News and Notes

St Francis Leprosy Guild, UK; Annual Review for 2000

The opening statement of this Review reads: ‘The Guild is in good heart and continues the work of helping to cure the sick, rehabilitate the cured, house those in need and educate those who do the work.’

During the year, the Guild distributed over £335,000, of which over £280,000 was given as Maintenance Grants, to cover the basic running expenses of the many centres supported worldwide. A further £59,000 was given in grants to specific projects, including educational programmes.

Headquarters: St Francis Leprosy Guild, 73 St Charles Square, London, W10 6EJ. Tel 020 8969 1345. Fax 020 8969 3272.

InDevelop Uppsala AB (International Development Consultant Services), Sweden

InDevelop Uppsala AB (International Development Consultant Services) is an independent Swedish consultancy company specializing in social sector development, particularly health. The company was established in 1986 and is owned jointly by the University of Uppsala and HifabGruppen AB in Stockholm.

InDevelop works in a tradition of strong commitment to health development in low-income countries. The company seeks to focus on vulnerable groups such as women, children and disabled people. In its work the company adheres to principles of long term sustainable development with true participation in the decision making by those who are at the receiving end of international assistance.

Our mission is: To assist in developing sustainable health systems and build capacity to improve health.

The company manages long-term projects focused on technical assistance to ministries and other organizations. On behalf of Sida, NORAD, UNICEF, EU and the World Bank, InDevelop is engaged in planning, managing and evaluating health programmes in some 20 countries annually in Africa, Asia, Latin America and Eastern Europe. The company is also running clinics for overseas personnel in several countries.

InDevelop is most experienced in arranging study and exchange programmes between Swedish and foreign organizations and institutions. Through its association with the University of Uppsala, InDevelop can offer facilities for study visits and training under guidance of prominent researchers.

The main office of InDevelop is situated in Uppsala, close to Stockholm. Through our permanent staff and short-term experts, we can provide support in various technical areas. Overseas, the company also has a number of persons employed.

Together with the company’s subsidiary Sodeco (Social Development Consultants) in the university town of Lund, InDevelop can offer services related to:

- Primary health care
- Health policy and planning
- Health care management and economics
- Physical planning
• Communicable disease control including AIDS control
• Child health and development programmes
• Rehabilitation
• Epidemiology and needs assessment
• Gender equality
• Emergency and refugee programmes
• Population policies and programme implementation
• Community involvement in development projects
• Social impact assessment
• Procurement
• Human resources development

In our work we are guided by:

• respect for our counterparts;
• a conviction that continuity is essential in development co-operation; and
• a commitment to quality built on scientific competence


**Counting current anti-TB drug candidates**

From the latest issue of *TDR News* No 64, February 2001, page 7:

Pharmaceutical companies and academic research laboratories that work on antibiotics often test molecules for activity against mycobacteria, the causative agents of tuberculosis, but—for economic or other reasons—very few companies currently consider developing active molecules further as specific anti-TB drugs. How many of the molecules reported to have anti-TB activity are actually realistic anti-TB drug candidates? To attempt to answer this question, a meeting was jointly convened by TDR and the Global Alliance for TB Drug Development in December 2000, in Geneva. The starting point for the meeting was a list of about 35 compounds or classes of compound with known activity against mycobacteria (usually *M. tuberculosis*) growing *in vitro*, in some cases confirmed by *in vivo* experiments. This list had been compiled from publicly available sources by Dr Toshiko Imamura, working in TDR with funding from the Rockefeller Foundation. At the meeting, the participants (about 25 people, drawn from academia, industry and the public sector) updated and added to this list, and discussed each candidate on the revised list in detail with respect to its likelihood of finally giving rise to a safe, effective and inexpensive anti-TB drug. The candidates were classed as presently being in the research and discovery, preclinical or clinical phases of development, and candidates in different phases were discussed in separate breakout groups. The last session of the meeting drew together these discussions and summarized the meeting’s conclusions, which will be published in report form later this year: the number of realistic candidates for new anti-TB drugs, among compounds or classes of compound currently known to have anti-TB activity, is small—not more than one in clinical development, two or three in preclinical development, and a handful in the discovery phase. The lead times needed for development of an anti-TB drug are long (at least 10 years), and the dropout rates of compounds in development, especially going from discovery into preclinical and clinical tests, are potentially high. These factors underline the importance of more discovery research—for example, based on the recently sequenced *M. tuberculosis* genome—to bring new anti-TB candidates into the development pipeline.

Further information: Dr Richard Pink, TDR/PRD, Tel (+41-22) 791-2665. Fax (+41-22) 791-4854. E-mail: pinkr@who.int
Clofazimine-induced crystal storing histiocytosis producing chronic abdominal pain in a leprosy patient

Sanya Sukpanichant and colleagues from the Faculty of Medicine, Siriraj Hospital, Bangkok, Thailand, have recently reported details of this complication in *The American Journal of Surgical Pathology*, 24(1): 129–135, 2000. The *Summary* reads:

Clofazimine-induced crystal-storing histiocytosis is a rare but well-recognized condition in the literature. Besides the common reddish discoloration of the skin, clofazimine produces gastrointestinal disturbances—sometimes severe abdominal pain, prompting exploratory laparotomy, because pathologic and radiologic findings can produce diagnostic difficulties if the pathologic changes caused by clofazimine are not recognized. The authors report such a case in a leprosy patient to emphasize the importance of history taking, the radiologic abnormalities of the small intestine, and the pathologic findings in small intestine and lymph node biopsies. Clofazimine crystals are red in the frozen section and exhibit bright-red birefringence. However, they are clear in routinely processed histologic sections because they dissolve in alcohol and organic solvents. They also appear as clear crystal spaces during electron microscopic study, but some osmiophilic bodies can be observed. Histiocytosis caused by clofazimine crystals produces infiltrative lesions in radiologic studies mimicking malignant lymphoma or other infiltrative disorders. Associated plasmacytosis in the histologic sections can simulate lymphoplasmacytic lymphoma or multiple myeloma with crystal-storing histiocytosis. With the knowledge of this rare condition caused by clofazimine, appropriate management to avoid an unnecessary laparotomy is possible.

Pathogen genome sequencing

In yet another very interesting issue of *Wellcome News* (Research and Funding News from the Wellcome Trust), number 26, Q1, 2001, several articles deal with current research in genomics. The following is extracted from one of these: "Know they enemy" Pathogen genome sequencing, on pages 12–13:

The free, rapid and unrestricted release of pathogen genome sequence data has enabled scientists all over the world to begin exploring the genetics and biology of these organisms. Many interesting discoveries are being made, as the examples below illustrate.

At the University of Oxford, Professor Chris Newbold has an ongoing interest in the pathogenesis of malaria. When a red blood cell is infected by *P. falciparum*, the causative agent of malaria, parasite proteins appear on the surface of the cell. These proteins cause the cell to stick to the sides of small blood vessels, particularly in the brain, causing the lethal brain lesions typical of cerebral malaria.

At the Pasteur Institute in Paris, Professor Stewart Cole was a key participant in the *M. tuberculosis* sequencing project carried out at the Wellcome Trust Sanger Centre. The genome of *M. tuberculosis* was found to contain approximately 4000 functional genes, 16 percent of which code for proteins of unknown function. Genomic data revealed an unusual abundance of genes encoding more than 250 proteins involved in fatty acid metabolism, probably associated with the complex lipid-rich cell envelope surrounding the bacterium. Some of these proteins may play a role in pathogenesis and host inflammatory responses. Remarkably, just under 10 percent of the genome was found to encode just two novel families of glycine-rich proteins, which may be involved in antigenic variation.

The complete genome sequence enabled Professor Cole’s group to compare several *Mycobacterium* species, to try to identify genetic variation that could explain differences in virulence between species and strains. For example, the group discovered seven deleted regions in the chromosomes of the *M. bovis* BCG strain (the non-virulent strain used in vaccination programmes), indicating that genes within these regions may account for host specificity or virulence.
Hospital observes Silver Jubilee Year programme

Bombay Leprosy Project (BLP) observed the 22nd anniversary of its Leela Moolgaonkar Leprosy ward in the Adams Wylie Hospital with a tea party for the patients on 23rd July 2001. The function this year assumes special significance in view of BLP observing its Silver Jubilee Year. The patients and staff assembled and pledged to work incessantly towards their dreams of a ‘World Without Leprosy’. Ms Vinchala Bala a Canadian student, who is spending 2 months with BLP, and who is carrying out an investigation on vocational training and rehabilitation of the handicapped in BLP, was the guest of honour. She exhorted the patients to face their difficulties resolutely and she also complimented the staff of BLP for their sustained and untiring efforts in their service to leprosy patients. Mr Rikin Morzaria who is studying issues related to human rights being associated with ‘INDIA CENTRE for Human Rights and Law’ also participated.

The leprosy patients may unfortunately be deprived of the vital services of the Adams Wylie Hospital made available to them for so long, as the Indian Red Cross Society which had asked BLP, as far back as 1979, to run this leprosy ward, has now decided to evict BLP to enable demolition of the Hospital structure as they have other grandiose plans for this heritage site.

Bombay Leprosy Project completes 25 years of spectacular service

The spectacular success of the well-known Bombay Leprosy Project (BLP) in tackling leprosy problems in the sprawling slums of Mumbai for the last 25 years came in for praise from speaker after speaker at the Silver Jubilee function of the project at the Lokmanya Tilak Memorial Medical College Auditorium, Sion on Saturday 6 October 2001.

Many veterans were on the dais and the Chief Guest was the Honourable Shri Nawab Malik, Minister of State for Housing, Government of Maharashtra. The Minister recalled the long years of hard work by the project under the able leadership of Dr Ganapati, the Project Director with an excellent and dedicated team of doctors and paramedical workers. BLP could share their expertise with the government and other NGOs so that Maharashtra can eliminate the disease much earlier than other states, he added. He introduced a souvenir brochure containing articles based on BLP’s establishment, growth and development besides an exhaustive account of its activities over 25 years. The auditorium was packed and the audience gave thunderous applause as BLP’s efforts were hailed.

His Eminence Simon Cardinal Pimenta recalled his long association with leprosy work in Mumbai and also with BLP and wished success for a ‘World Without Leprosy’. The organizers presented him with a painting showing Jesus Christ attending to a leprosy patient.

Mr Philip Kaku, the Consul General of Japan in Mumbai, expressed the hope that the aid given by the Japanese Government would help in the fight against leprosy in a significant way.

Dr N. T. Kamthekar, the State Leprosy Officer of Maharashtra, complimented BLP’s efforts and gave an outline of the current status of leprosy in the state.

Mr Ajit Wadekar, the famous cricketer, said that the success story of BLP should be given more media coverage for people to know more of the heroic struggle against the disease. Dr M. E. Yeolekar, Dean, LTM Medical College and Hospital, joined the other dignitaries to applaud BLP.

Dr R. Ganapati, the visionary behind the project, related the problems he had to face in making the project viable and stable for the past 25 years in the face of heavy odds, including crippling shortage of funds. He appealed for greater public participation to continue the good work of the project. He thanked the government and the German donor agency for their understanding and support. He named key members of his team and thanked them. He spelt out the future strategies of BLP in the areas of 1) rural disability care services 2) computer training of the handicapped and 3) CME programmes in medical colleges and appealed for further support. Mrs Hawabee, a slum dweller in Beharam Nagar, Bandra, who helped BLP as the first community volunteer for leprosy case detection and even offered her house to run a clinic to treat leprosy patients in the slum in September 1976, was honoured by the Cardinal.
The scientific session on ‘World Without Leprosy’, followed soon after. Dr S. K. Noordeen, until recently the Director of Leprosy at the WHO, Geneva, gave a world view of leprosy and the status in India, reminding the people that India continues to have the largest number of patients compared to other nations.

Dr Bhushan Kumar, Professor and Head of Dermatology at the Post-Graduate Institute of Medical Science at Chandigarh, gave an update of leprosy from a clinical angle and advocated a more systematic integrated approach to combat the disease.

Dr P. K. Oommen, a well-known surgeon from the Central Leprosy Teaching and Research Institute, Chingleput, gave his views on how to prevent deformities and also tackle deformity correction. He added that ocular complications are not given equal importance along with other deformities. He wondered whether World Without Leprosy could be reached, using a strategy to care for 1.5 million visibly disabled due to leprosy in India.

Mr Jayaraj Devadas, Director of German Leprosy Relief Association in India, spoke on the sociological aspects of the disease and advocated for a better community based counselling and rehabilitation efforts.

Dr (Mrs) Hemangi Jerajani and Dr S. L. Wadhwa, Professor and Head of Dermatology, Sion and Nair Hospital, respectively, chaired and co-chaired the scientific session.

The organizers also announced that Ms Yukta Mookhey, former Miss World 1999, has kindly agreed to associate with the project activities and particularly to help the Rural Disability care programme, which is one of the future activities proposed.

Among the audience were dignitaries including Mrs Josephine Robertson, the historian from Australia, Dr V. V. Dongre, Director of GMLF, Dr W. S. Bhatki, CMS of Municipal Hospitals, Dr B. D. Athani, Director, AIIPMR and Dr A. R. K. Pillai, President of the Indian Leprosy Foundation. Postgraduate students and practising dermatologists, as well as representatives of leprosy projects and social workers, were also present. A large contingent of leprosy patients including those handicapped due to a variety of crippling diseases who were rehabilitated by BLP, also attended.

Earlier, Dr C. R. Revankar Dy, Director of BLP, welcomed the audience and Dr V. V. Pai Dy, Director of BLP, proposed a vote of thanks. Dr (Mrs) Aparna Narayanan compered the function and earned everyone’s praise for her excellent presentation.

Maggots and wound healing

An interesting article in *Wellcome News* (Research and Funding News from the Wellcome Trust, London, UK), Issue 23, Q2, 2000, pages 24–25, reviews the subject of the beneficial effect of maggots in cleaning suppurating or gangrenous wounds, first described by one of Napoleon’s battlefield surgeons in 1820.

The opening paragraphs include the following:

The sight of maggots crawling in a festering human wound is naturally disturbing—but once the maggots are removed the wound is often clean, with no pus or purulent odour, and the healthy pink granulation tissue indicates the wound is actually healing. At the University of Nottingham, Professor David Pritchard is attempting to identify the biological factors behind this phenomenon.

‘The use of maggots to treat wounds is way ahead of anything similar on the market, anywhere,’ asserts John Church, the leading advocate for larva therapy in the UK. Mr Church, a retired orthopaedic surgeon from the Oxford region, noticed the effect of maggots in human wounds in Africa in the 1960s. In early 1995 he was a key figure in the introduction of larva therapy in the UK. In May 1995 he met Stephen Thomas, Director of the Surgical Materials Testing Laboratory in Bridgend, South Wales, who went on to set up the Biosurgical Research Unit, within the Laboratory, to breed bacteria-free maggots for clinical and research purposes. This unit is the only dedicated fly-culture laboratory in the UK.

Greenbottle maggots, *Lucilia sericata*, feed on decomposing organic material. They eject salivary enzymes onto the rotting tissue to break it down and then suck it back in a piston-like action. ‘In a
chronic human wound which has tissue that is dying and infected with large numbers of bacteria these little creatures have a heyday,’ says Mr Church. Moreover, maggots feeding hungrily in a wound obligingly devour not only the rotting tissue but also the contaminating bacteria. ‘So you’ve got two things happening for the price of one: you have the removal of the dead tissue, but you also have the lowering of the infection.’ Added to which, since maggots are photophobic they will naturally migrate into the depths of a wound. ‘They go into the nooks and crannies, which is exactly where I as a surgeon would want them to go. We don’t have to train them: they are already pre-programmed by nature to behave this way. It’s almost too good to be true.’

Laboratory breeding ensures that an appropriate species of fly is selected (some larvae that infest human wounds can invade living tissue), and that the maggots used are free of bacteria and will not introduce other contaminants into the wound. The medical benefits of maggots don’t stop at wound cleaning, however. ‘When you take the maggots out of the wound,’ says Mr Church, ‘not only does the wound base look good, but the actual healing tissue looks healthy and is obviously well on the mend. So there is evidence that they actually produce something within their secretions which “kick-starts” the healing mechanism into action.’ It is this intriguing area that is the focus of Professor Pritchard’s research.

Professor Pritchard’s work on maggots grew out of earlier research on the interaction between the hookworm, Necator americanus, and its human host. Like the maggot, the hookworm secretes enzymes that interact with human skin; it can also have beneficial effects on the host (there is some evidence that hookworm infections can protect humans from cerebral malaria); and it does not appear to be susceptible to the host’s immune system.

Further information: Wellcome News, The Wellcome Trust, 210 Euston Road, London NW1 2BE, United Kingdom. Fax 020 761 8242. E-mail: Wellcome.news@wellcome.ac.uk

Wellesley Bailey Award Winners 2001

Four people have been recognized for their courage and their contribution to the world of leprosy this week. The Wellesley Bailey Award, created by The Leprosy Mission in 1999 to mark its 125th Anniversary, recognizes the ‘Courage, Achievement and Outstanding Contribution to the Cause of Leprosy’ of people around the world who have personal experience of leprosy, a disease which can cause disfigurement and has been stigmatized over the centuries.

The recipients of the 2001 Award, presented in Bournemouth on 30th November, are Dr P. K. Gopal, IDEA, India; Mr Lin Zhi Ming, Handa Rehabilitation & Welfare Association, China; Mr Sanhu Masih, The Leprosy Mission, India; and Ms Zelina Batista de Sena, Movement for Reintegration of People Affected by Hansen’s Disease in Brazil.

All the recipients have faced significant challenges in their lives as a consequence of having leprosy themselves, and have faced and overcome these challenges through great personal courage. As a result they have made significant contributions to their community and society as a whole; have been positive advocates and examples for the cause of leprosy and have made a significant contribution to the field of leprosy in recent years.

Presenting the awards, Ram Gidoomal CBE, Vice-President of The Leprosy Mission in England and Wales, said ‘This disease, over thousands of years, has attracted prejudice and stigma across all cultures and societies. The vital message of this award is that it shows positively that such obstacles can be broken down and that our potential goes beyond the barriers societies set up. My hope is that people everywhere living with stigma will be encouraged by the example shown by the recipients, to overcome with courage the barriers they are presented within their own communities.’

The Awards mark the first international recognition for the winners for their work, and each recipient received a cash prize of £1000, a citation and a presentation plaque during a special reception held at the Heathlands Hotel, Bournemouth, England.
Dr Gopal is presented with this award for courage, achievement and for his outstanding contribution to the cause of leprosy. Born in India in 1941, Dr Gopal was officially diagnosed with leprosy at the age of 19 whilst taking his final university examinations, which had to be postponed as a result. Dr Gopal overcame the great difficulties caused by the pain, social stigma and complications arising from the disease, and completed his studies. As a social worker, Dr Gopal’s research has been recognized internationally, and his rehabilitation programs have become a model for many other organizations. He has worked to provide opportunities for people affected by leprosy, of all ages, to live normal, integrated lives in their communities. Dr Gopal was instrumental in establishing the International Association for Integration, Dignity and Economic Advancement. As their President for International Relations, he has promoted dignified terminology, and has encouraged individuals and organizations around the world to make socio-economic empowerment a priority. Dr Gopal’s influence has been felt at the local, national and international levels: by individuals affected by leprosy in Asia and other continents, by government workers, by health professionals, and by ILEP organizations.

Mr Lin Zhi Ming is presented with this award for courage, achievement and for his outstanding contribution to the cause of leprosy. Born in Guangdong Province, China in 1929, Mr Lin contracted leprosy at the age of 8 years. However, he never gave up studying, and he attended school whenever possible. He started to write articles, essays and short stories, many of which were published. Through his positive attitude to life, Mr Lin has overcome great hardship. His book ‘No Misery in the World’, is the first book written by a person affected by leprosy in China. It has had wide publicity throughout the country, and it has both raised public awareness that people affected by leprosy can work and contribute to the community, and has brought encouragement to others affected by leprosy. Mr. Lin is the Vice-General Secretary of HANDA, IDEA’s branch in China, and he is the chief editor of the HANDA Newsletter. Mr Lin always seeks to help others, and travels from leprosy village to leprosy village to learn about the thoughts and needs of the people. He continues to use his pen to express peoples’ ideas and thoughts, fighting for a ‘No Misery, No Stigma’ world.

Ms Zelina Batista de Sena is presented with this Award for courage, achievement and for her outstanding contribution to the cause of leprosy. Born in 1952 in Brazil, of parents who both had Hansen’s disease, Ms de Sena was also diagnosed with the disease in 1970. Life under the administrative system in the Hansen’s Disease colonies, and the prejudice from society, prompted her to start her constant fight to reintegrate people affected by Hansen’s Disease who had been isolated from society by the health policies prevalent in the 1940s, 1950s and 1960s in the Antonio Justa Colony in Brazil. Ms de Sena helped to found a branch of volunteers of the Movement for the Reintegration of Persons Affected by Hansen’s Disease (MORHAN), and gathered many people together to fight against injustice. Ms de Sena’s actions and achievements have had a widespread effect on all aspects of the lives of individuals affected by Hansen’s Disease, both in the area in which she lives, and indirectly through her work with MORHAN. She has helped many individuals to recover their self-esteem, to exercise and improve their freedom of speech, and to live as full and equal citizens in society.

Mr Nahu Masih is presented with this Award for courage, achievement and for his outstanding contribution to the cause of leprosy. Born in India, he was diagnosed with leprosy at the age of 13, and admitted to the Bethesda Leprosy Home at Champa. Whilst at the home he became a Christian and was baptized. He married, and had five children, and even though he was severely disabled by the disease, he started a pig farm and worked as a watchman to support his family. Mr Masih organized the different groups of people in the Ghogranala leprosy colony into a cohesive community. He encouraged the inhabitants to lead dignified lives, by obtaining a livelihood through farming and other small businesses, rather than begging. He has consistently fought for the rights of leprosy patients, such as land allotment from the municipality for housing, pensions for the elderly and handicapped, better sanitary facilities, piped water and good roads. Mr Masih’s strong Christian faith, the progress of his family, his work for the colony, and the example he sets of self-reliance and confidence, have resulted in most of the inhabitants of the colony now living a dignified life, and knowing their rights and privileges.