



*Defining Quality with Excellence*

# ANNUAL REPORT 2017-18

## PUNJAB BIOTECHNOLOGY INCUBATOR

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## CONTENTS

### PREFACE

<b>1. MISSION.....</b>	<b>1</b>
<b>2. ORGANIZATION .....</b>	<b>2</b>
2.1 Society for Punjab Biotechnology Incubator.....	3-4
2.2 Governing Council .....	5-6
2.3 Technical Advisory Committee (TAC).....	7
2.4 Techno Commercial Committee (Earlier Core Committee).....	8-9
2.5 Business Development Committee (BDC).....	10
2.6 Management Review Committee.....	11
2.7 Important Meetings.....	12
<b>3. STAFF STRUCTURE .....</b>	<b>13</b>
3.1 Administration.....	14
3.2 Scientific/ Technical Staff.....	15
<b>4. ACCREDITATION / RECOGNITIONS .....</b>	<b>16-18</b>
<b>5. REFERRAL LABPRATORY STATUS.....</b>	<b>19-21</b>
<b>6. NATIONAL NETWORK OF REFERENCE LABORATORIES.....</b>	<b>22-23</b>
<b>7. TECHNICAL AUDITS BY EXTERNAL BODIES.....</b>	<b>24-25</b>
<b>8. ANALYTICAL SERVICES.....</b>	<b>26-31</b>
<b>9. QUALITY ASSURANCE ACTIVITIES.....</b>	<b>32</b>
9.1. Participation in Proficiency Testing (PT) Programmes.....	33
9.2. Participation in Inter Laboratory Comparison (ILC) Programmes.....	33
9.3. Internal Quality Audits.....	34
<b>10. CONTRACTUAL RESEARCH &amp; OTHER R&amp;D ACTIVITIES.....</b>	<b>35-36</b>
<b>11. ADVISORY SERVICES.....</b>	<b>37-39</b>
<b>12. CLIENTELE PROFILE.....</b>	<b>40-41</b>
<b>13. ORGANIZATION OF WORKSHOPS &amp; TRAININGS.....</b>	<b>42-45</b>
<b>14. COLLABORATION FOR HRD AND R&amp;D ACTIVITIES.....</b>	<b>46-47</b>
<b>15. INVITED LECTURES / TALKS.....</b>	<b>48-50</b>
<b>16. PARTICIPATION IN STATE / NATIONAL LEVEL BODIES.....</b>	<b>51-55</b>
<b>17. MEMBERSHIP OF PROFESSIONAL BODIES.....</b>	<b>56-57</b>
<b>18. UP-SKILLING OF STAFF.....</b>	<b>58-66</b>
<b>19. INFRASTRUCTURAL DEVELOPMENT IN KNOWLEDGE CITY, MOHALI.....</b>	<b>67-70</b>
<b>20. TESTIMONIALS.....</b>	<b>71-72</b>
<b>21. ACCOUNTS STATEMENT.....</b>	<b>73-87</b>

## PREFACE

Punjab, the food basket of the country, took the lead in country in 2005 by setting up the first Public Sector facilities under Punjab Biotechnology Incubator (PBTI) with a mandate to provide incubation services to translate the ideas into commercially viable technologies through quality testing and contract research services in Agri, Food,



Water, Environment and allied sectors. With the humble beginning from basement of Punjab State Council for Science & Technology by its founder CEO, Dr SS Marwaha, PBTI has expanded many folds over the years. Looking at the progress made and visualizing the expansion of PBTI's activities, the State Govt. had transferred 1 acre of land to PBTI in the knowledge City, Sector-81, Mohali to build up its own infrastructure. The architectural design has been finalized and construction is likely to start.

PBTI is running its operation in a professional manner combining efficiency and customer service with rigorous science and uncompromising Quality Management, thus making it an ideal partner for achieving quality standards and competing at global level. PBTI's accreditation/recognition by various National & State level statutory/ Regulatory bodies helped it to enhance its customer base and provide internationally accepted analytical services. PBTI became pioneer in providing independent NABL accredited Nuclear Techniques based Honey Authenticity testing facility in India with the financial support from Ministry of Commerce, Govt. PBTI's Genetic Modification detection (GM Detection) facilities have been strengthened in terms of Infrastructure and capacity building with the financial support from Ministry of Environment Forest & Climate Change (MOEF&CC), Govt under Phase-II of UNEP/GEF project. With the dedicated and tireless efforts of the team, PBTI could get notified as National Referral Laboratory for LMO/GMO detection under Seeds Act by Department of Agriculture & Farmers Welfare Govt. Having developed the expertise in designing, setting up and operating the laboratories, PBTI started providing advisory services to other Government Departments. The

Food and Drug Administration Punjab and Department of Water Supply and Sanitation being the major beneficiaries for such services during 2017-18.

PBTI could expand its outreach to the adjoining countries also during this period. A special Training Workshop on Detection of Living Modified Organisms/Genetically Modified Organisms was organized by PBTI for the officials of Department of Environment, Ministry of Environment & Forests, Bangladesh

PBTI's success in such a short span of time is attributed to the efficient and dedicated team which has been its strength through-out its journey.

**Dr (Mrs) Ajit Dua**  
Chief Executive Officer  
Punjab Biotechnology Incubator



## Mission

## 1. MISSION

To provide Incubation Services to translate Research Ideas into Commercially viable Technologies through quality testing, contract research and other allied services in Agri, Food, Water and Environment sectors.



## Organization

## 2. ORGANIZATION

Punjab Biotechnology Incubator (PBTI) is a Society registered under Societies Registration Act (XXI of 1860). The Society is being managed and controlled by the Governing Council in accordance with the rules framed / modified from time to time by the Society. Chief Secretary, Punjab is the President of the Society and Chairman of the Governing Council of PBTI. Chief Executive Officer (CEO) – Member Secretary of the Governing Council / Society is the Administrative Head of PBTI to exercise supervision, have administrative control, receive grants and contributions on behalf of the Society and conduct the financial transactions in the name of the Society. CEO is accountable to the Governing Council.

### 2.1 SOCIETY FOR PUNJAB BIOTECHNOLOGY INCUBATOR

1. **President**  
Chief Secretary to Govt. of Punjab  
(Sh Karan Avtar Singh, IAS)
2. **Vice President**  
Principal Secretary/Secretary  
Science, Technology & Environment, Govt. of Punjab  
(Sh A S Miglani, IAS from 27.03.2017 to 27.06.2017 and Dr Roshan Sunkaria, IAS from 27.06.2017 to 20.08.2018)
3. **Member**  
Principal Secretary, Finance, Govt. of Punjab  
Sh Satish Chandra, IAS till 03.04.2017 and Sh Anirudh Tiwari, IAS from 03.04.2017 onwards
4. **Member Secretary**  
Chief Executive Officer, Punjab Biotechnology Incubator, SAS Nagar (Mohali)  
(Dr Babu Ram till 22.09.2017 and Dr (Mrs) Ajit Dua from 27.10.2017 onwards)
5. **Treasurer**  
Administrative-cum-Finance & Accounts Officer,  
Punjab Biotechnology Incubator, SAS Nagar (Mohali)  
(Mr Arwinder Singh, AF&AO)



6. **Dr B S Dhillon**  
Vice Chancellor,  
Punjab Agricultural University, Ludhiana
7. **Nominee of Secretary**  
Department of Biotechnology, Govt. of India,  
New Delhi
8. **Sh D S Brar**  
Chief Executive Officer  
GVK Biosciences Pvt Ltd, Gurgaon
9. **Dr S K Saxena**  
Director  
Export Inspection Council, Govt. of India, New Delhi
10. **Director**  
National Institute of Pharmaceutical Education and Research (NIPER),  
Mohali
11. **Dr B. Sesikaran**  
Former Director  
National Institute of Nutrition, Hyderabad
12. **Dr Lalitha Gowda**  
Former Director  
Central Food Laboratory and Chief Scientist at CSIR-CFTRI, Mysore
13. **Dr K C Bansal**  
Former Director  
ICAR National Bureau of Plant Genetic Resources (NBPGR),  
Former Professor, NRC on Plant Biotechnology IARI, Govt of India, Delhi
14. **Dr Naresh Kumar**  
Former Scientist H /Outstanding Scientist &Head R & D and Planning, CSIR  
New Delhi

## 2.2 GOVERNING COUNCIL

1. **Chairman**  
Chief Secretary to Govt. of Punjab  
(Sh Karan Avtar Singh, IAS)
2. **Vice Chairman**  
Principal Secretary/Secretary  
Science, Technology & Environment, Govt. of Punjab  
(Sh A S Miglani, IAS from 27.03.2017 to 27.06.2017 and Dr Roshan Sunkaria, IAS from 27.06.2017 to 20.08.2018)
3. **Member**  
Principal Secretary, Finance, Govt. of Punjab  
Sh Satish Chandra, IAS till 03.04.2017 and Sh Anirudh Tiwari, IAS from 03.04.2017 onwards
4. **Member Secretary**  
Chief Executive Officer  
Punjab Biotechnology Incubator, SAS Nagar (Mohali)  
Dr Babu Ram till 22.09.2017 and Dr (Mrs) Ajit Dua from 27.10.2017 onwards
5. **Treasurer**  
Administrative-cum-Finance & Accounts Officer,  
Punjab Biotechnology Incubator, SAS Nagar (Mohali)  
(Mr. Arwinder Singh, AF&AO)
6. **Director**  
Indian Institute of Science, Education and Research (IISER)  
SAS Nagar (Mohali)  
Dr N Sathyamurthy upto 15.09.2017 and Prof. Debi P Sarkar from 1.09.2017 onwards
7. **Member Secretary**  
Central Pollution Control Board, New Delhi  
(Dr A B Akolkar)

8. **Dr S. S. Marwaha**  
Professor of Applied Agriculture &  
Chairman, Central Instrumentation Laboratories (CIL), Central University of  
Punjab, Bathinda
9. **Director**  
International Centre for Plant Genetic Engineering and Biotechnology,  
New Delhi  
**(Dr Dinakar M Salunke)**
10. **Dr Naresh Kumar**  
Former Scientist H /Outstanding Scientist &  
Head, R & D and Planning, CSIR, New Delhi
11. **Director**  
ICAR-National Bureau of Plant Genetic Resources (NBPGR)  
New Delhi  
**(Dr Kuldeep Singh)**
12. **Executive Director**  
National Agri Food Biotechnology Institute, Mohali  
**(Dr T R Sharma)**
13. **Dr Sanjay Trehan**  
President  
Panacea Biotech Ltd, Mohali
14. **Dr Jasvir Singh**  
Regulatory, Scientific and Government Affairs Leader  
South Asia Dupont Nutrition & Health Danisco (India) Pvt Ltd, New Delhi

**2.3 TECHNICAL ADVISORY COMMITTEE (TAC)**

1.	<b>Chief Executive Officer</b> Punjab Biotechnology Incubator SAS Nagar, (Mohali) <b>(Dr Babu Ram till 22.09.2017 and Dr (Mrs) Ajit Dua from 27.10.2017 onwards)</b>	<b>Chairman</b>
2.	<b>Dr Girish Sahni</b> Ex-Director, Institute of Microbial Technology, IMTECH New Delhi	Member
3.	<b>Dr Sanjay Trehan</b> President Panacea Biotech Limited, SAS Nagar (Mohali)	Member
4.	<b>Representative</b> Department of Biotechnology, Govt. of India New Delhi	Member
5.	<b>Director</b> Indian Institute of Science Education and Research (IISER) SAS Nagar (Mohali)	Member
6.	<b>Dr K S Sandhu</b> Ex Sr. Vegetable Technologist (QM) Quality Control Lab, PHPTC PAU, Ludhiana	Member
7.	<b>Dr Dinesh Benbi</b> Sr. Soil Chemist, Dept. of Soil Sciences Punjab Agricultural University, Ludhiana	Member
8.	<b>Sh J S Sandhu</b> Scientist-F (Retd.), CFTRI Progressive Society, Chandigarh	Member
9.	<b>Senior Scientist</b> Head Technical Operations and Quality Manager, Punjab Biotechnology Incubator, SAS Nagar (Mohali) <b>Dr (Mrs) Ajit Dua</b>	Convener Member

**2.4 TECHNO COMMERCIAL COMMITTEE (Earlier Core Committee)**

1.	<b>Chief Executive Officer</b> Punjab Biotechnology Incubator SAS Nagar, (Mohali) <b>(Dr Babu Ram till 22.09.2017 and Dr (Mrs) Ajit Dua from 27.10.2017 onwards)</b>	Chairman
2.	<b>Representative</b> Department of Finance Govt of Punjab, Chandigarh	Member
3.	<b>Special/Additional/Joint Secretary</b> Department of Science, Technology & Environment, Govt. of Punjab, Chandigarh	Member
4.	<b>Director or his Nominee</b> Indian Institute of Science Education and Research (IISER) SAS Nagar (Mohali)	Member
5.	<b>Dr Naresh Kumar</b> Former Scientist H /Outstanding Scientist & Head R & D and Planning, CSIR Delhi Chandigarh	Member
6.	<b>Dr Arvind Kumar Bansal</b> Prof. & Head, Department of Pharmaceuticals NIPER, SAS Nagar (Mohali)	Member
7.	<b>Er P S Saini</b> Superintending Hospital Engineer, PGIMER, Chandigarh	Member
8.	<b>Sh Ravinder Kumar</b> Joint Registrar, Indian Institute of Technology (IIT), Ropar	Member
9.	<b>Dr Manish Kumar,</b> Vice President (Analytical) Panacea Biotech Ltd., SAS Nagar (Mohali)	Member

- |  |                 |
|--|-----------------|
| 10. <b>Senior Scientist</b><br>Head Technical Operations and Quality Manager<br>Punjab Biotechnology Incubator, SAS Nagar (Mohali)<br><b>(Dr (Mrs) Ajit Dua)</b> | Convener Member |
|--|-----------------|

**2.5 BUSINESS DEVELOPMENT COMMITTEE (BDC)**

1.	<b>Chief Executive Officer</b> Punjab Biotechnology Incubator SAS Nagar, (Mohali) <b>(Dr Babu Ram till 22.09.2017 and Dr (Mrs) Ajit Dua from 27.10.2017)</b>	Chairman
2.	<b>Dr A.K. Bachawat</b> Dean Faculty Professor of Biological Science Indian Institute of Science, Education and Research (IISER) SAS Nagar (Mohali)	Member
3.	<b>Dr Anil Angrish</b> Associate Professor Pharmaceutical Management National Institute of Pharmaceutical Education & Research (NIPER) SAS Nagar (Mohali)	Member
4.	<b>Dr Sanjay Trehan</b> President Panacea Biotech Ltd., SAS Nagar (Mohali)	Member
5.	<b>Senior Scientist</b> Head Technical Operations and Quality Manager Punjab Biotechnology Incubator, SAS Nagar (Mohali) <b>Dr (Mrs) Ajit Dua</b>	Member
6.	<b>Administrative-cum-Finance &amp; Accounts Officer</b> Punjab Biotechnology Incubator, SAS Nagar (Mohali) <b>(S Arwinder Singh)</b>	Convenor Member

**2.6 MANAGEMENT REVIEW COMMITTEE**

- |    |   |                 |
|----|---|-----------------|
| 1. | <b>Chief Executive Officer</b><br>Punjab Biotechnology Incubator<br>SAS Nagar, (Mohali)<br><b>Dr Babu Ram till 22.09.2017 and Dr (Mrs) Ajit Dua from 27.10.2017 onwards</b> | Chairman        |
| 2. | <b>Senior Scientist</b><br>Head Technical Operations and Quality Manager,<br>Punjab Biotechnology Incubator, SAS Nagar (Mohali)<br><b>(Dr (Mrs) Ajit Dua)</b>               | Convener Member |
| 3. | <b>Scientist (Biology),</b><br>In charge Biological Section and Dy. Quality Manager,<br>Punjab Biotechnology Incubator, SAS Nagar (Mohali)<br><b>(Dr Vandana Awasthi)</b>   | Member          |
| 4. | <b>Scientist (Chemical)</b><br>Incharge Chemical Section<br>Punjab Biotechnology Incubator, SAS Nagar (Mohali)<br><b>(Mr. Santosh Kumar)</b>                                | Member          |
| 5. | <b>Assistant Scientific Officer</b><br>Incharge Analytical Section<br>Punjab Biotechnology Incubator, SAS Nagar (Mohali)<br><b>(Dr Sanjivan Alkesh)</b>                     | Member          |
| 6. | <b>Administrative Cum Finance &amp; Accounts Officer</b><br>Punjab Biotechnology Incubator,<br>SAS Nagar (Mohali)<br><b>(S Arwinder Singh)</b>                              | Member          |
| 7. | <b>Store &amp; Purchase Officer</b><br>Punjab Biotechnology Incubator<br>SAS Nagar (Mohali)<br><b>Sh Rajiv Mahajan</b>  | Member          |



## 2.7 Important Meetings

Meeting	Date
<b>Governing Council</b>	
27 <sup>th</sup> Meeting of Governing Council	07.09.2017
<b>Techno Commercial Committee (Earlier Core Committee)</b>	
26 <sup>th</sup> Meeting of Core Committee	21.07.2017
<b>Empowered Building Construction Committee (EBCC)</b>	
4 <sup>th</sup> Meeting of EBCC	13.11.2017
5 <sup>th</sup> Meeting of EBCC	15.02.2018
<b>Business Development Committee</b>	
12 <sup>th</sup> Meeting of BDC	22.01.2018
<b>Management Review Committee</b>	
14 <sup>th</sup> Meeting of MRC	20.04.2018



## Staff Structure

### 3. STAFF STRUCTURE

#### 3.1 ADMINISTRATION

1.	Dr Babu Ram Dr (Mrs) Ajit Dua	Chief Executive Officer (upto 22.09.2017) Chief Executive Officer (from 27.10.2017)
2.	Sh Arwinder Singh	Administrative-cum-Finance & Accounts Officer
3.	Sh Rajiv Mahajan	Store and Purchase Officer
4.	Sh Ravi Madan	Private Secretary (till 02.05.2017)
5.	Mr K L Thakur	Assistant (Store & Purchase)
6.	Mr Surya Kant	Accounts Assistant

### 3.2 SCIENTIFIC / TECHNICAL STAFF

1.	Dr Babu Ram	Chief Executive Officer (till 22.09.2017)
	Dr (Mrs) Ajit Dua	Chief Executive Officer (from 27.10.2017)
2.	Dr (Mrs) Ajit Dua	Senior Scientist
3.	Dr (Mrs) Vandana Awasthi	Scientist (Biology)
4.	Mr Santosh Kumar Singh	Scientist (Chemical)
5.	Dr (Mrs) Sanjivan Alkesh	Assistant Scientific Officer
6.	Mr Amit Aggarwal	Assistant Scientific Officer
7.	Ms Ravneet Kaur	Assistant Scientific Officer
8.	Dr Harjit Singh	Assistant Scientific Officer
9.	Ms Shaindandani Dogra	Junior Scientific Officer
10.	Ms Anju Thakur	Junior Scientific Officer
11.	Ms Aarti Bhardwaj	Junior Scientific Officer
12.	Ms Dimple Trikha	Junior Scientific Officer
13.	Mr Harmanpreet	Scientific Assistant
14.	Mr Vikas Chandra Roy	Scientific Assistant



## Accreditation /Recognitions

## 4. ACCREDITATION/RECOGNITIONS



**NATIONAL ACCREDITATION BOARD FOR TESTING & CALIBRATION LABORATORIES (NABL)**- PBTI is NABL accredited in Chemical and Biological fields since 2009 which is being renewed periodically. Based on the assessment the renewal has been granted up to July 2019



**Bureau of Indian Standards**  
The National Standards Body of India

**BUREAU OF INDIAN STANDARDS (BIS)** – PBTI is recognized by Bureau of Indian Standards (BIS) since February 2010 which is being renewed periodically. The validity of BIS recognition is up to February 2019.



**FOOD SAFETY & STANDARDS AUTHORITY OF INDIA (FSSAI)**–PBTI is empanelled under Food Safety and Standards Act for the testing of regulatory and imported food samples, continuing since November 2011.



**CENTRAL POLLUTION CONTROL BOARD (CPCB)**–PBTI is Notified as Environment Laboratory under Environment Protection Act 1986 in Gazette of India by Central Pollution Control Board (CPCB) since 2010 which is being renewed periodically. Based on last assessment the validity is till March 2021.



**DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH (DSIR)**–PBTI is recognized as Scientific & Industrial Research Organization (SIRO) by DSIR since July, 2006; which is being renewed periodically. Currently the Validity is till March 2020



**AGRICULTURAL & PROCESSED FOOD PRODUCTS EXPORT DEVELOPMENT AUTHORITY (APEDA)** – PBTI is recognized by APEDA, since April 2014 which is being renewed periodically. Recognition is valid till April 2018.



**PUNJAB POLLUTION CONTROL BOARD (PPCB)** – Recognition as Class 'A' Laboratory for consent purposes continued since August 2010.



**EXPORT INSPECTION COUNCIL (EIC)** – PBTI is approved under EIC Lab approval scheme for Chemical & Biological fields since February 2015 which is being renewed periodically. Based on last assessment the validity is till March 2019

**OHSAS  
18001:2007  
certified**

**OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM (OHSAS)** – PBTI has been certified by Joint Accreditation System of Australia and New Zealand (JAS-ANZ) in compliance to the requirements of Occupational Health & Safety Management System Standards IS 18001: 2007 since June 2015. Recognition is valid till June 2018.



## Referral Laboratory Status



## 5. REFERRAL LABORATORY STATUS



**NATIONAL REFERRAL LABORATORY FOR LMO/GMO DETECTION** –PBTI has been notified as National Referral Laboratory (NRL) for LMO/GMO detection by Ministry of Agriculture & Farmers Welfare GoI, under Seeds Act 1966 in November 2017.

The Stocktaking activity of PBTI's GM detection facility was carried out by a team of National experts. Facility was assessed w.r.t infrastructure available & Scientific staff working in the lab. Based on recommendation of the committee, the facilities were further strengthened with the financial support from Ministry of Environment, Forest & Climate Change (MoEF&CC) under UNEP-

GEF phase-II Capacity building Project on Bio safety. MoEF&CC in collaboration with Intertek Scan Bi Diagnostics, Sweden, organized a series of training programs under UNEP-GEF Phase-II Capacity Building Project on Bio safety, wherein PBTI's staff was trained. Based on recommendation of MoEF&CC, PBTI was notified as National Referral Laboratory (NRL) for LMO/GMO detection by Ministry of Agriculture & Farmers Welfare GoI, under Seeds Act 1966 in November 2017.





**Referral Laboratory under Section 43(2) of food safety standard act, 2006- In process**

PBTI has submitted a request indicating strengths of PBTI to function as Referral Laboratory of FSSAI under Section 43(2). The matter is under consideration in FSSAI



**STATE WATER LABORATORY-** PBTI has been notified under Sub-section-I of section-52 of the water (Prevention & Control of Pollution) Act 1974 by Govt. of Punjab for the testing of water and waste water continued since January, 2009



## National Network of Reference Laboratories

## 6. NATIONAL NETWORK OF REFERENCE LABORATORIES

### National Reference Laboratory (NRL)

PBTI participated in Expression of Interest (Eoi) floated by Food Safety and Standards Authority of India (FSSAI) in December 2017 for declaration of Laboratories/Institutions/Organization based on their technical strengths, as National Reference Laboratory (NRL). The mission of Reference Laboratory is to set up a country wide standard for routine procedures, reliable testing methods & validation of standard procedure/testing methods, development of new methods and ensuring proficiency in testing across the food laboratories with special reference to the risks or food categories. The matter is under active consideration of FSSAI and a meeting is being planned under the Chairmanship of CEO-FSSAI to discuss the way forward in this regard.



## Technical Audits by External Bodies

## 7. TECHNICAL AUDITS BY EXTERNAL BODIES

### 7.1 National Accreditation Board for Testing & Calibration Laboratories (NABL): Renewal cum Scope extension audit on 13<sup>th</sup> & 14<sup>th</sup> May 2017

NABL conducted renewal cum scope extension Audit of PBTI on 13th & 14th May 2017, based on the which the renewal has been granted for two years i.e. up to July 2019. In Chemical field, Pesticide residues in Rice and Fruits & Vegetables have been included in the scope. In Honey major additions are C4 sugar, Antibiotic Residues (Nitrofuran group and Sulphonamide group) & Pesticide Residues. In Biological field, Honey & Honey based products and Meat & Meat products are new matrices included for microbiological parameters. In Molecular analysis, new screening elements for GM detection including Bar, Pat, CTP2-CP4-epsps genes have been added. Oil & Fat as a matrix has been included for GM analysis for all 05 screening elements. In addition, complete scope has been aligned with the requirements of FSSAI wherever required. Now total 1669 (1408-Chemical & 261-Biological) parameters are under scope of NABL accreditation.

### 7.2 Bureau of Indian standards (BIS): Audit for verification of facilities as per IS-14543:2016 on 13<sup>th</sup> Feb, 2018

Bureau of Indian standard (BIS) has come up with revised Indian standard for Packaged Drinking Water (Other than Packaged Natural Mineral water) as IS 14543:2016. IS 14543:2005 was already under the scope of BIS recognition. BIS conducted verification audit of PBTI on 13th February 2018 for verifying the infrastructure & capabilities as per IS 14543:2016 for Packaged Drinking Water (Other than Packaged Natural Mineral water) and the same has been recommended for inclusion in the scope.



## Analytical Services

## 8. ANALYTICAL SERVICES

### 8.1 TARGET SECTORS



#### Food

Bakery & Confectionary Products, Cereals, Pulses & Cereal products, Milk & Dairy Products, Honey & Honey Based Products, Infant Foods, Fruits & Vegetables and their products, Canned & Processed Food, Nut & Nut products, Herbs, Spices & Condiments and Related products, Salt, Tea & Coffee Products, Beverages (Alcoholic/Non-alcoholic), Oil & Fats, Meat & Meat Products, Edible Colour & Flavors, Water



#### Agriculture and Agri Inputs

Fertilizers, Micro & Macro Nutrients, Pesticide Formulations, Soil, Irrigation Water etc.



#### Environment

Ambient Air, Stack Emissions, Noise, Soil & Sludge, Hazardous Waste, Water & Waste Water, etc.



#### Animal feed and feed ingredients

Cattle Feed, Poultry Feed, Fish Feed, Feed Ingredients, etc.



**Drugs & Pharmaceuticals**

Drug Intermediates & Raw Material,  
Natural Drugs (Medicinal Plant  
Preparation)

**Industrial & Fine Chemicals**

Biocides, Disinfectant Fluids

**AYUSH**

Ayurvedic Drugs/ AYUSH Products.

## 8.2 ANALYTICAL SERVICES

Chemical	Biological
<ul style="list-style-type: none"> <li>▪ Pesticide Residues</li> <li>▪ Drug Residues</li> <li>▪ Heavy Metals</li> <li>▪ Polychlorinated Biphenyls (PCBs)</li> <li>▪ PolyAromatic Hydrocarbons (PAH)</li> <li>▪ Process Contaminants</li> <li>▪ Naturally Occurring Toxic Substances (NOTS)</li> <li>▪ Mycotoxins</li> <li>▪ Food Additives</li> <li>▪ Food Colors</li> <li>▪ Adulterants</li> <li>▪ Nutritional Profiling including Vitamin Profiling</li> <li>▪ Mineral Profiling, Amino Acid Profiling &amp; Fatty Acid Profiling</li> <li>▪ Micro &amp; Macronutrient Profiling of Soil and Water</li> <li>▪ Physico-Chemical Parameters</li> <li>▪ Textural &amp; Rheological Properties</li> <li>▪ Sensory Evaluation</li> <li>▪ Physical analysis of rice, paddy</li> <li>▪ Cereal &amp; Pulses etc.</li> <li>▪ Gaseous Pollutants</li> <li>▪ Particulate Matter</li> <li>▪ Hazardous Pollutants</li> <li>▪ Noise Monitoring</li> <li>▪ Weather Monitoring</li> </ul>	<ul style="list-style-type: none"> <li>▪ Food &amp; Water Pathogens</li> <li>▪ Bioassay</li> <li>▪ Bioburden Monitoring</li> <li>▪ Plant &amp; Personal Hygiene Monitoring</li> <li>▪ GMO Testing</li> <li>▪ DNA fingerprinting</li> <li>▪ Sequencing</li> <li>▪ Microbial Identification</li> <li>▪ Potato Seed Viruses</li> <li>▪ Sterility Testing</li> <li>▪ Antibiotic Susceptibility</li> </ul>
	Miscellaneous
	<ul style="list-style-type: none"> <li>▪ Shelf Life Studies</li> <li>▪ Method Validation</li> <li>▪ Technology validation</li> <li>▪ Impurity Profiling</li> <li>▪ Chromatographic profiling</li> <li>▪ Spectroscopic profiling</li> </ul>

### 8.3 EXPANSION OF SCOPE OF ANALYTICAL SERVICES:

During the period under report, PBTI developed / standardized / validated the methods for analysis of some new parameters based on market demand and started providing services for the same as listed below:

- Pesticide residues in Cereal & Cereal products
- Potassium bromate in bread
- Diastase activity and Aniline chloride in Honey
- Urea in cattle feed
- Calcium sulphate dihydrate in Gypsum
- Acid Mist
- Hydrofluoric Acid
- Palladium
- Assay of Potassium sulphate & Mono ammonium phosphate

### 8.4 ANALYTICAL STRENGTHS

#### 8.4.1 Major Equipment in Chemical Section

i.	EA-LC-IRMS
ii.	LCMS-MS (02 Nos)
iii.	GCMS-MS (02 Nos), GCMS, GC-ECD, NPD/TSD & FID
iv.	HPLC – RID, FLD & DAD
v.	LC-ICP-MS, AAS
vi.	Ion Chromatography System and Amino Acid Analyser
vii.	Alveo Consistograph, Failling number apparatus, Glutomatic System, Starch Damage Analyser, Texture Analyser
viii.	Solid Phase Extraction System (SPE) and Accelerated Solvent Extraction System (ASE)
ix.	Crude Fiber Extraction System, Automated Protein Estimation System, Soxhlet Extraction System (Standards, Warm, Hot and Continuous modes)
x.	FT-IR, UV-Vis Spectrophotometer, Direct Reading Spectrophotometer
xi.	Respirable Dust Sampler, Gaseous Sampler, Fine particulate sampler, Stack Sampler, NDIR based CO Analyzer, Sound Level Meter, Weather Monitoring

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System, Flue Gas Analyzer

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#### **8.4.2 Major Equipment in Biology Section**

i.	DNA Sequencer
ii.	Real Time –PCR (02 Nos)
iii.	Gradient Thermocycler - PCR-machine (02 Nos)
iv.	Bio Spectrophotometer (02 Nos)
v.	Gel Electrophoresis & Documentation system
vi.	DNA Vacuum Concentrator
vii.	ELISA Reader and Washer
viii.	Grindomix
ix.	Microbiology setup including Pathogen detection

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## Quality Assurance Activtites

## 9. QUALITY ASSURANCE ACTIVITIES

Quality assurance is an integral part of Management activities involving planning, implementation, assessment, reporting and quality improvement to ensure that the test results are accurate and fit for the purpose. PBTI follows different approaches including participation in International & National Proficiency Testing (PT) / Inter laboratory Comparison (ILC) programmes, In-house Quality Checks (IQC) like replicate analysis, recovery studies & retained samples re-testing, Periodic Internal Audits, Intermediate Checks, Instrument Calibrations, etc., to ensure the quality of the analytical services provided by PBTI.

### 9.1 PARTICIPATION IN PROFICIENCY TESTING (PT) PROGRAMMES

During the period under report, PBTI successfully participated in five (05) Proficiency Testing (PT) Programmes organized by International & National PT providers. PBTI has participated for PT for GMO analysis organized by Grain Inspection, Packers & Stockyards Administration United States Department of Agriculture (GIPSA, USDA).

PBTI has successfully participated in PT for Total Aflatoxin in rice & Aflatoxin M1 in Milk Powder organized by Trilogy Analytical Laboratory Pvt. Ltd., Secunderabad, an NABL accredited PT provider. Similarly, for Pesticide residues PBTI participated in PT organized by National Institute of Plant Health Management, Hyderabad.

### 9.2 PARTICIPATION IN INTER LABORATORY COMPARISON (ILC) PROGRAMMES

PBTI successfully participated in nine (09) Inter Laboratory Comparison (ILC) Programmes for 24 parameters including 22 Chemical & 02 Biology parameters. Major commodities covered are Infant food, Rice, Milk & Rock Phosphate for Chemical analysis. Major parameters included are proximate & quality parameters, Toxins, Vitamins, minerals, adulterants etc. In Biology section Hygiene parameters in microbiology and GM screening elements in Molecular biology are covered. Major ILC initiator organizations / laboratories were National Dairy Research Institute-Karnal, National Bureau of Plant Genetic Resources, New

Delhi, Export Inspection Agency, Delhi-Export Inspection Agency-Kochi, ARBRO Pharmaceuticals Pvt. Ltd. Delhi, UPASI Tea Research Foundation Regional Centre –Coonoor.

### 9.3 INTERNAL QUALITY AUDITS

To ensure the continued compliance against documented Quality Management System (QMS) as per ISO / IEC 17025:2005, internal audits of different sections of PBTi including Quality Management & Support Functions and Technical Operations of all the laboratories were conducted from time to time.



## Contractual Research & other R&D Activities



## 10. CONTRACTUAL RESEARCH & OTHER R&D ACTIVITIES

1. “Honey and other bee hive products testing Laboratory under Integrated Beekeeping Development Centre (IBDC) Centre of Excellence on Apiculture, PAU, Ludhiana” funded by **National Bee Board (NBB), Ministry of Agriculture & Farmers Welfare, Govt. of India**
2. “Compositional analysis of Detectable level of DNA & Protein in Oils derived from GM Soyabean & Canola” funded by **M/s Monsanto Holdings India Pvt. Ltd.** The project was completed in April 2017.
3. “Validation of Strip based kit for detection of maltodextrin in milk” funded by **M/s Delmos Research Pvt. Ltd. Gurgaon.** The project was completed in August 2017.
4. Third Party Inspection/ (TPI)/ Monitoring of project of in-situ treatment of sewage through Bioremediation in Budha Nallah (Punjab) under National River conservation plan awarded by **Punjab Pollution Control Board, Patiala.**



5. Conducting ground water analysis of solid waste dumping sites in the state of Punjab awarded by **Punjab Pollution Control Board, Patiala.**
6. Ludhiana Smart City Project-Collection/Sampling of water sample and Quality testing as per IS 10500:2012 funded by **AECOM Asia Company Ltd. Gurgaon**



## Advisory Services

## 11. ADVISORY SERVICES

1. “Operation & Management (O&M) Services for Running of Regional Advanced Water Testing Lab (RAWTL)” of DWSS- The project was awarded by Department of Water Supply and Sanitation (**DWSS**), Punjab.
2. “Advisory Services for Setting Up, Operationalization & getting NABL Accreditation for Food and Drug Testing Laboratories of FDA Punjab” -The project was awarded by Food and Drugs Administration Department of Health and Family Welfare, Punjab (**FDA-Punjab**).



Visit of, Mrs Anjali Bhawra, IAS, Principal Secretary and Sh Varun Ruzam, IAS, Secretary, Health and Family Welfare, GoP along with PBTI's Team to Food and Drugs Administration (FDA), Laboratory, Kharar to monitor progress of the project of setting up of the laboratory being implemented by PBTI

3. “Consultancy Services for getting NABL Accreditation for the Regional Advance Water Testing Laboratory (RAWTL), Mohali and Trade Waste and Effluent Research Unit cum State Laboratory, (TWERU), Patiala under DWSS” funded by Department of Water Supply and Sanitation (**DWSS**), Punjab

4. “Consultancy services for designing and procurement of Modular laboratory furniture in the Food and Drug Testing Laboratory of FDA, Punjab” funded by Food & Drug Administration, Department of Health and Family, Welfare, Punjab (**FDA, Punjab**).



View of the Laboratories of FDA Punjab, designed and setup by PBTI



## Clientele Profile

## 12. CLIENTELE PROFILE

PBTI's facilities are being used by Farmers, Farmer Groups, State Cooperatives, Industrial Houses, Entrepreneurs, R&D Institutes/Organizations, Germ Plasm / Seed Producers, National & Multi-National Companies (MNCs) from food and environment sectors. Presently more than 1200 groups are regularly using the quality testing as well as environmental monitoring services of PBTI.





## Organization of Workshops/ Trainings

## 13. ORGANIZATION OF WORKSHOPS/ TRAININGS

### 1. Training of Trainers (ToT) programme on 'Analysis of Veterinary Drug Residues'



**Special Secretary Department of Science Technology & Environment, GoP graced the inaugural session of Training of Trainers (ToT) programme on 'Analysis of Veterinary Drug Residues'**

PBTI organized training on Analysis of Veterinary Drug Residues including antibiotics under Training of Trainers Programme in Collaboration with FSSAI on 6<sup>th</sup> – 10<sup>th</sup> February, 2018. Twelve (12) Participants from State Government and Private Food Laboratories from different parts of the country viz. Assam, Kolkata, Kakinada, Nellore, Gurgaon, Ghaziabad, Sonipat, Shillong participated.



## 2. Training Workshop on Detection of Living Modified Organisms/Genetically Modified Organisms” for officials of Department of Environment, Ministry of Environment & Forest, Bangladesh



Inaugural Session



Technical Demonstration



Distribution of Certificates to the participants

The Training was conducted from 11<sup>th</sup> – 15<sup>th</sup> December 2017 by PBTI under the aegis of MoEF & CC, Govt of India for officials of Department of Environment, Ministry of Environment & Forest, Bangladesh. Both theoretical and practical aspects were covered during the training. DNA based detection on RT-PCR & Protein based detection by Lateral Flow strip were demonstrated to the participants.

3. **PBTI also organized different technical trainings for the staff of Department of Water Supply and Sanitation, Govt. of Punjab and Food and Drug Administration, Department of Health and Family Welfare Govt of Punjab**



## Our Collaborations

### 13. COLLABORATIONS FOR HRD and R&D ACTIVITIES

The collaboration of PBTI with the following universities was continued to promote Human Resource Development (HRD) and Research & Development (R&D) in the areas relevant to the needs of the State.



#### PUNJAB AGRICULTURAL UNIVERSITY (PAU), Ludhiana

During the period under report, Assistant Mycologist from Department of Microbiology, PAU Ludhiana attended induction training at PBTI. The scientists of different departments of PAU also visited PBTI to explore the possibilities of collaborative research work in light of the facilities available with PBTI.



#### KURUKSHETRA UNIVERSITY

One research scholar pursuing Masters of Technology (M.Tech) in Biotechnology of University Institute of Engineering & Technology from Kurukshetra University has done 6 months dissertation work along with other general activities at PBTI.



#### INDIRA GANDHI NATIONAL OPEN UNIVERSITY (IGNOU)

PBTI collaborated with IGNOU in 2014 to establish Programme Study Centre for “Post Graduate Diploma in Food Safety and Quality Management.” The 4th session of the PG Diploma has been successfully run by PBTI during the period under report.



#### BIOTECH CONSORTIUM INDIA LTD.(BCIL)

PBTI is imparting six (06) months training under Biotechnology Industrial Training Programme (BITP) being coordinated by Biotech Consortium India Ltd. (BCIL) on behalf of Department of Biotechnology, Govt. of India. Two (02) trainees from BCIL attended training programme during the period under report.



## Invited Lectures/Talks

## 14. INVITED LECTURES / TALKS

### **Dr (Mrs) Ajit Dua, Chief Executive Officer & Senior Scientist**

1. Delivered Lecture on "Detection of LMOs" during State Level Biosafety Capacity Building Workshop organized by Biotech Consortium India Limited jointly with Dr Y.S. Parmar University of Horticulture & Forestry, Solan (Himachal Pradesh) on 06.03.2018 at Solan.
2. Delivered Lecture on "Detection of LMOs" in State Level Biosafety Capacity Building Workshop organized by BCIL jointly with Punjab Agricultural University on 16.02.2018 at PAU, Ludhiana.
3. Delivered Lecture on "Detection of LMOs: DNA based Techniques" in the training workshop on Strengthening Capacities of Enforcement Agencies (Plant Quarantine & Customs Officials) for Transboundary movement of LMOs" organized by ICAR-National Bureau of Plant Genetic Resources and Ministry of Environment, Forest and Climate Change, at Kandla, Gujarat on 04.05.17 under United Nations Environment Programme-Global Environment Facility Phase-II Capacity Building Project on Biosafety.

### **Dr Vandana Awasthi, Scientist (Biology)**

1. Delivered lectures & organized practical session during the training Workshop organized by PBTI in association with MoEF & CC on "Detection of Living Modified Organisms/Genetically Modified Organisms" for officials of Department of Environment, Ministry of Environment & Forest, Bangladesh from 11th – 15th December 2017
2. Delivered a lecture on "Challenges in Food Microbiology Testing & Latest trends in Food Microbiology" in a 5-days training programme on Good Food Laboratory Practices (GFLP) organized by FSSAI at Appellate Laboratory, Timarpur, New Delhi
3. Participated as Resource person in consultative Workshop on "Harmonization of LMO/GMO activities at National level" under the project Network of LMO detection

Laboratories of India & regional Network (supported by Phase-II capacity Building Project on Biosafety) at ICAR-NBPGR New Delhi

4. Delivered lecture on methods for detection of LMOs in State level Biosafety Capacity building Workshop organized by BCIL at Chaudhary Charan Singh Haryana Agricultural University, Hisar

**Dr Sanjivan, Assistant Scientific Officer**

1. Delivered lectures during Training of Trainers (ToT) programme on 'Analysis of Veterinary Drug Residues' organized by PBTi in collaboration with FSSAI from 5th – 9th February, 2018



## Participation in State/National Level Bodies



## 15. PARTICIPATION IN STATE / NATIONAL LEVEL BODIES

**Dr (Mrs) Ajit Dua, Chief Executive Officer & Senior Scientist**

1. Member of Board of Directors of Mohali Biotechnology Park, a Section 8 Company incorporated by Govt. of Punjab and Department of Biotechnology, Govt of India.
2. Nominated member of Steering Committee of Institutions of Knowledge City, Sector-81 Mohali.
3. Empaneled by NABL as Technical Assessor for Biological Field since 2011 for auditing Testing laboratories for compliance against ISO/IEC 17025 on behalf of NABL: Audited various laboratories during the period under report.
4. Expert Member in Scientific Panel for Biological Hazards constituted by Food Safety and Standards Authority of India (FSSAI) for providing scientific opinion to Food authority.
5. Nominated by FSSAI as member of Tender Evaluation committee (Technical Expert Committee) for the purchase of Hi-end equipment for Strengthening of 45 State Food labs in India under Central Sector Scheme with a total budget of Rs 482 crores
6. Nominated by FSSAI as member of Tender Evaluation committee (Technical Expert Committee) for finalizing the O&M of Food Research and Standardization Laboratory, FSSAI Ghaziabad.
7. Nominated as expert for evaluation of layout of Microbiology Lab to be set up by State Food Laboratory Delhi for funding under Central Sector Scheme of FSSAI.
8. Nominated as an expert in the Panel to visit state/UT laboratories for implementation of Central Sector scheme "Strengthening of Food Testing System in the country including

provision of Mobile Food Testing Labs” of FSSAI- Visited State Food Laboratory, at Kandaghat, Solan (HP).

9. Nominated as member of the committee constituted by Director General, Bureau of Indian Standards for finalising the specifications of Gas Chromatography (GC) to be procured for 5 labs of BIS at different locations in the country.
10. Nominated as member of the committee by Head Northern Regional Office Laboratory (NROL), Bureau of Indian Standards (BIS), Govt of India for technical advice on setting up of Microbiology Lab at Northern Regional Office Laboratory of BIS at Mohali.
11. Member of committee for the purchase of analytical equipment of Central University Punjab Bathinda (CUPB).
12. Member of committee constituted by Ministry of Environment, Forests & Climate Change (MoEF&CC) to review the progress of networking of LMO detection laboratories of India & regional Network and its outcomes developed by ICAR NBPGR.
13. Nominated as Internal Auditor for conducting the Internal audit of ICAR-National Bureau of Plant Genetic Resources (NBPGR) at New Delhi for assessing their compliance against the requirements of International Standard for Laboratory Quality Management System ISO/IEC 17025.
14. Nominated as Internal Auditor for conducting the Internal audit of National Referral Center for Milk Quality and Safety at ICAR-National Dairy Research Institute, Karnal for assessing their compliance against the requirements of International Standard for Laboratory Quality Management System ISO/IEC 17025.
15. Nominated as expert member of Test Methods Review Group constituted by FSSAI

16. Nominated as member of the team for suggesting detailed plan of strengthening the capacity and capability of Central Drugs Laboratory, Central Research Institute, Kasauli, as per WHO requirements by a committee headed by Drug Controller General of India.
17. Nominated as team member for drafting Institutional Development Plan (Costing Rs 30 Crores) for Strengthening of Central Drugs Laboratory, Kasauli to further strengthen the capacity and capability of CDL in various aspects of WHO requirements.
18. Nominated as Technical Expert by Commissioner Food and Drug Authority (FDA) Haryana for assisting FDA Haryana for up-gradation of their State Food Lab.
19. Nominated as Member of Internal Quality Assurance Cell (IQAC) of Central University of Punjab Bathinda (CUPB).
20. Notified State Water Analyst since January 2009 and Notified Government Analyst under EPA since December 2010
21. Internal Member of Food Safety Knowledge Assimilation Network (FSKAN) of FSSAI.
22. Member of State Biotechnology Co-ordination Committee (SBCC) regarding NOC for conduct of field trials of GM food crops in Punjab.

#### **Dr (Mrs) Vandana Awasthi, Scientist (Biology)**

1. Appointed as assessor by Export Inspection agency (EIC) and conducted renewal audit of Export Inspection Agency, Kochi for GMO analysis as per EIC lab approval scheme.
2. Nominated as Internal Auditor for assessing the compliance of Trade Water Effluent Research Unit (TWERU), Patiala; laboratory of Department of Water Supply & sanitation (DWSS), Punjab against International Standard for General Requirements for the Competence of Testing and Calibration (ISO/IEC:17025:2005).
3. Approved Internal Auditor as per requirement of General Requirements for the Competence of Testing and Calibration (ISO/IEC:17025:2005).

**Mr Santosh Kumar Singh, Scientist (Chemical)**

1. Conducted Internal Audit of TWERU Patiala as per technical requirement for General Requirements for the Competence of Testing and Calibration (ISO/IEC: 17025:2005).
2. Approved Internal Auditor as per requirement of General Requirements for the Competence of Testing and Calibration (ISO/IEC: 17025:2005).



## Our Memberships

## 16. MEMBERSHIP OF PROFESSIONAL BODIES



Life Member of Association of Food Scientists and Technologists(India), AFSTI, Mysore



Life Member of Indian Association of Air Pollution Control (IAAPC)



Annual Member of AOAC India Chapter



## Up-Skilling of Staff

## 17. Up-Skilling of Staff

As an endeavor to provide quality services, PBTI keeps on updating the skills of its staff through their participation in Seminars, Conferences, Workshops, Trainings etc. During the period under report, PBTI's staff participated in the following such programmes and activities:

### **Dr (Mrs) Ajit Dua, Senior Scientist**

1. "National Conclave on Scientific Co-operation on Food Safety and Applied Nutrition" organized by Food Safety and Standards Authority of India (FSSAI) at New Delhi.
2. "Annual Workshop for the Central Sector Scheme- Monitoring of Pesticide Residues at National Level" organized by the Department of Agriculture, Cooperation and Farmers Welfare, Minister of Agriculture and Farmers Welfare (MoA & FW), GoI at Anand Agriculture University, Anand, Gujarat.
3. Regional Workshop on "Skill Development in Agriculture" organized by Ministry of Agriculture and Farmer's Welfare, GoI, in collaboration with Department of Agriculture, Govt of Haryana at Chandigarh.
4. Dr Hargobind Khorana Memorial International Symposium on 'Genes, Genomes and Membrane Biology' organized at NABI Mohali by National Agri-Food Biotechnology Institute, Punjab State Council for Science & Technology, Institute of Nano Science & Technology and Massachusetts Institute of Technology (MIT), USA.
5. Meeting of the Laboratories approved by Export Inspection Council (EIC) w.r.t. "Unified approach for the accreditation/ approval of the laboratories" at EIC, GoI, New Delhi.



**Dr Vandana Awasthi, Scientist (Biology)**

1. Workshop on “Harmonization of LMO/GMO detection Activities in Country” organized on 21.08.2017 at Dr H. B. Singh Committee Room, ICAR-NBPGR, New Delhi.
2. Regional Workshop on “Skill Development in Agriculture” Organized by Ministry of Agriculture & Farmer Welfare, Govt. of India; in collaboration with Department of Agriculture & Horticulture, Govt. of Haryana on 15.09.2017 at Hotel Mount view, Sector-10, Chandigarh.

**Mr Santosh Kumar Singh, Scientist (Chemical)**

1. Workshop on “HPLC-Column Maintenance & Selection organized by Agilent Technologies on 02.06.2017 at PBTI, Mohali.
2. India-EU Dialogue Seminar on the “Use of Veterinary Medicines & Anti-Microbial Resistance” organized by Export Inspection Council (EIC) in collaboration with European Union (EU) on 15.11.17 & 16.11.17 at The Grand, New Delhi.
3. “Training of Trainers (ToT) Program on Analysis of Doping substances in Food supplements” organized by FSSAI in association with National Anti Doping Agency from 27.11.17 to 30.11.17 at National Dope Testing Laboratory, New Delhi.
4. 5th Annual Conference “India Section of the AOAC International” organized from 28.02.18 to 01.03.18 at Hotel The Park, New Delhi.

**Dr Sanjivan Alkesh, Assistant Scientific Officer**

1. Workshop on “HPLC-Column Maintenance & Selection organized by Agilent Technologies on 02.06.2017 at PBTI, Mohali.

**Ms Ravneet Kaur, Assistant Scientific Officer**

1. Technical Training on “Determination of Flash Point in Edible Oil by - Pensky Marten apparatus” organized from 16.10.17 to 24.10.17 at PBTI, Mohali.

2. Training on “Food Safety & Standards Act & Regulations” organized from 04.12.17 to 06.12.17 at PBTI, Mohali.
3. Training of Trainers Program (ToT) on “Analysis of Veterinary Drug Residues including Antibiotics” organized by FSSAI in collaboration with PBTI from 06.02.2018 to 10.02.18 at PBTI, Mohali.
4. Technical Training on “Analysis of Dietary Fiber in Food samples” organized from 16.03.18 to 22.03.18 at PBTI, Mohali.

**Mr. Amit Agarwal, Assistant Scientific Officer**

1. Training on “Intermediate check of Weighing Balance” organized on 01.05.2017 at PBTI, Mohali.
2. Training on “Handling, Usage & Disposal of Cyanide” organized on 29.06.2017 & 30.06.2017 at PBTI, Mohali.
3. Training on “Food Safety & Standards Act & Regulations” organized from 04.12.17 to 06.12.17 at PBTI, Mohali.

**Dr Harjit Singh, (Assistant Scientific Officer)**

1. Training on “Operation & Maintenance of Balances & Autopipettes in Soil, Water & Agri Inputs Lab” organized from 06.09.2017 to 08.09.2017 at PBTI, Mohali.
2. Training on “Preparation of Reagents in Soil, water & Agri Inputs Lab” organized from 11.09.2017 to 15.09.2017 at PBTI, Mohali.
3. Training on “Operation, Maintenance & Calibration of pH & Conductivity Meter, TDS Meter & Trimeter” organized from 18.09.2017 to 23.09.2017 at PBTI, Mohali.
4. Training on “Analysis of Drinking Water for pH, TDS, TSS and Gravimetric & Titrimetric Parameters” organized from 25.09.2017 to 02.10.2017 at PBTI, Mohali.
5. Technical Training on “Analysis of Packaged Drinking Water (as per IS 14543) & Packaged Natural Mineral Water (as per IS 13428) for general Physical & Chemical Parameters

except MBAS, Cyanide, Phenolic Compounds & Bromate” organized from 01.12.17 to 18.12.17 at PBTI, Mohali.

6. Training on “Sampling of Stack Emission Monitoring” organized from 07.02.18 to 20.02.18 at PBTI, Mohali.

#### **Ms Aarti Bhardwaj, (Junior Scientific Officer)**

1. Training on “Analysis of Bromate by Ion Chromatography” organized from 24.04.2017 to 06.05.2017 at PBTI, Mohali.
2. Technical Training on “Sample preparation for Pesticide Residues analysis in Water & Food” organized from 10.07.2017 to 10.08.2017 at PBTI, Mohali.
3. Technical Training on “Sample preparation for Estimation of Sudan Dyes in Food Samples” organized from 10.07.2017 to 18.07.2017 at PBTI, Mohali.
4. Technical Training on “Sample preparation for Estimation of Aflatoxins in Food Samples” organized from 11.07.2017 to 20.07.2017 at PBTI, Mohali.
5. Technical Training on “Handling & Usage of Weighing Balance- Advance features” organized by Expert from Mettler Toledo on 21.07.2017 at PBTI, Mohali.
6. Technical Training on “Operation Maintenance & IC check of HPLC” organized from 05.09.2017 to 15.09.2017 at PBTI, Mohali.
7. Technical Training on “Estimation of Aflatoxins in Food samples by using HPLC” organized from 11.09.2017 to 16.09.2017 at PBTI, Mohali.
8. Technical Training on “Estimation of Saffarole & Hypercinine (NOTS) by using HPLC” organized from 13.09.2017 to 15.09.2017 at PBTI, Mohali.
9. Technical Training on “Estimation of Sudan Dyes in Food Samples by using HPLC” organized from 18.09.2017 to 22.09.2017 at PBTI, Mohali.
10. Technical Training on “Analysis of Packaged Drinking Water for 2, 4 - Dichlorophenoxyacetic Acid & Isoproturon as per IS 14543 by using HPLC” organized from 01.12.17 to 31.12.17 at PBTI, Mohali.

11. Technical Training on “Fatty Acid Profiling in food samples by GC-FID” organized from 01.12.2017 to 31.12.2017 at PBTI, Mohali.
12. Training of Trainers Programme (ToT) on “Analysis of Veterinary Drug Residues including Antibiotics” organized by FSSAI in collaboration with PBTI from 06.02.2018 to 10.02.18 at PBTI, Mohali.
13. Training on “Analysis of Benzene & Benzopyrene in Air samples” organized from 12.03.18 to 19.03.18 at PBTI, Mohali.

#### **Ms Anju Thakur, Junior Scientific Officer**

1. Training on “Handling, Usage & Disposal of Cyanide” organized on 29.06.2017 & 30.06.2017 at PBTI, Mohali.
2. Training on “General Physiochemical parameters in Waste Water” organized on 10.07.2017 to 20.07.2017 at PBTI, Mohali.
3. Refresher Training on “General Physiochemical parameters in Drinking Water except Cyanide, MBAS, Phenolic Compounds” on 05.07.2017 & 07.07.2017 at PBTI, Mohali.
4. Technical Training on “Estimation of Cations and Anions in water by using Ion Chromatography Technique.” From 27.09.2017 to 31.10.2017 at PBTI, Mohali.
5. Technical Training on “Analysis of water for MBAS, Cyanide & Phenolic Compounds.” organized from 03.10.2017 to 13.10.2017.
6. Technical Training on “Analysis of Soil, Sludge & Compost for Physiochemical parameters as per list attached” organized from 01.12.17 to 18.12.17 at PBTI, Mohali.

#### **Ms Dimple Trikha, Junior Scientific Officer**

1. Workshop on “Harmonization of LMO/GM detection Activities in Country” organized on 21.08.2017 at Dr H. B. Singh Committee Room, ICAR-NBPGR, New Delhi
2. 5th Annual South Asia Biosafety Conference organized by BCIL New Delhi & ILSI Research Foundation, USA from 11.09.2020 to 13.09.2020 at PBTI, Mohali

3. Technical Training on “Qualitative Analysis of Milk for Urea, Ammonia, Nitrate, Starch, Glucose, Sugar, Salt, Neutrilizer, Hydrogen Peroxide, Detergent, Formalin, Boric Acid, Cellulose, Foreign Fat, Maltodextrin by NDDB Kit & FSSAI methods.” Organized from 03.10.17 to 06.10.17 at PBTI, Mohali.
4. State Level Biosafety Capacity Building Workshop Organized by PAU, Ludhiana; BCIL, Delhi in collaboration with MoEF & CC, GOI on 06.02.18 at Farmer Service Centre Committee Room, Punjab.

**Mr. Vikas C. Roy, Scientific Assistant**

1. Workshop on “HPLC-Column Maintenance & Selection organized by Agilent Technologies on 02.06.2017 at PBTI, Mohali.
2. “Training of Trainers (ToT) Program on Analysis of Doping substances in Food supplements” organised by FSSAI in association with NADA from 27.11.17 to 30.11.17 at National Dope Testing Laboratory, New Delhi.

**Mr. Jitender Sharma, Project Fellow**

1. Training on “Analysis of Bromate by Ion Chromatography” organized on 24.04.2017 to 06.05.2017 at PBTI, Mohali.
2. Technical Training on “Elemental Analysis in Water & Waste Water by ICP-MS” organized from 26.07.2017 to 26.08.2017 at PBTI, Mohali
3. Technical Training on “Sampling of Food Products (Honey, Rice and Fruit & Vegetables) as per EIC & APEDA guidelines” organized on 17.01.2018 at PBTI, Mohali

**Ms Sushma, (Lab Assistant)**

1. Training on “Digital Balance & Autopipette Handling and Reagent Preparation” organized from 22.11.17 to 29.11.17 at PBTI, Mohali
2. Technical Training on “Sample Preparation for Elemental Analysis using MDS & Open Digestion” organized from 30.01.18 to 28.02.2018 at PBTI, Mohali

**Ms Pratibha, (Executive-Sample Cell)**

1. Training on “Sample Handling (Sample receiving & Registration) as per requirements under ISO/IEC 17025:2005 & Regulatory agencies organized on 13.03.18 at PBTI, Mohali

**Ms Pallavi Aggarwal, (Executive-Analyst)**

1. Technical Training on “Analysis of water by ICP-MS for Elements & Heavy Metals” organized on 16.06.2017 & 17.06.2017 at RAWTL-DWSS, Mohali.
2. Technical Training on “Estimation of Cations and Anions in water by using Ion Chromatography Technique.” Organized on 06.09.2017 to 08.09.2017 at RAWTL-DWSS, Mohali.

**Ms Harleen, (Executive-Front office)**

1. Training on “Sample Handling (Sample receiving & Registration) as per requirements under ISO/IEC 17025:2005 & Regulatory agencies organized on 13.03.18 at PBTI, Mohali

**Ms Priyanka Gupta, Executive (QA)**

1. Technical Training on “Determination of Flash Point in Edible Oil by-Pensky Marten apparatus” organized from 16.10.17 to 24.10.17 at PBTI, Mohali
2. Technical Training on “Analysis of Dietary Fiber in Food samples” organized from 16.03.18 to 22.03.18 at PBTI, Mohali

**Mr. Praveen Singh Danu, Project Fellow**

1. Training on “DNA Extraction & GM screening of Cereal & Cereal Products” organized on 24.04.2017 to 06.05.2017 at PBTI, Mohali.

2. Technical Training on “Sampling of Food Products (Honey, Rice and Fruit & Vegetables) as per EIC & APEDA guidelines” organized on 17.01.2018 at PBTI, Mohali
3. State Level Biosafety Capacity Building Workshop Organized by PAU, Ludhiana; BCIL, Delhi in collaboration with MoEF&CC, GOI on 06.02.18 at Farmer Service Centre Committee Room, Punjab

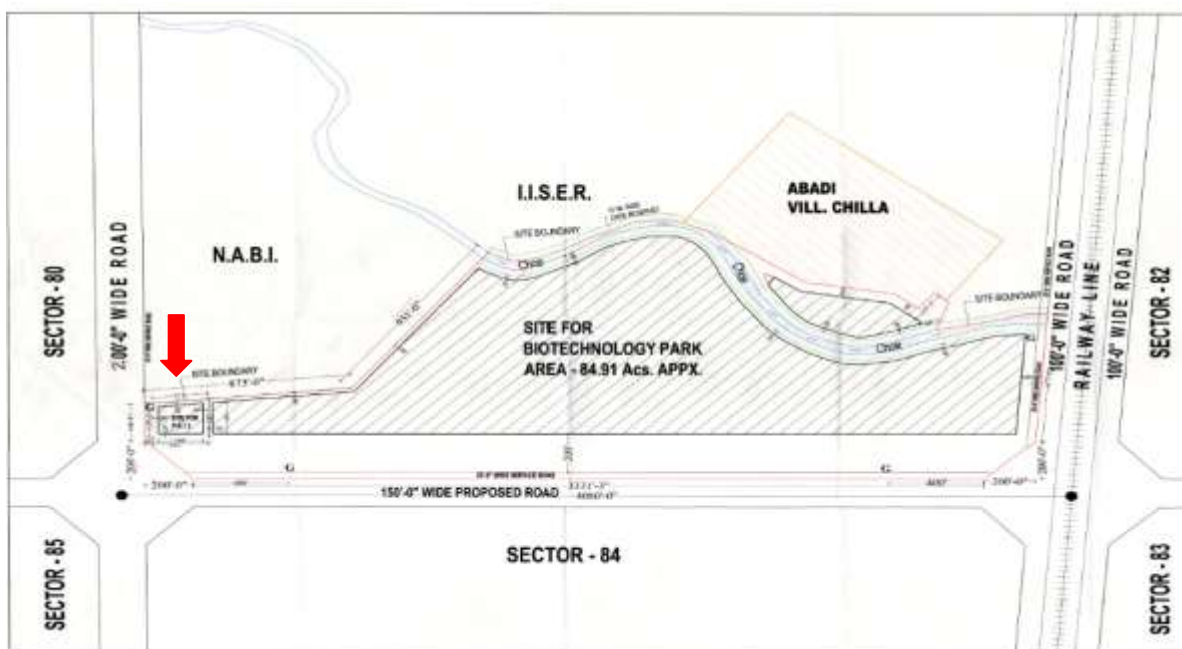


## Infrastructural Development in Knowledge City, Mohali



## 18. INFRASTRUCTURAL DEVELOPMENT IN KNOWLEDGE CITY, MOHALI

The Government of Punjab allocated 1 acre of land to PBTI in Knowledge City, Sector 81, SAS Nagar, Mohali as per the decision of Cabinet of Ministers in 2014. One side of the plot is abutting to National Agri-Food Biotechnology Institute (NABI) established by Department of Biotechnology, Govt. of India & other two sides abutting the upcoming Biotechnology Park.





Site of PBTI in Knowledge City Mohali



The Empowered Building Construction Committee (EBCC) of PBTI, in its meeting dt. 16.05.2017 under the chairmanship of Principle Secretary, Department of Science, Technology and Environment approved the revised cost estimate of Rs. 24.83 crores (including extended basement as per GMADA approved plans) with the decision to construct the building in phased manner as per the availability of funds.

Thereafter, as decided by the Governing Council in its meeting held on 07.03.2017 estimated cost of construction of Phase-I of the building was invited from 07 Government agencies. The cost estimates of Rs 8.8 Cr given by Deptt. of Rural Development & Panchayats were found to be L-1 out of estimates received from two agencies.

PBTI had funds of Rs 4 Cr released by PSIEC under ASIDE Scheme in Jan 2016 for “Development of PBTI’s infrastructure as per the statutory guidelines to promote export from Punjab” against the cost estimate of Rs. 8.8 Cr for phase-I construction.

A proposal for Upgradation of infrastructure of PBTI’s Quality Testing and Certification facilities to support the food exporters of the region was submitted for funding under Trade Infrastructure for Export Scheme (TIES) of Ministry of Commerce, GoI through PSIEC in December 2017.



## Testimonials

## 19. TESTIMONIALS

*“Thank you PBTI for being an efficient, energetic and enabling influencer in th region for food safety & analysis”- **Dr N. Bhaskar, Advisor (QA), FSSAI***

*“Interesting and pleasant, especially the training on ISO 17025, pesticides and heavy metal analysis. The staff is friendly and helpful. A lot of gaps in my system have been fulfilled by their explanation and the layout of the labs is impressive” – **DUMASIHE EDWARD E. KOFI, Noguchi memorial institute for medical research, University of Ghana, Legon***

*“I learnt a lot of things. The laboratory is very well equipped and the staff is knowledgeable. Thank you for making us visit the Laboratories” – **OtgenchimegSarhiya Ulaanbaatar, Mongolia***



## Accounts Statement

## **20. ACCOUNTS STATEMENT**

The Annual Statement of Accounts of PBTI for the F.Y. 2017-18 has been finalized and prepared in the prescribed format. This includes the Balance Sheet, Income & Expenditure Account and relevant schedules. The accounts have been prepared on accrual basis. The annual accounts of PBTI have been audited by a Firm of M/s Chambyal and Associates, Chartered Accountants who had been appointed as Statutory Auditor of PBTI by the Governing Council. The Balance Sheet for the year 2017-18 is placed on the proceeding pages:

**M S CHAMBYAL & ASSOCIATES****CHARTERED ACCOUNTANTS**

#14, Block No. 2004, Sector 32-C, Chandigarh-160030  
Email: ca.ms.chambyal@gmail.com, Mob : 9888127510

**Audit Report U/S 12 A (b)****FORM NO. 10B**

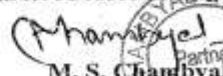
(See rule 17B)


**AUDIT REPORT UNDER SECTION 12A (b) OF THE INCOME TAX ACT 1961, IN  
THE CASE OF CHARITABLE OR RELIGIOUS TRUSTS OR INTUTUTIONS.**

1. We have examined the attached Balance Sheet of **Punjab Biotechnology Incubator -SAS Nagar** as on March 31<sup>st</sup>, 2018 and the Income & Expenditure Account for the period ended on that date which are in agreement with the books of account maintained by the said Society.
2. We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purposes of the audit.
3. In our opinion, proper books of account have been kept by the head office and the branches of the above-named Society so far as appears from our examination of the books.
4. In our opinion, and to the best of our information and according to information given to us, the said accounts give a true and fair view-
  - (i) In the case of the balance sheet, of the state of affairs of the above named institution as at March 31, 2018, and
  - (ii) In the case of the income and expenditure account, of the deficit of its accounting year ending on March 31, 2018.

The prescribed particulars are annexed hereto.

For M S Chambyal & Associates  
Chartered Accountants

  
M. S. Chambyal  
Partner



Date: 24.09.2018  
Place: Chandigarh



## ANNEXTURE 1

## STATEMENT OF PARTICULARS

I. APPLICATION OF INCOME FOR CHARITABLE OR RELIGIOUS PURPOSES-  
F.Y. 2017-2018

1. a) Amount of income of the previous year applied to charitable or religious purposes in India during that year. Rs. 48209305.67  
b) Amount of income of years prior to previous year applied to charitable or religious purposes in India during that year out of the accumulated income.
2. Whether the trust/institution has exercised the option under clause (2) of the Explanation to section 11(1) ? If so, the details of the amount of income deemed to have been applied to charitable or religious purposes in India during the previous year. \_\_\_\_\_
3. Amount of income accumulated or set apart/finally set apart for application to charitable or religious purposes, to the extent it does not exceed 15 per cent of the income derived from property held under trust wholly/in part only for such purposes. \_\_\_\_\_
4. Amount of income eligible for exemption under section 11(1) (C) (Give details). N.A
5. Amount of income in addition to the amount referred to in item 3 above, accumulated or set apart for specified purposes under section 11(2). \_\_\_\_\_
6. Whether the amount of income mentioned in item 5 above has been invested or deposited in the manner laid down in section 11(2)(b)? If so, the details thereof. N.A
7. Whether any part of the income in respect of which an option was exercised under clause (2) of the Explanation to section 11(1) in any earlier year is deemed to be income of the previous year under section 11(1B)? If so, the details thereof. N.A
8. Whether, during the previous year, any part of income accumulated or set apart for specified purposes ; under section 11(2) in any earlier year- N.A
  - (a) has been applied for purposes other than charitable or religious purposes or has ceased to be accumulated or set apart for application thereto, or NO
  - (b) has ceased to remain invested in any security referred to in section 11(2) (b)(i) or deposited in any account referred to in section 11(2)(b)(ii) or section 11(2)(b)(iii), or \_\_\_\_\_
  - (c) has not been utilized for purposes for which it was accumulated or set apart during the period for which it was to be accumulated or set apart , or in the year immediately following the expiry thereof ? If so, the details thereof. N.A



## II. APPLICATION FOR USE OF INCOME OR PROPERTY FOR THE BENEFIT OF PERSONS REFERRED TO IN SECTION 13(3)

1. Whether any part of the income or property of the trust/institution was lent, or continues to be lent, in the previous year to any person referred to in section 13(3) (hereinafter referred to in this Annexure as such person)? If so, give details of the amount, rate of interest charged and the nature of security, if any. N.A.
2. Whether any land, building or other property of the trust/institution was made, or continued to be made, available for the use of any such person during the previous year? If so, give details of the property and the amount of rent or compensation charged, if any. N.A.
3. Whether any payment was made to any such person during the previous year by way of salary, allowance or otherwise? If so, give details. N.A.
4. Whether the services of the trust/institution were made available to any such person during the previous year. If so, give details thereof together with remuneration or compensation received. If any, N.A.
5. Whether any share, security or other property was purchased by or on behalf of the trust/institution during the previous year to any such person. If so, give details thereof together with the consideration received. N.A.
6. Whether any share, security or other property was sold by or on behalf of the trust/institution during the previous year to any such person. If so, give details thereof together with the consideration received. N.A.
7. Whether any income or property of the trust/institution was diverted during the previous year in favour of any such person? If so, give details thereof together with the amount of income or value of property so diverted. N.A.
8. Whether any income or property of the trust/institution was used or applied; during the previous year for the benefit of any such person in any other manner. If so, give details. N.A.

## III INVESTMENT HELD AT ANY TIME DURING THE PREVIOUS YEAR(S) IN CONCERNS IN WHICH PERSONS REFERRED TO IN SECTION 13(3) HAVE A SUBSTANTIAL INTEREST.

Sr. No.	Name and Address of the concern	Where the Concern is a company, number and class of shares held	Nominal value of the investment	Income from investment	Whether the amount in col.4 exceeded 5 per cent of the capital of the concern during the previous year - Say, Yes/No
1	2	3	4	5	6
-----Not Applicable-----					

For M S Chambyal & Associates  
Chartered Accountants

*(M. S. Chambyal)*  
M. S. Chambyal  
Partner

Date: 24.09.2018  
Place: Chandigarh

**PUNJAB BIOTECHNOLOGY INCUBATOR**  
**BALANCE SHEET AS AT 31ST MARCH, 2018**

<b>SOURCES OF FUNDS</b>	<b>SCHEDULE</b>	<b>AMOUNT (Rs.)</b>
Capital Fund	A	127257399.72
Unspent Fund	B	52969959.42
<b>Grand Total</b>		<b>180227359.14</b>
<b>APPLICATION OF FUNDS</b>		
Fixed Assets	C	80733652.66
Current Assets, Loans & Advances	D	110558036.51
<b>Less: Current Liabilities &amp; Provisions</b>	E	<b>11064330.03</b>
Significant Accounting Policies & Notes to Accounts	F	-
<b>Grand Total</b>		<b>180227359.14</b>

As per report of even date attached

For M.S. Chambyal & Associates  
Chartered Accountants

(M.S. Chambyal)  
Partner

Date : 24.09.2018  
Place: Chandigarh

For Punjab Biotechnology Incubator

*[Signature]*  
AF & AO

*[Signature]*  
Chief Executive Officer

**PUNJAB BIOTECHNOLOGY INCUBATOR**  
**INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDING 31ST MARCH 2018**

EXPENDITURE	Schedule	Amount (Rs)	INCOME	Schedule	Amount (Rs)
Opening stock		3235454.00	Grant Received from		
Purchases			- Govt. of Punjab		21555004.00
- Lab Chemicals		2936204.43	- PAU Ludhiana		1308496.28
- Lab Consumables		1900815.84	Interest Received	G	1272544.71
Audit fees		22450.00	Testing & Project fees		23954894.00
Electricity & Water Expenses		3024293.99	Miscellaneous Income	H	118366.68
Establishment Expenses	I	17672237.19	Closing Stock		3394813.00
Legal & Professional Charges		82855.00			
Office Expenses	J	635151.53			
Other Expenses	K	140605.26			
Quality Assurance /Tech. Audit Expenses	L	828341.75			
Rent		6111499.00			
Repair & Maintenance Expenses	M	3303151.85			
Running & Maintenance Expenses					
- Car		191872.00			
- Tata Winger		211217.07			
Security Charges		471086.77			
Sitting fees		202400.00			
Testing Charges		189126.00			
Travelling Expenses		184235.37			
Excess of Income over Expenditure		10261121.82			
		51604118.67			51604118.67

As per report of even date attached  
 For M.S. Chambyal & Associates  
 Chartered Accountants

(M.S. Chambyal)  
 Partner

Date : 24.09.2018  
 Place : Chandigarh



For Punjab Biotechnology Incubator

*[Signature]*  
 AF & AO

Chief Executive Officer



**PUNJAB BIOTECHNOLOGY INCUBATOR  
INCOME AND EXPENDITURE APPROPRIATION ACCOUNT  
FOR THE YEAR ENDING 31ST MARCH, 2018**

EXPENDITURE	Amount (Rs)	INCOME	Amount (Rs)
Depreciation (As per Schedule -C)	13038113.43	Excess of Income over Expenditure (trf. From Income & Expenditure A/c)	10261121.82
		Amount transfer to Accumulated fund A/c	2776991.61
	13038113.43		13038113.43

As per report of even date attached  
For M.S. Chambyal & Associates  
Chartered Accountants

(M.S. Chambyal)  
Partner

Date : 24.09.2018  
Place : Chandigarh



For Punjab Biotechnology Incubator

*[Signature]*  
AE & PO

Chief Executive Officer

## PUNJAB BIOTECHNOLOGY INCUBATOR

**SCHEDULE A : CAPITAL FUND**

PARTICULARS	AMOUNT (Rs.)
Capital fund	
- opening balance	126798353.76
Add: Transfer from unspent balances (Being amount utilised during the year)	3236037.57
Less: deficit during the year (Transfer from Income & Exp. A/c)	2776991.61
<b>Total</b>	<b>127257399.72</b>

**SCHEDULE B : UNSPENT FUND**

PARTICULARS	AMOUNT (Rs.)
Implementation of scheme	
Opening balance	53310777.75
Less: Amount spent and transfer to capital fund	3236037.57
Less : Utilized on consumable	402665.00
Add: Interest received on the grant accounts	3112362.52
Add: Unspent balance of grant received from PAU-Ludhiana	185521.72
<b>Unspent Balance</b>	<b>52969959.42</b>

**SCHEDULE E: CURRENT LIABILITIES & PROVISIONS**

PARTICULARS	AMOUNT (Rs.)
Audit fees payable	22450.00
Earnest money payable	820864.00
EPF payable	243319.00
Electricity expenses payable	202499.00
Sundry Creditors	9107329.03
TDS payable	115325.00
Advance from customers	552544.00
<b>Total</b>	<b>11064330.03</b>

As per report of even date attached.  
For M.S. Chambyal & Associates  
Chartered Accountants

(M.S. Chambyal)  
Partner  
Date : 24.09.2018  
Place: Chandigarh



For Punjab Biotechnology Incubator

*[Signature]*  
AF&IO

*[Signature]*  
Chief Executive Officer

## PUNJAB BIOTECHNOLOGY INCUBATOR

## Schedule C : FIXED ASSETS

PARTICULARS	W.D.V as on 1.04.2017	ADDITIONS		Disposals	TOTAL	RATE (in%)	Depreciation	W.D.V as on 31.03.2018
		upto 30.09.17	after 30.09.17					
Furniture & Fixtures	4073281.16	0.00	7934.00	0.00	4081215.16	10	407724.82	3673490.34
Electrical Fitting & Installation	1426627.13	0.00	0.00	0.00	1426627.13	10	142662.71	1283964.42
Computers & Peripherals	53183.46	0.00	7326.27	0.00	60509.73	60	34107.96	26401.77
Computer Software	11375.46	7356.00	0.00	0.00	18731.46	60	11238.88	7492.58
Plant & Machinery	66065.63	0.00	0.00	0.00	66065.63	15	9909.84	56155.79
Fire Extinguisher	93566.42	0.00	0.00	0.00	93566.42	15	14037.96	79548.46
Office Equipments	127320.45	0.00	0.00	0.00	127320.45	15	19098.07	108222.38
Electrical Equipments	530303.72	0.00	0.00	0.00	530303.72	15	79545.56	450758.16
Generator	227906.36	0.00	0.00	0.00	227906.36	15	34185.95	193720.41
Vehicle								
-Car	86318.44	0.00	0.00	0.00	86318.44	15	12947.77	73370.67
- Cycle	393.07	0.00	0.00	0.00	393.07	15	58.96	334.11
- Tata Winger	463276.37	0.00	0.00	0.00	463276.37	15	69491.46	393784.91
Lab Equipments	41931653.84	71700.00	0	187254.00	41816089.84	15	6272414.96	35543684.86
Library Books	145993.76	0.00	4236.00	0.00	150229.76	15	22216.76	128013.00
Assets Under Aside Project								
- Furniture & Fixtures	3399233.63	0.00	0.00	0.00	3399233.63	10	339923.36	3059310.27
- Electrical Fitting & Installation	519616.10	0.00	0.00	0.00	519616.10	10	51961.61	467654.49
- Computers & Peripherals	16692.88	0.00	0.00	0.00	16692.88	60	10015.73	6677.15
- Computer Software	2093.25	0.00	0.00	0.00	2093.25	60	1255.95	837.30
- Fire Extinguisher	113384.56	0.00	0.00	0.00	113384.56	15	17007.68	96376.88
- Electrical Equipment	660285.17	0.00	0.00	0.00	660285.17	15	99042.78	561242.39
- Lab Equipments	26484031.08	0.00	0.00	95200.00	26388831.08	15	3715258.14	22673572.94
- Equipments (DG Set)	1401003.15	0.00	0.00	0.00	1401003.15	15	210150.47	1190852.66
- Lab Equipments (UNEP-GEF)	919290.80	0.00	0.00	0.00	919290.80	15	137893.62	781397.18
- Lab Furniture (UNEP-GEF Project)	40783.50	0.00	0.00	0.00	40783.50	10	4078.35	36705.15
- Lab Equipments (under MoFPI Grant)	8812560.43	0.00	0.00	0.00	8812560.43	15	1321884.06	7490676.37
- Capital Work-in-Progress (Building)	2349408.00	0.00	0.00	0.00	2349408.00		0.00	2349408.00
<b>Total</b>	<b>93955667.82</b>	<b>79056.00</b>	<b>19496.27</b>	<b>282454.00</b>	<b>93771766.09</b>		<b>13038113.43</b>	<b>80733652.66</b>

As per report of even date attached

For M.S. Chambyal & Associates  
Chartered Accountants(M.S. Chambyal)  
PartnerDate : 24.09.2018  
Place: Chandigarh

For Punjab Biotechnology Incubator

  
AF&AO


  
Chief Executive Officer

## PUNJAB BIOTECHNOLOGY INCUBATOR

## SCHEDULE D: CURRENT ASSETS, LOANS &amp; ADVANCES

PARTICULARS	AMOUNT (Rs)	AMOUNT (Rs)
<b>Bank Balance:</b>		
Saving account in Corporation Bank	6773595.33	
Saving account in Punjab National Bank	108690.86	
Current account in State Bank of India	11270.50	6893556.69
<b>Fixed deposits with</b>		
Punjab National Bank	3100000.00	
Corporation Bank	77340678.00	80440678.00
<b>Security Deposits</b>		
Chandigarh Gases (for Argon Gas Cylinder)	30000.00	
Dist. Education Officer, Chandigarh (EMD)	5000.00	
Mohali Gas Enterprises (for LPG Cylinder)	16000.00	
Khaira Traders (for waters bottles)	1050.00	
Food Safety Standards Authority of India, New Delhi	100000.00	
Punjab State Power Corporation Ltd.	479803.00	631853.00
Cash in hand	11245.64	
Prepaid Expenses- CMC and AMC	203826.00	
Closing Stock	3394813.00	
Interest Accrued on Fixed Deposit	52203.37	
Tax Deducted at Source	11192189.84	
Sundry Debtors		
-Outstanding for a period less than 6 months	6487863.25	
-Outstanding for a period exceeding 6 months	750451.00	7238314.25
GST ITC Recoverable	474504.22	
Advance to Suppliers	24852.50	22591948.82
<b>Total</b>		<b>110558036.51</b>

As per report of even date attached

For M.S. Chambyal & Associates  
Chartered Accountants(M.S. Chambyal)  
PartnerDate : 24.09.2018  
Place: Chandigarh

For Punjab Biotechnology Incubator

  
Chief Executive Officer



## PUNJAB BIOTECHNOLOGY INCUBATOR

**SCHEDULE G : INTEREST RECEIVED**

PARTICULARS	AMOUNT (Rs)
Interest on FDR'S	1122758.71
Interest on saving bank account	149786.00
<b>Total</b>	<b>1272544.71</b>

**SCHEDULE H : MISCELLANEOUS INCOME**

PARTICULARS	AMOUNT (Rs)
Application fee	7000.00
Team Mobilisation Charges	64765.00
Training fee	31407.00
Misc. Income	15194.68
<b>Total</b>	<b>118366.68</b>

**SCHEDULE I : ESTABLISHMENT EXPENSES**

PARTICULARS	AMOUNT (Rs)
Salary & Wages	13650082.00
Contribution to Employees Provident fund	1499093.00
Manpower/helper Charges(o/s)	2418001.19
Staff Welfare	91861.00
Accidental Insurance	13200.00
<b>Total</b>	<b>17672237.19</b>

**SCHEDULE J: OFFICE EXPENSES**

PARTICULARS	AMOUNT (Rs)
Avertisement & publicity	21046.00
Lab waste disposal exp.	36830.00
Housekeeping Charges	198517.08
Insurance of Assets	36028.00
Newspapers & Periodicals	2539.00
Printing & Stationary	185110.43
Postage & courier	47069.00
Subscription & Publications	7083.00
Telephone expenses	76831.02
Courtesy to officials expenses	24098.00
<b>Total</b>	<b>635151.53</b>

As per report of even date attached

For M.S. Chambyal &amp; Associates

Chartered Accountants

(M.S. Chambyal)  
Partner

Date : 24.09.2018



For Punjab Biotechnology Incubator

  
AFSAO


  
Chief Executive Officer

**SCHEDULE K: OTHER EXPENSES**

PARTICULARS	AMOUNT (Rs)
Bank Charges	1599.79
Fees & Taxes	11000.00
Recruitment Charges	30260.00
Training fee / exp.	41336.00
Tender Expenses	20522.00
Swatch Bharat Cess	15284.50
Sample Collection Charges	10420.00
Miscellaneous Expenses	10182.97
<b>Total</b>	<b>140605.26</b>

**SCHEDULE L: QUALITY ASSURANCE /TECHNICAL AUDIT EXPENSES**

PARTICULARS	AMOUNT (Rs)
Accreditation /Recognition fees	287477.00
Calibration Charges	349900.00
EIC/NABL Audit Exp.	166711.75
Proficiency Testing Charges	24253.00
<b>Total</b>	<b>828341.75</b>

**SCHEDULE M: REPAIR & MAINTENANCE**

PARTICULARS	AMOUNT (Rs)
Repair & maintenace- General	73164.23
Repair & maintenace-Electrical	287577.20
Repair & maintenace-Computer	83494.97
Repair & maintenace-Lab equipments	1117322.22
Annual Maintenance Charges	1741593.23
<b>Total</b>	<b>3303151.85</b>

As per report of even date attached  
For M.S. Chambyal & Associates  
Chartered Accountants

(M.S. Chambyal)  
Partner  
Date : 24.09.2018



For Punjab Biotechnology Incubator

*[Signature]*  
AF&AD

*[Signature]*  
Chief Executive Officer

**PUNJAB BIOTECHNOLOGY INCUBATOR – SAS NAGAR**  
**ANNEXURE TO THE BALANCE SHEET**

**SCHEDULE: F**

**A. SIGNIFICANT ACCOUNTANT POLICIES**

**1. CONVENTION**

The accounts have been prepared on the mercantile/accrual basis under the historical cost convention and on the accounting principle of a going concern. Applicable Accounting Standards issued by the Institute of Chartered Accountants of India and with the generally accepted accounting principles.

**2. REVENUE RECOGNITION**

Punjab Biotechnology Incubator is testing laboratory and revenue is recognized on accrual basis.

**3. FIXED ASSETS AND DEPRECIATION**

Fixed Assets have been shown at historical cost. However, no cost of Land (measuring 01 acre) has been taken into account as the same has been allotted by Punjab Govt. through Punjab State Council for Science & Technology free of Cost vide letter No. PSCST/3932 dated 13.08.2014. Depreciation is provided on written down value method at the rates and in the manner prescribed in the Income tax Act, 1961 on the assets put to use during the year under audit. Cost is inclusive of Freight, Duties, Levies and any other directly attributable cost of bringing the assets to their working condition for intended use.

**4. GOVERNMENT GRANTS**

Government grants received are being treated as capital fund contribution received in case of capital grants and income in case of revenue grants and are being depicted in accounts as funds received from the government.

**5. EMPLOYEE BENEFITS**

Employees of the PBTI are covered under the Gratuity Act amended from time to time. Further, they are also having the earned leave facility as provided in the service rules. However, PBTI has not maintained any provision/reserve for payment of Gratuity and Leave encashment to its employees under employee's benefits.

**6. FOREIGN CURRENCY TRANSACTIONS**

Initial recognition – Foreign currency transactions are recorded in the reporting currency, by applying to the foreign currency amount the exchange rate between the reporting currency and the foreign currency at the date of transaction.

Conversion – Foreign currency monetary items are retranslated using the exchange rate prevailing at the reporting date.

Exchange Differences – Exchange differences arising on the settlement of monetary items, or on reporting of monetary items at rates different from those at which they were



*Handwritten signatures and initials.*

initially recorded during the year, or reported in the previous financial statements, are recognized as income or as expense in the year in which they arise.

## B. NOTES ON ACCOUNTS

### 1. Government Grants

A sum of Rs. 14 lakhs has been received in the year 2017-18 from PAU, Ludhiana, for Consumables and other revenue expenses out of which Rs.12,14,478.28 lakhs has been utilized in the year under audit. Further, unspent balance of 2016-17 amount of Rs. 94,018.00 is also utilized during the year under audit.

### 2. Current Assets, Loans & Advances

The Current assets are approximately of the value stated, if realized in the ordinary course of business. The provision for all known liabilities is adequate and not in excess of the amount considered reasonably necessary.

### 3. Closing stock is taken as valued and certified by Store & Purchase Officer, PBTI on cost or market price whichever is low.

### 4. Contingent Liabilities

Punjab Biotechnology incubator (PBTI) has given performance bank guarantee in favor of Export Inspection Agency-Delhi amount of Rs. One lakh vide guarantee No. PBG 2015/2 dated 13.02.2015 from Corporation Bank in respect of approval granted under EIC's Laboratory Approval Scheme. The same is still in force.

### 5. Sundry Debtors and Sundry Creditors balances are subject to confirmation.

### 6. The Society is registered under the Section 12AA of the Income Tax Act, 1961 vide S.no. 180-P in the register of application u/s 12A(a) maintained in the office of the Commissioner of Income Tax, Chandigarh – II w.e.f 08.07.2005. No provision for income tax has been made thereof.

### 7. Tax deducted at source shown under Schedule D amounting to Rs.11192189.84 includes Tax deducted at source during the year under audit amounting to Rs.1831073.59 and the balance amount pertains to previous year.

### 8. Schedule 'A' to 'M' forms an integral part of Balance Sheet and Income & Expenditure Account.

As per report of even date attached

For M.S. Chambyal & Associates  
Chartered Accountants



Date : 24.09.2018  
Place : Chandigarh

For Punjab Biotechnology Incubator

  
Chief Executive Officer

  
Chief Executive Officer