

REFLECTIONS

*Institute of Biochemistry, Molecular Biology and
Biotechnology University of Colombo*

20
22



VISION



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

MISSION

INITIATE

**Advance Research &
Human Resource
Development in
Molecular Life Sciences to
achieve National and
International
Development**

PROMOTE

FACILITATE

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 penalization 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 and Exploration

The Institute is always ready to find new ventures for development.

Responsibility and Accountability

The Institute operates with a sense of responsibility and accountability.

Diversity and Inclusiveness

The Institute continues to operate across a broad spectrum and cultivates inclusiveness.

Integrity

Achievements of the Institute are based on the transparency of its actions and the integrity of its performance

Professionalism

The Institute expects all students and staff to demonstrate honesty, integrity, attention to detail and conformity

Commitment and 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, develops 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.

Goals

Goal No 1

To produce High Quality Internationally recognized trainees, graduates and postgraduates in Molecular Life Sciences and allied fields

Goal No 2

To be the Centre of Excellence in Biochemistry, Molecular Biology, Biotechnology, Bioinformatics, Genetic, Cell Biology and Immunology contributing to National Development

Goal No 3

To achieve excellence in infrastructure and human resources

Goal No 4

To achieve institutional financial stability

Goal No 5

To promote Good Governance

176	Director's Review
177	Directors of the IBMBB
178	Introduction to IBMBB
180	Organizational Chart
181	Governing Authority
182	Teaching and Learning
182	Postgraduate Degree Programmes
184	Post Graduate Convocation 2022
185	Short course & Training Program
188	Research Activities
200	Post Doctoral Research
200	Research Publications
203	Research Communications
207	International Research Funding
207	Queen Elizabeth Commonwealth Scholars Program
208	Services – IBMBB
209	Collaborations
210	Networking
211	Patent
212	Student Facilities
213	Awards Received in 2022
213	CSR Activities
215	Quality Assurance
216	Employee Classification as at 31st December 2022
217	Staff Development, Training and Welfare 2022
218	Special Activities
220	Plan of work for 2023
222	The Future Projection Report on activities to safeguard the environment and mitigate the negative impact on the environment based on Sustainable Development
223	Auditor General Report
229	Responses to the Auditor General
231	Review on Internal Audit Functions in the Year 2022
232	Annual Financial Report
257	Summary of the Audit Report and Remedial Actions



The Institute of Biochemistry, Molecular Biology and Biotechnology, University of Colombo was incorporated in the year 2003 with financial assistance through the Swedish International Development Cooperation Agency. Prof. Eric Karunanayake, its founder Director who took the leading role in establishing the IBMBB had a clear vision in promoting postgraduate training in the field of Molecular Life Sciences in Sri Lanka and took a leading role in establishing the IBMBB.

IBMBB is currently engaged with teaching, training, consultancies, services, research and development in the field of Molecular Life Sciences and successfully conducting three Masters programmes, certificate and short-training programmes. Its commitment to research and development gained national and international recognition, enabled in securing collaboration with higher educational institutes, research institutes, and industries.

During the year 2022, IBMBB was ably guided and directed by the Board of Management and the three Board of Studies adhering to the strategic management plan for 2022-2026, despite the challenges due to economic and political instability in the country. In 2022, IBMBB noted a significant increase in student enrolment for its Masters programme and successful in conducting certificate and short-training programmes, internships and project start-ups. Further, IBMBB extended its support for undergraduate programmes conducted by the other faculties of the

University of Colombo and HEIs as a non-financial commitment.

Managing recurrent expenditure for chemicals and consumables and capital investment for the year 2022 was extremely challenging due to the restriction of foreign procurements, a significant devaluation of local currencies, and the limitation on foreign currency remittances. IBMBB timely understood these constraints and initiated a few corrective measures such as a common procurement call for the year, and the opening of a special foreign currency account that facilitates both inward and outward remittances to minimize the anticipated negative impacts. IBMBB witnessed that the outcomes of these measures were extremely productive and made its deliveries adhering to the master calendar. Strengthening the information technology infrastructure was one of the priorities of the current year and we made a significant capital investment in procuring a designated server for computational drug discoveries.

In the year 2022, IBMBB was very successful in consolidating its existence with the industry by signing two memorandums of understanding, two material transfer agreements, and launching three products. Further, IBMBB was able to secure its annual placement under Queen Elizabeth Commonwealth Scholarship Scheme for the year 2022.

In recent years, it has been noted that several state-owned HEIs initiated postgraduate programmes in the field of Molecular Life Sciences at competitive fee structures. However, IBMBB maintains its standards in all deliveries at a nominal profit by providing

state-of-the-art laboratory facilities, backed by well-qualified academics. However, it is extremely difficult to evaluate the direct benefit of these commitments as it takes a longer duration to materialize their intended outcomes. Dissemination of knowledge by publication, presentation, consultancies, and research and development showed a significant improvement during the year 2022. This was evident by the publication of nearly 30 manuscripts in peer-reviewed, indexed journals, along with 27 communications in local and international forums.

The year 2022 was extremely challenging due to poor economic performance associated with the mismanagement of external and internal debts. Accordingly, Sri Lanka was compelled to declare bankruptcy and initiated the painful process of debt restructuring with assistance from the International Monetary Fund (IMF). Unfortunately, negotiation with the IMF in arriving at a staff-level agreement indicated major monetary reforms that made the same agreement has yet to be finalized. Such circumstances resulted in severe shortage of foreign currencies, significant rupee depreciation, higher inflation, and huge deficit in balance of payment. All these elements have adversely impacted the functioning of the IBMBB during the current fiscal year.

IBMBB was compelled to focus on several elements with a broad objective of strengthening its revenue and minimizing expenses. However, some of the measures such as revising course fees were not effective since there was a significantly low student enrolment for some of the short training programmes. I anticipate the same trend in our MSc programmes during the year 2023. The exorbitant cost involved with procurement was another challenge and the whole procurement process was

significantly delayed due to the severe foreign currency liquidity crisis. Further, I anticipate a severe financial restriction from the National Budget Department, for the year 2023 and strongly recommend well-diversified remedial actions. The forecast for the year 2023 may not be that promising once the prevailing economic crisis in the country is concerned. Accordingly, IBMBB is fully engaged in short, medium,

and long-term plans with a vision of sustaining its operation to achieve financial autonomy. All the initiatives have already been taken to offer an external undergraduate programme in Molecular Biology and Biotechnology jointly offered by the IBMBB, University of Colombo, and Indian Institute of Technology, Madras, India.

Further, strengthening industry collaborations, consultancies, and expanding networking are some of the alternative strategies that IBMBB is looking forward to.

As the director, I am confident that IBMBB will thrive in a productive manner during this difficult time by serving its duties toward post-graduate education in fulfilling its national duty.

Prof. Prasanna Galhena

Directors of the IBMBB

Present Director

Prof. Prasanna Galhena

Founder Director

Prof. Eric H Karunanayake

2004 - 2007

Past Directors

Prof. Kamani H Tennekoon

2007 - 2012

Prof. Kamani H Tennekoon

Jan-Mar 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 2018 – August 2018 (Acting Director)

Prof. Shiroma M Handunnetti

August 2018 – August 2021

Prof. Shiroma M Handunnetti

September 1st-14th 2021 (Acting Director)



Introduction to IBMBB

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 make such commitment. 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 and lack of national policy for novel investments.

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 guidance, training, research and development and consultancy in the fields of Biochemistry, Molecular Biology and Biotechnology recognized by University Grants Commission as an affiliated institute of University of Colombo. The establishment of the IBMBB was due to untiring effort by the founder director IBMBB, Prof. Eric H. Karunanayake and support extended by Swedish International Development Agency/ Swedish Agency for Research Cooperation with Developing Countries (Sida/ SAREC). 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 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 gazetted 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, HPL, fluorescence and phase contrast microscopes and laminar floor 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 by facilitating the MPhil and PhD students research work under the supervision of Prof. Eric Karunanayake. 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.

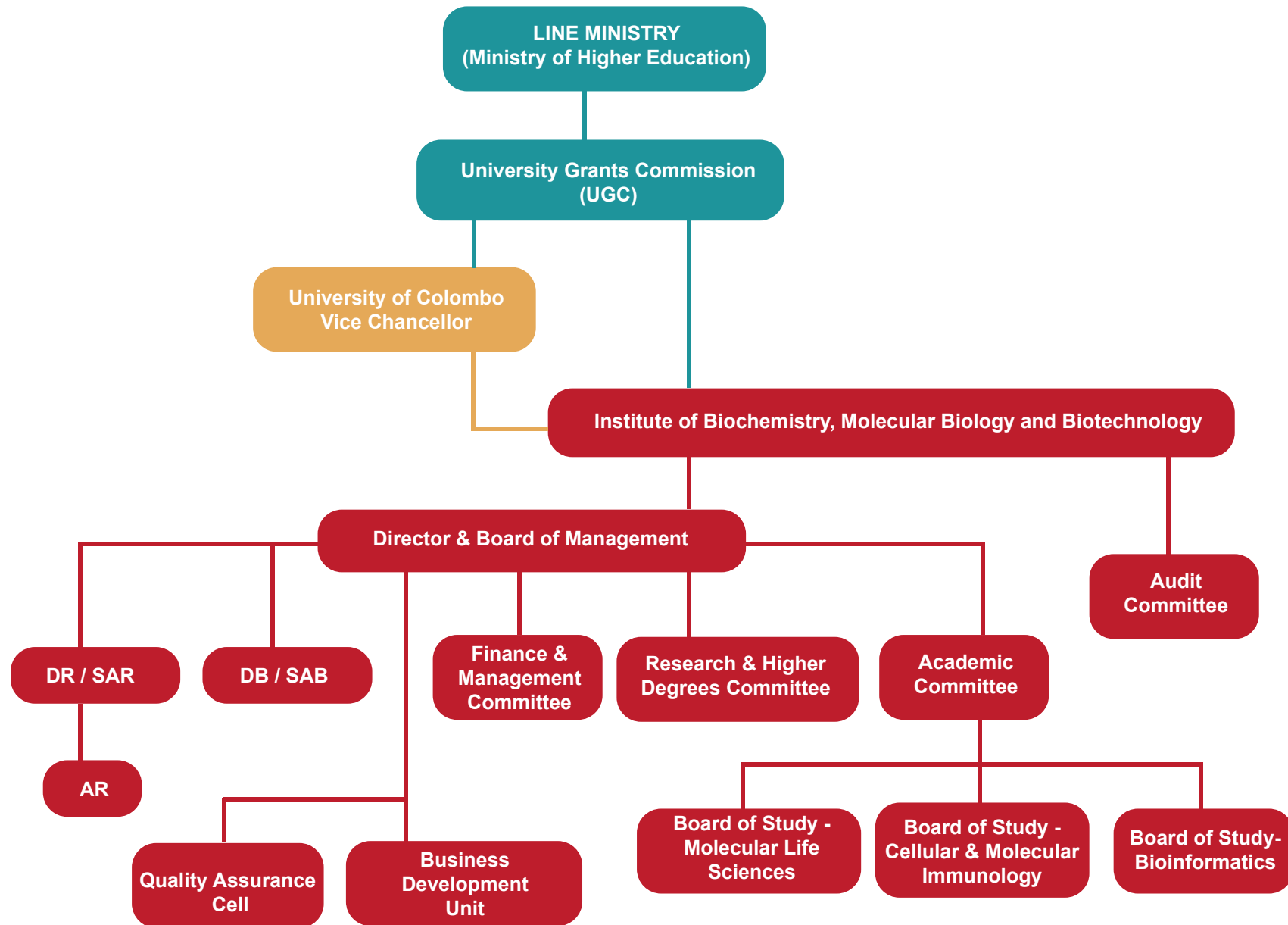
The curriculum revision for these three Masters degree programmes were completed and aligned to SFQF levels 8-10 by end of 2019. All three degree programmes with the new curricular commenced in 2019 with the revised By-Laws and Regulations approved by the Council of the University of Colombo.

Annually, notable number of students enroll for these three posgraduate programmes with the intention of gaining a high-quality post graduate qualification. Among the students who registered for each programme those who obtained required qualifications will be awarded with Master of Science degree in respective field. Students who are not able to fulfill the required qualifications during their first academic year can graduate with Master of Molecular life sciences, Master of cellular and Molecular immunology and Master of Bioinformatics degrees. Students who do not want to continue until the Master degree or are ineligible to do so can discontinue with a Post -Graduate Diploma in the respective field after fulfilling the given criteria. Each Master of science student continues with the Research component during their second academic year which ultimately produces innovative outcomes which will benefit the respective fields.

Further to that number of Mphil/PhD trainees are produced annually through Mphil/PhD programmes with local and foreign academic and industrial collaborations.

In addition, the institution offers a series of short-term training courses, which equip researchers with focussed and specific theoretical and practical knowledge. The short term courses offered includes molecular biological techniques, cell culture techniques, immunological techniques, gene cloning and recombinant protein expression and chromatographic techniques. These courses which are delivered over a span of five days cater toward the skills development of academics, aspiring researchers and research professionals. The resources at IBMBB are utilized for the provision of services for external researchers, this includes sequencing services, cell culture, purification, immunology etc. IBMBB also facilitates internships which are aimed at providing research students and aspiring researchers the opportunity to work closely with a research student for an extended period of time and learn new techniques and the finer details of research planning, preparations etc.

Organizational Chart



Members of Board of Management

Prof. Prasanna Galhena	Director-IBMBB, (Chairman)
Ms. J.A.C.H Jayasingha	Representative,Ministry of Higher Education
Emeritus Prof. Eric H Karunanayake	UGC Nominee
Emeritus Prof. Kamani Tennakoon	UGC Nominee
Emeritus Prof. S.P. Deraniyagala	UGC nominee
Prof. Ramanee Wijesekera	UGC Nominee
Mr. Channa De Silva	Council Nominee
Mr.Ashane Joseph Waas Jayasekara	Council nominee
Prof. Sampath Punchihewa	Senate Nominee
Prof. Senaka Rajapakse	Senate Nominee
Prof. Vajira Dissanayake	Dean/ Medicine, University of Colombo, Ex-officio
Prof. Upul Sonnadara	Dean/ Science, University of Colombo, Ex-officio
Dr. Ajantha Athukorala	Director, University of Colombo School of Computing (UCSC), Ex-officio
Prof. Sharmila Jayasena	Head/Biochemistry & Molecular Biology, Faculty of Medicine, Ex-officio

Postgraduate Degree Programmes

Boards of Study – Cellular and Molecular Immunology (CMI), Molecular Life Sciences (MLS), Bioinformatics (BI)

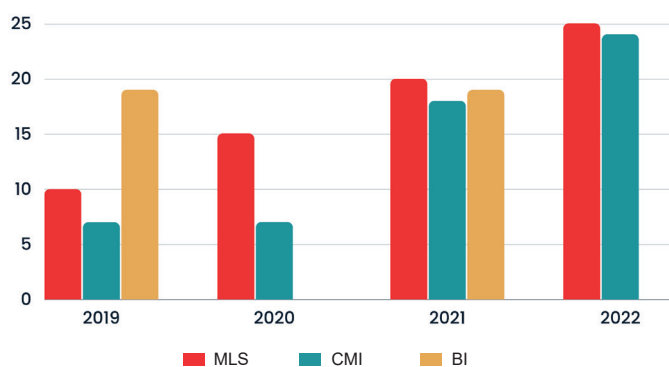
The three main streams of study at IBMBB are governed by three separate boards of study. The boards of study on Cellular and Molecular Immunology, Molecular Life Sciences and Bioinformatics governs the academic activities of the post-graduate diploma in each subject area, the Masters programmes as well as the Master of Science degrees. Each board also governs the delivery of short courses that fall under the purview of its subject area. The Boards of study comprise of teaching faculty including internal and external experts, who are engaged in content development and delivery.

They also oversee and evaluate all course work activities as well as guided independent study and research projects of students completing the Master's and Master of Science degrees, respectively.

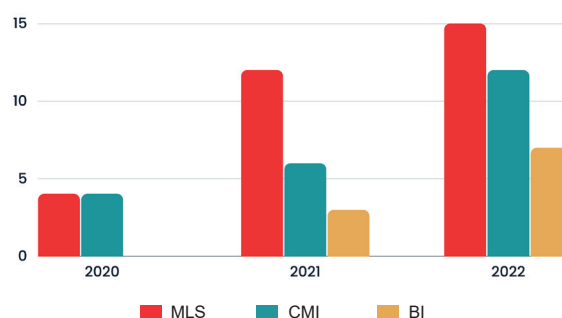
Masters & MSc Programmes

In February 2022, new student enrollment took place for the degree programmes in Molecular Life Sciences, Cellular and Molecular Immunology. In accordance with the revised curricular, the 4th batch of students registered for the Masters (SLQF 9) degrees this includes Master of Molecular Life Sciences (MLS) with twenty-five students and Master of Cellular and Molecular Immunology (CMI) with twenty four students respectively.

Fifteen students for Master of Science in Molecular Life Science, twelve students for Master of Science in Cellular and Molecular Immunology and seven students for Master of Science in Bioinformatics had been registered and continued their MSc research project work in 2022. Total of twelve Master of Science in Molecular Life Science students, six Master of Science in Cellular and Molecular Immunology students and three Master of Science in Bioinformatics students submitted their dissertation for examination in 2022.

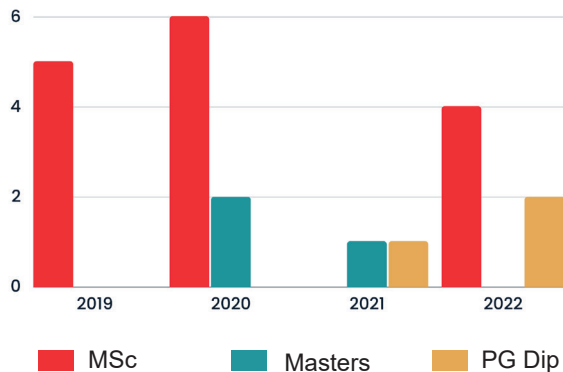


New Registrations for Masters Programs

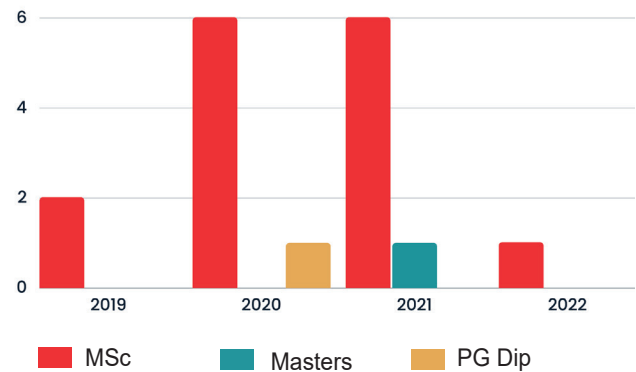


New Registrations for MSc Programs

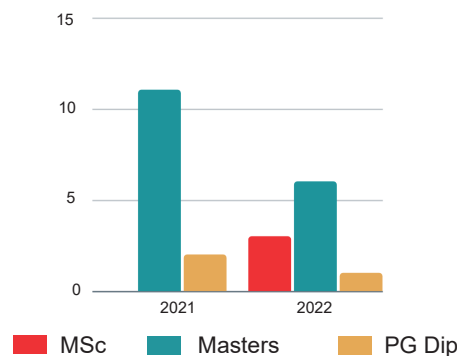
In 2022, a total of four Students of MSc in MLS, one student of MSc in CMI and a total of 03 students of BI had successfully completed their MSc studies during 2022. Further six students of BI opted to leave the programme receiving Masters. Another two students of MLS and one student of BI opted to leave the programme receiving Post Graduate Diploma.



Graduation with PG Dip / Masters / MSc in MLS



Graduation with PG Dip / Masters / MSc in CMI



Graduation with PG Dip / Masters / MSc in BI

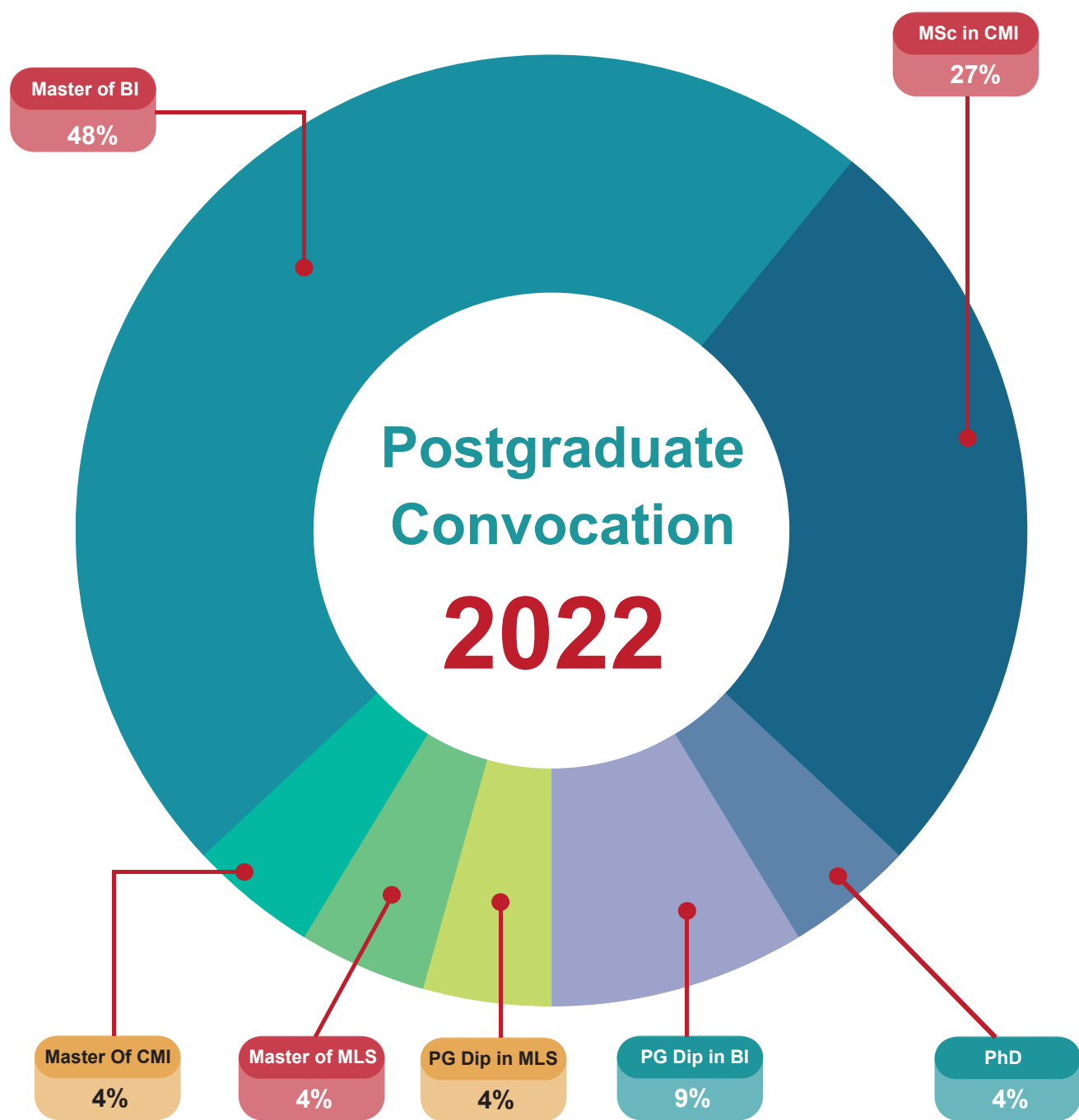
MPhil / PhD Programmes

One MPhil/PhD student registered during 2022 and there was a total of nineteen registered MPhil/PhD students at the IBMBB. Research programmes based on MPhil/PhD work are described under research activities. Five PhD students and one MPhil student submitted thesis for examination & viva voce examinations and five PhD students completed their viva examinations in 2022



Postgraduate Convocation - 2020

The ceremonial postgraduate convocation 2020 was conducted on 11th and 12th October 2022. Twenty-two graduands of the IBMBB were conferred degrees at the 2022 ceremonial postgraduate convocation.



Short Courses and Training Programmes

Advanced Certificate in Immunology

Institute of Biochemistry, Molecular Biology and Biotechnology (IBMBB), University of Colombo concluded the successful completion of its 3rd Intake of the Advanced Certificate in Immunology – 2022 on 14th October 2022. In this year, 19 students were Completed the programme with five Distinctions and seven Merits.

The Awards Ceremony was held at IBMBB with the participation of Senior Professor H D Karunaratne, Vice Chancellor, University of Colombo as the chief guest of the event, Prof Prasanna Galhena, Director, IBMBB and Mr KAS Edward, Registrar, University of Colombo.

This course was the first academic programme conducted in blended learning mode at the IBMBB.

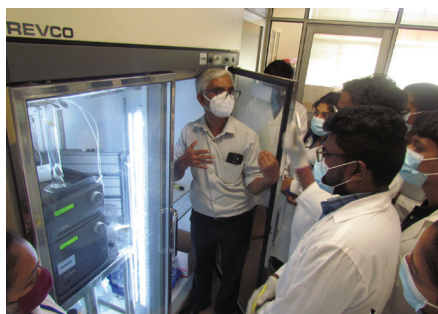
It was initiated through the UNESCO funded Blended Learning Project completed by the University of Colombo. The AdvCert(Immunology) aligns with Sri Lanka Qualification Framework (SLQF) level 2, equivalent to National Vocational Qualification (NVQ) level 4

Training course in Gene Cloning and Recombinant Protein Expression

A training course in “Gene Cloning and Recombinant Protein Expression” organized by the Institute of Biochemistry, Molecular Biology and Biotechnology, University of Colombo was successfully held from 14th to 18th November 2022 at the IBMBB premises

The training course was conducted for young scientists, academics, undergraduate/postgraduate students and students awaiting higher studies in biological sciences. The training course provided the opportunity to gain hands on experience on the latest as well as commonly used methods in modern biotechnology such as PCR amplification and cloning, preparing recombinant constructs, DNA transformation, protein expression and purification, protein crystallization, structural insights of

proteins using bioinformatics/ computer graphic-based exercises etc. The training course was a great opportunity for the participants to broaden their knowledge in the field of Gene Cloning and Recombinant Protein Expression. The training course concluded with an open discussion, where the participants shared their views on the training course and both, its contents and organization, were greatly appreciated. They proposed to conduct many such courses in future.



The training course was conducted for the young scientists, academics, undergraduate / postgraduate students and students awaiting higher studies in biological sciences.



The training course was conducted for the young scientists, academics, undergraduate / postgraduate students and students awaiting higher studies in biological sciences.

Training Course in Immunological Techniques

A training course in “Immunological Techniques” organized by the Institute of Biochemistry, Molecular Biology and Biotechnology, University of Colombo was successfully held from 12th to 16th December 2022 at the IBMBB premises.

The Participants comprised of Medical Officers, academics, science graduates, science undergraduates and an individual with GCE A/L qualifications. The training course covered practical component includes cell isolating methods, in vitro culturing of leukocytes, cell counting methods, functional assays for immune cells,

and immunodiagnostic assays (ELISA, IFA, Immunochromatography, SDS-PAGE & Western Blotting). The training course was a great opportunity for the participants to broaden their knowledge in the field of Immunological Techniques and participants greatly appreciated the course.



The training course covered practical component includes cell isolating methods, in vitro culturing of leukocytes, cell counting methods, functional assays for immune cells, and immunodiagnostic assays



The Participants comprised of Medical Officers, academics, science graduates, science undergraduates and an individual with GCE A/L qualifications.

Training course in Molecular Biological Techniques

A training course in “Training course in Molecular Biological Techniques” organized by the Institute of Biochemistry, Molecular Biology and Biotechnology, University of Colombo was successfully held from 22nd to 26th August 2022 at the IBMBB premises. This programme received a large number of requests and applications, however, only thirty-one individuals representing diverse fields of knowledge could be accommodated for this programme.

The training course was conducted for young scientists, academics, undergraduate/postgraduate students and students awaiting higher studies in biological sciences. The training course provided an opportunity to gain hands-on experience in DNA extraction and quantification, PCR, RT-PCR, gel electrophoresis, restriction fragment length polymorphism, exposure to DNA sequencing and usage of other related Bioinformatics tools. In addition, the application of the techniques in the diagnosis of pathogenic diseases and mutation detection have been discussed.

The training course was an excellent opportunity for the participants to broaden their knowledge in the field of Molecular Biological Techniques. The training course concluded with an open discussion, where the participants shared their views on the training course concerning its contents and organization, which were greatly appreciated.

BMS Demonstration

Demonstration session of Practicals for Undergraduates of BMS

IBMBB facilitated a student internship program for students of the Higher Diploma awarded by BMS, School of Science.

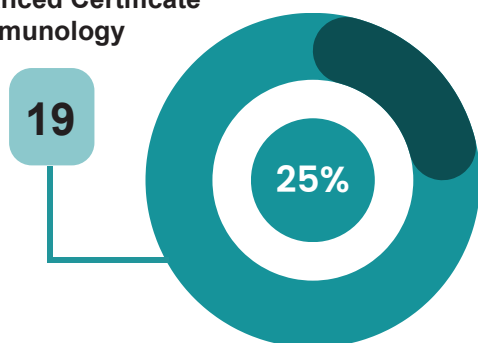
This internship was arranged for 39 students from the 06th – 10th June 2022 and 20th -24th June 2022. These students were trained and

overlooked by the Academic and Academic Support staff at IBMBB. The students received explanations on theory and thereafter engaged in the practicals and analysis of data. This included DNA extraction, PCR amplification and its applications, as well as sequencing techniques.

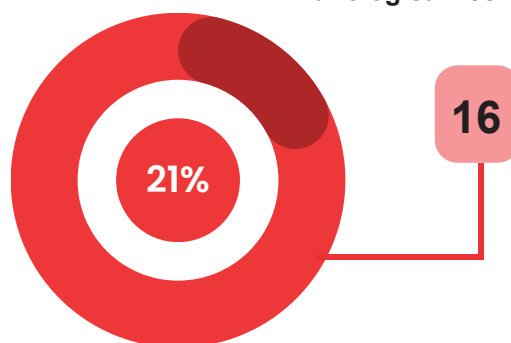
Sessions included lectures, demonstrations, evaluation of logbooks and Q&A sessions. Upon completion of the program students competency in this taught course was evaluated through a spot test, which was

facilitated by the scientific team at IBMBB. Thereafter students were assigned with independent research topics for presentation in order to facilitate student understanding of real-world applications of the gained techniques. Upon conclusion, short-term research projects were offered to 5 students who worked closely with five supervisors to learn how to conduct a research project practically. The programme was managed by the business development unit and program content was delivered by the academic and academic support staff.

Advanced Certificate in Immunology



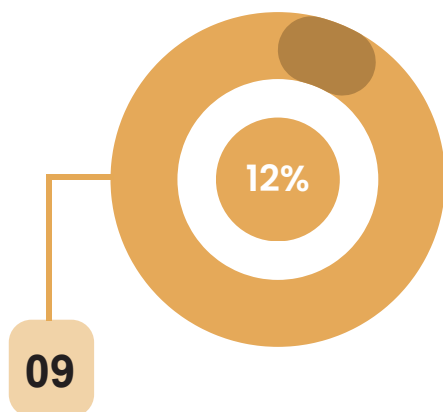
Training Course in Immunological Techniques



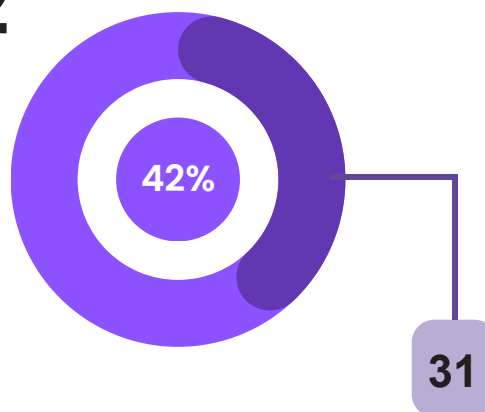
NUMBER OF PARTICIPANTS

2022

Training course in Gene Cloning and Recombinant Protein Expression



Training course in Molecular Biological Techniques



Research Activities

A number of research programmes were in progress at the IBMBB in the fields of Tropical - Parasitic and Infectious Diseases, Molecular Medicine, Ancient DNA studies, Plant Molecular Biology, Metabolomics, Molecular Immunology & immunodiagnosics, Medicinal Plants, Molecular identification of animal species, Meditation & Health

Molecular identification of industrially important microorganisms. Several research projects with industrial applications were also conducted during the year 2022. Each research programme has several projects which provide research training for MPhil/PhD and MSc students under the supervision of the Academic and Academic Support staff

of the Institute and Collaborating Scientists. Students, research projects and supervisors are listed in the table below.

There were a total of 30 full papers in peer-reviewed, indexed, International Journals. There were 27 research communications presented at scientific meetings including international abstracts.

Title of the research	PI	Grant
INFECTIOUS DISEASES		
Filariasis		
Studies on <i>Setaria digitata</i> genome using new generation sequencing (NGS) technologies for identification of potential drug targets	Prof. Erik Bougcam-Rudloff (University of Agricultural Sciences, Uppsala, Sweden), Prof. Eric Karunanayake (IBMBB) and Prof. Kamani H. Tennekoon (IBMBB)	Swedish Links Grant.
PhD project was in progress in 2022	PhD student: Mr. Kanchana S. Senanayake	
Leptospirosis		
Detection of genotypes and serotypes of <i>Leptospira</i> isolated from leptospirosis patients of different severities.	Prof. Shiroma Handunnetti (IBMBB), Dr. Jagathpriya Weerasena, Prof. Sunil Premawansa (UOC) and Prof. Senaka Rajapakse (UOC).	National Research Council to Prof. Shiroma Handunnetti, IBMBB (NRC -17-098)
Final Report of this NRC grant was submitted in October 2022.	Voluntary Research Assistant - Ms Yomendra de Silva	

Dengue		
Development of a colourimetric reverse transcription Loop-mediated isothermal amplification (RT-LAMP) assay as a cost-effective, novel surveillance tool for differential detection of Dengue serotypes in Aedes mosquitoes PhD project in progress during the year 2022	PI: Dr. Hasitha Thissera, Director of the National Dengue Control Unit (NDCU) (Currently at the Epidemiology Unit of the Ministry of Health), Prof. Shiroma Handunnetti (IBMBB), Dr. Narmada Fernando (IBMBB), Dr. OVDS Weerasena (IBMBB), Dr. Sisira Pathirana (IBMBB), Dr. Subashini Aryaprema (University of Liverpool, UK), Dr. Rushika Perera (Colorado State University, USA) MPhil/PhD Student: Ms. Sakunthala Janaki (Entomologist, NDCU)	National Research Council to Dr. H Thissera (NRC-19-065)
Effect of Vitamin E supplementation on serum antioxidant capacity levels in 5-15years old children infected with dengue virus Research study planning was initiated in 2022	Prof Shiroma Handunnetti, Prof Pujitha Wickramasinge, Prof Sisira Pathirana, Dr Dulani Sameranayake, Mr Kaushalya Anuradha, Dr Dilani Rukshala MSc Student: Ms Stefani Duraisamy	CMI programme budget
Effect of Vitamin E supplementation on serum reactive nitrogen intermediate levels in 5-14year old children infected with dengue virus Research study planning was initiated in 2022	Prof Sisira Pathirana, Prof Pujitha Wickramasinge, Prof Shiroma Handunnetti, Dr Dilani Rukshala, Dr Dulani Sameranayake, Mr Kaushalya Anuradha MSc student : Ms Menu Rodrigo	CMI programme budget
<i>In vitro</i> immunomodulatory effect of <i>Sath Daranee</i> (SD) on dengue virus infected endothelial cells Research study was initiated in 2022.	Dr Bhagya Deepachandi, Prof Sisira Pathirana, Ms Sanduni de Costa, Prof Shiroma Handunnetti MSc student: Ms Chinthani de Silva	MSc-CMI programme budget
Malaria		
Studies in the phase of prevention of reintroduction of malaria in Sri Lanka: Comparison of parasitological and molecular diagnostic methods and molecular characterization infections PhD project was completed in 2022.	Prof. Deepika Fernando (UOC), Prof. Sunil Premawansa (UOC), Prof. Shiroma Handunnetti (IBMBB), Dr. OVDSJ Weerasena (IBMBB), Dr. Rsintha Premaratne (Anti-Malaria Campaign AMC) PhD student: Ms. WM Kumudu T de Alwis-W Gunasekara	National Science Foundation to Prof. Deepika Fernando (NSF/RG/2014/HS/03)
Nematode infection		
Study on prevalence of anti-pinworm antibodies and pinworm antigens in blood, other tissues and excreta of patients with pinworm infections Research study planning was initiated in 2022.	Dr Sisira Pathirana, Prof Sharmini Gunawardena, Ms Sanduni de Costa MSc student: Mr Chathura Ranatunga	MSc-CMI programme budget

Tuberculosis		
<i>In vitro</i> evaluation of ion pump and ion channel modulators and vitamin D as anti-mycobacterial agents	Dr. Sisira Pathirana (IBMBB), Dr. Nilanthi Senanayake (UoC), Prof. Shiroma Handunnetti (IBMBB)	MSc-CMI programme budget
In progress in 2022.	MSc student: Dr. Thilini Abeyakone	
Immunomodulatory activity of ion transport modulators and vitamin D on THP-1 derived human macrophages stimulated by <i>Mycobacterium tuberculosis</i>	Dr. Sisira Pathirana (IBMBB), Dr. Nilanthi Senanayake (UoC), Prof. Shiroma Handunnetti (IBMBB)	MSc-CMI programme budget
MSc project work was completed and MSc dissertation was submitted in 2022.	MSc student: Ms. Amila Nandesena	
SARS-CoV-2		
Association of SARS-CoV-2 viral genotype with disease severity and antibody response assessed using in-house IgM and IgG ELISAs in Sri Lankan patients	Dr. PPSL Pathirana (IBMBB), Prof. Inoka Perera (UOC), Prof. Shiroma Handunnetti (IBMBB), Dr. Narmada Fernando (IBMBB), Mr. James Thambyrajah (IBMBB), Ms. Dakshika Gangani (IBMBB), Prof. Sunil Premawansa (UOC), Prof. Senaka Rajapaksha (UOC), Ms. Thejane Perera (UOC), Mr. Sahan Siriwardena (UOC), Dr. Rajiva de Silva (MRI), Dr. Dhanushka Dasanayake (MRI), Dr. Suranga Manilgama (MoH), Dr Rohitha Muthugala (MoH), Dr. Dhananja Namalie (MoH), Dr. Gayani Premawansa (MoH), Dr. Saranga Sumathipala (MoH), Prof. Andreas Nistche (Robert Koch Institute, Germany)	IDEA Project funded by Robert Koch Institute, Germany
In progress in 2022	Post-Doctoral Researcher: Dr. Peshala Gunasekera (IBMBB) (up to October 2021), Dr. Bhagya Deepachandi (IBMBB)	
<i>In vitro</i> immunomodulatory effects of <i>Sath Daranee</i> (SD) on human neutrophils interacted with Spike protein 1of SARS-CoV-2	Prof Sisira Pathirana, Prof Shiroma Handunnetti, Mr Kaushalya Anuradha, Dr Bhagya Deepachandi	MSc-CMI programme budget
Research was initiated in 2022.	MSc student : Ms Gauri Kaushalya	

Viral Encephalitis		
Studies on Immunological and molecular identification of medically important bat pathogens and viral encephalitis cases in Sri Lanka MPhil/PhD programme was in progress 2022.	Prof. Wipula Yapa, Emeritus Professor Sunil Premawansa, Prof. Andreas Nitsche, Dr. Claudia Kohl, Prof. Inoka Perera, Dr. Gayani Premawansa, Prof. O.V.D.S.J. Weerasena, Prof. Shiroma Handunnetti, MPhil/PhD Student: Ms. Thejane Perera	IDEA Project funded by Robert Koch Institute, Germany
MOLECULAR MEDICINE		
Cancer and Cancer stem cells		
Detection of somatic mutations of colon cancer associated transcript 2 RNA gene and cancer susceptibility candidate 8 RNA gene in a cohort of Patients with colorectal cancer in Sri Lanka In progress in 2022	Dr. Sumadee De Silva (IBMBB), Dr. Sudeshini Hewage (IBMBB), Dr. Kanishka De Silva (National Cancer Hospital, Maharagama) MSc student: Mr. Russiru Pabasara Kehelgamuwa	IBMBB (MSc studies)
Detection of selected SNPs of HOX transcript antisense RNA gene in a cohort of patients with breast cancer in Sri Lanka In progress in 2022	Dr. Sumadee De Silva (IBMBB), Dr. Sudeshini Hewage (IBMBB), Dr. Kanishka De Silva (National Cancer Hospital, Maharagama) MSc students: Ms. Fathimath Anaan Shafeeu	IBMBB (MSc studies)
Characterization of Mitochondrial DNA mutations in the D-loop and mtDNA haplogroups in Sporadic Breast Cancer PhD project was in progress in 2022.	Prof. Kamani H Tennekoon (Principal supervisor), Dr. Ruwandi Ranasinghe (Co-supervisor), Dr. Kanishka De Silva (Co-supervisor, National Cancer Institute) PhD Student: Ms. J.T. Kotelawala	PhD scholarship obtained by Ms. Kotelawala (NSF/SCH/2016/004)
Mutations and polymorphisms of mitochondrial genes as risk factors for sporadic breast cancer in Sri Lankan patients of Sinhalese ethnicity MPhil/PhD project was in progress in 2022.	Prof. Kamani H Tennekoon (Principal supervisor), Dr. Ruwandi Ranasinghe (Co-supervisor), Dr. Kanishka De Silva (Co-supervisor, National Cancer Institute) MPhil/PhD student: Ms. L. Jayasekara	NRC Grant awarded to Prof. Kamani Tennekoon (NRC-17-020)
Genetic analysis for predictive markers for hepatocellular carcinoma (HCC) in non-alcoholic steatohepatitis (NASH) related cirrhosis MPhil/PhD project was in progress 2022.	Dr. Sudeshini Hewage (Principal supervisor), Prof. Rohan Siriwardena (Co-supervisor- University of Kelaniya), Prof. Kamani Tennekoon (Co-supervisor- IBMBB), Prof. Madunil Niriella (Co-supervisor- University of Kelaniya), Dr. Sumadee de silva (Co-supervisor- IBMBB) Mphil / PhD Student : Ms. Saumya Samarasinghe	NRC Grant awarded to Dr. Sudeshini Hewage (NRC-19-030)

Cancer stem cells targeted drug-leads from Sri Lankan endemic plants for breast cancer One PhD project was completed in 2022.	Dr. Sameera Samarakoon (PI-IBMBB). Prof. Kamani H Tennekoon (IBMBB), Prof. Neelika Malavige (USJP), Dr. Kanishka De Silva (National Cancer Institute, Maharagama), Prof. Dilip E De Silva (UOC) MPhil/PhD student: Ms. Uma Rajagopalan	National Research Council grant (NRC 14-067) to Dr. Sameera Samarakoon
Germline variants in the exon 3 of the POLG1 gene: Optimization of the Polymerase Chain Reaction and preliminary analysis in a few selected Sinhalese individuals In progress in 2022	Dr. Ruwandi Ranasinghe (Principal supervisor), Ms Joanne Kotelawala (Co-supervisor), Prof. Kamani H Tennekoon (Co-supervisor) MSc student: Chamalka Manohari Kariyawasam	IBMBB (MSc studies)
PCR optimization and amplification of selected polymerase gamma exon primer in sporadic breast cancer patients of Sinhalese ethnicity Completed in 2022	Dr. Ruwandi Ranasinghe (Principal supervisor); HND student: Joshua Miguel Anandappa Business Management School (BMS), School of Science	Funding: Business Management School (BMS)
PCR optimization and amplification of selected exons of mitochondrial transcription factor A (TFAM) in sporadic breast cancer patients In progress in 2022	Dr. Ruwandi Ranasinghe (Principal supervisor), Ms Joanne Kotelawala (Co-supervisor) BSc student: Ms. F Fasha, Faculty of Science, University of Colombo	Funding: Research Funds of Dr Ruwandi Ranasinghe
Modulation of Adiponectin expression during murine fibroblast (3T3L1) differentiation into adipocyte in-vitro In progress in 2022	Prof. B. P. Galhena Dr. Sameera R Samarakoon Dr. Supun Wijayasinghe MSc student: Piyumi Dissanayake	IBMBB (MSc studies)
Analysis of BCL2 break apart mutations in lymph node biopsies previously confirmed by immunohistochemistry as B Cell lymphomas In progress in 2022	Prof. B. P. Galhena Dr. Kanishka Senathilake Ms.Nirmani Kaluarachchi MSc student: Samudra Karunathilaka	IBMBB (MSc studies)
Effects of graphene oxide on the expression of selected genes linked to glucose metabolism in cancer stem cells In progress in 2022	Dr. Sameera R Samarakoon Dr. Meran Ediriweera Mr. Manju Gunawardane MSc student: Navodya Silva	IBMBB (MSc studies)

Human DNA variations and ancient DNA studies		
Insight for molecular Anthropology of early people in Sri Lanka: Ancient human mtDNA and Molecular sex analysis of archeological skeletal remains at Udapiyangalge and Alugalge caves. One MPhil project was in progress in 2022.	Dr. Ruwandi Ranasinghe (Principal supervisor), Prof. Kamani H Tennekoon (Co-supervisor), Prof. Raj Somadeva (Co-supervisor, Postgraduate Institute of Archaeology, University of Kelaniya), Dr. Niraj Rai (Co-supervisor, BSIP, Lucknow, India) MPhil/PhD student: Ms. AS Fernando	NRC Grant awarded to Dr. Ruwandi Ranasinghe (NRC-17-042)
Comprehensive analysis of the whole mitochondrial genome_in Sinhalese, Sri Lankan Tamil and Vedda population in Sri Lanka MPhil project was in progress in 2022.	Dr. Ruwandi Ranasinghe (Principal supervisor), Prof. Kamani H Tennekoon (Co-supervisor) MPhil/PhD student: Ms. Anjana Harshani Jayasinghe Welikala	Initial part of the Research has been progress with the Research Funds of Supervisors. Further funding will be applied
Neanderthal inherited Covid-19 genetic variations: Assessing the Polymerase Chain Reaction conditions and frequency analysis In progress in 2022	Dr. Ruwandi Ranasinghe (Principal supervisor), Prof. Kamani H Tennekoon (Co-supervisor), Ms Amali Fernando (Co-supervisor) MSc student: Sammani Himasha Galagamaarachchi	IBMBB (MSc studies)
Molecular studies on Genetic disorders		
Analysis of NKX2-5 mutations in a cohort of Sri Lankan patients with ectopic thyroid In progress in 2022	Dr. Sudeshini Hewage, Dr. Sumadee de Silva, Dr Navodha Attapattu MSc student: Nirmani Fonseka	IBMBB (MSc studies)
Analysis of DUOX2 mutation in a cohort of Sri Lankan patients with permanent congenital hypothyroidism In progress in 2022	Dr. Sumadee de Silva, Dr. Sudeshini Hewage, Dr Navodha Attapattu MSc student: Pirasanthiny Thayaparan	IBMBB (MSc studies)
Detection of deletions/duplications in human sex determination genes in a cohort of 46,XY DSD children in Sri Lanka In progress in 2022	Dr. Sumadee De Silva Dr. Sudeshini Hewage Dr. Navoda Atapattu MSc student: Daniel Sanjeev Ferdinands	IBMBB (MSc studies)
Genetic polymorphisms incorporated in hepatic iron accumulation related to NAFLD pathogenesis In progress in 2022	Dr. Sudeshini Hewage Dr. Sumadee De Silva Prof. Kamani H Tennekoon MSc student: Kavindi Sandamali Sayakkara	IBMBB (MSc studies)

Plant Molecular Biology		
Profiling of Anthocyanins in Red Tea Accessions	Dr. M.A.B. Ranatunga (TRI), Mr. J.D. Kottawarachchi (TRI), Prof. Nimal Punyasiri	Tea Research Institute
Effect of <i>Exobasidium vexans</i> infection in tea (<i>Camellia sinensis</i>) on expression of biosynthetic enzymes and biosynthesis of flavonoids Final dissertation was submitted successfully in 2022.	Investigators: Prof. O.V.D.S.J. Weerasena, Prof. Nimal Punyasiri, Dr. L.N.R. Gunaratna MSc student: Ms. K.A.M.J. Edirisinghe	IBMBB (MSc studies)
Effect of <i>Exobasidium vexans</i> infection on flavonoid production and expression of flavonoid biosynthesis enzymes during the translucent stage of blister blight disease of the tea leaves In progress in 2022	Prof. Nimal Punyasiri Prof. OVDSJ Weerasena Dr. Nilupa Gunarathne MSc student: Chidera Anuforo	IBMBB (MSc studies)
Identification of genes responsible for height of the banana pseudo-stem in local banana variety "Bim Kesel" In progress in 2022	Dr. Nadeesha Lewke Bandara Prof. OVDSJ Weerasena MSc student: Zahwa Abusahid	IBMBB (MSc studies)
Molecular taxonomy of genus <i>Liparis</i> (Orchidaceae) In progress in 2022	Dr. Nadeesha Lewke Bandara Prof. Alessio Papini (Uni Firenze, Italy) Prof. OVDSJ Weerasena MSc student: Upamitha Sapthaki Gunawardane	IBMBB (MSc studies)
Barcoding <i>Tragia spp.</i> (Wal kahambiliya) in Sri Lanka In progress in 2022	Prof. OVDSJ Weerasena Dr. TMSG Tennekoon Dr. LNR Gunaratna MSc student: Charshinie J. Perera	IBMBB (MSc studies)
A study on allelic and expression differences of selected salt responsive genes in At354 and Bg352 rice varieties. MSc project was completed in 2022 and currently at the examination.	Prof. N.S. Kottearachchi, Prof. O.V.D.S.J. Weerasena & Dr. N. Gunarathne MSc student: D. P. Ruwini Prabha Peiris	IBMBB (MSc studies)

Metabolomics		
Amino Acid Analysis in Rice This project was successfully completed in 2022	Vimarshi Liyanarachchi (ITI), Prof.K.R Mahanama (UOC), Dr.H.P.P.S Somasiri (ITI), Prof. Nimal Punyasiri (IBMBB)	Industrial Technology Institute.
Drug Metabolism	Dr.Thusitha Wickramasinghe and his team, Department of Clinical Biochemistry, Faculty of Medicine, University of Kelaniya & Prof. Nimal Punyasiri, IBMBB	University of Kelaniya
Investigation of termite nest derived fungi for the presence of novel biologically active secondary metabolites	Prof. Nimal Punyasiri Dr. Nadeesha Lewke Bandara Prof. Dilip De Silva MSc student: Symthiya Sivagnanasundaram Rexon	IBMBB (MSc studies)
Molecular immunology, Immunodiagnostics and autoimmune diseases		
Genetics of immunodeficiency		
Genetic diagnosis of X-linked agammaglobulinemia in Sri Lanka: A pilot study OneMSc dissertation was submitted in 2022.	Dr. Rajiva de Silva (MRI), Dr. Dhanushka Dassanayake (MRI), Dr Kanishka Senarath, Mr. James Thambyrajah MSc. student: Ms. Neranja Sandamini	MSc-CMI programme budget
Immunodiagnostics		
Production of Monoclonal antibodies for diagnosis of <i>Leptospira</i> antigens of ___selected, most prevalent serovars/serogroups of <i>Leptospira</i> in Sri Lanka	PI: Prof. Shiroma Handunnetti (IBMBB), Prof. Senaka Rajapakse (UOC), Prof. Sunil Premawansa (UOC), Dr. Narmada Fernando (IBMBB). Collaborator: Dr. Lilani Karunanayake (Medical Research Institute). MPhil/PhD student: Ms. Dakshika Gangani	International Centre for Genetic Engineering and Biotechnology (ICGEB), Italy to Prof Shiroma Handunnetti, IBMBB (ICGEB-CRP LKA-17-1)
Assessment of the usefulness of macrophages differentiated from HL-60 promyeloblast cell line as a model for <i>in vitro</i> inflammatory assays	Investigators: Dr Narmada Fernando, Prof Sisira Pathirana, Ms Dakshika Gangani MSc student: Ms Ishara Gayathree	MSc-CMI programme budget
Comparison of level of <i>in vitro</i> inflammation induced by lipopolysaccharides isolated from different bacteria (<i>E. coli</i> , <i>Leptospira</i> , <i>Burkholderia</i>) MSc research project planning was initiated in 2022.	Investigators: Dr Narmada Fernando, Prof Sunil Premawansa, Prof Enoke Corea, Mr Kaushalya Anuradha MSc student: Ms Induwari Gunawardane	MSc-CMI programme budget

Preliminary study on missense, gain of function Mutations in Mrgprx2 gene, a receptor for non-IgE mediated basophil degranulation MSc research project planning was initiated in 2022.	Prof Shiroma Handunnetti, Dr Rajiva de Silva, Dr Dhanushka Dasanayake, , Dr Kanishka Senarath, Ms Dakshika Gangani, MSc student: Ms Subashini Rathnayake	MSc-CMI programme budget
Autoimmune diseases		
Study on factors involved in immunopathogenesis of psoriatic arthritis and assessment of selected Sri Lankan medicinal plant derived components on downregulation of psoriatic inflammation Project work completed in 2022	Dr Narmada Fernando, Prof Senaka Rajapakse, Prof Sunil Premawansa, Prof S Handunnetti, Prof SL Pathirana, Mr James Thambyrajah MSc student: Ms Fatema S Abbasbhoy	CMI programme budget
Assessment on selected inflammatory and oxidative stress mediators in patients with psoriasis under Mtx treatment MSc Project work initiated in 2022	Dr Narmada Fernando, Dr Janaka Akarawita, Dr Chalukya Gunasekera, Ms Fatema S Abbasbhoy MSc student: Ms Thilini Dissanayake	MSc-CMI programme budget
Preliminary study on the Assessment on genetic markers predictive of Mtx treatment response in patients with psoriasis in Sri Lanka Project work initiated in 2022.	Dr Narmada Fernando, Dr Janaka Akarawita, Dr Chalukya Gunasekera, Prof Senaka Rajapakse, Ms Fatema S Abbasbhoy MSc student: Ms Gayathree Nayanajeewi	CMI programme budget
Medicinal plants		
Research on medicinal plants with anti-inflammatory, immunomodulatory, wound healing and anti-allergic effects		
Drug leads from medicinal plants in Sri Lanka: Investigations on immunomodulatory/ anti-allergic activity PhD examination was completed in 2022. Two manuscripts were in preparation for publication in 2022.	Prof. Shiroma Handunnetti (IBMBB), Prof. Dilip De Silva (UOC) PhD student: Ms. BA Dilani Rukshala	Ministry of Higher Education: Drug Leads from Medicinal Plants
Activity studied isolation of anti-inflammatory compounds from <i>Alpinia calcarata</i> rhizome and leaf PhD examination was completed in 2022.	Dr. Selvaluxmy Chelvendran (ITI), Prof. Shiroma Handunnetti (IBMBB), Dr. GAS Premakumara PhD Student: Ms. Maduwanthi Chandrakanthan	National Research Council to Dr Selvaluxmy Chelvendran (NRC-12-081)

Study of immunomodulatory activity of <i>Erythroxylum species</i> MSc dissertation examination was completed in 2022.	Ms. Dilani Rukshala (IBMBB), Ms. Jayani Kariyawasam (IBMBB), Prof. S Handunnetti (IBMBB) MSc student: Mr. Sajiv De Silva	MSc-CMI Programme budget
<i>In vitro</i> immunomodulatory effects of ALE of <i>Vitex negundo</i> on THP-1 derived macrophages activated by hypertension-inducing angiotensin II MSc project work and dissertation examination was completed in 2022.	Prof. Shiroma Handunnetti (IBMBB), Prof. Sunil Premawansa (UoC), Dr. Rajiva de Silva (MRI), Ms. Dilani Rukshala (IBMBB) MSc student: Mr. Boniface Nyamweya (QECS Scholar 2020)	MSc-CMI Programme budget
<i>In vitro</i> effect of <i>Mikania cordata</i> leaf extracts on wound healing MSc project was completed in 2022	Dr. Kanishka Senarath (IBMBB), Dr. Narmada Fernando (IBMBB), Mr. Anuradha Kaushalya (IBMBB) MSc student: Ms. Naomi Navaneeta	MSc-CMI Programme budget
<i>In vitro</i> study on immune mechanisms of anti-inflammatory activity of MDE of <i>Vernonia zeylanica</i> MSc project was completed in 2022	Dr. Narmada Fernando (IBMBB), Dr. Kanishka Senarath (IBMBB), Prof. Shiroma Handunnetti (IBMBB) MSc student: Mr. Kapila Mahawattta	MSc-CMI Programme budget
Preliminary <i>in vitro</i> study on the effect of aqueous extract of leaves and stem of <i>Bacopa monnieri</i> on TrkA and p75 on human leukocytes MSc project work initiated in 2022.	Prof Shiroma Handunnetti, Dr Dilshani Dissanayake, Dr Dilani Rukshala, Mr James Thambyrajah MSc student: Ms Deborah Harikrishnan	MSc-CMI Programme budget IBMBB (MSc studies)
Immunomodulatory, antioxidant, and anti-bacterial bio-actives of selected Sri Lankan medicinal plants MPhil/PhD project work initiated in 2022.	Dr Radhika Samarasekera (ITI), Dr Narmada Fernando (IBMBB), Dr G. D Liyanaarachchi (ITI), Prof Shiroma Handunnetti (IBMBB) MPhil/PhD student: Ms Dulini Jagoda	Funds made available from Dr Radhika Samarasekera at ITI.
Anti-cancer effects of medicinal plants		
<i>In vitro</i> and <i>in vivo</i> epigenetic investigations on anti-cancer and radio priming effects of different parts of <i>Mangifera indica</i> (India) and <i>Mangifera zeylanica</i> (Sri Lanka) and impact of green silver nanocomposites One MPhil student project was in progress in 2022.	Prof. Kamani H Tennekoon, Dr. Sameera Samarakoon, Dr. Meran Ediriweera (IBMBB), Dr. N. Devipriya & Dr. V. Vadivel (India) MPhil student/IBMBB: Mr. A.A.D.N. Perera	Ministry of Science, Technology and Research under Indo-Sri Lanka bilateral agreement

Anti-cancer drug development Three MPhil/PhDs were in progress in 2022.	Prof. Kamani Tennekoon, Dr. Sameera Samarakoon, Prof. Ira Thabrew, Prof. E Dilip De Silva, Prof. Nedra Karunaratne (UoP), Dr. A Adhikari (Nepal), Prof. Iqbal Chaudhry (Pakistan), Dr. Poorna Piyathilake (Wayamba University), Dr. Gomika Udugamasooriya, USA Research Scientists: Dr. Kanishka Senathilake, Dr. Meran Ediriweera MPhil/PhD students: Ms. Nimesha Wickramasinghe, Mr. J. Thushyanthan, Mr. Kelum Rathnayake Volunteers and MSc students	National Science Foundation Grant - RPHS/2016-C07, PI - Prof. Kamani Tennekoon and Prof. Sameera Samarakoon (Co-PI)
<i>In silico</i> active ingredient prediction, formulation and <i>in vitro</i> validation of a new anti-aging herbal product In progress in 2022	Dr. Kanishka Senathilake Prof. Sameera Samarakoon Prof. Prasanna Galhena MSc student: Nipuni Hennadige	IBMBB (MSc studies)
Anti-cancer effects of isolated compound from <i>Adenantha Bicolor</i> on cancer stem cells <i>In progress in 2022</i>	Dr. Sameera R Samarakoon Dr. Umapriyatharshani Rajagopalan Prof. Prasanna Galhena MSc student: Manukalpa Bandara	IBMBB (MSc studies)
<i>In vitro</i> screening for anticancer activity and in vivo toxicity evaluation of a Diterpene isolated from <i>Caesalpinia pulcherrima</i> In progress in 2022	Prof Sameera R Samarakoon Dr. Kanishka Senathilake Prof. Prasanna Galhena MSc student: Panapitiya Kankanamalage Shalini Kaushalya Wijerathne	IBMBB (MSc studies)
Industrial Applications		
Immunomodulatory activity of a polyherbal formulation in Sri Lankan Market PhD study was in progress in 2022.	Prof. Shiroma Handunnetti (IBMBB), Dr. O.V.D.S.J. Weerasena (IBMBB), Prof. A. Abeysekera, Link Natural Products Pvt Ltd. PhD Student: Ms. Loshini Ranaweera	Research collaborative study initiated following an MOU with Link Natural Products Pvt Ltd. and the IBMBB, University of Colombo for funding this MPhil/PhD study.
Cloning, expression and purification of a commercially viable enzyme In progress in 2022.	Dr. Kanishka Senathilake Prof. Sameera R Samarakoon MSc student: Rathnayake Mudiyanseelage Nishadi Tharuka Roshanthi Rathnayake	IBMBB (MSc studies)

Development of molecular method/s to detect adulteration of <i>Saraca asoca</i> (Asoka) bark with <i>Polyalthia</i> spp. and <i>Longifolia</i> spp. in herbal medicine industry	Development of molecular method/s to detect adulteration of <i>Saraca asoca</i> (Asoka) bark with <i>Polyalthia</i> spp. and <i>Longifolia</i> spp. in herbal medicine industry MSc student: Sivanjale Ravindrakumar	Prof. OVDSJ Weerasena Dr.TMSG Tennekoon Dr. LNR Gunaratna
In progress in 2022.		

Molecular Identification of Animal Species in Sri Lanka

Molecular identification new animal species	Mr. Mendis Wickaramasinghe (Sri Lanka Herpetological Society), Prof. Kamani Tennekoon (IBMBB) & Dr. Sameera R Samarakoon (IBMBB) PhD Student: Ms.Nethu Wickramasinghe (Sri Lanka Herpetological Society)	Funding: Sri Lanka Herpetological Society
In progress in 2022.		
Study on immunological, hormonal and biochemical parameters of the stress response in meditators. PhD study was completed in 2022 and thesis was being written.	Prof. Shiroma Handunnetti (IBMBB), Dr. D.H. Warawitige, Prof. Dilshani Dissanayake (Faculty of Medicine, Colombo). PhD student: Mr. J.C. Thambyrajah	Funding: AHEAD project funded by the World Bank Grant No 6026 – LK/ 8743 – LK awarded to Prof. Dilshani Dissanayake.

Molecular identification of industrially important microorganisms

Isolation, Purification and activity study of laccase enzyme from <i>Rigidoporus microporus</i> . MSc project was completed in 2022 and currently at the examination.	Prof. O.V.D.S.J.Weerasena & Dr. N. Gunarathne MSc student: K. Sandali Geethma	IBMBB (MSc studies)
--	---	---------------------

Postdoctoral Research

Prof. Nimal Punyasiri was engaged in a post-doctoral research project on the Identification of the disease resistance biomarker in the tea leaves (*Camellia sinensis*) against the Blister Blight Leaf disease (*Exobasidium vexans*). This research was carried out the Technical University of Braunschweig, Institute of Food Chemistry, Braunschweig, Germany from the 1st October to 14th December 2022.

This research was self-funded.

Above project was successfully completed and the outcome will be peer-reviewed publications or a patent on biofungicide development

Research Publications

All authors affiliated to the IBMBB are indicated in bold font. Students registered at other HEIs and carrying out work at the IBMBB are given in bold italic.

Research Publications in Peer-reviewed Journals – 2022

De Kostha, YBNS, Pathirana, SL, Handunnetti, SM, Gunawardena S. Characterization of antigens of *Enterobius vermicularis* (pinworm) eggs. **Scientific Reports**, 12, 14414 (2022). <https://doi.org/10.1038/s41598-022-18303-8>

Fernando AS, Wanninayaka A, Dewage D, **EH Karunanayake**, N Rai, R Somadeva, **K H, Tennekoon, R Ranasinghe**. The mitochondrial genomes of two Pre-historic Hunter Gatherers in Sri Lanka. **J Hum Genet** (2022). <https://doi.org/10.1038/s10038-022-01099-w>

Gunasekara, P., Handunnetti, S. M., Premawansa, S., Witharana, E. W. R. A., Ratnayake, I. P., Kaluarachchi, P., Karunatilake, C., Dias, R. K. S., Premakumara, G. A. S., Dasanayake, W. M. D. K., Seneviratne, S. L., & de Silva, R. (2022). Diagnosis of *Apis dorsata* venom allergy: use of recombinant allergens of *Apis mellifera* and a passive basophil activation test. *Clinical and Molecular Allergy*, 20(1). <https://doi.org/10.1186/s12948-022-00178-9>

Hapuarachchi, S., Suresh, T., **Hadunnetthi, S.**, Senarath, W. T. P. S., & Ranasinghe, C. (2022). Anti-inflammatory potential of aqueous extract and ethyl acetate fractions of *Munronia pinnata* (Wall) Theob. and the isolated compound, Senecrassidiol. *Trends in Phytochemical Research*, 6(3), 247-258. doi: 10.30495/tpr.2022.1962166.1265

Hemalika, D.V.D., Chandrika, U.G., Abeysekera, A.M., **Samarakoon, S.**, Wijewickrama, A. and Malavige, G.N. Characterization of secretory phospholipase A2 inhibitory activity in *Tragia hispida* as potential therapeutic agent for treatment of dengue. (2022). doi: 10.1101/2022.11.28.22282815.

Iddagoda, J., Gunasekara, P., Handunnetti, S., Jeewandara, C., Karunatilake, C., Malavige, G. N., de Silva, R., & Dasanayake, D. (2022). Identification of allergens in coconut milk and oil with patients sensitized to coconut milk in Sri Lanka. *Clinical and Molecular Allergy*, 20(1). <https://doi.org/10.1186/s12948-022-00181-0>

Janaki MDS, Aryaprema VS, **Fernando N, Handunnetti SM, Weerasena OVDSJ, Pathirana PPSL**, Tissera HA. Prevalence and resting behaviour of dengue vectors, *Aedes aegypti* and *Aedes albopictus* in dengue high risk urban settings in Colombo, Sri Lanka, **Journal of Asia-Pacific Entomology**, 2022, 25(3): 101961, ISSN 1226-8615, <https://doi.org/10.1016/j.aspen.2022.101961>

Kaushalya, C., Darshani, T., **Samarakoon, S. R.**, Fronczek, F. R., Perera, I. C., & Perera, T. (2022). Synthesis, Characterization and Remarkable Anticancer Activity of Rhenium Complexes Containing Biphenyl Appended NNN Donor Sulfonamide Ligands. *Current Scientia*, 25(1), 103-121.

Liyanaarachchi, G.V.V., Mahanama, K.R.R., Somasiri, H.P.P.S., **Punyasiri, P.A.N.**, Gunawardhana, Wijesena, K.A.K., Weerasinghe, W.D.P. & Mahasen, M.A.B. (2022). Impact of seasonal and geographical variations on the amino acid composition of rice (*Oryza sativa* L.) *Journal of Food Composition and Analysis*, 109, 104494.

Liyanaarachchi, G.V.V., Mahanama, K.R.R., Somasiri, H.P.P.S., **Punyasiri, P.A.N.**, Gunawardhana & Mahasen, M.A.B. (2022). Variation of amino acid composition as affected by the cooking, *Journal of Food Processing and Preservation*, e16781

Liyanaarachchi, G.V.V., Mahanama, K.R.R., Somasiri, H.P.P.S., **Punyasiri, P.A.N.**, Gunawardhana KVT & J.D Kottawa-Arachchi (2022), Variation in amino acid profiles of selected Sri Lankan rice varieties induced by milling, *Journal of Food Processing and Preservation* First published: 29 September 2022

Maladeniya, C., Darshani, T., **Samarakoon, S. R.**, Fronczek, F. R., Sameera, W. M. C., Perera, I. C., & Perera, T. (2022). Biological Evaluation of Platinum(II) Sulfonamido Complexes: Synthesis, Characterization, Cytotoxicity, and Biological Imaging. *Bioinorganic Chemistry and Applications*, 2022, e7821284.

Malavige, G. N., Hemalika, D. V. D., Chandrika, U. G., Abeysekera, A. M., **Samarakoon, S.**, & Wijewickrama, A. (2022). Characterization of secretory phospholipase A2 inhibitory activity in *Tragia hispida* as potential therapeutic agent for treatment of dengue. <https://doi.org/10.22541/au.167226819.92364219/v1>
<https://doi.org/10.1155/2022/7821284>

Muthoni, D. K., **Samarakoon, S. R.**, Piyathilaka, P. C., **Rajagopalan, U.**, **Tennekoon, K. H.**, & Ediriweera, M. K. (2021). Identification of 3-O- α -l-arabinosyl oleanolic acid, a triterpenoid saponin, as a new breast cancer stem cell growth inhibitor. *Natural Product Research*, 36(11), 2923–2926.
<https://doi.org/10.1080/14786419.2021.1933971>

Muzeniek, T., Perera, T., Siriwardana, S., Bas, D., Kaplan, F., Öruc, M., Becker-Ziaja, B., Perera, I., Weerasena, J., Handunnetti, S., Schwarz, F., Premawansa, G., Premawansa, S., Yapa, W., Nitsche, A., & Kohl, C. (2022). Full Genome of batCoV/MinFul/2018/Sri Lanka, a Novel Alpha-Coronavirus Detected in *Miniopterus fuliginosus*, Sri Lanka. *Viruses*, 14(2), 337. <https://doi.org/10.3390/v14020337>

Muzeniek T, **Perera T**, Siriwardana S, Bayram F, Bas D, Öruc M, Becker-Ziaja B, Perera I, **Weerasena J**, **Handunnetti S**, Schwarz F, Premawansa G, Premawansa S, Yapa W, Nitsche A, Kohl C. Paramyxovirus Diversity within One Population of *Miniopterus fuliginosus* Bats in Sri Lanka. *Pathogens*. 2022 Apr 2;11(4):434. doi: 10.3390/pathogens11040434. PMID: 35456109; PMCID: PMC9030695.

Perera T, Schwarz F, Muzeniek T, Siriwardana S, Becker-Ziaja B, Perera IC, **Handunnetti S**, **Weerasena J**, Premawansa G, Premawansa S, Nitsche A, Yapa W, Kohl C. First Complete Cytochrome B Sequences and Molecular Taxonomy of Bat Species from Sri Lanka. *Animals* (Basel). 2022 Jun 29;12(13):1674. doi: 10.3390/ani12131674. PMID: 35804573; PMCID: PMC9264896.

Rana, M. S., Ediriweera, M. K., **Rajagopalan, U.,** Karunaratne, D. N., **Tennekoon, K. H., & Samarakoon, S. R.** (2022). A new liposomal nanocarrier for co-delivery of gedunin and p-glycoprotein siRNA to target breast cancer stem cells. *Natural Product Research*, 36(24), 6389–6392. <https://doi.org/10.1080/14786419.2022.2032048>

Ranaweera BVL R, Edward D, Abeysekera AM, **Weerasena OVDSJ, Handunnetti SM.** Increased expression of co-stimulatory molecules and enhancement of the IgG response in rats orally administered with a polyherbal formulation. *Journal of Ayurveda and Integrative Medicine*, 2022, 13(2), 100528.

Ratnayake, A.K.D. Varuni Yashodha; **Fernando, Narmada;** Gajanayake, Thusitha; **Handunnetti, Shiroma Mangalika;** Jayamaha, S. Chrishan Jude,. Molecular characterization of BK virus detected in renal transplant patients in Sri Lanka: a preliminary study. *Indian Journal of Medical Research* 156(3):p 500-507, September 2022. | DOI: 10.4103/ijmr.IJMR_79_20

Samarasinghe N, Mahaliyanage D, De Silva S, Punyasiri N, Jasinghe E, Dilanthi HW. Association of selected genetic variants in CBS and MTHFR genes in a cohort of children with Homocystinuria in Sri Lanka. *Journal of Genetic Engineering and Biotechnology*, 2022;20(1):164. doi: 10.1186/s43141-022-00449-7.

Samarasinghe, S. M., Sundralingam, T., **Hewage, A. S.,** de Silva, K. S. H., & **Tennekoon, K. H.** (2022). Novel gross deletion at the LHX4 gene locus in a child with growth hormone deficiency. *Growth Hormone & IGF Research*, 62, 101443. <https://doi.org/10.1016/j.ghir.2021.101443>

Selvakumar, I., Vasudevan, A., Perera, N., Ediriweera, M.K., Nagarajan, D., **Samarakoon, S.R.** ... Vellingiri, V. (2022). *Mangifera indica* and *Mangifera zeylanica*: Perspectives on medicinal properties, therapeutic applications and potential uses as anticancer epigenetic drugs (Review). *International Journal of Epigenetics*, 2, 1. doi: 10.3892/ije.2022.10

Tennakoon, T.M.S.G., Borosova, R., Suraweera, C., Herath, S., De Silva, T., Padumadasa, **C., Weerasena, J., Gunaratna, N.,** Gunasekera, N., Edwards, S. and Wijesundara, S. (2022) First record of *Thottea duchartrei* Sivar., A. Babu & Balach. (Aristolochiaceae) in Sri Lanka. *Journal of the National Science Foundation of Sri Lanka*, 50(2), pp.441–452. DOI:<http://doi.org/10.4038/jnsfsr.v50i2.10546>

Terensan S, Fernando HNS, Silva JN, Perera SACN, Kottearachchi NS, **Weerasena OVDSJ.** (2022) Morphological and Molecular Analysis of Fungal Species Associated with Blast and Brown Spot Diseases of *Oryza sativa*. *Plant Disease*.106(6):1617-1625. doi: 10.1094/PDIS-04-21-0864-RE

Thambyrajah JC, Handunnetti SM, Warawitage DH, Dissanayaka WDN. Higher serum anti-oxidant capacity levels and it's association with serum NOx levels among long term experienced meditators in Sri Lanka. *Mindfulness*, 2022; <https://doi.org/10.1007/s12671-022-01840-8>

Thushara, N., Malawiarachchi, P., **Samarakoon, S.R.** et al. Anti-diabetic and anti-cancer related health food properties of selected Sri Lankan traditional rice based porridges. *J Food Sci Technol* 59, 3745–3753 (2022). <https://doi.org/10.1007/s13197-021-05341-9>

Thusyanthan, J., Wickramaratne, N. S., Senathilake, K. S., Rajagopalan, U., Tennekoon, K. H., Thabrew, I., & Samarakoon, S. R. (2022). Cytotoxicity against Human Hepatocellular Carcinoma (HepG2) Cells and Anti-Oxidant Activity of Selected Endemic or Medicinal Plants in Sri Lanka. *Advances in Pharmacological and Pharmaceutical Sciences*, 2022, 1–9. <https://doi.org/10.1155/2022/6407688>

Welikala AHJ, Ranasinghe R, Tennekoon KH, Kotelawala JT, Weerasooriya P R. Mitochondrial DNA (CA)_n dinucleotide repeat variations in Sinhalese and Vedda populations in Sri Lanka. *Genetica* (2022). <https://doi.org/10.1007/s10709-022-00150-0>

Wickramasinghe, N., Wickramasinghe, L. J. M., Vidanapathirana, D. R., Tennakoon, K. H., Samarakoon, S. R., & Gower, D. J. (2022). A molecular-genetics perspective on the systematics of the parthenogenetic flowerpot blindsnake *Indotyphlops braminus* (Daudin, 1803) (Squamata: Serpentes: Typhlopidae). *Systematics and Biodiversity*, 20(1), 1–16. <https://doi.org/10.1080/14772000.2022.2062478>

Papers Published in Conference Proceedings - 2022

Research Communications – 2022 (Abstracts published in Conference Proceedings)

Research Communications (International) oral

Abbasbhoy FS, Rajapakse S, Akarawita J, Gunasekara C, Pathirana S, Handunnetti S, Fernando N. Oxidative stress parameters in psoriasis and psoriatic arthritis patients in comparison to the healthy controls: A preliminary study conducted in Sri Lanka. 7th Global Summit on Dermatology and Cosmetology March 14, 2022, **Journal of Dermatology Research and Skin Care**; Volume 06: pp 18

Anuradha W GK, Gangani PD, Fernando N, Karunanayake L, Tammitiyagodage MG, Handunnetti SM. Comparison of immunoreactive proteins profile of pathogenic and non- pathogenic serovars of *Leptospira* (OP 02). **Proceedings of the 3rd International Conference on Frontiers in Molecular Life Sciences. 6th-7th Apr 2022.** pp 37

Arambage MK, Hewage S, De Silva S, Atapattu N, de Silva KSH. Detection of hotspot regions of WT1 gene in a cohort of 46,XY DSD children in Sri Lanka. Proceedings of the 03rd International Conference on Frontiers in Molecular Life Sciences, Institute of Biochemistry, Molecular Biology and Biotechnology: 2022. pp 40 (OP 08)

Fernando AS, Ransinghe R, Tennekoon KH, Karunanayake E, Somadeva R, Rai N. Maternal genetic affinities of Sri Lankan pre-historic and modern populations with the populations in the Eastern world and Australia. OP 09. 3rd International Conference on Frontiers in Molecular Life Sciences, Organized by IBMBB University of Colombo, Sri Lanka, 6th and 7th April 2022.

Gunasekera WMKT deAW, Weerasena OVDSJ, Handunnetti SM, Premawansa S, Premaratne RG, Fernando SD. Molecular surveillance of Artemisinin-resistant k13 mutations in imported *Plasmodium falciparum* cases diagnosed in Sri Lanka (OP 07). **Proceedings of the 3rd International Conference on Frontiers in Molecular Life Sciences. 6th-7th Apr 2022.** pp 40

Kotelawala JT, Tennekoon KH, Ranasinghe R, Rodrigo HACIK, De Silva GKS, Perera WAHA, Yoganathan N, Manatunga MRS, Dissanayake DMAS, Joseph N, Rajasooriyar C, Indranath K. Preliminary study on mitochondrial D-loop variations in sporadic breast cancer patients of Sri Lankan Tamil, Sri Lankan Moor and Sinhalese populations. OP 04. 3rd International Conference on Frontiers in Molecular Life Sciences, Organized by IBMBB University of Colombo, Sri Lanka, 6th and 7th April 2022.

Kulathunge SSB, Rukshala BAD, Premawansa WS, Handunnetti SM, Pathirana PPSL. Effect of *Vernonia zeylanica* on non-IgE mediated degranulation and histamine release by RBL-2H3 cells *in vitro* (OP 25). **Proceedings of the 3rd International Conference on Frontiers in Molecular Life Sciences. 6th-7th Apr 2022.** pp 49

Kumarasamy S, Piyathilaka MAPC, Samarakoon SR, Tennekoon KH, Ranasinghe R. Selective cytotoxicity of marine macroalgae extracts on oral cancer cells (UPCI:SCC 090 and UPCI:SCC 152). Oral OP 12. 3rd International Conference on Frontiers in Molecular Life Sciences, Organized by IBMBB University of Colombo, Sri Lanka, 6th and 7th April 2022.

Pathirana SL, Gunasekara P, Premawansa G, Namalie D, Fernando N, Perera IC, Nanayakkara S, Kumarasinghe D, Gangani PD, Thambyarajah J, Deepachandi B, Perera T, Siriwardana S, Manilgama S, Sumathipala S Muthugala R, Rajapakse S, Dassanayake D, De Silva R, Handunnetti S, Premawansa S, Nitsche A. Evaluation of SARS-CoV-2 Specific Antibodies in Sri Lankan Patients: A Preliminary Study Using an In-house ELISA (OP 03). **Proceedings of the 3rd International Conference on Frontiers in Molecular Life Sciences. 6th-7th Apr 2022.** pp 38

Ranaweera BVLR, Abeysekera AM, Weerasena OVDSJ, Handunnetti SM. Immunostimulatory effect of a polyherbal formulation in the Sri Lankan market: Enhancement of IgG expression levels (OP 23). **Proceedings of the 3rd International Conference on Frontiers in Molecular Life Sciences. 6th-7th Apr 2022.** pp 48

Ranaweera BVLR, Abeysekera AM, Weerasena OVDSJ, Handunnetti SM. Effect of a polyherbal formulation in Sri Lankan market on the mRNA expression and secretory levels of inflammatory cytokines in THP-1 derived human macrophages (OP 22). **Proceedings of the 3rd International Conference on Frontiers in Molecular Life Sciences. 6th-7th Apr 2022.** pp 47

Samarasinghe SASM, Hewage AS, Siriwardena RC, Tennekoon KH, Niriella MA, De Silva S. Prevalence of PNPLA 3 polymorphisms in a cohort of non-alcoholic steatohepatitis (NASH)-related hepatocellular carcinoma (HCC) patients in Sri Lanka. **Proceedings of the 3rd International Conference on Frontiers in Molecular Life Sciences, Institute of Biochemistry, Molecular Biology and Biotechnology: 2022.** pp 39 (OP 06)

Thambyrajah JC, Handunnetti SM, Dilanthi HW, Dissanayake DW. Melatonin and Serotonin activity among long-term, skilled meditators (OP 01). **Proceedings of the 3rd International Conference on Frontiers in Molecular Life Sciences. 6th-7th Apr 2022.** pp 37

Welikala AHJ, Ranasinghe R and Tennekoon KH. Mitogenome diversity in Sinhalese and Indigenous Vedda Population in Sri Lanka. OP 10. 3rd International Conference on Frontiers in Molecular Life Sciences, Organized by IBMBB University of Colombo, Sri Lanka, 6th and 7th April 2022.

Wickramaratne NS, Thusyanthan J, Bandara CJ, Ranasinghe R, Karunaratne DN, Tennekoon KH, Samarakoon SR. Selective anti-breast cancer activity of endophytic fungi isolated from *Rhizophora apiculata*. OP 11. 3rd International Conference on Frontiers in Molecular Life Sciences, Organized by IBMBB University of Colombo, Sri Lanka, 6th and 7th April 2022.

International - Posters

Abbasbhoy FS, Rajapakse S, Akarawita J, Gunasekara C, Fernando P, Ranaweera L, **Pathirana S**, **Handunnetti S**, **Fernando N**. Elevated mRNA expression levels of cytokine in patients with psoriasis (PP 02). **Proceedings of the 3rd International Conference on Frontiers in Molecular Life Sciences**. 6th-7th Apr 2022. pp 52

Gangani PD, **Anuradha WGK**, **Fernando N**, Karunanayake L, Rajapakse S, Premawansa, **S Handunnetti SM**. Comparison of rat immune responses to two pathogenic *Leptospira* serovars prevalent in Sri Lanka (PP 15). **Proceedings of the 3rd International Conference on Frontiers in Molecular Life Sciences**. 6th-7th Apr 2022. pp 59

Jayasekera L, **Ranasinghe R**, **Kotelawala JT**, **Senathilake KS**, De Silva K, **Tennekoon KHT**. Assessment of A10398G polymorphism in the MT-ND3 gene in sporadic breast cancer patients of Sinhalese ethnicity (PP04). **Proceedings of the 3rd International Conference on Frontiers in Molecular Life Sciences**. 6th-7th Apr 2022. Pp 53

Mahaliyanage DT, **De Silva S**, **Punyasiri N**, Jasinghe E. Association of selected genetic variants in MTHFR gene with clinicopathological characteristics in a cohort of children with Homocystinuria in Sri Lanka. **Proceedings of the 03rd International Conference on Frontiers in Molecular Life Sciences**, Institute of Biochemistry, Molecular Biology and Biotechnology: 2022. pp 55 (PP 07)

Munezero PC, **Handunnetti SM**, **Fernando NTRG**, **Ranaweera LR**, and Hapuarachchi SD. Effect of *Munronia pinnata* on function of DENV-3 and interaction of DENV3 and endothelial cells (PP 21). **Proceedings of the 3rd International Conference on Frontiers in Molecular Life Sciences**. 6th-7th Apr 2022. pp 62

Pathirana SL, **Gunasekara P**, **Deepachandi B**, Janage SN, de Silva R, Dassanayake D, Fernando N, **Weerasena J**, **Handunnetti S**. In-house Development of a Rapid Antigen Test for Detection of SARS-CoV-2 Infections (PP 01). **Proceedings of the 3rd International Conference on Frontiers in Molecular Life Sciences**. 6th-7th Apr 2022. pp 52

Peiris TMR, **Gunasekara P**, **Handunnetti SM**, Dasanayake D, De Silva R. Cross-reactivity of sera of patients allergic to venom of Sri Lankan ant species with *Apis dorsata* and *Vespa affinis* venom (PP 03). **Proceedings of the 3rd International Conference on Frontiers in Molecular Life Sciences**. 6th-7th Apr 2022. pp 53

Perera T, Uddin S, Gunasekara P, Brinkmann A, Premawansa G, Namalie D, Siriwardana S, Ku CS, Periaswamy B, Dasanayake D, Manilgama S, De Silva R, **Fernando N**, **Gangani PD**, **Thambyarajah J**, Rajapakse S, Sumathipala S, Muthugala R, Kohl C, **Handunnetti S**, Premawansa S, Perera IC, **Pathirana S**, Nitsche A. Genomic surveillance of SARS-CoV-2 virus among infected people in Sri Lanka (PP 05). **Proceedings of the 3rd International Conference on Frontiers in Molecular Life Sciences**. 6th-7th Apr 2022. pp 54

Samarasinghe MHNJ, **De Silva S**, **Punyasiri N**, Jasinghe E. Association of selected genetic variants in CBS gene with clinicopathological characteristics in a cohort of children with Homocystinuria in Sri Lanka. **Proceedings of the 03rd International Conference on Frontiers in Molecular Life Sciences**, Institute of Biochemistry, Molecular Biology and Biotechnology: 2022. pp 54 (PP 06).

Research Communications – (Local)

D. Jagoda, G. D Liyanaarachchi, H. D Weeratunge, **S. M. Handunnetti**, **N. Fernando** and J. K R. R. Samarasekara. *In vitro* antioxidant capacity and lipoxygenase (5-LOX) inhibitory activity of leaves of *Citrus aurantiifolia* (lime) and chemical profile of leaf essential oils. **Proceedings of the 42nd Annual Sessions, Institute of Biology Sri Lanka**, 30th September 2022, pp 36.

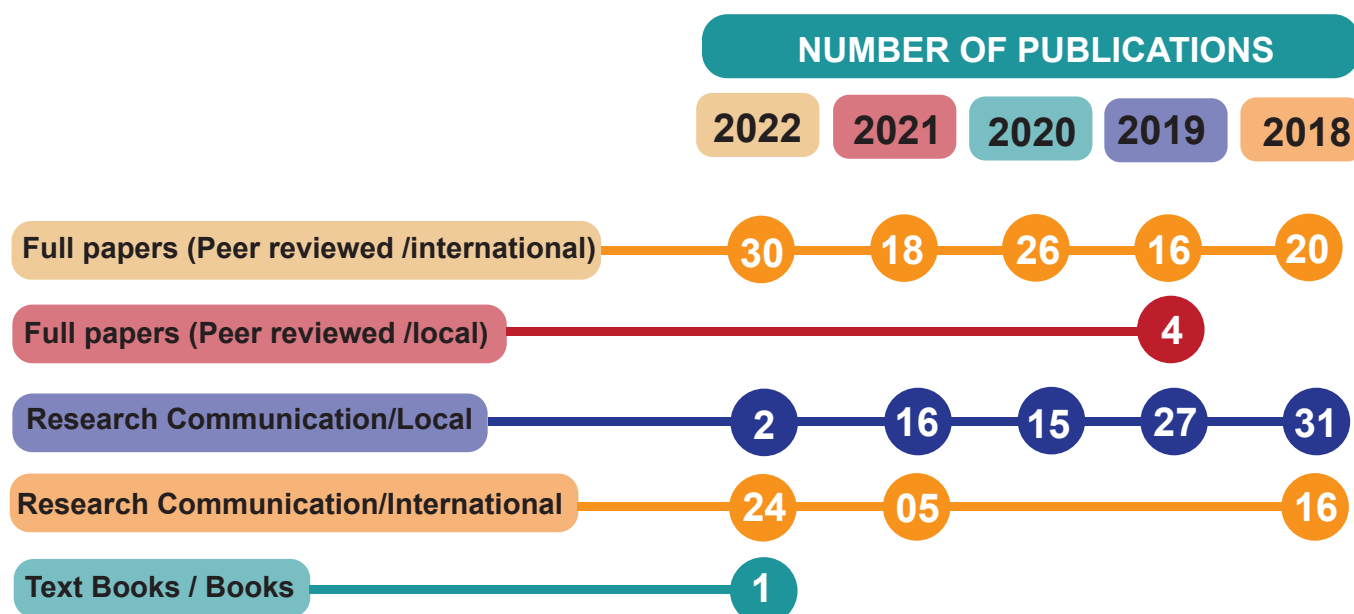
Hapuarachchi SD, Suresh TS, Senarath WTPSK, **Handunnetti SM**, Samarasinghe K Hepatoprotective potential of the different extracts of *Munronia pinnata* Wall Theob against Carbon tetrachloride-induced hepatotoxicity. **78th Annual Scientific Sessions of SLAAS**. 11th. 16th December 2022, **Abstract 102/A**, pp xx.

Samarasinghe N, Mahaliyanage D, **De Silva S**, Jasinge E, Punyasiri N, Dilanthi HW. Association of Selected Genetic Variants in CBS and MTHFR Genes in a Cohort of Children with Homocystinuria in Sri Lanka. **Proceedings of the 42nd Annual Session of The Institute of Biology: 2022**. pp 33(B 02)

No. of Books/Text Books published in the area of expertise

LK Weerasinghe, KW Samarakoon, K Pakeerathan, C Kadigamuwa, **S Samarakoon** Environment Sustenance and Food Safety: Need for More Vibrant Policy Initiatives for Sri Lanka

http://www.nastec.gov.lk/files/ysf/ysf_publication/ysf_chapter_ebook_environment_sustenance_and_food_safety.pdf

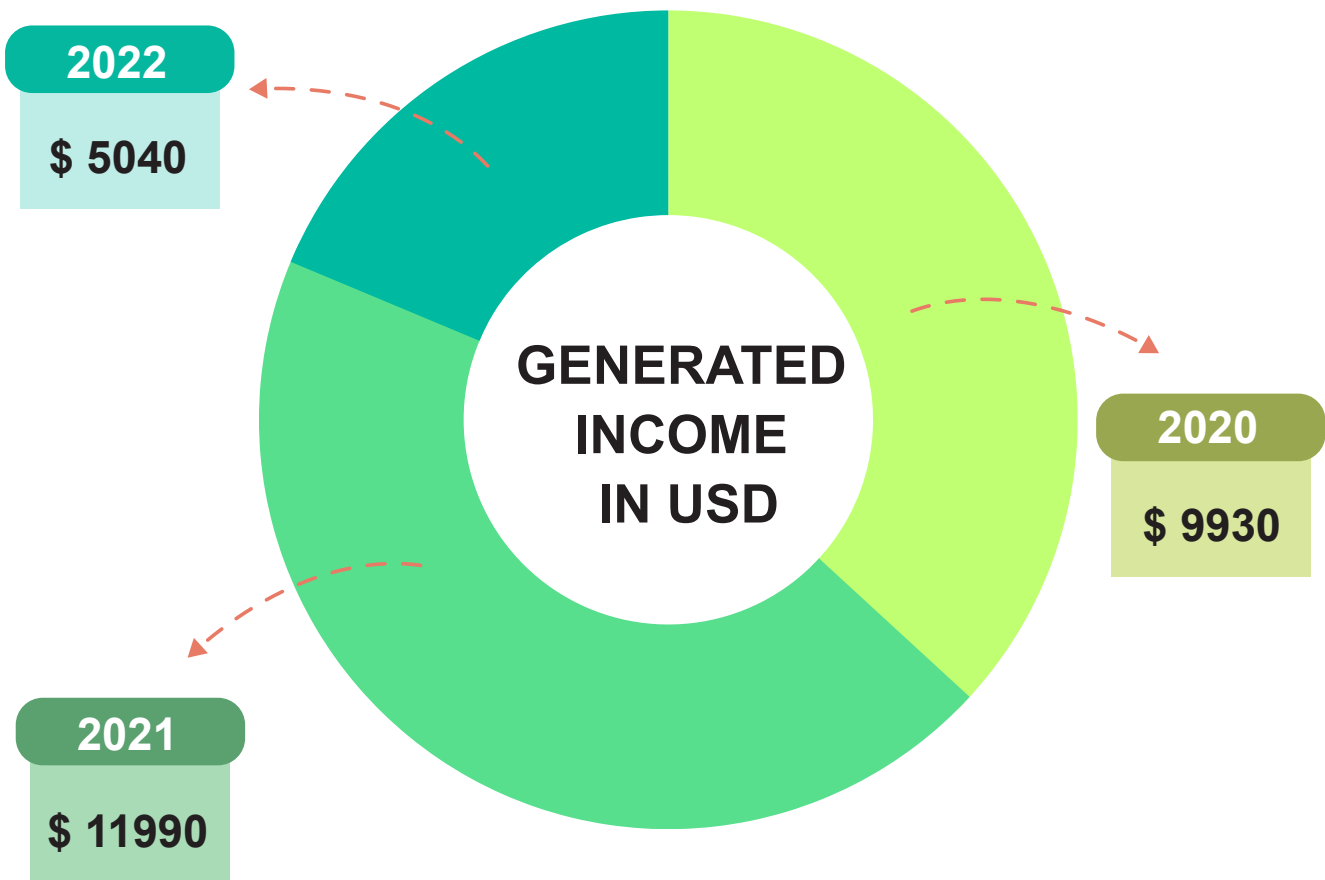


International Research Funding

Prof Shiroma Handunnetti (PI) Prof. Sunil Premawansa (Co-I) Prof Senaka Rajapakse (Co-I)	Development of an antigen-based immunodiagnostic test for leptospirosis.	International Centre For Genetic Engineering and Biotechnology	CRP/LKA17-01 – Contract No. CRP/18/008	1,219,919.00
---	--	--	--	--------------

Queen Elizabeth Commonwealth Scholars Program

The Institute of Biochemistry, Molecular Biology and Biotechnology has successfully hosted Queen Elizabeth Commonwealth Scholars since 2014 in the Master’s programmes of Molecular Life Sciences and Cellular and Molecular Immunology. Since 2014 to 2022 the institute has hosted a total of 9 Commonwealth Scholars.



Provide services including

DNA sequencing

Cell culture facility *

Genetic analysis for several human diseases such as cancer, developmental disorders and immunodeficiency diseases.

HPLC facility to the public and private sector [*Available for non ATCC Cell lines]

Deliver professional consultancy in Research and Higher Education

Development of projects to facilitate the expansion of the knowledge of Molecular Biology and Biochemistry among Advanced Level students in rural, non-urban schools through conducting guest lectures, road shows and various other programmes.

Prof. P.A Nimal Punyasiri continued serve in following committees

Member Faculty Board, Faculty of Technology, University of Sabaragamuwa

Member Steering Committee Centre for Gender Equality, University of Colombo

Member Steering Committee, Academic Mentoring, University of Colombo

Member Advisory Committee on Ayurveda, Herbal Products and Cosmetic Sector

Steering Committee Member - Implementation of UN RESOLUTION 1540

Teaching activities in HEI – Prof. P.A Nimal Punyasiri

PGIS, University of Peradeniya

Faculty of Technology, University of Sabaragamuwa

Faculty of Science, University of Colombo

Institute of Chemistry, Sri Lanka

CINEC Campus, Malabe

Research projects are being carried out with FADNA Natural Products (Pvt) Limited to develop novel products and are used as nutraceuticals for diseases. Further collaborative research has been conducted with the above companies to develop a range of consumer products. Link Naturals' famous product Samahan has been further developed and validated

through research conducted by an IBMBB PhD student's work, and the partnership is a longstanding one. Vogue Jewelers is a new industrial collaboration that has been added to the list recently to develop an anti-covid medication therapy using ayurvedic formulations. Lanka Hospital Diagnostics, Green Lab PVT LTD ,

and Genelabs Sri Lanka have been working closely with IBMBB towards the development of new diagnostic tests, and some of the above labs are also hosting IBMBB master's students as a part of the industrial training/apprenticeship.

Industry Colloboration and Product Launch

The collaboration of FADNA Tea (Food & Nature (Pvt) Ltd) and the Institute of Biochemistry, Molecular Biology and Biotechnology was a great success which led to the development of new products which were launched to the market on the 23rd of August 2022 at the College House, University of Colombo. This occasion was graced by Mr. Seenithamby Manoharan, Senior Rural Development Specialist, World Bank, Sri Lanka as the chief guest along with Senior Professor H. D. Karunaratne, Vice Chancellor, University of Colombo, Senior Professor Udith Jayasinghe, Vice Chancellor, the University of Wayamba as a special guest, Deans and Directors of the University of Colombo, Heads of Departments, Media representatives, Registrar and Bursar, University of Colombo, Research teams and Staff members of IBMBB.

All products were commercialized under the brand name of QofL which defines the Quality of Life incorporating nature's goodness with modern science to serve new

trends for beauty and wellness. All QofL brand products are developed based on natural ingredients and scientifically proven modes of delivery to enhance the quality of the life. The launch of the newest range of diversified products, QofL, transforms this concept into an innovative solution that helps people satisfy their ever-changing needs to live healthier and happier lives.

Focusing on the three key aspects; wellness, performance enhancement, and beauty, the latest range comprises four products developed by a research group of IBMBB led by Prof Sameera R Samarakoon: SATINY, a total hair solution;

VERNOLAC a nutraceutical that enhances the quality of life for cancer patients, long-term research outcome by the IBMBB; BIO SHAPE a healthy weight management capsule improved by the IBMBB, and ORTHO-SHIELD a quick and long-lasting pain-relieving lotion specially designed for arthritis patients.

The partnership with the University of Colombo strengthens the nexus between the industry and academia, benefitting consumers in accessing value-added product ranges that help in leading an active and happy lifestyle. Collaboration between the University of Colombo and FADNA Tea (Food and Nature (Pvt) Ltd) was supported by the University Business Linkage with the objective of transferring technologies derived from the University of Colombo into new products and services for the interest of the public. The University of Colombo being one of the leading universities in Sri Lanka has set up a platform for sustainable public-private partnerships as one of its key commitments toward the social and economic growth of the country.

Continuation of Affiliations

IBMBB continued as a Resource Centre for Molecular Life Sciences in Asia for the International Programme in Chemical Sciences (IPICS), University of Uppsala and also as the National Node of the European Molecular Biology Network (EMBnet).

Green Climate Fund Knuckles Project Discussion with ICRAF and IBMBB, University of Colombo

Dr. Fergus Sinclair visited IBMBB on December 13th, 2022, with the ICRAF and Green Climate Fund (GCF) Knuckles Project teams, which included Dr. Chris Dharmakeerthi, Dr. S. Premakumara, Mr. Chandana Edirisooriya, and Dr. Sirimal Premakmara

to discuss the establishment of a genomics center in Sri Lanka based on the Knuckles Project. Prof. Prasanna Galhena, along with Prof. Sameera Samarakoon, and the rest of the IBMBB staff, which included Dr. Ruwandi Ranasinghe, Mr. Kanchana Senanayake, Mr. Mendis Wickremasinghe, Ms. Nethu Wickremasinghe,

Dr. Hasitha Sampath, Ms. Joanne Kotelawala, and Mr. Mishal Faizan. The key areas for submission of the proposal and an expression of interest to enhance genomic exploration in Sri Lanka were discussed. As a leading institution in Sri Lanka for the Biochemistry, Molecular Biology and Biotechnology with extensive experience, a solid project idea was established for the betterment of Sri Lanka.



Dr. Fergus Sinclair visited IBMBB on December 13th, 2022, with the ICRAF and Green Climate Fund (GCF) Knuckles Project teams, which included Dr. Chris Dharmakeerthi, Dr. S. Premakumara, Mr. Chandana Edirisooriya, and Dr. Sirimal Premakmara

Patent

One patent has been awarded to IBMBB in year 2022 (Patent Number – 21583). This patent was presented with the inventors research team comprising of Dr. Kanishka S. Senathilaka (IBMBB), Prof. Sameera R. Samarakoon (IBMBB), Mr. Tolulope Peter Saliu (IBMBB), Prof. Kamani Tennekoon (IBMBB), Dr. Achyut Adhikari, Dr. Umapriyatharsbini Rajagopalan (IBMBB), Dr. Meran Keshawa. The patent was awarded under the title of “Novel method to isolate an anti-proliferative diterpene from caesalpinia pulcherrima and cancer stem cell targeted medicinal preparation thereof”.

Patents Submitted By IBMBB (BDU)

No	Topic (Patents applications from IBMBB)	Main Contact Person	Inventors	Status	Remarks
1	Novel method to isolate an anti-proliferative diterpene from caesalpinia pulcherrima and cancer stem cell targeted medicinal preparation thereof.	Dr. Kanishka S. Senathilaka Prof. Sameera R. Samarakoon	Dr. Kanishka S. Senathilaka Prof. Sameera R. Samarakoon Mr. Tolulope Peter Saliu Prof. Kamani Tennekoon Dr. Achyut Adhikari Dr. Umapriyatharsbini Rajagopalan Dr. Meran Keshawa	Patent Received	Patent Number - 21583
2	A novel method to isolate garcinol, 14-deoxygarcinol and other two xanthenes from <i>Garcinia zeylanica</i> and anti-cancer property thereof to inhibit growth of breast cancer stem cells for treating breast cancer	Dr. Umapriyatharsbini Rajagopalan Prof. Sameera R. Samarakoon	Dr. Umapriyatharsbini Rajagopalan Prof. Sameera R. Samarakoon Prof. Kamani Tennekoon Dr. Achyut Adhikari Prof. E. Dilip De Silva Prof. Muhammed Iqbal Choudhary Dr. Kanishka S. Senathilaka Dr. Meran Keshawa	Patent Application is been corrected	
3	Methods to synthesize chloromangiferamide and its molecular derivatives and anticancer medicinal preparation thereof	Mr. Rajitha K. Rathnayaka Prof. Sameera R. Samarakoon	Mr. Rajitha K. Rathnayaka Prof. Sameera R. Samarakoon Prof. Kamani Tennekoon Dr. Dinara S. Gunasekara Dr. Kanishka S. Senathilaka Dr. Meran Keshawa	Patent Application Submitted to UBL	
4	A method of detecting anti-severe acute respiratory syndrome coronavirus-2 (SARS-CoV2) antibodies and diagnostic uses thereof	Prof. Sisira L Pathirana Dr. Bagya Deepachandi	Handunnetti S, Pathirana SL, Fernando N, Gunasekara P, Deepachandi B, Gangani PD, Thambyarajah J, Perera T, Nitsche A, Premawansa S, Perera IC, Siriwardana S, Dassanayake D, De Silva R, Premawansa G, Namalie D, Nanayakkara S, Kumarasinghe D, Muthugala R, Manilgama S, Sumathipala S, Rajapakse S	Patent Application Submitted to UBL	

Memorandum of Understanding with LOLC Advanced Technologies (Pvt) Limited

A Memorandum of Understanding (MOU) was signed between the Institute of Biochemistry, Molecular Biology, and Biotechnology, University of Colombo, and LOLC Advanced Technologies PVT LTD on November 24, 2022. The event took place at the University of Colombo, College House Premises and was attended by the Vice Chancellor of the University of Colombo, Senior Prof. H.D. Karunaratne, Director of IBMBB Prof. Prasanna Galhena, Prof. Sameera R Samarakoon, Director of UBL Cell Prof. M.N. Kaumal, Dr. Kanishka Senathilake, Ms. Arani Ranasinghe, and Mr. Mishal Faizan were representing IBMBB and the University of Colombo. LOLC Advanced Technologies was represented by Mr. Danesh Abeyrathne the CEO of LOLC Advanced Technologies, Procurement Manager Mr. Randika Jayasinghe and Deputy Manager international Sales and Marketing Mr. Sahan Mendis.

The goal of this partnership between LOLC Advanced Technologies and IBMBB is to create locally accessible, scientifically useful products. These programs aim to generate cutting-edge innovations that can satisfy the present socioeconomic need by producing new, enhanced products. LOLC Advanced Technologies Pvt. Ltd. is a business set up to explore sustainable business opportunities in the market with the augmentation of science and technology.

It is a wholly owned subsidiary of LOLC Holdings PLC. It explores technology and innovation aligned with the country's vision and aims to infuse local value addition. It further provides opportunities for local scientists to work on exciting projects and encourages a spirit of discovery and innovation, which are abundant in Sri Lanka.



A Memorandum of Understanding (MOU) was signed between the Institute of Biochemistry, Molecular Biology, and Biotechnology, University of Colombo, and LOLC Advanced Technologies PVT LTD on November 24, 2022.

Monetary Income

Monetary income of the IBMBB consists of recurrent and capital block grants received from the General Treasury, generated income from Masters. MSc programmes and Self Financing Activities (SFAs) and interest income from investments.

Student Facilities

IT Facilities

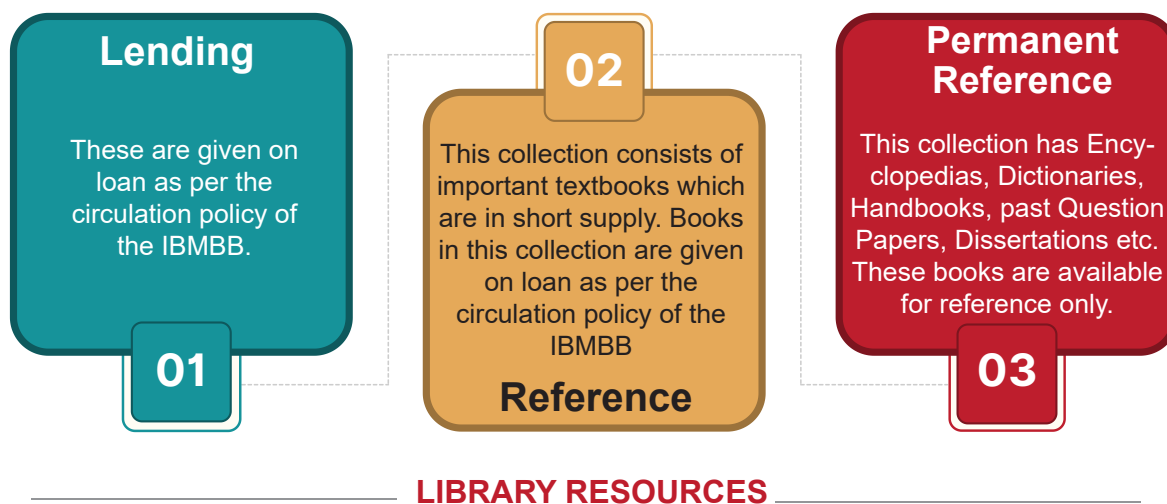
Learning Management System (LMS) and Zoom conferencing facilities, creating a virtual learning environment along with distance learning capabilities. Students are provided with access to IBMBB Self Service Portal (SSP) where students can apply for courses, request transcripts and

check availability of books in the IBMBB Library online. SSP is integrated with the online payment gateway facilitating online payments to IBMBB. Wireless internet access is available to all students at IBMBB providing unlimited internet access and to other online services provided by IBMBB

Locally provided services include locally installed Bioinformatics tools and databases, shared storage and printing services. IBMBB currently has two teaching computer laboratories for master's students and two for research students. All laboratories have access to unlimited internet and necessary software installed.

Library

The IBMBB Library is composed of large collection of books and journals in Molecular Biology, immunology, biotechnology, Bioinformatics and related fields. They are basically categorized in to 3 types - lending, reference and permanent reference



Books Classification - Universal Decimal Classification (UDC) System is followed up with the special library i.e., for IBMBB Library.

Student Mentoring

A personal student mentor for each student enrolled at IBMBB was appointed. An awareness session was conducted for all mentors by Prof. Piyanjali de Zoysa, a Clinical Psychologist attached to the Department of Psychiatry of the Faculty of Medicine at the University of Colombo. This awareness session was conducted in August 2022.

Prof. Nimal Punyasiri has been a member of the mentoring pool of the University of Colombo since 2018 and this membership continued in 2022 as well.

Awards Received in 2022

Senate Awards

Senate Awards for research for year 2020	Senate Awards for research for year 2021	Senate Awards for research excellence 2020
Prof. Shiroma Handunnetti	Prof. Shiroma Handunnetti	Prof Sameera Samarakoon
Senate Awards for research excellence 2021	Senate Awards for research excellence 2021	Senate commendations for year 2020 and 2021
Prof Sameera Samarakoon	Prof. Nimal Punyasiri	Dr Narmada Fernando

CSR Activities

Chemistry Seminar for A/L students

The Dhammissara Old Pupils' Association organized a chemistry seminar for A/L students on 17th October 2022, and Prof. Sameera R Samarakoon and Dr. Kanishka S Senathilaka from IBMBB were invited as key resource personnel. The seminar was conducted successfully, and coordination was carried out by the Business Development Unit of IBMBB.

Prof. Sameera R Samarakoon and Dr. Kanishka S Senathilaka from IBMBB were invited as key resource personnel. The seminar was conducted successfully, and coordination was carried out by the Business Development Unit of IBMBB.



Wayamba University of Sri Lanka, Visit to IBMBB

The Department of Biotechnology, Faculty of Agriculture and Plantation Management, Wayamba University of Sri Lanka, visited IBMBB, University of Colombo, on January 11, 2022. The field visit was organized for 17 students from the 3rd year Biotechnology Specialization. They were exposed to Molecular Biological Techniques (DNA sequencing, Electroporation and Real Time PCR, Gene transformation techniques,

radioisotope techniques etc.), HPLC, FPLC and cell culture & immunology techniques. The students were also introduced to the labs, research, and equipment available at IBMBB by the academic staff and PhD students. The session was planned and managed by the Business Development Unit with Academic and Non-Academic Staff being involved in the delivery. The Department of Food Science and Technology, Faculty of

Livestock, Fisheries, and Nutrition, Wayamba University of Sri Lanka, visited IBMBB, University of Colombo, on October 27, 2022. The field visit was organized for 42 students from the 3rd year based on a module conducted on the title of "Biotechnology in Food Science. They were exposed to the different types of labs, research, and equipment available at IBMBB by the academic staff and PhD students.

Practical demonstrations at IBMBB for undergraduates of the University of Sri Jayawardenapura

Students of the Genetics and Molecular Biology Unit, Faculty of Applied Sciences, University of Sri Jayawardenapura, visited IBMBB, University of Colombo, from 22nd to 25th March 2022. The practical demonstrations were organized for 26 students and they were exposed

through a series of demonstrations, to the following techniques - Methods of RNA - RNA extraction, cDNA synthesis, Real-time qPCR. Methods for proteins - Protein precipitation, Estimation of total protein content, SDS-PAGE, Western Blotting

Apart from that the students were introduced to the labs, research, and equipment available at IBMBB by the academic staff and PhD students. The session was planned and managed by the Business Development Unit with Academic and Non-Academic Staff being involved in the delivery.

Summary of activities coordinated by IQAC, IBMBB - 2022

During the year 2022 Dr Narmada Fernando served as the IQAC Coordinator of IBMBB and Dr Dilani Rukshala continued her service as the Scientific Assistant, IQAC of IBMBB

Preparations for Institutional Review was conducted during the year and for that coordinators were reappointed and staff responsible for every standard under each criteria were identified in view of upcoming Institutional Review (IR)

and three meetings were organized for coordinators and other relevant staff to discuss the work plan for preparations for IR. Further seven meetings were held to review the evidence identified by the coordinators and process of evidence collection was facilitated by assigning management assistants to each criteria with the concurrence of SAR.

Moreover, A mechanism was developed and relevant resources were made available on collection of e-versions of evidence in MS TEAMS platform. and an awareness programme was conducted in September for academic support staff and non-academic staff on Institutional Review and related QA frameworks. Preliminaries were taken for the establishment of Institutional Staff Development Unit of IBMBB.

Preparations for Programme Review

SLQF level 11 and 12 was also continued during the year and coordinators were appointed for each criteria in view of upcoming Postgraduate Programme Review and Initiatives were taken for the establishment of Programme Development Committee for SLQF level 11 & 12 and contributed for QA aspects

Compliance with relevant policies, regulatory QA frameworks were adopted and for that An awareness session was conducted in March 2022 to make the programme coordinators aware on how to demonstrate the SLQF compliance in level descriptors of SLQF level 9 and 10 Masters degree programmes, Self-evaluation of SLQF

compliance in level descriptors of all six Masters degree programmes at SLQF level 9 and 10 was completed, Self-evaluation of SLQF compliance in qualification descriptors of above degree programmes are in progress

For student feedback and reflection Reports of the student feedback on Teacher performance for year 2021, Postgraduate Programmes for year 2021 were generated and submitted for relevant authorities. Student feedback was collected for Learning environment, Teacher performance, Postgraduate programme for the year 2022. Reports are being generated.

Employee Classification as at 31st December 2022

Service Category	Salary Code	Approved Cadre	Actual Cadre		Vacancies
			Permanent	Temporary	
Primary Level					
Primary Grade- Unskilled	U- PL 1	01	00	01	01
Primary Grade- Semi skilled	U- PL 2	03	03		
Primary Grade- Skilled	U- PL 3	01	01		
Secondary Level					
Management Assistant – non-Technical	U- MN 1	11	10	02*	01
Management Assistant - Technical	U- MT 1	04	03		
Associate Officers- Segment 2	U- MN 2		00		
Associate Officers- Segment 1	U- MN 3		00		
Staff Assistant/Supra & Senior Staff Assistant	U- MN 4		01**		
Tertiary Level					
Junior Executive/ Managers	U- EX 1	01	01		
Academic Support – Segment 2	U- AS 1	07*	01	08***	01
Academic Support – Segment 1	U- AS 2		03**		
Senior Level					
Medical Officer	U- MO 1	00	00		
Chief Medical Officer	U- MO 2	00	00		
Middle Level Executives	U- EX 2	01	01		
Middle Level Executives*	U- EX 2 (a)	01	01	00	00
Senior Executives	U- EX 3	00	00		
Lecturer	U- AC 3	11	03	00	03
Associate Professors	U- AC 4		00	00	
Professors/ Senior Professors	U- AC 5		05	00	
Director	U-AC 5	01	01	00	00
Post- Doctoral Research Fellow **	Fixed	03	00	02	01
Temporary Assistant Lecturer **	Fixed	02	00	01	01

Staff Development, Training and Welfare-2022

IBMBB strongly believes in ensuring and facilitating the continuous professional development of all its staff members. The following staff members engaged in training in order to develop their skills further that will enable them to contribute towards the delivery of excellence by IBMBB. The staff members names and the training programmes attended are indicated below.

Name	Designation	Workshop / Training Course	Duration/Dates
A A Jayasoma	Staff Technical Officer	Advance Certificate in Immunology	4 months
Prof .P.A Nimal Punyasiri	Professor	Certificate Course on Disability Awareness and Sensitization for Academic Staff Centre for Disability Research, Education, and Practice (CEDREP), University of Colombo	03 months
Ms. B.C.M. Perera	Management Assistant (Grade III)	General Filing	23 rd / 24 th February 2022
Mr. Y.B.M.N.Y. Bandara	Laboratory Attendant (Lower Grade)	Safe Operations & Maintenance of Diesel Generators	27 th May 2022

Continuous Professional Development Program for Non-Academic Staff of the IBMBB

Training Development is one of the key component of the Human Resource Advancement. The first Continuous Professional Development (CPD) Programme for Non- Academic Staff/ IBMBB was organized based on the Training Need Analysis. Accordingly, 6 days Training Programme was conducted under the following areas.

1. Introduction to Administrative Framework and Statutory Committees of IBMBB
2. General Administration
3. General Introduction to Financial Regulation, Procurement Procedures, & General Financial Regulations
4. Repairs, Service Agreements, Board of Survey, Losses, Write-off
5. General Auditing Procedure
6. Disciplinary Matters, Rights and Obligations of University Employees

Resource persons of the program were Mr. K.A.S. Edward, Registrar of University of Colombo, Ms. K.S.T.S. Jayasooriya, Bursar, Mr. L.P. De Silva, SAR/ General Administration, Ms. Dilini Perera, SAR/ Non Academic Establishment, Mr. H.M.K. Herath, SAB/Supplies, Ms. N.P. De Silva, DIA and Ms. Rangika Lasanthi, SAR/ Legal and Documentation.

The individual Portfolio was developed by the participants and the portfolios were assessed. The Certificates were awarded in the presence of the Registrar/ UOC and Director/ IBMBB

Health Insurance Scheme

A Health Insurance policy was purchased from Sri Lanka Insurance Corporation for the employees at the IBMBB in 2022. The Board of Management of the Institute approved the policy be purchased on welfare basis that a 50% at the total sum insured to be borne by the Institute. Thirteen employees at the IBMBB and 24 number of their family members were included in the Health Insurance Policy. A total of Rs. 133,127.55 was borne by the Generated funds of the Institute for this purpose in 2022

Third international conference of the IBMBB

Institute of Biochemistry, Molecular Biology and Biotechnology (IBMBB), University of Colombo hold annual Research symposia and every 5 years an International research symposium is held.

In 2022, International conference on Frontiers in Molecular Life Sciences (ICF-MLS 2022) was held at the Conference Hall of the IBMBB, under the theme “Multidisciplinary Research For Sustainable Development in the Post Genomic Era”. The conference was held from 6th to 7th April 2022 in hybrid mode, due to the COVID 19 situation

Twenty seven oral presentations and twenty one poster presentations were made covering five main areas; Natural products for therapeutics, Immunopathogenesis & immunodiagnostics, Natural products for therapeutics, Molecular genetics and genomic medicine, Natural products for therapeutics, Population Genetics and Bioinformatics.

The symposium also included seven symposia; namely, Precision Oncology, COVID-19 updates, Trends in drug screening and development, Peopling and evolution of languages, Natural products as immunity boosters, Plant genetic resources and Biotechnology, Trends and needs in immunodiagnostics and immunotherapeutics.

The main event in IBMBB annual research symposium is the Stanley Wijesundara Memorial lecture and this year it was delivered under the title “Genetics and Genomics in the Sri Lankan population - Insights from Four Decades of Service and Research” by Vidya Jyothi Professor Vajira H. W. Dissanayake Dean, Faculty of Medicine Chair and Senior Professor Department of Anatomy, Genetics and Biomedical Informatics University of Colombo Sri Lanka

The keynote address under the title “Archaeology meets Genomics: new avenues of population prehistory”, was delivered by Professor Raj Somadewa

Senior Professor of Archaeology Postgraduate Institute of Archaeology University of Kelaniya Sri Lanka. A Plenary lecture under the title “From Precision Agriculture to Personalised Medicine: A wholistic view of future and present research in the Life Science” was delivered by Professor Eric Bongcam Rudloff, Professor of Bioinformatics Department of Animal Breeding and Genetics Swedish University of Agricultural Sciences Uppsala, Sweden.

Under the seven different research symposia nineteen world renowned experts, both foreign and local, delivered lectures on their areas of expertise. The delivery of this conference through a hybrid-mode, facilitating a fully online and onsite presence was truly unique and was delivered with great success and received the appreciation of all in attendance. It was a very successful event and attended by a large number, both on-site and on-line



The keynote address under the title “Archaeology meets Genomics: new avenues of population prehistory”, was delivered by Professor Raj Somadewa



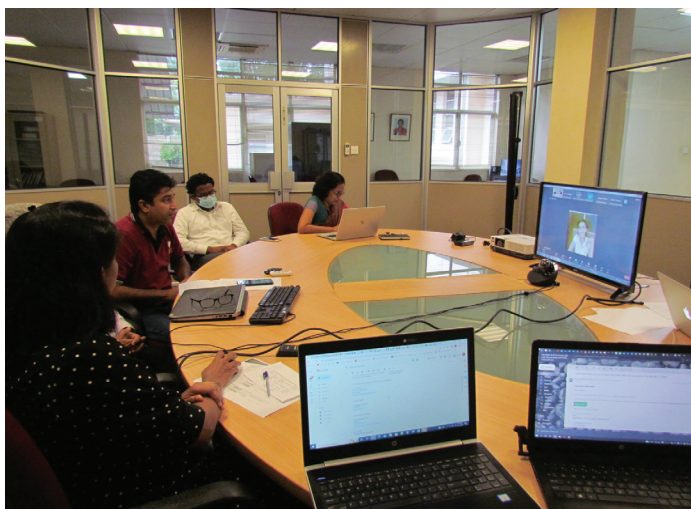
Institute of Biochemistry, Molecular Biology and Biotechnology (IBMBB), University of Colombo hold annual Research symposia and every 5 years an International research symposium is held.

Open Day

IBMBB had its virtual open day on October 14, 2022, with the participation of more than 100 students and researchers. The event was conducted through the Zoom platform. led by Prof. Prasanna Galhena, Prof. Shiroma Handunnetti, Prof. Jagathpriya Weerasena, Prof. Sameera Samarakoon, and Prof. Sisira Pathirana

along with the esteemed panel of academics from IBMBB, were present to introduce the MSc programs and the short courses to the participants. Additional innovative and industrial talks were given by Dr. Geethani (Head of Laboratories, Lanka Hospital Diagnostics Pvt. Ltd.),

Mr. Tennakoon (Head of Research and Development, Link Natural Products Pvt. Ltd.), Mr. Chamendra (Founder, FADNA Food and Nature Pvt. Ltd.), and Dr. Muditha (Head of Research, John Keells Holdings). The proceedings concluded with a success note, and the student feedback for the event was excellent.



The event was conducted through the Zoom platform. led by Prof. Prasanna Galhena, Prof. Shiroma Handunnetti, Prof. Jagathpriya Weerasena, Prof. Sameera Samarakoon, and Prof. Sisira Pathirana,



IBMBB had its virtual open day on October 14, 2022, with the participation of more than 100 students and researchers. The proceedings concluded with a success note, and the student feedback for the event was excellent

Financial Constraints

Financial Resources were the major constraint in 2022 for implementing the activities stipulated in the Action Plan 2022 and the Corporate/ Strategic & Management Plan 2022-2026. The institute had estimated a capital expenditure of Rs 168 million whereas the actual expenditure had to be limited to the government capital block grant of Rs. 4.443 million. Further, IBMBB has not received funding for research from the UGC which is made available to the other faculties within the university system. (DB)

Hence the number of planned activities related to capital, research and development had been remarkably decreased during the year 2022.

Teaching

- Initiate external undergraduate Programme
- Initiate new postgraduate programme in Medicinal Biochemistry
- Continue/strengthen existing MPhil and PhD programmes
- Design new short courses
- Strengthening existing short courses
- Strengthen biannual student feedback on teaching, learning and assessments
- Strengthening student mentoring program
- Establishment and maintenance of a comprehensive resource pool of Faculty
- Align teaching learning assessments with learning outcomes
- Strengthening modern teaching / learning methods
- Introduce/ continue novel student-centered teaching learning activities (eg: Coursera, PBL, SDL)
- Introduce student internships/industrial training through collaborations with industry

Research

- Strengthen research under three nationally relevant key research themes
- Implement an appropriate mechanism to review the periodical progress of research activity
- Establish new and strengthen the existing collaborative assignments with the industry
- Enact memoranda of understanding with Research Institutes/ Private sector Institutes
- Complete Patent Applications and Non-Disclosure Agreements
- Commercialize the research findings
- Strengthen collaborative research programmes with health sector
- Expand the scope of the PhD Programmes
- New admissions to MPhil/PhD programmes, Training of professionals/ technocrats in the applications of Molecular Life Sciences
- Generating new knowledge through research programmes
- Encourage and assist in obtaining National/ International competitive research grants by faculty members/ collaborators
- Strengthen cooperation with other Faculties/ Universities and private sector Educational Institutes
- Dissemination of Knowledge/ Research Findings

Service

- Develop collaboration with Industry/Private sector
- Conduct awareness programme targeting relevant social segments
- Enriching teaching and learning activities targeting advance level students following Biology/ Technology stream
- Organize annual blood donation camp
- Carryout annual event at Apeksha Hospital
- Conduct annual school programme targeting resource limited Advance Level students
- Maintain and update mirrors of Biological databases
- Provide on-line tools for Bioinformatics based/ learning /research
- Establish a repository of Archives giving the land mark developments in the field of Molecular Life Sciences
- Diagnostic services for cancer, other diseases and for plantation sector
- Consultancies
- Fee-levying Postgraduate and other training programmes
- Training of professionals and technocrats in the application of Molecular Life Sciences, Immunology, Bioinformatics and Allied fields

Maintaining International Standards

- Enhance existing/ develop new collaborations with Universities and Research Institutes overseas
- Provide training in Molecular Life Sciences, Immunology, Bioinformatics and allied fields, nationally and regionally
- Development and implementation of new laboratory establishment policy by addressing the current and future demands
- Acquisition and upgrading of IT infrastructure facilities
- Establish links with international centres of excellence for E- teachers and E-resources in Bioinformatics
- Establishment of an external review system
- Ethical practices in scientific and biomedical research
- Ethical, societal and legal implications of genetic research and genetic information
- Conduct an International research symposia
- Encourage and assist in participation at International conferences by faculty members/collaborators/ students to present research carried out at the IBMBB

Governance

- Development of a Training Policy and Guidelines
- Code of Ethics for staff and students
- Compliance with accepted norms of Accounting standards
- Develop SOP Manual of procedure for Administrative activities
- Provide regular training for staff members

The Future Projection Report on activities to safeguard the environment and mitigate the negative impact on the environment based on Sustainable Development

Institute of Biochemistry, Molecular Biology and Biotechnology (IBMBB), University of Colombo is a research institute which was established with the view to provide guidance, training, research, development and consultancy in Biochemistry, Molecular Biology, Biotechnology, Immunology, Bioinformatics and other allied fields. IBMBB directly contributes to the Goal 04 of Sustainable Development Goals; Quality Education. While the Institute contributes to the Quality of Education, Institute has given concern of safeguarding the environment and to mitigate the negative impact on the environment

Reduce paper work

IBMBB is in the process of digitization of paper based document to reduce paper usage. Currently, inter-division work flow is carried out in the MS Teams platform enhancing the work out come and reducing the paper use. Self Service Portal (SSP) was implemented in 2022 by integrating the online application system and online payment gateway with a staff/student login system. The online processing of course applications and payments is done via SSP reducing the paper usage and increasing the efficiency of day to day work. Document Management System for the IBMBB is planned to introduce in 2023. Further, emails are used for the internal and external communications to reduce paper works and toner usage within the Institute.

Polythene Free Zone

Institute of Biochemistry, Molecular Biology and Biotechnology is located at a Polythene free zone and the Institute has taken action to maintain it.

Wastage Management System

IBMBB, University of Colombo has state of the art laboratories for postgraduate teaching and training purposes that are well equipped with safety precautions required for handling human donor blood samples and cell lines which are used in laboratories. Standard safety procedures are practiced and are being continued in handling and disposal of biohazard material. All necessary laboratory procedures are taken and are being continued to minimize environmental risk of handling and disposal of hazardous chemicals and reagents.

Move to environmental friendly lighting accessories

It has been planned to move to the LED lighting accessories which are energy efficient and environmental friendly than traditional lighting systems such as fluorescent by 2024. LED lights are not cause for the environmental pollution when disposed of in landfill waste since its contain no toxic elements.

Auditor General Report

My No. : HED/B/IBMBB/2022/FA/04

Your No:

Date: 04th May 2023

Director

Institute of Biochemistry, Molecular Biology and Biotechnology.

Report on the Auditor General on the Financial Statements and other legal and monitoring requirements of Institute of Biochemistry, Molecular Biology and Biotechnology affiliated to the University Of Colombo for the year ended 31st December 2 in terms of section 12 of the National Audit Act, No. 19 of 2018.

The aforesaid report has been sent herewith.

WMPA Fonseka
Deputy Auditor General
For Auditor General

Copies:

1. Secretary – Ministry of Education
2. Secretary – Ministry of Finance
3. Chairman – University Grants Commission
4. Vice Chancellor - University of Colombo

Director,
Institute of Biochemistry, Molecular Biology and Biotechnology.

Report on the Auditor General on the Financial Statements and other legal and monitoring requirements of Institute of Biochemistry, Molecular Biology and Biotechnology affiliated to the University Of Colombo for the year ended 31st December 2022 in terms of section 12 of the National Audit Act, No. 19 of 2018.

1. Financial Statements

1. Qualified Opinion

The audit of Financial Statements of the of Institute of Biochemistry, Molecular Biology and Biotechnology affiliated to the University Of Colombo for the year ended 31st December 2022 comprising the Statement of Financial Position as at 31st December 2022 and the Statement of Financial Performance and Statement of Changes in Equity and Cash Flow Statement for the year then ended and a summary of significant accounting policies and other explanatory notes were carried out under my direction in pursuance of provisions laid down by section 17 of the Protocol of Institute of Biochemistry, Molecular Biology and Biotechnology No. 1 of 2003 vested upon by section 18 and subsection 107 (5) and Article 108 (1) of the Universities Act No. 16 of 1978 which should be read in conjugation with Article 154 (1) of the Constitution of the Democratic Socialist Republic of Sri Lanka and section 12 of the of the National Audit Act, No. 19 of 2018. My report will be tabled in the parliament in due course in terms of Article 154 (6) of the Constitution.

In my opinion, except of the matters described in the paragraph on “Basis for Qualified Opinion” of this report the Financial Statements give a true and fair view of the financial position of the entity as at 31 December 2022 and its Financial Performance and Cash Flows for the year then ended in accordance with Sri Lanka Public Sector Accounting Standards.

2. Basis for Qualified Opinion

- a) As per the provisions of section 43 of the Sri Lanka Public Accounts Standards no.03, a change in the estimated useful life of a depreciable asset should be adjusted to the accounting estimate as a difference. However, the increase of depreciation rate of the motor cars from 10% to 20% during the year under review had been retrospectively adjusted by the institute as a change in the accounting policies. Accordingly, depreciation of motor cars totaling Rs. 51,500 relevant to the year under review and carrying value of the motor cars as of 31st December 2022 had not been included in the Financial Statements.
- b) As per the provisions of section 65 of the Sri Lanka Public Accounts Standards no.07, the residual value and the useful life of an asset shall be reviewed at least at each annual reporting date and, if expectations differ from previous estimates, the change (s) shall be accounted for as a change in an accounting estimate in accordance with SLPAS 03. Yet, these provisions had not been followed

regarding fully depreciated computers, laboratory equipment and library books with a total cost of Rs. 48,862,850.

- c) The balance available at the Foreign Currency bank account totaling 25,726 dollars as at 31st December 2022 had not been accounted in the existing foreign exchange rate as of such date. Therefore, the foreign exchange gain of Rs.897,615 had not been adjusted to the Financial Statements.
- d) Transfers made to four funds with the income earned from the courses aggregating to Rs. 10,290,805 had been directly deducted from the income instead of accounting it as appropriation from the gains at the end of the year, thus understating the income of the year by the same amount.

My audit was carried out in accordance with Sri Lanka Auditing Standards. My responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of my report. I believe that the audit evidence I have obtained is sufficient and appropriate enough to provide a basis for my qualified opinion.

1.3 Other Information available in the Annual Report of the entity

Other information refers to the information obtained by me before the date of this report that are included in the annual report of the entity -2022 , yet not available in my audit report. The management is responsible for this other information.

My opinion of the Financial Statements does not cover this other information and I do not confirm or express an opinion regarding that.

My responsibility regarding the auditing of the Financial Statements is to reading the above recognized other information and to consider whether other information quantitatively contradict with my knowledge obtained through the Financial Statements, auditing or in any other means.

In case I conclude that this other information is materially misstated based on the other information obtained by me prior to the date of this audit report and work performed by me, I am required to report that fact. I have nothing to say in this regard.

1.4 Responsibility of Management and Controlling Parties for the Financial Statements

Management is responsible for the preparation and fair presentation of these Financial Statements in accordance with Sri Lanka Public Sector Accounting Standards and for determining the internal controls which are necessary to enable the preparation of Financial Statements that are free from material misstatements whether due to fraud or error.

It is the responsibility of the management to decide on the going concern ability of the entity in preparation of Financial Statements. It is also a responsibility of the management to keep accounts on a going concern basis and disclosure of the facts in relation to the going concern of the entity except in case the management intends to

liquidate the institution or it is intended to cease operation in the absence of any other option.

The controlling parties of the entity are responsible for the financial reporting system of the institution.

According to the subsection 16 (1) of the National Audit Act, No. 19 of 2018, the entity shall maintain proper books and records of all its income, expenditure, assets and liabilities, to enable annual and periodic Financial Statements to be prepared in respect of the entity.

1.5. Responsibility of the Auditor in the audit of Financial Statements

My objective is to provide a fair assurance on the Financial Statements that they are free from material misstatements as a whole whether due to fraud or error and to issue the auditor's report comprising my opinion. Although fair assurance is a high quality assurance, it does not confirm that it would always expose quantitative misstatements when the audit is done in accordance with Sri Lanka Auditing Standards. It is expected that individual or collective impact of fraud or error may result in quantitative misstatements and it may have an effect on the decisions taken by the users based on these Financial Statements.

This audit has been carried out by me with professional judgment and professional skepticism. Also,

- Obtaining sufficient and appropriate audit evidence to avoid risks caused by fraud or error by designing appropriate audit procedures that are appropriate in the circumstances in recognizing and evaluating possible misstatements that may occur in Financial Statements due to fraud or error is the basis of my opinion. Fraud will have a higher impact than that of material misstatements and collusion, preparation of fake documents, intentional avoidance, misuse and avoidance of internal controls may result in fraud.
- The auditor considered internal controls relevant to the university in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal controls of the institution.
- The audit included evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management as well as the suitability of the related disclosures made by the management.
- The relevance of using the going concern basis for accounting purpose was determined based on the audit evidence obtained on whether there is a sufficient contingency on the going concern of the university due to events or circumstances. In case I conclude that there is a sufficient contingency, my audit report should attend to the related disclosures in the Financial Statements and my opinion must be modified in case the disclosures are not sufficient enough. However, going concern may end due to future events or circumstances.

- Presentation, structure and content of the Financial Statements with disclosures was assessed and underlying transactions and events were evaluated for whether they were included in the Financial Statements in an appropriate and reasonable manner.

The controlling parties will be made aware of the important audit findings, major internal control weaknesses and other facts recognized in the audit.

2. Report on other Legal and Monitoring Requirements

2.1 Special provisions are included regarding the following requirements in the National Audit Act, No. 19 of 2018.

2.1.1. I have obtained all the information and explanations required for the audit according to the requirements of section 12 (a) of National Audit Act, No. 19 of 2018, except for the impact of matters described in the paragraph “Basis for Qualified Opinion” of this report. As seen in my investigation the university had maintained proper financial reports.

2.1.2. According to the requirements of section 6 (I) (d) (iii) of National Audit Act, No. 19 of 2018, the Financial Statements presented by the university are in consistent with the preceding year.

2.1.3. According to the requirements of section 6 (I) (d) (iv) of National Audit Act, No. 19 of 2018, the recommendations made by me in previous year have been included in the presented Financial Statements.

2.2. According to of the procedures followed, evidence obtained and within the restriction of the quantitative matters, nothing caught my attention that was sufficient to make the following statements.

2.2.1. According to the requirements of section 12 (d) of National Audit Act, No. 19 of 2018, any member of the council of the university has any direct or indirect interest in any contract entered into by the university that is outside the normal business arrangement.

2.2.2. According to the requirements of section 12 (f) of National Audit Act, No. 19 of 2018, the auditee entity has not complied with any applicable written law or other general or special directions issued by the governing body of the auditee entity.

2.2.3.

	Reference to the Rules	Observation
(a)	Public Accounting Circular no. 30/94 dated 20 th April 1994 and the letter of Director General of the Department of Foreign Exchange no. SC&PMU/Grant/ 19 dated 25 th July	Foreign grants and technical subsidies totaling Rs. 8,923,951 received from 2014 to 2019 had been directly received by the institution, without acknowledging the Department of Foreign Exchange.
(b)	Section 4.2 of the UGC circular no. 04/2016 dated 01 st March 2016	Approval of the University Grants Commission had not been gained for four full time degree programs conducted by the institution.

2.2.4. According to the requirements of section 12 (g) of National Audit Act, No. 19 of 2018, the university has not performed according to its powers, functions and duties.

2.2.5. According to the requirements of section 12 (h) of National Audit Act, No. 19 of 2018, the resources of the auditee entity had been procured and utilized economically, efficiently and effectively within the time frames and in compliance with the applicable laws.

2.3. Other observations

07 individuals had been recruited for the post of Temporary Scientific Assistant (on contract), even though the approved cadre contained only 2 such posts.

WPC Wickramarathna
Auditor General.

Responses to the Auditor General Report

11.05.2023

Auditor General,
Auditor General's Department,
306/72,
Polduwa Road,
Baththaramulla.

Dear Sir,

Report on the Auditor General on the Financial Statements and other legal and monitoring requirements of Institute of Biochemistry, Molecular Biology and Biotechnology affiliated to the University Of Colombo for the year ended 31st December 2022 in terms of section 12 of the National Audit Act, No. 19 of 2018.

This is with reference to your letter bearing no. HED/B/IBMBB/2022/FA/04 on the above heading. The relevant information regarding the pertaining matters given in the report is attached herewith.

Thank you.

Professor Prasanna Galhena
Director
Institute of Biochemistry, Molecular Biology and Biotechnology

Copies:

1. Secretary – Ministry of Education
2. Secretary – Ministry of Finance
3. Chairman – University Grants Commission
4. Vice Chancellor - University of Colombo

1.2. Basis for Qualified Opinion

- a) As per the provisions of section 27 of the Sri Lanka Public Accounts Standards no.03, increase of depreciation rate was recognized as a change in the accounting policies and adjustments were made retrospectively. Action shall be taken to consider it as an accounting estimate and to prepare it according to the standards in 2023, as indicated by the audit. The comparative values will also be disclosed.
- b) Agreed with the observations made by the audit. During the preparation of final accounts in 2023, Measures will be taken in accordance with accounting standards in respect of fully depreciated Property, plant, and equipment.
- c) Agreed with the observations made by the audit. During the preparation of final accounts in 2023, measures will be taken to adjust the foreign exchange gain properly.
- d) Agreed with the observations made by the audit. However, deducting the cost amount allocated to the development fund, director vote, equipment and technology and course development directly from the income does not affect the surplus of the year under review. Measures will be taken to make allocations for the above subjects through the Statement of Change in Equity.

2. Report on other Legal and Monitoring Requirements

2.2.2.

- a. Since the previous years, foreign grants received for research by the institute has not come through the Department of External Resources of the Treasury. However, Measures will be taken in the future to comply with the public account circular no. 30/94 in dealing with the research grants.
- b. The procedure to obtain approval for the four full time degree programs has been initiated by the institution. After the first round of evaluation, the application submitted to the UGC has been returned to the institution for a minor change to be made. The prospective revisions have been submitted to the Boards of Studies and are expected to be sent to the UGC during the month of April, 2023.

2.3 Other Observations

- a) The approved cadre of the institution contains two positions of Temporary Scientific Assistant (on contract). Payments are made to them through treasury funds. Five temporary scientific assistants have been recruited on contract basis. Their payments are made with generated income.

IBMBB offers post graduate degrees and PhDs. Researches and studies are on going in the fields of molecular biology, Cellular and Molecular Immunology and bioinformatics.

It is highly important to continue these researchers and studies productively and punctually. Based on the research and study capacity of the above departments, Five temporary scientific assistants have been recruited on contract basis to be paid with generated income in addition to the approved cadre.

Review on Internal Audit Functions in the Year 2022

Introduction

The Audit Committee is one of the main Committees of the institute of Biochemistry, Molecular Biology and Biotechnology, University of Colombo, Sri Lanka. The three -member Committee meets quarterly in every year and discusses the Audit Reports and Audit Queries issued by the Auditor General's Department and Institute's financial, administrative, human assets and academic activities. Its membership, terms of office, responsibilities, powers, and electoral procedures are governed by the Treasury of Sri Lanka through University Grants Commission and Board of Management

Composition of the Audit Committee – Year 2022

Name of the Members/Observers	Designation
Members	
Ms. Padmini Ranaweera	Chairman
Prof. Ramani Wijesekara	Member
Mr. K. Piratheepan	Treasury Representative
Convener	
Mr. K.E.W. Jayasiri	Senior Assistant Internal Auditor/UOC
Observers	
Prof. BP Galhena	Director/ IBMBB
Ms. S.M.C. Indika	Superintendent of Audit
Mr. M.M.J.R Bogamuwa	Internal Auditor/ UGC

Meetings

As per the Public Enterprise circular No PED/31, the committee is required to meet at least four times in a year. During the year under review, the Committee has met four times.

Internal Audit

The internal audit activities of the Institute of Biochemistry, Molecular Biology and Biotechnology has been conducted by the Internal Audit Division of the University of Colombo. The Internal auditors has carried post, pre and other audit activities as included in the audit plan for 2022.

Review of Chairman/ Audit Committee on Internal Audit Function in the Year - 2022

The Audit Committee satisfied with the active participation of the Committee members and their commitment towards the good governance of the Institute. The Committee satisfied with the internal audit functions of the internal audit division. The Committee while satisfied with the follow up action taken and the progress achieved regarding the recommendations given by the Committee, continue to emphasize the implementation of good governance, transparency, proper financial, administrative, and academic performance.



Ms. Padmini Ranaweera
Chairman,
Audit Committee/ IBMBB, UOC

Annual Financial Report

STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2022 (Figures adjusted to the Nearest Rupee)

	Note	2022 Rs.	2021 Restated Rs.	% Change
<u>ASSETS</u>				
<u>CURRENT ASSETS</u>				
Cash & Cash Equivalents	Note - 01	15,513,824	19,415,189	(20)
Other Receivables	Note - 02	5,505,426	2,866,070	92
Advances	Note - 03	3,197,599	70,063	4,464
Staff Loans - Within one year	Note - 04	727,511	973,257	(25)
Investments - Mature within one year	Note - 05	22,315,941	38,741,037	(42)
Chemicals & Glassware		869,060	1,365,871	(36)
		48,129,362	63,431,486	(24)
<u>NON-CURRENT ASSETS</u>				
Property Plant & Equipment				
Building	Note - 06	23,388,928	29,228,161	(20)
Library Books & Periodicals		175,216	380,813	(54)
Lab & Teaching Equipment		9,636,041	12,521,232	(23)
Computers		4,395,381	5,830,391	(25)
Office Furniture & Equipment		10,950,813	12,473,031	(12)
Staff Loans - More than one year	Note - 04	2,606,978	1,591,090	64
Investments - Mature after one year	Note - 05	66,716,482	37,373,172	79
		117,869,839	99,397,890	19
TOTAL ASSETS		165,999,200	162,829,376	2
<u>EQUITY & LIABILITIES</u>				
<u>CURRENT LIABILITIES</u>				
Provision for Gratuity	Note - 08.1	-	9,774,675	(100)
Refundable Tender Deposit		41,602	66,412	(37)
Refundable Laboratory Deposits		7,272,635	5,992,635	21
Accruals & Other Payables	Note - 07	4,319,893	7,515,124	(43)
		11,634,131	23,348,847	(50)
<u>NON CURRENT LIABILITIES</u>				
Provision for Gratuity	Note - 08	28,317,795	28,466,310	(1)
Provision for Audit Fees		1,578,517	1,178,517	34
Research Grants	Note - 09	5,599,976	6,403,432	(13)
Deferred Income	Note - 10	4,568,682	4,763,984	(4)
		40,064,969	40,812,243	(2)
TOTAL LIABILITIES		51,699,100	64,161,090	(19)
NET ASSETS/EQUITY		114,300,100	98,668,286	16

STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2022 (Contd..) (Figures adjusted to the Nearest Rupee)

	Note	2022 Rs.	2021 Restated Rs.	% Change
<u>ACCUMULATED FUNDS & RESERVES</u>				
Accumulated Funds - Capital	Note - 19	37,386,217	49,711,196	(25)
Accumulated Funds - Recurrent		29,248,482	12,054,636	143
Revaluation Surplus/(Deficit)		10,665,445	10,665,445	-
		77,300,144	72,431,277	7
<u>DESIGNATED FUNDS</u>				
Institute Development Fund	Note - 20	14,631,203	10,040,598	46
Director's Vote		1,786,724	-	-
Equipment & Technology Vote		1,321,113	-	-
Programme Development Vote		2,592,364	-	-
		20,331,405	10,040,598	102
<u>RESTRICTED FUNDS</u>				
Endowment Fund		4,003,310	3,531,171	13
Asset Replacement Funds		12,665,241	12,665,241	-
		16,668,551	16,196,412	3
		114,300,100	98,668,286	16

Prepared & Certified by
23.02.2023


Deputy Bursar


Senior Asst. Registrar

The Accounting policies on pages 6 to 13 and other Notes on pages 14 to 18 form an integral part of these Financial Statements. The Board of Management is responsible for the preparation and presentation of these Financial Statements.


Board Member


Director / Board Member

STATEMENT OF FINANCIAL PERFORMANCE FOR THE YEAR ENDED 31ST DECEMBER 2022

		2022	2021	% Change
	Note	Rs.	Restated Rs.	
REVENUE				
Revenue from Non- Exchange Transactions - Current				
Govt. Grant for Recurrent- Expenditure		115,830,000	110,926,897	4
Grant for other Research	Note - 11	1,302,333	2,745,408	(53)
Total Revenue from Non Exchange Transaction - Current		117,132,333	113,672,305	3
Revenue from Exchange Transaction - Current				
Generated Income	Note - 12	26,165,109	17,615,789	49
Interest Income		12,593,302	4,165,080	202
Other Income	Note - 13	525,049	227,058	131
Total Revenue from Exchange Transaction - Current		39,283,460	22,007,927	78
Total Revenue Current		156,415,793	135,680,232	15
Revenue from Non- Exchange Transactions - Capital				
Govt Grant for Capital Expenditure		4,443,000	7,138,103	(38)
Total Revenue from Non Exchange Transaction - Capital		4,443,000	7,138,103	(38)
Revenue from Exchange Transaction - Capital		-	-	-
Total Revenue from Exchange Transaction - Capital		-	-	-
Total Revenue Capital		4,443,000	7,138,103	(38)
TOTAL REVENUE		160,858,793	142,818,335	13
OPERATING EXPENDITURE - RECURRENT				
Personnel Emoluments	Note - 14	97,639,112	92,807,849	5
Travelling		11,610	194,677	(94)
Supplies	Note - 15	10,821,785	8,618,940	26
Maintenance	Note - 16	9,384,775	3,511,029	167
Contractual Expenses	Note - 17	15,071,664	14,829,997	2
Other Recurrent	Note - 18	6,001,308	3,876,252	55
Gratuity		4,268,116	8,297,720	(49)
Depreciation		-	2,005,891	(100)
Total Operating Expenditure - Current		143,198,369	134,142,354	7
Non-Operating Expenditure				
Depreciation		16,767,979	25,264,651	(34)
Total Non- Operating Expenditure		16,767,979	25,264,651	(34)
TOTAL EXPENDITURE		159,966,349	159,407,005	0
Total Surplus / (Deficit) for the year		892,445	(16,588,670)	(105)
Current Surplus / (Deficit) for the year		13,217,424	1,537,878	759
Capital Surplus / (Deficit) for the year		(12,324,979)	(18,126,548)	(32)

STATEMENT OF CASH FLOW FOR THE YEAR ENDED 31ST DECEMBER 2022

	2022	2021 Restated	% Change
	Rs.	Rs.	
Surplus for the year	892,445	(16,588,670)	(105)
Add: Adjustments for items not involving movement of Funds			
Provision for Gratuity	4,268,116	8,297,720	(49)
Adjustment to the Retained Earnings	9,851	(754,590)	(101)
Provision for Audit Fees	400,000	400,000	-
Depreciation	16,767,979	27,270,542	(39)
Loss from Disposal of Assets	-	39,094	(100)
Provision for Restricted Funds	10,762,946	2,145,776	402
Underestimate of Stock Adjustment	-	31,670	(100)
Operating Surplus before working capital changes	33,101,337	20,841,542	59
Changes of Working Capital			
(Increase)/Decrease in Other Receivables	(2,639,356)	1,991,396	(233)
(Increase)/Decrease in Advances	(3,127,536)	(56,638)	5,422
(Increase)/Decrease in Staff Loans	(770,143)	784,488	(198)
(Increase)/Decrease in Chemicals & Glassware	496,810	2,324,609	(79)
Increase/(Decrease) in Refundable Tender Deposits	(24,810)	-	-
Increase/(Decrease) in Refundable Laboratory Deposits	1,280,000	1,518,062	(16)
Increase/(Decrease) in Accrued Expenditure and Other Payables	(3,195,231)	693,035	(561)
Increase/(Decrease) in Research Grants	(803,456)	(1,306,581)	(39)
Increase/(Decrease) in Deferred Income	(195,302)	3,732,757	(105)
Audit Fees paid	-	(510,000)	(100)
Gratuity Paid	(10,224,734)	(913,842)	1,019
	(19,203,759)	8,257,287	(333)
NET CASH FLOW FROM OPERATING ACTIVITIES	13,897,578	29,098,829	(52)
CASH FLOWS FROM INVESTING ACTIVITIES			
(Increase)/Decrease in Investments	(12,918,214)	(23,098,572)	(44)
Acquisition of Fixed Assets	(4,880,728)	(4,422,459)	10
Assets Purchased from Replacement Fund	-	(219,888)	(100)
NET CASH FLOW FROM INVESTING ACTIVITIES	(17,798,942)	(27,740,919)	(36)
CASH FLOWS FROM FINANCING ACTIVITIES			
Proceeds from Selling of Disposals	-	28,750	(100)
NET CASH FLOW FROM FINANCING ACTIVITIES	-	28,750	(100)
Net Increase in Cash & Cash Equivalents	(3,901,365)	1,386,659	(381)
Cash & cash equivalents at the end of 31/12/2021	19,415,189	18,028,530	8
Cash & cash equivalents at the end of 31/12/2022	15,513,824	19,415,189	(20)

STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31ST DECEMBER 2022

Description	Accumulated Funds (Recurrent)	Asset Replacement Reserve	Endowment Fund	Designated Funds (Note - 20)	Capital Grant Spent	Capital Grant Committed	Accumulated Funds (Capital)	Gift & Donations	Revaluation Reserve	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Balance as at 31st December 2020	(66,662,886)	12,885,129	3,221,903	8,323,415	(8,906,970)	6,958,503	-	122,247,858	38,564,539	116,631,490
Adj for amort of building 2020-21	-	-	-	-	11,694,462	-	-	(11,694,462)	-	-
Adj for accu depn of build 2007-2019	75,942,024	-	-	-	-	-	-	(75,942,024)	-	-
Adj for accu depn of Vehicle 2015-2021	-	-	-	-	3,217,497	-	-	(3,217,497)	-	-
Adj for amort of revalued assets 2018-21	-	-	-	-	27,899,093	-	-		(27,899,093)	-
Adjusted Balance as at 31st December 2020	9,279,138	12,885,129	3,221,903	8,323,415	33,904,083	6,958,503	-	31,393,875	10,665,445	116,631,490
Effect of adaptation of SLIPSAS 11	1,841,215	-	-	-	(33,904,083)	(6,958,503)	70,415,246	(31,393,875)	-	0
Surplus / Deficit for the period	1,537,878	-	-	-	-	-	(18,126,548)	-	-	(16,588,670)
Purchase During the Year	-	(219,888)	-	-	-	-	-	-	-	(219,888)
Transfer to Restricted Funds	119,325	-	309,268	1,717,183	-	-	-	-	-	2,145,776
Prior Year Adjustment	(754,590)	-	-	-	-	-	(2,577,502)	-	-	(3,332,092)
Transfers	31,670	-	-	-	-	-	-	-	-	31,670
Balance as at 31st December 2021	12,054,636	12,665,241	3,531,171	10,040,598	-	-	49,711,196	-	10,665,445	98,668,286
Surplus / Deficit for the period	13,217,424	-	-	-	-	-	(12,324,979)	-	-	892,445
Transfer to Restricted Funds	3,976,422	-	472,139	10,290,807	-	-	-	-	-	14,739,368
Balance as at 31st December 2022	29,248,482	12,665,241	4,003,310	20,331,405	-	-	37,386,217	-	10,665,445	114,300,100

NOTES TO THE FINANCIAL STATEMENTS

1. REPORTING ENTITY

1.1 Domicile and Legal Form

Institute of Biochemistry, Molecular Biology and Biotechnology (IBMBB) has been incorporated under the Ordinance No. 1285/25 and gazetted on 23rd April 2003. The main administration is at No 90, Cumaratunga Munidasa Mawatha, Colombo 03. The Financial Statements of the IBMBB are prepared for the year ending 31/12/2022.

1.2 Principal Activities and Nature of Operation

IBMBB primarily focuses on teaching, training, services, research and development and consultations in the fields of Biochemistry, Molecular Biology, Biotechnology, Immunology, and Bioinformatics.

1.3 Date of Authorization

The Financial Statements of Institute of Biochemistry Molecular Biology and Biotechnology (IBMBB) were authorized by the Board of Management held on 23rd February 2023.

1.4 Reporting Period

The reporting period of the Financial Statements represents a twelve-month period from 01st January 2022 to 31st December 2022.

2. BASIS OF PREPARATION

2.1 Statement of Compliance

The Statement of Financial Position, Statement of Financial Performance, Statement of Changes in Equity and Cash Flow Statement and Notes to the Financial Statements thereto have been prepared in conformity with Sri Lanka Public Sector Accounting Standards (SLPSASs) issued by the Institute of Chartered Accountants of Sri Lanka.

2.2 Basis of Measurement

The financial Statements are prepared on the historical basis of accounting. All accounting policies adopted are applied consistently with those of previous year, where necessary comparative figures have been adjusted to confirm the changes in presentation of current year figures.

2.3 Functional and Presentation of Currency

The Financial Statements are presented in Sri Lankan Rupees, which is the functional and presentation currency of the IBMBB. Financial Statements have been rounded-off to the nearest rupee unless otherwise indicated as permitted by the Sri Lanka Public Sector Accounting Standards

2.4 Comparative Information

Comparative information including quantitative, narrative and descriptive information is disclosed in respect of the previous period for all amounts reported in the financial statements in order to enhance the understanding of the financial statement current period and to improve the comparability.

When the presentation or classification of the items in the financial statements is amended, comparative amounts are re-classified unless reclassification is impracticable.

2.5 Offsetting

Assets and liabilities and revenue and expenses have not been offset unless required or permitted by a SLPSAS.

2.6 Going Concern

The financial statements have been prepared on a going concern basis.

2.7 Events after the Reporting Period

The materiality of the events occurring after the reporting period has been considered and where appropriate adjustment or disclosures wherever necessary have been made in the financial statements.

2.8 Significant Accounting Estimates, Judgments and Assumptions

The preparation of Financial Statements require management to make judgment, estimates and assumptions that affect the application of accounting policies and the reported amounts as assets , liabilities, income & expenditure. Actual results may differ from the estimations.

Estimates underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised and in any future periods affected.

3. SIGNIFICANT ACCOUNTING POLICIES

3.1 Foreign Currency Transactions

All foreign currency transactions are accounted for at the exchange rates prevailing at the date of the transactions; gains and losses resulting from the settlement of such translation and from the translation of monetary assets and liabilities denominated in foreign currencies are recognized in the income statement. Monetary assets and liabilities denominated in foreign currencies are translated at exchange rates prevailing on the balance sheet date.

3.2 Property Plant & Equipment

3.2.1 Recognition and Measurement

In terms of the SLPSAS 7, Property Plant and Equipment of the IBMBB are at cost less accumulated depreciation.

According to the information given by University of Colombo the acquisition date of the building is 01.01.2007 and this was presented in the financial statements w.e.f. 01st January 2020. The value of the land has not been included in the PPE since legal ownership of land has not being transferred to IBMBB by University of Colombo.

Property, Lab and Teaching Equipment include the items purchased out of government grant, research grants internally generated funds and donations.

3.2.2 Impairment

An asset's carrying amount is written down immediately to its recoverable amount, such reduction is recognized as an expense immediately

3.2.3 Gain or Loss on Disposal

Gains and losses on disposals are determined by comparing proceeds with carrying amount. These are included in the income statement.

3.2.4 Subsequent Cost

Subsequent costs are included in the asset's carrying amount or recognized as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the items will flow to the institute and the cost of items can be measured reliably. All other repairs and maintenance are charged to income statement during the financial period in which they are incurred.

3.2.5 Depreciation

Assets, for which dates of purchase are known, depreciation is provided in proportion to the number of months completed or such assets were used from the date of purchase. Assets of which exact date of purchase is not known depreciation is provided for the whole year in which they were purchased. Depreciation will be provided on the year of the sale/disposal in proportion to the number of months the assets over the estimated useful life of assets.

Depreciation has been charged to income statement on all property and equipment on the straight-line basis at the following rates per annum in order to write off the cost of such assets over their estimated useful lives.

Rates of Depreciation

- | | | |
|-----------------------------------|---|---------------|
| • Building | - | 5% per annum |
| • Vehicles | - | 20% per annum |
| • Fixtures & Fittings | - | 10% per annum |
| • Office Furniture & Equipment | - | 10% per annum |
| • Computers | - | 20% per annum |
| • Laboratory & Teaching Equipment | - | 20% per annum |
| • Library Books and Periodicals | - | 20% per annum |

3.3 Inventories

Inventories are valued at the lower of cost or estimated net realizable value. Net realizable value is the price at which inventories can be sold in the ordinary course of business after allowing for cost of realization and/or cost of invention from their existing state to saleable.

Stocks in stores have been valued at cost using First in First out (FIFO) basis.

3.4 Investments

Investment in Fixed Deposits, Treasury Bills & savings are stated at cost and interest accrued on short term investment is accounted as a receivable in the financial statement.

3.5 Receivables

Receivables are stated at the amounts that they are estimated to realize.

3.6 Cash and Cash Equivalent

Cash & cash equivalents comprise cash & bank balances and short-term investments.

3.7 Liabilities & Provisions

3.7.1 Current Liabilities

Liabilities classified as current Liabilities in the balance sheet are those that fall due for payment within one year from the Balance sheet date. All known liabilities have been accounted for in preparing the final statements.

3.7.2 Employee Benefits

3.7.2. a Defined Benefit Plans

Provision is made in the accounts for retirement gratuities at rates applicable under the payment of Gratuity Act No.12 of 1983. Although employees should complete a minimum period five years of continued employment to qualify for gratuity payments under the Act, provision is made after completing one year of employment on the assumption that all employees intend to continue in employment to at least five years.

The provision for the obligations under the Act is determined based on the present value method in accordance with LKAS 19 using the discount rate equal to the government bond rate.

Year	Bond Rate
2022	14.5%
2021	11%

According to the instructions given by UGC – Commission Circular No: 05/2019, Academic allowance and Monthly Compensatory Allowance had been taken into calculation of Gratuity for Academic staff members and Non-academic staff members w.e.f. 01.06.2019.

3.7.2. b Defined Contribution Plan – Universities Provident Fund (UPF), Universities Pension Fund and Employees’ Trust Fund (ETF)

A defined contribution plan is a post- employment plan under which an entity pays fixed contribution into a separate entity and will have no legal or constructive obligation to pay further amounts.

Employees are eligible for Universities provident Fund Contributions, Employees Trust Fund Contributions and Universities Pension Fund in line with respective statutes and regulations.

These are recognized as an expense in the Statement of Financial Performance as incurred. The Institute contributes 7%, 3% and 8% of gross emoluments of the employees to Universities Provident Fund and Employees' Trust Fund and Universities pension fund respectively.

3.7.3 Deferred Income

Deferred income results when invoices relating to Self-Financing Activities (Study Programmes) are raised at the commencement of the study programme where the study programme delivery taken place over a period of several years.

Deferred income is recognized in the Statement of Financial Performance to the extent of study programme delivery taken place and balance attributable to the remaining course period is recognized as a liability on the Statement of Financial Position until income is recognized.

3.7.4 Funds

Endowment Fund and other specific funds are disclosed separately in the Statement of Financial Position as per SLPSAS 1, Presentation of Financial Statements.

Endowment Funds are donations received and the interest income received on investment. All these funds are utilized for the purpose it has been established. Purposes of Endowment Funds are to award subject prizes and merit prizes for the best performances in each specified examination.

3.8. Financial Performance

3.8.1 Revenue Recognition

Revenue comprises gross inflows of economic benefits or service potential received and receivable by Institute (IBMBB) during the year and represents an increase in net assets/equity. Institute recognizes revenue following the established criteria of SLPSAS 10 (Revenue from Exchange Transactions) and SPSAS 11 (Revenue from Non-Exchange Transactions).

A) Revenue from Non-Exchange Transaction

Non-exchange transactions are those where the IBMBB receives value from another entity (e.g. cash or other assets) without giving approximately equal value in exchange. Inflows of resources from non-exchange transactions, other than services in-kind, that meet the definition of an asset are recognized as an asset only when;

- It is probable that the IBMBB will receive an inflow of economic benefits or service potential
- The fair value of can be measured reliably.

IBMBB Inflows of resources from non-exchange transactions recognized as assets and recognized as non- exchange revenue, to the extent that a liability is not recognized in respect to the same inflow.

The following are the specific recognition criteria in relation to the IBMBB non exchange transactions.

(a) Government Grant

Assets and revenue arising from government grants are recognized in the period in which the transfer arrangement becomes binding at the fair value. Where a transfer is subject to conditions and when there is a resulting present obligation, as a result of the non-exchange transaction, IBMBB recognizes a liability until the conditions is fulfilled. Assets and revenue arising from government grants are measured at the fair value as at the date of recognition Monetary assets are measured at their nominal value.

- Recurrent Grant

Government grants received for the recurrent nature expenditures are recognized in the statement of financial performance under non-exchange transactions. The government grants of Rs. 115.83Mn was received as recurrent grant for the year 2022.

- Capital Grant

Government Grants and other capital transfers received for the capital expenditure are recognized in the statement of financial performance in accordance with the requirement of SLPSAS 11, Revenue from Non exchange transactions with effect from the financial year 2021. Capital surplus / (deficit) arising from the capital transactions are accumulated under the Accumulated Fund – Capital in the statement of financial statement. The government grants of Rs. 4.443Mn was received as capital grant for the year 2022.

- Reclassification to Accumulated - fund Capital

IBMBB adopt and applied SLPSAS 11 – Revenue from Non Exchange transaction standard with effect from the year 2021 prospectively. To harmonize the presentation of financial statements, comparative figures in relation to Capital grant spent, Capital grant committed and Gift & Donations were reclassified in to “Accumulated Fund-capital” in the statement of financial position accordance with the SLPSAS 11 and guidance issued by the APFASL.

B) Revenue from Exchange Transaction

i) Course Fees

Course fees are recognized over the period of instruction. Based on the availability of data, course fees are recognized on accrual basis and income received for future period is recognized as deferred income.

ii) Student Registration

Student Registration fees are recognized as revenue only on the receipt of fees.

iii) Investment Income

Interest income received for the period from fixed deposits, Treasury Bills and money market investments is recorded as exchange revenue in the statement of financial performance on accrual basis

3.8.2 Expenditure Recognition

Expenses incurred in carrying out all the activities of IBMBB are recognized on an accrual basis and charged to revenue in ascertaining the income over expenditure as shown in the statement of Financial Performance.

3.9 Cash Flow Statement

The cash flow statements have been prepared using the “Indirect Method” in accordance with the SLPSAS where the gross cash receipts and gross cash payments of operating activities, financing activities and investing activities have been recognized. Cash & cash equivalents are comprised cash & bank balances, short term deposits.

3.10 Disclosures

- a) The IBMBB has occupied in a land where the ownership of the land belongs to the University of Colombo.
- b) Gratuity has paid Rs. 10,224,734.37 during the year 2022. Provision for the gratuity was updated current year for three staff member who resigned during the year 2022.
- c) The interest earned from investment of Endowment fund has reinvested and added to the carried forward balance of the Endowment Fund.
- d) Rate of depreciation of motor vehicle has been increased from 10% to 20% based on the accounting policy change. The said change is resulting fully depreciation of motor vehicle by the year 2021. Steps will be taken to revalue motor vehicle during the year 2023.
- e) Relevant amounts for the year 2022 have been transferred to Director’s Vote, Equipment & Technology Vote and Programme Development Vote are shown under the designated fund in the statement of financial position.

Notes to the Financial Statements - 2022 (Contd..)

Note - 01

Bank Balances

People's Bank - Thimbirigasyaya

Account No.

	2022 Rs.	2021 Rs.	% Change
86100121189723	1,303,606	2,892,444	(55)
86100151192314	552,154	3,199,490	(83)
86100211189723	3,417,873	4,895,159	(30)
86100301189723	23,629	883	2,576
86100491189723	169,608	164,404	3
86200101189723	601,310	3,703,707	(84)
86100131189671	-	434,338	(100)
86402121189723	8,374,247	-	-

Bank of Ceylon - Thimbirigasyaya

84885727	1,071,398	4,124,764	(74)
----------	-----------	-----------	------

15,513,824	19,415,189	(20)
-------------------	-------------------	-------------

Note - 02

Other Receivables

	2022 Rs.	2021 Rs.	% Change
Receivable Course Income	208,333	351,667	(41)
Pre Payment	717,272	955,223	(25)
Refundable Deposit for Fuel	50,000	50,000	-
Refundable Deposit for Dongle	1,000	1,000	-
Refundable Deposit for CO2 Cylinders	83,500	83,500	-
Interest Receivable	4,442,821	1,424,680	212
Other	2,500	-	-

5,505,426	2,866,070	92
------------------	------------------	-----------

Note - 03

Advances

Miscellaneous Advances

	2022 Rs.	2021 Rs.	% Change
Miscellaneous Advances	3,197,599	70,063	4,464

3,197,599	70,063	4,464
------------------	---------------	--------------

Note - 04

Staff Loans - Current

	2022 Rs.	2021 Rs.	% Change
Distress Loans	677,421	905,557	(25)
Computer Loans	30,000	45,000	(33)
Vehicle Loan	16,690	16,690	-
Staff Loans	3,400	5,610	(39)
Special Advance	-	400	(100)

727,511	973,257	(25)
----------------	----------------	-------------

Staff Loans - Non current

Distress Loans	2,549,373	1,483,395	72
Computer Loans	35,000	65,000	(46)
Vehicle Loan	19,035	35,725	(47)
Staff Loans	3,570	6,970	(49)

2,606,978	1,591,090	64
------------------	------------------	-----------

3,334,490	2,564,347	30
------------------	------------------	-----------

Note -05

Investments - Current FDs and TBs

	2022 Rs.	2021 Rs.	% Change
Institute Development Fund	-	-	-
Generated Funds	21,848,324	29,741,082	(27)
Treasury Funds	-	8,999,955	(100)
Imprest	467,617	-	-

22,315,941	38,741,037	(42)
-------------------	-------------------	-------------

Investments - Non Current FDs and TBs

Endowment Fund	6,320,479	5,915,188	7
Institute Development Fund	6,167,729	5,677,882	9
Generated Funds	54,228,274	25,780,102	110
Treasury Funds	-	-	-

66,716,482	37,373,172	79
-------------------	-------------------	-----------

89,032,422	76,114,208	17
-------------------	-------------------	-----------

Notes to the Financial Statements - 2022 (Contd...)

Note - 06

NON-CURRENT ASSETS

Description	Building	Furniture & Office Equipment	Computers	Lab and Teaching Equipment	Library books and Periodicals	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Balance as at 01 01 2022	116,864,648.71	21,177,633.56	17,463,173.75	74,836,759.45	3,760,342.91	234,102,558.38
Adjustments to Opening balance due to duplication of Assets	-	-	-	-	-	-
Additions	-	651,891.48	922,650.00	3,306,186.60	-	4,880,728.08
Disposals	-	-	-	-	-	-
Balance as at 31 12 2022	116,864,648.71	21,829,525.04	18,385,823.75	78,142,946.05	3,760,342.91	238,983,286.46
Change %	-	3.08	5.28	4.42	-	
Rate of Depreciation	5%	10%	20%	20%	20%	
Accumulated Depreciation as at 01 01 2022	87,636,487.36	8,704,602.56	11,632,782.04	62,315,525.74	3,379,531.05	173,668,928.75
Adjustments to Opening balance due to duplication of Assets	-	-	-	-	-	-
Disposals	-	-	-	-	-	-
Depreciation for 2022	5,839,232.91	2,174,109.98	2,357,660.79	6,191,379.76	205,595.82	16,767,979.26
Accumulated Depreciation as at 31.12.22	93,475,720.27	10,878,712.54	13,990,442.83	68,506,905.50	3,585,126.87	190,436,908.01
WDV 31. 12. 22	23,388,928.44	10,950,812.50	4,395,380.92	9,636,040.55	175,216.04	48,546,378.45

Note: Effect of the changed in date of depreciation of motor vehicle is as follows.

Accumulated Fund - Capital	Dr	2,577,500.00	
Accumulated Depreciation	Cr		2,577,500.00

Accumulated Fund - Capital has been decreased with the amount of Rs. 2,577,500.00 during 2021.

Notes to the Financial Statements - 2022 (Contd..)

Note - 07	2022	2021	% Change
Accrued Expenditure And Other Payable	Rs.	Rs.	
Accrued	4,319,893	7,497,460	(42)
Payable for Tax	-	17,664	(100)
	4,319,893	7,515,124	(43)
Note - 08	2022	2021	% Change
Provision for Gratuity	Rs.	Rs.	
Opening Balance 01.01.2022	38,240,985	30,857,108	24
Provision During the year	4,268,116	8,297,720	(49)
Paid During the year	(10,224,734)	(913,842)	1,019
Under Provision	198,175	-	-
Provision of Resigned Employees	(4,164,747)	-	-
Closing Balance 31.12.2022	28,317,795	38,240,985	(26)
Note - 08.1			
Provision for Gratuity - To be paid during the year 2023			
Prof. K.H. Tennekoon	-	9,774,675	(100)
	-	9,774,675	(100)
Provision for Gratuity - Non Current	28,317,795	28,466,310	(1)
Note - 09	2022	2021	% Change
Research Grants - 2023	Rs.	Rs.	
RPC - 2023	-	6,912	(100)
IPICS - 2023	296,702	352,602	(16)
NSF Grant III-2023	48,458	48,458	-
Dept. of Ayurvedic Grant-2023	-	2,543	(100)
Swedish Research Grant .2023	1,313,851	1,383,001	(5)
Individual Research Votes -2023	459,018	327,729	40
C/R Grant - Ms.D.V.D. Hemalika-2023	34,051	66,466	(49)
Research Collaboration Grant- Dr Andrew-2023	89,653	89,653	-
NSF/SCH/2016/04 2022	-	111,819	(100)
NSF/RPHS/2016/C 07-2023	-	16	(100)
CRP/LKA 17- 01 2023	1,219,919	1,967,843	(38)
MSTR/TRD/AGR/3/02/08 (INDO) 2023	-	514,744	(100)
Subsidies for Reagents	1,183,596	1,183,596	-
ICGEB Course (W/SRI/2019-01) - 2023	15,830	45,754	(65)
Immunodiagnosics 2023 - Prof. S.M. Handunnetti	125,000	125,000	-
Collaborative Research 2023 - Dr. S.S.R. Samarakoon	813,899	177,296	359
	5,599,976	6,403,432	(13)
Note - 10	2022	2021	% Change
Deferred Income	Rs.	Rs.	
MSc in CMI 2020	-	325,000	(100)
MSc in MLS 2020	-	893,750	(100)
MSc in CMI 2021	274,583	333,333	(18)
MSc in MLS 2021	1,760,555	414,400	325
MSc in BioInformatics 2021	466,667	2,797,500	(83)
Master of CMI 2022	850,000	-	-
Master of MLS 2022	1,216,877	-	-
	4,568,682	4,763,984	(4)
Note -11	2022	2021	% Change
Research Grants	Rs.	Rs.	
IPICS 2022	55,900	-	-
Swedish Research Grant 2022	69,150	-	-
NSF/SCH/2016/04 2022	-	858,600	(100)
NSF/RPHS/2016/C 07-2022	-	312,734	(100)
CRP/LKA 17- 01 2022	747,924	903,538	(17)
MSTR/TRD/AGR/3/02/08 (INDO) 2022	189,723	307,451	(38)
ICGEB Course (W/SRI/19-01) - 2022	29,924	363,085	(92)
C/R Grant- Ms.D.V.D. Hemalika-2022	32,416	-	-
Collaborative Research 2022 - Dr. S.S.R. Samarakoon	177,296	-	-
	1,302,333	2,745,408	(53)

Notes to the Financial Statements - 2022 (Contd..)

Note - 12	2022	2021	% Change
Generated Income	Rs.	Rs.	
Annual Session Sponsorships	-	53,975	(100)
Examination fees	1,182,000	1,190,500	(1)
MSc Course Fee	17,827,350	13,467,413	32
Certificate Course	5,057,783	1,575,000	221
Application Fee	1,265,681	1,110,492	14
Internship Income	235,000	-	-
Sample collection Charges	542,650	11,450	4,639
Hall Hiring Charges	-	15,000	(100)
Library Fee	-	45,000	(100)
Liquidated Damages	54,646	146,959	(63)
	26,165,109	17,615,789	49
Note - 13	2022	2021	% Change
Other Income	Rs.	Rs.	
Computer loan Interest	4,037	5,077	(20)
Staff Loan Interest	537	609	(12)
Transcript Fee	122,800	78,000	57
Distress Loan Interest	103,676	95,926	8
Vehicle Loan Interest	2,135	2,224	(4)
Other Sundry Income	291,863	45,223	545
	525,049	227,058	131
Note - 14	2022	2021	% Change
Personnel Emoluments	Rs.	Rs.	
Salaries & Wages	33,486,344	32,779,468	2
U.P.F	4,836,358	5,188,278	(7)
Pension	4,399,610	3,462,781	27
E.T.F.	1,976,421	1,929,061	2
E.P.F	516,909	795,393	(35)
Academic Allowance	22,833,952	22,360,885	2
Cost of Living Allowances	3,646,935	3,171,077	15
Over Time and Holiday Payment	186,858	78,159	139
Other Allowances	13,610,959	9,690,157	40
Research Allowances	5,824,332	5,105,144	14
Allowances	4,487,742	7,085,093	(37)
Visiting Lecturer Fee	1,565,599	1,137,952	38
Course Coordinator Allowance	162,000	-	-
Property Loan Interest	105,093	24,400	331
	97,639,112	92,807,849	5
Note - 15	2022	2021	% Change
Supplies	Rs.	Rs.	
Stationery & Office Requisites	744,306	487,164	53
Fuel and Lubricant	897,226	268,155	235
Uniforms	56,257	-	-
Mechanical & Electrical Goods	54,622	12,600	334
Chemicals & Glassware	9,069,374	7,851,022	16
	10,821,785	8,618,940	26
Note - 15.1			
Chemicals & Glassware			
Opening Balance	1,365,871	3,722,150	(63)
Purchase During the Year	8,572,563	5,494,742	56
	9,938,434	9,216,892	8
Closing Balance	(869,060)	(1,365,871)	(36)
	9,069,374	7,851,022	16

Notes to the Financial Statements - 2022 (Contd..)

Note - 16	2022	2021	% Change
Maintenance Expenditure	Rs.	Rs.	
Rehabilitation & Maint. Of Capital Assets	1,313,902	2,010,485	(35)
Plant, Machinery Equipment	1,968,269	144,279	1,264
Buildings & Structures	4,748,203	503,217	844
Office Equip. Maintenance	633,530	781,337	(19)
Other	720,872	71,711	905
	9,384,775	3,511,029	167
Note - 17	2022	2021	% Change
Contractual Services	Rs.	Rs.	
Transport	311,525	494,793	(37)
Telecommunication	1,884,946	1,784,931	6
Postage	66,156	62,017	7
Security Service	2,118,211	2,181,005	(3)
Electricity	7,441,506	6,880,310	8
Water	200,246	234,075	(14)
Cleaning Service	1,945,718	1,822,465	7
Rates, Taxes & Local Authorities	199,584	199,584	-
Printing, Advertising etc.	757,568	1,150,022	(34)
Other	146,203	20,795	603
	15,071,664	14,829,997	2
Note - 18	2022	2021	% Change
Other Recurrent Expenditure	Rs.	Rs.	
Special Services - Board Meeting & Committees	1,267,087	1,037,039	22
Workshops, Seminars	38,500	-	-
Academic Research	215,666	319,882	(33)
Staff Development	94,127	575,373	(84)
Entertainment Expenses	48,149	89,647	(46)
Contribution & Membership Fee	109,070	517,179	(79)
Bank Charges	53,972	73,733	(27)
Holiday Warrants & Season Tickets	157,260	40,860	285
Awards And Indemnities	7,500	-	-
Examination Expenses	804,004	373,242	115
Audit Fee	400,000	400,000	-
Certificate Course Expenses	2,657,423	252,071	954
Disposal Loss	-	39,094	(100)
Medical Insurance	128,840	128,971	(0)
Employee Welfare	-	29,163	(100)
Other	19,710	-	-
	6,001,308	3,876,252	55
Note - 19	2022	2021	% Change
Capital Surplus	Rs.	Rs.	
Treasury	37,103,756	53,999,211	(31)
Generated	110,394	110,394	-
SIDA SAREC	99,302	99,302	-
Research Grants	72,765	-	-
	37,386,217	54,208,907	(31)
Note - 20	2022	2021	% Change
Designated Funds	Rs.	Rs.	
Institute Development Fund	14,631,203	10,040,598	46
Director's Vote	1,786,724	-	-
Equipment & Technology Vote	1,321,113	-	-
Programme Development Vote	2,592,364	-	-
	20,331,405	10,040,598	102

RECONCILIATION STATEMENT OF FINANCIAL POSITION FOR THE YEAR ENDED 31ST DECEMBER 2021

	Note	SLPASS VOLUME II	Re-measurements/ Re-classifications	SLPASS VOLUME III
<u>ASSETS</u>				
<u>CURRENT ASSETS</u>				
Cash and Cash Equivalents		19,415,189	-	19,415,189
Investments		38,741,037	-	38,741,037
Receivables		2,866,070	-	2,866,070
Inventories - Chemicals & Glassware		1,365,871	-	1,365,871
Staff Loans		973,257	-	973,257
Advances		70,063	-	70,063
		63,431,487	-	63,431,487
<u>NON-CURRENT ASSETS</u>				
Property, Plant and Equipment		60,433,628	-	60,433,628
Staff Loans - After 1 year		1,591,090	-	1,591,090
Investments		37,373,172	-	37,373,172
		99,397,891	-	99,397,890
TOTAL ASSETS		162,829,378	-	162,829,377
<u>LIABILITIES</u>				
<u>CURRENT LIABILITIES</u>				
Accrued and other payables		7,515,124	-	7,515,124
Provision for Gratuity		9,774,675	-	9,774,675
Refundable Tender Deposit		66,412	-	66,412
Refundable Library Deposits		5,992,635	-	5,992,635
		23,348,846	-	23,348,846
<u>NON-CURRENT LIABILITIES</u>				
Research Grant		6,403,432	-	6,403,432
Provision for Audit Fees		1,178,517	-	1,178,517
Deferred Income		4,763,984	-	4,763,984
Provisions for Gratuity		28,466,310	-	28,466,310
		40,812,243	-	40,812,243
TOTAL LIABILITIES		64,161,089	-	64,161,089
NET ASSETS		98,668,286	-	98,668,286
<u>EQUITY & RESERVES</u>				
<u>EQUITY & RESERVES</u>				
Capital Grant Spent		10,718,864	(10,718,864)	-
Capital Grant Committed		12,017,171	(12,017,171)	-
Gift & Donations		31,393,875	(31,393,875)	-
Accumulated Fund - Recurrent		10,213,421	1,841,215	12,054,636
Accumulated Fund - Capital		(2,577,501)	52,288,695	49,711,194
Revaluation Reserve		10,665,445	-	10,665,445
		72,431,275	-	72,431,275
<u>FUNDS</u>				
Asset Replacement Fund		12,665,241	-	12,665,241
Institute Development Fund		10,040,599	-	10,040,599
Endowment Fund		3,531,171	-	3,531,171
		26,237,011	-	26,237,011
Total Net Assets/Equity		98,668,286	-	98,668,286

RECONCILIATION STATEMENT OF FINANCIAL PERFORMANCE FOR THE YEAR ENDED 31ST DECEMBER 2021

	Note	SLPASS VOLUME II	Re-measurements/ Re-classifications	SLPASS VOLUME III
<u>REVENUE</u>				
Recurrent Grants		109,000,000	-	109,000,000
Capital Grant Received		-	7,138,103	7,138,103
Capital Grant Rehabilitation Received		1,926,897	-	1,926,897
Grant for Research		2,745,408	-	2,745,408
Other Income		22,007,927	-	22,007,927
Capital Grants Amortized		25,383,977	(25,383,977)	-
TOTAL REVENUE		161,064,209	(18,245,874)	142,818,335
<u>EXPENDITURE</u>				
Personnel Emoluments		92,807,849	-	92,807,849
Travelling and Subsistence		194,677	-	194,677
Supplies		8,618,940	-	8,618,940
Maintenance		3,511,029	-	3,511,029
Contractual Expenditure		14,829,997	-	14,829,997
Other Recurrent Expenses		3,876,252	-	3,876,252
Gratuity		8,297,720	-	8,297,720
Depreciation		27,270,542	-	27,270,542
TOTAL EXPENDITURE		159,407,006	-	159,407,006
Surplus / (Deficit) for the Year		1,657,203		(16,588,671)
Capital Grant Received				
		2021		
		Rs.		
Capital Grant Received for Capital		7,138,103		
Capital Grants received for Rehabilitation		1,926,897		
		9,065,000		
Capital Grants Amortization for the year				
		2021		
		Rs.		
Amortization of Government Capital Grant		25,264,653		
Amortization of Other		119,324		
		25,383,977		

RECONCILIATION STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31ST DECEMBER 2021

Description	Accumulated Fund Recurrent	Accumulated fund Capital	Assets Replacement Reserve	Institute Development Fund	Endowment Fund	Capital Grant Spent	Capital Grant Committed	Gift & Donation	Revaluation Reserve	Total
Balance as at 31st December 2021	10,213,421	(2,577,501)	12,665,241	10,040,599	3,531,171	10,718,864	12,017,171	31,393,875	10,665,445	98,668,286
Impact of Adoption of SLPSAS Volume III-General Reserves	1,841,215	52,288,695	-	-	-	(10,718,864)	(12,017,171)	(31,393,875)	-	-
Restated Balance as at 31st December 2021	12,054,636	49,711,194	12,665,241	10,040,599	3,531,171	-	-	-	10,665,445	98,668,286

STATEMENT OF COMPARISON - INCOME 2022

	Budgeted 2022 (Rs.)	Total Income 2022 (Rs.)	Variation (Rs.)	% of Variation
Government Grant				
Recurrent	124,362	115,830	(8,532)	-7%
Capital	5,000	4,443	(557)	-11%
Total	129,362	120,273	(9,089)	-7%
Internal Revenue				
Registration Fees	1,030	1,266	236	23%
Tuition Fees	7,800	17,827	10,027	129%
Examination Fees	990	1,182	192	19%
Library Fines	100	-	(100)	-100%
Services Rendered to Outsiders	300	-	(300)	-100%
Other	3,248	5,890	2,642	81%
Total	13,468	26,165	12,697	94%
Other Grants				
CRP/LKA 17- 01 2021	-	748	748	-
MSTR/TRD/AGR/3/02/08 (INDO) 2021	-	190	190	-
ICGEB Course (W/SRI/19-01) - 2021	-	30	30	-
IPICS 2022	-	56	56	-
Swedish Research Grant 2022	-	69	69	-
C/R Grant- Ms.D.V.D. Hemalika-2022	-	32	32	-
Collaborative Research 2022 - Dr. S.S.R. Samarakoon	-	177	177	-
Total	-	1,302	1,302	-
Grand Total	142,830	147,740	4,910	3%

STATEMENT OF COMPARISON - EXPENDITURE 2022

Recurrent Expenditure	Budgeted 2022 (Rs.)	Total Expenditure 2022 (Rs.)	Variation (Rs.)	% of Variation
Note 1 - Personnel Emoluments				
Salaries & Wages	40,000	33,486	(6,514)	-16%
U.P.F.	6,242	5,353	(889)	-14%
Pension	4,380	4,400	20	-
E.T.F.	2,210	1,976	(234)	-11%
Academic Allowance	23,270	22,834	(436)	-2%
Cost of Living Allowances	3,840	3,647	(193)	-5%
Research Allowance 35%	6,225	5,824	(401)	-6%
Special Allowance 20%	5,585	5,188	(397)	-7%
Monthly Compensatory Allowance - 45%	5,683	5,426	(257)	-5%
Overtime	160	187	27	17%
Holiday Payments	-	-	-	-
Other Allowances <i>(Please specify)</i>	-	-	-	-
Acting Pay	-	-	-	-
Equalization Allowance	-	-	-	-
Entertainment Allowance	150	173	23	15%
Adjustment Allowances	-	-	-	0%
Other Allowances	8,600	4,488	(4,112)	-48%
Rs. 5,000/- Allowance	2,920	2,824	(96)	-3%
Visiting Lecture Fees	2,218	1,566	(652)	-29%
Course Coordinator Allowance	-	162	162	-
Gratuity Payments	1,093	10,225	9,132	835%
Total	112,576	107,759	(4,817)	-4%
Note 2 - Traveling Expenses				
Domestic	70	12	(58)	-83%
Foreign	50	-	(50)	-100%
Total	120	12	(108)	-90%
Note 3 - Supplies				
Stationery and Office Requisites	650	744	94	15%
Fuel and Lubricants	620	897	277	45%
Uniforms	125	56	(69)	-55%
Mechanical and Electrical goods	-	55	55	-
Chemical & Glassware	3,100	9,069	5,969	193%
Medical Supplies	-	-	-	-
Other <i>(Please specify)</i>	-	-	-	-
Total	4,495	10,822	6,327	141%
Note 4 - Maintenance Expenditure				
Vehicles	220	268	48	22%
Plant, Machinery Equipment	75	1,968	1,893	2524%
Buildings & Structures	3,080	5,382	2,302	75%
Furniture	-	-	-	-
Others <i>(Please specify)</i>	20	453	433	2166%
Total	3,395	8,071	4,676	138%

STATEMENT OF COMPARISON - EXPENDITURE 2022 (Contd..)

Recurrent Expenditure	Budgeted 2022 (Rs.)	Total Expenditure 2022 (Rs.)	Variation (Rs.)	% of Variation
Note 5 - Contractual Services				
Transport	250	312	62	25%
Telecommunication	1,880	1,885	5	-
Postal Charges	100	66	(34)	-34%
Electricity	6,900	7,442	542	8%
Water	300	200	(100)	-33%
Rates and Local Taxes	200	200	(0)	-
Rental and Hire charges	-	-	-	-
Security Services	2,000	2,118	118	6%
Cleaning Services	1,900	1,946	46	2%
Printing Advertising etc.	870	758	(112)	-13%
Other Contractual Services <i>(Please specify)</i>	10	146	136	1362%
Total	14,410	15,072	662	5%
Note 6 - Others (Please specify)				
Travel grants to University Teachers	-	-	-	-
Special Services - Council & Committees	1,000	1,267	267	27%
-Do- Professional & Other Fees	-	-	-	-
Workshops, Seminars	55	39	(17)	-
Academic Research & Publications	200	216	16	-
Staff Development (Training for Teachers, Administrators & Other Employees)	300	94	(206)	-69%
Postgraduate Research & Scholarships	-	-	-	-
Course Materials for Students & Learning Quality Improvement	-	-	-	-
Industry Internships, Practical & Career Guidance	-	-	-	-
Students' Development Initiatives & Community Relations	-	-	-	-
University Sports Activities	-	-	-	-
Student Welfare, Student Councils & Social Harmony	-	-	-	-
Employee Welfare & Medical Assistance	150	-	(150)	-
Corporate Planning, Governance & Outreach	-	-	-	-
Grants to other Organizations	-	-	-	-
Interest subsidy on property loan	84	105	21	25%
Holiday Warrants Season Tickets	45	157	112	249%
Convocation Expenses	55	-	(55)	-100%
Entertainment Expenses	70	48	(22)	-31%
Bank Charges	5	54	49	-
Awards & Indemnities	-	8	8	-
Contributions & Membership Fees	170	109	(61)	-36%
Examination Expenses	690	804	114	17%
Certificate Course Expenses	-	2,657	2,657	-
Other	10	549	539	5385%
Total	2,834	6,106	3,272	115%
Grand Total Recurrent Expenditure	137,830	147,841	10,011	7%

STATEMENT OF COMPARISON - EXPENDITURE 2022 (Contd..)

Capital Expenditure	Budgeted 2022 (Rs.)	Total Expenditure 2022 (Rs.)	Variation (Rs.)	% of Variation
Note 7 - Rehabilitation & Improvement of Capital Assets				
Building and Structures	500	1,314	814	163%
Plant, Machinery & Equipment	200	-	(200)	-100%
Vehicles	50	-	(50)	-100%
Furniture, Lab. & Office Equipment	200	-	(200)	-100%
Others <i>(Please specify)</i>	50	-	(50)	-100%
Total	1,000	1,314	314	31%
Note 8 - Acquisition of Fixed Assets				
Plant, Machinery & Equipment	400	-	(400)	-100%
Furniture, Lab. & Office Equipment	1,000	3,958	2,958	296%
Building and Structures	-	-	-	-
Vehicles	-	-	-	-
Sports Goods	-	-	-	-
Books & Periodicals	400	-	(400)	-100%
IT	300	-	(300)	-100%
Others <i>(Please specify)</i>	900	923	23	3%
Total	3,000	4,881	1,881	63%
Note 9 - Construction Projects	-	-	-	-
Note 10 - Budget Proposals	-	-	-	-
Note 11 - Human Capital Development Projects (Please specify)				
Student Centered Learning	50	-	(50)	-100%
Business Consultancy Unit	50	-	(50)	-100%
Annual Scientific Session	50	-	(50)	-100%
International Research Symposium	175	-	(175)	-100%
Industrial Oriented Internships	175	-	(175)	-100%
Total	500	-	(500)	-100%
Note 12 - Research and Development (Please specify)				
3 D bioprinting of tumor models for anti cancer drug screening	63	-	(63)	-100%
Application oriented Plant Biotechnology Development	50	-	(50)	-100%
Development of Nature Products	88	-	(88)	-100%
Isolation, Identification and Utilization of Microbes with Potential Industrial Applications and Management	75	-	(75)	-100%
Development of an in-house diagnostic assay for detection of SARS - Cov-2	100	-	(100)	-100%
Development of diagnostic tests for selected infectious diseases	100	-	(100)	-100%
Development of anti-cancer formulations and synthesized compounds*	25	-	(25)	-100%
Total	500	-	(500)	-100%
Grand Total Capital Expenditure	5,000	6,195	1,195	24%

Summary of the Audit Report and Remedial Actions

Section No.	Section	Observations
1.2 (a)	As per the provisions of section 43 of the Sri Lanka Public Accounts Standards no.03, a change in the estimated useful life of a depreciable asset should be adjusted to the accounting estimate as a difference. However, the increase of depreciation rate of the motor cars from 10% to 20% during the year under review had been retrospectively adjusted by the institute, recognizing it as a change in the accounting policies. Accordingly, depreciation of motor cars totaling Rs. 51,500 relevant to the year under review and carrying value of the motor cars as of 31 st December 2022 had not been included in the Financial Statements.	As per the provisions of section 27 of the Sri Lanka Public Accounts Standards no.03, increase of depreciation rate was recognized as a change in the accounting policies and adjustments were made retrospectively. Action shall be taken to consider it as an accounting estimate and to prepare it according to the standards in 2023, as indicated by the audit. The comparative values will also be disclosed.
(b)	As per the provisions of section 65 of the Sri Lanka Public Accounts Standards no.07, the residual value and the useful life of an asset shall be reviewed at least at each annual reporting date and, if expectations differ from previous estimates, the change (s) shall be accounted for as a change in an accounting estimate in accordance with SLPAS 03. Yet, these provisions had not been followed regarding fully depreciated computers, laboratory equipment and library books with a total cost of Rs. 48,862,850.	Agreed with the observations made by the audit. During the preparation of final accounts in 2023, Measures will be taken in accordance with accounting standards in respect of fully depreciated Property, plant, and equipment.
©	The balance available at the Foreign Currency bank account totaling 25,726 dollars as at 31 st December 2022 had not been accounted in the existing foreign exchange rate as of such date. Therefore, the foreign exchange gain of Rs.897, 615 had not been adjusted to the Financial Statements.	Agreed with the observations made by the audit. During the preparation of final accounts in 2023, measures will be taken to adjust the foreign exchange gain properly.

(d)	Transfers made to four funds with the income earned from the courses aggregating to Rs. 10,290,805 had been directly deducted from the income instead of accounting it as appropriation from the gains at the end of the year, thus understating the income of the year by the same amount.	Agreed with the observations made by the audit. However, deducting the cost amount allocated to the development fund, director vote, equipment and technology and course development directly from the income does not affect the surplus of the year under review. Measures will be taken to make allocations for the above subjects through the Statement of Change in Equity.
2.2.2.(a)	Foreign grants and technical subsidies totaling Rs. 8,923,951 received from 2014 to 2019 had been directly received by the institution, without acknowledging the Department of Foreign Exchange.	Since the previous years, foreign grants received for research by the institute has not come through the Department of External Resources of the Treasury. However, Measures will be taken in the future to comply with the public account circular no. 30/94 in dealing with the research grants.
(b)	Approval of the University Grants Commission had not been gained for four full time degree programs conducted by the institution.	The procedure to obtain approval for the four full time degree programs has been initiated by the institution. After the first round of evaluation, the application submitted to the UGC has been returned to the institution for a minor change to be made. The prospective revisions have been submitted to the Boards of Studies and are expected to be sent to the UGC during the month of April, 2023.
2.3.	07 individuals had been recruited for the post of Temporary Scientific Assistant (on contract), even though the approved cadre contained only 2 such posts.	The approved cadre of the institution contains two positions of Temporary Scientific Assistant (on contract). Payments are made to them through treasury funds. Five temporary scientific assistants have been recruited on contract basis. Their payments are made with generated income. IBMBB offers post graduate degrees and PhDs. Researches and studies are on going in the fields of molecular biology, Cellular and Molecular Immunology and bioinformatics.
		It is highly important to continue these researchers and studies productively and punctually. Based on the research and study capacity of the above departments, Five temporary scientific assistants have been recruited on contract basis to be paid with generated income in addition to the approved cadre.
		It is highly important to continue these researchers and studies productively and punctually. Based on the research and study capacity of the above departments, Five temporary scientific assistants have been recruited on contract basis to be paid with generated income in addition to the approved cadre.



The annual report of IBMBB provides a snapshot of all the achievements as well as activities undertaken and delivered by the institute during the course of the year 2022, along with the financial operations of the institute.

Accordingly, the annual report was prepared as per the guidelines issued by the Ministry of Education. The information contained within the annual report was submitted by the respective departments within the institute. The final annual report was compiled and designed by the following committees and individuals.

Annual Report Editorial Committee.

Prof. Prasanna Galhena, Director, IBMBB
Ms. Harshani Jayaweera, Assistant Registrar, IBMBB
Ms. Joanne Kotelawala
Ms. Dakshika Gangani

Page Setup and Design

Mr. Kanchana Senanayake, Assistant Network Manager, IBMBB

Mr. Raveen Perera

Compilation

Ms. Poojani Muthumali



***Institute of Biochemistry, Molecular Biology and
Biotechnology, University of Colombo***

90, Cumaratunga Munidasa Mawatha, Colombo 03 | 011 2552528 | 011 2552529 | www.ibmbb.cmb.ac.lk