wells, animal reservoirs and fecal contamination.

Out of the stool specimens collected from individuals under 5 years 30% were due to bacteria infection, 17% due to rovavirus, 14% due to parasitic infection and 9% due to mixed infections.

Two workshops have been held (in 1993 and 1994) to educate the physicians and technologists from Provincial hospitals on the need to reduce mortality and morbidity due to bacterial diarrhoea by improving on the diagnostic techniques.

Schistosomiasis

This project is among the oldest collaborative projects between KEMRI and JICA having been started in 1981.

The central aim of the third phase of the study is to integrate control methods against this disease. These methods include, chemotherapy, safe water supply, environmental modification to control snails and health education.

The major activities towards this end have included mass chemotherapy with praziquantel which reduced the prevalence rate of schistosomiasis. The integrated approach of controlling schistosomiasis has had an effect on the prevalence rate in the study sites.

Increasing the flow of streams in the study site has reduced the snail vectors and hence transmission of the disease.

Provision of safe water was completed in Mtsangatamu in Kwale district and this has contributed to change of behaviour by this community. For instance, more people are turning up for urinalysis and more are using the provided water either from pipes or wells.

Health education which was started recently is expected to have a positive impact on the water contact pattern of the community. This will also ensure that the community perceive the water project as their own initiative and therefore maintain it without the assistance from KEMRI.

A laboratory was recently constructed in Kwale to cater for researchers working on schistosomiasis and filariasis in Kwale. The construction of a guest house to house staff going out to field sites was also completed.

The first symposium meeting on schistosomiasis was held on 11-12 October 1994. This brought together scientists and technical staff working on the project and others working outside the project to exchange ideas on the current status and control strategies of schistosomiasis in Kenya.

Filariasis

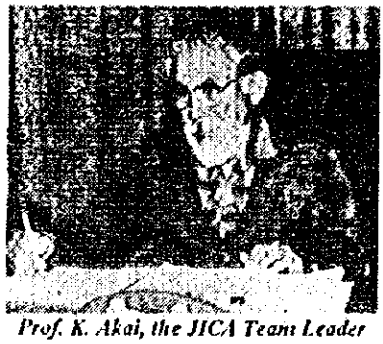
This is the latest project of the KEMRI/JICA Project. Its main objective was to determine the epidemiology of filariasis and to establish ways and means of controlling this disease through improved diagnosis, mass chemotherapy and mosquito control.

The activities carried out have included collection of demographic data at Kwale.

The prevalance rate of filariasis infection was established to vary between 12 to 25% with elephantiasis being observed in more females (2.3%) than in males (0.9%).

The most important vector was found to be the *Anopheles gambiae* mosquito.

Mass chemotherapy using a single dose of DEC with or without sodium bicarbonate was done in November 1993 and this will be repeated annually to reduce transmission.



Prof. K. Akai, the JICA Team Leader

Support for tripartite ties

Apart from the foregoing activities the project also entered into collaboration with other JICA-sponsored projects in Ghana and Zambia. There was felt a need to collaborate among the three countries which have almost similar health problems, so that there could be exchange of ideas.

The tripartite collaboration is between KEMRI, the Noguchi Memorial Institute of Medical Research in Ghana and the University Teaching Hospital in Zambia.

Overall, the KEMRI-JICA Project has made a great impact on the national health manpower capacity of this country through training and development of modern facilities for research.

The need for evaluation of the project has not been overlooked. Every year the Project carried out an evaluation to assess its impact. An external evaluation was also carried out in 1994 through the National Health Research Development Centre (NHRDC).

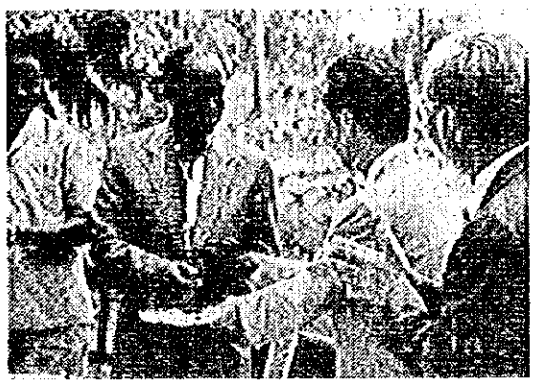
The Director, KEMRI, Dr. Davy Koech receives equipment from JICA which is now in use in the public health education component of the Project

Preview of the fourth KEMRI-JICA Project

The fourth phase of the KEMRI-JICA Project will see a reduction in the number of programmes from five in the third phase to three. The projects that have come to an end are schistosomiasis, bacterial diarrhoea and viral diarrhoea.

From the third phase, only the hepatitis project will be retained, while new projects in HIV/AIDS and Acute Respiratory Infections will be included.

The Project will also ensure greater collaboration with the Ministry of Health, to speed up the process of utilisation of in the health care delivery system. Possibilities of post-graduate training at local universities for KEMRI staff working in the Project will also be explored.



It's all yours...former JICA Resident Representative Mr. T. Nagashima hands over the keys to the Sh. 6 million Kwale guest house to KEMRI Director Dr. Davy Koech.

HIV/AIDS

A major development in this sub-project will be the establishment of a molecular biology and virology centre in KEMRI. This central facility will be the only one of its kind in Africa, and is expected to cost over Shs. 60 million.

This centre will facilitate serology work in HIV, including establishment of a blood testing system, preparation of an antibody test kit and serum bank.

One of the objectives of the work on HIV/AIDS sub project will be to conduct molecular epidemiological studies of HIV infection in selected areas in Kenya and to develop a diagnostic kit for HIV infection.

Numerous problems have been encountered in research into the epidemiology of HIV and AIDS. Tests carried out earlier on were prone to giving false positives, for example when the person tested had malaria. Infection levels may therefore have appeared higher than they really were.

Through the years, however, diagnostic techniques have improved in accuracy, but many of the statistics are incomplete. Numbers of people infected with HIV are measured through anonymous surveillance of blood donations at STD and antenatal clinics.

In Kenya as in many countries, people with AIDS are either unable to visit a health centre or hospital, or seek other types of care. This could be because of distance, prohibitive costs of medical services, stigma or fear of discrimination. At times, clinical case definitions are used to record number of people with AIDS, and these are not always accurate where HIV testing is unavailable.

Worldwide it is estimated that 13-15 million people are living with HIV or AIDS while about 4 million men and the same number of women in Sub-Saharan Africa are estimated to be HIV positive.

Opportunistic infections

The other aim of the HIV/AIDS sub-project will be to characterise opportunistic infections of AIDS in Kenya. There are several cardinal findings which when diagnosed in a patient would strongly indicate HIV infection. These are pneumosystis carinii pneumonia, lymphoid intestitial pneumonitis (which is an unusual form of viral pneumonia), fungal infection in throat and mouth (candidiasis or thrush) and Kaposi sarcoma, which is a skin cancer. Any one of these could by symptomatic of HIV infection. The sub-project will therefore aim at establishing which patterns of infections are specific to Kenyans infected with the virus.

Another aim in this sub-project will be to investigate vertical transmission of HIV in Kenya. Africa remains the hardest hit area with about 70% of the global HIV burden and about 14 million people infected. Since Africa depends heavily on the family, this means that with an average family of six members, 84 million people are affected directly by the devastation of the virus.

One of the most common routes of vertical transmission is from mother to infant during pregnancy, childbirth or breastfeeding. It is however not known exactly how much risk there is in a baby breastfeeding when the mother has HIV infection, even though the virus has been found in breastmilk of HIV-infected women.

The reason for this uncertainty is that it is not yet possible to find out if a baby has HIV until he or she is between 12 and 18 months old, therefore making it difficult to show that a baby has been infected during breastfeeding, rather than in the womb or during birth.

Another issue is diagnosis on the basis of clinical signs which may not always be accurate. Even where a mother has HIV, her child's illness may not be due to the virus. Symptoms of malnutrition, malaria and anaemia can be quite similar to HIV symptoms,

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especially if the baby is not breastfed. Yet clinical diagnosis is often used because laboratory testing is expensive or unavailable. Moreover, for children under 18 months, a positive HIV-antibody test is not reliable.

Acute Respiratory Infections

Acute Respiratory Infections constitute the third ranking causes of mortality and morbidity especially in the developing countries.sub-project, the aims determining the etiology and molecular microbiological properties of agents causing the infections and developing quick diagnostic methods to detect the agents. The project will also investigate the reasons for resistance to current antimicrobial drugs in the country, and the role of nutrition in occurence and prevention of ARI. The relation between HIV and ARI will also be investigated.

In Africa, about 1.5 million young children die every year from acute respiratory infections. The infections are among the leading causes of death of children under five years old in the continent. Most die before their first birthday. In many places in Africa, a child sufferes between six and ten episodes of ARI annually. Most are mild viral infections that cause a cough, a sore throat or a running nose, sometimes with some fever. Although the majority of ARI cases require no treatment other than general care at home (including extra fluids and good feeding), up to 70% of these children are treated unnecessarily and expensively with antibiotics and other medications. The KEMRI-JICA sub-project will aim to develop recommendable treatment of ARI throughout the country.

The real killer disease among ARIs is pneumonia. If not treated, one in four cases results in death in a few days. In Africa, about 80% of childhood pneumonia is caused by bacteria, and is made worse when there are outbreaks of malaria and diarrhoea. High coverage with measles and pertussis vaccination has been found to reduce mortality from pneumonia. Other preventive measures are improved nutrition, reduction of low birthweight and reduced indoor air pollution.

Other objectives of the ARI project will be to determine the etiology and basic molecular microbiological properties of causative agents and to develop a rapid diagnostic method for microbial agents in ARI.

The project will also investigate resistance of antimicrobial drugs in ARI, and determine malaria and ARI prevalence in Kenya. As a preventive measure, community based health education for ARI and HIV infection will be included.

Hepatitis

One goal of the hepatitis sub-project will be the establishment of a local system for mass production of the KEMRI Hep Cell, which is already being used on trial basis in Zambia and Congo. A locally-produced diagnositic kit for hepatitis C will also be sought.

The completion of the Liver Diseases Diagnostic Centre will be pursued. This centre will facilitate the carrying out of liver function tests and ultrasonography, in order to assist in early diagnosis of liver diseases.

As a first step in establishing country-wide laboratory systems for liver diseases, seminars have already been held for provincial hospitals personnel in Kenya. The seminars covered techniques of prevention of post-transfusion hepatitis, diagnosis and management of hepatocellular carcinoma, serological and ultrasound diagnosis and surveillance of liver diseases.

Other objectives of the hepatitis project include determining of the epidemiology of hepatocellular carcinoma related to viral hepatitis and training for widespread application of Hep Cell Kit in Africa.

Technology transfer

The KEMRI/JICA collaboration has directly and indirectly impacted on the general health status in Kenya. In summary, the collaboration has resulted in:

- strengthening of the national health manpower capacity through training.
- strengthening of the national health research capacity through development of modern facilities for health research and provision of research equipment and materials.
- technology transfer in health services and research through Japanese experts involvement in the projects.
- enhancement of community awareness to disease prevention and control through community oriented research programmes.
- dissemination of useful data and information through publications and seminars for application in health care delivery services.

Participants at one of the courses organised by JICA for hospital personnel in charge of blood banks. The courses covered techniques in the use of the KEMRI Hep Cell to screen blood for hepatitis B virus

Staff awarded doctorate degrees

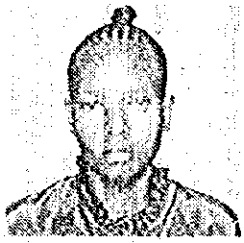
Three research officers, all from Biomedical Sciences Research Centre were this year awarded their PhD degrees from Kenyatta University. The three are Drs. Peter Amunga Mbati, Elizabeth Okongo-Odera and Ayub Ofulla.

Dr Mbati's thesis was on the use of chelators in experimental chemotherapy of visceral leishmaniasis. Experimental evidence indicates that chelations may be important in the pharmacological action of many drugs, and Dr. Mbati's work gave further evidence that chelators are important in the development of effective drugs against tropical diseases.

Dr. Ofulla's work was on the use of serum-free medium for culturing plasmodium parasites in the laboratory. Culturing of the parasites has mainly been done using foetal calf serum, which had to be imported at a prohibitive average cost of 2 dollars per millilitre. Apart from saving on cost, Dr. Ofulla's serum-free media will reduce contamination, thereby making biochemical studies more reliable. The culture can be used to directly set up drug sensitivity assays with fairly good levels of adaptation of the plasmodium transported from the field to the laboratories.

Dr Odera's work resulted in the development of a more specific diagnostic kit for visceral leishmaniasis. The norm in diagnosis of this disease has been the use of direct agglutination test (DAT), which, though specific, had limited sensitivity. The problem with this test is that it showed positivity even when the patient had been cured, hence the need for a more sensitive test. KEMRI is in the process of patenting this kit (*see separate story on page 1*).

New staff members



Dr. J.N. Gitau

Dr. Jane Njeri Gitau joined KEMRI in January this year as an Assistant Research Officer, based at the Clinical Research Centre. She holds a Bachelor of Medicine and Bachelor of Surgery degree obtained from the University of Nairobi between 1981 and 1988. She is currently undertaking a postgraduate course in Diagnostic Radiology.

Mr. W.K. Tanui

Mr. Willy Kiprotich Tanui joined KEMRI as an Assistant Research Officer based at the Biomedical Sciences Research Centre in January this year. He holds a Bsc. (Botany, Zoology and Chemistry) obtained in 1991 from the Kurukshetra University (Haryana) India in 1991.

Mr. A.S. Okoth

Anthony Stephen Okoth joined KEMRI as an Assistant Research Officer based in Traditional Medicines and Drugs Research Centre in January this year. He holds a Bsc (Biological Sciences) and a post graduate diploma in Pharmacy obtained from Punjab University and Kanataka State Drug Board respectively between the years 1989 and 1993.

Mr. E.L. Mariach

Mr. Emmanuel Lousot Mariach joined KEMRI as an Assistant Research Officer based at the Medical Research Centre in November last year. He holds a BA (Social Sciences) degree from Rani Durgarati Vishwavidyalaya University in India in 1993.

Other new members are Mr. Dennis Odipo Okumu who joined KEMRI in December last year as a Pharmaceutical Technologist based at the Staff Clinic and Mr Benear Obanda, an Assistant Ressearch Officer at the Centre for Microbiology Research. Mr Obanda has a Bachelor of Arts degree in Social Sciences obtained from Rani Durgarati Vishwavidyalaya University in India.

The other new members of staff are: Mrs. Edith W. Mwangi, Mrs. Margaret N. Mwai, Mrs. Elizabeth Ongaki, and Mrs. Linah J. Koech, all Nursing Officers (CRC). Mr. Samuel M. Muthinji, Medical Illustrator (Hqs). Mr. James M. Ngari, and Miss Jane W. Githure, Data Machine Operators (MRC), Miss Josephine C. Kesusu, Data Analyst (MRC), Mr. Antony M. Nzomo, Motor Vehicle Mechanic (Hqs.) Mr. Samuel M. Karani (Hqs.), Mr. Francis M. Ngugi (CMR), Mr. Edwin N. Kenda (Hqs.), Mr. Kimutai B. Koech (Hqs.), Mr. John W. Kamwana (BSRC) and Miss Susan S. Yego (Hqs.) all Clerical Officers. Mr. Samuel O. Guda, Driver (ALSDRC), Mr. Cosmas A. Mayaka, Driver (ALSDRC), Mr. Saidi M. Mwachibo (CMR), Mr. John O. Machoka (Hqs.), Mr. Joram Nganga (Hqs.), Mr. Samuel M. Ngunu (Hqs.), Mr. Anthony N. Ngondi (Hqs.), Mr. David M. Wambura (Hqs.), Mr. Edward A. Chweya (Hqs.), Mr. Abel D. Sigeria Ondieki (Hqs.), Mr. Benlick K. Mwangi (Hqs.), Mr Samuel K. Langat (Hqs.), Miss Beatrice K. Linguli (CRC), Mr. Michael K. Kaguamba (Hqs.), all Auxilliary Staff.

Staff in training courses and conferences

● **Mr. J.M. Vulule** (Research Officer VBCRC) attended a five-week training course in the CDC Laboratories in Atlanta on insecticide resistance and DNA/RNA extraction from *An. gambiae* resistance to permethrin.

● **Dr. Catherine Karekezi** (Research Officer, Traditional Medicine And Drugs Research Centre) participated in the workshop on traditional health systems and public policy which was organized by the Global Institute for Traditional Systems (GIFTS) of Health. The workshop took place between 6th and 9th December 1994 at the Joint Clinical Research Centre in Kampala, Uganda.

● **Mr. James Muttunga** (Senior Research Officer, Medical Research Centre) participated in the standing committee meeting on Harmonization and Standardization of Data Base in Africa held in Addis Ababa from 14th to 18th November 1994.

● **Ms. Grace Ohayo-Mitoko** (Research Officer Medical Research Centre) attended the Fifth African Regional Conference on Women in Dakar, Senegal between 16th and 23rd November 1994.

● **Ms. Catherine Mutura** (Senior Laboratory Technologist) left for Japan at the beginning of July this year to attend a group training course in vaccine quality control technology. The course runs until 16th December this year. Her expenses are met by JICA.

● **Mr. Benedict E.O. Omondi** (Laboratory Technologist, Medical Research Centre) is attending a three-month course at the Research Department of human nutrition in the Danish Veterinary and Agriculture University.

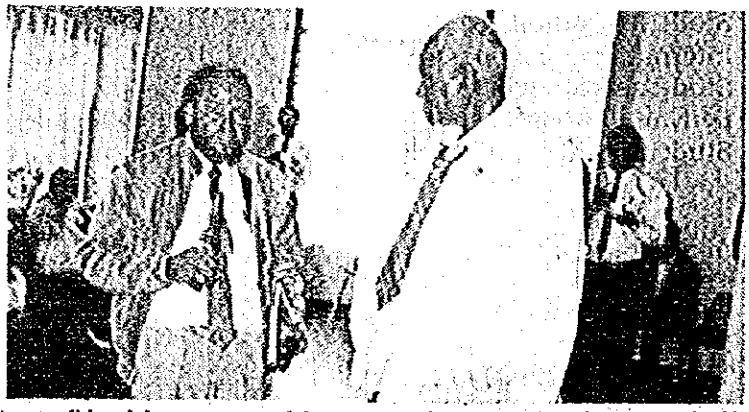
● **Alex Wamachi** (Laboratory Technologist, Biomedical Sciences Research Centre) is attending a 6 month special immunological training course at Case Western Reserve University, Cleveland USA. The course which started in May this year is part of a collaborative Biomedical Research Project between the Kenyan Ministry of Health, KEMRI and the Case Western Reserve University.

● **Dr. Andrew Githeko** (Senior Research Officer, VBDRC) attended an African multi-country bednet trial meeting in London which took place between 5th and 10th June 1995 at the London School of Tropical Medicine. His expenses were met by the WHO and the London School of Tropical Medicine.

● **Dr. Mary Amuyunzu** (Research Officer, Medical Research Centre) travelled to Cote D'ivore between 8th and 11th May 1995 to attend a conference on "African Women and Development". Her expenses were met by the Pan African Association of Anthropologists.

● **Mr. Charles M. Mbogo** (Research Officer, Kilifi Research Unit) attended a short scientific workshop on multi-country malaria control programme supported by WHO at the London School of Hygiene and Tropical Medicine. The workshop set up a standardized procedures in large scale trials of insecticide treated bednets. His expenses were met by the WHO.

● **Ms. Freda Andayi** (Research Officer, ALSDRC) attended a workshop on small grants programme of IFORD in Younde, Cameroon which took place between 15th and 22nd April 1995. Her expenses were met by the WHO.



Two traditional doctors at one of the many conferences and seminars organised by KEMRI to disseminate research findings

New JICA Representative visits

Dr. John Githure, Director of Biomedical Sciences Research Centre, explains to the visiting JICA Resident Representative Mr. Minoru Tagami (middle) about the activities at the Leishmania laboratory

The newly-appointed JICA Resident Representative in Kenya Mr. Minoru Tagami visited KEMRI on 12th January 1996 to familiarise himself with his organisation's activities in the Institute.

Mr Tagami had an extensive tour of all the KEMRI centres before holding discussions with the Director, KEMRI, Dr. Davy Koech. He said he was impressed by his visit to the institute.

He gave useful advice towards the strengthening of the KEMRI/JICA Project.

His visit came ahead of an anticipated visit a few days later by the JICA Survey Team which will hold discussions with KEMRI on the proposal for the fourth phase of the Project.

17th African Health Sciences Congress

Date: 5 - 9 February 1996

Venue: KEMRI Headquarters, Nairobi

SCIENTIFIC PROGRAMME
The Congress will cover all aspects of health sciences, with a main symposium on Use and Abuse of Social Drugs. The Programme will also include Plenary Sessions, Round Table Discussions, Oral and Poster Presentations

REGISTRATION FEE	
Participants from Africa	US$ 120
Students from Africa	US$ 75
International participants	US$ 320
Students - international	US$ 250
Kenyan participants	Ksh 1500
Students - Kenyan	Ksh 750

All correspondence to:
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FAX: 254-2-720030
E-mail: Kemrilib@ken.healthnet.org.

Annual Health Congress goes to South Africa

For the first time in its history, the African Health Sciences Congress will be held outside KEMRI. The Congress, which is organised by the African Forum for Health Sciences (AFHES), will be held in South Africa in February 1997.

The annual meeting, initially organised for 14 years by KEMRI and KETRI, is now a continental affair, with members from several African countries comprising the AFHES.

Apart from organising the Congress, the Forum also publishes the *African Journal of Health Sciences*, a peer-reviewed journal that is now in its third year of publication.

Another feature of the AFHES is the Symposium Committee, which holds a symposium at every Congress. The proceedings of the symposium are then published as a book to guide governments and policy-makers on pertinent health issues.

This year's symposium was on AIDS, and a book titled *Demystifying AIDS in Africa* is scheduled to be out by January 1996.

⑦ 外務省年次協議調査団に関する現地新聞記事

DAILY NATION, THURSDAY, JANUARY 25, 1996

NATIONAL NEWS

Improve security, urges Japan

By MAGUTA KIMEMIA

The Japanese Government yesterday expressed concern over insecurity in Kenya. Security, it said, was was essential for economic co-operation.

Japan urged the Kenya Government to ensure security measures for all its personnel engaged in economic co-operation projects in the country.

The director of the Technical Co-operation Division of the Japanese Ministry of Foreign Affairs, Mr Masahiko Horie, who headed a Japanese delegation to the Annual Consultation on Economic and Technical Co-operation meetings held in Nairobi on Tuesday and yesterday, said the security situation in Kenya had deteriorated in the past six months.

He said the Japanese delegation had held talks with Finance Minister Musalia Mudavadi and the Kenyan team led by the Permanent Secretary in the Ministry, Mr Benjamin Kipkulei.

Mr Horie, who was briefing the Press on the meetings, said his government would "re-orient" its assistance to promote further political and economic reform, as well as to alleviate the difficulties of the poverty-stricken people of Kenya.

He said Japan would not reduce its assistance to Kenya but would give more attention to projects which would benefit the poor more such as water projects, primary and secondary schools and hospitals.

The Japanese public, Mr Horie said, was becoming increasingly concerned about its economic assistance to Kenya and had demanded transparency and accountability in the way "the Japanese taxpayers' money is utilised."

In future, Mr Horie said, Japanese assistance would be focused on education, public health, environment, agricultural development, and economic infrastructure.

More emphasis would also be placed on the enhancement of regional co-operation through training programmes at the Jomo Kenyatta University of Agriculture and Technology.

Saying it was the basic position of Japan to support the efforts of the Kenya Government and its people in political and economic reform, Mr Horie said, such reform needed committed political leadership and support by Kenyans.

"The relationship between political and economic reform is similar to that between two sets of wheels," Mr Horie said.

He said that if requested, Japan would be willing to support the holding of fair and free elections in Kenya.

Mr Kipkulei described the two-day talks between the two delegations as frank, cordial and fruitful.

⑧ 現行フェーズ評価報告書抜粋（但し、章番号は同評価報告書のまま）

a．調査結果要約

1－5　調査結果要約

(1) 合同評価結果概要

協力内容5分野ともそれぞれ達成度に若干差があるが、すべての分野について1年間のフォローアップが必要であるとの結論に至った。

ケニア側のローカルコスト負担が従来から問題となっていたが、今回、政府予算以外の財源を確保する必要性があげられた。

カウンターパート研修はテクノロジスト、テクニシャンレベルがほとんどで、研究員は学位が取得できないというデメリットのためプロジェクトへの配属希望者が少なく、今後学位取得の機会を与えてほしいという要望が出された。

ガーナ、ザンビア、ケニア三国間の類似案件での技術交換が高く評価され、今後も続けてほしいという要望が出された。

(2) フォローアップ

国内委員会、プロジェクトリーダー、JICA ケニア事務所、JICA 本部とも1年間のフォローアップを実施することで一致していたが、日本人側がその規模について現地で協議した結果、長期専門家は調整員を派遣するのみで、全分野とも短期専門家派遣によって残された活動を実施することで合意した。この点について KEMRI 側に外交ルートで至急フォローアップ要請を出すよう依頼した。活動内容案については、現地からの要請内容を待つとともに、国内委員にも検討を依頼したい。

(3) 次期プロジェクト

KEMRI 側には、本プロジェクト（フォローアップを含む）終了後にエイズ、肝炎、下痢症、急性呼吸器感染症分野での新規プロジェクト方式技術協力の要望がある。これに関しては、新たな国内委員会を結成してそこで検討すべきであるとの結論に達した。

(4) 三国間技術交換

本件に関して当調査団より、JICA としてもアフリカ地域全体の保健医療の向上に貢献することをめざしており、その点からも三国に限らず今後新規に開始される他の諸国での類似案件も含めて三国間技術交換を続けたい旨回答した。

(5) JICA ケニア事務所による第三者評価

今回初めての試みとして、National Health Research and Development Centre のメンバー6名と契約して JICA ケニア事務所による第三者評価を行った。同報告書は参考資料として扱われることになったが、内容は公正でほぼ的確なものであろうと JICA ケニア事務所側は評価している。

(6) 研究協力における問題

サイエンティストレベルのカウンターパートがプロジェクトへの配属を希望しない大きな理由として、プロジェクトに配属されても学位を取得する機会がないことが従来からあげられている。本件は現在のスキームでは困難であるが、他のプロジェクトも含め JICA 全体として研究協力・高等教育協力の現状を把握し、今後のあり方を検討するための調査研究の実施について、JICA の国際協力総合研修所に非公式に依頼中である。

b．自立発展の見通し

第4章　自立発展の見通し

今回のプロジェクトではおのおのの分野で技術移転の成果がみられたが、残念ながら KEMRI の国家的な研究機関としての自立発展については、以下のような制約要因のため十分な見通しが立っていない。

組織面では KEMRI を含めケニアの中央政府直属の研究所はすべて研究科学技術省のもとに統括されており、一方、保健医療行政は保健省が主管している。この両省間の連携が悪いことから、KEMRI での研究上の成果が保健医療行政に反映されにくいという問題点が当初から存在していた。プロジェクト開始時にはケニアの公衆衛生の改善を目的としたのであるが、それを実現するためには今後、組織上の問題点を解決する必要がある。

今期プロジェクト期間中にアフリカで民主化の動きが活発になり、ケニア国内外での民主化要求に対する同国政府の消極的な姿勢に対する反発から、政治的、社会的に不安定な状況が起きた。これが国家財政および行政サービス面にも悪影響を及ぼした。

特に、財政面ではケニア側のローカルコスト負担が従来から問題となっていたが、今回特に政府全体の財政難の影響を受けて、プロジェクトの運営に支障を来した。今後ともケニア政府には、研究活動に必要な予算確保を求めていく必要がある。同時に今回の政府予算以外にも財源を確保する必要性があげられた。

カウンターパートについても問題が残された。特にサイエンティストレベルのカウンターパートがきわめて不足し、カウンターパート研修はテクノロジスト、テクニシャンレベルがほとんどであった。サイエンティストたちの研究に対する意欲にも問題があるが、同時に従来からの問題点として、プロジェクトに配属されても学位を取得する機会のないことがあげられている。カウンターパートからも、また日本人専門家側からも、今後カウンターパートに学位取得の機会を与えてほしいという要望が出された。

各分野においては、以下のことが指摘されている。

(1) 住血吸虫症

財政上の問題のため、プロジェクトの調査地域の2カ村で調査を実行することはほぼ不可能であろうが、費用をあまりかけないナイロビ近辺を対象とした疫学的調査を行っていく研究技術は移転されたので、今後国際学術誌への論文発表が期待される。

(2) 糸状虫症

本分野も財政上の問題から自立発展は困難であるが、その問題さえ解決されれば知識面、技術面では KEMRI で自立的に疫学・対策研究を行っていくことが可能である。

(3) ウイルス性肝炎

B型肝炎診断試薬の自力生産の継続が技術的、コスト的に可能となった。ただし、これを継続するためには今後本試薬の製品化および有料化が必要となり、またその収益が適正に還元されるような配慮が必要となる。

肝疾患診断技術が国民に広く寄与するためには、検査費用などの問題を含めた医療環境の改善

が今後必要となる。

肝疾患、特に肝ガン対策には今後とも技術協力が必要である。

(4) 細菌性下痢症

プロジェクト実施中の調査で得られた結論から、今後の対策として継続的な衛生教育の実施が必要となってくるが、そのためにはまだ若干の技術協力が必要である。

(5) ウイルス性下痢症

この分野では研究者レベルでのカウンターパートが特に問題であり、主体的に実験を進めるまでに成長したとはいいがたい。学会発表および学術誌への論文投稿を通して研究上の交流を行った経験が、今後も継続することが望まれる。

なお、KEMRIは本プロジェクト（フォローアップを含む）終了後に、エイズ、肝炎、下痢症、急性呼吸器感染症分野で新たにプロジェクト技術協力を日本に要望しており、これまでの感染症分野での技術協力を継続的に発展させるうえで積極的に検討すべきである。

c．評価結果総括

第6章　評価結果総括

6－1　はじめに

ケニア中央医学研究所（KEMRI）の感染症プロジェクトは、1979年に開始した中央医学研究所プロジェクトから今日まで約15年間の歴史を持ち、これに参加した日本側専門家やケニア側カウンターパートの人たちの努力によって多くの成果が積み重ねられてきた。

1977年東アフリカ共同体が崩壊して、ケニアが総合的な医学研究体制を整備する必要に迫られ、日本政府は28億円の無償資金を提供しKEMRIを設立、ここを基礎科学、臨床科学を包括した感染症の総合的研究の場としたわけである。

JICAがKEMRIで実施している技術協力プロジェクトは、ケニアのフィールドに密着した実際的プロジェクトで、研究機材や研究技術を供与し、そこで得られた研究成果をケニアの疫病の予防と治療という保健行政に、また一般住民の啓蒙に貢献するという目的を持つものである。この技術協力プロジェクトの基本精神は「技術移転による人づくり」である。

以上のような基本精神を持ってスタートしたKEMRIにおける感染症対策プロジェクトは、1979年の中央医学研究所プロジェクトから今日まで通算約15年の歳月が流れた。そのなかで両国間の政治、文化、歴史、生活習慣などの相違に基づく研究者間の考え方のギャップの相互理解がしだいに進み、プロジェクトの研究成果も着実に蓄積されつつある。研究機材や技術の移転を通しての研究者の育成およびケニアの実情に適した感染症制御対策確立への努力が続けられてきたものである。

今回、1990年5月からスタートした第3期ケニア感染症研究対策プロジェクトの終了時評価調査のためケニアを訪れた。その研究成果についての評価の総括と国際医療協力にかかわる諸問題について考察してみたい。

6－2　プロジェクト研究とその成果

今期のプロジェクトは、①住血吸虫症（ビルハジア症）の疫学と対策、②糸状虫症の疫学と対策、③ウイルス性肝炎の実態の解明、④細菌性下痢症の実態と予防対策、⑤ウイルス性下痢症の実態と予防対策、という5つの疾患に関するケニアにおける実態把握と、その予防対策の確立ということである。

今回の評価は従来とは異なり、われわれ評価調査団がケニアを訪問する前に、在外第三者による客観的評価実施の必要性が、Dr.Abudullah（Chairman, KEMRI Board of Management）から提唱された。これに基づきProf. J.M.Mungai（Chairman of the KEMRI / JICA Project External Evaluation Team）ら6名による第三者評価委員会が結成され、彼らによる評価がなされたのである。

本プロジェクトはすでに述べたように、技術移転による人材の育成と、ケニアの国情に適した感染症予防対策の確立をめざすものであり、またKEMRIの各部門の研究者が参加して学際的な研究方向をめざした研究プロジェクトである。

第三者評価委員会によれば、住血吸虫症、糸状虫症プロジェクトにおいては当初の目標達成に至らないいくつかの問題が残されているが、ウイルス、細菌関係のプロジェクトはその問題が達成され、研究成果に対して高い評価が与えられた。

住血吸虫症の集団治療、安全水供与、貝対策の効果へ向かっての努力は従来から続けられており、ケニアの国情に見合う実行可能な対策の実現が期待される。また、糸状虫症研究プロジェクトにはCRC（Clinical Research Centre）、CMR（Center for Microbiology Research）、MRC（Medical Research Centre）、BSRC（Biomedical Sciences Research Centre）などが参加し、疫学調査や疾病対策のためには保健省の協力も必要とされる文字どおりの学際的な研究の代表的プロジェクトとしての意義がある。このような学際的研究体制のなかで指揮系統、役割分担などの問題や、プロジェクトからのケニア側人材の流出などの諸要因により、具体的目標達成の遅延がみられた。

また一方において、このような学際的研究の道を求めたことにより、KEMRIの各センターの糸状虫症研究意欲の高揚をもたらしたことも事実であり、これを契機として学際的な形の研究体制がKEMRIのなかに定着していくことが期待される。住血吸虫症、糸状虫症のプロジェクトにおいては、ナイロビより遠隔地にあるフィールドの悪条件を克服するための対策として、現地の実験室、宿泊施設の建設作業が大幅に遅れたこともプロジェクトの進展に影響を与えたものといえる。

ウイルス性下痢症、細菌性下痢症のプロジェクトが相互に協力し合いながら推進され、ロタウイルスによる下痢症の実態の解明は将来のワクチン研究の基礎を築き、マリンディ地区におけるhospital basedおよびcommunity basedの下痢症の疫学的調査による実態把握と、生活用水、飲料水の微生物汚染に伴う下痢症の伝播の解析と、その制御対策への戦略の確立は評価されよう。これもマリンディにおける実験室の早期完成によるプロジェクト研究の進展による成果として注目したい。

ウイルス性肝炎プロジェクトにおける成果は、国際協力の基本精神である技術移転の典型的発現であり、B型肝炎診断試薬の現地量産体制の確立、供血者スクリーニングの実施および肝疾患診断センターの整備などの技術移転が円滑に行われ、感染予防対策への基礎が築かれたことで、今後の肝炎予防への大きな足掛かりが提供された。肝炎診断試薬の広範な普及のためには行政面での積極的対応が強く望まれる。

また、サブプロジェクトにおいて講義、実習などを組み合わせてワークショップを開催し、ケニア全土の州立または郡立の病院勤務の人々に技術や知識の移転を試み、多くの成果があげられ、研究意欲を刺激した効果は大きいものがある。

要は本プロジェクトの技術移転によって得られた成果が、ケニア国民の保健衛生という実際面に還元されていくこと、ならびに移転された技術の維持および発展のためには、研究科学技術省はもちろんのこと、保健省などとの連携を密にした行政的施策を積極的に推進することが強く求められる。

6－3　プロジェクトをめぐる基本的問題 ―― 衛生教育と伝統 ――

本プロジェクトの住血吸虫症や細菌性下痢症においては、疾病の予防、治療に関しての正しい疾病観を持つための衛生教育を導入して実施したが、その効果は発現しつつある。

国際協力において両国間における歴史、文化、伝統、風習などの違いにより、現代医学とは異なる病気観、医療観というものが途上国の国民の間に存在していることも事実である。国際協力のなかで正しい疾病観、病気観とは何かといった設問に対し、われわれはどのように対応すべきかといったことに対しては十分な論議が必要であろう。

国際医療協力プロジェクトにおいて、衛生教育によって住民の非健康的な生活、行動を変えること、すなわち行動変容ということはきわめて難しい問題である。

われわれが現代医学的立場から西洋医学的考え方、手法を、直接的に現地住民の疫病の予防、治療のなかに持ち込んでも、われわれ援助、協力する側の考え方（etic）と被援助国住民の考え方（emic）とが衝突することになるので、同じ病気に対してもeticな立場とemicな立場という２つの考え方があることを基本的に理解し、念頭に置くことが重要であるという文化人類学者からの指摘がある。感染症を含めて病気というものを社会的、宗教的立場からとらえている現実がある。

国の経済水準、生活水準が上がれば社会的環境その他が整備され、衛生状態が改善されて国民の健康水準が上がり寿命が長くなるという考え方が成立しないことは、過去のわが国の歴史が証明している。

いずれにせよ感染症対策の一環として衛生教育を導入し、その効果を期待する場合、文化人類学者の参加ということを含めて感染症への学際的なアプローチの必要性、重要性が強調されるところであり、現代医学的、西洋医学的疾病観が正しいものであるという観点からのみのアプローチは危険である。

西欧文化は自然征服型で人間中心主義の文化であり、これによって地球環境破壊という現象がもたらされており、膨大な物質文明を謳歌している近代社会では人間が万物の霊長であるといった思い上がりと、そのとめどもない欲望のなかで、自然環境破壊が地球上の生物圏で進行したことに思いをいたす必要がある。

６－４　むすび

KEMRIが設立されて約10年の歳月が流れ、第２期、３期の感染症対策プロジェクトが実施され国際医療協力プロジェクトとしての成果が積み重ねられてきており、プロジェクトを通しての相互理解も進んできている。米国、カナダ、イギリスなどの研究グループが派遣され活発な研究が展開されており、その実績も蓄積され国際的な研究所としての役割も果たし、その評価もしだいに高まりつつあるのが現状である。

ケニア、ガーナ、ザンビアにおいて、それぞれ独立的に実施されている感染症対策プロジェクトの相互の情報交換のために、また、技術交流のために人的交流を行うことを目的として、KEMRIがメインとなって三国間の学術交流が実施され、医療協力体制が芽生えている現状は、将来アフリカの保健衛生問題を統合的に考察していくうえできわめて有意義である。

わが国としては、これら三国の相互関係を進展させていくための財政的支援に前向きに取り組むべきであることを訴えたい。さらに、わが国はこれら三国の相互関係を基軸としたダイナミックなプロジェクトを考え、将来のアフリカにおける国際医療協力体制の強化をめざすべきであろう。

今期のプロジェクト期間中、ケニアは政治的、経済的に不安定な状況が生じ、ケニア政府の財政悪化はフィールド作業に必要な宿泊費、交通費、ガソリン代などのケニア側分担経費の大幅な削減を来し、大部分の費用を日本側が負担する結果となり、プロジェクト運営上の障害となったのである。

KEMRIが将来、基礎科学と臨床科学研究を包括した総合的研究所として国際的に高い評価を受けるような形にまで成長、発展するためには、われわれはその協力を惜しむものではないが、KEMRI側の財政基盤の確立、研究体制の強化など、自立への情熱と努力こそが唯一の道であることを強く認識すべきである。

⑨ 調査団持帰り資料一覧

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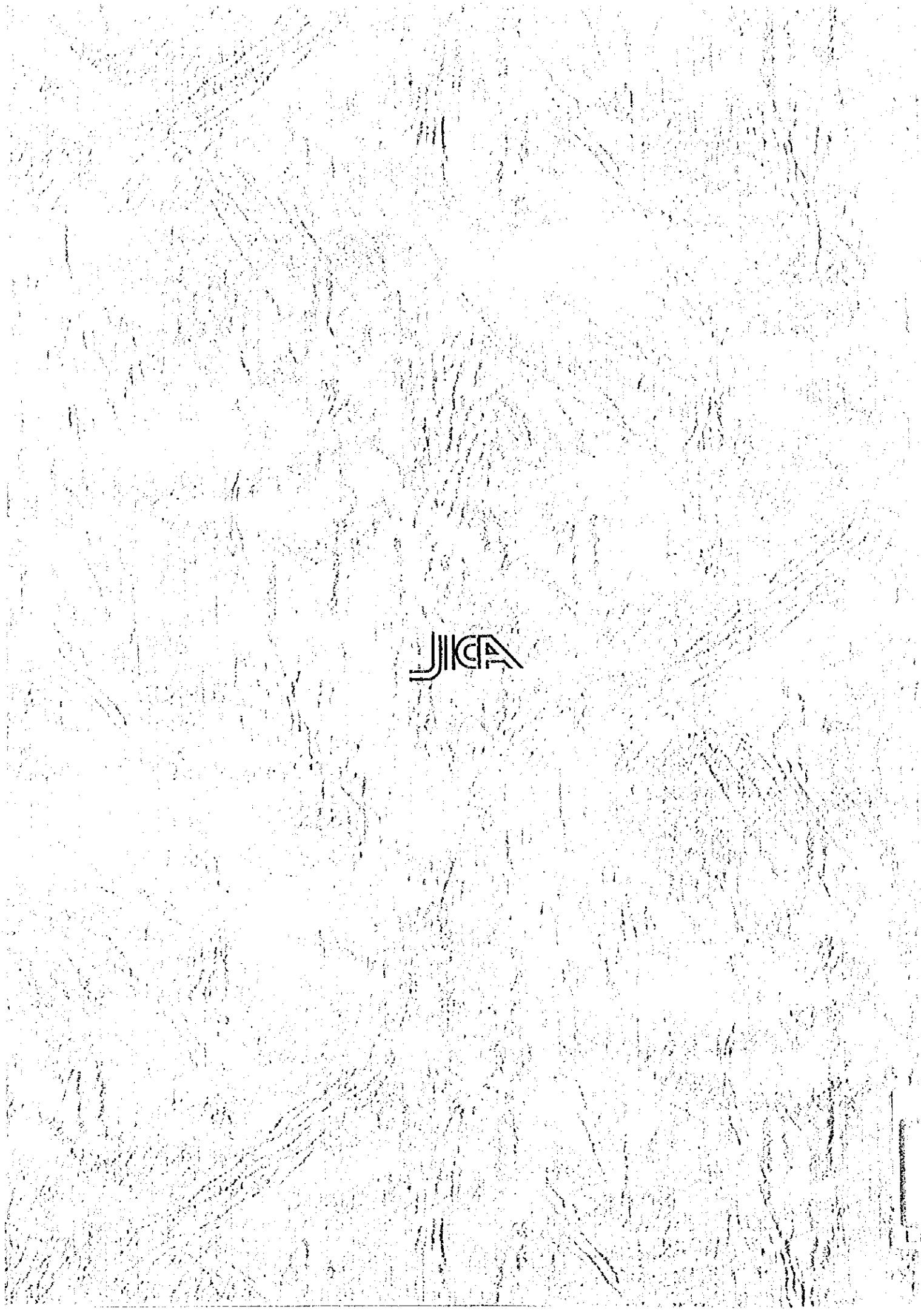
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