

# Curriculum Vitae



Name: Dr Sheetal Y Sonawdekar, Ph. D. (Biotechnology), M. Sc. (Biophysics)

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## Objective

To work in a challenging and fast paced environment, leveraging my current knowledge and fostering creativity, with many learning opportunities. I have interpersonal skills, good work ethic and the ability to work well in a team or individual environment.

## Strengths

Extrovert, Adaptable to any sort of environment, Determined, Hard Working, Punctual,  
Good communication skills

Educational Qualification				
Education	Subject	University	Year	Class
PhD	Biotechnology	D Y Patil	2017	
M.Sc.	Biophysics	Mumbai	2002	First Class
B.Sc.	Microbiology, Biotechnology	Mumbai	2004	First Class

## Professional Summary

Have a total experience of 19 years for working in academics and research field. Working as Asst Professor with School of Biotechnology and Bioinformatics, D Y Patil Deemed to

be University as an Asst. Prof. since September 2007. Prior to that was working as Lecturer since 2004. My expertise lies in Environmental microbiology, Bioremediation, Industrial fermentations, Food microbiology, and formulations. Over the years I have guided more than 48 graduate and postgraduate students. Currently, I have two patents applied. I have 6 papers to my credit with work done in the field of bioremediation and environmental studies. I love to work in challenging environments which helps me to excel. I have proven myself with good leadership qualities as well as excellent team bonding. I am a highly motivated individual who likes to work as a team and succeed.

### **Departmental roles**

1. Chairperson, Mentors committee
2. Convenor, Local safety committee
3. Member, Research extension committee
4. Chairperson, Tutor ward committee
5. Chairperson, Student council
6. Chairperson, Student Activity committee
7. Member, Student grievance committee
8. Chairperson, Hospitality committee, NSFIBB-2014, NCIFEH-2018
9. Convenor, Registration committee, NCFIBB-2014

I have also been a part of syllabus revision as well as question bank development committees.

### **Administrative Responsibility**

1. To represent University and department in UGC, NAAC regulatory bodies in national and international levels. (Completed 03 NAAC, 02 UGC and 01 NIRF Audit Cycle).
2. Member of Criteria V and II data compilation and organization for National Accrediting bodies like NAAC, UGC (02 cycles each)
3. Have worked as resource person for organizing conferences and events at SBBDYPU like NCFIEH 2018, VoBT,

## **Seminars and Workshops attended**

### **2022-23:**

1. Participated in webinar "Quality validation of Cosmetic products by Certifications" on 29<sup>th</sup> June 2023 organised by IMSR, Nagpur.
2. Participated in webinar " Artificial Intelligence in Pharmacovigilance: A Future to Manage ADR" on 24<sup>th</sup> June 2023 organized by IMSR, Nagpur.
3. Completed the FDP/ Refresher course on Advanced Research Methodology Organized by M.V.S. Govt College, Ramanujan College, New Delhi from 21st May 2023 to 5th June 2023., successfully with an A grade.
4. Participated in IP Awareness/Training program under National Intellectual Awareness Mission on 08 February 2023.
2. Two-day webinar on Fermentation: Interplay of microbes, immunity and nutrition Organized by: Department of Rural Development & Agricultural Production (RDAP) North-Eastern Hill University (NEHU), Tura Campus, Meghalaya In Association with: Biotechnology Industry Research Assistance Council (BIRAC), A Government of India Enterprise on 3-4 February 2023.
3. Online National Level Webinar on “NATIONAL EDUCATION POLICY [NEP-2020]: Matching Vision with Reality” organized by Internal Quality Assurance Cell [IQAC], Dr D Y Patil School of engineering, Pune on Saturday, 3<sup>rd</sup> April 2022.

### **Previous:**

1. Webinar & Workshop on Integrated Genomics and Proteomics Approach for Cancer Research jointly organized by School of Life Sciences Mizoram University, Department of Zoology, Gauhati University, Tata Memorial Centre, ACTREC, Kharghar, Navi Mumbai on 04 December, 2021.
2. Webinar On "How to Read Scientific Literature?" in October 2021
3. A National Level seminar on Herbal Drug Industry: Mind To Product, was held on 24th Sept 2021.
4. Research Scholars Meet – 2021 (RSM-2021) on 23rd & 24th September, 2021 organized by the School of Biotechnology and Bioinformatics, D. Y. Patil Deemed to be University, Navi Mumbai.

5. Webinar on “Therapy, Care and Prevention” organized by the School of Biotechnology and Bioinformatics, D. Y. Patil Deemed to be University, Navi Mumbai as a part of the five part webinar series- Story of the Pandemic, on 28th August, 2021
6. Webinar on “Vaccines for the COVID19 Pandemic” organized by the School of Biotechnology and Bioinformatics, D. Y. Patil Deemed to be University, Navi Mumbai as a part of the five part webinar series- Story of the Pandemic, on 21st August, 2021
7. Webinar on “The Immune System in Viral Infection” organized by the School of Biotechnology and Bioinformatics, D. Y. Patil Deemed to be University, Navi Mumbai as a part of the five part webinar series- Story of the Pandemic, on 14th August, 2021
8. Webinar on “The SARS COV2 Virus and its Variants” organized by School of Biotechnology and Bioinformatics, D. Y. Patil Deemed to be University, Navi Mumbai as part of the five part webinar series- Story of the Pandemic, on 7th August, 2021
9. "A National Level One Day Seminar on Recent Developments In Drug Engineering" organised by IQAC Cell & Dept. of Pharmaceutical Chemistry, MET's IOP. on 6nd August 2021.
10. Webinar on “About Pandemics in General & Covid-19 Pandemic in Particular” organized by School of Biotechnology and Bioinformatics, D. Y. Patil Deemed to be University, Navi Mumbai as part of the five part webinar series- Story of the Pandemic, on 31st July, 2021
11. One Day Online National Symposium On "Technology Vision 2035: An Educational Perspective", organized by Thakur College of Engineering and Technology, Mumbai In Association with Technology Information, Forecasting and Assessment Council (TIFAC) held in online mode on 26 June 2021.
12. Coursework on Problems in Problem Based Learning offered by Aalborg University, Denmark.
13. International Web Conference on Global Research Initiatives for Sustainable Agriculture & Allied Sciences (GRISAAS2020) Online, Astha Foundation,

India.

14. Nutrient Acquisition by plants and plant based remedies against Viral Diseases by IQAC, Nowgong College, Nagaon, Assam
15. National Level Webinar on “Challenges in Environmental Microbiology” Department of Botany, Chakdaha College
16. National Level Webinar on “Biotechnology for Human Welfare” Department of Botany and IQAC, Netaji Subhashchandra Science College, Mulchera
17. IRMI National Webinar: Institutional Pre-award support for researchers applying for funding". DBT- India Alliance
18. Rapid and functional evaluation of virus-neutralizing antibodies using multi-parametric live cell analysis select science
19. International E-Conference on Biotechnology, Bioinformatics & Biomedicine 2020 Faculty of Applied Sciences, AIMST University, Malaysia
20. Immuno-modulation IMP botany Department of Botany, Seth Phoolchand Agrawal Smriti Postgraduate College, Nawapara-Rajim, Raipur, Chhattisgarh, India
21. Webinar on the Response of the DBT's Autonomous Institutes to COVID-19 - Part-I DBT- India Alliance
22. Antibiotic Application in Food Animal: Implication to Eggs, Chicken, Meat Safety and Environment "Centre for Molecular and Nanomedical Sciences, by Sathyabama Institute of Science and Technology, Chennai."
23. FDP: Academic Enhancement Through Quality Research by Department of Management Studies, BSAITM, Faridabad
24. FDP on Bioinformatics: Fundamental Concepts, Tools and Database by K. J. Somaiya College Of Science And Commerce, Mumbai
25. FDP Use of ICT tools for remote teaching and evaluation by Dept. of computer science, ST. Josephs degree and PG college, Hyderabad
26. FDP Engineering education and the industry: A post covid 19 perspectives by Rajiv Gandhi Institute of technology, Mumbai
27. Reflecting Higher education scenario post covid 19 organised for NAAC, by Governor of Meghalaya
28. ‘Intervention of alternative medicine for tackling and controlling COVID-19’ by

centre for molecular and nanomedical Sciences, Stayabhama Institute

29. Quantum Mechanics in Understanding Drug Discovery and Biological Processes by LLB- Schrodinger
30. Science-Academies'-IN-YAS "Science Leadership Workshop by Science Academies
31. FDP Modern Educational Tools and Pedagogical Practices for Online Teaching by Vidyalankar Institute of Technology, IETE, IIDE
32. FDP ANTI-INFECTIVE DISCOVERY AND DEVELOPMENT by SVKM's Dr. Bhanuben Nanavati College of Pharmacy, Mumbai
33. FDP: Hybrid Classroom: ICT Tools for Teaching and Learning Research Culture Society- Chennai
34. LC MS webinar by Dept. of FYIC Bioanalytical Sci. Khalsa College, Mumbai
35. Webinar on Data Analysis of GC-MS data by Dept. of FYIC Bioanalytical Sci. Khalsa College, Mumbai
36. "Role of Microbiologist in Covid 19 Pandemic" by Sanjivani Arts, Commerce and Science College, Kopergaon, Dist: Ahmednagar (MS).
37. International FDP Workshop on Research Methodology by Kandivli Education Society's B. K. Shroff College & Research Trust's Vasantraodada Patil Institute of Management Studies and Research
38. Webinar on Understanding Food Psychology by Department of Microbiology, KC College under the aegis of DBT STAR
39. Patent Data for Efficient Business Decision by Third IP Mumbai
40. Patent Analysis & Research Planning by Third IP, Mumbai
41. Online Course on Coronavirus 2019 (COVID-19) Basic Course AACC Learning Lab for Laboratory Medicine on NEJM Knowledge and is accredited by the Massachusetts Medical Society
42. Agricultural Biotechnology for Crop Improvement" by Sathyabama Institute of Science and Technology, Chennai- 600 119"
43. Completed 8 weeks FDP on "Roadmap to patents" on NPTEL-April 2019.
44. Participation in National Conference in Innovations in Food, Environment and Health care 28-29 September 2018.
45. Workshop on Flipped Learning on 19th December 2018

46. 3 Posters presented in National Conference in Innovations in Food, Environment and Health care 28-29 September 2018
47. Attended Voice of Biotech organized in association with Novozymes, October, 2017
48. Attended a National symposium on “Recent advances in Molecular Chemistry and its application” organized by SBCI at Nerul campus, 1st October 2016.
49. Recent trends in environmental biology, organized at SBB, DYPU on 29th and 30th January 2016
50. Career guidance and entrepreneurship workshop, organized by SBB, DYPU at Nerul campus on 16th March 2016
51. Organized and attended a state level workshop on “Scientific Writing” School of Biotechnology and Bioinformatics, D. Y. Patil University, 7th May 2016.
52. SBB lecture series’ 4<sup>th</sup> One day Lecture-Workshop on “Nano-to-technology” on Saturday, 18th April 2015 at School of Biotechnology and Bioinformatics, Dr D Y Patil University.
53. Paper presentation at “Recent trends and innovations in Microbial world” held at Smt. C.H.M. College, Ulhasnagar on 15-16th January, 2015.
54. DBB lecture series on “Research, Ethics & Patent” organised at Dept of Biotechnology and Bioinformatics, Dr D Y Patil University on 17<sup>th</sup> May 2014.
55. Indian Science Academy’s Lecture workshop on molecular diagnostics and therapeutics at Dept of Biotechnology and Bioinformatics, D Y Patil University on 20-21<sup>st</sup> March 2014.
56. National Conference frontiers in Biotechnology and Bioinformatics in the Dept of Biotechnology and Bioinformatics, Dr D Y Patil University on 30-31<sup>st</sup> January 2014.
57. International Symposium organized by AMI For platinum jubilee celebration on “Frontier Discoveries and Innovations in Microbiology and its Interdisciplinary Relevance”, Rohtak, Between 18-20th November 2013. Presented a poster titled, “Isolation, characterization and Identification of Hydrocarbon Degrading Bacteria”.
58. Training on Camag HPTLC System at CAMAG Switzerland recognized applications research laboratory, AnchromMulund on 5th October 2013.
59. International Symposium on Current Trends in Life Sciences” organized by

Mumbai University Dept of Life Sciences on 9<sup>th</sup> March 2012.

60. “National Symposium on Emerging Trends in Life and Material Sciences: Mission Mankind” organized by Vaze Kelkar College on 25<sup>th</sup> January 2012.

### **Projects undertaken**

1. Study of antimicrobial activity of different plant resources. (B.Tech)
2. Isolation and characterisation of petrol and dye degrading bacteria. (M.tech)
3. Study of antioxidants produced from different varieties of beans. (B.Tech)
4. Extraction and characterisation of exopolysaccharides produced by isolates from fermented milk products. (B.Tech)
5. Extraction and characterisation of antioxidants from varieties of grapes (B.Tech)
6. Characterisation of Antibiotic producers. (B.Tech)
7. Characterization and analysis of hydrocarbon degradation using soil bacteria. (2) (B.Tech)
8. Isolation and characterisation of exopolysaccharide producing bacteria isolated from fermented probiotic products. (2) (B. Tech)
9. Study of idli batter fermentation. (2) (B.Tech)
10. Study of vegetable-based pickle fermentation. (B.Tech)
11. Role of exopolysaccharide produced by *lactobacillus spp.* in heavy metal and dye removal. (2) M.Tech)
12. Study of idli batter fermentation using *lactobacilli spp* (B.Tech)
13. Study of idli batter fermentation using *pediococcus spp.* (B.Tech)
14. Study of pickle fermentation ((B.Tech)
15. Study of Exopolysaccharide production and bioremediation using *Lactobacillus casei* (M.Tech)
16. Study of Exopolysaccharide production and bioremediation using *Lactobacillus delbruckii* (M.Tech)
17. Study of Yogurt fermentation using *Lactobacillus casei* (B.Tech)
18. Study of Yogurt fermentation using *Lactobacillus delbruckii* ((B.Tech)
19. Formulation of yogurt candy (MSc FST)
20. Formulation of Lactose free non-dairy frozen dessert (MSc FST)



21. Assessment of metal removal by rice husk (M. Tech)
22. Effect of different preservatives on increasing shelf life of vegetable juices (B. Tech)
23. Formulation of protein chocolates (B. Tech)
24. Formulation of soya cheese spread (B. Tech)
25. Evaluation of effect of food preservatives on vegetable microflora and their toxicity (M. Sc)
26. Evaluation of effect of food preservatives on fruit microflora and their toxicity (M. Sc.)
27. Formulation of frozen dessert with aloe vera and algal protein (MSC FST)
28. Formulation of algal protein-based probiotic drink (B.Tech)
29. Formulation and analysis of fermented yoghurt supplemented with Spirulina.
30. Bioethanol production from spilled rice waste.
31. Comparative study of fermentation of yoghurt enriched with papaya pulp and papaya seeds.
32. Wine fermentation from jackfruit and utilization of waste
33. Analysis and comparative study of herbal sanitizer
34. Evaluation of biochemical and microbiological properties of chyawanprash
35. Fortification of cranberry and goji berry jam with ascorbic acid
36. Role of dietary carotenoids in treating acne infections via the gut-skin axis
37. Analysis and comparative study of protease extracted from different plant sources
38. Formulation and analysis of bread supplemented with *T. chebula*
39. Formulation and analysis of Herbal tea supplemented with *T. chebula*
40. Formulation and analysis of chocolate supplemented with *T. chebula*

**Invited Visiting Faculty/Speaker/ Examiner/ Resource Person:**

1. Invited as a visiting faculty at the School of Management, D Y Patil Deemed to be University for the subject Production planning and control (MBA sem IV) in 2022-23
2. Organizing Committee member, ByoEdu19, D Y Patil Deemed to be University, Navi Mumbai, Maharashtra, India since 2021.

3. Resource person for a human value education during Induction Program for Year I UG Courses, SBB-DYPUNM since 2021.
4. Have been acting as a reviewer since 2021 for NPTEL, IIT Madras UGC sponsored, translation of different courses into the regional language Marathi.
5. Resource person and part of the technical panel of the 7<sup>th</sup> international Go Green summit held on 14th and 15th October 2021 in Bali, Indonesia by ISERS and Bioleagues.
6. Have acted as a translator in 2021 for NPTEL, IIT Madras UGC sponsored translation of different courses into regional language Marathi.
7. Invited as a speaker at Pillai College of Arts, Commerce and Science in 2020 for a series of lecture on food science
8. Invited as an examiner for practical examination in B.Sc. Biotechnology, 2016 at MGM University, Navi-Mumbai.

#### **Patents:**

1. **2019-20:** Have filed a patent App Number 201921020596 Ref/App No: E-11/21681/2019/MUM: Dr. Sheetal S., Mr. Jatin K., Dr. Mala P., “Process for Preparation of Spirulina Based Protein Chocolate”
2. **2018-19:** Have filed a patent App Number 201921020596 Ref/App No: E-1/47684/2018-MUM: Dr. Sheetal S., Ms Karishma S., Ms Prachi M., “Process For Preparation Of Frozen Dessert From Soya Milk”

#### **Publications**

##### **Articles:**

1. **Sonawdekar S**, Gupte A (2020) Biosorption of Copper (II) and Cadmium (II) by *Bacillus cereus* sys1 isolated from oil contaminated site. *SN Applied Sciences* 2, 1254 (2020). <https://doi.org/10.1007/s42452-020-3062-z>
2. **Sonawdekar S**, Mule P (2018) Formulation of center filled probiotic yogurt hard candy. *Research Journal of Lifesciences, Bioinformatics, Pharmaceutical and chemical sciences*.
3. **Sonawdekar S**, Gupte A, S Pritika, P Sayanto (2017) Role of exopolysaccharide produced by *Lactobacillus spp.* in heavy metal and dye removal. *Indian Journal of*

### *Environmental Protection*

4. Gupte A, **Sonawdekar S** (2016) Production and characterization of exopolysaccharide produced By Oil Emulsifying Bacteria. *International Journal of Current Microbiology and Applied Sciences* 5(2): 254-262.
5. Gupte A, **Sonawdekar S** (2015) Study of oil degrading bacteria isolated from oil contaminated sites. *International Journal for Research in Applied Science & Engineering Technology (IJRASET)* 3: 345-349.
6. **Sonawdekar S** (2012) Bioremediation: A boon to hydrocarbon degradation. *International Journal of Environmental Sciences* 2: 2408–2423.

### **Book Chapter:**

- Sonawdekar S\*, Parab M, Gupta P. (2023) Nutraceuticals for hormonal imbalance Management, *Green Technologies and Nutraceuticals for Management of Lifestyle Diseases*. CRC Press- Taylor and Francis.

### **Genebank submission:**

1. Sonawdekar S, Gupte A, Bacillus cereus strain sys1 16S ribosomal RNA gene, partial sequence (KX346898.1)-2 sequences

### **Oral and Poster Presentations**

1. Sonawdekar S, Gupte A. Oral presentation on “Biosorption of heavy metals by Bacillus cereus sys1 isolated from oil-contaminated sites” at 7<sup>th</sup> international Go Green summit held on 14<sup>th</sup> and 15<sup>th</sup> October 2021. Also won 2<sup>nd</sup> prize.
2. Sonawdekar S, Parab M, Jain P, Bhanushali N Poster presentation on “function and toxicity study of fruit preservatives” at GRISAAS 2020 conference between 28-30 December 2020.
3. Sonawdekar S, Gupte A. Oral presentation on “Isolation of Oil Emulsifying and Exopolysaccharide Producing Bacteria from Oil Contaminated Soil Samples” at National Conference organised by Smt. C.H.M. College, Ulhasnagar, Between 15-16 January 2015.
4. Sonawdekar S, Gupte A. Poster presentation on “Isolation, Characterisation and

Identification of Petrol Degrading Bacteria from Soil.” At International Symposium organized by AMI For platinum jubilee celebration on “Frontier Discoveries and Innovations in Microbiology and its Interdisciplinary Relevance”, Rohtak, Between 18-20<sup>th</sup> November 2013.

**Personal Information**

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**Languages Known** English, Marathi, Hindi

<b>Signature</b>	Dr Sheetal Sonawdekar
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