Curriculum Vitae

Permanent Address

Smitha, R. B.
R. B.S. Bhavan
Cheruvarakonam
Parassala P.O.
Thiruvananthapuram
Kerala, India
Phone: 9446100148
Email- rbsmitha@gmail.com

Objective

- Seeks an exciting and challenging position in a technical organization as a scientist that provides opportunities for individual growth and competence development.
- To work with any sort of methodology executing programs.

Professional Experience

- Six months project experience in "Effect of Kinetin (6BA) on certain Biochemical characteristics in rice under saline stress".
- One year project experience in "Biochemical study of oxidative stress enzymes of *Ficus religiosa"*
- Two months Course in "Diploma in Microbial Technology" at Best Biotek Research Labs (P) Ltd., Jayanagar, Bangalore during April – May 2006.
- One year research experience as JRF in the Enzyme Technology Laboratory, University of Calicut.
- Two year research experience as SRF in the Enzyme Technology Laboratory, University of Calicut.
- Eight months teaching experience as Guest Lecturer at St. Thomas' College, Thrissur.
- One and half year teaching experience as FDP Guest Lecturer at St. Thomas' College, Thrissur.
- Two year teaching experience as Guest Lecturer at Central University of Kerala and now continuing.
- Currently working as Women Scientist in DST-KIRAN Project at KSCSTE-Malabar Botanical Garden & Institute for Plant Sciences, Kozhikode, Kerala.

Teaching Experience

Institute	Position	From	To
St. Thomas' College, Thrissur	Guest Lecturer	14-06-2010	10-02-2011
St. Thomas' College, Thrissur	FDP Teacher substitute	11-02-2011	17-09-2012
Central University of Kerala	Guest Lecturer	29-10-2012	20-05-2014

Research Experience

Institute	Position	From	To
KSCSTE-MBGIPS	Young Scientist	26-05-2014	19-05-2017
KSCSTE-MBGIPS	Principal Investigator	02-11-2017	01-11-2019
KSCSTE-MBGIPS	Women Scientist	15-11-2019	continuing

Work Experience in the research projects

- Observation, collection and maintenance of samples.
- Physical, Chemical, Biological analysis of the samples
- Biochemical studies of antioxidant enzymes.
- SDS-PAGE of stress proteins.
- Microbial isolation and characterization techniques
- Enzyme isolation and characterization of industrially significant microbial enzymes**.**
- Protein structure prediction and NMR crystallography.
- Molecular sequencing and identification of microbes.

Research Achievements

a. External project

Completed

1. DST Sanctioned Young scientist Fellowship of 31.0 lakhs (No. SERB/LS-587/2013) Dated 20th September, 2013. Project titled "Isolation and purification of Catechol 2, 3 dioxygenase-a key Hydrocarbon degrading enzyme from industrial wastes".
2. Kerala Biotechnology Commission sanctioned Young Investigators Programme in Biotechnology of Rs. 23.32 Lakhs (No. 048/YIPB/KBC/2017/KSCSTE) dated 16th

October 2017. Project titled "Application of Bacterial strains for the production of Biodegradable plastics from weed plants"

Ongoing

3. DST Sanctioned Women Scientist Fellowship of 34. 14 Lakhs (DST/WOS-B/2018/1272(G) dated 31st October 2019. Project titled "Potential applications of naturally isolated bacterial strains for the production of biodegradable plastics".

b. Achievements

1. Gregor Mendel Foundation of University of Calicut awarded C**ertificate of Appreciation** for the best organization of the National Seminar organized on "Patents, Plant breeding, Biotechnology and Conservation" from 1-3rd Dec. 2015 at Malabar Botanical Garden & Institute for Plant Sciences (Co-Convener).

2. Society for Education and Scientific Research (SESR) selected **Best Microbiologist** of the year 2015.

c. Inventions

a. Invented Twenty Two new hydrocarbon degrading bacteria, from oil contaminated sites and submitted to Genbank.

b. Invented Five new hydrocarbon degrading fungi, from oil contaminated sites and submitted to Genbank.

c. Invented 15 new plastic degrading bacteria from plastic recycling unit, West Hill, Calicut and submitted to Genbank (The Hindu – August 14).

d. Patent accepted with Provisional Number 339/DEL/2012

A process for the dual production of α-amylase and *Bt*-toxin by *Bacillus thuringiensis* subsp. *kurstaki* and efficacy of *Bt*-toxin to combat coconut mite. Sailas Benjamin, **Smitha RB** and Jisha VN. **(**Patent Filed through the Department of Biotechnology, Ministry of Science and Technology, Government of India).

e. Sequences submitted to the GenBank.

1. Geo Joseph, Tony Jacob and **RB Smitha***. Isolated oil degrading bacterium '*Acinetobacter baumanni'* from the workshop samples of Thrissur. GeneBank Accession No. JX069295

2. Salish J Menachery, Tony Jacob and **RB Smitha***. Isolated pathogenic bacterium '*Pseudomonas plecoglossida*' from the drainage and hospital wastes of Thrissur. GeneBank Accession No. JX069296.

3. **RB Smitha**, Fairooza CK, Prakashkumar R and Madhusoodanan PV. *Cronobacter muytjensii*mbg5 (Accession No. Cronobacter KT359367)

4. **RB Smitha**, Fairooza CK, Prakashkumar R and Madhusoodanan PV. *Cronobacter muytjensii*mbg6 (Accession No. Cronobacter KT359368)

5. **RB Smitha**, Fairooza CK, Prakashkumar R and Madhusoodanan PV. *Cronobacter sakazakii*mbg1 (Accession No. Cronobacter KT359369)

6. **RB Smitha**, Fairooza CK, Prakashkumar R and Madhusoodanan PV. *Cronobacter sakazakii*mbg3 (Accession No. Cronobacter KT359370)

7. **RB Smitha**, Fairooza CK, Prakashkumar R and Madhusoodanan PV. *Enterobacter clocae*mbg2 (Accession No. Enterobacter KT359370)

8. **RB Smitha**, Fairooza CK, Prakashkumar R and Madhusoodanan PV. *Ohrobactrum intermedium*mbg4 (Accession No. Ochrobactrum KT359371)

9. Smitha R.B. and Prakashkumar R (2014). Burkholderia1.sqn Burkholderia KM188954 (Not released).
10. Smitha R.B. and Prakashkumar R (2014). Burkholderia2.sqn Burkholderia KM188955 (Not released).

11. Smitha R.B. and Prakashkumar R (2014). Pseudomonas.sqn Pseudomonas KM188956 (Not released).
12. Smitha R.B., Janeeshma E., Prakashkumar R and Sailas Benjamin (2016). MBGIPS_2.sqn Bacillus__1 KX950673
13. Smitha R.B., Janeeshma E., Prakashkumar R and Sailas Benjamin (2016). MBGIPS_3.SQN Burkholderia__1 KX950674
14. Smitha R.B., Janeeshma E., Prakashkumar R and Sailas Benjamin (2016). MBGIPS_5.SQN Pseudomonas__1 KX950675
15. Smitha R.B., Janeeshma E., Prakashkumar R and Sailas Benjamin (2016). MBGIPS_6.SQN Pseudomonas__2 KX950676
16. Smitha R.B., Janeeshma E., Prakashkumar R and Sailas Benjamin (2016). MBGIPS_7.SQN Bacillus__2 KX950677
17. Smitha R.B., Janeeshma E., Prakashkumar R and Sailas Benjamin (2016). MBGIPS_8.SQN Stenotrophomonas__1 KX950678
18. Smitha R.B., Janeeshma E., Prakashkumar R and Sailas Benjamin (2016). MBGIPS_9.SQN Bacillus__3 KX950679
19. Smitha R.B., Janeeshma E., Prakashkumar R and Sailas Benjamin (2016). MBGIPS_10.SQN Bacillus__4 KX950680
20. Smitha R.B., Janeeshma E., Prakashkumar R and Sailas Benjamin (2016). MBGIPS_17.SQN Bacillus__5 KX950681
21. Smitha R.B., Janeeshma E., Prakashkumar R and Sailas Benjamin (2016). MBGIPS_18.SQN Bacillus__6 KX950682
22. Smitha R.B., Janeeshma E., Prakashkumar R and Sailas Benjamin (2016). MBGIPS_19.sqn Acidovorax KX950683
23. Smitha R.B., Janeeshma E., Prakashkumar R and Sailas Benjamin (2016). MBGIPS_20.SQN Burkholderia__2 KX950684
24. Smitha R.B., Janeeshma E., Prakashkumar R and Sailas Benjamin (2016). MBGIPS_21.SQN Bacillus__7 KX950685
25. Smitha R.B., Janeeshma E., Prakashkumar R and Sailas Benjamin (2016). MBGIPS_22.SQN Stenotrophomonas__2 KX950686
26. Smitha R.B., Janeeshma E., Prakashkumar R and Sailas Benjamin (2016). MBGIPS_23.SQN Bacillus__8 KX950687
27. Smitha R.B., Janeeshma E., Prakashkumar R and Sailas Benjamin (2016). MBGIPS_24.SQN Hydrogenophaga KX950688
28. Smitha R.B., Janeeshma E., Prakashkumar R and Sailas Benjamin (2016). MBGIPS_25.SQN Pseudomonas__3 KX950689
29. Smitha R.B., Janeeshma E., Prakashkumar R and Sailas Benjamin (2016). MBGIPS1.SQN Achromobacter KX950690
30. Smitha R.B., Janeeshma E., Prakashkumar R and Sailas Benjamin (2016). MBGIPS4.sqn Bacillus__9 KX950691

31. Smitha RB, Asitha S, Prakashkumar R & Pradeep NS (2015). MBGF1. *Paeciliomyces fumosus* KX668142

32. Smitha RB, Asitha S, Prakashkumar R & Pradeep NS (2015). MBGF2. *Aspergillus flavus* KX668143.

33. Smitha RB, Asitha S, Prakashkumar R & Pradeep NS (2015). MBGF3. *Fusarium solanii FW* KX668144.

34. Smitha RB, Asitha S, Prakashkumar R & Pradeep NS (2015). MBGF4. *Pencillium javanicum* KX668145.

35. Smitha RB, Asitha S, Prakashkumar R & Pradeep NS (2015). MBGF5. *Fusarium solanii* KX668146.

36. Smitha RB, Julna M & Pradeep NS (2019). MN252536. *Burkholderia territorri*

37. Smitha RB, Julna M & Pradeep NS (2019). MN252537. *Burkholderia metallic*

38. Smitha RB, Julna M & Pradeep NS (2019). MN252538. *Bacillus haynesii.*

39. Smitha RB, Julna M & Pradeep NS (2019). MN252539. *Bacillus licheniformis*

40. Smitha RB, Julna M & Pradeep NS (2019). MN252540. *Bacillus haynesii*

f. Seminar Organized

1. Organized National Seminar on "Molecular Trends in Taxonomy and Biodiversity Conservation" at the Department of Plant Science, Central University of Kerala on March 3rd, 2014.

2. Co-ordinator of GMF – 2015, International Symposium on Phytochemistry, Bionidhi 2015-2017, Sasthrasameeksha 2016-2017, etc.

g. Book

1. RB Smitha, Sailas Benjamin and Prakashkumar R (2019). Fermentation Strategies for the production of α-amylase and δ-endotoxin from *Bacillus thuringiensis subsp. kurstaki*. Published in Avid Sciences (Published from Germany) ISBN No.: 978-93-88170-45-1.

2. RB Smitha, NS Pradeep & S Pradeep Kumar (2019). “Waste Management” ISBN No.: ISBN No.: 978-81-931285-4-1.

3. RB Smitha, NS Pradeep, KV Mohanan, PV Madhusoodanan and R Prakashkumar (2015) “Book of Abstracts on Patents, Plant Breeding, Biotechnology & Conservation” ISBN No.: 978-81-931285-1-0.

4. RB Smitha, R Prakashkumar, NS Pradeep, KV Mohanan and PV Madhusoodanan (2016) “Advances and Challenges in Plant Breeding, Biotechnology & Conservation” ISBN No.: 978-81-931285-1-3.

f. Members

1. Member of Indian Acarology Society
2. Life Member of Kerala Academy of Sciences
3. Life Member of Society for Educational & Scientific Research
4. Life Member of National Academy of Biological Sciences.
5. Life Member of Gregor Mendel Foundation

List of publications

a. List of Publications under International Journals

1. **Smitha R.B**., Bennans T., Mohankumar C. and Benjamin S. (2009). Oxidative stress enzymes in *Ficus religiosa* L.: Biochemical, histochemical and anatomical evidences. *Journal of Photochemistry and Photobiology B: Biology*, **95**: 17 – 25. Impact factor 2.814. ISSN No. 1011-1344.
2. Abhilash P., Pradeep S., **Smitha R.B**., Jisha V.N., Balachandran S. and Benjamin S. (2009). Effect of certain anti-diabetic ayurvedic drugs against microbes causing diabetes-

dependent infections. *Journal of Pure and Applied Microbiology*, **3**: 503-516. Impact factor – 1.0. ISSN No. 0973-7510.

3. C. Athira, Rilma Rappai, Joseph Louis Olekkengil and **R.B. Smitha*** (2011). Efficacy studies of *δ*- endotoxins from *Bacillus thuringiensis* subsp. *kurstaki* against *Aphis craccivora* and *Ferrisia virgata*. Journal of Actabiologica. eISSN No. 2279-0160.
4. Rilma Rappai, C. Athira, Joseph Louis Olekkengil and **R.B. Smitha*** (2011). Efficacy studies of *δ*- endotoxins from *Bacillus thuringiensis* subsp. *kurstaki* against Red cotton bug, *Dysdercus singulatus*. Journal of Actabiologica. eISSN No. 2279-0160.
5. **R B Smitha,** S Pradeep, S Sajith, S Sreedevi, VN Jisha, KN Unni, M K Sarath Josh and Sailas Benjamin (2013). A monograph on amylases from Bacillus spp. *Advances in Bioscience and Biotechnology*, **4:** 227-241. Impact factor 1.778. ISSN No. 2156-8502.
6. **Smitha RB,** Jisha VN and Sailas Benjamin (2013). Potato flour is an efficient supplement for the enhanced production of endospore and -endotoxin from *Bacillus thuringiensis subsp. kurstaki* by solid-state fermentation. *Journal of Bioscience and Bioengineering* 116: 595-601. Impact factor 2.149. ISSN No. 1389-1723
7. Jisha VN, **Smitha RB**, Pradeep S, Sreedevi S, Unni KN, Sajith S, Priji P, Sarath JM and Sailas Benjamin (2013). Versatality of microbial proteases. *Advances in Enzyme Research***, 1** : 39 – 51**.** ISSN Online: 2328-4854.
8. **Smitha RB**, Jisha VN, Sajith S and Sailas Benjamin (2013). Dual Production of Amylase and δ-Endotoxin by *Bacillus thuringiensis* subsp. *kurstaki* during Biphasic Fermentation**.** *Microbiology*, **82***:* 794–800. Impact factor – 2.852.
9. Jisha VN, **Smitha RB** and Sailas Benjamin (2013). An Overview on the Crystal Toxins from *Bacillus thuringiensis. Advances in Microbiology***, 3:** 462-472. Impact factor – ISSN Online: 2165-3410.

10. Drisyadas P, **Smitha RB**, Benjamin S and Madhusoodnan PV (2014). Induction of *in vitro* flowering and callogenesis in Blepharis *maderaspatensis* L. (Acanthaceae), a medicinal plant. Annalas of Plant Sciences, 3(08): 799-803.

11. Sini S, **Smitha RB** and Madhusoodanan PV (2014). Induction of sporocarp development *in vitro* in the mosquito fern, *Azolla rubra* R. Br. Annals of Plant Sciences, 4(02): 994 - 1002.

12. **Smitha RB**, Madhusoodanan PV and Prakashkumar R (2014). Anticancer activity of Acanthus ilicifolius Linn. From Chettuva mangroves, Kerala, India. International Journal of Bioassays, 3(11): 3452-3455.

13. Madhusoodanan PV, Sreeranjini VK, **Smitha RB** and Prakashkumar R (2014). Invasion of Salvinia molesta D.S. Mitchell (African payal) in Kerala and its management. Indian Fern Journal, 31: 162-172.

14. Madhusoodanan PV, Prakshkumar R, Sreernjini VK and **Smitha RB** (2014). Ecology of South Indian Pteridophytes. Indian Fern Journal, 31: 173 -186.

15. **Smitha RB**, Priji P, Sajith S, Ramani N and Benjamin S (2015). Efficiency of *Bacillus thuringiensis* subsp. *kurstaki* in crude solid fermented matter against the coconut pest, *Aceria guerreronis.* Bt Research, 6 (2): 1-10.

16. **Smitha RB,** Sajith S, Priji P, Unni KN, Asokan T, Roy N and Benjamin S (2015). Purification and characterization of amylase from *Bacillus thuringiensis*subsp. *Kurstaki. Bt* Research, 6(3): 1-8.

17. Jisha VN, **Smitha RB**, Priji P, Sajith S and Benjamin S (2015). Biphasic fermentation is an efficient strategy for the overproduction of δ-endotoxin from *Bacillus thuringiensis*. Applied Biochemistry and Biotechnology, 175: 1519-1535.

18. Surya KP, **Smitha RB**, Anoop KP, Prakashkumar R and Madhusoodanan PV (2015). Induction of seed germination in the RET medicinal plant, Jyothishmathi (*Celastrus paniculatus* Willd.). International Journal of Plant, Animal and Environmental Sciences, 6(3): 18-24.

19. Jisha VN, Sajith S, Priji P, **Smitha RB** and Benjamin S (2015). Thermo and detergent stable alkaline protease from *Bacillus thuringiensis* subsp. *kurstaki*. *Bt* Research, 6(6): 1-10.

b. List of Publications communicated under International Journals

20. Geo Joseph and **Smitha RB*** (2021). Isolation and characterization of *Acinetobacter baumanni* possessing high efficiency to degrade hydrocarbons. *Journal of Bioremediation and Biodegradation.* Impact Factor 3.5. ISSN No. 2155-6199.

21. Salish J Menachery and **Smitha RB*** (2021). Isolation and characterization of *Pseudomonas plecoglossida* from medical college sewages. *Journal of Microbiological methods*. Impact Factor 2.544. ISSN No. 0167-7012.

22. Sajitha M and **Smitha RB*** (2021). Raw starch substrates enhances the production of alpha amylase from *Bacillus thuringiensis subsp. kurstaki* by solid state fermentation. *Process Biochemistry*. Impact Factor 3.225. ISSN No. 1359-5113.

23. Jini PG and **Smitha RB*** (2021). Biochemical, histochemical and anatomical evidences against the stress of endosulfan on *Vigna sinensis* growth stages. *Journal of Photochemistry and Photobiology B: Biology*. Impact factor 2.814. ISSN No. 1011-1344.

24. Thasleena MA and **Smitha RB*** (2021). Oxidative stress enzymes on selected mangroves of Northern Kerala and Lakshadweep islands. *Journal of Photochemistry and Photobiology B: Biology*. Impact factor 2.814. ISSN No. 1011-1344.

25. Anooja PS and **Smitha RB*** (2021). Antibacterial effects of leaf, bark and root extracts of selected mangroves in Kerala. International Journal of Antimicrobial agents. Impact factor 4.128. ISSN No. 0924-8579.

c. List of Publications under national Journals

26. **Smitha RB,** Sonu KR and Sailas Benjamin (2009). Isolation and characterization *Bacillus* spp. Proceedings of the national Seminar on "Genetics, Breeding and Biotechnology", Gregor Mendel Foundation, University of Calicut.

d. Presentation (International Seminar)

1. Smitha RB (2019). Isolation and partial purification of Catechol 2,3 dioxygenase from Aspergillus flavus-an oil degrading fungus. NGBT 2019 at Taj Lands Hotel Mumbai from 2nd to 4th October 2019.

2. **Smitha RB (2018).** Isolation and partial purification of Catechol 2,3-dioxygenase from *Paeciliomyces fumosus*-an oil degrading fungus. International Biodiversity Congress (IBC 2018) 4-6th October 2018 at Forest Research Institute (FRI), Dehradun, India.

3. **Smitha RB** (2014). Effect of endosulfan on certain biochemical and histochemical mechanisms in *Vigna sinensis*. International conference on Biosciences-state of the art achievements held at Lake song Resort Kumarkom on 11-12th September 2014.

4. **Smitha RB (2013).** Isolation of bacterial and fungal pathogen and demonstration of Koch postulates. First International conference on Biotechnology, Bioinformatics and Bioengineering conducted on 28 – 29 June 2013 at Tirupati.

5. Smitha RB (2010). Antioxidant effect of Nigella sativa and Cuminum cyminum. International symbosium –cum-workshop in Acarology organized by Bidhan Chandra Krishi Viswavidyalaya, Kalyani, West Bengal, India from 8th to 10th April 2010.

e. Presentation (National Seminar)

1. **Smitha RB,** Sonu KR and Sailas Benjamin (2009). Isolation and characterization *Bacillus* spp. Proceedings of the national Seminar on "Genetics, Breeding and Biotechnology", Gregor Mendel Foundation, University of Calicut.

2. **Smitha RB** (2010). Effect of Kinetin (6BA) on certain biochemical characteristics in rice under saline stress. Proceedings of the UGC sponsored National seminar on conservation and sustainable utilization of red listed medicinal plants of Western Ghats of India during September 2 – 3, 2010 at Newmann College Thodupuzha.

3. Priya and **Smitha RB** (2010). Antioxidant effect of *Nigella sativa* and *Cuminum cyminum* against rats. Proceedings of the UGC sponsored National seminar on conservation and sustainable utilization of red listed medicinal plants of Western Ghats of India.

4. Hridhya MV, **Smitha RB** and Varghese CD (2010). Antibacterial Activity of *Saraca asoca* and *Polyalthia longifolia* against *Staphylococcus aureus* and *Klebsiella pneumonia.* Proceedings of the UGC sponsored National seminar on conservation and sustainable utilization of redlisted medicinal plants of Western Ghats of India.

5. Mency Xavier N, Sandhya Vincent Neelamkavil, **Smitha RB** and Varghese CD (2010). Antiviral activity of *Azadirachta Indica,* A. Juss. against Newcastle Disease Virus. Proceedings of the UGC sponsored National seminar on conservation and sustainable utilization of red listed medicinal plants of Western Ghats of India.

f. International Seminars attended

1. Participated in seminar cum workshop on DNA bioinformatics at North Corollina Agricultural University, Greensboro, New York from April 8 – 12, 2011.

2. Participated in the International symposium cum workshop in Acarology symposium, at Bidhan Chandra Krishi Vidhyala, West Bengal, Calcutta from April 8 – 10, 2010.

g. National Seminars attended

3. Participated "Teachers Training Programme on Microscale Chemistry" February 12 – 14, 2014, Department of Chemistry, Central University of Kerala.

4. Participated in the "Workshop on Urban lake Monitoring and Management" conducted at Centre for infrastructure, Sustainable Transportation and Urban Planning (CiSTUP), Indian Institute of Science, Bangalore during September 23 – 25, 2009.

5. Participated in the two day UGC Sponsored "National seminar cum Workshop on Herbs and Herbal products" organized by the Department of Botany, St. Joseph's College, Iringalakuda from September 29 – 30, 2010.

6. Participated in one day seminar cum exhibition on medicinal plants organized by the Amala Ayurvedic Research Centre on February 2010.

7. Participated in the two day UGC Sponsored "National Workshop on Advances in Nanomaterials" organized by the Department of NanoScience and Technology in association with Department of Chemistry, University of Calicut during August 25 – 26, 2009.

8. Participated in the national Seminar on Neuroscience organized by the Department of Life Science, University of Calicut on 13th February, 2008.

9. Participated in the Kerala Environment Congress organized by Centre for Environment and Development at Kozhikode during December 15 – 16, 2006.

h. M.Sc. Projects undertaken

1. Geo Joseph and **R.B. Smitha*** (2011). Isolation of oil degrading bacteria from hydrocarbon degrading sites of Thrissur District.

2. Salish J Menachery and **R.B. Smitha*** (2011). Isolation of pathogenic bacteria from medical college wastes of Thrissur District.

3. Sajitha N and **R.B. Smitha*** (2011). Production of alpha amylase from *Bacillus thuringiensis kurstaki* by solid state fermentation.

4. Jini P.G. and **R.B. Smitha*** (2011). Biochemical and histochemical studies of effects of endosulphan on *Vigna sinensis*.

5. Athira C and **R.B. Smitha*** (2011). Efficacy trials on *Ferrisia virgata* using *Bacillus thuringiensis kurstaki.*

6. Rilma Rappai and **R.B. Smitha*** (2011). Efficacy trials on spider mite using *Bacillus thuringiensis kurstaki.*

7. Thasleena M.A. and **R.B. Smitha*** (2012). Biochemical and histochemical studies on mangroves of northern kerala and Lakshadweeps.

8. Anooja P.S. and **R.B. Smitha*** (2012). Anticancer studies on PA-1 and MCF-7 cell lines with *Acanthus aegiceras* and antibacterial studies on selected mangroves.

9. Likhina and **R.B. Smitha*** (2013). Evaluation and characterization of antibacterial compounds from *Psidium gujava L.* (Myrtaceae).

10. Rajina and **R.B. Smitha*** (2013). Isolation of active compounds and evaluation of antibacterial activity from *Rauwolfia* sps. (Apocyanaceae).

11. Swathy Bharathan and **R.B. Smitha*** (2013). Phytochemical analysis of antibacterial compounds from two species of *Sida* (Malvacea).

12. Nishana Mariyam and **R.B. Smitha*** (2014). Isolation of hydrocarbon degrading bacteria from NTPC and river banks of Periyar.

13. Ramya R and **R.B. Smitha*** (2014). Isolation of cellulose degrading bacteria from wood-yards of Valapattanam river.

14. Sulfath P and **R.B. Smitha*** (2015). Phytochemical screening and evaluation of antibacterial activity from selected bryophytes of Kerala.

15. Fairoosa K and **R.B. Smitha*** (2015). Isolation of PHA producing bacteria from plastic contaminated sites of Calicut, Kerala.

16. Rasheeda V.P. and **R.B. Smitha*** (2015). Partial purification of Catechol 2,3, dioxygenase from *Burkholderia* sp.

17. Hasna K. P. and **R.B. Smitha*** (2015). Production of biodegradable plastics from *Eichhornia crassipes* using *Bacillus cereus* and *Acidovors faecilis.*

18. Shahina and **R.B. Smitha*** (2015). Isolation of oil degrading fungi from Industrial wastes.

19. Deepak Jyothi and **R.B. Smitha*** (2016). Induction of somatic embryos and Shoot regeneration in two RET aquatic plants – *Lindernia manilaliana Sivar*. and *Heliotropium keralense Sivar. & Manilal.*

20. Jincy R and **R.B. Smitha*** (2016). Phytochemical analysis of two lichens; *Usnia* and *Parmelia*.

21. Ashitha S and **R.B. Smitha*** (2016). Isolation of Catechol 2,3, dioxygenase from oil degrading fungi.

22. Deepthi Padmanabhan and **R.B. Smitha*** (2017). Isolation of Catechol 2,3, dioxygenase from oil degrading fungi.

23. Dhanya Vijayan and **R.B. Smitha*** (2017). Induction of somatic embryos and shoot regenearation in three aquatic plants – *Nymphae mexicana*, *Nymphae marliceae* and *Sphaeranthus indicus*.

24. Sana Vijayan and **R.B. Smitha*** (2017). In vitro propagation of five RET aquatic plants.

25. Anju G and **R.B. Smitha*** (2017). Phytochemical screening and antibacterial activity of *Huperzia phlegmaria* and *Cyclosorous torresiana*.

26. Shahana Jasmi A and **R.B. Smitha*** (2017). Partial purification of Catechol 2, 3 dioxygenase from oil degrading fungi.

27. Anna Francis and **R.B. Smitha*** (2019). Production of biodegradable plastics from selected bacterial strains.

28. Ummul Fida K and **R.B. Smitha*** (2019). Physiological and Biochemical aspects of salinity stress in Rice (Oryza sativa cultivar Shreyas and Uma).

29. Amrutha Babu **R.B. Smitha*** (2019). Production of biodegradable plastics from Cronobacter sp.

30. Adhya K and **R.B. Smitha*** (2019). Application of bacterial strains for the production of biocement crystals.

31. Julna M and **R.B. Smitha*** (2019). Molecular identification and phylogenetic analysis of selected bacterial strains.

Synopsis

- Expertise in Enzyme biochemistry, UV – Spectroscopy, HPLC, GC, Microbial isolation and characterization techniques, Microscopy and Biomass Estimation with Luminometers.
- Research Level Experience in Bacterial Culture Media Formulation.
- Post Graduate level knowledge in Microbiology, Biochemistry, Biotechnology, Metabolic-Engineering, and Molecular Biology & Genetic Engineering.
- Knowledge in Computer Applications and Biostatistics.
- Highly organized and dedicated with a positive attitude.
- Ability to work in diverse food/cultural/climate/political atmosphere.
- Thrive on working in a challenging environment.
- Excellent team worker and cogent captaincy.

Language Proficiency

English	Reading	Writing	Speaking
	Excellent	Good	Good
Hindi	Excellent	Good	Good
Malayalam (Mother Tongue)	Excellent	Excellent	Excellent

Academic Qualifications

Course	Status	Year of study	Institute studied	Location
S.S.L.C.	**78. 8%**	**1995-1996**	S.L.M.S.H.S.Parassala	Kerala, India
P.D.C.	**70. 6%**	**1996-1998**	V.T.M.N.S.S. College Dhanuvachapuram, University of Kerala	Kerala, India
B.Sc. Botany (Botany, Biochemistry and Biotechnology)	**85. 5%**	**1998-2001**	V.T.M.N.S.S. College Dhanuvachapuram, University of Kerala	Kerala, India
M.Sc. Botany (Botany, Biochemistry, Molecular Biology and Biotechnology	**70. 00%**	**2001 - 2003**	Christian College Kattakada, University of Kerala	Kerala, India
B. Ed. Natural Science	**62. 00%**	**2003-2004**	N.S.S. College Ottappalam, University	Kerala, India

			of Calicut	
M. Phil Botany (Biochemistry, Biotechnology and Research methodology)	**A Grade**	**2004-2005**	University college Thiruvananthapuram, University of Kerala	Kerala, India
Ph. D. Biotechnology	**Awarded**	**2006-2010**	Department of Botany, University campus, University of Calicut	Kerala, India
M.Sc. Bioinformatics	**Now Doing**	**2019 –**	Bharathiyar University, Tamil Nadu.	Tamil Nadu, India.

Personal Particulars

Nationality	Indian
Date of Birth	19.05.1981
Gender	Female
Marital status	Single

Declaration

I hereby declare that the above mentioned – particulars are true to the best of my knowledge and belief.

Smitha, R.B.

References

1. Dr. R. Prakashmumar
   Director
   KSCSTE-Jawaharlal Nehru Tropical Botanical Garden & Research Institute
   Palode,
   Trivandrum
   Ph. No.: 9446556113

2. Dr. P. V. Madhusoodanan
   Former Head of the Department of Botany, University of Calicut
   Emeritus Scientist and Visiting Professor
   KSCSTE- Malabar Botanical garden & Institute for Plant Sciences
   Calicut-14.
   Ph. No. 9446247014

3. Dr. Ashothosh Shukla
   Principal Scientist
   CIMAP-Lucknow.
   Ph. No.: 9450932113