



ANNUAL REPORT
OF THE
HAFFKINE INSTITUTE
FOR THE YEAR
1976-77

ANNUAL REPORT OF HAFFKINE INSTITUTE, BOMBAY

1976—77

Haffkine Institute was founded in 1899 with the object of carrying out researches in communicable diseases. Since its inception, the Institute has been making notable research contributions in the field of plague, cholera, snake venoms, leprosy etc. In addition to its research activities, the Institute has also developed over years, training programmes for medical and para-medical personnel and research scientists in the field of biomedical research.

In the year 1974, the Government of Maharashtra took a decision to reorganise the Haffkine Institute into two separate bodies, viz., Haffkine Bio-Pharmaceutical Corporation Ltd., solely devoted to the production of biologicals on a commercial scale and Haffkine Institute for carrying on research, training and testing activities. The Haffkine Institute was registered as a Research Society under the Societies Registration Act, 1860, on 14-3-1974. The Society started an independent functioning from 1st September 1975. The Haffkine Institute thus performs three important functions, namely (a) researches in communicable diseases, (b) training programmes of medical and para-medical personnel and (c) testing of drugs and chemicals referred to it by commercial organisations.

As in the past, the Institute has continued its activities vigorously in different areas with the same zeal and enthusiasm, true to its motto of alleviating human sufferings and thereby serving the welfare of the people.

‘रोगापहारि विज्ञानं । लोककल्याण साधनम् ।

Governing Council :

The Governing Council is the apex body of the Haffkine Institute presided over by the Minister of Health, Government of Maharashtra. The Council held 4 meetings during the year. Following were the members of the Governing Council during the year :-

1. Shri K. M. Patil, .. President
Hon'ble Minister for Public
Health, Govt. of Maharashtra,
Mantralaya, - 32.
2. Dr. Leon D'Souza, .. Vice-President
Hon'ble Minister of State for
Public Health, Govt. of
Maharashtra, Mantralaya,
Bombay - 32
3. Shri M. S. Palnitkar, .. Member
Secretary to the Govt. of
Maharashtra, Urban Development
and Public Health Department,
Mantralaya, Bombay - 32.
4. Shri V. Prabhakar, .. Member
Secretary to the Govt. of
Maharashtra, Finance Department,
Mantralaya, Bombay - 32.
5. Dr. P. P. Goel, .. Member
Director-General of Health
Services, Govt. of India,
Nirman Bhavan, New Delhi - 11.
6. Dr. M. K. Rangnekar, .. Member
Commissioner, Food and Drug
Administration, Maharashtra State,
Griha Nirman Bhavan,
Bandra (E.), Bombay - 51.
7. Dr. G. S. Mutalik, .. Member
Director of Medical Education
and Research, Govt. of Maharashtra,
St. Georges Hospital Compound,
Bombay - 1.
8. Dr. C. Gopalan, .. Member
Director-General, Indian Council
of Medical Research,
Ansari Nagar, New Delhi - 16.

9. Prof. T. K. Tope, .. Member
Vice-Chancellor, University of
Bombay, Bombay - 32.
10. Dr. C. G. Pandit, .. Member
450, Sindh Co-operative Housing Society,
Ganeshkhind Road,
Poona-7.
11. Prof. R. Choksi, .. Member
Bombay House, Homi Mody Street,
Bombay-1.
12. Dr. V. V. Kayarkar, .. Member
Director of Health Services,
Govt. of Maharashtra,
St. Georges Hospital Compound,
Bombay-1.
13. Dr. B. B. Gaitonde, .. Member Secretary
Director, Haffkine Institute,
Parel, Bombay-12.

Research Advisory Council :

The Governing Council, at its meeting held on 27-11-1974, had constituted a Research Advisory Council with a view to guide, scrutinize and assess the progress of researches carried out in the Haffkine Institute. The Research Advisory Council met once during the year and reviewed the research work done.

Research Activity :

The Research Projects initiated during the year were as follows :-

1. Preparation of diagnostic reagents in Department of Biochemistry. The kits, when standardized, will be useful to the practitioners in the urban and mofussil areas for estimation of important biochemical tests such as SGOT, SGPT, Blood urea, Cholesterol, etc.

Further, preparation of a kit for diagnosis of pregnancy has also been undertaken. One of the important blood transfusion hazards is the infection with serum hepatitis, i. e. jaundice. A kit is being

standardized for detecting this virus in the blood of a donor. Such kits are still being imported.

2. Another new programme initiated was preparation of a vaccine for pseudomonas organisms. These organisms are likely to contribute to deaths of many patients following burns. Such organisms have been isolated from cases of burns and attempts are being made to produce a vaccine.

3. Another new project has been initiated in order to gain knowledge of the normal bacterial flora of female genital tract. This is important because of its role in post-operative infections and conditions, such as sepsis following child birth.

In the Department of Chemotherapy, several new chemicals have been synthesized with a view to study their effectiveness against intestinal worms leprosy, tuberculosis and amebiasis. In all, about 180 new chemicals were synthesized.

The department continued to develop, on laboratory and pilot scales, new processes for import substitution. These processes, when developed on a commercial scale, will be given to the entrepreneur for setting up units to manufacture basic drugs in rural areas.

Fungal infections are very extensively seen in our country. Work was, therefore, initiated to study the pattern of fungal diseases, i.e. mycotic infections, in the Indian population.

The Institute is working vigorously in the field of leprosy. Lepa bacilli are being grown in experimental animals. Drugs are also being studied. New project on the study of the mechanism of resistance in leprosy has been initiated.

In the area of indigenous drug and plant research, the Institute vigorously continued its activities to seek new drugs. Under the supervision of the Director, a new indigenous drug is being studied for its usefulness as an antifertility agent in the family planning programme. This plant material has been used predominantly by the Adivasi folk and is showing promising results. Several other indigenous drugs have been studied in the Department of Pharmacology, particularly for allergy and asthma.

The Virology Department has pursued very vigorously its programme of the previous year to study the hepatitis virus in experimental laboratory animals with a view to elucidate the exact nature of the virus. If this succeeds, it will pave a way for preparation of the vaccine against this formidable disease.

Toxicology Department, the only of its kind in this part of the country, has continued to work vigorously on the toxicity evaluation of a number of different types of insecticides, food additives plastics and paints. It also rendered advice to the industrial concerns for preventing health hazards to the workers.

Since malaria is showing signs of resurgence, the Institute has made a beginning in this area by initiating a Malaria Research Unit in the Zoonosis Department. Several other projects, such as study of hook-worm disease, filariasis, have been pursued with vigour.

A new project on schistosomiasis, a rare disease reported in 1954 to be present in a small village Gimvi in Ratnagiri District, was initiated. A more extensive programme of work will be undertaken in subsequent years with a view to study the disease in all its entirety and to attempt at its eradication.

A number of indigenous compounds have been screened to find out their effectiveness against mosquitoes and larvae. This a very important project was initiated during this year as a part of the vector control programme. As is well known, the mosquitoes and many other insects are developing resistance to commonly used drugs like DDT and such other compounds.

The Advisory Council scrutinized and reviewed all these research projects and expressed their satisfaction over the progress. Also, the members of the Council made several important suggestions to different research workers of the Institute.

Sponsored Projects :

The I.C.M.R. has established the Poliomyelitis Research Unit at this Institute for the last several years. Poliomyelitis is being studied extensively by the scientists of the unit. The poliomyelitis vaccine is now being processed for total indigenous manufacture in the Haffkine Bio-Pharmaceutical Corporation Ltd.

The Defence Research Organisation has sponsored a programme to study of snake repellants. This is of great significance from the defence point of view.

The Department of Science and Technology has sponsored a new project for development of Insulin and other glandular products obtained from the abattoir. The project is directly under the supervision and guidance of the Director. The project is of national importance from the point of view of import substitution and obtaining material from the waste products.

The project sponsored by the Department of Science and Technology on Viral Hepatitis has been continued vigorously.

In view of the intensive research initiated in the last two years in the field of snake venoms at this Institute in different areas, such as biochemistry and immunology, the Department of Science and Technology sanctioned a project for indepth work in the field of venoms.

With a view to upgrading the Toxicology Department, a project has been submitted to the Department of Science and Technology to establish a Toxicology Research Centre in the Haffkine Institute under the PL-480 programme, in collaboration with the Toxicology Division of the Albany Medical School, U.S.A.

Leprosy is a very intriguing disease. In order to study the disease in depth, particularly with a view to establish the factors, such as immunity in leprosy, a new project has been prepared and submitted to the Department of Science and Technology for initiating a collaborative study under the PL-480 programme in collaboration with Maharry Medical College, Nashville, Tennessee, U.S.A.

Rabies following dog bites is an important problem in rural areas. Although Haffkine Institute has been preparing antirabic vaccine over the last several years, there is a need to develop a new vaccine, which is more efficacious and safe. A project has been initiated this year to develop a vaccine which would avoid killing of sheep as is done at present. This vaccine is being developed in tissue culture in the Virology Department. Since this requires large amounts of financial inputs, a scheme has been prepared and submitted to the Department of Science and Technology, Ministry of Science and Technology, Government of India, for financial assistance.

International Symposium

The Institute organised an international symposium on Venoms and Toxins. The symposium was attended by 100 scientists from different parts of India and from U.S.A., U.S.S.R., U.K., Japan, Taiwan and Israel. The conference afforded opportunities to young scientists of this Institute to exchange their views with leading scientists in the field. The symposium proceedings will soon be published in the Bulletin of Haffkine Institute in the form of a Monograph.

Training Programmes

The Institute offers training programmes for medical and para-medical personnel. The programme was expanded further this year by instituting courses in M. D. degree in Pharmacology, Pathology and Microbiology of the Bombay University.

The Institute is recognised for the purposes of post-graduate studies by the Universities of Bombay, Nagpur, Marathwada, Poona and Konkan Krishi Vidyapeeth. Facilities exist for advanced degree courses of M.Sc and Ph.D. by research in Biochemistry, Applied Biology, Microbiology, Organic Chemistry, Pharmacology and Zoology.

A list of students who registered during the year for M.Sc. and Ph. D. degrees and those who successfully completed their theses and obtained their degrees is given in Appendix I.

Appendix II gives a list of recognised University Teachers at the Institute.

For the first time in the history of the Institute, the University of Bombay permitted the Institute to enrol five students in each of the subjects of Microbiology and Biochemistry for the M.Sc. Degree Course by papers. This has resulted in further expansion of the teaching programme.

In addition to the degree courses, one of the important training programmes of the Institute is to prepare para-medical personnel, particularly in the field of medical and laboratory technology. Institute offers one year Diploma Course of the University of Bombay in Medical Laboratory Technology (D.M.L.T.). Besides, the Institute has also started course in Drug Analysis and a course in Bioassay. Both these courses are run concurrently each of two semesters. At the end of successful completion of the training programme, the candidate is given a certificate.

During this year, 15 students were trained in D.M.L.T. and 4 students each in Drug Analysis and Bioassay.

In view of high technological facilities existing in the Institute, the Institute has instituted short-term training programmes, each of three months' duration, in different fields, such as Clinical Pathology, Clinical Biochemistry, Drug Testing, preparation of vaccines and parenteral solutions, maintenance and care of laboratory animals, blood bank technology, entomology and parasitology. In all, 104 students received short-term training in each of these branches during the year 1976-77.

A new experiment in training :

In order to train para-medical personnel, particularly in rural areas of Maharashtra, in laboratory methods and discipline, the Institute has now introduced, for the first time, an elementary training programme in laboratory techniques for the S. S. C. students. The programme is of 12 months' duration and will start from the next academic year.

ORATIONS

Major-General Sahib Singh Sokhey Oration was delivered this year by Dr. R. G. Navalkar, Meharry Medical College, Nashville, Tennessee U.S.A., on 14th December 1976. The subject of oration was " Some recent advances in immunology of leprosy "

Academic Council :

The Governing Council, at its meeting held on 27-11-1974, constituted the Academic Council comprising of the following :

- | | | |
|----|---|-------------|
| 1. | Dr. B. B. Gaitonde
Director, Haffkine Institute.
Bombay. | .. Chairman |
| 2. | Shri. M. K. Rangnekar
Commissioner, F & D Administration
Government of Maharashtra, Bombay. | .. Member |
| 3. | Dr. G. S. Mutalik
Director of Medical Education
and Research, Bombay. | .. " |

- | | | |
|----|--|-------------|
| 4. | Dr. S. S. Gothoskar
Drugs Controller (India),
New Delhi. | .. Member |
| 5. | Dr. S. M. Vaccha
Assistant Director of H.S. I/c.
State Public Health Laboratory,
Poona. | .. „ |
| 6. | Dr. M. B. Bhide, Asstt. Director
Dept. of Pharmacology,
Haffkine Institute, Bombay. | .. „ |
| 7. | Dr. F. D. Bharucha
Officer I/C Traing Haffkine Institute | .. Convener |

The Academic Council held one meeting during year and reviewed the progress of the training programmes of the Institute.

Teachers' Council :

The Teachers' Council was constituted during the year. The council meets every three months and reviews the entire academic content of the teaching programme. The Council particularly takes a note of each of the research projects proposed for a degree course of M.Sc. or Ph.D. by every student. A student is required to present outline of his work to the Teachers' Council and it is only after approval of the Council that the student is formally declared as registered for advanced degree course for M.Sc. or Ph.D. In the same way, after completion of the thesis work, the synopsis is to be presented to the Teachers' Council before it is submitted to the University. This has considerably improved the calibre of research and also the general calibre of the students at the Haffkine Institute.

Academic Honours to the members of the staff :

Dr. B. B. Gaitonde, Director of the Institute, was sponsored by the Government of Maharashtra as the Best University Teacher.

He was also elected a Fellow of the National Academy of Medical Sciences (India).

During the year, Dr. Gaitonde was invited to deliver J. B. Chatterjea Oration at the Calcutta School of Tropical medicine.

Testing Section :

The activities of the Testing Section were increased severalfold. It undertook specialized tests on samples. A special programme was organised for studying the toxic hazards of pesticide spraying in the Indian field population. This is the first study of its kind in India and has yielded very interesting data. The unit tested in all 1,757 samples of liquor and 1,957 samples of drugs.

Administration and services :

Haffkine Institute has 68 scientists aided by 138 ministerial, technical and laboratory staff.

The Institute has two divisions, viz.

The Division of microbiology, consisting of the Departments of Bacteriology, Virology, Pathology, Immunology and Zoonosis. The Department of Zoonosis itself has been organised in four sections of Entomology, Parasitology, Epidemiology and Herpatology.

Division of Biopharmaceutical sciences comprising of the Departments of Chemotherapy, Biochemistry and Pharmacology.

The two new Departments that have been added in the last few years are the Departments of Toxicology and Human Pharmacology and the Department of Radiation Biology. During the year, a unit in Parasitology was established. It is proposed to upgrade this into an independent Department of Parasitology which is so very vital for promoting research in this field in the country. In spite of the fact that the Department of Clinical Research was established in 1975 and a ward was made available in Kasturba Hospital in collaboration with the Bombay Municipal Corporation, it has not been possible to start functioning of this department because of the difficulty in recruiting a suitable person despite best of our efforts. Further, there are also some administrative difficulties in relation to the staffing of the ward. All these difficulties have resulted in an unavoidable delay in starting activities in this area of clinical research.

The Executive Committee is constituted by the Governing Council for assisting the Director in the implementation of the decisions of the

Governing Council, Research Advisory Body and Academic Council. Following were the members of the Executive Committee during the year :

1. Dr. B. B. Gaitonde, Chairman
2. Dr. M. V. N. Shirodkar, Member
3. Shri. Y. V. Thakre, Member
4. Dr. M. H. Shah, Convener

The Executive Committee met four times during the year.

Central Instrumentation Cell :

Haffkine Institute has some old but good pieces of equipment purchased over 15-20 years back. These equipments were lying unorganised. During the year, costly and important equipments were sorted out and located into a single instrument cell, under the charge of an Instrumentation Engineer. A preventive maintenance programme was also initiated. This has resulted in almost 90-95% of the equipment being put into working condition, thereby saving not only expenditure on repairs but also reducing the Instrument idling time.

Finance :

The Institute is facing financial crisis. The Government of Maharashtra has agreed to give a grant-in-aid of Rs. 25 lakhs per year from 1975-76 onwards for a period of five years to be tapered off to nil during the next ten years, at the end of which, no further grant-in-aid would be available to the Institute. Moreover, the amount of lease rent received by the Haffkine Institute from the Haffkine Biopharmaceutical Corporation is being deducted from the grant-in-aid. The result of this is that every year, a fixed grant of Rs. 25 lakhs is being given to the Institute to cover its revenue as well as its capital expenditure. This figure of Rs. 25 lakhs was based on the rough estimate prepared in 1972.

In the last five years, there has been an upward revision of dearness allowance for staff and also increase in salaries. A very rapid rise in the cost of maintenance of animals, the glassware, chemicals etc. required for research purposes has resulted in a further increase in the

recurring expenditure. All this has resulted in a very serious financial crisis for the Institute. During the year, many projects could not progress for want of funds. Chemicals and glassware could not be purchased in sufficient quantities.

During the last five years, the Institute has hardly received any grant for purchase of equipment or for modernizing various research equipments or research facilities. This has seriously hampered the quality of research. It is indeed gratifying that the Haffkine Bio-pharmaceutical Corporation has given a donation of Rs. 18 lakhs during this year for implementing the following projects of the Haffkine Institute :

- (a) Creating facilities for a new animal house exclusively for toxicology.
- (b) For building a special unit for testing anti-T. B. drugs.
- (c) For purchase of very essential pieces of equipment for research

But for this grant-in-aid, it would not have been possible to undertake any capital expenditure programmes of the Institute.

Library :

Haffkine Institute has one of the oldest and finest medical libraries in India. The library is looked upon as one of the leading reference libraries in Bombay in the field of bio-medical sciences. It has a fine collection consisting of over 14,000 back volumes of journals in addition to about 7,000 books, 300 current journals and a large collection of scientific reprints and reports. In addition, the library has now organised a very special collection of important documents published on cholera and plague. The library facilities are open not only to the scientists of the Institute, but also to scientists from other institutions free of cost. Library has been provided with reprographic facilities since the last year.

U. G. C. Grant to Haffkine Library :

It is gratifying to note here that, for the first time, the University Grants Commission gave a grant of Rs. 50,000 to strengthen the library facilities at the Haffkine Institute, by way of purchase of equipment etc. An amount of Rs. 1 lakh has also been sanctioned to the Institute for buying books and journals.

The library is at present located in the old Durbar Hall. The place is very unsafe and in view of the expanding facilities, it is very necessary to find out a completely separate building for the library. It is necessary that the old bound volumes should be properly preserved and for this purpose, it is necessary to have microfilming facilities. A scheme is being worked out to have an entirely separate building for housing a valuable treasure of books that the library possesses.

Blood Transfusion Service :

For the first time, a Blood Transfusion Service was started, which was inaugurated on 17th October 1976 by the Chairman of the Governing Council, Shri. K. M. Patil. This section has been started with a view to provide transfusion facilities to the needy and the poor. The service started functioning from December 1976 and has quite a few patients registered for regular transfusion. This is purely an outdoor service and it would soon be possible to organise an indoor transfusion service. It is proposed to build a new Haematology Department with indoor bed facilities.

Welfare activities :

The Haffkine Institute Culture League was formed on 15-1-75 with the aims and objects of promoting dramatic, literary and cultural activities, so that talents of our staff will come to lime-light and serve to foster the spirit of brotherhood among all the employees.

Funds for the organisation have to be built up through donations or by performing dramas or 'Musical Nites' and by bringing out souvenirs and through the willing donations from well wishers. The membership is open to all the employees, past and present.

Sports Club :

The Haffkine Institute sports Club was established on 2-10-58. It has ten different sections and each section is looked after by a separate Secretary. There are facilities for Cricket, Badminton, Table Tennis, Lawn Tennis, Kabaddi, Volley Ball, Carrom, Chess and Bridge. Members participate in tournaments.

Problems and difficulties :

Various difficulties experienced by the Institute have already been mentioned in the previous report. These difficulties remain unsolved. It is difficult to recruit scientists of high calibre on very meagre emoluments which have not been revised since 1966. It must be emphasized that unless substantial funds are made available, it is not possible to carry out high quality research in depth. Inputs for research are long-term investment which yield valuable dividends in course of time.

The problem of residential accommodation to the scientists has become acute. In the last 35 years, no new housing construction has been done in the campus. In fact, before the Institute became autonomous, the scientific staff had the opportunity of getting accommodation in the Government buildings. However, this facility having been withdrawn, it is now extremely difficult to attract new scientists to the Institute in a place like Bombay City where it is impossible to obtain private accommodation. A complete project for providing accommodation within the premises or at a suitable place, not far away from the Institute will have to be expeditiously undertaken.

In the last report, the problem of auditorium was mentioned. The Institute has not yet been able to acquire grants for building an auditorium and a library of its own. This has considerably hampered the work of holding conferences, seminars etc. Further, it must be emphasised that the building in which the library is at present housed, is over 200 years old and it may become progressively difficult to house such a large collection of books and furniture in such an old structure.

Much of the research work of an advanced type could not be pursued for want of specialised equipment. In the present day competitive world with high technological developments, it is unreasonable to expect the Institute to do a high calibre research work without reasonably good working conditions.

Acknowledgements :

The Institute thanks the Govt. of Maharashtra for a munificent grant-in-aid to the Society.

The Institute is grateful to the University Grants Commission and the University of Bombay for extending recognition to the Institute.

The Institute is also thankful to the University Grants Commission for giving a grant of Rs. 1.50 lakhs for strengthening the library of this Institute.

The Institute is thankful to Department of Science and Technology, Defence Department of the Govt. of India, the I.C.M.R. and C.S.I.R., for sponsoring research projects at this Institute.

The Institute is thankful to the Finance Department of the Govt. of India for granting Income Tax exemption certificate under Section No. 35 of the Income Tax Act 1961, to the Institute and also for granting customs duty exemption for imports.

The Institute acknowledges with thanks the substantial donation of Rs. 18 lakhs made by the Haffkine Bio-pharmaceutical Corpn. Ltd. for its specific projects.

APPENDIX I

List of students who got their M.Sc. and Ph.D. degrees during the period from 1-4-1976 to 31-3-1977

M.Sc. Degree

1. Kum. Mary Verghese
2. Kum. S. B. Hardikar
3. Smt. N. J. Kher
4. Smt. A. C. Desai
5. Shri. R. D. Nabar
6. Kum. K. D. Valavalkar
7. Shri. S. B. Dholam
8. Smt. V. R. Kamath
9. Smt. U. A. Sonurlikar
10. Shri. A. M. Patel
11. Shri. N. T. Joshi
12. Shri. P. M. Kulhalli

Ph.D. Degree

1. Kum. Mira S. Kulkarni
2. Shri. R. P. Bhamaria
3. Dr. H. J. Mansharamani
4. Smt. S. K. H. Bhinde
5. Shri. M. K. Rangnekar

APPENDIX II

List of Post-Graduate Teachers

Serial No.	Name of Post Graduate Teacher	Degree for which recognized	Subject
1.	Dr. B. B. Gaitonde M.D., M.Sc., (Med.) F.A.Sc.	M.D. M.Sc. Ph.D. M. Pharm.	Pharmacology Pharmacology Applied Biology Biochemistry Pharmacology
2.	Dr. M. B. Bhide M.D.	M.Sc. M. Pharm.	Applied Biology Pharmacology
3.	Dr. M. H. Shah M.Sc., Ph.D.	M.Sc. Ph.D.	Organic Chemistry
4.	Dr. M. V. N. Shirodkar M.B., B.Sc., A.B., Sc.D. (Johns Hopkins), P. B. K. (U.S.A.)	M.Sc. Ph.D.	Microbiology Applied Biology
5.	Dr. S. Mukerjee M.B., B.S., M.Sc. (Med.) Ph.D.	M.Sc.	Microbiology
6.	Dr. D. M. Renapurkar M.Sc., Ph.D.	M.Sc. Ph.D.	Zoology Applied Biology
7.	Shri Y. S. Nimbkar M.Sc., Dip. Bact. (Manchester)	M.Sc.	Microbiology
8.	Dr. K. H. Dave M.D., D.P.B.	M.Sc.	Microbiology
9.	Dr. F. L. Saldanha M. Sc., Ph.D., F.I.C. (Cal.)	M.Sc.	Microbiology Applied Biology
10.	Dr. S. S. Sabnis M. Sc., Ph.D.	M.Sc.	Organic Chemistry
11.	Dr. A. J. Baxi M. Sc., Ph.D.	M.Sc. Ph.D.	Biochemistry Applied Biology
12.	Dr. P. Ramakrishnan M.Sc. Ph.D.	M.Sc. (by papers)	Biochemistry
13.	Dr. S. V. Gadre M.Sc., Ph.D.	M.Sc. (by papers)	Microbiology

SCHEDULE VIII

HAFFKINE INSTITUTE FOR TRAINING,**Balance Sheet as on**

Previous Year	: Liabilities :		
1,42,65,333	Corpus : As per last Balance Sheet Additions during the year Other Earmarked Funds and Reserves : Reserve for Gratuity : Provision for 75--76 and 76--77 Less actual payment in 76--77 Current Liabilities :	142,65,333-00 55,940-00 73,906-00 499-75 41,640-00	143,21,273-00 73,406-25
16,770	Deposits Earnest money deposits 9600-00 Security deposits from Suppliers 5250-00 Caution money deposit from Trainees 1790-00 Advance received from HBPCCL for know-how of " Metronidazole " 25000-00	 41,640-00	
2,63,492	Creditors : Sundry creditors for purchase, repairs etc. 199524-69 Other sundry creditors for salary, T. A., Audit fee, etc. 269542-78	 4,69,067-47	
1,45,45,595	C. F.		1,43,94,679-25

RESEARCH & TESTING BOMBAY

31 March 1977

Previous Year	: Assets :		
16,21,009	Land :		
	As per last Balance Sheet		16,21,009-00
76,46,486	Buildings & Constructions Works		
	As per last Balance Sheet	76,46,486-00	
	Add : Additions during the year	17,060-69	
		76,63,546-69	
	Less : Depreciation	2,34,114-00	74,29,432-69
29,91,075	Plant And Machinery :		
	As per last Balance Sheet	29,91,075-00	
	Add : Purchases during the year	2,34,350-12	
	Received as Donation	4,87,616-48	
		37,13,041-60	
	Less : Unserviceable written off during the year	16,060-80	
		36,96,980-80	
10,549	Less : Depreciation	3,52,475-00	33,44,505-80
	Motor Vehicles ;		
	As per last Balance Sheet	10,549-00	
	Add : Purchased before 1-9-75	55,940-00	
		66,489-00	
2,10,445	Less : Depreciation	11,213-00	55,276-00
	Furniture And Fixtures :		
	As per last Balance Sheet	2,10,445-00	
	Add : Addition during the year	18,615-52	
		2,29,060-52	
	Less : Unserviceable written off during the year	1,150-99	
		2,27,909-53	
	Less : Depreciation	12,630-00	2,15,279-53
1,24,79,564	C. F.		1,26,65,503-02

SCHEDULE VI

HAFFKINE INSTITUTE FOR TRAINING.**Balance Sheet as on**

Previous Year	: Liabilities :		
1,45,45,595	B. F. Lease Rent for 76-77 to be deducted while drawing the Grant in aid for the next year	9,25,383-00	1,43,94,679-4 14,36,090-4
9,58,578	Income & Expenditure Account : As per last Balance Sheet	9,58,578-00	
	Add : Surplus as per Income and Expenditure A/c.	11,42,699-11	21,01,277-1
155,04,173	C. F.		179,32,046-83

RESEARCH & TESTING BOMBAY

31 March 1977

Previous Year	: Assets :		
1,24,79,564			
12,613	Fragile Articles :	B. F.	1,26,65,503-02
	As per last Balance Sheet	12,613-00	
	Less : Unserviceable written off during the year	157-76	
		12,455-24	
	Less : Depreciation	12,455-24	— —
1,45,730	Non-Fragile Articles :		
	As per last Balance Sheet	1,45,730-00	
	Add : Additions during the year	643-57	
		1,46,373-57	
	Less : Unserviceable written off during the year	99-21	
		1,46,274-36	
	Less : Depreciation	19,865-00	1,26,409-36
15,87,603	Library Books & Journals :		
	As per last Balance Sheet	15,87,603-00	
	Add : Additions during the year	2,53,641-14	18,41,244-14
	Current Assets :		
19,115	Advances (Unsecured) :		
	Festival Advance 3159-00		
	Travelling Advance 1350-75		
	Advances to Depts. 21600-05	26,109-80	
	Prepaid Expenses :		
	For Insurance of cash in Transit 102-38		
	For Insurance of Vehicles 1088-90	1,191-28	
5,65,088	Sundry Debtors for Lease Rent, Testing Charges, Sale of venom etc.	3,88,404-85	
1,48,09,713		C. F.	1,46,33,156-52

SCHEDULE VIII**HAFFKINE INSTITUTE FOR TRAINING,****Balance Sheet as on**

Previous Year	: Liabilities :		
155,04,173	B. F.		179,32,046-83
155,04,173	C. F.		179,32,046-83

RESEARCH & TESTING BOMBAY

31 March 1977

Previous Year	: Assets :		
1,48,09,713	B. F.		1,46,33,156-52
	Leave salary due from Govt. for earned leave at the credit of the Goyt. employees absorbed in this Institute as on 31-8-75	1,49,559-60	
753	UNESCO Coupons on hand	753-00	
5,250	Deposits :		
	Suppliers Deposits with postal authorities 5250-00		
	Deposit paid to BEST on 25-3-77 for repairs to meter 35-00		
	Security deposit paid to BEST on 23-11-76 for 11 electricity meters 38415-00	43,700-00	6,09,718-53
1,47,180	Stock on Hand :		1,97,126.85
5,36,877	Cash And Bank Balances :		
	Cash on hand as on 31-3-77 as per cash book	7,850.20	
	As per petty cash book	0.71	
	Canara Bank Current A/c.	24,68,894.02	
	Letter of credit for imports with Canara Bank	15,300.00	24,92,044.93
4,400	Personal Ledger A/c. with Government		— —
155,04,173			179,32,046.83

We hereby certify that items not applicable being NIL are not shown in the above schedule.

As per our report of even date,

J. B. Palekar & Co.

Chartered Accountant

SCHEDULE IX

HAFFKINE INSTITUTE FOR TRAINING**Income and Expenditure Account For the**

Previous Year	: Expenditure :		
1,27,080	To Expenditure in Respect Of Properties :		
	Rent Rates & Taxes	97,754-47	
	Insurance Premium of Building	2,143-62	
	Repairs and Maintenance	64,530-42	
	Depreciation	2,34,114-00	3,98 12-51
7,65,414	To Establishment Expenses :		
	Director's Salary	56,085-00	
	Staff Salary	14,02,869-16	
	Employees contribution towards P.F. Family Pension etc.	1,35,386-10	
	Administrative charges of P.F. and others	6,139-84	
	Staff Welfare	19,107-59	
	Travelling Expenses	30,714-78	
	Rent & Service charges of Govt. Quarter	32,012-65	
	Advertisement	9,554-12	
	Telephone Charges	37,573-95	
	Postage	16,836-27	
	Stationery & Forms	18,295-28	
	Conveyance	2,574-05	
	Provision for Gratuity	73,906-00	
	Miscellaneous Expenses	914-21	18,41 59-00
4,375	To Audit Fees :		30-00
1,280	To Value of Unserviceable Articles Written of :		1' 68-76
8,98,149	C. F.		22,61 30-27

RESEARCH & TESTING, PAREL, BOMBAY

year ended 31st March 1977

Previous Year	: Income :		
14,56,000	By Grant In Aid : Sanctioned for 1976-77 Less : Lease rent for 1975-76 deducted while drawing the grants in 1976-77 Grant actually drawn in 1976-77 Less : Lease rent for 76-77 deducted from Grant in aid By Donation Received From Haffkine Bio-Pharmaceutical Corporation : By Donations Received From Other Sources : 2 Nos. Imported Edward Lyophiliser donated by Citizens Defence Committee By Income From Other Sources : Lease rents of Land & Building Lease rent of Plant & Machinery Rent of Staff Quarter & Bungalows a) From HBPCl b) HITRT Staff C. F.	25,00,000-00 5,35,245-10 19,64,754-90 9,25,383-00 18,00,000-00 4,87,616-48 7,69,654-00 1,55,729-00 1,80,264-20 17,575-05 1,97,839-25	10,39,371-90 22,87,616-48 33,26,988-38
9,15,578			
23,71,578			

SCHEDULE I.

HAFFKINE INSTITUTE FOR TRAINING**Income and Expenditure Account For th**

Previous Year	: Expenditure :		
8,98,149	B. F.		22,65,480-2
12,047	To Misc. Expenses :		22,106-5
99,407	To Depreciation On Other Assets (Excluding Bldgs.)		4,08,638-2
4,03,397	To Expenditure on The Objects of The Trust :		
	Electricity Charges & Ele.		
	Material	2,88,129.63	
	Gas charges	44,828.27	
	Water Charges	52,349.17	
	Repairs & Maintenance of Machinery	1,16,053.24	
	Insurance charges of Plant and Machinery	6,150.22	
	Animals & Animal Foods	2,27,680.08	
	Chemicals & Drug consumed	1,18,326.23	
	Glasswares & Surgicals consumed	29,014.30	
	Other consumable stores	1,36,796.28	
	Scholarships	925.80	
	Maintenance of Vehicles	17,264.19	
	Other expenses on the objects of the Trust	9,783.26	10,47,300.67
9,58,578	To Surplus of Income Carried to Balance Sheet :		11,42,699.11
23,71,578			48,86,224.84

RESEARCH & TESTING, PAREL, BOMBAY

year ended 31st March 1977

Previous Year	: Income :		
23,71,578	B. F.		33,26,988-38
	Hostel Rent	15,360-00	
	Training Fees	57,940-00	-
	Research Receipt	49,200-00	
	Testing fees.	2,50,481-47	
	Total fees levied 3,71,000-95		
	Less: Transferred to specimen fee 1,20,519-48		
	Sale of Venom	48,619-58	
	Other Misc. Receipts.	14,413-16	15,59,236-46
23,71,578			48,86,224.84

We hereby certify that items not applicable being NIL are not shown in the above schedule.

As per our report of even date,

J. B. Palekar & Co.

Chartered Accountant

J. B. PALEKAR & CO.

Chartered Accountants

J. B. PALEKAR, B. Com., F. C. A.

S. S. JOSHI, B. Com. (Hons.), F. C. A.

A. V. PANDIT, B. Com. (Hons.), F. C. A.

Phones : 290391-25616

DOL-BIN-SHIR, 2nd Floor,

69-71, Ghoga Street,

Bombay-400 001.

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IN THE MATTER OF BOMBAY ACT NO. XXIX OF 1950

(THE BOMBAY PUBLIC TRUST ACT, 1950)

IN THE MATTER OF HAFFKINE INSTITUTE FOR TRAINING, RESEARCH AND TESTING, BOMBAY

Re : Public Trust No. S-3254 (Bom.) Audit for the year
ended 31st March, 1977.

We have audited the Balance Sheet as at 31st March 1977 and the Income and Expenditure Account for the year ended on that date and report that :

1) The amount debited Rs. 2,628.39 and credited Rs. 2,189. by the Bank as per the Bank's statement have not been reflected in the books of accounts of the Institute as the details of the said amount were not made available. To that extent, position of the statement of accounts under report will be effected.

2) It is claimed that the objects of the Institute are covered by the provisions of section 10(21) of the Income Tax Act, 1961 and hence no tax provision in the accounts has been made in respect of this year's income.

3) The individual accounts of Sundry Creditors have not been reconciled with the control accounts in the General Ledger. The same needs to be reconciled.

4) New Central Dead Stock Register has not been prepared for the assets taken over from the Government. However departmentwise dead stock register and Central Dead stock register already main

tained showing the values require to be reconciled with the General Ledger.

5) Depreciation was charged on Written Down Value basis for the Period from 1-9-1975 to 31-3-1976. Again from this year, depreciation is charged on straight line method. Hence difference of Rs. 1,17,905/- due to change of method of depreciation for the period from 1-9-1975 to 31-3-1976 is included in the depreciation amounts.

6) During the year under audit, Rs. 73,906/- were provided for Gratuity, which includes the provision for the period from 1-9-1975 to 31-3-1976.

Subject to above :

a) The accounts are maintained regularly and in accordance with the provisions of the Act and the Rules.

b) The receipts and disbursements are properly and correctly shown in the books of accounts.

c) The cash on hand was verified on 31 st March, 1977 and the same was found to be correct as per the books of accounts. The vouchers are in agreement with the accounts.

d) All the books, vouchers, accounts and other records required by us were produced before us.

e) Registers of movable and immovable properties are properly maintained. However, no depreciation has been shown against the assets shown in the registers.

f) The Hon. Administrative Officer of the Institute appeared before us and furnished the necessary information required by us.

g) No property or funds of the Institute seem to have been applied for any object or purpose other than the object or purpose of the Institute.

h) The amounts outstanding for more than one year are NIL. and amounts written off are NIL.

i) Tenders were invited for repairs or construction involving expenditure exceeding. Rs. 5,000/-.

j) The money of the Institute has not been invested contrary to the provisions of section 35.

k) No alienation of the immovable property of the Institute has come to our notice during year under audit.

l) No irregular, illegal or improper expenditure has been noticed. There have been also no cases of failure or omission to recover money or property of the Institute or waste of money.

m) i) The budget has not been filed as per section 31 A.

ii) As per the rules, the Governing Council is required to meet at least once in six months.

iii) Meetings are held as per the rules.

iv) Minute book is regularly maintained.

v) No member of the Governing Council is either a debtor or a creditor, of the Institute.

vi) Subject to our report as above, irregularities noticed during the last audit have been properly rectified.

Sd/-

Bombay, 16th November 1977.

Chartered Accountants

SCHEDULE IX-C

(Vide Rule 32)

**STATEMENT OF INCOME LIABLE TO CONTRIBUTION OR
THE YEAR ENDING 31ST MARCH 1977.**

Name and Registered No. of Public Trust : HAFFKINE INSTITUTE
FOR TRAINING, RESEARCH AND TESTING, BOMBAY.

Regd. No. S-3254 (BOM)

	Rs.	P.	Rs.	P.
I. Income as shown in the Income and Expenditure Account (Schedule IX)			48,86,225.00	
II. Items not chargeable to contribution under section 58 and rule 32 :-				
(i) Donations received from other public trusts and Dharmadas				
(ii) Grants received from Govt. and local authorities	25,00,000-00			
(iii) Interest on Sinking or Depreciation Fund				
(iv) Amount spent for the purpose of secular education.				
(v) Amount spent for the purpose of medical relief.				
(vi) Amount spent for the purpose of veterinary treatment of animals				
(vii) Expenditure incurred from donations for relief of distress caused by scarcity, draught, flood, fire other natural calamity.				
(viii) Deductions out of income from lands used for agricultural purposes -				
(a) Land Revenue and Local Fund Cess . .				
(b) Rent payable to superior landlord . .				
(c) Cost of production, if lands are cultivated by trust.				
(ix) Deductions out of income from lands used for non-agricultural purposes -				

(a) Assessment, cesses and other Govt. or municipal taxes.	97,754-00	
(b) Ground rent payable to the superior land-lord		
(c) Insurance premia.		
(d) Repairs at 10 per cent of gross rent of building	76,965-00	
(e) Cost of collection at 4 per cent of gross rent of buildings let out	30,786-00	
(x) Cost of collection of income or receipts from securities, stocks etc. at 1 per cent of such income		
(xi) Deductions on account of repairs in respect of buildings not rented and yielding no income, at 10 per cent of the estimated gross annual rent.	27,05	5-00
Gross annual income chargeable to contribution.	21,80	50-00

“Certified that while claiming deductions admissible under the above schedule, we have not claimed any amount twice, either wholly or partly, against any of the items mentioned in the Schedule which have the effect of double-deduction”.

Dated :

J B. Palekar & Co
Chartered Accountants

