CURRICULUM VITAE

Name: Samarth **D.O.B.:-** August 12th, 1992

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Address: B-20/1 Indira Enclave Neb Sarai New Delhi-110068

Area(s) of Interest: Protein biochemistry, Metabolomics, Phytoremediation, Genetic engineering.

ACADEMIC QUALIFICATIONS

Examination	Institute	Board	Year	%
M.Sc Plant Biology and Biotechnology	University of Hyderabad	UoH	2013-2015	87.65% U.R.-1
BSc. Biological Science IIIrd Year	Delhi University Sri Venkateswara College	Delhi University	2013	80.2% U.R.-5
BSc. Biological Science IInd Year	Delhi University Sri Venkateswara College	Delhi University	2012	76% U.R.-5
BSc. Biological Science Ist Year	Delhi University Sri Venkateswara College	Delhi University	2011	72.4% U.R.-6
Higher Secondary School Certificate Examination, Class XII	Kendriya Vidyalaya J.N.U., New Delhi	C.B.S.E	2010	83.4
Secondary School Certificate Examination, Class X	Kendriya Vidyalaya J.N.U., New Delhi	C.B.S.E	2008	87

U.R.-University Rank

PROJECTS

- Jan 2015- May 2015: **Phylogenetic analysis of phytoene synthase across domains of life**- Under the supervision of Prof. Ch.Venkataramana at School of Life Sciences, University of Hyderabad

- July 2014- May 2015: **Comparative Metabolite Profiling of different varieties of tomato**– Under the supervision of Prof. R.P. Sharma at School of Life Sciences, University of Hyderabad

- Jan 2014- April 2014: **Next-generation identification of bacteria**- Under the supervision of Prof. Ch. Venkataramana at School of Life Sciences, University of Hyderabad

- July 2013- November 2013: **Effect of homeopathic medicines on potential probiotic bacteria isolated from probiotic drink-** Under the supervision of Prof. Ch. Venkataramana at School of Life Sciences, University of Hyderabad

- July 2012- May 2013: **Identification of few pathogenic gamma/epsilon proteobacteria using internal features of 16S rRNA** - Under Supervision of Prof. Ruplal, Innovation Project at Sri Venkateswara College

- April -2012: **Isolation, extraction and purification of Invertase enzyme from *Sacchromyces cerevisiae*-** Under Supervision of Dr. Kameshwar Sharma, Delhi University Project, India

SCHOOL LEVEL PROJECTS-

- January, 2010: Worked under Dr. Pratibha Sharma, Kendriya Vidyalaya School, J.N.U. campus, New Delhi for **Role of microorganisms in sewage treatment.**
- August, 2009: Worked under Dr. Nelam Sehgal on **Process of water purification in RO system.**
- September, 2008: Prepared a model presentation on **Generation of electricity from water tanks in urban areas,** for science exhibition held at Kendriya Vidyalaya Sangathan, New Delhi.
- August, 2008: Worked under Dr. Ashwani Singh on **Preparation of Bio-shampoo for hard-water condition.**

PUBLICATIONS

Communicated	2
Under preparation	2
Abstract / Poster	4

Paper/Review Articles (Communicated):

1. Tyagi P, Kulshrestha S and Sharma KYVR (2013) Stem Cells-Modern Approach in Medicine. *International Journal of Pharmacy & Technology*, **5**(1): 2436-2445.
2. Kulshrestha S, Sindhi V, Tyagi P and Sharma KYVR (2013) Invertase and its applications-A Brief Review. *Journal of pharmacy research,* **7**: 792-797.

Paper/Book Chapters/ Review articles under preparation:

1. Paper from the project work entitled **Identification of few pathogenic gamma/epsilon proteobacteria using internal features of 16S rRNA** is under preparation.

2. Book chapter on **Sequencing technologies** is under review.

Abstracts:

1. 2014: **Bioinformatic analysis of genus *Proteus* for identification of redundant sequences in the database** in the proceedings of **Coherence-2014** at University of Hyderabad, Hyderabad, India.

2. 22nd-24th February, 2013: **An easy identification of few pathogenic gamma/epsilon proteobacteria exploring the internal features of 16S rRNA** in the proceedings of **Antardhwani-Innovation Plaza Festival**, at University of Delhi, New Delhi, India.

3. 28th Feb-2nd March, 2013: ***An easy identification of few pathogenic gamma/epsilon proteobacteria exploring the internal features of 16S rRNA*** in the proceedings of **National Symposium on Recent Trends in Innovative Research at Under graduation: Science and Society (RTIRUGSS)** Sri Venkateswara College, Delhi University, New Delhi, India.

4. 6th -7th January, 2013: **An easy identification of few pathogenic gamma/epsilon proteobacteria exploring the internal features of 16S rRNA** in the proceedings of International Conference on Structural and Functional Genomics (**ICSAFG 2013**) at Sastra University, Thanjavur, Tamil Nadu.

5. 10th -12th December, 2012: **Isolation, extraction and purification of Invertase enzyme from *Sacchromyces cerevisiae*** in the proceedings of 7th National Conference on Thermodynamics in Chemical, Biological and Environmental Processes (**TCBEP 2012) at Department of Chemistry, Sri Venkateswara University, Tirupati.**

CONFERENCES/SYMPOSIUMS/WORKSHOPS

1. 26th September 2014: Attended workshop on **Entrepreneurship development and technology commercialization** at School of Life Sciences, University of Hyderabad, India
.
2. 16th -18th December 2013: Participated in the **National Conference on Protein Structural Biology** at Centre for Interdisciplinary Research at Basic Scienes, Jamia Millia Islamia, New Delhi.

3. 12th August-12th September 2013: **Internship at International Center for Genetic Engineering and Biotechnology (ICGEB)** on WhiB4 gene cloning and its overexpression in *Mycobacterium tuberculosis*.

4. 29th April, 2013: Participated in **Immunological Day Celebrations** organized by Indian Immunological Society and Sri Venkateswara College, University of Delhi.

5. 14-15 March, 2013: Participated and was part of organizing committee in **National Symposium on Ramachandran Manifestation : Peptide to Proteome** jointly organized by Department of Biochemistry, Sri Venkateswara College and Department of Biochemistry, University of Delhi, South Campus.

6. 28th February to 2nd March, 2013: Participated and presented poster in the **National Symposium on Recent Trends in Innovative Research at Undergraduate: Science and Society (RTIRUGSS)** at Sri Venkateswara College, University of Delhi, Delhi, India.

7. 22nd to 24th February, 2013: Participated and presented poster in the **Antardhwani-Innovation Plaza Festival** at University of Delhi, New Delhi, India.

8. 16th -22nd February, 2013: Attended workshop on **Recombinant DNA technology, Genomics and Bioinformatics** at International Centre for Stem cells, Cancer and Biotechnology, Pune, India.

9. 6th February, 2013: Attended American Society for Microbiology (ASM) Virtual Workshop on **Scientific Writing and Publishing** at Sri Venkateswara College, University of Delhi.

10. 6th -7th January, 2013: Participated in the **International Conference on Structural And Functional Genomics (ICSAFG 2013)** at Sastra University, Thanjavur, Tamil Nadu, India.

11. 10th -12th December, 2102: Participated in the 7th National Conference on **Thermodynamics in Chemical, Biological and Environmental Processes** (**TCBEP 2012)** at Department of Chemistry, Sri Venkateswara University, Tirupati.

SKILLS AND ACADEMIC ACHIEVEMENTS

Computer Skills: Python, MS Office, Corel DRAW

Bioinformatics: visualizing software –jmol and rasmol, dynamic programming, Multiple Sequence Alignment, BLAST, GENSCAN and GLIMMER, NCBI, Swiss-Prot, OMIM, Primer designing, Phylogenetic analysis, Protein structure determination, Protein structure prediction, MEME, *in-silico* restriction analysis, Protein Localization and Molecular modeling, drug designing.

BIOCHEMICAL TECHNIQUES:

1. Spectrophotometric analysis
2. Preparation of buffers of varying pH and concentration
3. DNA, RNA, Protein and Enzymatic assays
4. Liquid chromatography techniques (Paper, Gel- filtration, Ion-exchange, HPLC, TLC)
5. Iso-electric focusing, SDS-PAGE, 2-D gel electrophoresis, Agorse gel electrophoresis and Bioanalyzer
6. Molecular cloning (Genomic and Plasmid DNA extraction, RNA isolation, cDNA synthesis, PCR, RT-PCR, Preparation of competent cells, Transformation, Restriction digestion, Ligation)

7. Gas chromatography
8. Mass spectrometry techniques (MALDI and ESI)
9. Cell fractionation and protoplast isolation
10. Circular dichroism
11. *In*-vitro plant tissue culture
12. Atomic Absorption Spectroscopy

Academic Achievements:

- Awarded **Gold medal for academics** in M.Sc. Plant Biology and Biotechnology
- Qualified **GATE-2015** with AIR- 181.
- Qualified **'National Eligibility Test (NET)'** with AIR-63 and eligible for Junior Research Fellowship.
- Selected and awarded with **stipend** by University of Delhi for research innovation project entitled "An easy identification of few pathogenic gamma/epsilon proteobacteria by exploring the internal features of 16S rRNA" under the supervision Prof. Ruplal, Department of Zoology, University of Delhi.
- Member of "**American Society for Microbiology"**, USA.
- Have been the **school captain** for the year 2009-2010.
- Awarded with **gold-medal** and merit certificate in Bio-tech Olympiad, 2009.
- Awarded with **scholarship** for securing 95% and above in Sanskrit in AISSCE 2008.
- Have been awarded for the best boy of the year, best boy of the session, skit, poem recitation and many more scholarship since the beginning of school days.

Core Courses Taken: Microbiology, Genetics, Cell and Molecular Biology, Plant Biochemistry, Molecular Plant Pathology, Environmental Biotechnology, Plant Tissue culture, Genomics and Proteomics, Plant Physiology, Phytotechnology, Natural Plant Products, Molecular therapeutics, Plant Systematic, Plant Biotechnology, Plant Developmental Biology, Molecular Plant Breeding, Oxidative Stress and Antioxidants in Human Health and Diseases, Biodiversity and Bio-prospecting, Metabolism and Tissue Function, Ecology, Systems Physiology And Behaviour, Bio Organic And Inorganic Chemistry, Chemical Science And Biomaterials, Human Physiology, Bioenergetics, Genome Biology And Evolution, Differentiation And Morphogenesis, Growth And Reproduction, Chemistry And Biology Of Macromolecules, Chemical physics Of Bio-membranes, Bioinformatics.

Interdisciplinary Courses Taken: Physics, Chemistry, Mathematics, Computer Applications (Python & Excel), Technical Writing and Communication in English

Languages Known: English (S/R/W), Hindi (S/R/W), Sanskrit (R/W) and Spanish (S/R/W)

EXTRA-CURRICULAR ACTIVITIES

- Volunteered in organization of National Symposium on Recent Trends in Innovative Research at Undergraduate: Science and Society during 28th February to 2nd March, 2013, at Sri Venkateswara College, University of Delhi, Delhi, India
- Volunteered in organization of "Virtual Workshop on Scientific Writing and Publishing" on 6th February 2013 at Sri Venkateswara College.
- Awarded with Certificate of courage in **white water rafting** sport.
- Currently working with a NGO called "**Save the Children".**
- Won scholarship by Kendriya Vidyalaya Sangathan & British Council to train for **Youth Sports Ambassador at Davenant foundation, Essex, United Kingdom.**
- Certified for **International Young Leader Program** (2008) initiated by British Council and **Outdoor Look Environment** initiated by plaNET work (2005).
- Awarded with scholarship by **Swami Vivekananda Kendra**, kanyakumari, India (2006).
- Awarded with gold medal at State level championship in Skating (2005).
- Organised camps of free education for slum children, cleanliness drive, AIDS awareness campaign and book collection fair under **Dreams & Teams** initiative.
- Have been a member of editing council of the school magazine.

REFERENCES

1. Prof. R.P. Sharma
   Department of Plant Sciences
   University of Hyderabad
   Email ID: rameshwar.sharma@gmail.com

2. Dr. Y. Sreelakshmi
   Department of Plant Sciences
   University of Hyderabad
   Email ID: syellamaraju@gmail.com

Date:

Place: (SAMARTH)