DEPARTMENT OF BIO-TECHNOLOGY
CHAUDHARY DEVI LAL UNIVERSITY, SIRSA

To

The In-Charge,
University Website,
Chaudhary Devi Lal University,
Sirsa

Sub: Update the information of the Department on the University Website.

Kindly refer to your letter No. UCC/Web/17/67-119 dated 06.03.2017 and No. UCC/ Web/ 17/ 277-336 dated 19.07.2017.

The information of Department of Biotechnology is as under:

<table>
<tr><th>Heading</th><th>Particulars</th></tr>
<tr><td>Name of the Faculty</td><td>Prof. S. K. Gahlawat,
Prof. R. K. Salar,
Prof. Priyanka Siwach,
Dr. J. S. Duhan</td></tr>
<tr><td>Faculty Information (including constitutions, appointment of Dean etc.)</td><td>Prof. S. K. Gahlawat- Dean, Life Sciences.
Prof. S. K. Gahlawat- Chairperson, Deptt. of Biotechnology, Food Science & Technology.
Prof. S. K. Gahlawat- Dean Research
Prof. S. K. Gahlawat- Director, Community Radio Station, CDLU Sirsa.</td></tr>
<tr><td>Name of the Department</td><td>BIOTECHNOLOGY</td></tr>
<tr><td>1. Department Profile</td><td>Attached at annexure -A</td></tr>
<tr><td>2. Courses Offered (including objective, minimum durations (years), intake, admission procedure, total annual fee (in Rs,) etc.)</td><td>
<table>
<tr><th>Minimum Duration</th><th>Intake</th><th>Admission Procedure</th><th>Annual fee in Rs.</th></tr>
<tr><td>Ph. D.</td><td>28</td><td>Entrance test</td><td>13100.00</td></tr>
<tr><td>M. Phil.</td><td>10</td><td>Entrance test</td><td>31820.00</td></tr>
<tr><td>M. Sc.</td><td>40</td><td>Merit base</td><td>18330.00</td></tr>
</table>
Objectives – Research & Development
</td></tr>
<tr><td>3. Faculty Information (including their qualifications, designations, area of specialization etc.)</td><td>Attached at annexure -A</td></tr>
<tr><td>4. Faculties</td><td>Attached at annexure -A</td></tr>
<tr><td>5. Other Information</td><td>Attached at annexure -A</td></tr>
</table>

The soft copy of the above has been sent to your mail-ID i.e. websitecdlu@gmail.com

This is for your information and for further necessary action.

Encls: As above.

Chairperson

Annexure -A

DEPARTMENT OF BIO-TECHNOLOGY
CHAUDHARY DEVI LAL UNIVERSITY, SIRSA

ABOUT

The Department of Biotechnology at Chaudhary Devi Lal University, Sirsa was established during June, 2004 with major funding from the State Government. The first batch of the students was admitted in August, 2004. So far the department has produced about 250 post graduate students, most of them have preferred to go for higher studies and others have joined academics and the industry. Currently, the Department is running M.Sc. (two year) M. Phil. (One year) and Ph.D. in Biotechnology. The Department having well equipped air conditioned laboratory facilities for research and development is located at first floor of CV Raman Bhawan.

VISION

Global acknowledgement as a centre of excellence and a premier institute in the frontier areas of biotechnology with an emphasis on realizing the full potential of biotechnology as one of the greatest intellectual enterprise of mankind.

MISSION

This department aims to generate highly skilled manpower having expertise in key areas of modern biology and biotechnology by keeping an integrated approach towards education as well as research.

OBJECTIVES

- ✓ To provide highest quality technical education to the students and equipping them with competency in different disciplines of biotechnology.
- ✓ To undertake research and development activities in frontline areas like microbial biotechnology, bioprocess engineering, genetic engineering, immunology, plant and animal tissue culture etc.
- ✓ Enrichment and enhancement of intellectual knowledge base through organization of seminars, conferences and workshops.
- ✓ Placement of the students in biotechnology related industries/institutes.

PROGRAMME RUN BY THE DEPARTMENT

Academic Programme	**Seats Available**
M. Sc.	40
M. Phil. (Self Finance Scheme)	10
Ph. D.	28

THRUST AREAS OF RESEARCH

- Microbial Biotechnology
- Plant Biotechnology
- Animal Biotechnology

FACULTY

Sr. No.	Name of Teacher	Designation	Specialization	Contact
1	Dr. S.K. Gahlawat	Professor & **Chairman**	Animal Biotechnology & Immunology	E-mail: skgcdlu@gmail.com Office Tel. 01666-247143
2	Dr. R. K. Salar	Professor	Microbial Biotechnology	E-mail: rajsalar@rediffmail.com
3.	Dr. Priyanka Siwach	Professor	Plant Molecular Biology	E-mail: psiwach29@gmail.com
4.	Dr. J. S. Duhan	Assistant Professor	Microbial & Environmental Biology	E-mail: duhanjs68@gmail.com

MAJOR RESEARCH PROJECTS SANCTIONED:

S/No.	Project Title	Project Investigator	Funding Agency	Amount (Rs.)	Status
1.	Biodegradation of Xenobiotics by microorganisms isolated from hotspring soils	Dr. Raj Kumar Salar (P.I.)	Haryana State Council for Science & Technology, Chandigarh (2007-09)	4,33,000	Complete
2.	Development of easy and inexpensive Loop-mediated isothermal amplification (LAMP) kit for the detection of bacterial fish pathogens	Dr. S.K. Gahlawat (P.I) & Dr. J.S. Duhan (Co-PI)	UGC, New Delhi (2011-14)	9,69,000	Complete
3.	Modulation of phenoloic content and antioxidant activity of barley and pearl millet using solid state fermentation	Dr. Raj Kumar Salar (P.I.)	UGC, New Delhi (2012-15)	13,03,300	Complete
4.	Association mapping of fibre traits in Gossypium arboretum L. accessing using SSR, ISSR and AFLP markers	Dr. Priyanka Siwach(P.I.)	UGC, New Delhi (2012-15)	11,58,800	Complete

FACILITIES AVAILABLE IN THE DEPARTMENT

1. Gel documentation system (BioRad)
2. Thermocycler (BioRad)
3. Thermocycler (ABI)
4. Gel electrophoresis units (03)
5. Nanodrop (Thermo Scientific)
6. Refrigerator (-80^0 C)
7. Spectrophotometers (3)
8. Laminar airflow (06)
9. Deep Freeze -20oC (03)
10. Refrigerators (06)
11. BOD incubators (06)
12. Shaker incubators (03)
13. Ice flaking machine (01)
14. Refrigerated circulating liquid bath
15. Autoclaves (05)
16. Refrigerated centrifuges (02)
17. Hot air Ovens (05)
18. Microwave oven (02)
19. Precision balances (04)
20. Inverted microscope (01)
21. Photomicrographic unit (01)
22. Spinwin (02)
23. Cryogenic cylinders
24. Air curtains
25. Digital dry bath
26. Distillation units (02)
27. Rotary vacuum evaporator

Ph. D. DEGREE AWARDED TILL DATE = 19 (Nineteen)

CURRENT RESEARCH WORK BEING CARRIED OUT BY Ph.D. STUDENTS

S/ No.	Name of the Candidate	Name of the Guide / Co-Guide	Topic of Research as approved by DRC
1.	Ms. Pooja	Dr. J. S. Duhan (Guide)	Enhancement of antioxidant potential of cereals and pulses by solid state fermentation
2.	Rajni Dahiya	Dr. S. K. Gahlawat (Guide) & Dr. balvinder Manuja (Co-Guide)	Genetic Diversity, expression analysis and association of myxovirus resistance gene (Mx) with susceptibility vis-à-vis resistance against equine influenza virus in horses
3.	Amrinder Singh	Dr. Raj Kumar Salar (Guide)	Isolation, Characterization and Structural Elucidation of Potential Antimicrobial Compounds from Bacteria

4.	Ms. Shalima Sihag	Dr. J. S. Duhan (Guide) & Dr. Subhash Kajla (Co-Guide)	Micropropagation of *Aloe vera* and assessment of genetic diversity in different cultivars of aloe using PCR based technology
5.	Ravinder Kumar	Dr. Raj Kumar Salar (Guide) & Dr. Vinod Chhokar (Co-Guide)	Analysis of genetic diversity in aloe (*Aloe vera* L.) genotypes using molecular markers
6.	Rajesh Kumar Dahiya	Dr. Raj Kumar Salar (Guide) & Dr. Sanjay Kumar (Co-Guide)	Studies on the genomic diversity of *Theileria equi* among different geographic isolates
7.	Poonam Dhanda	Dr. Priyanka Siwach (Guide) & Dr. Subhash Kajla (Co-Guide)	Micropropagation of elite genotype of *Chlorophytum borivianum* Sant. Et Fernanad and biochemical characterization of various *in vitro* raised cultures
8	Pardeep Kumar	Dr. J. S. Duhan (Guide)	Bioaugmentation of phenolics and antioxidant potential of peanut waste (peanut press- cake) by fermentation with GRAS fungal and bacterial strains.
9.	Swati Panwar	Dr. Raj Kumar Salar(Guide) & Dr. Subhash Kajla (Co-Guide)	Micropropagation, sex determination and assessment of genetic diversity in *carica papaya* l.
10.	Sheetal Saini	Dr. Priyanka Siwach(Guide) & Dr. Harisankar Singha (Co-Guide)	Expression of recombinant equine cytokines and analysis of their biological activities
11.	Amit Kumar	Dr. S.K. Gahlawat (Guide) & Dr. Vineeta Singh (Co-Guide)	Characterization of *dhfr* and *dhps* genotypes in field isolates of *plasmodium falciparum* and their correlation with gametocytes
12.	Sapna	Dr. Joginder Singh Duhan(Guide)& Dr. Subhash Kajla (Co-Guide)	Mocropropagation, fidelity testing and assessment of genetic diversity in turmeric (*curcuma longa* l.)
13.	Naresh Kumar	Dr. Raj Kumar Salar (Guide)	Vincristine loaded folic acid-chitosan conjugated nanoparticles for multidrug resistant cancer therapy against small cell lung cancer (sclc)
14.	Megha	Dr. Priyanka Siwach (Guide)	Assembly, annotation and mirna characterization of expressed sequence tags (ests) obtained from *gossypium arboreum* l.
15.	Pooja Bansal	Dr. Joginder Singh Duhan (Guide)	Biogenesis of nanoparticles and its potential in controlling plant pathogenic diseases

16.	Sukhvinder Singh	Dr. Raj Kumar Salar	Modulation of antioxidant activity and DNA damage protection of pearl millet using solid state fermentation with filamentous fungi.
17.	Nidhi Saini	Dr. S.K. Gahlawat/ Dr. Viney Lather	*In silico* and phytochemical screening of various medicinal plants for different therapeutic activities
18.	Surinder Paul	Dr. J. S. Duhan/ Dr. Ratan Tiwari	Elucidating heat tolerance mechanism in wheat genotype K7903 (HALNA)
19.	Ravinder	Dr. J. S. Duhan	Preparation, characterization and evaluation of fungicide loaded nanoformulations against fungal diseases in vegetable crops
20.	Shivangi	Dr. S.K. Gahlawat/ Dr. Subhash Kajla	Developing transgenic tomatoes expressing *Aspergillus niger* phytase to reduce micronutrient malnutrition in human

DEPARTMENTAL RESEARCH COMMITTEE

1. Prof. S.K. Gahlawat — Chairman
2. Prof. R.K. Salar — Member
3. Prof. Priyanka Siwach — Member
4. Dr. J.S. Duhan — Member

POST GRADUATE BOARD OF STUDIES & RESEARCH IN BIOTECHNOLOGY

1. Prof. S.K. Gahlawat — Chairman
2. Prof. R.K. Salar — Member
3. Prof. Priyanka Siwach — Member
4. Dr. J.S. Duhan — Member
5. Prof. A. K. Chhillar — Outside Member
6. Prof. S. S. Sindhu — Outside Member

UNDER GRADUATE BOARD OF STUDIES IN BIOTECHNOLOGY

1. Prof. S. K. Gahlawat, — Chairperson
2. Prof. Raj Kumar Salar — Member
3. Dr. J. S. Duhan — Member
4. Dr. Namita Singh — Outside Member
5. Sh. Vinod Kumar — Outside Member

LIBRARY FACILITIES

A number of latest books are available on each course in the Central Library. Three books can be issued at a time to each student. Various journals have been subscribed by this department and online journals have also been subscribed by the University to strengthen the research activities. A reading hall is also available round the clock for the students in the Vivekananda Library.

CULTURAL/CO-CURRICULAR ACTIVITIES

Several students of the department are actively participating in the cultural activities organized by the department. Students are also participating in other cultural activities organized by the DYW, NSS, DSW of CDLU, Sirsa.

The department has established a Biotechnology Forum. This is a platform to enhance the scientific activities in the department of Biotechnology. Monthly meeting on last Saturday of every month is held where seminars/ discussions are held about the current developments in the field of Biotechnology.

TRAINING AND PLACEMENT

The department has established a training & placement cell under the Director, Career and Counseling Cell of Chaudhary Devi Lal University, Sirsa. More than 70 per cent students are well placed in reputed institutes/industry/ Govt. departments.

Chairperson