

**Strategic & Management Plan
2020-2024**

**Institute of Biochemistry,
Molecular Biology & Biotechnology
University of Colombo
Sri Lanka**

www.ibmbb.lk

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MESSAGE FROM THE DIRECTOR

A Strategic and Management Plan (Corporate Plan) is vital for an organization. Institute of Biochemistry, Molecular Biology and Biotechnology (IBMBB) came up with a comprehensive Corporate Plan during the early years of its existence.

Initial Corporate Plan (2007-2011) was developed clearly stating the vision, mission and goals of the organization, enabling the IBMBB to use a well-focused, target oriented, time scheduled approach for enhancing its activities as well as for sustainability.

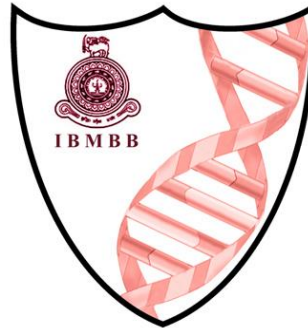
Preparation for the first Corporate Plan began with an initial brain storming session with the assistance of the Post Graduate Institute of Management. Subsequently, due to time and funding constraints, the Corporate Plan was prepared in house by a team comprising members of Board of Management and Prof. Kamani Tennekoon then Director of the Institute and guided by Prof. E. H. Karunanayake.

Each year, the Strategic & Management Plan was revised and reformatted to develop the in-house Strategic Plans. Lack of adequate staff, delays in recruitment procedures and space requirements had been a major limitation for the development of a 5 year rolling plan. By end of 2019, the filling of academic cadre is almost complete. In 2019, recruitment of support staff was completed, however, a few cadre posts are yet to be filled due to circumstantial reasons.

Foreign students with assistance from Government of Sri Lanka was a new concept in keeping with the current policy of creating a knowledge hub which the IBMBB partakes which was initiated in 2014. IBMBB is currently an accepted host Institution for Commonwealth scholarship programme since 2014. After 15 years since its inception, IBMBB has increased its research and training components amidst numerous constraints and aims to further expand its research activities and capacity development with the focus on post-graduate training and research and also initiated research innovations and possible commercialization.

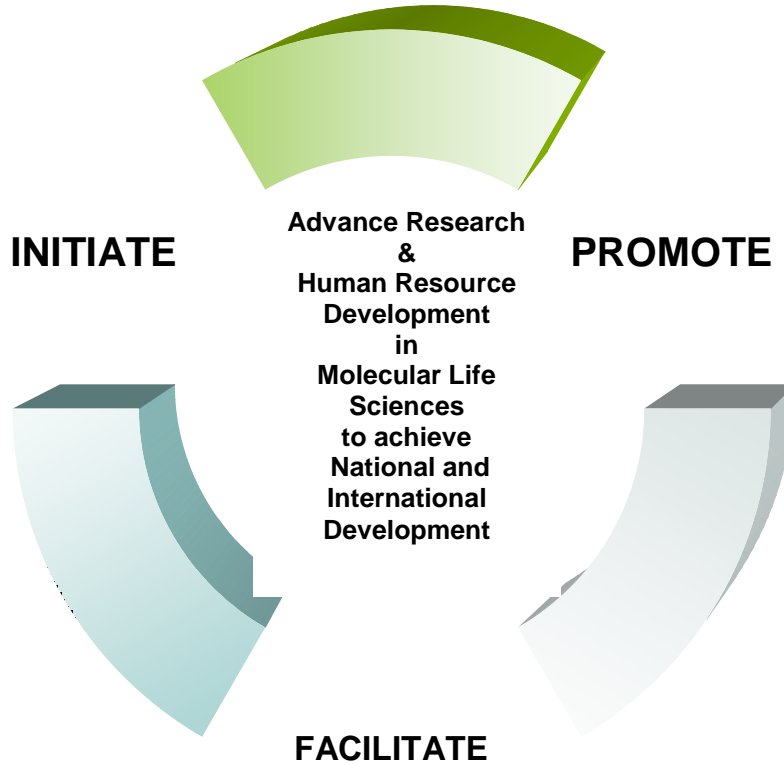
Professor Shiroma Handunnetti
Director, IBMBB
2019-12-12

1. VISION



“To be
an
**International
Centre of Excellence**
in
Molecular Life Sciences”

2. MISSION



3. OUR VALUES

- **Academic freedom** – Subject to the norms and standards of the Institute, there is freedom to conduct research, to teach, speak and publish without interference or penalizing wherever the search for truth and understanding may lead.
- **Lifelong Learning and Critical thinking** – The Institute inculcates lifelong learning and critical thinking of staff and students.
- **Innovativeness & Exploration** – The Institute is always ready to find new ventures for development.
- **Integrity** - Achievements of the Institute are based on the transparency of its actions and the integrity of its performance.
- **Responsibility & accountability** – The Institute operates with a sense of responsibility and accountability.
- **Diversity and inclusiveness** – The Institute continues to operate across a broad spectrum and inclusiveness.
- **Commitment & competency** – Institute staff is highly committed to develop and deliver knowledge and working with the highest level of enthusiasm.
- **Team Spirit** – The Institute has a reputation of working as a team and, therefore, developed a team spirit in all its work.
- **Equal Opportunity** – The Institute recognizes that its strength and unity comes from providing equal opportunities to everyone, built on the foundations of social justice and equality.
- **Professionalism** – The Institute expects all students and staff to demonstrate honesty, integrity, attention to detail and conformity.

4. INTRODUCTION & HISTORICAL INFORMATION

The 21st century will be dominated by two disciplines, namely Information and Computer Technology and Molecular Life Sciences. Nations that invested in science and knowledge based development have progressed significantly compared to those that did not. Sri Lanka is yet to have a vibrant industry based on Biotechnology and allied fields whereas our neighbors are far ahead of us. A key factor for lack of industries based on Biotechnology and allied fields in Sri Lanka is the dearth of trained manpower.

The Institute of Biochemistry, Molecular Biology and Biotechnology (IBMBB) was established as an independent Institute of the University of Colombo with a view to provide for instruction, training, research and development and consultancy in such branches of Biochemistry, Molecular Biology and Biotechnology as may be approved by the Commission upon the recommendation of the Institute and the University. The establishment of the IBMBB was the culmination of a very successful research programme in Molecular Biology led by Prof. Eric H. Karunanayake and supported by Swedish International Development Agency / Swedish Agency for Research Cooperation with Developing Countries (Sida/ SAREC). Construction and equipment of the building of the IBMBB was provided by the Investment Department of Sida (Sida/ INEC).

Civil construction and equipment of the Institute of Biochemistry, Molecular Biology and Biotechnology (IBMBB) was funded by a soft loan of 15 million Swedish Kroners (SEK) provided by the Swedish International Development Agency (SIDA) to the Government of Sri Lanka. The initial design of the IBMBB was funded by the Asian Development Bank's Science and Technology Personnel development project. The IBMBB was ceremonially declared open on 28th April, 2004 by Her Excellency Anne Marie Fallenius, the Head of Mission, Embassy of Sweden, Colombo, and Prof. Ulf Pettersson, Vice-Rector, University of Uppsala, Sweden. The Ordinance of the Institute was established by Gazette Extra-ordinary No. 1282/25 of 3rd April, 2003.

The IBMBB building is located in the main campus of the University of Colombo. The IBMBB is equipped with all modern instruments used in molecular life sciences such as fully automated DNA sequences, microarray scanner, FPLC, HPLC, Fluorescence and Phase contrast microscopes and laminar flow hoods and other facilities such as cell culture, insectary, cold rooms, local area networking, access to internet via dedicated optical fiber cable and is fully air-conditioned.

IBMBB commenced its research activities in June 2004. New registration for research degrees commenced in 2004. Two taught Masters degree courses commenced in February 2005, one in "Molecular Life Sciences" and the other in "Cellular and Molecular Immunology". The third Master of Science degree programme in Bioinformatics commenced in May 2012, as a joint programme with University of Colombo School of Computing. The curriculum revisions for these three Masters degree programmes were completed by end of 2018. All three degree programmes with the new curricular and aligned to SFQF levels 8-10 commenced in 2019.

Present Director

Prof. Shiroma M Handunnetti September 2018 – to date

Past Directors of the Institute

Prof. Eric H Karunanayake	2004 – 2007
Prof. Kamani H Tennekoon	2007 – 2012
Prof. Kamani H Tennekoon	January-March 2013 (Acting Director)
Prof. M H Rezvi Sheriff	April 2013 - September 2014 (Acting Director)
Prof. Shiroma M Handunnetti	October 2014 - January 2015 (Acting Director)
Prof. Shiroma M Handunnetti	February 2015 – February 2018
Prof. Tara D Silva	February-August 2018 (Acting Director)

5. CORPORATE PROFILE & ORGANIZATIONAL CHART

5.1. CORPORATE PROFILE

5.1.1. Registered Office:

No: 90, Cumaratunga Munidasa Mawatha, Colombo 3, Sri Lanka
www.ibmbb.lk

5.1.2. Legal Frame work:

The IBMBB project received the approval of the Department of National planning on 26th June 2000 by letter No. NP/HRD/Ch/43. The Cabinet of Ministers approved the project on 12th February, 2001 (Cabinet Paper 01/0349/03/024). The name and style of “The Institute of Biochemistry, Molecular Biology and Biotechnology” was assigned by Ministerial Order published in Gazette Extraordinary No. 1253/31 of 13th September, 2002. The Ordinance of the Institute, approved by the Senate, Legal Committee, Council and the Legal Committee of UGC, was gazetted by Gazette Extra-ordinary No. 1282/25 of 3rd April, 2003.

5.1.3. Board of Management - 2019

Prof. Shiroma Handunnetti, Director-IBMBB, (Chairperson)
 Ms.S S Evangeline, Secretary Nominee, Director (Development), Ministry of Higher Education
 Prof. Eric H Karunanayake, UGC Nominee
 Mr. C Maliyadde, UGC Nominee
 Prof. Ira Thabrew, UGC Nominee
 Prof. Ramanee Wijesekera, UGC Nominee
 Prof. A N I Ekanayake, Council Nominee
 Mr. Thilak Karunaratne, Council Nominee
 Prof.. W Indira Nanayakkara, Senate Nominee
 Prof. Senaka Rajapakse, Senate Nominee
 Prof. Jennifer Perera, Dean/Medicine, University of Colombo, Ex-officio
 Prof. KRR Mahanama, Dean/Science, University of Colombo, Ex-officio
 Prof. K P Hewagamage, Director, University of Colombo School of Computing (UCSC), Ex-officio
 Dr. Kithmini Siridewa, Head/Biochemistry & Molecular Biology, Faculty of Medicine, Ex-officio

5.1.4. Academic Committee - 2019

Prof. Shiroma Handunnetti, (Director & Chairperson); Professor in Immunology; Chairperson, BOS-CMI
 Prof. Eric H Karunanayake, Emeritus Professor of Biochemistry, IBMBB
 Prof. Ira Thabrew, Visiting Professor, IBMBB
 Prof. Kamani H Tennekoon, Senior Professor of Molecular Life Sciences; Chairperson, BOS-MLS, IBMBB
 Prof. Nimal Punyasiri, Professor of Biochemistry, IBMBB
 Dr. Ruvan Weerasinghe, Chairperson, BOS-BI; Senior Lecturer, UCSC, UoC
 Dr. OVDSJ Weerasena, Course Coordinator, BOS-MLS; Senior Lecturer, IBMBB
 Dr. Sisira Pathirana, Course Coordinator, BOS-CMI; Senior Lecturer, IBMBB
 Dr. Ruwandi Ranasinghe, Co- Coordinator, BOS-BI;Scientific Assistant, IBMBB
 Ms. Rupika Wijesinghe, Co- Coordinator, BOS-BI; Senior Lecturer, UCSC, UoC
 Dr. Sumadee De Silva, Lecturer, IBMBB (Secretary)
 Dr. Narmada Fernando, Assistant Course Coordinator, BOS-CMI; Senior Lecturer, IBMBB
 Dr. Sudeshini Hewage, Assistant Course Coordinator, BOS-MLS; Lecturer, IBMBB
 Prof. S Deraniyagala, Professor in Organic Chemistry, Faculty of Science, UoC
 Prof. Sulochana Wijesundera, Professor in Biochemistry, Molecular Biology & Biotechnology, Faculty of Medicine, University of Colombo
 Dr. Kithmini Sirideva, Head/Biochemistry & Molecular Biology, Faculty of Medicine, UoC
 Prof. Sunil Premawansa, Professor in Zoology, Faculty of Science, University of Colombo
 Dr. Enoka Corea, Senior Lecturer, Department of Microbiology, Faculty of Medicine, UoC
 Dr. Rajiva De Silva, Consultant Immunologist, Dept. of Immunology, Medical Research Institute

5.1.5. Research and Higher Degrees Committee - 2019

Prof. Kamani Tennekoon. Senior Professor of Molecular Life Sciences (Chairperson)
 Prof. Eric Karunanayake, Emeritus Professor of Biochemistry, University of Colombo
 Prof. Rohini Fernandopulle, Professor of Pharmacology, Kotelawala Defense University
 Prof. Ariyaranee Gnanathanan, Professor in Medicine, Faculty of Medicine, Univ. of Colombo
 Prof. Shiroma Handunnetti, Professor in Immunology & Director IBMBB
 Prof. Nimal Punyasiri, Professor of Biochemistry, IBMBB
 Prof. Ira Thabrew, Visiting Professor, IBMBB
 Prof. Shamala Tirimanne, Professor in Plant Sciences, Faculty of Science, Univ. of Colombo
 Prof. W D Ratnasooriya, Professor of Zoology, Kotelawala Defense University
 Prof. Nilanthi Dassanayake, Professor in Botany, Faculty of Applied Sciences, University of Sri Jayewardenapura
 Dr. Kumudu Fernando, Former Director, Agricultural Biotechnology Centre, University of Peradeniya
 Dr. Sumadee de Silva, Senior Lecturer, IBMBB
 Dr. Jagathpriya Weerasena, Senior Lecturer, IBMBB (Secretary)
 Dr. Ruwandi Ranasinghe, Scientific Assistant, IBMBB (Co-opted member)
 Dr. Sameera Samarakoon, Lecturer, IBMBB (Co-opted member)

5.1.6. Finance & Management Committee - 2019

Prof. Shiroma Handunnetti	-Director (Chairperson)
Mr. Thilak Karunarathna	-Member of the Board of Management
Prof. K R R Mahanama	-Member of the Board of Management
Prof. W I Nanayakkara	-Member of the Board of Management
Prof Ira Thabrew	-Member of the Board of Management
Ms. M K Kahawita	-Deputy Bursar (Convener - up to June 2019)
Ms. AAS Chinthanie	-Senior Assistant Bursar/ Acting (Convener - from July 2019)

5.1.7. Audit Committee - 2019

Prof. K P Hewagamage - Member of the Board of Management (Chairman)
 Mr. C Maliyadde - Member of the Board of Management
 Ms. J C Weligamage - Additional Director General, Department of Public Finance, General Treasury
 Ms. W A T G Weerakkody- Audit Superintendent, Government Audit
 Mr. K E W Jayasiri - Senior Assistant Internal Auditor, University of Colombo (Secretary)
 Prof. Shiroma Handunnetti - Director (On invitation)
 Ms. Manjula K Kahawita - Deputy Bursar (On invitation - up to June 2019)
 Ms. Sureka Chinthanie -Senior Assistant Bursar/Acting (On invitation - from July 2019)
 Mr. Janaka Gunasekera - Senior Assistant Registrar/ IBMBB -On invitation, up to Nov 2019)
 Mr. Damitha Rathnayake - Senior Assistant Registrar/ IBMBB -On invitation, from Nov 2019)

5.1.8. Board of Study - Molecular Life Sciences - 2019

Prof. Kamani Tennekoon - Senior Professor of Molecular Life Sciences (Chairperson)
 Prof. Eric H Karunanayake - Emeritus Professor of Biochemistry, IBMBB
 Prof. Nimal Punyasiri - Professor of Biochemistry, IBMBB
 Prof. Ira Thabrew - Visiting Professor, IBMBB
 Dr. Jagathpriya Weerasena - Senior Lecturer, IBMBB (Coordinator)
 Prof. Nilanthi Dassanayake - Professor in Botany, USJP
 Dr. Sumadee De Silva – Senior Lecturer, IBMBB
 Dr. Nadeesha Lewke Bandara- Senior Lecturer, IBMBB
 Dr. Sudeshini Hewage - Lecturer, IBMBB (Assistant Coordinator)
 Dr. Sameera Samarakoon - Lecturer, IBMBB
 Dr. Ruwandi Ranasinghe - Scientific Assistant, IBMBB

5.1.9. Board of Study – Cellular and Molecular Immunology - 2019

Prof. Shiroma Handunnetti, Professor in Immunology (Chairperson)
 Prof. Sunil Premawansa - Professor in Zoology, Faculty of Science, UoC
 Dr. Sisira Lal Pathirana - Senior Lecturer, IBMBB (Coordinator)
 Dr. Narmada Fernando - Senior Lecturer, IBMBB (Assistant Coordinator)
 Dr. Enoka Corea - Senior Lecturer, Department of Microbiology, UOC
 Dr. Rajiva de Silva - Consultant Immunologist, Department of Immunology, MRI
 Dr. O V D S J Weerasena – Senior Lecturer, IBMBB
 Dr. Dhanushka Dassanayake - Consultant Immunologist, Department of Immunology, MRI
 Dr. Dharshan de Silva - Senior Lecturer, Sir John Kotelawala Defense University
 Ms. Dilini Ishaka - Assistant Lecturer, IBMBB (on invitation) (up to May 2019)
 Ms. Jayani Kariyawasam- Assistant Lecturer, IBMBB (on invitation)
 Ms. Dhakshika Gangani - Scientific Assistant, IBMBB (on invitation)

5.1.10. Board of Study – Bioinformatics - 2019

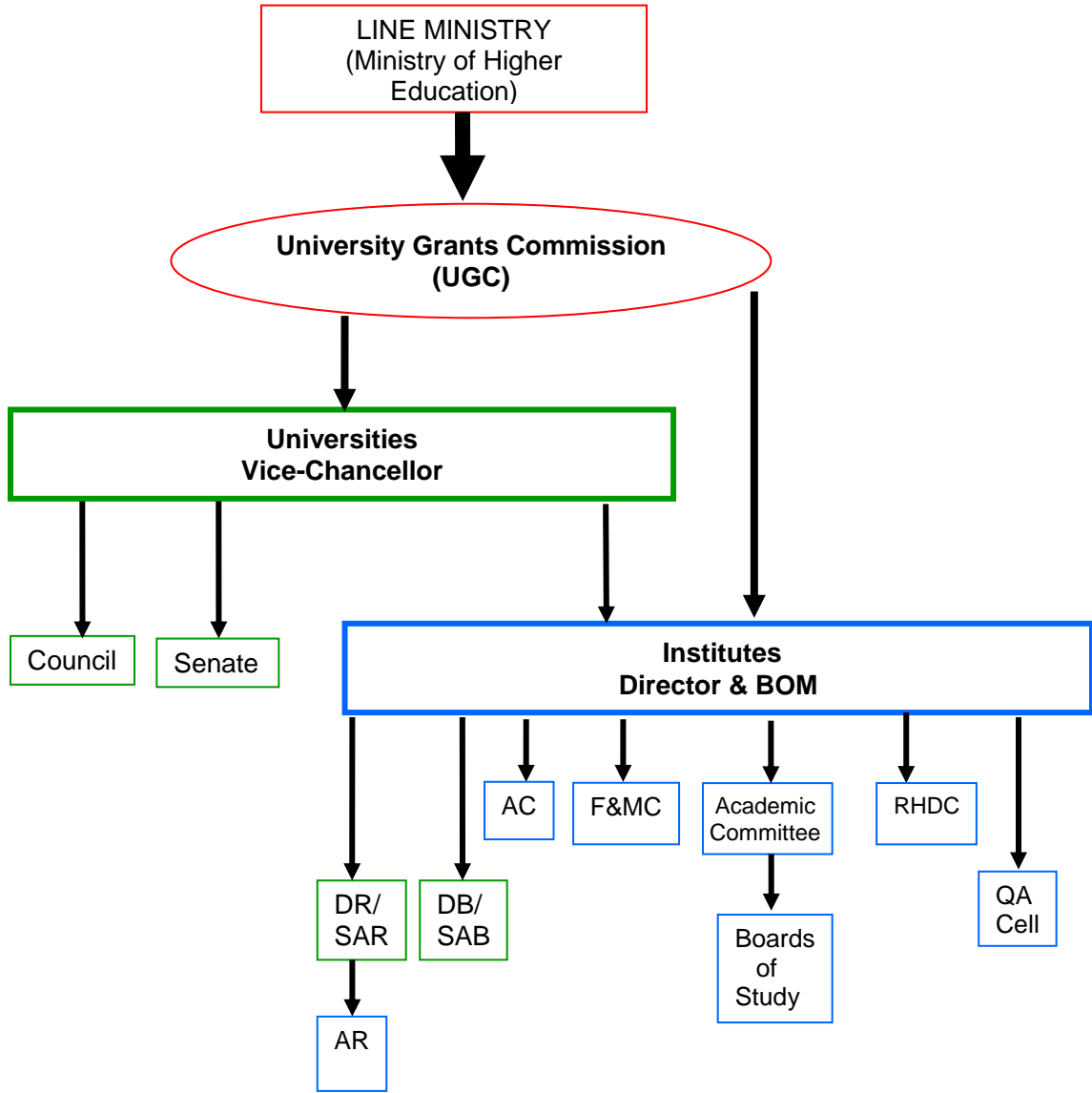
Dr. Ruwan Weerasinghe - Senior Lecturer, UCSC (Chairperson)
 Prof. Kamani Tennekoon - Senior Professor of Molecular Life Sciences (Deputy Chairperson)
 Prof. Shiroma Handunnetti - Director-IBMBB (Ex-officio Member)
 Prof. K P Hewagamage - Director-UCSC (Ex-officio Member)
 Prof. Eric H Karunanayake - Emeritus Professor of Biochemistry, IBMBB
 Dr. Nalin Ranasinghe - Senior Lecturer, UCSC
 Dr. M D T Attygalle - Senior Lecturer, Department of Statistics, UOC
 Dr. H S Kathriarachchi - Senior Lecturer, Department of Plant Science, UOC
 Dr. O V D S J Weerasena – Senior Lecturer, IBMBB
 Dr. Sameera Viswakula - Senior Lecturer, Department of Statistics, UOC
 Ms. Rupika Wijesinghe - Senior Lecturer (Co-Coordinator-UCSC)
 Dr. Ruwandi Ranasinghe - Scientific Assistant (Co-Coordinator-IBMBB)
 Mr. Kanchana S Senanayake - Former IBMBB Co-Coordinator (On invitation)

5.1.11. Quality Assurance Cell - IBMBB - 2019

Prof. Shiroma Handunnetti - Director (Chairperson); Chairperson BOS-CMI
Prof. Kamani Tennekoon - Chairperson, BOS-MLS & RHDC, Deputy Chairperson BOS-BI
Dr. Ruvan Weerasinghe - Chairperson, BOS-BI
Dr. Jagathpriya Weerasena – Coordinator-MLS & Secretary- RHDC
Dr. Sisira Pathirana - Coordinator - CMI
Ms. Rupika Wijesinghe - Co-Coordinator –BI (UCSC)
Dr. Sumadee de Silva - Secretary, Academic Committee
Dr. Ruwandi Ranasinghe Co-Coordinator –BI (IBMBB)
Prof. Nimal Punyasiri - Professor of Biochemistry, IBMBB
Dr. Narmada Fernando – Assistant Coordinator, BOS-CMI
Ms. Sudeshini Hewage - Assistant Coordinator - MLS
Mr. Janaka Gunasekara - SAR-IBMBB (Convener – up to Nov. 2019)
Mr. Damitha Rathnayake - SAR-IBMBB (Convener– from Nov. 2019)
Ms. Manjula Kahawita - DB-IBMBB (up to June 2019)
Ms. Sureka Chinthanie – SAB/Acting (from July 2019)
Ms. Harshani Jayaweera - AR- IBMBB
Ms. Anoma Jayasoma - Technical Officer
Ms. Jayani Kariyawasam - Scientific Assistant & Coordinator - QAC-IBMBB (up to July 2019)

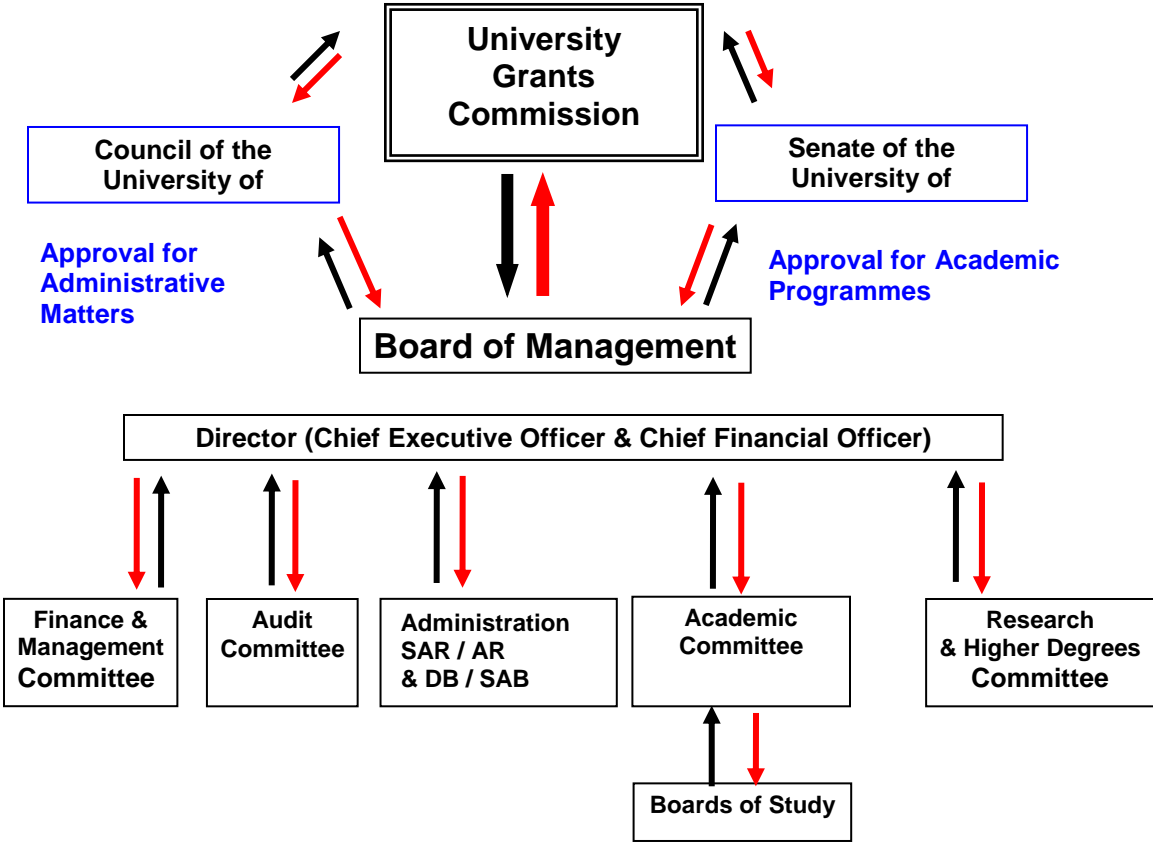
5.2. ORGANIZATIONAL CHART

5.2.1. Current administrative structure of the IBMBB within the University system



AC - Audit Committee
 F&MC - Finance & Management Committee
 RHDC – Research & Higher Degrees Committee

5.2.2. Administrative Organization of IBMBB



6. CURRENT PERFORMANCE

IBMBB currently has a student population of 59 Master of Science Students (25 reading for Molecular Life Sciences, 15 reading for Cellular and Molecular Immunology, 19 reading for Bioinformatics) and 27 Master of Philosophy / Doctor of Philosophy students. There is a total of 82 post-graduate students registered for the MSc, MPhil & PhD degrees at the IBMBB.

Full time Academic staff consists of one (01) Senior Professor (chair) who is the Former Director, two (02) chair Professors including the Director, five (05) Senior Lecturers & (02) two Lecturers. Merit promotion of one Senior Lecturer to the post of Professor is in progress. Visiting Faculty is as follows. Visiting Faculty for taught Master of Science programmes comprises 10 Professors, 4 Senior Lecturers, 11 Specialist Clinicians, 2 senior Scientists and 6 Scientists. Eight Professors, 2 Associate Professors, 3 Senior Lecturers, 9 Specialist Clinicians and 2 Senior Scientists collaborate on various research programmes and some of them also function as supervisors/ co-supervisors for MPhil/PhD students.

Most of the state of the art equipment needed for research in Molecular Life Sciences and related fields as well as infrastructure for Bioinformatics is available in the IBMBB. IBMBB is designated as a **Resource Centre for Molecular Life Sciences in Asia** by the International Programme in Chemical Sciences (IPICS), University of Uppsala and was recently elected as the **National Node for European Molecular Biology Network (EMBnet)**. IBMBB was also selected as one of the two Institutes/Universities in Sri Lanka to host Commonwealth Scholarships since 2014 and to date IBMBB had received six scholars from the commonwealth countries.

Several Universities and Research Institutes in Sri Lanka currently benefit from the training / research programmes conducted at the IBMBB. These include postgraduate training of probationary academic staff, short courses for academics and technical staff, collaborative research programmes and facilities for postgraduate and postdoctoral training.

IBMBB currently does not admit undergraduate students but, cooperates with other Faculties, Universities and private sector educational institutes to provide familiarization programmes, in-plant training and final year research projects. Provision of in-plant training and research projects for undergraduates from other Faculties/Universities is currently made utilizing research funds secured by IBMBB Faculty.

At present the finances for the ongoing programmes in human resource development, research & development are highly inadequate. The field of “Molecular Life Sciences” is resource extensive as the laboratory reagents and consumables needed as well as capital for and maintenance of equipment are expensive. However, the locally provided training which meets international standards saves on foreign exchange (equivalent training in a Western country for example in the United Kingdom costs approximately 4 times for a MSc degree and

approximately double for a MPhil/PhD for tuition fees alone), addresses nationally relevant problems and has a better retention of trained personnel.

Competitive Research Grants secured by Academic Staff has been the vital source for functioning of the IBMBB. In order to maintain the activities of IBMBB and to enhance/strengthen the same considerable Government investment will be needed. Currently most of the Government Grant is utilized for meeting the cost of salaries and utilities. For the first time funding for a research programme was secured from the Ministry of Higher Education from 2012-2015 which supported 1 MPhil and 4 PhD students.

One of the constraints in increasing student intake is the unavailability of enough space in the building. Therefore IBMBB has requested approval from University of Colombo to extend the available space facilities in the IBMBB constructing new laboratory areas. University of Colombo accepted the requirement and the proposal has been considered at the Building & Maintenance Committee and the plan has been incorporated to the Master Plan of University of Colombo.

By the end of 2019, the Academic cadre and Administrative cadre is almost filled, the recruitment of support staff is in progress.

7. GOALS

- Goal No: 1 To produce High Quality Internationally recognized postgraduates in Molecular Life Sciences and allied fields
- Goal No: 2 To be the Centre of Excellence in Genomics, Proteomics, Bioinformatics and Immunology contributing to National Development
- Goal No: 3 To provide a conducive institutional environment and supportive culture
- Goal No: 4 To achieve the self-financing through research, services and product development
- Goal No: 5 To promote Good Governance

8. OBJECTIVES & STRATEGIES

Goal	Objectives	Strategies	
1. To produce High Quality Internationally recognized postgraduates in Molecular Life Sciences and allied fields	1.1 Increase post-graduate student intake & output 1.1.a. Increase intake of MSc students to 100% by 2024 1.1.b. Increase (cumulative) output of PhD student to 30 by 2024 1.1.c. Increase foreign student intake to 20% within the batch by 2024	1.1.1. Strengthen ongoing programmes by introducing student bank loan schemes	
		1.1.2 Initiate new postgraduate programmes	
		1.1.3 Initiate new MPhil/PhD research programmes & Strengthen ongoing programmes	
		1.1.4 Initiate Postdoctoral and other research programmes	
		1.1.5. Establish new Collaborative programmes	
		1.1.6. Increase advertising and awareness among potential students	
	1.2. Increase the academic & scientific staff	1.2.a. Recruit Permanent Academic Cadre (PAC) to reach 100% by 2020	1.2.1. Establish a comprehensive resource pool of faculty
		1.2.b. Create additional 4 positions of Scientific Assistants (SA), by 2024	
		1.2.c. Create 6 positions of Post-Doctoral Scientists (PDS) by 2024	
		1.2.d. Increase positions for International Faculty (IF) to 10, by 2024	
1.3. Enhance student centered learning	1.3.a. Increase the usage of multimedia and other A-V aids to 100% by 2024	1.3.1. Maintain research & learning friendly environment and a state of the art research and learning facility	
	1.3.b. Increase the number of computers to 140 by 2024	1.3.2. Strengthen modern teaching, learning methods	
	1.3.c. Increase activities to improve presentation skills of students		

		1.3.d. Increase Library facilities by 100% by 2024	1.3.3. Increase Library space, reading/discussion areas and use of e-learning materials
		1.3.e. Increase student study areas, discussion rooms and recreation areas by 300% by 2024	1.3.4 Obtain the approval for the new extension building
		1.3.f. Purchase the books and journals recommended for each year	1.3.5 Purchase in the first quarter of the year
2. To be the Centre of Excellence in Genomics, Proteomics, Bioinformatics and Immunology contributing to National Development	2.1. Increase / Maintain international recognition of Faculty members	2.1.a. Publish 35 per year in International peer-reviewed journals by 2024	2.1.1. Continue performance based appraisal taking into consideration indexed publications, research funds secured, excellence in teaching and ability to generate funds for the institute 2.1.2. Encourage and assist in participation at International conferences by faculty members/ collaborators/students to present research carried out at the IBMBB
		2.1.b. Increase the number of International presentations to 20 by 2024	
	2.2. Establish new and continue ongoing nationally relevant research programmes	2.2.a. Establish 4 new nationally relevant research programmes by 2024 in priority areas requiring solutions based on tools of Molecular Life Sciences, Immunology and Bioinformatics	2.2.1. Identify priority areas requiring solutions based on tools of Molecular Life Sciences and Allied fields 2.2.2. Implementation of research programmes directed towards identification of novel drug candidates/agents from medicinal plants/ marine resources and Plant Molecular Biology 2.2.3. Screen for bioactivity of existing traditional medicine to provide scientific basis for usage and alleviate fears of toxicity 2.2.4. Establish new research programmes for R and D work aimed at personalized medicine and
		2.2.b. Continue the 10 ongoing nationally relevant research until 2023	

<p>2. To be the Centre of Excellence... ...</p>			<p>human DNA variation</p> <p>2.2.5. Continue existing programmes in biomedical sciences and plant molecular biology and develop new research programmes based on findings when warranted</p> <p>2.2.6. Encourage and assist in obtaining National/ International competitive research grants by faculty members/collaborators</p>
	<p>2.3. Establish new linkages /partnerships with academic and research institutes, both local and international and with industry</p>	<p>2.3.a. Establish 10 new Local collaborations by 2024</p> <p>2.3.b. Establish 10 new partnership with Industry by 2024</p> <p>2.3.c. Establish 5 new international collaborations by 2024</p>	<p>2.3.1. Enact Memoranda of Understanding with Research Institutes</p> <p>2.3.2. Strengthen collaborative research programmes with health sector</p> <p>2.3.3. Strengthen cooperation with other Faculties /Universities and private sector Educational Institutes</p> <p>2.3.4. Enhance existing /develop new collaborations with Universities and Research Institutes overseas</p> <p>2.3.5. Develop collaboration with Industry</p>
	<p>2.4. Become a resource center in Molecular Life Sciences, Bioinformatics and allied fields</p>	<p>2.4.a. Hold 3rd International conference in 2021</p> <p>2.4.b. Hold 4 Annual Scientific Sessions by 2024</p> <p>2.4.c. Conduct 10 National symposia/ seminar/ workshops by 2024</p>	<p>2.4.1. Provide training in Molecular Life Sciences, Bioinformatics, Immunology and allied fields, nationally and regionally</p> <p>2.4.2. Dissemination of knowledge/ research findings</p> <p>2.4.3. Maintenance of available IT infrastructure and upgrading / updating of</p>

			<p>facilities</p> <p>2.4.4. Maintain and update mirrors of Biological databases</p> <p>2.4.5. Provide on-line tools for Bioinformatics based/ learning /research</p>
		2.4.d. Conduct 10 short courses by 2024	
		2.4.e. Conduct 5 Annual Open Days & Public lectures by 2024	
		2.4.f. To further develop the website to increase visibility	2.4.6 Maintenance and regular updating
	2.5. Contribute to undergraduate training	2.5.a. Initiate planning of undergraduate course(s)	2.5.1. Evaluate feasibility of conducting undergraduate course(s)
		2.5.b. To provide internship and research training to undergraduates	2.5.2. Provide in-plant training and research training to final year undergraduates
	2.6. Establish a repository of archives of land mark developments in MLS	2.6.c. Complete documentation and preservation by June 2020	2.6.1. Establish a repository of Archives giving the land mark developments in the field of Molecular Life Sciences
			2.6.2. Establish Archives of historical developments resulting in the establishment of IBMBB
3. To provide a conducive institutional environment and supportive culture	3.1. To provide online courses and become an E-learning center for Bioinformatics, MLS and allied fields	3.1.a. Establish 1 online certificate courses in Life Sciences by 2024	<p>3.1.1. Develop content for E- learning for students/ teachers in Bioinformatics, Molecular Life Sciences, Immunology and allied fields</p> <p>3.1.2. Provide facilities for high throughput Data Analysis and efficient Storage of Biological data</p>
		3.1.b. Conduct 3 online certificate courses by 2024	
		3.1.c. Increase computers and Accessories by 200% by 2024	
		3.1.d. Expand the space of server room by 200% by 2024	
		3.1.e. Increase IT staff by 200% by 2024	

	3.2. To increase facilities for e-learning and Research	3.2.a. Provide online selection test for admission to all existing MSc programmes by 2024	3.2.1. Establish links with international centers of excellence for e- teachers and e-resources in Bioinformatics and other fields 3.2.2. Develop IT skills of students, support staff and teachers
		3.2.b. Enhance quality of teaching/learning /research/evaluation/administration	3.2.3. Provide software tools and facilities to enhance quality of teaching/learning /research/evaluation/administration
		3.2.c. Provide a complete online admission procedure by 2021	3.2.4 Establishment of online application system and payment gateway
4. To achieve the self-financing through research, services and product development	4.1. Strengthen the Business Development Unit to increase publicity for courses and services	4.1.1 Continue product development based on research findings.	
	4.2. Improving finances	4.2.1. Provide Diagnostics/Services 4.2.2. Provide consultancies 4.2.3. Offer fee-levying Postgraduate and other training programmes 4.2.4. Offer Internship training programmes	
	4.3 Enhance social responsibility activities	4.3.1. Conduct Social Harmony Programmes	

5. To promote Good Governance	5.1. Human Resource Development and Management	5.1.a. Provide 10 Staff training opportunities by 2024 5.1.b. Provide health Insurance plan for all staff members by 2020 5.1.c. Establish a performance appraisal system by 2020	5.1.1. Provide opportunities for short – term (National/international) training (including outbound) of staff members 5.1.2. Enhance health insurance and welfare schemes for employees 5.1.3 Develop a scheme for performance appraisal of staff
	5.2. To enhance supportive management systems		5.2.1 Establish Management Information System (MIS)
	5.3. Corporate Social responsibility approach in capacity building	5.3.a. Provide specialized testing services for state and private sector	5.3.1. Human resource training for academic and research institutes
		5.3.b. Provide community services	5.3.2. Ethical practices in scientific and biomedical research 5.3.3. Ethical, societal and legal implications of genetic research and genetic information
	5.4 Ensure Quality of academic and other activities		5.4.1. Continue quality assurance activities through the QA-Cell-IBMBB

9. KEY PERFORMANCE INDICATORS OF PLANNED ACTIVITIES 2020-2024

Key Performance Indicators	2016	2017	2018	2019	2020	2021	2022	2023	2024
Employability of Postgraduates	91%	95%	95%	95%	95%	95%	95%	95%	95%
Proportion of PhD holders among academics	80%	100%	100%	100%	100%	100%	100%	100%	100%
Student registered to existing MSc programmes	21	11	19	38	30	50	40	55	60
Foreign students enrolment	1	2	1	1	3	4	4	4	4
Number of MSc students graduated	17	12	15	7	25	30	35	40	45
New PhD research programmes/ No. of research grants received	7	9	10	5	10	10	12	12	15
New student admissions to MPhil/PhD programmes	4	7	5	2	10	10	15	20	25
No. of MPhil/PhDs completed	2	6	3	9	8	10	12	15	15
No. trained in short courses & workshops	60	80	100	155	160	160	175	175	175
No. of permanent academic staff (Cadre positions)	7	11	11	11	12	15	15	15	18
No. of Scientific Assistants	3	3	3	4	8	10	12	12	12
No. of Post-Doctoral /Research Scientists	4	3	3	3	6	6	6	6	6
No. of International Faculty	7	8	10	10	10	12	12	12	12
No. of SCI/Other indexed publications	18	20	24	14	30	30	35	35	35
No. of presentations made (International)	3	7	12	5	10	10	12	12	15
No. of Research Communications (Local)	35	30	30	22	40	40	45	45	45
No. of Awards (International)	2	1	6	0	5	5	8	8	8
No. of regional/international training programmes completed	4	3	5	2	8	10	12	12	12
Quality of presentation skills of students (% of students with >60% marks)	80%	85%	90%	95%	100%	100%	100%	100%	100%
Ratio of computers to student users	0.6:1	0.7:1	0.8:1	0.8:1	0.8:1	0.8:1	0.8:1	0.8:1	0.8:1
No. of collaborations with Research Institutes & HEIs	23	24	25	19	20	20	25	25	25
No. of collaborations with international Institutes	8	9	10	14	15	15	15	25	25
No. of collaborations with Industry	5	2	6	4	6	6	7	7	8
No. of times the databases accessed	300	400	500	500	500	500	500	500	550
Repository of Archives-% activity completed	40%	40%	80%	100%	100%	100%	100%	100%	100%
Access to E-learning resources	63	61	61	70	80	90	115	120	120
No. of laboratory services/ tests offered	450	450	500	500	600	600	600	600	600
No. of Local/Regional/International Conferences, Annual Scientific Sessions/ Workshops organized	4	4	6	4	5	5	6	6	6
Quantum of Generated Funds (Millions per annum)	6	8	10	14	15	15	20	20	20
Quantum of Research Funds(Millions per annum) NSF/NRC/Other	13	24.5	25	13	30	30	35	35	35
No of Guest Lectures	4	5	10	10	10	15	15	15	15
Availability of administrative/support staff	85%	90%	70%	95%	100%	100%	100%	100%	100%

10. Impelling Forces & Impeding Forces (SWOT Analysis)

Strengths

1. Government Patronage
2. Leader in Molecular Life Sciences
3. Advanced Laboratory facilities
4. High Quality Research
5. Experienced, Qualified, Committed, Accessible staff
6. International Recognition
7. Location – central location

Opportunities

1. Develop more short training /certificate programmes
2. Attract more students
3. Utilization and commercialization of research results
4. Use Web-enabled advertising
5. Become a Centre of Excellence in the Region
6. Minimize usage of paper & become a “Green Institute”

Weaknesses

1. Lack of government funds for research
2. Changes in the Leadership every 3 years
3. Uncertainty of Financial Allocations
4. Limitations in laboratory and other spaces
5. Inadequate funding for attracting qualified staff, career development, welfare facilities, and academic activities etc.

Threats

1. Mushrooming of Low Cost, Poor Quality Training Programmes elsewhere due to lack of an Accreditation System
2. Ever increasing electricity charges
3. Competition from other Public and Private Sector Institutes