



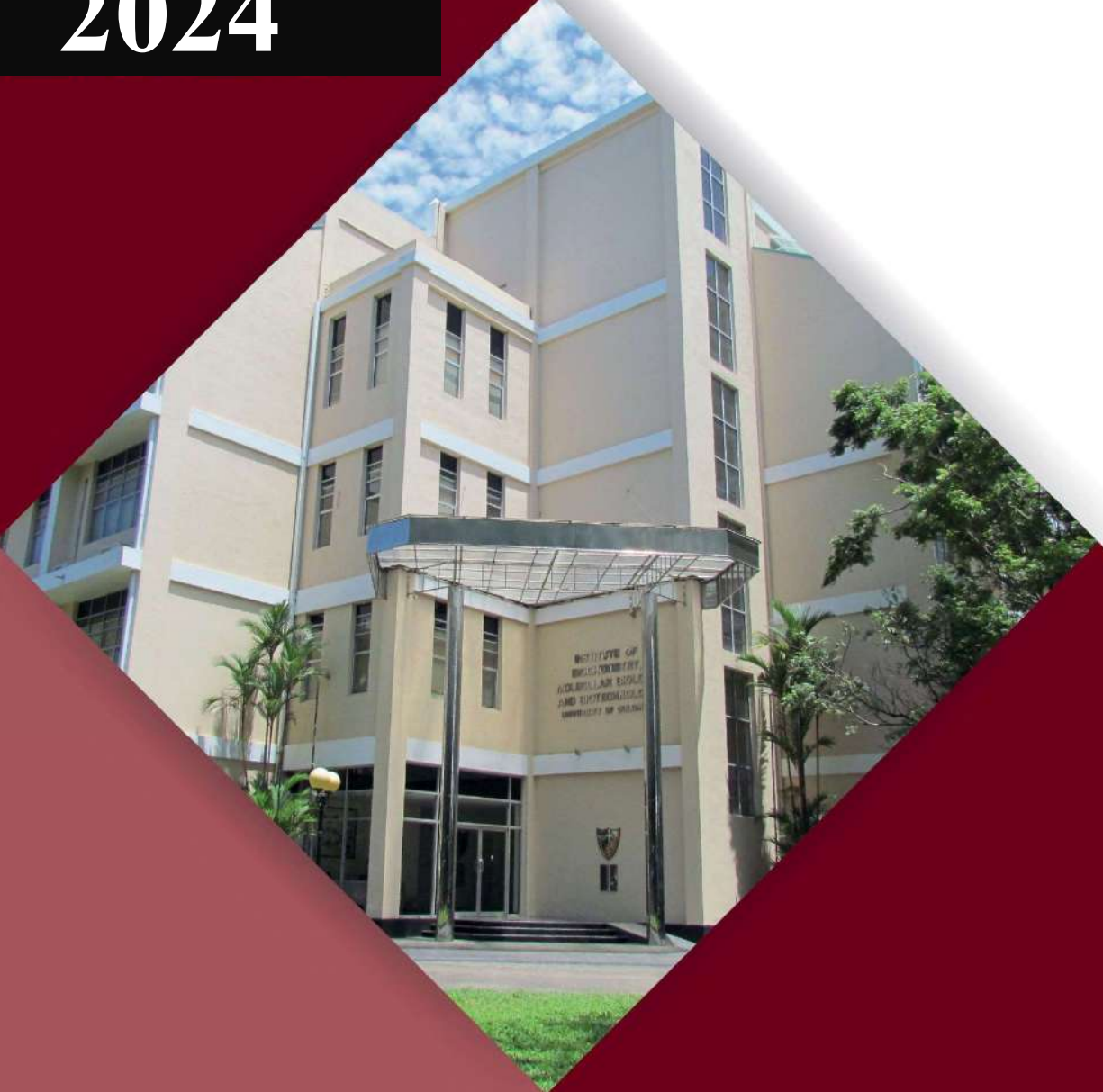
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உயிர் இரசாயனவியல், மூலக்கூற்று உயிரியல் மற்றும்
உயிர்த்தொழில்நுட்ப நிறுவகம், கொழும்பு
பல்கலைக்கழகம்

INSTITUTE OF BIOCHEMISTRY, MOLECULAR BIOLOGY
AND BIOTECHNOLOGY UNIVERSITY OF COLOMBO

වාර්ෂික වාර්තාව ஆண்டு அறிக்கை ANNUAL REPORT

2024



REFLECTIONS



2
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4

OUR VISION

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

OUR MISSION

INITIATE

PROMOTE

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

FACILITATE

GOALS AND OBJECTIVES

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

- 1.1 Introduce new programmes and sustain the full capacity of the existing Programmes at postgraduate level
- 1.2 Establish the new undergraduate programs catering to the current local and global needs
- 1.3 Strengthening internship and commencement of short training and certificate courses
- 1.4 Enhance teaching and learning environment by adopting appropriate strategies

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

- 2.1 Increase/ Maintain international recognition of Faculty members
- 2.2. Establish new and continue ongoing nationally relevant research programmers
- 2.3. Consolidate research and developments, services and consultations with viable third parties
- 2.4. Become a focal center in providing knowledge, facilities, expertise and consultancies in the fields of Life Sciences, Immunology, Bioinformatics and allied fields at national policy planning
- 2.5. Establish a repository of archives of landmark developments in Molecular Life Sciences and allied field

03 To achieve the excellence in infrastructure and human resources

- 3.1. Expansion of space and enhance instrumentation, laboratory and library facilities
- 3.2 Shared instrumentation
- 3.3 Empower Human Resources and create new cadres

04 To achieve the institutional financial stability

- 4.1. Enhance revenue
- 4.2 Facilitate new inventions, startups and entrepreneurship
- 4.3 Restrictions on expenditures

05 To promote Good Governance

- 5.1. To practice good governance at all levels
- 5.2 To strengthen the IQAC Activities
- 5.3 Enhance transparency and accountability

OUR VALUES

ACADEMIC FREEDOM

Subject to the norms and standards of the Institute, there is freedom to conduct research, to teach, speak and publish without interference or 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

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.



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DIRECTOR'S MESSAGE



IBMBB took these challenges with a positive note and initiated some of the vital commitments towards the sustainability and potential development in the operation.

Prof. Prasanna Galhena
Director/IBMBB

I am pleased to present the Annual Report and the Statement of Finance of the Institute of Biochemistry, Molecular Biology, and Biotechnology, University of Colombo, for the financial year ending 31st December 2024. I attribute our overall achievements to my dynamic and dedicated team at the IBMBB, University of Colombo.

During the year, IBMBB was ably guided and directed by its Board of Management. Its operations were executed by three Boards of Studies assisted by the administration, examination and finance departments.

The year under current review witnessed mixed overall progress with continued challenges attributed to the restricted finances through the National Budget Department. The physical deficiency in overall cash flow was an immense operational burden, which caused a significant depletion of our capital market investments. As per current Central Bank directives, such adverse impact was further aggravated due to reduced interest income on investment.

OVERVIEW OF OVERALL OPERATIONS **Teaching and Training**

In the year 2024, IBMBB was able to enroll students in two boards of studies; Molecular Life Sciences and Cellular and Molecular Immunology. Total enrollment showed a marginal improvement but had a negative impact as the Masters in Bioinformatics was not offered in 2024. IBMBB secured the Queen Elizabeth Commonwealth Scholar (QECS) in the current year and had the privilege of hosting QECS Scholars continuously for twelve years. Total PhD and MPhil enrollment remained in a low profile due to (a) non-availability of funds, (b) uncertainties in employability, and (c) poor interest in pursuing postgraduate studies. However, there was a significant revenue contribution through self-financing activities (SFAs), internships and student electives in the current year.

Professional practice placement offered to Deakin University by the IBMBB, UOC as a recognized teaching partner was a new initiative in 2024. Planning and designing the proposed Bachelors in Molecular Biology and Bio-entrepreneurship was completed and submitted for relevant approvals in the current year. IBMBB is confident in offering this programme in the year 2025. Conceptual approval for the Masters in Medical Biotechnology 1+1 model was materialized with the University of Northumbria and this programme is expected to commence in 2026.

Research and Development

A notable improvement in research and development was witnessed in the year 2024 with the economic and political stability in the country. This segment was further strengthened by viable collaboration with other HEI, Research Institutes, industries and foreign funding agencies. Our continuous engagement with the Korea Maritime and Ocean University resulted in signing a tripartite agreement, thus facilitating teaching, research and development and infrastructure development.

Our commitment toward the Green Climate Funded (GCF) project on metagenomics has not progressed as expected due to certain elements beyond our control. However, IBMBB is looking forward to some productive outcomes from this engagement in 2005.

Overall management and operation

In the current year, IBMBB successfully retained the academic and academic support staff with diverse engagements in teaching, training, consultancies, research and development, and collaborations. Our continuous professional development programmes were extremely productive. However, current cadre expansion is one of the challenges faced by the institute and needs immediate intervention by the Department of Management Services.

Financial reporting and its compliance were well recognized by the Auditors General Department. IBMBB annual report 2023 was awarded compliance at the Chartered Accountant Competition for Best Annual Report 2023.

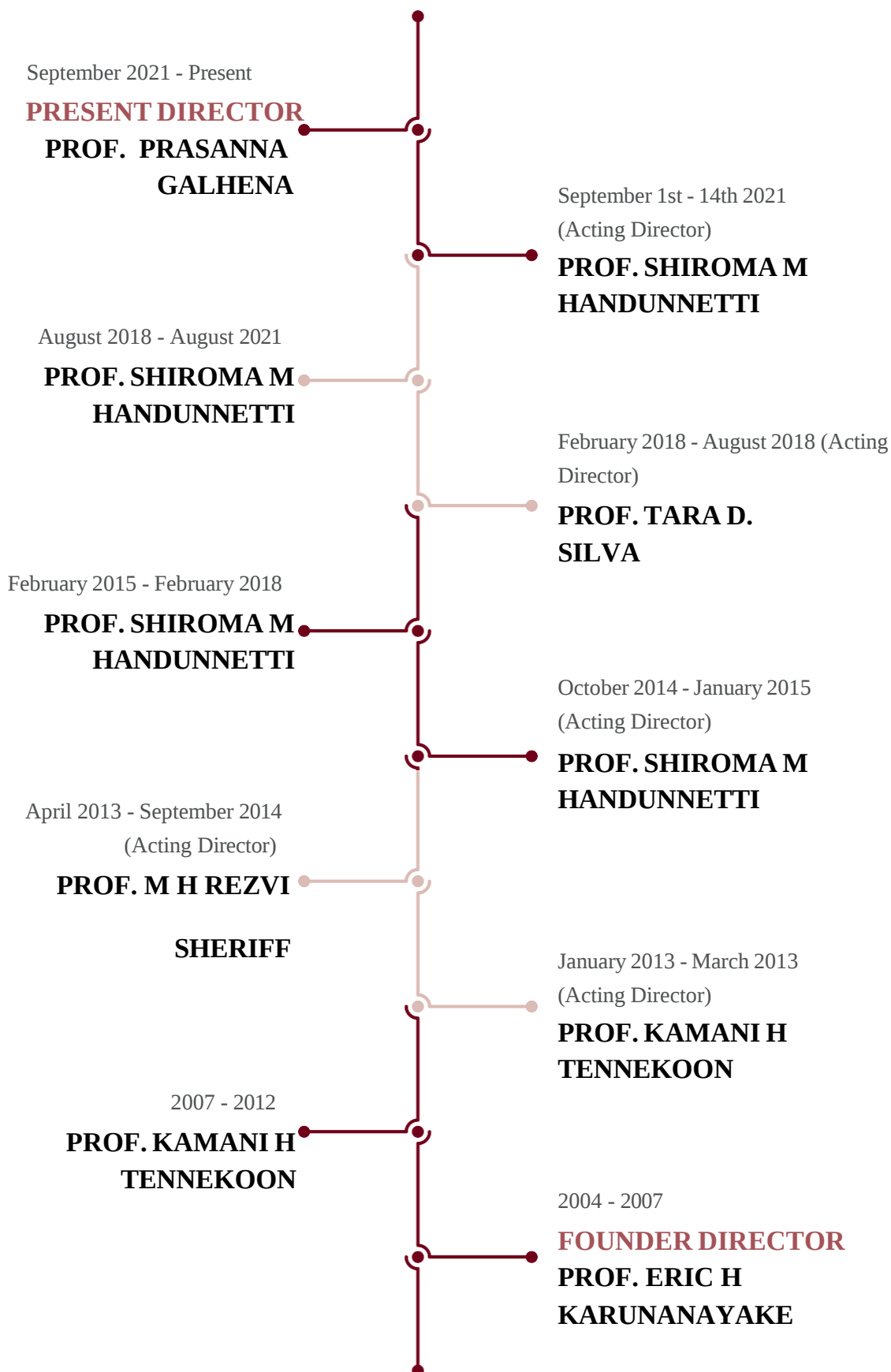
Remedial Strategies

IBMBB has a fair expectation in commencing the proposed Bachelors in Molecular Biology and Bio-entrepreneurship in 2025 and Masters in Medical Biotechnology in 2026. A reasonable revenue generation with a long-term proposal in the commencement of an internal Bachelor (Honors) in Biomedical Sciences is expected in the near future. Executing externally funded viable research projects with commercialization will be one of the main priorities of the IBMBB. Outcome dissemination through novel products and services, along with overall good governance, will be a key focus in 2025. The welfare aspect of both staff and student communities will be further strengthened through a significant institutional contribution in the coming year.

Our strategies in overall institutional sustainability may have a favorable contribution toward the excellence of teaching, training, research and development and viable networking.

Prof. Prasanna Galhena
Director, IBMBB,
UOC

DIRECTORS OF THE IB MB B



OVERVIEW

1

INTRODUCTION TO IBMBB

2

**ORGANIZATIONAL
STRUCTURE**

3

GOVERNING AUTHORITY

4

**IMPELLING AND
IMPENDING FORCES**

5

**STRATEGIES TO OVERCOME
WEAKNESS AND THREATS**

6

STAKEHOLDERS



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

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, HPLC, fluorescence and phase contrast microscopes and laminar flow hoods and other facilities such as cell culture, insectary, cold rooms, local area networking, access to internet via dedicated optical fiber cable and is fully air- conditioned. IBMBB commenced its research activities in June 2004 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.

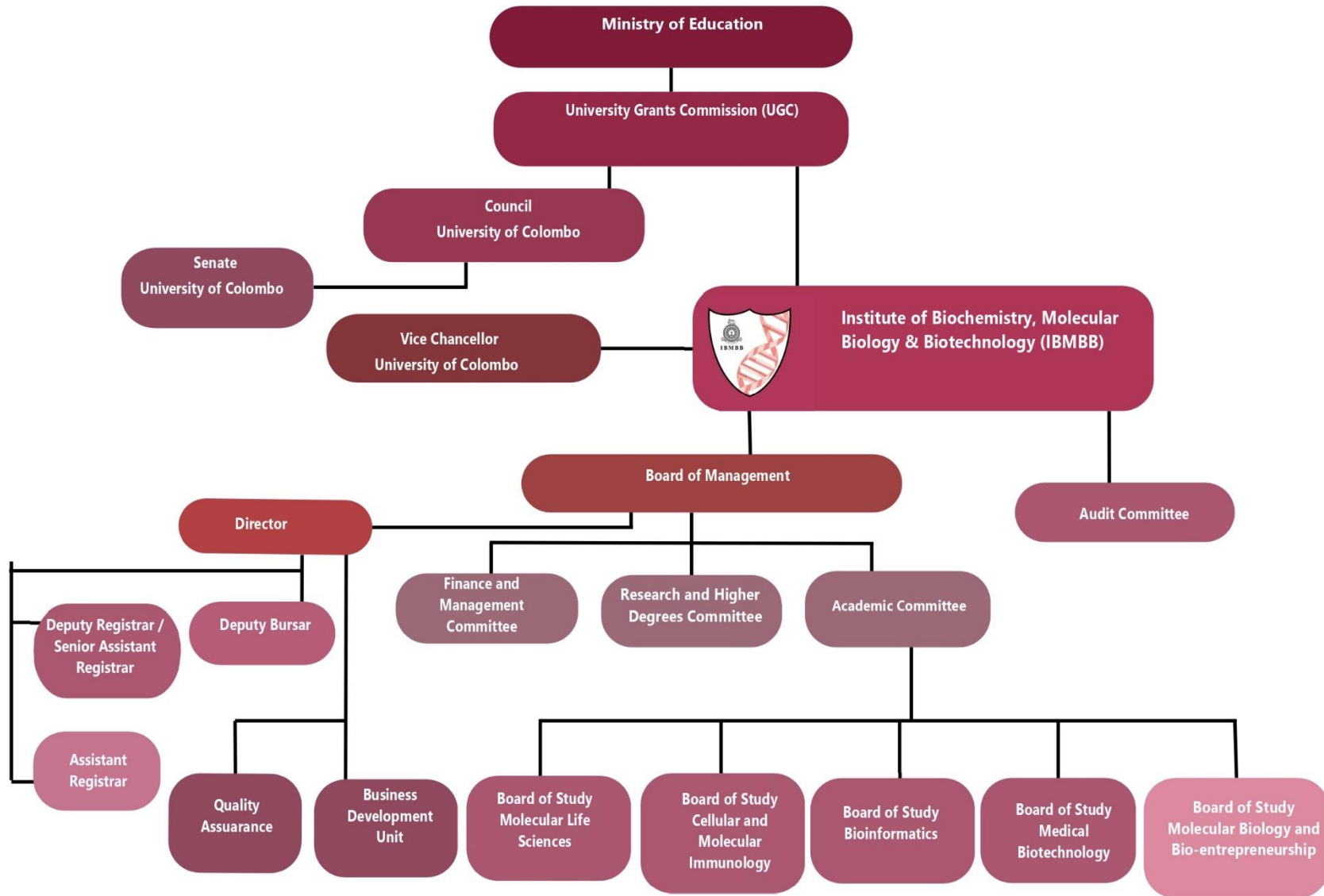
Annually, notable number of students enroll for these three postgraduate programmes with the intention of gaining a high-quality post graduate qualification. Among the students who registered for each programme those who obtained required qualifications will be awarded with Master of Science degree in 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 focused 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 STRUCTURE



GOVERNING AUTHORITY

MEMBERS OF BOARD OF MANAGEMENT



Prof. Prasanna Galhena

Director-IBMBB,
(Chairman)

*BDS (PDN), MPhil,
PhD
(Biochemistry) (SL)*



Ms. J.A.C.H Jayasingha

Representative, Ministry
of Higher Education,
Ex-officio

*BSc(Hons) (USJP),
PGDip(UoM), MECON
(UoC),
MPP (Japan)*



Snr. Prof. Vajira Dissanayake

Dean/ Medicine,
University of Colombo,
Ex-officio

*MBBS(CMB), PhD.
(Nottingham), FNASSL,
FIAHSI*



Snr. Prof. Upul Sonnadara Dean/

Science,
University of Colombo,
Ex-officio

*BSc (Hons) (CMB) MSc and
PhD (Pittsburgh), MIPSIL,
CPhys*



Dr. Ajantha Athukorala

Director, University of
Colombo School of
Computing (UCSC),
Ex-officio

BSc Hons (CMB), PhD (UQ)



Prof. Sharmila Jayasena

Head/Biochemistry &
Molecular Biology,
Faculty of Medicine, UoC
Ex-officio

*BSc. Microbiology (Hons)
(UK) PhD. in Molecular
Biology (CMB)*



Emeritus Prof. S.P. Deraniyagala

UGC Nominee

*B.Sc.(CMB) Ph.D.(Canada)
F.I.CHEM.C. C.CHEM*



Snr. Prof. Ramanee Wijesekera

UGC Nominee

*BSc (Chemistry Special)
(CMB), PhD (Aus)*

MEMBERS OF BOARD OF MANAGEMENT



**Emeritus Prof.
Kamani Tennakoon**
UGC Nominee

*MBBS (CMB), PhD (Sheffield),
FNASSL*



**Snr. Prof. Sagarika
Ekanayake**
UGC Nominee

*B.Sc. / (Chemistry, Hons)
(PDN) M.Phil / Biochemistry
(USJ) PhD / Applied
Nutrition & Food Chemistry
(Sweden) FICHEMC, FNASSL,
FIUPAC*



**Mr. Channa De
Silva**
Council Nominee

*B.Com(Sp)(CMB), FCMA(UK),
FCCA(UK), CISI (UK),
MPA(USA), MBA(Aus)*



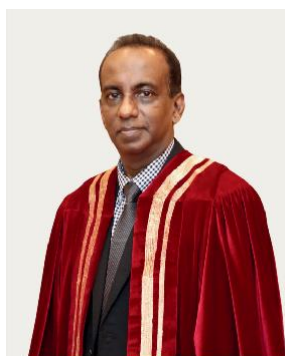
**Mr. Ashane Joseph
Waas Jayasekara**
Council Nominee

*BSc [Hons], LL.M, MBA, FCA,
FCMA [UK], FBCS [UK], CIA,
CISA, CFE [USA]*



**Prof. Sampath
Punchihewa**
Dean/ Faculty of Law,
University of Colombo,
Senate Nominee

*LL.B. (Hons) (CMB),
LL.M. in Intellectual Property
and Competition Law (Ger),
PhD in IP Law (Ger),
Attorney-at-Law of the
Supreme Court of Sri Lanka*



**Snr. Prof. Senaka
Rajapakse**
Director/ PGIM,
University of Colombo, Senate
Nominee

*MBBS, MD, FRCP(Lon),
FRCP(Edin), FCCP,
FACP, FNASSL*

IMPELLING FORCES & IMPEDING FORCES

S

STRENGTHS

1. Government Patronage
2. Advanced Laboratory facilities
3. High Quality Research
4. Experienced, Qualified and Committed staff
5. International Recognition
6. Located in the Central Colombo
7. International collaborations
8. Interdisciplinary Approach
9. Strong Alumni Network

W

WEAKNESSES

1. Lack of government funds
2. Uncertainty of research grants
3. Limitations for expansion in laboratories and other spaces
4. Limited Diversification

O

OPPORTUNITIES

1. Leader in Molecular Life Sciences
2. Emerging Technologies
3. Introducing new undergraduate and postgraduate Programs
4. Utilization and commercialization of research results
5. Minimize paper usage and become a “Green Institute”
6. Increasing General Public Engagement
7. Demand for professional consultations

T

THREATS

1. Mushrooming of Low Cost, similar programs
2. Restriction in Funds
3. Ever increasing utility charges
4. Competition from other Public and Private Sector Institutions
5. High costs involves with chemicals and consumables

STRATEGIES TO OVERCOME THREATS

Mushrooming of Low-Cost Similar Programs

Strategy 1: Emphasize IBMBB's research intensive, international recognition and broader network during marketing.

Restriction in Funds

Strategy 1: Monetize research outputs, enhance R & D through industry funded initiative with higher commercial prospects, licensing, and industry-funded projects.

Strategy 2: Launch alumni-driven fund raising campaigns and endowments for research sustainability.

Strategy 3: well regulated expenditure mechanism.

Increasing utility charges

Strategy 1: Create awareness among staff and students on utility-savings practice.

Competition from other institutions

Strategy 1: Build an ercdenu based brand

Strategy 2: Maintain academic and research excellence

High cost of chemicals and consumables

Strategy 1: Adopt for efficient usage and waste minimization techniques.

Strategy 2: Implement, procurement mechanism operative biannually with competitive bidding.

STRATEGIES TO OVERCOME WEAKNESSES

Inadequate government
funding

Strategy 1: strengthen industry partnerships and consultancy services to generate alternative income.

Strategy 2: initiation of undergraduate programs (external)/ Masters programs

Strategy 3: enhance self finance activities.

Uncertainty in acquiring
research grants

Strategy 1: set up a centralized grant management unit at IBMBB to monitor and respond to funding calls efficiently.

Limited capacity for
physical expansion

Strategy 1: Optimizing existing space through shared facilities and digital research platforms.

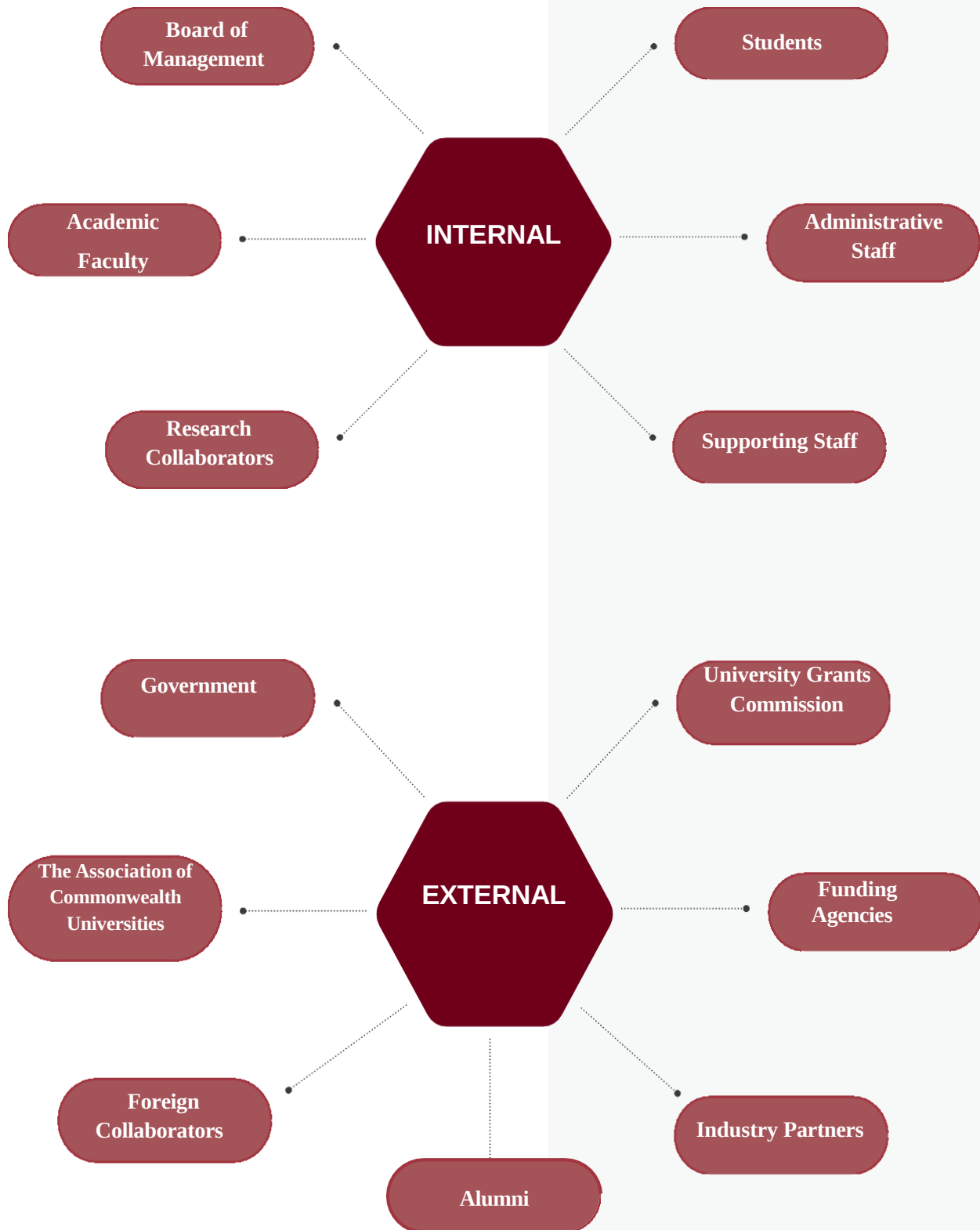
Strategy 2: Collaborate with other UOC institutions to access additional infrastructure when needed.

Limited Program
Diversification

Strategy 1: Conduct regular needs assessments with all stakeholder

Strategy 2: Design newq programs& Revise existing programme contents

STAKEHOLDERS



AWARDS

1

VICE CHANCELLOR AWARDS

2

SENATE AWARDS

3

IBMBB RESEARCH EXCELLENCE

4

IBMBB TEACHING EXCELLENCE

5

BAR COMPETITION - AWARDS
RECEIVED FOR ANNUAL
REPORT & ACCOUNTS 2023



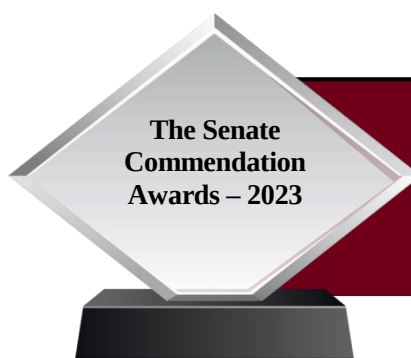
AWARDS RECEIVED IN 2024



1. Prof. Sameera R Samarakoon



1. Prof. OVDSJ Weerasena (General)
2. Prof. Sameera R Samarakoon (Early Career)



1. Dr Narmada Fernando
2. Prof Nimal Punyasiri



1. Prof. Shiroma Handunnetti
2. Prof. Sisira Pathirana
3. Prof. Nimal Punyasiri
4. Dr. Narmada Fernando
5. Dr. Ruwandi Ranasinghe
6. Dr. Umapriyatharshini Rajagopalan



**Teaching
Excellence for the
year 2021**

1. Prof. Jagath Weerasena
2. Dr. Narmada Fernando



**Research
Excellence for the
year 2022**

1. Prof. Shiroma Handunnetti
2. Prof. Sisira Pathirana
3. Prof. Nimal Punyasiri
4. Dr. Narmada Fernando
5. Dr. Ruwandi Ranasinghe
6. Dr. Umapriyatharshini Rajagopalan
7. Dr. Kanishka Senathilake
8. Dr. Sudeshini Hewage



**Teaching
Excellence for
the year 2022**

1. Dr. Sumadee De Silva
2. Dr. Narmada Fernando

AWARDS RECEIVED FOR ANNUAL REPORT & ACCOUNTS 2023



Certificate of Compliance



IBMBB Annual Report 2023 was awarded a certificate of compliance under the category of University Sector at the Best Annual Report and Accounts Awards for Public Sector–2023 organized by the Association of Public Finance Accounts of Sri Lanka (APFASL), the Public Sector Wing of CA Sri Lanka.

TEACHING AND LEARNING

1

**POSTGRADUATE DEGREE
PROGRAMS**

2

MPHIL/PHD PROGRAMS

3

POSTGRADUATE CONVOCATION

4

**SHORT COURSES, WORKSHOPS
AND TRAINING PROGRAMS**

5

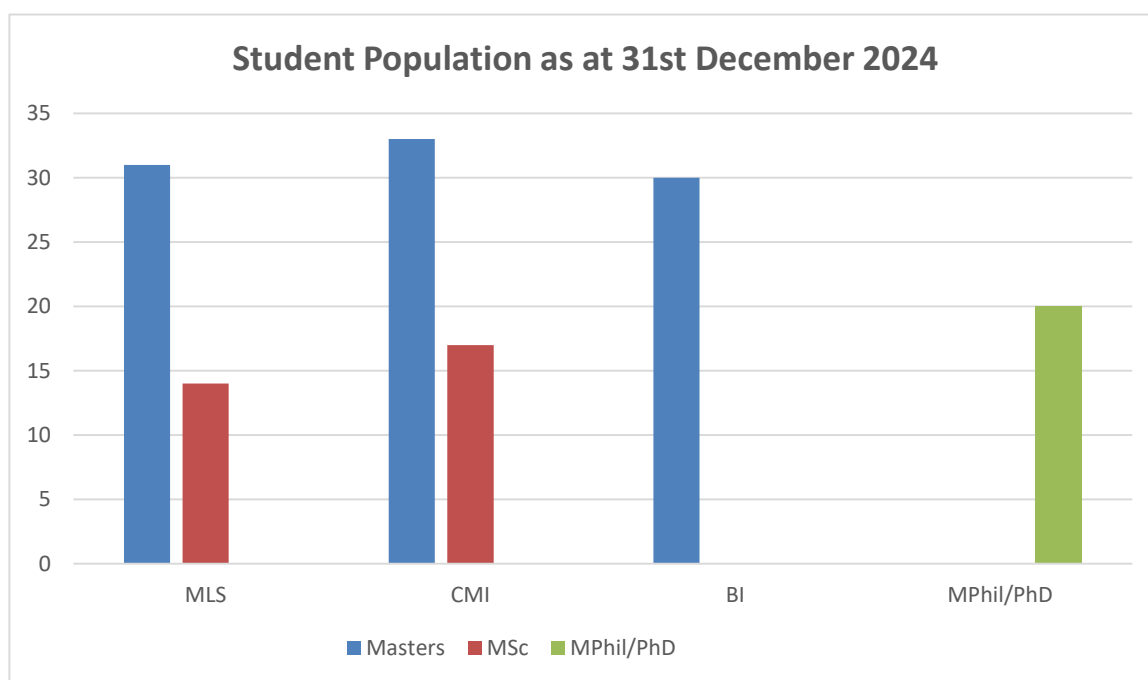
**QUEEN ELIZABETH COMMONWEALTH
SCHOLARSHIP PROGRAM**



POSTGRADUATE DEGREE PROGRAMS

BOARDS OF STUDY – CELLULAR AND MOLECULAR IMMUNOLOGY (CMI), MOLECULAR LIFE SCIENCES (MLS), BIOINFORMATICS (BI)

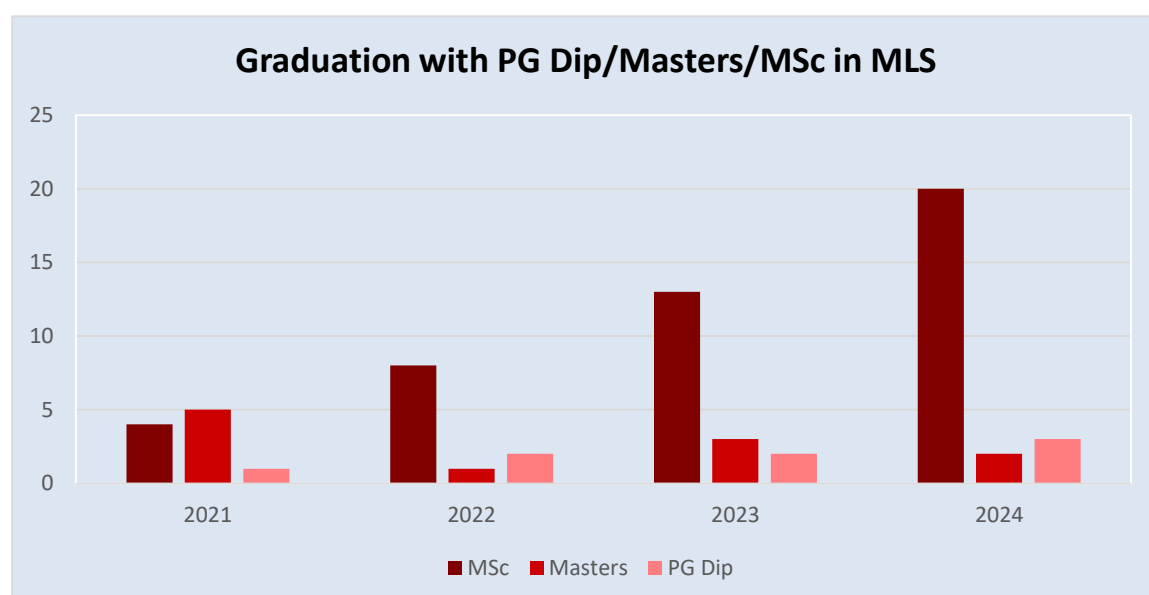
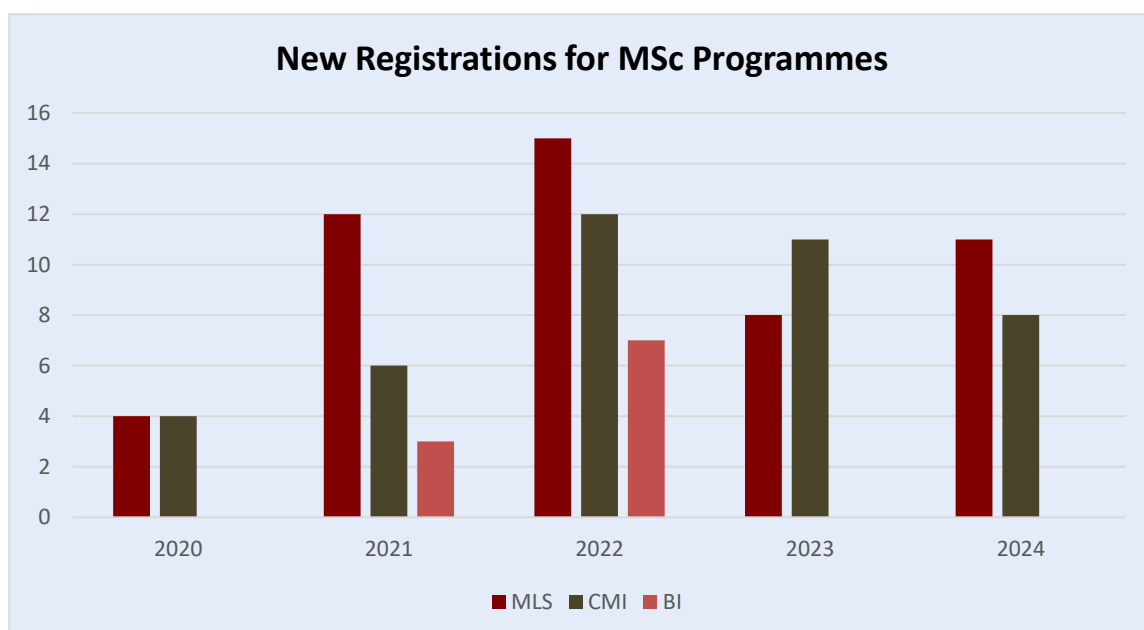
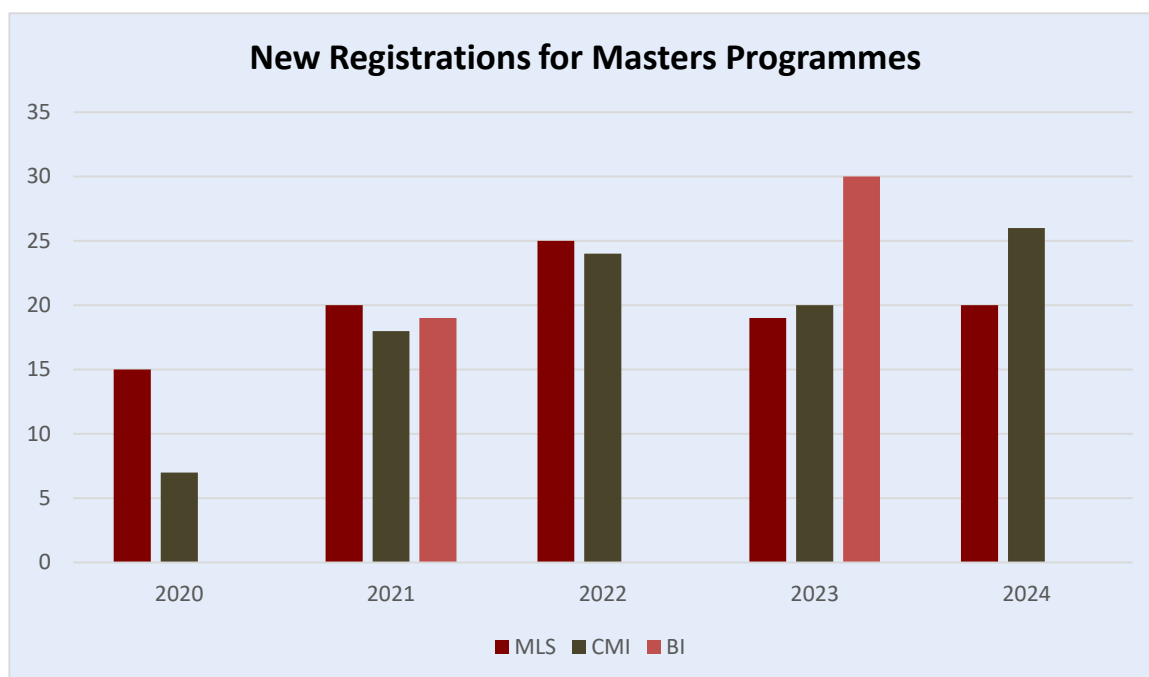
The three main streams of study at IBMBB are governed by three separate boards of study. The boards of study on Cellular and Molecular Immunology, Molecular Life Sciences and Bioinformatics governs the academic activities of the post-graduate diploma in each subject area, the Masters programmes as well 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. Total student population at the IBMBB by 31st December 2024 was 145.

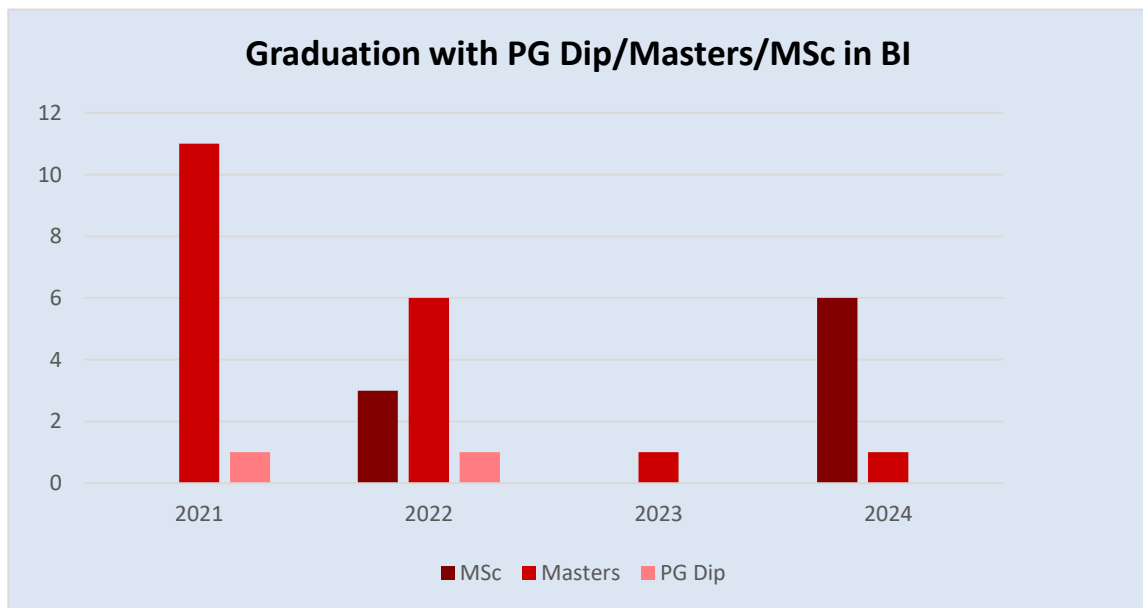
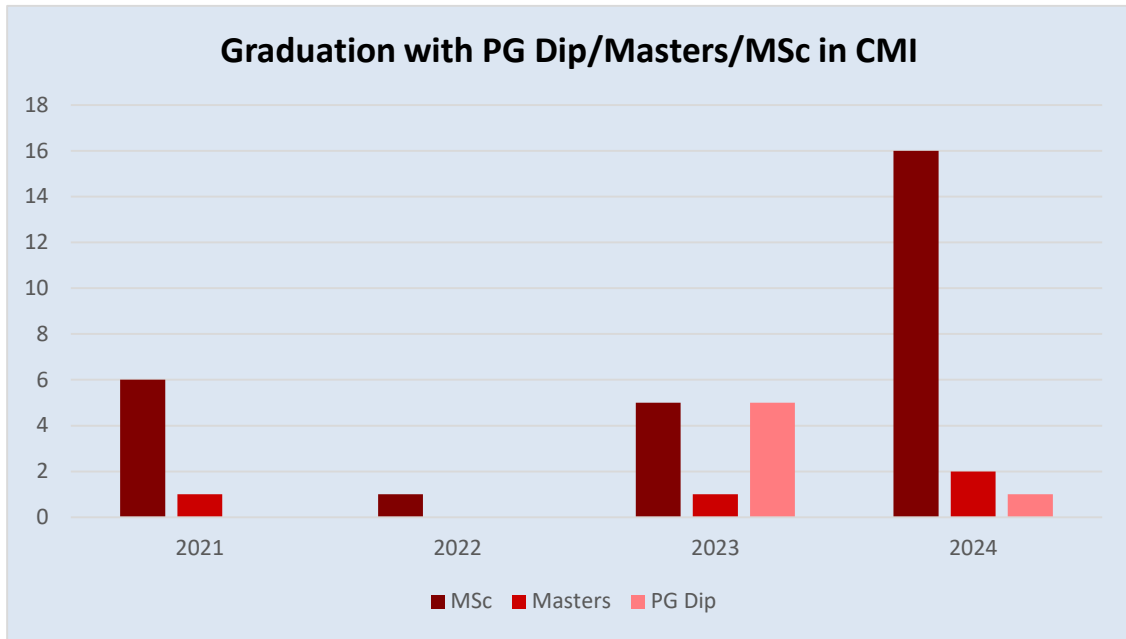


MASTERS & MSC PROGRAMMES

In March 2024, new student enrollment took place for the degree programmes in Molecular Life Sciences, Cellular and, Molecular Immunology and Master of Bioinformatics. In accordance with the revised curricular, the 6th batch of students registered for the Masters (SLQF 9) degrees this includes Master of Molecular Life Sciences (MLS) with twenty-one students, Master of Cellular and Molecular Immunology (CMI) with twenty-six students respectively.

Eleven students for Master of Science in Molecular Life Science, eight students for Master of Science in Cellular and Molecular Immunology had been registered and continued their MSc research project work in 2024. Total of ten Master of Science in Molecular Life Science students, Eleven Master of Science in Cellular and Molecular Immunology students submitted their dissertation for examination in 2024.

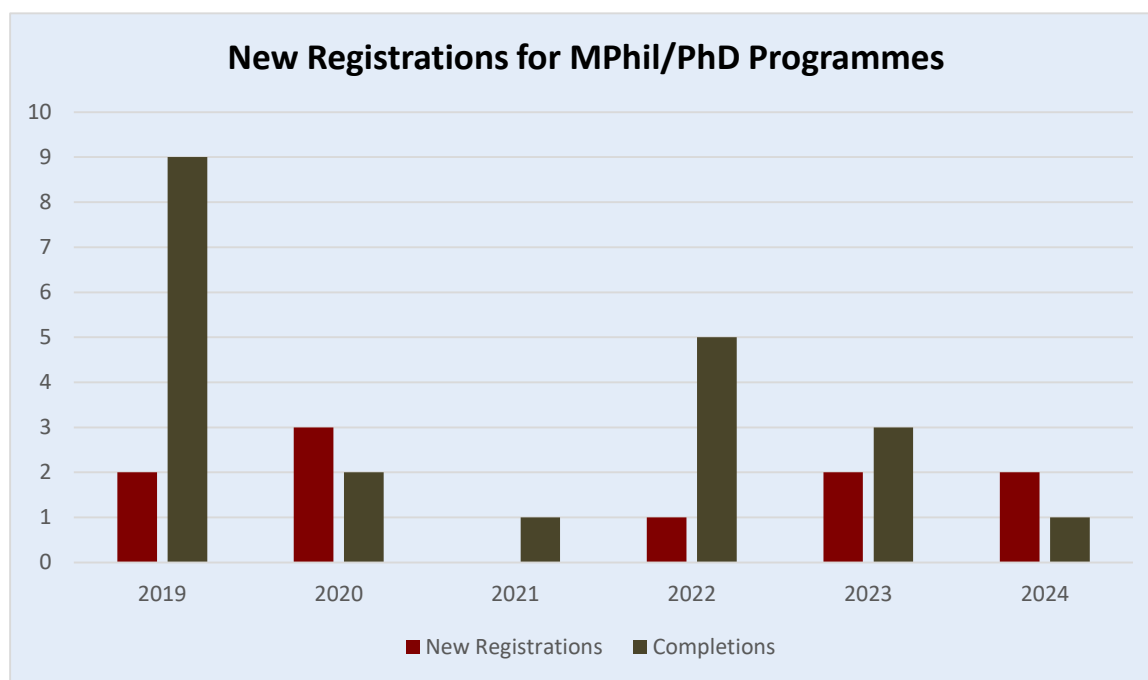




In 2024, a total of 20 Students of MSc in MLS, 16 students of MSc in CMI had successfully completed their MSc studies during 2024. Further two MLS students, two CMI students, one student of BI opted to leave the programme receiving Masters. Another three students of MLS, one student of CMI opted to leave the programme receiving Post Graduate Diploma.

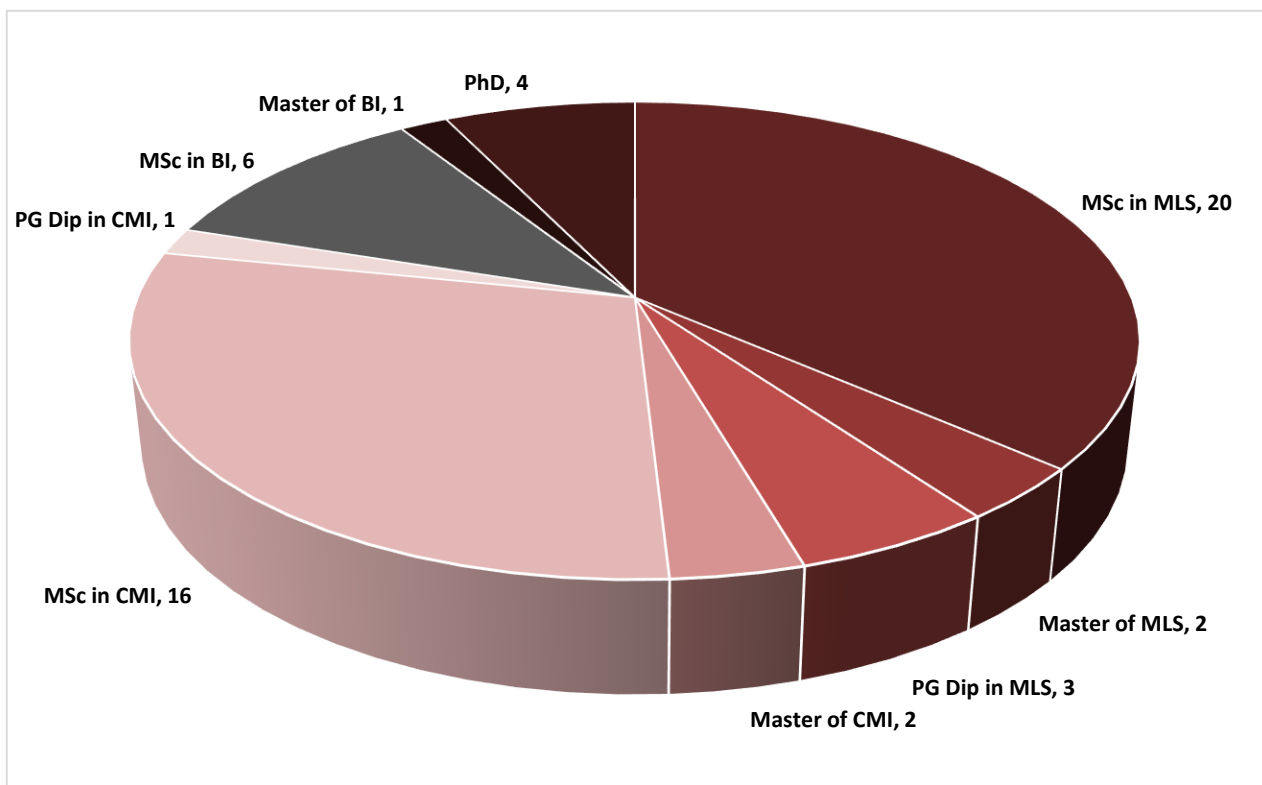
MPHIL / PHD PROGRAMMES

Two MPhil/PhD students registered during 2024 and there was a total of twenty registered MPhil/PhD students at the IBMBB. Research programmes based on MPhil/PhD work are described under research activities. Five PhD student submitted thesis for examination & viva voce examinations and one PhD student completed her viva examinations in 2024.



POSTGRADUATE CONVOCATION

The ceremonial Postgraduate Convocation 2023 was conducted on 05th and 06th December 2024. Fifty-Five grandaunts of the IBMBB were conferred degrees at the 2023 ceremonial postgraduate convocation.



SHORT COURSES, WORKSHOPS AND TRAINING PROGRAMMES

Training Course in Cell Culture Techniques – 2024

The Training Course in Cell Culture Techniques for the year of 2024 was successfully organized and conducted by the Institute of Biochemistry, Molecular Biology and Biotechnology, University of Colombo at the institute's facilities from February 26 to March 1, 2024. Seventeen participants comprised of young scientists, clinicians, medical officers, academic and science graduates attended the training course. Several practical aspects of fundamental cell culture techniques were covered in the training course which included safety precautions, media preparation, cell counting and viability determination, growth of adherent and suspension cells, maintenance of cells, freezing and thawing of human cell lines, apoptosis detection using light and fluorescence microscopy and DNA fragmentation, cytotoxicity determination, cell-based assays to screen anti-cancer drugs or substances, isolation and maintenance of primary cells, DNA and RNA extraction from cultured cells, and an overview of stem cells. The training course was a great opportunity for the participants to broaden their knowledge and gain hands-on experience in the field of animal cell culture. The workshop generated a total income of Rs.840,000.00 with an expenditure of Rs.610,500.00.



Workshop Empowering Technical Officers and Laboratory Technicians2024

The Institute of Biochemistry Molecular Biology and Biotechnology (IBMBB) at the University of Colombo recently concluded a highly successful workshop aimed at enhancing the skills and knowledge of technical officers and laboratory technicians was held on 27th and 28th of March 2024. The workshop featured a comprehensive blend of theory and practical sessions, providing attendees with valuable insights on a range of laboratory equipment and techniques.

The theory components of the workshop covered essential topics such as;

- An introduction to pH meters and analytical balances
- Spectrophotometry and centrifugation techniques,
- The utility of High-Performance Liquid Chromatography (HPLC)
- Polymerase Chain Reaction (PCR) and its diverse applications
- Uses of micro-pipettes and microscopes.

Through these sessions, participants gained a deeper understanding of the principles behind these instruments and their applications in various research settings. Complementing the theoretical knowledge, the practical components of the workshop offered hands-on experience and demonstrations, allowing participants to familiarize themselves with the operation and maintenance of key laboratory equipment. Demonstrations included ELISA/Micro-plate Readers, providing insights into techniques crucial for biochemical analysis. Moreover, participants had the opportunity for a lab visit and practical exposure, where they engaged in activities focusing on pH meters, centrifuges, spectrophotometers, PCR machines, and HPLC systems.

A total of 12 enthusiastic participants registered for the program, eager to expand their expertise and refine their laboratory skills. The workshop provided them with an invaluable platform to enhance their proficiency in handling sophisticated laboratory equipment, thereby equipping them with the necessary tools to excel in their respective roles. Overall, the workshop organized by IBMBB emerged as a resounding success, reaffirming its commitment to excellence in scientific education and training. By equipping technical officers and laboratory technicians with the requisite knowledge and skills, IBMBB continues to contribute significantly to the advancement of research and development in the field of biochemistry, molecular biology, and biotechnology. Total revenue from the workshop amounted to Rs.165,000.00, while the expenses incurred were Rs.132,000.00.

Training course in Structural Bioinformatics and Computational Drug Discovery

Training course in Structural Bioinformatics and Computational Drug Discovery was conducted by Institute of Biochemistry, Molecular Biology and Biotechnology (IBMBB) as a 5 day workshop from 1st to 5th July 2024.

The training course was delivered as an on site and online programme. Prof. Sameera R. Samarakoon (IBMBB), Dr. Kanishka Senathilake (IBMBB), Dr. Kanchana Senanakaye (IBMBB), Dr. Arabinda Ghosh (Tripura University, India), Dr. Gihan Ketawala (Arizona State University, USA), Mr. Mishal Faizan (IBMBB) and Mr. Nirmal Perera (IBMBB) contributed to the workshop as resource persons. The workshop covered key topics related to Structural Bioinformatics and Computational Drug Designing such as Molecular Docking, Molecular Dynamics Simulations, Protein Structure Elucidation and Prediction, Artificial Intelligence, Machine Learning and Deep Learning.

This training course helped 22 on site and 17 online participants to gain exposure to the field of Structural Bioinformatics and Computational Drug Discovery. With expenses of Rs. 1,352,000.00, the workshop successfully generated a profit of Rs. 568,000.00 from its Rs. 1,920,000.00 incomes.

Training course in Immunological Techniques

Training course in immunological technique, a workshop organized by Institute of Biochemistry, Molecular Biology and Biotechnology (IBMBB) for scientists, clinicians, academics, technical officers and students awaiting higher studies in biological sciences. The training course was conducted from 22nd to 26th July 2024 at IBMBB. The workshop covered key immunological techniques such as isolation of human leukocytes, isolation of immune cells and short term cell culture, antigen-antibody interactions, ELISA, Immunochromatography, SDS-Page and Western blotting, molecular methods in diagnosing immunodeficiencies and cell based immuno assays. From this workshop 12 participants gained benefits. Prof. Shiroma Handunnetti, Prof. Sisira Pathirana, Dr. Rajewade Silva, Dr. Danushka Dasanayaka and Dr. Narmada Fernando contributed as resource persons. The financial summary of the workshop shows an income of Rs.690,000.00 and an expenditure of Rs.523,500.00.

Training course in Molecular Biology Techniques

Training course in molecular biology techniques, a workshop organized by Institute of Biochemistry, Molecular Biology and Biotechnology (IBMBB) for scientists, clinicians, academics, technical officers and students awaiting higher studies in biological sciences. The training course was conducted from 8th to 12th July 2024 at IBMBB. The workshop covered key DNA based techniques such as DNA extraction and quantification, PCR and RT-PCR, Gel electrophoresis, Restriction Fragment Length Polymorphism and DNA sequencing, and related bioinformatics tools. From this workshop 12 participants gained benefits. Prof. Kamani Tennekoon, Prof. Prasanna Galhena, Prof. Jagath Weerasena, Dr. Sumadee de Silva, Dr. Sudeshini Hewage, Dr. Joanne Kothalawala, Dr. Uma Rajgopal and Ms. Saumya Samarasinghe contributed as resource persons. The workshop concluded with a net surplus of Rs. 271,305.00, derived from a total income of Rs.610,000.00 and total expenses of Rs.338,695.00.

Training Programme on Data Analysis using SPSS

Training Programme on Data Analysis using SPSS was organized by Institute of Biochemistry, Molecular Biology and Biotechnology (IBMBB) for faculties, teachers, research scholars and students, research consultants and administrative officials in higher education institutes and human resource professionals. The programme was conducted on 13th 14th and 15th August 2024. Dr. Visula Abeysuriya served the program as the resource person. The program covered key topics in data analysis such as selection of appropriate statistical tests, SPSS software, Hypothesis testing and p-value, descriptive statistics and graphs using SPSS, comparing means, chi-squared, correlation and regression analysis using SPSS. From this workshop 16 participants gained knowledge and exposure in data analysis using SPSS software. The workshop generated a total income of Rs.64,000.00 with an expenditure of Rs. 47,200.00.

Advance Training Course in Microsoft Word

The IBMBB successfully developed and launched a completely online Advanced Training Course in Microsoft Word which is offered via the IBMBB Learning Management system (LMS) on 22nd October 2024. This initiative was intended to facilitate training for digital competencies while serving as a highly profitable undertaking which will be the basis for future online training programs.

The course was developed and administered by Ms. Sarusha subramaniam, who recorded comprehensive instructional videos and designed interactive online quizzes to reinforce learning. It features a self-paced structure with structured modules covering advanced formatting, document automation, templates, macros, mail merge and collaboration tools. Participants engaged with interactive video tutorials and automated online assessments, ensuring a comprehensive and engaging learning experience thereby enhancing their learning experience.

This course is designed to be accessible to a wide range of learners from school students looking to build essential digital skills to adults seeking advanced training in document formatting and preparation. By using our LMS there was smooth enrollment, progress tracking in real time and certification at the end which was all very convenient for the learners. This course was initially opened for IBMBB staff members then for external participants. As of 31st December 2024 there are 28 participants, out of which 2 are external participants. The workshop earned Rs.5000.00 and, being conducted online, did not result in any costs.

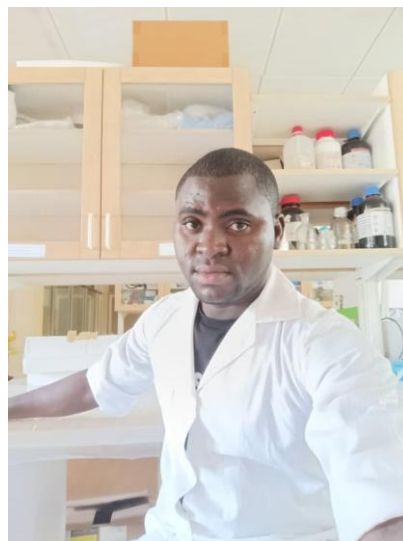
A training course in “Gene Cloning and Recombinant Protein Expression”

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 25th -29th November 2024 at the IBMBB premises. The training course was resourced by Prof Jagathpriya Weerasena, Professor in Molecular Biology, IBMBB, University of Colombo, Dr Sanjeevani Sooriyarachchi, Research Scientist, Institute of Cell and Molecular Biology, University of Uppsala, Uppsala, Sweden and Dr Nilupa Gunaratna, Scientific Assistant, IBMBB, University of Colombo, Ms. Thulangi Siriwardana and Ms. Sandali Geethma. The training course was conducted for the young scientists, academics, undergraduate/postgraduate students and students awaiting higher studies in biological sciences. The training course provided opportunity to perform the latest as well as commonly used methods in modern biotechnology such as PCR amplification and cloning, preparing recombinant constructs, transformation, protein expression and purification, protein crystallization, getting 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. Total revenue from the workshop amounted to Rs.306,000.00, while the expenses incurred were Rs.244,800.00.

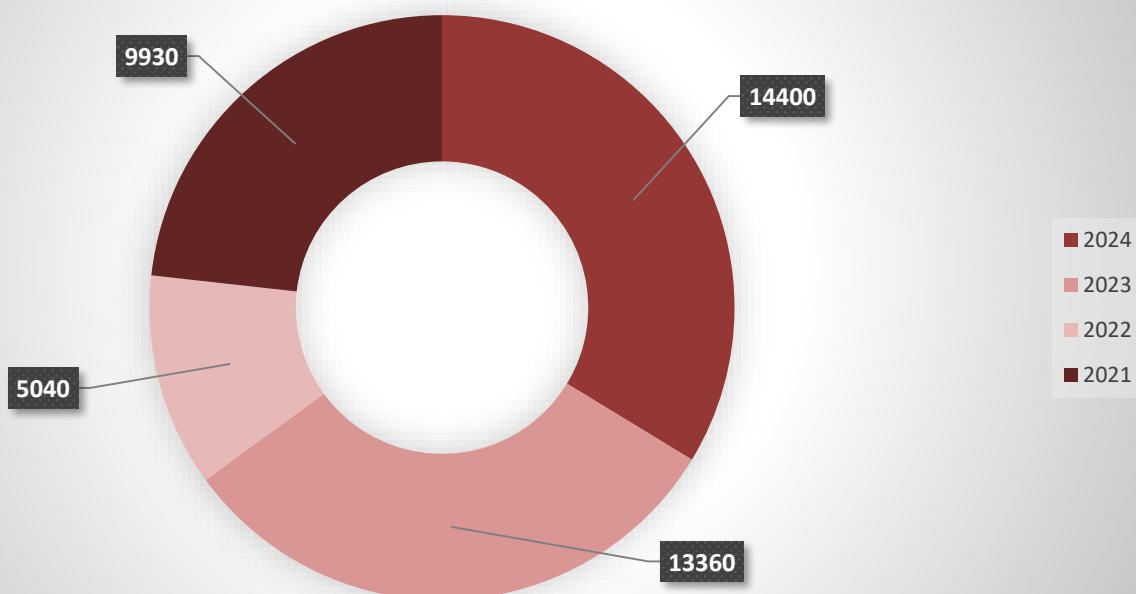


QUEEN ELIZABETH COMMONWEALTH SCHOLARS PROGRAM

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 2024 the institute has hosted a total of 11 Commonwealth Scholars.



Generated Income in USD



RESEARCH ACTIVITIES

1

RESEARCH PROGRAMS

2

POSTDOCTORAL RESEARCH

3

RESEARCH PUBLICATIONS

4

CONFERENCE PROCEEDINGS

5

INTERNATIONAL POSTERS

6

BOOKS PUBLISHED



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, Medication & Health

Molecular identification of industrially important microorganisms. Several research projects with industrial applications were also conducted during the year 2024. 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. The Research Students, research projects and supervisors are listed in the table below.

There was a total of 21 full papers in peer-reviewed, indexed, International Journals. There were 54 research communications presented at scientific conferences including international abstracts.

INFECTIOUS DISEASES

TITLE OF THE RESEARCH	RESEARCH GROUP	GRANT
Leptospirosis		
Detection of genotypes and serotypes of <i>Leptospira</i> isolated from leptospirosis patients of different serovars. PhD study was in progress in 2024	Prof. Shiroma Handunnetti Prof.. Jagathpriya Weerasena, Prof. Sunil Premawansa Prof. Senaka Rajapakse PhD Student – Dakshika Gangani	National Research Council to Prof. Shiroma Handunnetti , IBMBB (NRC -17-098)
Diagnosis of leptospirosis in cattle: Comparison of polymerase chain reaction and in-house <i>Leptospira</i> antigen detection test. Research study completed in 2024	Prof. Sisira Pathirana, Prof Sunil Premawansa, Prof Jayantha Rajapaksha, Dr Ama Jayawardana MSc student: Mr Chathura Ranatunga	MSc-CMI programme budget

Dengue

Development of a colourimetric reverse transcription on 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 2024	PI: Dr. Hasitha Tissera, Director of the National Dengue Control Unit (NDCU) (Currently at the Epidemiology Unit of the Ministry of Health), Prof. Shiroma Handunnetti Prof. OVDS Weerasena Dr.Sisira Pathirana Dr.Narmada Fernando Dr. Subashini Aryaprema (Biologist Antasia Mosquito control district Florida USA) Dr. Rushika Perera Associate Professor (Colorado State University, USA) MPhil/PhD Student: Ms. Sakunthala Janaki (Entomologist, NDCU)	National Research Council to Dr. H Tissera (NRC-19-065)
Effect of VitaminE supplementation on serum an oxidant capacity levels in 5-14 yearsold children infected with dengue virus Research study completed in 2024	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 5-14 yearold children infected with dengue virus Research study in progress in 2024	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 Sath Daranee (SD) on dengue virus infected endothelial cells Research study completed in 2024	Dr Bhagya Deepachandi Prof Sisira Pathirana Ms Sanduni de Costa Prof Shiroma Handunnetti MSc Student:Ms Chinthani de Silva	MSc-CMI programme budget

Assesement of selected viral & host factors continuing to endotelial dysfunction and permeability in dengue infection Study was in progress in 2024	Dr Narmada Fernando Prof Senaka Rajapaksha Prof Andrew Nistche Prof Shiroma Handunneti Prof Sunil Premawansa Prof A pathnewarna Mphil/PhD : Ms Upeksha Wanigarathna	MSc-CMI programme budget
Tuberculosis		
In vitro evaluation of ion pump and ion channel modulators and vitamin D as anti-mycobacterial agents In progress in 2024	Prof. Sisira Pathirana Dr. Nilanthi Senanayake Prof. Shiroma Handunnetti MSc student: Dr. Thilini Abeyakone	MSc-CMI programme budget
SARS-CoV-2		
Association of SARS-CoV-2 viral genotype with disease severity and an body response assessed using in- house IgM and IgG ELISAs in Sri Lankan patients In progress in 2024	Prof. PPSL Pathirana Prof. Inoka Perera Prof. Shiroma Handunnetti Dr. Narmada Fernando Mr. James Thambyrajah Ms.Dakshika Gangani Prof. Sunil Premawansa Prof. Senaka Rajapaksha Ms. Thejane Perera Mr. Sahan Siriwardena Dr. Rajiva de Silva Dr. Dhanushka Dasanayake Dr. Suranga Manilgama Dr Rohitha Muthugala Dr. Dhananja Namalie Dr. Gayani Premawansa Dr. Saranga Sumathipala Prof. Andreas Nistche (Robert Koch Ins tute, Germany) Post-Doctoral Researcher: Dr. Ama Jayawardana Ms Binaka Dasanayake (End of Oct 2024)	IDEA Project funded by Robert Koch Institute, Germany
In vitro immunomodulatory effects of Sath Daranee (SD) on human neutrophils interacted with Spike protein 1 of SARS-CoV-2 Research completed in 2024.	Prof Sisira Pathirana, Prof Shiroma Handunnetti Mr Kaushalya Anuradha Dr Bhagya Deepachnadi MSc Student: Ms Gauri Kaushalya	MSc-CMI programme budget

	Viral Encephalis	
Studies on Immunological and molecular identification of medically important bat pathogens and viral encephalis cases in Sri Lanka PhD was awarded in 2024.	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

TITLE OF THE RESEARCH	RESEARCH GROUP	GRANT
Cancer and Cancer stem cells		
Genetic analysis for predictive markers for hepatocellular carcinoma (HCC) in non-alcoholic steatohepas (NASH) related cirrhosis MPhil/PhD project was in progress on 2024 and submitted for examination .	Dr.Sudeshini Hewage Prof. Rohan Siriwardena Prof. Kamani Tennekoon Prof.Madunil Niriella Mphil / PhD Student: Ms. Saumya Samarasinghe	NRC Grant awarded to Dr. Sudeshini Hewage (NRC-19-030)
Modulation of Adiponectin expression during murine fibroblast (3T3L1) differentiation into adipocyte in-vitro In progress in 2024	Prof. B. P. Galhena Prof. Sameera R Samarakoon Dr. Supun Wijayasinghe MSc Student: Piyumi Dissanayake	IBMBB (MSc studies)
Effects of graphene oxide on the expression of selected geneslinked toglucose metabolism in cancer stem cells In progress in 2024	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 Udupiyangalge and Alugalge caves. PhD project was in progress in 2024.	Dr. Ruwandi Ranasinghe Prof. Kamani H Tennekoon Prof. Raj Somadeva (Dr. Niraj Rai 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 popula on in Sri Lanka PhD project was in progress in 2024.	Dr. Ruwandi Ranasinghe Prof. Kamani H Tennekoon Senior Prof. Gamini Adikari 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

Molecular studies on Genetic disorders

Detection of selected genetic variants in PYGL gene in a cohort of children with Glycogen Storage Disease Type VI in Sri Lanka In Progress in 2024	Dr. Sumadee De Silva Dr. Sudeshini Hewage Prof. Nimal Punyasiri MSc Student: Saranya Nadaraja	IBMBB (MSc studies)
Investigation of a selected termite nest-derived fungus for the presence of biologically active secondary metabolites and DNA barcoding of the isolated fungus In Progress in 2024	Prof. Nimal Punyasiri Dr. Umapriyatharshini Rajagopalan Prof. E. Dilip de Silva MSc Student :Avinash Selvaratnam	IBMBB (MSc studies)
Study of a Sri Lankan cohort of children with Homocystinuria for selected variants in MTR and MTRR genesIn Progress in 2024 In Progress in 2024	Prof. Nimal Punyasiri Dr. Sumadee De Silva Dr. Sudeshini Hewage MSc Student : Don Sakuna Chankana Jayakody	IBMBB (MSc studies)
Genetic analysis of Telomerase Reverse Transcriptase (TERT) promoter mutations and detection of serum levels of Human Telomerase Reverse Transcriptase (hTERT) mRNA in non-alcoholic steatohepatitis (NASH) related Hepatocellular carcinoma (HCC) In progress in 2024	Dr. Sudeshini Hewage Dr. Sumadee De Silva Prof. KH Tennekoon Ms. Saumya Samarasinghe MSc Student: Mr Umar Usman Liman	IBMBB (MSc studies)
Selected genetic variants of PHEX gene in a cohort of children with hereditary hypophosphatemic ricket in Sri Lanka In progress in 2024	Dr. Sudeshini Hewage Dr. Sumadee de Silva Dr. Navoda Atapatthu MSc Student: Mr M M Milhan	IBMBB (MSc studies)
Molecular Studies of well differentiated thyroid concurs: Papillary and follicular carcinoma In progress in 2024	Dr Sumadee De Silva Prof Prasanna Galhena Prof Vasitha Abeysuriya	IBMBB (MSc studies)

	Dr Ramani Punchihewa Prof L G Chandrasena MSc Student: Ms S D Kugaperumal	
Plant Molecular Biology		
Profiling of Anthocyanins in Red Tea Accessions Project Completed, Per-revised Paper Published	Dr. M.A.B. Ranatunga (TRI) Mr. J.D. Koawarachchi (TRI) Prof. Nimal Punyasiri	Tea Research Institute
Identification of genes responsible for height of the banana pseudo- stem in local banana variety “Bim Kesel” In progress in 2024	Dr. NadeeshaLewke Bandara Prof. OVDSJ Weerasena MSc Student: Zahwa Abusahid	IBMBB (MSc studies)
Molecular phylogenetic study on some selected Liparis(Orchidacea) species in Sri Lanka In progress in 2024	Dr. Nadeesha LewkeBandara Prof. Alessio Papini(Uni Firenze, Italy) Prof. OVDSJ Weerasena MSc Student: Upamitha Sapthaki Gunawardane	IBMBB (MSc studies)
Barcoding Tragia spp. (Wal kahambiliya) in Sri Lanka Final dissertation was Completed in 2024 successfully in 2024.	Prof. OVDSJ Weerasena Dr.TMSG Tennekoon Dr. LNR Gunaratna MSc Student: Charshinie J. Perera	IBMBB (MSc studies)
Metabolomics		
Drug Metabolism Project Completed.	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 a termite nest-derived fungus for the presence of novel biologically active secondary metabolites	Prof.Nimal Punyasiri Dr.Nadeesha Lewke Bandara Prof. Dilip De Silva	IBMBB (MSc studies)
MSc study was completed in 2024	MSc Student: Symthiya Sivagnanasundaram Rexon	

MOLECULAR IMMUNOLOGY, IMMUNODIAGNOSTICS AND AUTOIMMUNE DISEASES

TITLE OF THE RESEARCH	RESEARCH GROUP	GRANT
Genetics of immunodeficiency		
Detection of mutations in Exon 12 of MSH2 gene in a Sri Lankan cohort of patients with Rectal cancer Study was in progress in 2024	Dr Visula Abeysuriya , Dr Sumadee De Silva Prof. Vasitha Abeysuriya MSc student – Ms Fathima Nufla	MSc-CMI programme budget
Detection of Microsatellite Instability (MSI) in patients with colon cancer by using Quantitative Polymerase chain Reaction (qPCR) analysis in a selected hospital in Sri Lanka Study was in progress in 2024	Dr Visula Abeysuriya Dr Umapriyadarshan Rajagopalan Prof. Vasitha Abeysuriya MSc student- Ms Lumeesha Yadeeshani	MSc-CMI programme budget
Immunodiagnosics		
Production of Monoclonal antibodies for diagnosis of <i>Leptospira</i> antigens of selected, most prevalent serovars/serogroups of <i>Leptospira</i> in Sri Lanka. In Progress 2024	Prof. Shiroma Handunnetti Prof. Senaka Rajapakse Prof. Sunil Premawansa Dr. Narmada Fernando Collaborator: Dr. Lilani 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 in vitro inflammatory assays Study completed in 2024	Dr Narmada Fernando Prof Sisira Pathirana Ms Dakshika Gangani MSc Student: Ms Ishara Gayathree	MSc-CMI programme budget

Comparison of level of in vitro inflammation induced by lipopolysaccharides isolated from different bacteria E(. coli, Leptospira, Burkholderia)	Investigators: Dr Narmada Fernando Prof Sunil Premawansa Prof Enoka Corea Mr Kaushalya Anuradha	MSc-CMI Programme Budget
Study completed in 2024	MSc Student: Ms Induwari Gunawardane	
Preliminary study on the presence of missense, gain of function Mutations in Mrgprx2 gene, a receptor for non-IgE mediated basophil degranulation inpatients with allergy to ciprofloxacin	Prof Shiroma Handunne Dr Rajiva de Silva Dr Dhanushka Dasanayake Dr Kanishka Senarath Ms Dakshika Gangani	MSc-CMI Programme budget
Study completed in 2024	MSc Student: Ms Subashini Rathnayake	
Establishment of an in house ELISA to detect bovine anti Babesia IgG antibodies	Prof Sisira Pathirana Dr Samantha Iddamaldeniya Dr Binaka Dasanayaka	MSc-CMI Programme budget
Study was in progress in 2024	MSc student – Ms Dulani Morewaka	
Autoimmune diseases		
Assessment on selected in a Gmmatory and oxidave stress mediators in patients with psoriasis under Mtx treatment	Dr Narmada Fernando Dr Janaka Akarawita Dr Chalukya Gunasekera Ms Fatema S Abbasbhoy	MSc-CMI Programme Budget
MSc Project work initiated in 2024	MSc Student: Ms Thilini Dissanayake	
Preliminary study on the Assessment on genetic markers predictive of Mtx treatment response in patents with psoriasis in Sri Lanka	Dr NarmadaFernando Dr Janaka Akarawita Prof Senaka Rajapakse Ms Fatema S Abbasbhoy	CMI Programme budget
Study completed in 2024	MSc Student: Ms Gayathree Nayanajeewi	
Detection of chromosome 22q11.2 deletion in patients clinically suspected of Di George syndrome attending an Immunology clinic at Medical Research Institute, Sri Lanka	Dr Rajiva de Silva Dr Dhanushka Dassanayake Ms Sanduni Kosta	CMI Programme budget
Study completed in 2024	MSc student – Ms Chathurika Lakshani	
Preliminary study on NCF 1 mutation in autosomal recessive chronic granulomatous disease patients	Dr R de Silva Dr D Dasanayake Dr K Senarath	CMI Programme budget

and clinical comparison with X-linked chronic granulomatous disease in Sri Lanka Study completed in 2024	Dr A Jayawardana in place of Mr K Anuradha MSc student – Mr Dilan De Silva	
Assessment of the potential of <i>Leptospira</i> Antigen Detection Test in differentiating leptospirosis from dengue infections and sepsis patients having bacterial infections other than <i>Leptospira</i> Study completed in 2024	Dr N Fernando Prof S Rajapakse Ms. S De Kostha Dr B Deepachandi MSc student – Dr Uvani Dissanayake	CMI Programme budget
Assessment of performance criteria of a <i>Leptospira</i> Antigen Detection tests in diagnosis of leptospirosis using urine samples from patients Study Completed in 2024	Prof S Handunnetti Prof S Rajapakse Ms S de Kostha MSc student – Ms Jaanaky Vignaeswaran	CMI Programme budget

TITLE OF THE RESEARCH	RESEARCH GROUP	GRANT
Research on medicinal plants with anti-inflammatory, immunomodulatory, wound healing and anti-allergic effects		
Preliminary in vitro 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 in progress in 2024.	Prof Shiroma Handunnetti Dr Dilshani Dissanayake Dr Dilani Rukshala Mr James Thambyrajah MSc Student: Ms Deborah Harikrishnan	MSc-CMI Programme Budget
Immunomodulatory, an oxidant, and an antibacterial bio-actives of selected Sri Lankan medicinal plants MPhil/PhD project work in progress in 2024.	Dr Radhika Samarasekera Dr Narmada Fernando Dr G. D Liyanaarachchi Prof Shiroma Handunnetti MPhil/PhD Student: Ms Dulini Jagoda	Funds made available from Dr Radhika Samarasekera at ITI.
Effect of crude extract /active solvent extracts of two selected medicinal plants on inhibition of compound 48/80 induced degranulation and histamine release by rat (RBL-2H3) basophils. MSc project work in progress in 2024.	Prof. Sisra Pathirana Dr. Dilani Rukshala Dr. Bhagya Deepachandi Ms. Naomi Navaneeta MSc Student: Ms Ramjah Ragunaathan	MSc-CMI Programme Budget
Effect of aqueous, seed and fruit peel extracts of <i>Punica granatum</i> on inhibition of IgE-independent basophil (RBL-2H3) degranulation MSc project work in progress in 2024.	Prof. Shiroma Handunnetti Dr. Bhagya Deepachandi Prof. Sunil Premawansa Ms. Naomi Navaneeta MSc Student: Ms Ravina Perera	MSc-CMI Programme Budget
<i>In vitro</i> effects of <i>Vernonia zeylanica</i> on degranulation of human basophils derived KU812 cells MSc project work in progress in 2024	Dr. Dilani Rukshala Prof. Shiroma Handunnetti Dr. Rajiva De Silva Dr. Danushka Dasanayake MSc Student: Ms Hafsa Jiffry	MSc-CMI Programme Budget
<i>In vitro and in vivo immunomodulatory effects of aqueous root extract of Artocarpus heterophyllus</i> MSc project work in progress in 2024	Prof Shiroma Handunnetti Dr Dilani Rukshala Ms Naomi Navaneetha MSc Student: Ms Chathurnima Perera	MSc-CMI programme budget

<i>Study on comparison of venom components in clinically important snakes of Family Viperidae in Sri Lanka</i> MSc project work in progress in 2024	Dr Narmada Fernando Dr Praveen Weeratunga Prof Ariyarani Gnanadasan MSc Student: Ms Thamali Perera	MSC-CMI programme budget
<i>In vitro effect of a selected medicinal plant on DENV-2 induced permeability and the expression of endothelial cell junctional molecules via VEGFA-VEGFR2 interaction</i> MSc project work in progress in 2024	Dr Narmada Fernando Prof Shiroma Handunnetti Ms Dilini Jagoda MSc Student: Ms Janani Rodrigo	MSC-CMI programme budget
<i>In vitro effect of two selected medicinal plant extracts on DENV-2 induced permeability in human macro-vascular endothelial cells (EAhy.926 cell line)</i> This Study was completed in 2024	Dr N Fernando Prof S Handunnetti Ms D Jagoda MSc Student: Ms Vithushi Kuganeshan	MSC-CMI programme budget

Anti-cancer effects of medicinal plants

In vitro and in vivo epigenetic investigations on anti-cancer and radio priming effects of different parts of Mangifera indica (India) and Mangifera zeylanica (Sri Lanka) and impact of green silver nanocomposites One MPhil student project was in progress in 2024.	Prof. Kamani H Tennekoon Dr. Sameera Samarakoon Dr. Meran Ediriweera Dr. N.Devipriya Dr. V. Vadivel (India) PhD 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 2024.	Prof. Kamani Tennekoon Prof. Sameera Samarakoon Prof. Ira Thabrew Prof. E Dilip De Silva Prof. Nedra Karunaratne Dr. A Adhikari (Nepal) Prof. Iqbal Chaudhry (Pakistan) Dr. Poorna Piyathilake 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)

In silico prediction and in vitro validation of new anti-aging herbal product In progress in 2024.	Dr. Kanishka Senathilake Prof. Sameera Samarakoon Prof. Prasanna Galhena MSc Student: Nipuni Hennadige	IBMBB (MSc studies)
Anti - cancer effects of isolated compound from Adenanthera Bicolor on cancer stem cells In progress in 2024.	Prof.Sameera R Samarakoon Dr. Umapriyatharshani Rajagopalan Prof. Prasanna Galhena MSc Student: Manukalpa Bandara	IBMBB (MSc studies)
In vitro screening for anti-cancer activity and in vivo toxicity evaluation of a Diterpene isolated from Caesalpinia Pulcherrima In progress in 2024.	Prof Sameera R Samarakoon Dr. Kanishka Senathilake Prof. Prasanna Galhena MSc Student: Panapitiya Kankanamalage Shalini Kaushalya Wijerathne	IBMBB (MSc studies)

Industrial Applications		
Cloning, expression and purification of a commercially viable enzyme In progress in 2024.	Dr. Kanishka Senathilake Prof. Sameera R Samarakoon MSc Student: Rathnayake Mudiyansele Nishadi Tharuka Roshanthi Rathnayake	IBMBB (MSc studies)
Authentication of <i>Baliospermum montanum</i> using DNA barcoding Final dissertation was submitted successfully in 2024	Prof.OVDSJ Weerasena Dr.TMSG Tennekoon Dr. LNR Gunaratna MSc Student: Seshani Judith Maria Maldunarachchi	IBMBB (MSc studies)
Study on expression of selected enzymes of flavonoid biosynthesis pathway in relations to formation of colours in <i>Clitoria ternatea</i> In progress in 2024	Prof. Nimal Punyasiri Prof. O.V.D.S.J. Weerasena Dr. Nilupa Gunarathne MSc Student: Ms Sharunniea Shanmugapraha	IBMBB (MSc studies)
Molecular Identification of Animal Species in Sri Lanka		
Molecular Identification of new animal species. The study was in progress in 2024.	Mr. Mendis Wickaramasinghe Prof. Kamani Tennekoon Prof. Sameera R Samarakoon PhD Student: Ms. Nethu Wickramasinghe (Sri Lanka Herpetological Society)	Funding: Sri Lanka Herpetological Society
Study on immunological, hormonal and biochemical parameters of the stress response in meditators. PhD study was completed in 2024 and thesis was being written.	Prof. Shiroma Handunnetti Dr. D.H. Warawitage, Prof. Dilshani Dissanayake 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> .	Prof. O.V.D.S.J.Weerasena Dr. N. Gunarathne MSc Student: K. Sandali Geethma	IBMBB (MSc studies)

Final dissertation was submitted successfully in 2024		
Characterization of Causative Organism of Circular Leaf Spot Disease of Rubber Plantation in Sri Lanka Final dissertation was submitted successfully in 2024	Prof.O.V.D.S.J.Weerasena Dr.L. N.R. Gunarathne, Dr. Sarojini Fernando MSc Student: Hiruni Udeshika Udugama	IBMBB (MSc studies)
Development of Compost accelerator and biofertilizer formulation using natural microflora In progress in 2024	Prof.O.V.D.S.J.Weerasena Dr.L. N.R. Gunarathne MPhil Student: Mayura Prabakaran	Self Funded
Isolation and Characterization of Lipase Producing Microbes from Natural Oil Substrates In progress in 2024	Prof.O.V.D.S.J.Weerasena Dr.L. N.R. Gunarathne MSc Student: Ms Malka Wickramarathna	IBMBB (MSc studies)

POST-DOCTORAL RESEARCH

Dr Binaka Dasanayaka's postdoctoral research focuses on developing a rapid detection method for *B. bovis*/ *B. bigemina* species infecting cattle. A Loop-Mediated Isothermal Assay-based diagnostic approach has been formulated with the aim of enhancing the speed and specificity of pathogen detection in field settings. Subsequently, data from Veterinary Research Institute (VRI) were analyzed to understand the prevalence of *Babesia* in four provinces. Further, *Haemaphysalis* spp. detected as potential vectors in the study regions. Building upon these findings, a new proposal was drafted to employ automated dichotomous keys (via Lucid) for more efficient and accurate morphological tick identification. A visit to VRI allowed PCR-based detection of genus-specific *Babesia* on DNA samples from Monaragala, followed by expanded assays targeting *B. divergence*, *B. ovata*, and *B. naoakii*. Confirmation of PCR products was achieved through agarose gel electrophoresis. Additionally, new primer designs are in progress for the purpose of broadening sequencing coverage, capturing a larger DNA region around the previously amplified *B. ovata* AMA-1 gene. In addition, she is working on two marine seaweed projects that are in the early stages of development. The first project evaluates indigenous seaweed species to determine their capacity for environmental remediation, while the second project targets both remediation and the extraction of bioproducts..

Dr Kanishka Senathilake's postdoctoral research focuses on DC3B, a natural diterpene isolated from *Caesalpinia pulcherrima*, for its potential to inhibit cancer stem cell activity. Computational studies were conducted to evaluate its inhibitory effects, followed by preclinical assessments. Toxicity studies have been completed, and pharmacokinetic evaluations are ongoing to determine its absorption, distribution, metabolism, and excretion (ADME) properties. In vivo studies are also in progress to assess its anticancer efficacy. By integrating computational and experimental approaches, this research contributes to the development of natural product-based cancer therapeutics aimed at targeting cancer stem cells and preventing tumor recurrence.

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*All authors affiliated to the IBMBB are indicated in bold font.

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Thenuwara IG, **Gangani PD, Pathirana SL**, Dassanayake D, de Silva R, **Fernando N**. Morphological and phenotypic comparison of HL-60 derived macrophage-like cells differentiated using PMA and VD3. Proceedings of the 10th Biennial Scientific Sessions of the Allergy and Immunology Society of Sri Lanka, University of Sri Jayawardenapura, Sri Lanka, 9th-10th February 2024.

Vigneswaran J, **Gangani PD**, Silva YDD, Dissanayake U, Mahara JMF, **Kostha NSD, Fernando N, Pathirana SL**, Rajapakse S, Premawansa S, **Handunnetti S**. Diagnosis of leptospirosis using urine samples in Sri Lankan patients. 4th International Conference on Frontiers in Molecular Life Sciences, IBMBB, University of Colombo, Sri Lanka, 26th -27th September 2024.

Vithushi K, Nitsche A, **Jagoda D, Handunnetti S, Fernando N**. In vitro effect of aqueous leaf extract of *Andrographis 60anicutate* on DENV-2 induced endothelial damage in human macro-vascular endothelial cells (Eahy.926 cell line). 4th International Conference on Frontiers in Molecular Life Sciences, IBMBB, University of Colombo, Sri Lanka, 26th -27th September 2024.

Weerasooriya P, **Ranasinghe R, Tennekoon KH**. Exploring Genetic Origin of Sinhalese with Alu Polymorphisms. 4th International Conference on Frontiers in Molecular Life Sciences, IBMBB, University of Colombo, Sri Lanka, 26th -27th September 2024.

Wijerathne PKSK, Rathnayake RMNTR, **Senathilake NHKS, Rajagopalan U, Samarakoon SRS**. Stability and 28-day repeated dose in vivo toxicity evaluation of an anticancer diterpene isolated from *Caesalpinia pulcherrima*. 4th International Conference on Frontiers in Molecular Life Sciences, IBMBB, University of Colombo, Sri Lanka, 26th -27th September 2024.

Welikala AHJ, Kotelawala JT, Jayasekara L, Adikari G, **Tennekoon KH, Ranasinghe R**. Embarking on a genetic journey to ‘Simhapura’: Unraveling the ancestral homeland of the Sinhalese through genetics. 4th International Conference on Frontiers in Molecular Life Sciences, IBMBB, University of Colombo, Sri Lanka, 26th -27th September 2024.

Welikala A, Desai S, **Fernando A, Kotelawala J**, Adikari G, **Tennekoon K**, Chaubey G, **Ranasinghe R**, Phylogenetic insights into Mitochondrial DNA variations among the Sinhalese, Sri Lankan Tamils and Indigenous Vedda populations of Sri Lanka. Integrating Archaeogenetics, Forensics, and Multi-omics for Human Health Breakthroughs, INBIX-ADNAT, Banaras Hindu University, India, 27th-30th November 2024.

INTERNATIONAL – POSTERS

Aragon JAU, Bandyopadhyay E, de la Fuente Castro D, Witonsky D, Steinrücken M, **Fernando AS, Welikala AH, Kotelawala JT, Tennekoon KH, Ranasinghe R**, Rai N, Raghavan M, Genomic histories of the Adivasi and Sinhalese populations of Sri Lanka, Society for Molecular Biology and Evolution (SEMB), Mexico, 2024

Aragon JAU, Bandyopadhyay E, de la Fuente Castro D, Witonsky D, Steinrücken M, Fernando AS, **Welikala AH, Kotelawala JT, Tennekoon KH, Ranasinghe R**, Rai N, Raghavan M, Genetic histories of the Adivasi and Sinhalese populations of Sri Lanka, 93rd Annual Meeting, Los Angeles, California, 2024

Eapasinghe DD, Liyanage DM, **Rajagopalan U, Samarakoon SR**. *Cannabis sativa L.* extracts suppress the stemness in cancer stem-like cells (NTERA-2 cl.D1). 4th International Conference on Frontiers in Molecular Life Sciences, IBMBB, University of Colombo, Sri Lanka, 26th -27th September 2024.

Farhana MF, Silva GN, **Samarakoon SR**. Design of CRISPR/Cas9-based therapeutic tool to attenuate cancer progression. 4th International Conference on Frontiers in Molecular Life Sciences, IBMBB, University of Colombo, Sri Lanka, 26th -27th September 2024.

Faries MRM, **Senathilake K, Samarakoon S, Mishal MFM**, Perera KDC. Construction of an in-silico ligand energy minimization pipeline and structure-based identification of potential human gamma secretase inhibitor ligands for Alzheimer's disease. 4th International Conference on Frontiers in Molecular Life Sciences, IBMBB, University of Colombo, Sri Lanka, 26th -27th September 2024.

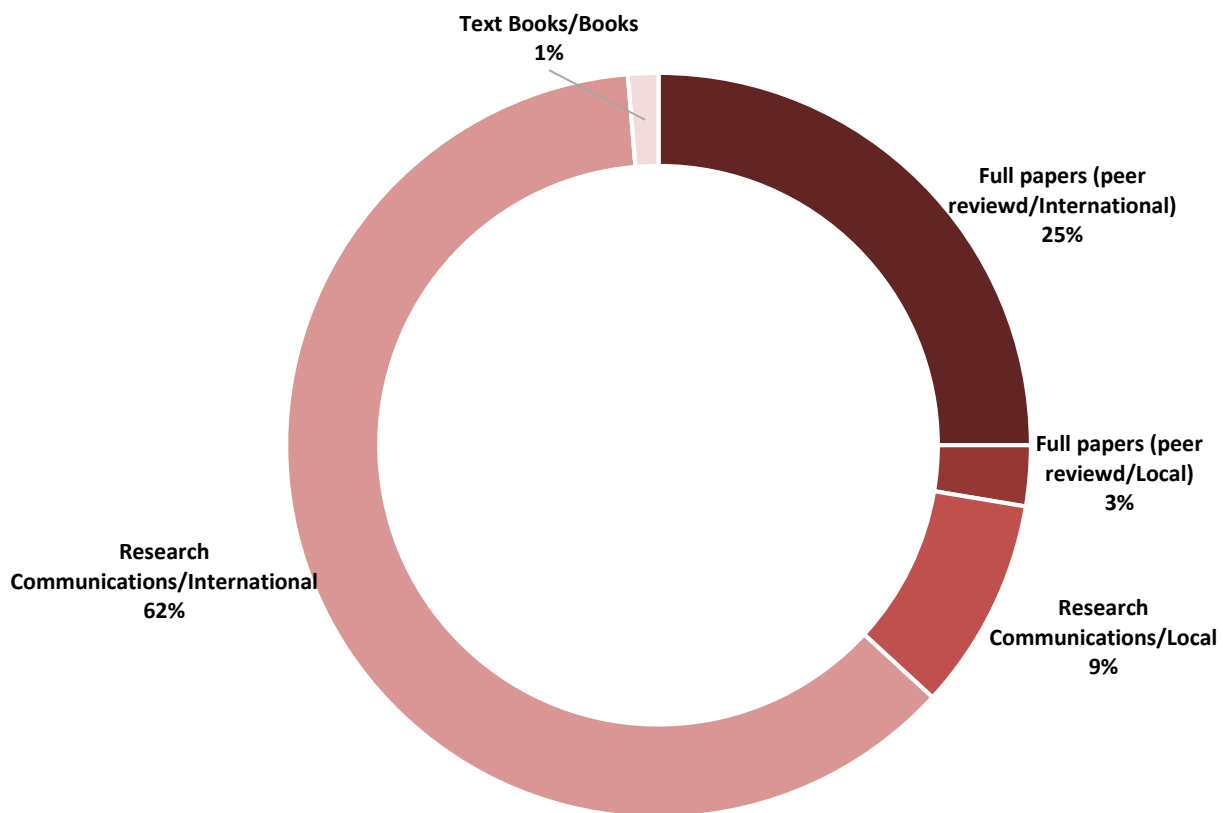
Gamage HGSD, **Rajagopalan U, Senathilake NHKS, Samarakoon SR**. In vitro anti-cancer effect of *Annona reticulata L.* on cancer stem-like (NTERA-2 cl.D1) cells. 4th International Conference on Frontiers in Molecular Life Sciences, IBMBB, University of Colombo, Sri Lanka, 26th -27th September 2024.

Hennadige ND, **Senathilake NHKS, Samarakoon SR, Galhena BP, Rajagopalan U**, Cooray PTM, Determination of anti-aging properties of mangiferin. 4th International Conference on Frontiers in Molecular Life Sciences, IBMBB, University of Colombo, Sri Lanka, 26th -27th September 2024.

Muhinudeen FT, Seneviratne NN, Wijerathne PKSK, **Senathilake KS, Samarakoon SR, Rajagopalan U**. Cytotoxic effects of *Caesalpinia pulcherrima* methanol extract and its fractions on pluripotent human embryonal carcinoma cancer stem-like cells. 4th International Conference on Frontiers in Molecular Life Sciences, IBMBB, University of Colombo, Sri Lanka, 26th -27th September 2024.

NO. OF BOOKS/TEXT BOOKS PUBLISHED IN THE AREA OF EXPERTISE

Welikala AHJ, Adikari G, **Tennekoon KH**, **Ranasinghe R.** ‘Deshaja Vedda saha Jaana Praveniya (Native Veddas and Genetic Heredity)’ in book: Celebrating the Majesty of Mahiyangana, Mahiyangana Raja Maha Viharaya, Mahiyanganaya



SERVICES

1

STUDENT FACILITIES

2

SERVICES PROVIDED BY
IBMBB



STUDENT FACILITIES

IT FACILITIES

The virtual learning environment at IBMBB is supported by a Learning Management System (LMS) and Zoom conferencing facilities, enabling seamless distance learning capabilities. Students also have access to the IBMBB Self Service Portal (SSP), where they can apply for courses, request transcripts, and check the availability of books in the IBMBB Library online. The SSP is integrated with an online payment gateway, allowing students to make payments conveniently. Additionally, wireless internet access is provided to all students, ensuring unlimited connectivity to online resources and services offered by IBMBB. To further enhance administrative and academic operations, IBMBB utilizes the Indico Conference Management System, which streamlines the organization of conferences, workshops, and events. This system offers advantages such as centralized scheduling, abstract management, and automated notifications, making event coordination efficient and free.

Alongside this, IBMBB employs the SeedDMS Document Management System, which provides a robust platform for storing, organizing, and sharing documents securely. Its advantages include version control, access permissions, and easy retrieval of files, ensuring smooth collaboration and document handling. Locally provided services at IBMBB include access to bioinformatics tools and databases, shared storage, and printing facilities. The institution currently operates two teaching computer laboratories for master's students and two for research students. All laboratories are equipped with unlimited internet access and the necessary software to support academic and research activities.

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 into 3 types - lending, reference and permanent reference.

LIBRARY RESOURCES

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

LENDING

These are given on loan as per the circulation policy of the IBMBB.

REFERENCE

This collection consists of important textbooks which are in short supply. Books in this collection are given on loan as per the circulation policy of the IBMBB.

PERMANENT REFERENCE

This collection has Encyclopedias, Dictionaries, Handbooks, past Question Papers, Dissertations etc. These books are available for reference only.

STUDENT MENTORING

A personal student mentor was assigned to each student enrolled at IBMBB, and at least two mentoring sessions were held per student.

SERVICES PROVIDED BY IBMBB

▶ PROVIDE SERVICES INCLUDING

- 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.

▶ CONSULTANCIES

Prof Shiroma Handunnetti

- Council member, Allergy and Immunology Society of Sri Lanka
- Evaluator of Research project proposals - National Research Council
- Moderator, Course Examinations for MSc in Medical Entomology and Applied Parasitology
- Reviewer of Manuscripts submitted to The Journal of National Science Foundation
- Member, Advisory Committee for Center of Meditation Research, UCFM, UoC

Prof Nimal Punyasiri

- 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

Prof Sisira Pathirana

- President, Allergy and Immunology Society of Sri Lanka
- Evaluator of Research Proposal – National Research Science Foundation
- Member of the First National Coordination committee on Biosafety (NCCB) from January 2024
- Member of the Technical Committee for developing strategies, expert control mechanism and establishment of a National Control list under UNSCR 1540 from January 2024

Dr Narmada Fernando

- Deputy Director, CQA Standing committee of the Senate on Quality Assurance
- Secretary and council member of the Allergy and Immunology society of Sri Lanka

Dr Sumadee De Silva

- Member Standing Committee of Senate on Quality Assurance

Dr Sudeshini Hewage

- Member Steering Committee Centre for Gender Equality, University of Colombo
- Member – Center for Environmental initiatives UOC
- Member –Biotech Education and Outreach committee, Sri Lanka Biotechnology Association.



TEACHING ACTIVITIES

Prof 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
- Faculty of Technology, University of Sri Jayawardanapura
- Faculty of Science, University of Sri Jayawardanapura
- Visiting lecturer Department of Chemistry, Faculty of Science, University of Colombo

Prof Sameera Samarakoon

- PGIM, University of Colombo
- Faculty of Technology, University of Colombo
- Faculty of Science, University of Colombo
- Faculty of Science, University of Kelaniya

Dr Sumadee De Silva

- PGIM, University of Colombo

Dr Narmada Fernando

- Faculty of Science, University of Colombo
- Institute of Chemistry, Sri Lanka

Dr Kanishka Senathilake

- PGIM, University of Colombo
- Faculty of Technology, University of Colombo

COLLABORATIONS

1

**LETTER OF INTENT AMONG IBMBB,
OCEAN UNIVERSITY OF SRI LANKA,
KOREA MARITIME AND OCEAN UNIVERSITY,
REPUBLIC OF KOREA**

2

**LETTER OF INTENT AMONG FADNA LIFE SCIENCES
PRIVATE LIMITED AND IBMBB, UNIVERSITY OF
COLOMBO AND FACULTY OF INDIGENOUS MEDICINE,
UNIVERSITY OF COLOMBO**

3

**AGREEMENT FOR MEDIA PARTNERSHIP BETWEEN
UNIVERSITY OF COLOMBO
AND POWER HOUSE (PVT) LTD (TV DERANA)**



MEMORANDUMS OF UNDERSTANDINGS LETTER OF INTENTS

LETTER OF INTENT AMONG OCEAN UNIVERSITY OF SRI LANKA, KOREAMARITIME AND OCEAN UNIVERSITY, REPUBLIC OF KOREA

A Letter of Intent was signed to establish an academic and research partnership between the Ocean University of Sri Lanka, the Institute of Biochemistry, Molecular Biology, and Biotechnology (IBMBB) at the University of Colombo, and Korea Maritime and Ocean University On 12th August, 2024. This collaboration aims to develop both a Bachelor's program and a Master of Science program in Marine Biotechnology. The initiative will offer intellectual and infrastructure support, including the creation of a shared advanced instrumentation laboratory.

The signing ceremony was attended by Senior Professor H.D. Karunaratne, Vice Chancellor of the University of Colombo, Professor Lim Sung Young, Programme Director at Korea Maritime and Ocean University, and Professor Wasantha Rathnayake, Vice Chancellor of Ocean University of Sri Lanka.

LETTER OF INTENT AMONG FADNA LIFE SCIENCES PRIVATE LIMITED AND INSTITUTE OF BIOCHEMISTRY, MOLECULAR BIOLOGY AND BIOTECHNOLOGY (IBMBB), UNIVERSITY OF COLOMBO (UOC) AND FACULTY OF INDIGENOUS MEDICINE, UNIVERSITY OF COLOMBO

On November 21st, 2024, a Letter of Intent was signed to facilitate collaborative research activities between Fadna Life Sciences Private Limited, the Institute of Biochemistry, Molecular Biology, and Biotechnology (IBMBB) at the University of Colombo (UOC), and the Faculty of Indigenous Medicine (FIM), University of Colombo. Through this agreement, IBMBB, UOC, and FIM expressed their intention to collaborate on clinical trials and related initiatives, acknowledging their common goals of advancing clinical research, fostering intellectual cooperation, and successfully commercializing innovative herbal products. The three institutions also expressed a mutual interest in working together in areas such as teaching, training, research and development, and consultation, with an emphasis on protecting intellectual and financial interests based on reciprocity.

The University of Colombo was represented by Vice Chancellor Senior Professor (Chair) H.D. Karunaratne, IBMBB Director Professor Prasanna Galhena, Professor Sameera R. Samarkoon, UBL Cell Director Professor

M.N. Kaumal, Dean of the Faculty of Indigenous Medicine Professor Kamal Perera, Dr. Ruwandi Ranasinghe, and Mr. Nirmal Perera. Fadna Life Sciences was represented by Managing Director Mr. P.M. Chamendra Somathunga, Chief Product Officer Dr. D.B.T. Wijerathna, and R&D Manager Dr. G.P.L. Supulchandra.

AGREEMENTS

AGREEMENT FOR MEDIA PARTNERSHIP BETWEEN UNIVERSITY OF COLOMBO AND POWER HOUSE (PVT) LTD (TV DERANA)

The Institute of Biochemistry, Molecular Biology, and Biotechnology (IBMBB) initiated a strategic media partnership with TV Derana (Power House Pvt Ltd) to promote the newly launched BSc in Molecular Biology and Bioentrepreneurship program. Following initial discussions, TV Derana agreed to support the promotional campaign, recognizing the value of expanding awareness and reach among prospective students. The agreement between the University of Colombo and TV Derana for a media partnership to promote the BSc in Molecular Biology and Bioentrepreneurship was signed on 21st November 2024.

As part of this collaboration, TV Derana offered media coverage and promotional support, with the mutual understanding that one (01) seat in the undergraduate program would be reserved for a student nominated by TV Derana. This nomination will strictly adhere to the program's selection criteria, as outlined in the By-laws and regulations of the degree program, ensuring fairness and academic integrity.



QUALITY ASSURANCE

1

SUMMARY OF ACTIVITIES 2024

2

PREPARATIONS FOR
PROGRAMME REVIEW



SUMMARY OF ACTIVITIES COORDINATED BY IQAC, IBMBB- 2024

Dr. Sumadee De Silva serves as IQAC Coordinator of IBMBB, and Dr. Dilani Rukshala continued her service as the Scientific Assistant, IQAC of IBMBB, till 30th October 2024. Ms Hanisini Batuwita appointed to serve as the Scientific Assistant, IQAC of IBMBB, on 20th November 2024.

The peer observation form has been revised based on the comments obtained from the Academic staff of IBMBB, and the revised version has been submitted for approval. The revised peer observation form will be administrated from 2025 onwards.

Student feedback on teacher performances and research supervision were collected and completed. The reports were generated for the year 2023. Based on the student feedback and peer observation, the Best Teacher Award for the Year 2021 and 2022 was awarded at the inauguration ceremony of the Fourth International Conference held on 26th September 2024.

PREPARATIONS FOR PROGRAMME REVIEW

Preparations for the Postgraduate Programme Review (PGPR) for SLQF level 11 and 12 have been initiated and tentatively scheduled after June 2024. Coordinators were appointed for each criterion and staff responsible for every standard were identified in view of the upcoming Postgraduate Programme Review.

Initiatives were taken to prepare for the Post Graduate Programme Review (PGPR) - MPhil/ PhD degrees. A series of PGPR Steering Committee meetings were held in 2024 to identify the respective standards and relevant evidence over seven criteria. There was a workshop on self-evaluation report (SER) writing in May 2024, exposing SER sections and instructions for SER writing. The resource person was Dr. Narmada Fernando. In addition, a separate folder was assigned in Google Drive to collect evidence under each criterion.

STAFF

1

STRENGTH OF THE STAFF

2

EMPLOYEE CLASSIFICATION

3

**STAFF DEVELOPMENT AND
WELFARE 2024**



STRENGTH OF THE STAFF

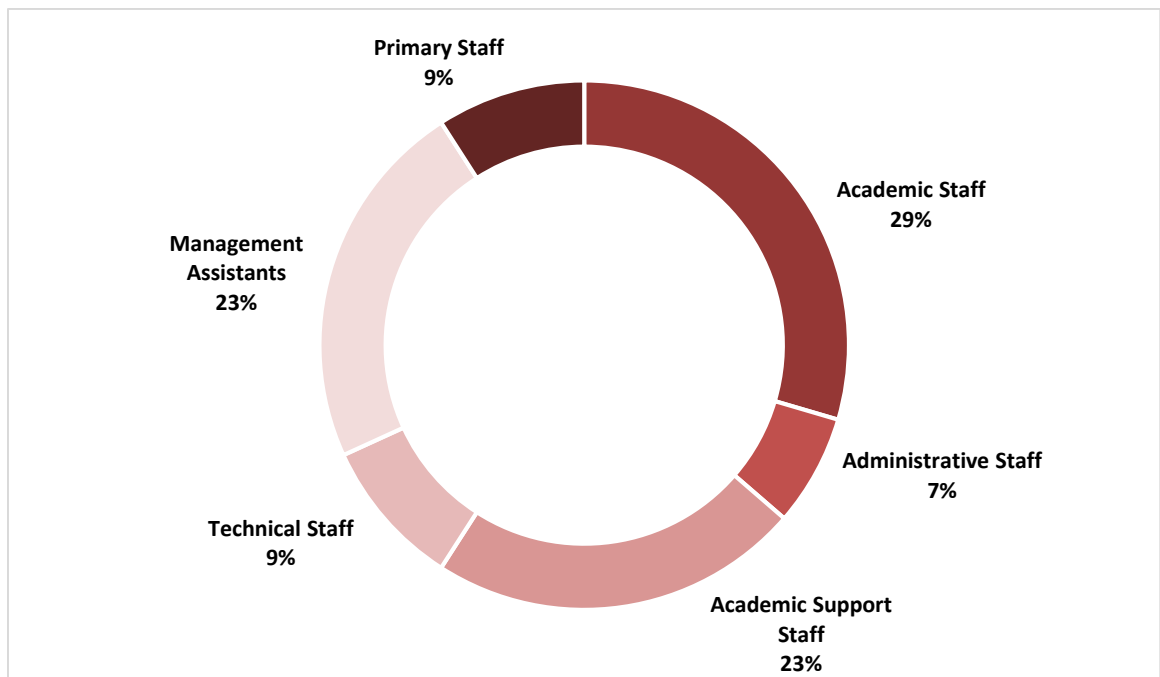
Members of the IBMBB staff represent Academic staff, Executive staff (Administrative and Financial staff), Academic Support staff and Non-academic staff.

Permanent academic staff consists of, Senior Professors, Professors and Senior Lecturers. Additionally, Post-Doctoral Research Fellows, Temporary Assistant Lecturers, Temporary Teaching Assistants represent the temporary academic staff. Also, there are Academic Support staff including Assistant Network Manager and Scientific Assistants/Teaching Assistants (Permanent and Temporary) who assist with the routine function of the Institute.

Ten academic staff including Director are in active service as at 31.12.2024. All the permanent academic staff of the institute have qualified with the Doctoral degree. In addition, there are three (03) approved cadres for Post-Doctoral Research Fellow and two (02) approved cadres for Temporary Assistant Lecturers, except one Post-Doctoral Research Fellow and one Temporary Assistant Lecturer other cadres were filled as at 31st December 2024.

Further, DMS has approved one Assistant Network Manager, four (04) posts of permanent Scientific Assistants (SA) and two Temporary Scientific Assistants (contract). In addition, there were four temporary Scientific Assistants/Teaching Assistants who were appointed on an assignment basis. Among the SAs, four are qualified with Doctoral degree (36%) and remaining three are reading for Doctoral degree. One SA is qualified with Master's degree and moreover two (02) SAs were qualified with bachelors degree.

There were three (03) Executive staff at the institute and all are completed their Master's degree.. The non-academic staff of the institute consists of clerical and allied staff (Management Assistants), technical staff, and primary staff. Out of the total non-academic staff, clerical and allied staff represents the majority (11 approved carders) which is 55% and five of them were graduates. Technical staff represents 36% of non-academics and one was qualified with Bachelor's degree. Remaining non-academic staff were represented by primary grades.



EMPLOYEE CLASSIFICATION

AS AT 31ST DECEMBER 2024

SERVICE CATEGORY	SALARY CODE	APPROVED CADRE	ACTUAL CADRE		VACANCIES	REMARKS
			PERMANENT	TEMPORARY		
Primary Level						
Primary Grade - Unskilled	U - PL 1	01	00	01	01*	* Works Aide has been appointed on assignment basis.
Primary Grade- Semi skilled	U- PL 2	03	02		01	
Primary Grade- Skilled	U- PL 3	01		01	01**	** Driver has submitted the resignation on 15.03.2023 while he is in overseas. IBMBB still has not accept the resignation. New driver has been appointed on contract basis.
Secondary Level						
Management Assistant– non- Technical	U- MN 1	11	10		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	06**	02	*DMS has approved four (04) posts of permanent Scientific Assistants (SA) and two Temporary Scientific Assistants (contract). The contract basis SAs are with fixed salaries
Academic Support – Segment 1	U- AS 2		03*			**One SA’s have been appointed on contract basis and Four Scientific Assistants have been appointed on temporary basis. The permanent Scientific Assistant (BI) has resigned from the post 2022.09.14 and one Scientific Assistant has been appointed from 23.10.2023 on contract basis
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			
Senior Executives	U- EX 3	00	00			
Lecturer	U- AC 3	11	04	00	02	
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	**03 posts of Post- Doctoral Research Fellows and 02 posts of Temporary Assistant Lecturer have been approved by DMS. All 5 posts are with fixed salaries (contract appointment)
Temporary Assistant Lecturer***	Fixed	02	00	01	01	

STAFF DEVELOPMENT, TRAINING AND WELFARE - 2024

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
Ms. S. M. Withana Arachchi	Deputy Bursar	Workshop on Financial Statements -2024	06 th December 2024
Ms. W.L. Damayanthi	Management Assistant (Grade III)	Secretarial Practices	25 th March, 01 st 08 th & 24 th April 2024
Prof. PPSL Pathirana	Professor	"Familiarizing living values" jointly organized by SDC and CGU, University of Colombo	14 th Oct 2024

HEALTH INSURANCE SCHEME

A Health Insurance policy was purchased from Sri Lanka Insurance Corporation for the employees at the IBMBB in 2024. 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. Twelve employees at the IBMBB and 25 number of their family members were included in the Health Insurance Policy. A total of Rs. 140,242.23 was borne by the Generated funds of the Institute for this purpose in 2024.

SPECIAL ACTIVITIES

1

**4TH INTERNATIONAL
CONFERENCE IN
FRONTIERS OF
MOLECULAR LIFE
SCIENCES: BEYOND THE
BLUEPRINT OF LIFE**

2

OPEN DAY



4TH INTERNATIONAL CONFERENCE IN FRONTIERS OF MOLECULAR LIFE SCIENCES: BEYOND THE BLUEPRINT OF LIFE

4th International Conference in Frontiers of Molecular Life Sciences: Beyond the Blueprint of life was held on 26th and 27th September 2024 at IBMBB, University of Colombo. H.E Andrew Patrick, British High Commissioner was invited as the chief guest and Senior Professor H. D. Karunaratne, Vice Chancellor of University of Colombo was invited as the guest of honor. Dr. Sumadee de Silva and Dr. Narmada Fernando, senior lecturers from IBMBB contributed as co-chairpersons. The keynote lecture was delivered by Prof. Erik Bongcam-Rudloff, Professor in Bioinformatics, Swedish University of Agricultural Sciences, Sweden. Thirteen symposium lectures were delivered in six symposia sessions. Oral presentations were delivered by 31 participants and 50 participants delivered poster presentations. The event was sponsored by many private institutes.

Two pre-conference workshops were held as satellite events. Workshop on Metagenomics was held on 25th and 26th September 2024 while the pre-conference workshop. Prof. Erik Bongcam-Rudloff, Renaud Van Damme (Swedish University of Agricultural Sciences), and Dr. Kanchana Senanayaka (IBMBB, University of Colombo) contributed as resource persons. The aim of this workshop was to provide basic understanding of metagenomics and analysis of metagenomic data. Fourteen participants gained exposure to the field of metagenomics and metagenomic data analysis. Lichens as a Spatially Transferable Bioindicators were held on 25th September 2024. Dr. Gothamie Weerakoon (National History Museum, London, UK) contributed as the resource person for this workshop. Workshop was coordinated by Prof. Nimal Punyasiri and fourteen participants gained exposure in the field of lichens.

Post-Conference workshop on Quantitative Structure Activity Relationship (QSAR) Modeling for Drug Discovery was held on 28th September 2024. Dr. Arabinda Ghosh contributed as the resource person. The workshop was targeted to students, academics and researchers in the medicinal chemistry and drug discovery. Twelve participants gained exposure to the Quantitative Structure Activity Relationship modeling. Dr. Kanishka Senathilake coordinated the workshop.

Post-conference workshops on Immunobiotechnology for Diagnostics and Therapeutics was held on 1st October 2024. Prof. Sunil Premawansa (University of Colombo), Prof. Shiroma Handunnetti (IBMBB), Prof. Jayantha Balawardena (Chancellor, Uva Wellassa University), Dr. Nuradh Joseph (District General Hospital, Karapitiya), Dr. Rajiva de Silva (Medical Research Institute) and Dr. Dhanushka Dasanayake (Medical Research Institute) contributed as resource persons. Programme was moderated by Prof. P P S L Pathirana and 31 participants gained exposure in Immunobiotechnology in the context of diagnostics and therapeutics.



OPEN DAY 2024

The Open Day 2024 of IBMBB was successfully held on 8th November 2024 at IBMBB premises. Individuals who are willing to enroll in Masters programs, Training Programs and the Undergraduate Program in Molecular Biology and Bioentrepreneurship were given the opportunity to have a close look at the IBMBB infrastructure facilities, learn more about IBMBB programs and communicate with the experts, researchers and students of IBMBB. Over 100 participants attended IBMBB Open Day where they had the opportunity to enroll for courses at special discounted rates.

CSR ACTIVITIES

1

**FACULTY OF TECHNOLOGY, UNIVERSITY
OF COLOMBO, SITE VISIT TO IBMBB**

2

**UNVEILING THE SILENT KILLER: A
CAPTIVATING LECTURE DRAWS CROWD
AT IBMBB**

3

**A DIVE INTO IMMUNOTHERAPY'S FUTURE:
DR. NICHOLAS NG CAPTIVATES
AUDIENCE AT IBMBB**



MOLECULAR LIFE SCIENCES FOR NEXT GENERATION

Faculty of Technology, University of Colombo, Site visit to IBMBB

On January 10, 2024, Students from the Department of Environmental Technology, Faculty of Technology at the University of Colombo, undertook a practical raining session to the Institute of Biochemistry, Molecular Biology, and Biotechnology (IBMBB), University of Colombo. This training was arranged for a group of 78 third-year undergraduate students participating in a practical module focused on "Molecular Biology Techniques." During the event, the academic staff, MSc and PhD students at IBMBB provided insights into various laboratories, ongoing research, and the equipment available at the institute.

Unveiling the Silent Killer: A Captivating Lecture Draws Crowd at IBMBB

The Conference Hall at IBMBB pulsed with intellectual energy on January 18th, 2024, as over 50 participants, including both enthusiastic students and engaged staff members, gathered for a fascinating guest lecture. Professor Indika Edirisinghe, Ph.D., a renowned expert in Food Science and Nutrition from the Illinois Institute of Technology, enthralled the audience with his exploration of "Postprandial Oxidative Stress and Inflammation: Understanding a Silent Killer." Professor Edirisinghe's insightful presentation delved into the intricate world of postprandial stress and inflammation, explaining their mechanisms and potential health impacts. The captivated audience, comprising both students and staff, actively participated, raising insightful questions and engaging in stimulating discussions throughout the hour-long session.

This informative and engaging event proved to be a valuable platform for knowledge exchange and intellectual growth. Professor Edirisinghe's expertise, the audience's active participation, and the supportive environment fostered by the Prof. Nimal Punysiri and IBMBB Business Development Unit (BDU) created a memorable learning experience for all. The lingering takeaway wasn't just from the scientific discourse, but from the shared inspiration to delve deeper into understanding the silent threats to our health and explore potential solutions.

A Dive into Immunotherapy's Future: Dr. Nicholas Ng Captivates Audience at IBMBB

On January 23rd, 2024, the Conference Hall at IBMBB buzzed with excitement as over 50 participants, including enthusiastic students, researchers, and healthcare professionals, gathered for a stimulating guest talk titled "The Emergence of Specific Immunotherapy Strategies, the Development (MOA)-Based Bioassays and Microsatellite Instability as a Predictive Biomarker." Dr. Nicholas Ng, Ph.D., the esteemed General Manager of Promega Corporation, Singapore, took the stage and captivated the audience with his expertise in the ever-evolving field of immunotherapy.

Dr. Ng's engaging presentation explored the frontiers of targeted immunotherapy strategies, shedding light on how these innovative approaches harness the body's own defenses to combat diseases. He delved into the development of MOA-based bioassays, unveiling the exciting potential of these tools in measuring and understanding the unique mechanisms of action of various immunotherapies. The highlight of the talk was the exploration of microsatellite instability as a predictive biomarker, igniting discussions about its potential to identify patients who are most likely to benefit from immunotherapy interventions.

The interactive session resonated with all attendees. This successful event, organized by AVON and supported by the IBMBB Business Development Unit, proved to be a valuable platform for knowledge exchange and professional development. The lingering impact wasn't just the acquired knowledge, but the shared inspiration to explore the immense potential of immunotherapy in revolutionizing healthcare practices. With over 50 participants actively engaged and eager to learn, the event served as a testament to the growing interest and potential of this transformative field.

CONSTRAINT

1

CONSTRAINTS

2

LIMITATIONS



CONSTRAINTS

Financial resources were the major constraints in the year 2024 for implementing the activities stipulated in the Action Plan 2023 and the Corporate/Strategic & Management Plan 2024-2027. The specific financial constraints faced by the institute are stated below.

- Problems with securing funds and generating revenue due to reduced government funding for recurrent expenditure and no funding for capital expenditure and hence institute had to bear Rs. 2.34 Mn as capital investments. Moreover, decline in enrolment as per the institute's enrolment policy and decrease in rate of return on investments also adversely impact on the financial health of the institute.
- Additionally, operational expenditure such as personnel emoluments due to salary hike of the academic staff utility and maintenance cost also remarkably increased in the year 2024
- Hence the number of planned activities related to capital, research and development had been remarkably compromised during the year 2024.
- A significant price escalation of chemicals and consumables impacted the high-end research at IBMBB. Rising costs, strained research budgets, were some of the adverse impacts on IBMBB, compelled more expenditure on reagent purchases. Furthermore, it had a significant impact on research timelines.

LIMITATIONS

The Institute of Biochemistry, Molecular Biology, and Biotechnology (IBMBB) continues to face several challenges in its mission to deliver specialized, high-quality education and research opportunities. The niche nature of the subject areas offered makes it difficult to attract students, compounded by the limited career opportunities within Sri Lanka's job market for these specialized fields.

Infrastructure constraints further limit student intake, as the existing laboratory space can only accommodate a restricted number of students at a time. Expansion efforts remain hampered by the lack of available land for physical growth.

Additionally, IBMBB operates with only twelve approved academic cadre positions, posing significant challenges in supervising postgraduate students at Master's, MPhil, and PhD levels. The limited staff capacity affects the ability to meet the increasing demand for advanced research training, impacting the institute's overall growth and academic output.

During the year 2024, due to the economic crisis of the country, the permanent filling of vacancies of non-academic and academic support staff was restricted. Hence the workload of the institute had to be managed with temporary staff. Most of the time it experienced high staff turnover due to temporary recruitment. Continuous staff turnover lead to decreased productivity, increased recruitment costs, and a negative impact on institute culture.

FUTURE PROJECTIONS

1

PLAN OF WORK FOR 2025

2

**KEY PERFORMANCE INDICATORS
OF PREVIOUS ACTIVITIES AND
PLANNED ACTIVITIES**

3

**FUTURE PROJECTION REPORT
TO SAFEGUARD THE
ENVIRONMENT**



PLAN OF WORK FOR 2025

TEACHING

- Initiate external undergraduate Programme, BSc in Molecular Biology and Bioentrepreneurship
- Initiate new postgraduate programme Master of Medicinal Biotechnology
- 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
- Expansion of laboratory facilities
- 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 symposium
- Encourage and assist in participation at International conferences by faculty members/collaborators/ students to present research carried out at the IBMBB

GOVERNANCE

- Adhere to the Human Resources and Safeguard policy of IBMBB
- Code of Ethics for staff and students
- Compliance with accepted norms of Accounting and auditing standards
- Provide regular training for staff members
- Strengthen and sustain an effective managerial structure in safeguarding the practices to good governance.

KEY PERFORMANCE INDICATORS OF PREVIOUS ACTIVITIES AND PLANNED ACTIVITIES

KEY PERFORMANCE INDICATORS	YEAR				
	2024	2025	2026	2027	2028
Employability of Postgraduates	95%	95%	98%	98%	98%
Proportion of PhD holders among academics	100%	100%	100%	100%	100%
Student registered to existing Masters programmes	60	70	70	75	75
Student registered to the external degree	-	50	60	75	80
Foreign students' enrolment	2	2	2	3	3
Number of MSc/Masters/PGDip students graduated	40	40	45	45	45
Number of BSc students graduated	-	-	-	40	50
New PhD research programmes/ No. of research grants received	5	10	10	15	15
New student admissions to MPhil/PhD programmes	5	7	7	7	7
No. of MPhil/PhDs completed	5	5	5	7	5
No. trained in short courses & workshops	150	150	150	200	200
No. of permanent academic staff (Cadre positions)	20	20	25	25	12
No. of Scientific Assistants	10	12	15	15	8
No. of Post-Doctoral /Research Scientists	5	5	5	7	5
No. of International Faculty	12	15	18	18	12
No. of SCI/Other indexed publications	35	40	45	45	42
No. of presentations made (International)	15	15	20	20	18
No. of Research Communications (Local)	45	45	60	60	45
No. of Awards	8	8	10	10	12
No. of regional/international training programmes completed	12	12	15	15	15
Quality of presentation skills of students (% of students with >60% marks)	100%	100%	100%	100%	100%
Ratio of computers to student users	0.8:1	0.8:1	1:2:1	1:2:1	1:2:1
No. of collaborations with Research Institutes & HEIs	25	25	30	30	35
No. of collaborations with international Institutes	25	25	25	25	30
No. of collaborations with Industry	8	8	10	10	12
Repository of Archives-% activity completed	100%	100%	100%	100%	100%
Access to E-learning resources	100%	100%	100%	100%	100%
No. of laboratory services/ tests offered	600	600	600	600	250
No. of Local/Regional/International Conferences, Annual Scientific Sessions/ Workshops organized	2	2	3	3	2
Quantum of Generated Funds (Millions per annum)	20	22	24	24	25
Quantum of Research Funds (Millions per annum) NSF/NRC/Other	10	10	15	15	15
No of Guest Lectures	15	15	15	20	15
Availability of administrative/support staff	100%	100%	100%	100%	100%

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 that 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 mitigating the negative impact on the environment.

TREE PLANTATION

In celebration of IBMBB's 21st Anniversary in 2025, the Institute will organize a tree planting campaign to further promote environmental sustainability. This initiative aims to enhance the green cover around the Institute, contributing to carbon absorption, improved air quality, and a healthier environment for future generations.

POLYTHENE FREE ZONE

IBMBB is in the process of digitization of paper-based document to reduce paper usage. Self Service Portal (SSP) was implemented for this purpose in 2023 by integrating the online application system and online payment gateway with a staff/student login system. Furthermore, the workflows and the shared directories was configured on Document Management System (DMS) with the feedback received from the staff. These programs were updated with the feedback of the staff in 2024 in order to create a user-friendly system. Further, emails are used for internal and external communications

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 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.

GREEN OFFICE DESIGN

The Institute of Biochemistry, Molecular Biology, and Biotechnology (IBMBB) building was designed in line with green building principles. The office spaces are thoughtfully designed to maximize natural light and ventilation, significantly reducing the reliance on artificial lighting and promoting energy efficiency.

COMPOST PROJECT

In 2025, IBMBB will initiate the 'Leaf to Life' Composting Initiative, which will convert fallen leaves collected on the premises into compost. This program will benefit the environment by minimizing organic waste and creating an eco-conscious attitude among employees and students.

FINANC E

1

FINANCIAL HIGHLIGHTS

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FINANCIAL REVIEW

3

**FINANCIAL INFORMATION AT
A GLANCE - 2014 TO 2024**

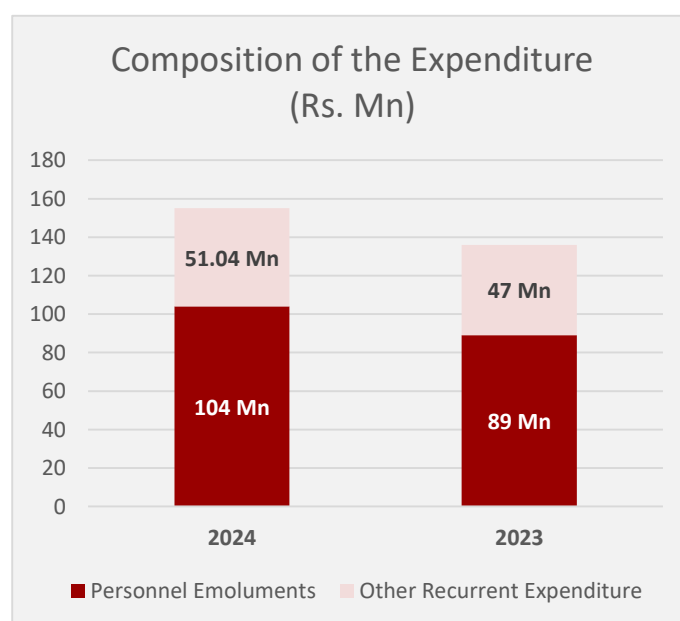
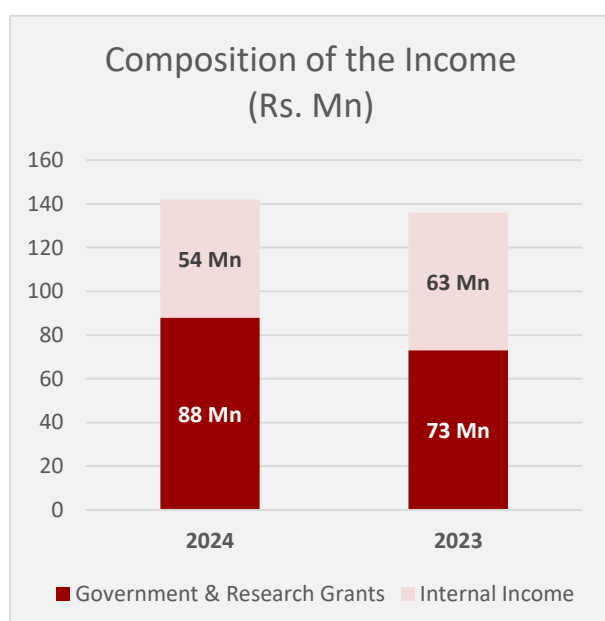
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ANNUAL FINANCIAL STATEMENT

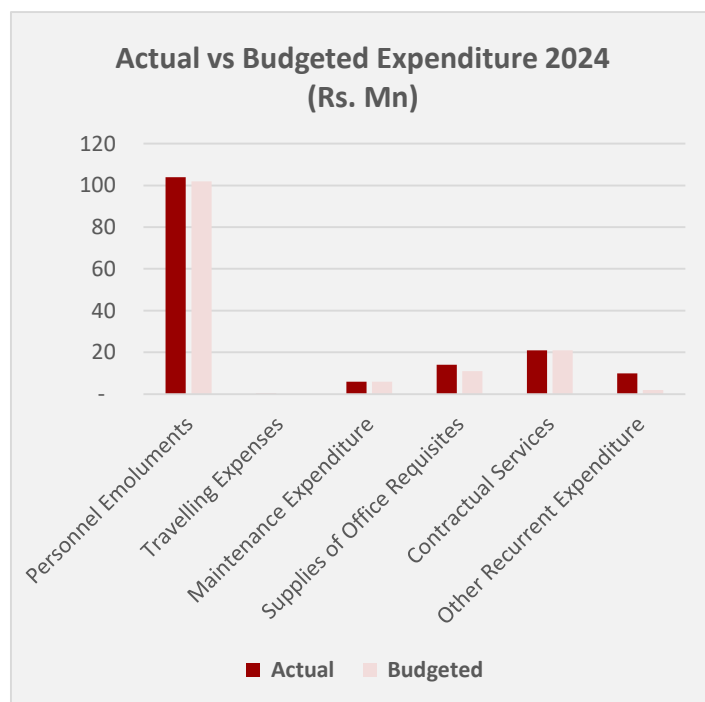
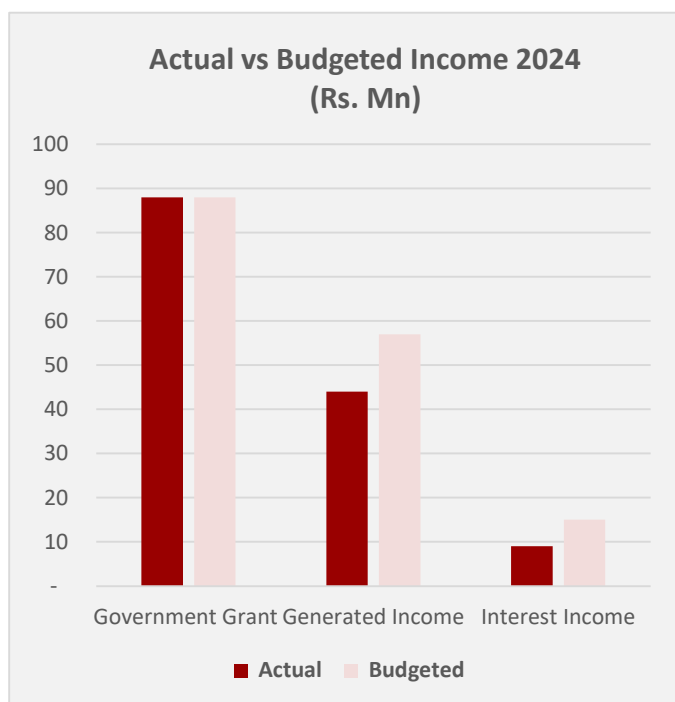
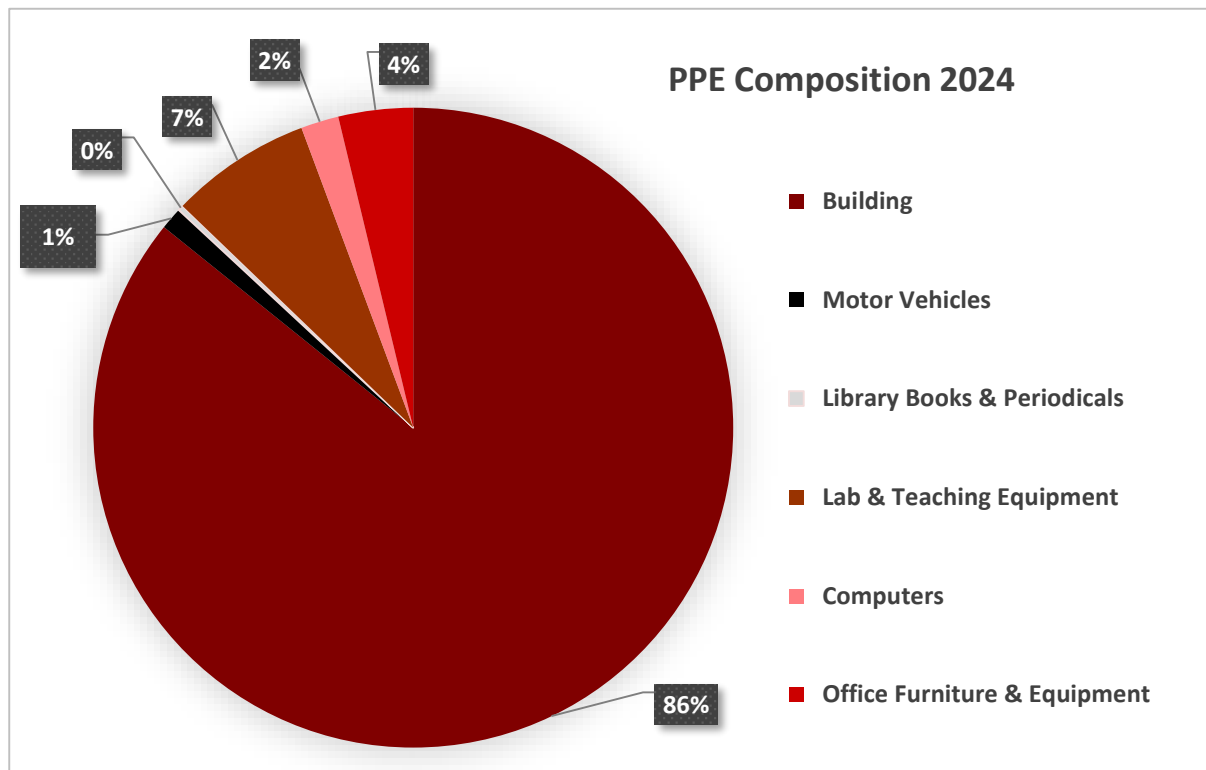
FINANCIAL HIGHLIGHTS

FINANCIAL STATISTICS FOR THE YEARS 2023 & 2024

	2024 Rs. MN	2023 Rs. MN		2024 Rs. MN	2023 Rs. MN
Government & Research Grants	88	75	Personnel Emoluments	104	89
Internal Income	54	63	Travelling Expenses	0.04	-
Surplus / (Deficit)	(27)	(9)	Maintenance Expenditure	6	5
Capital Transfer – Internal Income	2	5	Supplies of Office Requisites	14	11
PPE	331	60	Contractual Services	21	22
Recurrent Expenditure	158	139	Other Recurrent Expenditure	10	8



FINANCIAL REVIEW



FINANCIAL REVIEW

INTRODUCTION

IBMBB is the state-owned higher educational institute affiliated to the University of Colombo which provides training, research and development and consultancy in Biochemistry, Molecular Biology and Biotechnology. As state-owned entity, IBMBB primarily depends on the national budgetary allocations. Apart from the government grant, revenue from exchange transactions such as Self-financing Activities (SFAs), interest income and income generated from designated funds, research grants and gifts and donations including good In-kind also contributed to the income as generated funds. The current financial year, IBMBB was challenged with significant national budget restrictions with escalation on payments for services and procurement expenditure.

FINANCIAL PERFORMANCE

Total income for the year amounted to 155 million, marking a 7% increase compared to the previous year. Restricting government grants for both recurrent and capital activities has contributed negatively to the annual income. The institute received 11 million worth of Lab and teaching equipment from the Ministry of Health as a donation and it included in the statement of financial statement under the revenue from exchange

transaction. However, Income from exchange transactions decreased by 10 million, mainly due to the decrease in student intake, and substantial reduction of interest income with lower investment returns. Operational expenses increased marginally by 12% with compared to the previous year. The primary areas of expenditure were personnel emoluments, maintenance & contractual expenditure and chemicals and consumables. The cost of personnel emoluments increased due to government decision of increment in academic allowance for teachers of the university system. Additionally, increase in the payments for utilities such as electricity, water and unbearable price escalation for chemical & reagents prices led the institute to make Rs. 27 million deficits for the year 2024

FINANCIAL POSITION

Assets – Total assets increased to Rs. 434 million, driven by the process of revaluation of non-financial assets i.e. Building of the institute. Current assets accounted for approximately 13% of the total. Short-term and long-term investments represent 19% of the total assets for the reviewed year. Liabilities – Total liabilities were Rs. 58 million, out of which 17 million represent the short-term liabilities and 41 million represent the long-term liabilities. Major

component of the long-term liability accounted for the provision for retirement benefit obligation that was accounted for 55% of the total liabilities.

RISK FACTORS AND CHALLENGES

The institute is currently facing enormous financial challenges since the finance through government has shown a gradual decrease since 2024. Such financial status is not healthy at any means and an immediate remedial intervention is strongly suggested. The escalating financial cost for chemicals, consumables, and services has a direct impact on the current operation at the institute.

OUTLOOK AND FUTURE PLANS

The Institute has taken remedial measures such as the commencement of an undergraduate programme, two master programmes in collaboration with high-ranked international universities, novel self-financing activities, and research & development with commercialization. All measures have been taken to minimize operational costs while promoting continuous human resource development.

Studies on climatic resilient productive agroforestry will be given more focus with a potential opportunity for funding with international collaborations. IBMBB is confident in surviving

during this difficult time and looks forward to a better performance in years to come.

Moreover, IBMBB is planning to establish Human Repeat Insult

Patch Test (HRIPT) center with the financial collaboration of Ministry of Industries to fulfill the requirement of Cosmetic industry of Sri Lanka by considering it as national interest. These type of

research and development activities will lead the institute to pursue additional revenue resources.

FINANCIAL INFORMATION AT A GLANCE - 2015 TO 2024

R s . M n

CATEGORY	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Government Grant - Recurrent Expenditure	88	73	116	111	95	78	54	59	58	61
Income from Self Finance Activities	44	44	36	18	16	12	7	10	11	7
Interest Income	9	19	13	4	6	7	8	5	3	2
Research Grants	0.2	0.3	1	3	5	15	11	10	3	4
Personnel Emoluments	103	89	97	93	84	78	52	40	33	30
Other Recurrent Expenditure	53	48	42	33	35	40	35	52	40	46
Gratuity Expenditure	1	3	4	8	10	13	-	-	-	-
Depreciation	24	14	17	25	27	18	16	13	14	13
Surplus/(Deficit)	(27)	(10)	12	(17)	(7)	(16)	(5)	(6)	15	4
Cash and Cash Equivalent	13	19	16	19	18	19	8	15	27	12
Investments - Short Term	38	41	22	39	19	20	15	10	30	28
- Long Term	45	50	67	37	34	31	-	-	-	-
Property Plant and Equipment	331	60	50	49	86	108	66	69	31	39
Deferred Income	6	5	4	5	1	6	4	0	0	0
Retirement Benefit Obligation	32	31	28	10	30	20	7	7	6	5
Designated Funds	56	44	33	33	21	21	21	18	19	17
Endowment Funds	7	6	4	4	3	3	3	3	3	3

ANNUAL FINANCIAL STATEMENT

STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2024

(Figures adjusted to the Nearest Rupee)

	Note	2024 Rs.	2023 Rs.
<u>ASSETS</u>			
<u>CURRENT ASSETS</u>			
Cash & Cash Equivalents	Note - 01	12,758,645	18,717,782
Other Receivables	Note - 02	4,358,432	4,195,795
Advances	Note - 03	134,750	203,948
Staff Loans - Within one year	Note - 04	641,754	716,372
Investments - Mature within one year	Note - 05	37,703,481	41,491,391
Chemicals & Glassware		1,294,984	796,988
		56,892,046	66,122,276
<u>NON-CURRENT ASSETS</u>			
Property, Plant & Equipment	Note - 06		
Building		283,431,315	17,545,696
Motor Vehicles		3,717,963	4,960,679
Library Books & Periodicals		917,680	1,224,193
Lab & Teaching Equipment		23,566,777	17,257,714
Computers		6,319,373	5,969,835
Office Furniture & Equipment		12,450,113	12,967,634
Intangible Assets - Computer Software	Note - 06.1	450,000	600,000
Staff Loans - More than one year	Note - 04	1,334,755	1,963,082
Investments - Mature after one year	Note - 05	44,902,910	49,940,988
		377,090,885	112,429,820
TOTAL ASSETS		433,982,931	178,552,096
<u>EQUITY & LIABILITIES</u>			
<u>CURRENT LIABILITIES</u>			
Refundable Tender Deposit		41,602	41,602
Refundable Laboratory Deposits		9,771,635	8,588,635
Accrued Expenses & Other Payables	Note - 07	6,857,499	5,518,660
		16,670,736	14,148,897
<u>NON CURRENT LIABILITIES</u>			
Provision for Gratuity	Note - 08	31,945,794	30,950,473
Provision for Audit Fees		800,000	475,700
Research Grants	Note - 09	2,802,925	3,542,726
Deferred Income	Note - 10	6,105,400	5,219,328
		41,654,118	40,188,227
TOTAL LIABILITIES		58,324,854	54,337,124
NET ASSETS/EQUITY		375,658,077	124,214,972

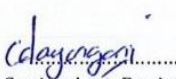
STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2024 (Contd..)

(Figures adjusted to the Nearest Rupee)

	Note	2024 Rs.	2023 Rs.
<u>ACCUMULATED FUNDS & RESERVES</u>			
Accumulated Funds - Capital	Note - 19	28,821,485	30,213,727
Accumulated Funds - Recurrent		(17,872,981)	14,418,490
Revaluation Surplus/(Deficit)		301,268,661	29,539,809
		312,217,165	74,172,026
<u>DESIGNATED FUNDS</u>			
Institute Development Fund	Note - 20	28,447,455	20,965,241
Director's Vote		3,556,975	2,806,200
Equipment & Technology Vote		2,964,364	2,373,089
Programme Development Vote		8,465,418	5,465,514
		43,434,211	31,610,044
<u>RESTRICTED FUNDS</u>			
Endowment Fund		6,522,816	5,737,662
Cancer Research Endowment Fund		818,644	30,000
Asset Replacement Funds		12,665,241	12,665,241
		20,006,701	18,432,903
		375,658,077	124,214,972

Prepared & Certified by
24.02.2025


Deputy Registrar


Senior Asst. Registrar

The Accounting policies on pages 6 to 18 and other notes on pages 19 to 25 form an integral part of these Financial Statements. The Board of Management is responsible for the preparation and presentation of these Financial Statements.

The Financial Statements have been prepared and presented in compliance with the Sri Lanka Public Sector Accounting Standards (SLPSAS) issued by the Institute of Chartered Accountants of Sri Lanka.


Board Member


Director / Board Member

**STATEMENT OF FINANCIAL PERFORMANCE
FOR THE YEAR ENDED 31ST DECEMBER 2024**

		2024	2023
<u>REVENUE</u>	Note	Rs.	Rs.
Revenue from Non- Exchange Transactions - Current			
Govt. Grant for Recurrent- Expenditure		87,625,000	73,000,000
Grant for Research	Note - 11	70,000	2,178,600
Total Revenue from Non Exchange Transaction - Current		87,695,000	75,178,600
Revenue from Exchange Transaction - Current			
Generated Income	Note - 12	44,085,018	44,082,698
Interest Income		9,287,823	19,075,713
Other Income	Note - 13	191,437	291,769
Total Revenue from Exchange Transaction - Current		53,564,278	63,450,181
Total Revenue Current		141,259,278	138,628,781
Revenue from Non- Exchange Transactions - Capital			
Capital Transfer - Generated Income		2,339,606	4,517,609
Gifts, Donations, Goods In-kind		11,130,360	1,043,884
Total Revenue from Non Exchange Transaction - Capital		13,469,966	5,561,493
Revenue from Exchange Transaction - Capital		-	-
Total Revenue from Exchange Transaction - Capital		-	-
Total Revenue Capital		13,469,966	5,561,493
TOTAL REVENUE		154,729,244	144,190,273
<u>OPERATING EXPENDITURE - RECURRENT</u>			
Personnel Emoluments	Note - 14	103,615,425	89,198,526
Travelling		37,973	2,552
Supplies	Note - 15	14,360,504	11,356,202
Maintenance Expenditure	Note - 16	6,260,869	4,761,102
Contractual Expenditure	Note - 17	21,303,053	21,603,436
Other Recurrent Expenditure	Note - 18	10,061,734	8,496,858
Gratuity		995,320	2,632,678
Exchange Loss		1,313,193	1,399,991
Total Operating Expenditure - Current		157,948,070	139,451,344
Non-Operating Expenditure			
Depreciation & Amortization		23,968,660	14,280,482
Total Non- Operating Expenditure		23,968,660	14,280,482
TOTAL EXPENDITURE		181,916,730	153,731,827
Total Surplus / (Deficit) for the year		(27,187,486)	(9,541,553)
Current Surplus / (Deficit) for the year		(16,688,792)	(822,564)
Capital Surplus / (Deficit) for the year		(10,498,694)	(8,718,989)

**STATEMENT OF CASH FLOW
FOR THE YEAR ENDED 31ST DECEMBER 2024**

	2024	2023
	Rs.	Rs.
Surplus / Deficit for the year	(27,187,486)	(9,541,553)
Add: Adjustments for items not involving movement of Funds		
Provision for Gratuity	995,320	2,632,678
Adjustment to the Retained Earnings	-	1,236,705
Depreciation & Amortization	23,968,660	14,280,482
Provision for Restricted Funds	134,893	1,141,351
Interest Income	(9,287,823)	(19,075,713)
Foreign Exchange (Gain) / Loss	1,313,193	1,399,991
Disposal (Gain) / Loss	(46,861)	-
Gifts, Donations, Goods In-kind	(11,130,360)	(1,043,884)
Capital Transfer - Generated Income	(2,339,606)	(4,517,609)
Operating Surplus before working capital changes	(23,580,069)	(13,487,551)
Changes of Working Capital		
(Increase)/Decrease in Other Receivables	(162,636)	1,309,631
(Increase)/Decrease in Advances	69,198	2,993,652
(Increase)/Decrease in Staff Loans	702,945	655,036
(Increase)/Decrease in Chemicals & Glassware	(497,996)	72,072
Increase/(Decrease) in Refundable Laboratory Deposits	1,183,000	1,316,000
Increase/(Decrease) in Accrued Expenditure and Other Payables	1,338,839	1,198,767
Increase/(Decrease) in Research Grants	(739,801)	(2,057,250)
Increase/(Decrease) in Deferred Income	886,072	650,646
Increase/(Decrease) in Audit fees payable	324,300	(1,102,817)
	3,103,920	5,035,737
NET CASH FLOW FROM OPERATING ACTIVITIES	(20,476,149)	(8,451,814)
CASH FLOWS FROM INVESTING ACTIVITIES		
Interest Received	5,804,371	12,351,846
(Increase) in Investments	(20,000,000)	(25,000,000)
Acquisition of Fixed Assets	(2,339,606)	(4,517,609)
Sales proceeds from disposal of assets	56,000	-
NET CASH FLOW FROM INVESTING ACTIVITIES	(16,479,236)	(17,165,763)
CASH FLOWS FROM FINANCING ACTIVITIES		
Decrease in Investments	32,309,440	29,323,911
NET CASH FLOW FROM FINANCING ACTIVITIES	32,309,440	29,323,911
Net Increase in Cash & Cash Equivalents	(4,645,944)	3,706,334
Effect of exchange rate changes on cash & cash equivalents held in foreign currency	(1,313,193)	(1,399,991)
Cash & cash equivalents at the end of 31/12/2023	18,717,782	16,411,439
Cash & cash equivalents at the end of 31/12/2024	12,758,645	18,717,782

**STATEMENT OF CHANGES IN EQUITY
FOR THE YEAR ENDED 31ST DECEMBER 2024**

	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Revaluation Reserve	Rs.	Rs.
Balance as at 31st December 2022	30,146,098	12,665,241	4,003,310	-	20,331,405	38,932,716	10,665,445	116,744,214			
Surplus / (Deficit) for the period	(822,564)	-	-	-	-	(8,718,989)	-	(9,541,553)			
Prior Year Adjustment	1,514,205	-	-	-	-	-	-	1,514,205			
Contribution to Endowment Fund	-	-	-	30,000	-	-	-	30,000			
Article Processing Charges from Director's Vote	-	-	-	-	(32,500)	-	-	(32,500)			
Expenses incurred from Restricted Funds	-	-	-	-	(590,501)	-	-	(590,501)			
Capital Transfer - Generated Income	-	-	-	-	(4,517,609)	-	-	(4,517,609)			
Revaluation Surplus	-	-	-	-	-	-	18,874,365	18,874,365			
Transfer to Restricted Funds	(16,419,249)	-	1,734,352	-	16,419,249	-	-	1,734,352			
Balance as at 31st December 2023	14,418,490	12,665,241	5,737,662	30,000	31,610,044	30,213,727	29,539,809	124,214,972			
Surplus / (Deficit) for the period	(16,688,792)	-	-	-	-	(10,498,694)	-	(27,187,486)			
Contribution to Endowment Fund	-	-	-	42,000	-	-	-	42,000			
Royalty Income - Cancer Research Endowment Fund	(746,644)	-	-	746,644	-	-	-	-			
Adjustment for Receivable Income	(540,833)	-	-	-	-	-	-	(540,833)			
Expenses incurred from Restricted Funds	-	-	-	-	(151,428)	-	-	(151,428)			
Adjustment for Depreciation on revaluation	-	-	-	-	-	9,106,452	(9,106,452)	-			
Capital Transfer - Generated Income	-	-	-	-	(2,339,606)	-	-	(2,339,606)			
Revaluation Surplus - Building	-	-	-	-	-	-	280,835,304	280,835,304			
Transfer to Restricted Funds	(14,315,201)	-	785,154	-	14,315,201	-	-	785,154			
Balance as at 31st December 2024	(17,872,981)	12,665,241	6,522,816	818,644	43,434,211	28,821,485	301,268,661	375,658,077			

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 31/12/2024.

1.2 Principal Activities and Nature of Operation

- Offering degrees, diplomas in Biochemistry, Molecular Biology, Immunology, Bioinformatics and allied fields of studies for local and foreign students.
- Conduct Short Training programmes and workshops in Molecular biology and allied fields.
- Conduct Key nationally relevant research themes using tools of Molecular Life Sciences, Immunology & Bioinformatics.
- Dissemination of Knowledge.
- Commercialization of Research outcomes.
- Consultations in National and International Forums.

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 24th February 2025.

1.4 Reporting Period

The reporting period of the Financial Statements represents a twelve-month period from 01st January 2024 to 31st December 2024.

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 under the historical cost convention in conformity with Sri Lanka Public Sector Accounting Standards (SLPSASs) issued by the Institute of Chartered Accountants of Sri Lanka.

The principal accounting policies applied in the preparation of the financial statements are set out below.

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.

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-classifying unless reclassification is impracticable.

2.5 Materiality and aggregation

Each material class of similar items have presented separately in the financial statements. Items of dissimilar nature or function have presented separately unless they are immaterial.

2.6 Offsetting

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

2.7 Going Concern

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

2.8 Events after the Reporting Period

Events after the reporting date are those events, both favorable and unfavorable, that occur between the reporting date and the date when the financial statements are authorized for issue. Two types of events can be identified.

- (a) Those that provide evidence of conditions that existed at the reporting date (adjusting events after the reporting date)
- (b) Those that are indicative of conditions that arose after the reporting date (non-adjusting events after the reporting date)

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.

2.9 Rounding

The amounts in financial statements have been rounded-off to the nearest rupee, except otherwise indicated as permitted by the Sri Lanka Public Sector Accounting Standards.

2.10 Taxes

Income Tax

The institute is not liable to pay income tax on its surplus of the ordinary course of the business as the institute is considered as an exempt organization as per the Inland Revenue Act No. 24 of 2017 and amendments thereto.

Advance Personal Income Tax (APIT)

The institute deduct Advance Personal Income Tax (APIT) as per the declaration given by the employees on Primary and Secondary employment and remit the deducted amount to the Department of Inland Revenue.

Stamp Duty

Stamp duty is deducted on payments in terms of the provisions laid down in the Stamp Duty Act and remit deducted amounts to the Department of Inland Revenue.

Withholding Tax (WHT)

As per the Inland Revenue (amendment) Act No. 45 of 2022, withholding tax of 5% has been deducted upon exceeded Rs. 100,000/- for a month when paying Service fees.

2.11 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.

Information about significant areas of estimates, uncertainly and critical judgements in applying accounting policies thar have the most significant effects on the amounts recognized in the Financial Statements are stated below.

a) **Defined Benefit Plan**

The cost of retirement benefit plan of the employees is determined using Project Unit Credit (PCU) Method. Such method involves use of assumptions concerning the rate of interest, rate of salary increased and retirement age. Due to the long-term nature of the plan, such estimates are subject to significant uncertainty.

b) Any changes in accounting estimates and judgements are disclosed in the relevant notes to the Financial Statements.

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 been transferred to IBMBB by University of Colombo.

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

3.2.2 Measurement after Recognition

- **Cost Model**

After recognition all the PPE except the classes of Building is carried at its cost less than accumulated depreciation.

- **Revaluation Model**

After initial recognition below classes of PPE whose fair value can be measured reliably has been carried out at revalued amount, which is fair value at the date of revaluation less any subsequent accumulated depreciation and subsequent any impairment losses. The institute revalued the motor vehicle through authorized agent of Sri Lanka Auto Mobile Association and the below mentioned assets revalued through the internally appointed two committees approved by the Board of Management in the year 2023.

- Office Furniture and equipment
- Lab and Teaching Equipment
- Computers & Accessories
- Computer Software
- Library Books

The building of the IBMBB has been revalued by the Department of Government Valuation Sri Lanka in the year 2024.

The revaluation amount of Rs. 298Mn arising from the revalued assets has been identified as assets and surplus of Rs. 281Mn was transferred to revaluation reserves and included in accumulated fund and reserve in the statement of financial position. Carrying value of PPE and intangible assets are reviewed at each reporting date to determine whether there is any indication of impairment if such any indication exit, then the assets recoverable amount is estimated. An impairment loss is recognized if the carrying amount of an assets exceeds its recoverable amount.

As per the SLPSAS 07, difference between depreciation based on the revalued carrying amount of the assets and depreciation based on the assets' original cost has been transferred to accumulated surplus – capital from revaluation reserve through the equity statement.

3.2.3 Intangible Assets

All intangible items are initially recognized at cost less accumulated amortization and any impairment losses.

The cost of intangible assets comprises its purchase price and any directly attributable cost of bringing the asset to working condition for its intended use.

Amortization of intangible assets is charged to statement of financial performance over a period of 05 years. Further, as per the Sri Lanka Public Sector Accounting Standards No 20, Intangible Assets, the amortization period will be reviewed at the end of each reporting period and any changes shall be accounted as changes in accounting estimates.

3.2.3.1. Computer Software

Computer Software has been recognized as intangible assets when it is probable that future economic benefits that are attributable to the assets will flow the enterprise and the cost of the assets can be measured reliably. The costs are amortized over their estimated useful life of five (5) years on straight-line basis or life time available to use.

The three computer softwares namely Accounting System, Payroll System and Asset Management System have been revalued through the internally appointed two committees approved by the Board of Management in the year 2023.

3.2.4 Impairment

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

3.2.5 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.

3.2.6 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.

3.2.7 Depreciation & Amortization

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 & Amortization

• Building	-	5% per annum
• Vehicles	-	20% 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
• Computer Software	-	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 i) 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 and liability is not externally funded.

The provision for the obligations under the Act is determined based on the Project Unit Credit (PUC) Method in accordance with LKAS 19 using the discount rate equal to the government bond rate.

Year	Bond Rate
2024	10.42%
2023	13.87%

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.

ii) Recognition of Actuarial Gain/Losses

The Actuarial Gains/Losses on employee terminal benefits due to changes in assumptions or due to over/under provision in the previous years are recognized in full in the period in which they occur.

Interest for the opening balance of retirement benefit for the year 2023 has not been charged to the Statement of Financial Statement. As per the SLIPSAS 3, the change in said estimation adjusted prospectively in the year 2024.

The actuarial gain on terminal benefit (retirement gratuity) is Rs. 4Mn which is fully recognized, adjusted and disclosed in the Statement of Financial Performance in the year 2024. The gratuity provision has been calculated in accordance with SLIPSAS 19 using Project Unit Credit Method of LKAS 19.

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.

In-terms of the 579th University council approval, The Cancer Research Endowment Fund of the IBMBB had been established during the year 2023 with the contribution of well-wishers.

In terms of the section 04, © of the License Agreement signed with the FADNA Tea (Pvt) Ltd, 1% of the net turnover of the Herbal Anti-Cancer Capsule “VERNOLAC”, developed by the IBMBB and commercialized by the FADNA has been transferred to the Cancer Research Endowment Fund of the IBMBB.

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 that are recognized as assets are 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. 87.62Mn was received as recurrent grant for the year 2024.

- Capital Grant

Capital transfers received for the capital expenditure from General Treasury and generated fund 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.

Capital grant was not received from the General Treasury for the year 2023 and 2024 respectively.

- Gifts, Donations and goods received in kind

Gifts, donations are voluntary transfers of assets including cash or other monetary assets and goods in-kind that the Institute receives which are free from stipulations. Gift and donations and goods in kind received are recognized as non-exchange revenue at its fair value when it is probable that the future economic benefits or service potential will flow to the University, and the fair value of the assets can be measured reliably.

During the year 2024, IBMBB received Rs. 11.13Mn worth of Lab equipment, Computer Accessories and Furniture from the Ministry of Health, fair value of those donation recognized under Revenue from Non-exchange transaction - capital in the Statement of Financial Performance.

Fair value of the donation is ascertained from the valuation report generated by the Department of Valuation, Sri Jayawardenapura University.

Depreciation of assets received as Donations

The assets received through donations recorded after receiving the right to use of those assets. Institute values donated assets as at 31st December every year and capitalized.

B) Revenue from Exchange Transaction

Revenue from exchange transactions are transactions in which one entity receives assets or services, or has liabilities extinguished and directly gives approximately equal value (primarily in the form of cash, goods, services, or use of assets) to another entity in exchange.

i) Post Graduate 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) Royalty Income and Patent Rights

In line with the key activity of knowledge dissemination and innovations, the research team of the IBMBB developed following 04 products as long-term research outcome.

- VERNOLAC - Herbal Anti-cancer Capsule
- BIO SHAPE - Herbal Weight Loss Capsule
- ORTHO-SHIELD - Herbal Pain Relief Cream
- SATINY - Herbal Hair Oil

As per the License agreement signed with the FADNA Tea (Pvt) Ltd IBMBB entitled for Royalty income of 3% from the net turnover of the Vernolac and 0.05% from the rest of three products. During the year 2024, Rs. 948,082/- has been received as royalty income based on the University Intellectual Property Policy.

Royalty income is recognized on the accrual basis.

Team of the IBMBB researchers hold the following patent right, however patent has been granted in the name of University of Colombo.

Title of the Invention	Patent Number	Government gazette Date
Novel method to isolate an anti-proliferative diterpene from <i>Caesalpinia pulcherrima</i> and a cancer stem cell targeted medicinal preparation thereof	21583	27.05.2022

iv) Investment Income

Interest income received for the period recorded as exchange revenue in the statement of financial performance except for the investment income earned from the restricted funds, designated funds and endowment funds. When the investment income earned from those funds are in the excess over the expenditure, the excess is recorded as a direct increase in relevant fund and included in the financial position.

Interest income received for the period from Fixed Deposits, Treasury Bills and Money Market Investments is recorded in the statement of financial performance on accrual basis.

v) Other Income

Any other income not specified under the above categories is recognized 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 statement of Financial Performance in ascertaining the income over expenditure.

3.9 Cash Flow Statement

The cash flow statements have been prepared using the “Indirect Method” in accordance with the SLPSAS- 2 where the gross cash receipts and gross cash payments of operating activities, financing activities and investing activities have been recognized.

3.10 Related Party Transactions

The key management personnel of the Institute are the members of the Board of Management. The Board of Management is the executive body of the institute which consist of the Director and representative from the Line Ministry, ex-officio members of the faculties and institutes of the University, two members elected by the Council, two members elected by the Senate and four external members appointed by the University Grants Commission.

Rs. 6,077,265.00 and Rs. 582,000.00 was paid as remuneration & other allowances to the director and sitting allowance to the other BOM members respectively.

There is no any contract entered between the institute and any member of the key management personnel who is having direct or indirect interest and there are no any Related-party transactions including sales purchases loans transfers leasing agreements guarantees, amount receivable from or payable to related parties other than the employee remuneration and allowances for service provided during the period.

3.11 Comparison of Budget and Actual Amounts

Budget and accounting basis is different. Annual budget to the Institute is approved in cash basis where as financial statements covers all the financial activities in accrual basis. The statement of comparison of budget and actual amounts compares the final budget to actual amounts calculated on the same basis as the corresponding budgetary amounts.

3.12 Other Disclosures

- 1) The IBMBB has occupied in a land where the ownership of the land belongs to the University of Colombo.
- 2) Provision for the gratuity was updated current year.
- 3) The interest earned from investment of Endowment fund has reinvested and added to the carried forward balance of the Endowment Fund.
- 4) Effect of the investments and interest income has been adjusted in comparative figures instead of showing net effect in investments under cash flow from financing activities of the Cash Flow Statement.
- 5) Chemicals and glassware stock verification is carried out by the Institute to the balance sheet date of 31.12.2024 and stock value has been adjusted to the Financial Statement in year 2024.
- 6) Relevant amounts for the year 2024 have been transferred to Institute Development Fund, Director's Vote, Equipment & Technology Vote and Programme Development Vote are shown under the designated fund in the statement of Financial Position.
- 7) Fixed assets, amounting to Rs. 2.34Mn had been purchased by utilizing Equipment & Technology vote, Programme Development vote and Institute Development vote during the year 2024.

Notes to the Financial Statements - 2024 (Contd..)

Note - 01

Cash & Cash Equivalents

People's Bank - Thimbirigasyaya

	2024 Rs.	2023 Rs.
Account No.		
86100121189723	259,879	437,811
86100151192314	945,656	910,302
86100211189723	2,592,004	2,137,834
86100301189723	238,819	73,330
86100491189723	169,583	169,583
86200101189723	150,285	309,027
86402121189723	8,164,211	14,022,518

Bank of Ceylon - Thimbirigasyaya

84885727	238,206	657,377
	12,758,645	18,717,782

Note - 02

Other Receivables

	2024 Rs.	2023 Rs.
Receivable Course Income	636,667	735,500
Pre Payment	710,367	903,052
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	1,816,436	2,175,654
Receivable from Other HEIs	1,060,462	-
Other	-	247,089
	4,358,432	4,195,795

Note - 03

Advances

	2024 Rs.	2023 Rs.
Miscellaneous Advances	134,750	203,948
	134,750	203,948

Note - 04

Staff Loans - Current

	2024 Rs.	2023 Rs.
Distress Loans	598,714	677,927
Computer Loans	13,000	20,000
Vehicle Loan	28,340	16,745
Staff Loans	1,700	1,700
	641,754	716,372

Staff Loans - Non current

Distress Loans	1,247,285	1,820,977
Computer Loans	5,000	18,000
Vehicle Loan	82,300	122,235
Staff Loans	170	1,870
	1,334,755	1,963,082
	1,976,509	2,679,454

Note - 05

Investments - Current FDs and TBs

	2024 Rs.	2023 Rs.
Endowment Fund	323,995	300,000
Generated Funds	36,791,409	40,653,493
Imprest	588,077	537,898
	37,703,481	41,491,391

Investments - Non Current FDs and TBs

Treasury Fund - Security Deposit	31,208	28,625
Endowment Fund	8,713,606	7,874,429
Institute Development Fund	8,710,231	7,809,660
Generated Funds	27,447,864	34,228,274
	44,902,910	49,940,988
	82,606,391	91,432,379

Notes to the Financial Statements - 2024 (Contd..)

Note - 06
NON-CURRENT ASSETS - Property, Plant & Equipment

Description	Building	Motor Vehicle	Furniture & office Equipment	Computers	Lab and Teaching Equipment	Library books and Periodicals	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Cost/Revalued Balance as at 01 01 2024	116,864,648.71	6,200,000.00	14,414,100.37	7,262,531.14	21,260,805.09	1,529,869.21	167,531,954.52
Removal of Cost of assets due to Revaluation	(116,864,648.71)	-	-	-	-	-	(116,864,648.71)
Revaluation of Assets	298,381,000.00	-	-	-	-	-	298,381,000.00
Additions	-	-	966,582.10	1,373,024.00	-	-	2,339,606.10
Donations	-	-	18,000.00	530,550.00	10,581,809.78	-	11,130,359.78
Disposals	-	-	(8,100.00)	(597.50)	(2,250.00)	-	(10,947.50)
Balance as at 31 12 2024	298,381,000.00	6,200,000.00	15,390,582.47	9,165,507.64	31,840,364.87	1,529,869.21	362,507,324.19
Rate of Depreciation	5%	20%	10%	20%	20%	20%	
Accumulated Depreciation as at 01 01 2024	99,318,952.71	1,239,320.72	1,446,466.68	1,292,696.03	4,003,091.17	305,676.57	107,606,203.88
Removal of Accumulated Depreciation Provision for Revaluation	(99,318,952.71)	-	-	-	-	-	(99,318,952.71)
Disposals	-	-	(1,062.36)	(155.69)	(589.96)	-	(1,808.01)
Depreciation for 2024	14,949,684.55	1,242,716.12	1,495,065.33	1,553,594.47	4,271,086.50	306,513.10	23,818,660.07
Accumulated Depreciation as at 31.12.24	14,949,684.55	2,482,036.84	2,940,469.65	2,846,134.81	8,273,587.71	612,189.67	32,104,103.23
WDV 31. 12. 2024	283,431,315.45	3,717,963.16	12,450,112.82	6,319,372.83	23,566,777.16	917,679.54	330,403,220.96

Notes to the Financial Statements - 2024 (Contd..)

Note - 06.1

NON-CURRENT ASSETS - Intangible Assets - Computer Software

Description	Software	Total
	Rs.	Rs.
Cost/Revalued Balance as at 01 01 2024	750,000.00	750,000.00
Revaluation of Assets	-	-
Disposals/Adjustments	-	-
Balance as at 31 12 2024	750,000.00	750,000.00
Rate of Amortization	20%	
Accumulated Amortization as at 01 01 2024	150,000.00	150,000.00
Amortization for 2024	150,000.00	150,000.00
Accumulated Amortization as at 31.12.24	300,000.00	300,000.00
WDV 31. 12. 2024	450,000.00	450,000.00

Notes to the Financial Statements - 2024 (Contd..)

Note - 07

Accrued Expenses And Other Payables

	2024	2023
	Rs.	Rs.
Accrued Expenses	2,024,874	2,439,840
Payable for Foreign Students	3,194,096	2,563,173
Retention	289,674	55,684
Payable for Indo Sri Lanka	325,021	325,021
Payable for Personnel	7,125	1,250
Committed Expenditure for Laboratory Work	555,500	-
Payable for Internship & Short Courses	420,000	105,067
Security Deposit	31,208	28,625
Unclaimed Cheques	10,000	-
	6,857,499	5,518,660

Note - 08

Provision for Gratuity – Non-Current

	2024	2023
	Rs.	Rs.
Opening Balance 01.01.2024	30,950,473	28,317,795
Provision During the year	995,320	2,632,678
Paid During the year	-	-
Closing Balance 31.12.2024	31,945,794	30,950,473

Note-08.01

Note - 08.01

Provision During the year

Interest Cost	2,294,878	-
Current Service Cost	3,095,047	2,632,678
Acturial (Gain) / Loss	(4,394,605)	-
	995,320	2,632,678

Note - 09

Research Grants - 2025

	2024	2023
	Rs.	Rs.
IPICS - 2025	226,702	296,702
Swedish Research Grant - 2025	1,190,163	1,190,163
Individual Research Votes - 2025	734,496	644,260
CRP/LKA 17- 01 2025	-	263,727
Subsidies for Reagents	73,519	1,133,755
ICGEB Course (W/SRI/2019-01) - 2025	14,120	14,120
Industrial Technology Institute - 2025	563,926	-
	2,802,925	3,542,726

Note - 10

Deferred Income

	2024	2023
	Rs.	Rs.
MSc in BioInformatics 2021	-	110,000
MSc in CMI 2022	-	375,000
MSc in MLS 2022	-	772,485
Master of MLS 2023	-	1,226,843
Master of CMI 2023	-	725,000
Master of BI 2023	-	2,010,000
MSc in MLS 2023	1,063,416	-
MSc in CMI 2023	402,500	-
Master of MLS 2024	1,209,066	-
Master of CMI 2024	1,111,667	-
Master of MLS 2025	1,135,000	-
BSc in Molecular Biology and Bio-entrepreneurship	243,750	-
TC Cell Culture Techniques	880,000	-
Internship	60,000	-
	6,105,400	5,219,328

Note - 11

Grants for Research

	2024	2023
	Rs.	Rs.
IPICS 2024	70,000	-
Swedish Research Grant 2024	-	123,688
CRP/LKA 17- 01 2024	-	991,253
Research Collaboration Grant- Dr Andrew-2024	-	89,000
ICGEB Course (W/SRI/19-01) - 2024	-	1,710
C/R Grant- Ms.D.V.D. Hemalika - 2024	-	34,051
Immunodiagnosics 2024 - Prof. S.M. Handunnetti	-	125,000
Collaborative Research 2024 - Prof. S.S.R. Samarakoon	-	813,899
	70,000	2,178,600

Notes to the Financial Statements - 2024 (Contd..)

Note - 12		2024	2023
Generated Income		Rs.	Rs.
Annual Session Sponsorships		-	217,000
Examination fees		1,700,500	1,856,000
MSc Course Fee		26,171,575	30,094,153
Short Courses Income		5,445,000	8,666,547
Research Course Fee		440,000	800,000
Application Fee & Annual Fee		1,560,229	466,652
Registration Fee		710,000	920,000
Transcript Fee		101,000	80,500
Internship Income		1,230,000	540,000
Certification Verification Charges		57,801	-
Hall Hiring Charges		10,000	-
Library Fee		30,000	30,000
Liquidated Damages		560,853	411,847
Laboratory Work - Other HEIs		702,200	-
International Conference		4,417,779	-
Royalty Income		948,082	-
		44,085,018	44,082,698
Note - 13		2024	2023
Other Income		Rs.	Rs.
Computer loan Interest		2,221	2,982
Staff Loan Interest		428	466
Distress Loan Interest		82,842	111,883
Vehicle Loan Interest		3,630	2,277
Other Sundry Income		102,316	174,161
		191,437	291,769
Note - 14		2024	2023
Personnel Emoluments		Rs.	Rs.
Salaries & Wages		29,515,863	28,657,387
Salaries & Wages - Assignment Basis		6,411,540	6,239,524
U.P.F		5,799,406	4,490,236
Pension		4,345,273	3,845,396
E.T.F.		2,216,643	1,876,232
E.P.F		746,515	719,589
Academic Allowance		27,244,192	19,991,198
Cost of Living Allowances		7,042,991	3,262,589
MC 45% Allowance		5,484,575	5,496,443
20% Allowance		5,186,442	4,937,874
Research Allowances		5,441,633	5,064,147
Rs. 5,000/- Allowance		2,617,232	2,779,043
Entertainment Allowance		179,208	179,682
Telecommunication Allowance		123,000	123,000
Over Time and Holiday Payment		169,564	82,707
Visiting Lecturer Fee		927,700	1,317,384
Course Coordinator Allowance		90,000	36,000
Property Loan Interest		73,650	100,097
		103,615,425	89,198,526
Note - 15		2024	2023
Supplies		Rs.	Rs.
Stationery & Office Requisites		1,486,566	355,952
Fuel and Lubricant		552,789	580,789
Chemicals & Glassware	Note-15.1	12,251,148	10,323,525
Other		70,001	95,936
		14,360,504	11,356,202
Note - 15.1			
Chemicals & Glassware			
Opening Balance		796,988	869,060
Purchase During the Year		12,749,144	10,251,453
		13,546,132	11,120,513
Closing Balance		(1,294,984)	(796,988)
		12,251,148	10,323,525

Notes to the Financial Statements - 2024 (Contd..)

Note - 16	2024	2023
Maintenance Expenditure	Rs.	Rs.
Rehabilitation & Maintenance of Capital Assets	-	55,000
Plant, Machinery Equipment	742,616	727,120
Buildings & Structures	4,168,086	2,906,908
Office Equipment Maintenance	611,713	427,112
Vehicle Maintenance	311,997	-
Software Maintenance	419,667	-
Other	6,790	644,962
	6,260,869	4,761,102
Note - 17	2024	2023
Contractual Expenditure	Rs.	Rs.
Transport	263,776	285,616
Telecommunication	2,088,112	2,016,880
Postage	80,050	65,237
Security Service	3,060,496	2,700,424
Electricity	11,562,638	13,484,723
Water	185,878	314,102
Cleaning Service	2,485,293	2,157,603
Rates, Taxes & Local Authorities	269,438	269,438
Printing & Advertising	861,559	265,033
Rental & Hire Charges	35,000	-
Other	410,811	44,380
	21,303,053	21,603,436
Note - 18	2024	2023
Other Recurrent Expenditure	Rs.	Rs.
Special Services - Board Meeting & Committees	968,496	936,115
Staff Development	80,000	10,000
Entertainment Expenses	205,353	165,534
Contribution & Membership Fee	-	178,140
Bank Charges	78,151	81,346
Holiday Warrants & Season Tickets	161,800	221,400
Machinery & Office Equipment Service Agreement	540,561	-
Examination Expenses	1,058,392	990,275
Short Course Expenses	2,782,175	5,164,812
Audit Fee	324,300	400,000
Medical Insurance	136,124	127,922
International Conference	3,056,882	-
Laboratory Work - Other HEIs	602,200	-
Other	67,300	221,313
	10,061,734	8,496,858
Note - 19	2024	2023
Accumulated Funds - Capital	Rs.	Rs.
Treasury	28,130,063	32,280,925
Generated	1,171,366	(1,761,702)
SIDA SAREC	86,876	90,647
Research Grants	(566,820)	(396,144)
	28,821,485	30,213,727
Note - 20	2024	2023
Designated Funds	Rs.	Rs.
Institute Development Fund	28,447,455	20,965,241
Director's Vote	3,556,975	2,806,200
Equipment & Technology Vote	2,964,364	2,373,089
Programme Development Vote	8,465,418	5,465,514
	43,434,211	31,610,044

**COMPARATIVE STATEMENT OF FINANCIAL PERFORMANCE WITH BUDGET
FOR THE YEAR ENDED 31ST DECEMBER 2024**

Rs. '000

Description	Note	2024 Actual (Rs.)	2024 Original Budget (Rs.)	2024 Revised Budget (Rs.)
Revenue				
Recurrent Grant from Treasury		87,625	75,000	87,625
Generated Income	Note - 12	44,085	56,580	56,580
Interest Income		9,288	15,200	15,200
Other Income	Note - 13	191	3,000	3,000
Total Revenue		141,189	149,780	162,405
Operating Expenses				
Personnel Emoluments	Note - 14	103,615	102,220	102,220
Travelling & Subsistence		38	7	38
Supplies & Consumables	Note - 15	14,361	10,062	10,787
Maintenance Expenses	Note - 16	6,261	3,188	6,295
Contractual Services	Note - 17	21,303	25,844	21,488
Other Recurrent Expenses	Note - 18	10,062	1,929	2,422
Total Operating Expenses		155,640	143,250	143,250

AUDIT REPORTS

1

AUDITOR GENERAL'S REPORT

2

**RESPONSES TO THE AUDITOR
GENERAL'S REPORT**

3

**REVIEW ON INTERNAL AUDIT
FUNCTIONS IN 2024**



AUDITOR GENERAL'S REPORT

My No. : HED/B/IBMBB/2024/FA/06

Your No: Date: 19th May 2025

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 2024 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, Higher Education and Vocational Education
2. Secretary – Ministry of Finance, Economic Development, Policymaking, Plannig and Tourism
3. Chairman – University Grants Commission
4. Vice Chancellor - University of Colombo

My No.} HED/B/IBMBB/2024/FA/05 Your No.} Date} 19th 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 2024 in terms of section 12 of the National Audit Act, No. 19 of 2018.

1. Financial Statements

1.1 Unqualified 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 2024 comprising the Statement of Financial Position as at 31st December 2024 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, the Financial Statements of the entity give a true and fair view of the financial position of the entity as at 31 December 2024 and its Financial Performance and Cash Flows for the year then ended in accordance with Sri Lanka Public Sector Accounting Standards.

1.2 Basis for unqualified Opinion

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 unqualified opinion.

1.3 Other Information available in the Annual Report of the entity- 2024

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 -2024 , 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 given in the annual report – 2024 of the entity is materially misstated, I am required to report that fact to the controlling parties for rectification. In case unrecitified misstatemants are further noted, they would be included in the report tabled by me in the parliament in terms of Article 154 (6) of the Constitution.

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, except for the following observation.

Action had not been taken in accordance with the Financial Regulations in respect of refundable laboratory deposits amounting to Rs. 1,970,562, which had been overdue for 2 to 3 years from the date of deposit, and Rs. 3,987,383, which had been overdue for over 5 years as per the provisions of the FR 570 and 571 of the Financial Regulations of the Democratic Socialist Republic of Sri Lanka.

2.2.3. 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.

2.2.4. 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

- a) Out of the total research grants amounting to Rs. 2,802,925 as at December 31 of the year under review, a sum of Rs. 1,204,283 had remained unutilized for over one year.
- b) The entity maintains a current account with a government bank, which has not been used for operational purposes since 2022. As at December 31 of the year under review, the account had a balance of Rs. 169,583.

G.H.D. Dharmapala
Auditor General. (Acting)

RESPONSE TO THE AUDITOR GENERAL'S REPORT

25.07.2024
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 2024 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/2024/FA/06 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:

5. Secretary – Ministry of Education, Higher Education and Vocational Education
6. Secretary – Ministry of Finance, Economic Development, Policymaking, Planning and Tourism
7. Chairman – University Grants Commission
8. Vice Chancellor - University of Colombo

2. Report on other legal and monitoring requirements

2.2.

- 2.2.2. The audit observations made are agreed upon.
Appropriate action will be taken in this regard in 2025.

2.3. Other Matters

- a) The audit observations made are agreed upon.
Action has been taken to utilize these research grants in 2025.
- b) The audit observations made are agreed upon.
The account of the entity, maintained under Account No. 086100491189723 at People's Bank, is scheduled to be utilized in 2025.

REVIEW ON INTERNAL AUDIT FUNCTIONS IN THE YEAR 2024

Review on Internal Audit Functions in the Year 2024

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 the 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 the University Grants Commission and Board of Management.

Composition of the Audit Committee – Year 2024

Name of the Members/Observers	Designation
Members	
Prof. Ramanee Wijesekera	Chairperson
Mr. Channa de Silva	Member
Prof. Sampath Punchihewa	Member
Mr. K. Piratheepan / Mr S A R Tharanga	Treasury Representative
Convener	
Mr. K.E.W. Jayasiri	Senior Assistant Internal Auditor/UOC
Observers	
Ms. S.M.C. Indika / Ms. A K A Chandrika	Superintendent of Audit/ Government Audit- UOC
On Invitation	
Prof. BP Galhena	Director/ IBMBB
Ms. SM Withana Arachchi	DB/IBMBB
Ms. KGI Udayangani	SAR/IBMBB

Audit Committee Meetings

During the year under review, the committee met three times to review the audit activities of the institute.

Internal Audit

As the IBMBB does not have its own audit division, the internal audit activities of the institute were conducted by the internal audit division of the University of Colombo. The internal auditors carried out post, pre- and other audit activities as included in the audit plan for 2024.

Review of Chairman/ Audit Committee on Internal Audit Function in the Year – 2024

The audit committee was satisfied with the active participation of the committee members and their commitment towards the good governance of the Institute. The committee was 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, continues to emphasize the importance of good governance, transparency, proper financial, administrative, and academic performance



Prof. Ramanee Wijesekera

Chairperson /Audit Committee, IBMBB

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 2024, 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. S.M. Withana Arachchi, Deputy Bursar, IBMBB
Ms. Harshani Jayaweera, Assistant Registrar, IBMBB

Annual Report Proof Reading Committee

Prof. Sisira Pathirana, Professor in Immunology, IBMBB
Dr Ruwandi Ranasinghe, Scientific Assistant, IBMBB
Dr Kanishka Senathilake, Post Doctoral Research Fellow, IBMBB
Dr Uma Rajagopalan, Scientific Assistant, IBMBB
Ms W L Damayanthi, Management Assistant, IBMBB

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**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