environment and animal protection. Another ongoing collaborative study involving animal experiments is on 'Regulation of gyrase gene expression, invivo function of DNA gyrase and effect of gyrase expression on virulence of virulent related genes' - a long term project on structure - function mechanism of action and regulation of DNA gyrase from mycobacteria has already been initiated at IISc, Bangalore.

The establishment of bio-safety level III facility also known as P-3 facility at AMRU, utilising the unique low dose aerosol infection system is under progress. Prof Donald W Smith of Wisconsin university on the eve of his retirement gifted the P-3 laboratory equipment to NTI. This facility will help in carrying out studies in human beings aimed at better understanding of the key events of TB pathogenesis and the effective and innovative interventions to win over the TB problem. With introduction of low dose aerosal infection system, the infection produced in animal model will reflect very closely to TB infection

caused in human beings. It will also help in reducing the number of animals used for the research. Besides invitro experiments will continue as complimentary methods.

## 4.8. The administration

During the two decades under our gaze (1977-1997) six Directors, Drs. NK Menon, A Banerji, P Chandrashekar, GVJ Baily, K Chaudhuri and Dr. BT Uke were at the helm of affairs. Over these years the staffing pattern or the administrative structure did not change (Annexure I). But the NTI underwent several administrative advantages and disadvantages.

The advantages were in the nature of generous the development. infrastructural Several buildings: the hostel facilities for para medical and medical trainees; a whole new block for training; and 48 quarters to house Group "C" and "D" staff were added. To facilitate research work the animal house was built. A well equipped seminar hall and an auditorium to seat 200 people



Dr NK Menon 1976-1980\*



Dr P Chandrashekar 1983\*



Dr K. Chaudhuri 1988-1992\*





Dr A Banerji 1980-1983\*



Dr GVJ Baily 1983-1988\*



Dr BT Uke 1992-1997\*

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were made operational. Sister institutions like the NMEP, Plague Surveillance Unit of the National Institute of Communicable Diseases (NICD) were accommodated. Accommodation was also provided for a unit of CPWD and Pay and Accounts Officer (PAO). Dr Chaudhuri gave the much required thrust to the publication wing. The pace of computerisation ushered in the early 90s increased, as it must, to take on the information flood and to promote efficient information dissemination.

But there were problems too, especially in the areas of equipment and personnel which became perennial. Import of equipment was restricted to what was not available in the country and so even the British made landrovers which were so useful for field work gave way to Indian made diesel vans, jeeps and station wagons. The biggest disadvantage was the noticeable absence of WHO experts who were posted during the early years on a more or less permanent basis. Their presence and collaborative working methods gave the institution a head start.

Many of them, especially Dr Piot worked in the villages alongside field workers for extended periods. The information flow from bottom up and top down was easy and informal. This greatly encouraged team spirit and a sense of commitment to work. Many things that could not be done by our administrative rules, norms and procedures were overcome by their interactions or assistance. One example is the Silver Jubilee Celebrations of NTI - 1985. The WHO contributed handsomely to this. Hence, it was conducted on scale a world renowned а institution like NTI deserved. Several posts of key national officers were also not filled up whenever the incumbent left on transfer or retired: the BCG Officer, the X-ray Engineer, the Sociologist are some examples. It is said that a research institution needs a critical minimum mass of intelligentsia to function effectively. In all fairness, when the WHO withdrew its experts, action should have been taken to increase the number of national experts and relevant technical cadres. This could have increased its potential

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and encouraged to move in innovative surges. This was a very important requirement because the country continued to suffer under an ever increasing TB burden.

Hitherto, the WHO fellowships sometimes had which the advantages of studying in a foreign restricted country, were to the gazetted staff, especially doctors. Dr A Banerji saw to it that this facility was extended to the non-gazetted technical cadres. Mr KΤ Ganapathy, Jr Statistical Officer, Mrs Bharathi Jones, LT, Mr VV Krishnamurthy, SA were sent to UK, London and Manila respectively under this scheme. Later, Mrs Pramila Prabhakar, Sr Social Investigator and Mrs Sudha S Murthy, Librarian went to and USA<sup>120</sup>. This healthy UK practice did not continue thereafter. Dr Banerji also initiated action to revise recruitment rules of various cadres. Rigid administrative procedures inhibited implementation of approved versions of recruitment rules beneficial to most technical cadres. The WHO also continued to grant funds for publishing important documents and manuals and assisted in acquiring equipment not available in India.

As narrated in the previous chapter, following the enforcement of the work study team's recommendations, the staff strength of various categories of non-gazetted staff was reduced and a sizable number were posted out. The truncation of staff in this manner prevented formation of required number of teams for carrying out field work. Further, the recommendations of the expert administrative committee regarding assured career promotion of the staff, was kept in cold storage. Repeated pleas from the staff individually or through their associations did not yield results. The staff morale in those days was so low that in 1985 it casted a shadow on the Silver Jubilee celebrations. In 1988, a far modified version of the expert committee's recommendations was implemented by Director Dr GVJ Baily which pleased none including a few who were promoted. The posts created at the inception of NTI remained ad-hoc and the newly created ones were on annual renewal. A majority of the staff continued to languish without any promotion in their respective cadres. Perhaps, these along with posting of the gazetted officers of different backgrounds and aptitudes were the key reasons for reduced capability NTI's to undertake important studies for programme evolution later.

Beginning from 1988, the spectre of Acquired Immuno Deficiency Syndrome (AIDS) appeared. Experts predicted an ever increasing grimness in TB situation. This should have been considered and the required fillip to the NTI should have been given from time to time to promote efficiency. It did not happen. The Five Regional Centres had been recommended by Dr These would have Nagpaul. perhaps increased the pace of training, introduced an effective supervision and boosted TB control activities in their regions. These were not set up. The programme bore the brunt of these lapses. These apart, there were the inevitable budget cuts. Indeed, it

is to the credit of the faculty and staff of NTI that it continued to function with a zeal and dedication rarely seen elsewhere.

## 4.9. The evaluation of NTP

The NTI had believed in assessment and evaluation as an ongoing process. It welcomed the idea of periodic assessment, especially from experts, on scientific lines as they are vital to the growth and improvement in the programme. As Dr Nagpaul said in 1975: It is now widely accepted that most of the corrective actions needed for improvement of NTP are administrative and operational. Assessment becomes a mere exercise in research if not desired by the management. While reduction of TB may be the overall goal, the achievements of NTP must be measured in their operational terms<sup>121</sup>.

The NTP was evaluated by three agencies, ICMR, Institute of Communication, Operations Research and Community Involvement (ICORCI) and WHO. Salient recommendations were: