

FORMAT FOR SUBMISSION OF PROGRESS REPORT (NOT EXCEEDING 3-4 PAGES)
STATE/INSTITUTIONAL LEVEL BIOTECH HUBS
(Format for biotech hubs sanctioned during 2010-11 and 2011-12)

Period under report **2018 - 2019**

1. Name & address of the institution: **Lady Keane College, Shillong**
2. Name & designation of the Coordinator: **Mr. G.G. Syngai, Associate Professor & Head,
Department of Biochemistry,
Lady Keane College, Shillong**
3. Telephone, Mobile, Fax and Email of the Coordinator: **+917005445894(M),
+919856007518(M), ggsyngai@gmail.com**
4. Level of the Biotech Hub: **Institutional**
5. Year of sanction with DBT's sanction no.: **BT/04/NE/2009 dated September 21, 2010**
6. A brief write up about your organization/institution (not exceeding 10 lines):

Lady Keane College which was established in 1935 is one of the premiere institutes for women's education in North East India. With an aim at providing excellent all round education; it strives to empower women for becoming future leaders of tomorrow and who will help shape society. Our commitment to quality found its stamp of approval from the National Accreditation and Assessment Council (NAAC), Bangalore when this apex autonomous agency reaccredited our institution and awarded 'A' Grade with our quality profile standing at 3.09 (CGPA) on a 4 point scale. The motto "**Excellence with Integrity**" is the driving force behind each endeavour of every single member –past and present- of this college, to impact the life of every young woman who wisely chooses to be nurtured and educated by it.

7. Total funding received so far (Rupees in lakhs):

(Rs. In lakhs)

Financial year	2010-11 (1 st year)	2011-12 (2 nd year)	2012-13 (3 rd year)	2013-14 (4 th year)	2014-15 (5 th year)	2015-16 (6 th year)	2016-17 (7 th year)	2017-18 (8 th year)	Total	Balance on 31/03/2018
Amount Received	19.00	10.03	5.21	3.67	2.47	4.52	-	-	44.90	0.57269
Amount Utilized	5.98685	12.59333	3.05769	9.35856	6.00794	5.27957	5.06712	-	47.35106	(-)2.45106

8. Infrastructure created:

- (a) List of equipment procured: (Pl. list all the equipments procured under the biotech hub since its inception)

Sl. No	Name of the equipment	Model No & Brand Name	Cost in Indian Rupees (in Lacs)	Date of Purchase	No. of researchers/ students utilized Equipments
1	Refrigerated Centrifuge (17,500rpm) 1.5/2.0 ml micro tubes	5430 R Eppendorf	4.7	19/01/2011	16
2	UV/ Vis Spectrophotometer	UV –1800 Shimadzu	5.025	20/04/2011	86
3	Digital Trinocular Microscope	Lx 400 Labomed	0.78	20/04/2011	16
4	Vertical Slab Gel Electrophoresis	02 -00142 TechnoSource	0.14	29/03/2011	2
5	Submarine Electrophoresis Unit	08 -00105 TechnoSource	0.16	3/05/2011	2
6	Electrophoresis Power Supply	PAGE-100 TechnoSource	0.45	29/03/2011	2
7	Western Blot System	MX – 246 – 01 Medox	0.13	3/05/2011	
8	Computer (1 No.)	p6338in HP Pavilion	0.4559	21/01/2011	7
9	Laser Printer	LBP 2900B Canon	0.0659	21/01/2011	7
10	Gel Rocker	MX – 1290 -02 Medox	0.18	29/03/2011	2
11	Electronic Balance	JA -310 Shinko	0.35	29/03/2011	4
12	Refrigerator (175 Litres)	185RP3 LG	0.099	20/04/2011	4
13	Micropipettes	Proline-var. 0.1 – 3 µl BioLit	0.105	29/03/2011	7
14	Micropipettes	Proline-var. 2 – 20 µl BioLit	0.05	29/03/2011	7
15	Micropipettes	Proline-var. 10 – 100 µl BioLit	0.05	29/03/2011	7
16	Micropipettes	Proline-var. 20 – 200 µl BioLit	0.05	29/03/2011	7
17	Micropipettes	Proline-var. 100 – 1000 µl BioLit	0.05	29/03/2011	7
18	Micropipettes	Proline-var. 1000 – 5000 µl BioLit	0.05	29/03/2011	7
19	pH meter	CL 110 Chemiline	0.07	29/03/2011	7
20	Hot Air Oven	143(OUA–2) NSW	0.2019	20/04/2011	7
21	Serological Water Bath	125(SBS-1) NSW	0.1298	20/04/2011	3

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Sl. No	Name of the equipment	Model No & Brand Name	Cost in Indian Rupees (in Lacs)	Date of Purchase	No. of researchers/ students utilized Equipments
22	Autoclave	229 NSW	0.0979	20/04/2011	25
23	UPS	FPS 600 Foxin	0.02	21/01/2011	
24	Online UPS with 16 Nos. Batteries	IntelliQ Series SUKAM	3.95	26/03/2014	
25	Inverter with 8 Nos. Batteries	IntelliQ Series SUKAM	1.95	27/03/2014	
Total cost =			19, 31, 045		

9. Detail of workshop/Training/Awareness programmes conducted:

Sl. No.	Topic	Duration and Date	No. of Participants
1.	“A Training Programme on: “Basic Biological Experimentation” for Class – X students of R.B. Anup Chand Hindi Secondary School, Shillong - <i>Hands-on Training Programme.</i>	One day 4th of September 2018	23
2	“Good cultivation Practices and Post-Harvest Processing of Some Important Horticultural Crops of Meghalaya” - <i>Training Programme for Bsc VI Semester students of Lady Keane College, Shillong.</i>	One Month 15 th November-14 th of December 2018	27
3	“Science for the people and the people for Science” - <i>A Talk for the BSc 4th Semester Students of Lady Keane College, Shillong.</i>	One Day 28 th of February, 2019	70
4	“Skill to Entrepreneurship- The Next Level” - <i>Training Workshop for Bsc VI Semester students of Lady Keane College at St.Edmund’s Shillong.</i>	Four Days 12 th -15 th of March 2019	3

**1. A Training Programme on: “Basic Biological Experimentation” for Class
– X students of R.B. Anup Chand Hindi Secondary School, Shillong**



Fig.1: Students and teacher during A Training Programme on: “Basic Biological Experimentation”

**2. A Month Training Programme on: “Good cultivation Practices and Post-Harvest Processing of Some Important Horticultural Crops of Meghalaya”
for Bsc VI Semester Students of Lady Keane College, Shillong**



Fig.2: Photos during the One Month Training Programme on: “Good cultivation Practices and Post-Harvest Processing of Some Important Horticultural Crops of Meghalaya”

3. A Talk on “Science for the people and the people for Science” for BSc 4th Semester Students of Lady Keane College, Shillong.

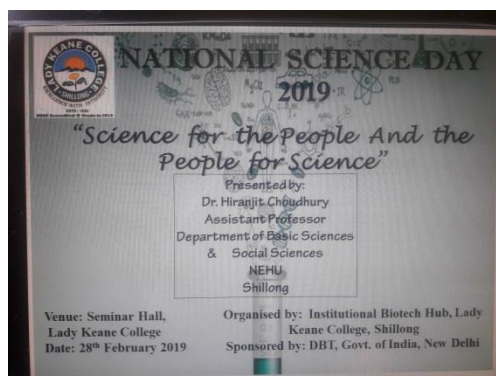


Fig.3: Photos on A Talk , “Science for the people and the people for Science”

4. Training Workshop “Skill to Entrepreneurship- The Next Level” for Bsc VI Semester students of Lady Keane College at St. Edmund’s Shillong.



Fig.4: Photos during the Training Workshop on, “Skill to Entrepreneurship- The Next Level”



Fig.5: Students giving a presentation on, “Mushroom Cultivation” during the training programme

(a) Workshop/seminars/awareness programmes conducted:

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(b) No. of students doing project works using biotech hub facility:

UG:

PG:

Ph.D.: **1 (One) Undergoing**

(c) Courses/Study programmes supported (by biotech hub infrastructure & facilities):

Sl. No.	Level (UG/PG/PhD)	Name of the Course/Study programme	Nature of support
1.	UG	Biochemistry (Honours), Botany (Honours), Zoology (Honours)	Provided equipments for conducting the practicals
2.	Ph.D	Ph.D programme	Provided equipments, chemicals and other miscellaneous requirements

(d) Outreach programmes conducted:

Sl. No	Topic	Name of the Institution where conducted	Duration and Date	Level of participants
1	An Outreach Programme on: “Importance and Applications of Biotechnology” for the Class XI and XII Science students	Laban Bengalee Boys’ Higher Secondary School	One Day 23rd of June 2018.	30
2.	An Outreach Programme on: “Basic Biological Technique” for the Class IX and X Student	Pearly dew Higher Secondary School	One Day 7 th of March 2019	46

1. An Outreach Programme on: “Importance and Applications of Biotechnology” at Laban Bengalee Boys’ Higher Secondary School



Fig.: Students during the lecture on: “Importance and Applications of Biotechnology”

2. An Outreach Programme on: “Basic Biological Technique” at Pearly dew Higher Secondary School



Fig.: Students during the lecture on on: “Basic Biological Technique”

(a) No. of papers published/presented with impact factor : (Provide a list on a separate sheet, if necessary. Papers with due acknowledgements to the Biotech Hub should only be listed.)

- **Book Chapter:** Syngai, G.G., Ahmed, G. **Lysozyme: An antimicrobial enzyme in food applications.** In: Kuddus M. (Eds.) **Enzymes in Food Biotechnology [ELSEVIER]** (Accepted)

10. Major achievements of the Biotech Hub during the year:

- **Outreach Awareness Programmes** were conducted for school students of **Class IX and Class X** and also to higher secondary students of **Class XI and Class XII Science** in **2 different schools** in the city and outskirts with the participation of **76 students**.
- **Training Programmes** conducted were 3 in all and with a total number of **53 students** who could be trained.
- We came up with the **4nd Issue** of the **Keanean Bio Connect Newsletter**.
- **National Science Day -2019** was observed in the College by organizing a talk with Dr. Hiranjit Choudhury Assistant Professor, Department of Basic Sciences & Social Sciences, NEHU as the Resource Person.
- Provided **infrastructural support** to the **Undergraduate Life Science Programmes**.
- **Standard Operating Protocols** for the experiments conducted during the training programmes have been compiled in the form of manuals.
- **Standard Operating Procedures (SOPs)** of the high-end equipment's continues to be maintained in the Institutional Biotech Hub Laboratory.

12. Service provided:

- No. of students/workers utilizing the facilities:
- **Students – 5**
- **Faculty – 1(Zoology) and 2(Biochemistry)**

13. Manpower Recruitment Details:

Sl. No.	Name	Designation	Specialization	Period of engagement
1.	Mr. Badaplang Sohkhlet	SRF	Biochemistry	From 16 th May 2011 till 9 th July 2014
2.	Ms. Abigail Majaw Laloo	JRF	Biochemistry	From 16 th October 2014 till 31 st December 2015
3	Ms. Melarahun Shisha Lyngkhohi	JRF	Biotechnology	From 6 th April 2016 till 12 th April 2017
4	Ms. Baphilinia Jones Myllemngap	JRF	Bioinformatics	From 1 st August 2017 till 25 th June 2018
5	Ms. Dalthia Lyngdoh	JRF	Microbiology	From 1st November 2018 till date
6	Mr. Banmanbha Tymthai	Laboratory Attendant	-	On a monthly basis

14. Future activities and proposed action plan:

- Training Programmes will be conducted for enhancing the practical skills of the students.
- Outreach and Awareness Programmes will be organized for familiarizing students with the fields Biotechnology and Biological Sciences.
- Publication of Research Papers.
- Publication of the 5th Issue of the Keanean Bio Connect Newsletter.
- Invited Lectures by Scientists/Academicians.

15. Additional Details

- (i) Name of the Co-coordinator : **Mrs. W. Lyngdoh, Assistant Professor**
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Tel., fax & mobile no. : **09436102535 (M)**
Email: **lyngdohwanda@rediffmail.com**
- (ii) Name of the Co-coordinator : **Dr. S. Dohling, Assistant Professor**
Address: **Dept. of Botany, Lady Keane College, Shillong – 793001, Meghalaya**
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