



# SYMBIOSIS SCHOOL OF BIOLOGICAL SCIENCES

## Symbiosis International University

(Established under section 3 of the UGC Act, 1956)

Re-accredited by NAAC with 'A' grade

Founder: Prof. Dr. S. B. Mujumdar, M. Sc., Ph. D. (Awarded Padma Bhushan and Padma Shri by President of India)

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### 7.2.1\_SSBS\_Best Practices (1)\_2017-2018

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S.No	Name of Practice
1	Industry Academia Collaboration



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### 7.2.1 Best Practices 1 (2017 – 2018)

#### 1. Title of the Practice: Industry Academia Collaboration

#### 2. Objectives of the Practice:

- Intense interactions with biotechnology industries at various platforms mutually beneficial and to create springboards for students and faculty
- Visit of Industrial and Academic Experts to SSBS and Interaction with students and also students visit to Industries
- Students dissertation work in Industries and joint publications between Industries and SSBS
- To create awareness among students about the current developments, job opportunities and start-ups and to establish new contacts with food and bio-tech industries

#### 3. The Context:

The post graduate students in Biotechnology and Nutrition and Dietetics are offered courses such as Bioprocess Engineering and Food Science. In these students are exposed to theoretical and experimental aspects. As a part of practical sessions students visit to Industries and Industrialists visit to SSBS provides students with unique experience of understanding industrial sector that can be replicated in practice.

#### 4. The Practice:

Visit to Industries such as Tata Chemical Innovation Centre, Vasantdada Sugar Institute and other food industries exposed the students to techniques and technologies used in processing and manufacturing various products such as food, nutraceuticals, pharmaceuticals, biopharmaceuticals, vaccines etc. In-depth analysis of scientific research problems by students and faculty members. Students attended CSIR-CFTRI Conclave organized by NAFARI and MCCIA.

#### 5. Evidence of Success:

Students showed improved interests in equipping their skills in laboratory techniques. These visits have fueled the student's interests to take up internships and dissertation work in various industries and institutes. Students have joined in companies like CFTRI, BARC, NCL, CCMB etc.

#### 6. Problems Encountered and Resources Required:

Traffic related issues during Industrial visits.



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21/7/17

### Report on visit to TATA Chemicals Innovation Centre, Pune

**Programme:** Industrial visits

**Date:** 21/7/17

**Academic year:** 2017-18

**Venue:** Tata chemicals Innovation Centre, Paud Road, Pune,  
Maharashtra – 412111

**Number of Participants:** 30 M.Sc (Biotechnology, 16-18 batch) students and  
two faculty members

**Concerned Subjects:** Bioprocess Engineering and Emerging Technologies

**Coordinators:** Dr. Neetu Mishta, Dr. Santosh Koratkar and Dr. Selvan  
Ravindran

New technology is designed for agricultural applications. Nanotechnology-based micronutrient formulations and slow release pesticides are developed to reduce pesticide application quantity while improving yield. Students also learned the importance of chromatography, mass spectrometry and other high end instruments used for the characterization of products. Thirty students from M.Sc (Biotechnology, 16-18 batch) visited the facility.

Students witnessed the production of fructose oligosaccharide by fermentation technique. Fructose oligosaccharide is a sugar free sweetener and a naturally occurring dietary fibre with sweet taste. This can be used to manufacture chocolates, sugar free cookies, candy etc. The lab has also formulated a couple of healthy, sugar free spice-beverage mixes. These have been created using bioactives developed by the nutraceutical team. So far they've produced a haldi (turmeric) milk mix and a ginger fenugreek spice mix.

Report prepared by: Dr. Selvan Ravindran



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Visit to Tata chemicals innovation centre, Pune on 21/7/17



### Symbiosis School of Biomedical Sciences

Attendance Sheet M.Sc. Biotechnology (Batch 2016-18)

Date: 21/7/17

SR.NO.	STUDENT NAME	PRN No.	Attendance
1	AMRUTA THOSAR	16040342001	Present
2	BELLARY SHWETA	16040342002	Present
3	BORSE NAMITA	16040342003	Present
4	FATEMAH BENSABEB	16040342004	Present
5	KADAM KOMAL	16040342006	Present
6	KHAMBADKAR RAJESHREE	16040342007	Present
7	MACHAIAH K P	16040342008	Present
8	MAPELKHAR VINAYA	16040342009	Present
9	MATHUR ASAVARI	16040342010	Present
10	MEHTA HANISHA	16040342011	Present
11	MEHULI NAG BISWAS	16040342012	Present
12	NIDHI M SAPRE	16040342013	Present
13	NIVEDITA S. PUJARI	16040342014	Present
14	PRATINIDHI ASHUTOSH	16040342015	Present
15	SHREYANSH SHARMA	16040342016	Present
16	SOMAN VAISHNAVI	16040342017	Present
17	SONANIS MONIKA	16040342018	Present
18	SURVE SARVESH	16040342019	Present
19	TANVI ABHANG	16040342020	Present
20	UTEKAR SRUSHTI	16040342022	Present
21	VINAYAK IYER	16040342023	Present
22	ANUJA PARANJAPE	16040342024	Present
23	JOSHEE KSHAMATA	16040342025	Present
24	ANKITA GALGALE	16040342026	Present
25	SHRUSHTI SAHU	16040342027	Present
26	SURESHI CHATURVEDI	16040342028	Present
27	KOMAL TEHRE	16040342029	Present
28	BHAKTI SHUKE	16040342030	Present
29	NEHA AWALE	16040342032	Present
30	MADHUMITA PUROHIT	16040342033	Present



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29/8/17

### Report on visit to Vasantdada Sugar Institute

**Programme:** Industrial visits

**Date:** 29/8/17

**Academic year:** 2017-18

**Venue:** Vasantdada Sugar Institute, Manjari Budruk, Pune,  
Maharashtra – 412307

**Number of Participants:** 28 M.Sc (Biotechnology, 16-18batch) students, one  
Faculty member and one Scientist

**Concerned Subjects:** Bioprocess Engineering, Emerging Technologies,  
Molecular biology and Environmental Biotechnology

**Coordinators:** Dr. Selvan Ravindran and Dr. Pooja Singh

Scientists from environmental sciences unit explained the students about the process of converting sugarcane waste to biofertilizers. Students also learned about the generation of drought tolerant and salinity tolerant variety of sugarcane from molecular biology & genetics department. Importance of analytical technologies such as chromatography, spectroscopy and mass spectrometry in research and development was also explained. In the fermentation facility, students witnessed the production of wine from grapes with the aid of microorganism. Students learned about the industrial hands on experiences by interacting with the industrial professionals.

Report prepared by: Dr. Selvan Ravindran



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Visit to Vasantdada sugar institute, Pune on 29/8/17



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3	BORSE NAMITA	16040342003	Present
4	FATEMAH BENSABEB	16040342004	Present
5	KADAM KOMAL	16040342006	Absent
6	KHAMBADKAR RAJESHREE	16040342007	Present
7	MACHAJAH K P	16040342008	Present
8	MAPELVAR VINAYA	16040342009	Present
9	MATHUR ASAVARI	16040342010	Present
10	MEHTA HANISHA	16040342011	Present
11	MEHULI NAG BISWAS	16040342012	Absent
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27	KOMAL TEHRE	16040342029	Present
28	BHAKTI SHUKE	16040342030	Present
29	NEHA AWALE	16040342032	Present
30	MADHUMITA PUROHIT	16040342033	Present

M.Sc (Biotechnology) students attended Food Industry-CSIR-CFTRI (Central Food Technological Research Institute) conclave organized by Maharashtra Chamber of Commerce, Industries and Agriculture along with NAFARI on August, 2017.



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### Food Industry-CSIIR-CFTRI Conclave

Exploring horizons with Food Business Leaders  
Thursday, 31<sup>st</sup> August 2017

Indicative Program		
Time	Program / Address	Guests / Speaker / Faculty
9.00 - 10.00 a.m	Registration & Networking Tea, Coffee & Snacks	All Guests, Delegates & Participants
10.00 am onwards	Inauguration	
5 Minutes	Welcome National Anthem	Master of Ceremony
5 Minutes	Felicitation	
5 Minutes	About MCCIA	Dr. Anant Sardeshmukh DG, MCCIA, Pune
5 Minutes	Address by Director NAFARI Activities of Pune Food Cluster	Mr. Vinay Oswal, Director NAFARI
5 Minutes	Address by MCCIA Chairman Food Processing Industry Committee	Mr. Anand Chordia, Chairman Food Processing Ind. Committee of MCCIA
5 Minutes	Address by President, MCCIA	Mr. Pramod Chandhkar President MCCIA
10.30 to 11.00 am (30 min)	Introduction & Inaugural Address by CFTRI Director*	Dr. Kam Rajasekharam, Director, CFTRI, Mysuru
11.00 to 11.30 am	Tea break	
Technological/ Food Business Sessions		
Time	Program	Guests / Speaker / Faculty
11.30 to 11.40 (30 min)	Session 1: Scale-up and automation in Indian Traditional Food Industry: Challenges and opportunities	CFTRI Scientist: Dr. H Umesh Bebbar
11.40 - 12.30 pm	Session 2: Opportunities in the processing of Cereals and Pulses	CFTRI Scientist: Dr. A. Srinivas
12.30 - 12.40pm	Session 3: Future perspective in Wheat Milling & Bakery Industries	CFTRI Scientist: Dr. Sudhir G. Walite

M.Sc. students had an opportunity to attend the conclave and had a discussion with industrial experts from food industries, Scientists from CFTRI and NAFARI. Few students opted to do their dissertation work in CFTRI (Central Food Technological Research Institute) and for job in Food Industries.



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### M.Sc students dissertation work in Industries / CSIR labs

Student's name	Institute Name	Guide
Bellary Shweta Venkatesh	CFTRI	Dr. R. Sarada
Fatemah Bensaheb	BITS Pilani, Dubai	Dr. Trupti Swarup Gokhale
Machalaiah K P	CFTRI	Dr. Sandeep Mudliar
Mapelkar Vinaya Chandrakant Smita	BARC	Dr. Devashish Rath
Mathur Asavari Vibha	BARC	Dr. Rachna Aggarwal
Mehta Hanisha Umeshbhai	Prerana Bio Innovations Research pvt. Ltd, Gujrat	Dr. Deepak Barot
Mehuli Nag Biswas	Environment Protection Training and Research Institute (EPTRI); Telangana	Dr. M. Suneela
Nidhi Milind Sapre	NCL	Dr. H. V. ADIKANE
Nivedita S. Pujari	DFRL mysore	Dr. Farhath Khanum
Sonanis Monika Dilip Vijaya	BARC	Dr. Amit Kunwar
Vinayak Iyer	CCMB-H	Dr. M. V. Jagannadham
Srishti Sahu	Center for Interdisciplinary Research in Basic Sciences	Dr. Syed Naquikazim
Surbhi Chaturvedi	Nayati Medicity	Dr. Jyoti Goyal
Komal Rajabhau Tehre	NARI	Dr. Swarali Kurle



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## SSBS Pune Lecture Series for graduating students

### Symbiosis School of Biological Sciences, Pune Lecture

**Finishing School** for M.Sc. Biotechnology & M.Sc. Nutrition & Dietetics (Batch- 2015-17)

Date & Time: May 27, 2017, 9 am – 1pm

Venue: SIT Seminar Hall, Symbiosis School of Biological Sciences, Lavale Campus, Pune

Venue: Symbiosis School of Biological Sciences, Lavale Campus, Pune

### Schedule

Sr. No.	Speakers	Topic
1	Mr. Dilip Thosar, CEO, SCEI, Symbiosis International University, Pune	"Career option in start up space for Biotechnologists"
2	Dr. Rajendra Gade, Associate Dean, V. N. College of Agricultural Biotechnology	" Exploring efficient antagonist and phytochemical in plant disease management system" and its relevance to start ups
3	Mr. Sanjay Indani Head-Food Safety-Trainer and Auditor Safefoodz Solutions, New Panvel, Navi Mumbai	"Opportunities for BioTech and Nutrition students in Food Industries"
4.	Ms. Khusbhu	"Opportunities for BioTech and Nutrition students in Food Industries"



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### Ph.D. student's dissertation work at Industries, CSIR labs and ICMR labs

Students are also registered for Ph.D. in SSBS and work in Industries or at Council of Scientific and Industrial Research labs towards task-oriented projects to address practical problems.

All the Ph.D. students are mentored by SSBS Faculty members

S.No	Name of the Student	Year	Name of the Guide	Institute
1	Srividya Ravi	2014	Dr. Anuradha Vaidya	National Chemical Laboratory, Pune
2	Priyanka Patel	2014	Dr. Vinay Rale	National Institute for Research in Tribal Health, Indian Council of Medical Research, Jabalpur, M.P.-India
3	Vishal Nanasaheb Pavitrakar	2016	Dr. Selvan Ravindran	Lupin Research Park, Pune
4	Amalesh Jayant Tambe	2016	Dr. Selvan Ravindran	Serum Institute of India Pvt Ltd (SIPL), Pune
5	Digamber Singh Chahar	2016	Dr. Selvan Ravindran	Serum Institute of India Pvt Ltd (SIPL), Pune
6	Santosh Balu Dumbare	2016	Dr. Selvan Ravindran	Lupin Research Park, Pune
7	Akshay Deshpande	2016	Dr. Sunil Saroj	Serum Institute of India Pvt Ltd (SIPL), Pune
8	Kunal Jani	2016	Dr. Vinaykumar Rale	Microbial Culture Collection (MCC), NCCS, India
9	Neihenuo Chuzho	2016	Dr. Neetu Mishra	National Institute of Pathology (NIP), New Delhi
10	Rohini Raman	2017	Prof. Kavitha Menon	Sanzyme-nutrus Ltd Hyderabad
11	Krunal Patel	2017	Dr. Vinaykumar Rale	Serum Institute of India Pvt Ltd (SIPL), Pune



*K. S.*