Curriculum Vitae

Name: Akhilesh Prajapati
Nationality: Indian
Date of Birth: 22nd July 1983
Skype ID: akhileshp2011

Web links:

- https://orcid.org/0000-0003-1532-9514
- https://publons.com/researcher/2563018/akhilesh-prajapati
- https://www.researchgate.net/profile/Akhilesh_Prajapati

Educational profile:

Degree	Name of the University	Passing Year	Course taken	Class Obtained
B.Sc. Biology	M.D.S. University, Ajmer, Rajasthan, India.	2004	Botany, Zoology, Chemistry	First
M.Sc. Biotechnology	M.D.S. University, Ajmer, Rajasthan, India.	2006	Biomolecules, Microbial diversity, Bio-techniques, Immunology, Enzymology, Food Microbiology, Animal & Plant Tissue culture, Food technology, Virology, Metabolism Environmental Biotechnology, Industrial Biotechnology, Bioinformatics & IPR	First
PhD	The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat, India	2015	Biochemistry	Best PhD thesis award in life sciences by Gujarat Science Academy

M.Sc. Dissertation Thesis (2006) Title: "Extraction of Biopolymer from Gram Negative Bacteria**"**

Supervisor: Prof. Monica Bhatnagar, Biotechnology Course Coordinator at "Arid Algae, Cynobacteria Biodiversity & Biofuel Centre (AACBBC)", Microbiology, Dept. M.D.S. University, Ajmer.

PhD Thesis (2015) Title: "To understand the etiopathogenesis of benign prostate hyperplasia at

biochemical, cellular and molecular level.**"**
Supervisor: Prof. Sarita Gupta, Biochemistry Dept., M.S. University of Baroda.

Current Research Interests:

- Identification of a novel signature protein and stem cell markers in cancer progression.
- Neuroendocrine markers for cancer stem cell transformation.
- Circulating miRNA in Breast cancer and computation biology approach in cancer analysis.

Principal investigator of the following research projects

Year	Project title & granting agency	Amount in Rupees	Remarks
2021	Characterization of breast cancer stem cells and exploring miRNAs as therapeutic potential to induce breast cancer stem cell death. (GSBTM, DST, Govt. of Gujarat)	43 Lacs	Approved (2021-2024)

Pre & Post-Doctoral Work Experience:

Department of Biochemical Engineering & Biotechnology, Indian Institute of Technology, New Delhi, India **May-June 2006**
Position: Summer Intern under Continuing Education Program.

- A project entitled "Biochemical Studies on Chondrocyte Cell Culture"

Prathista Industries Ltd. Secunderabad, Andhra Pradesh, India, Dec 2007- May 2008
Position: Biotech Industrial Trainee (DBT-Biotech Consortium India Ltd, Govt. of India, New Delhi)

- A project entitled "Production of Colorless Lactic Acid from Calcium Lactate"
- Training in all industrial departments.

Dr. Vikram Sarabhai Institute of Cell and Molecular Biology, Faculty of Science, M.S. University of Baroda, Vadodara, Gujarat, India. **July 2013- March 2014**
Position: Technical Assistant (Central Instrumentation facility)

- Handled Genomics and Proteomics facility, Experimentation and troubleshooting.

Dr. Vikram Sarabhai Institute of Cell and Molecular Biology, Faculty of Science, M.S. University of Baroda, Vadodara, Gujarat, India. **April 2014- May 2017**
Position: *Adhoc* Assistant Professor (Cell & Molecular Biology Institute)

- Subjects taught at UG & PG level: Cell Biology, Metabolism, Biomolecules, Animal tissue Culture, Molecular Diagnostics & Stem Cell Research.
- Student Counselor and In-charge of the visiting scientists program

- In-charge of summer internship program for Cell & Molecular Biology students.
- Supervised Masters' Dissertations

Department of Biotechnology, School of Science, GSFC University, Vadodara, Gujarat, India. July 2017- at Present

Position: Assistant Professor (Biotechnology) & Program Coordinator- M.Sc. Life Sciences (regular position)

- Subjects teaching at UG/ PG level: Biochemistry, Cell Biology, Metabolism, Biomolecules, Industrial Microbiology, Animal Tissue Culture, stem cell research, IPR, Bioanalytical tools & Molecular diagnostics.
- Involve in student club activities
- Start-up activities
- PhD supervisor

Scientific Skills Learnt To Carry out Research Work:

- Mammalian & Bacterial Cell Culture and Research Animal (Rat and Mice) Handling.
- Molecular Biology techniques: qPCR, Thermal cycler PCR, Electrophoresis, 2D-Gel Electrophoresis, ChIP, Nucleic Acid isolation, Immunoassays and karyotyping.
- Confocal Microscopy, Flow Cytometry. HPLC, LCMSMS
- Microbiological assays.
- Scientific Software skills: PRISM, BLAST, PROSITE, ImageJ, flowjo, LSM.

Selected Conferences & Workshops Attended

- Abstract entitled "**Cancer stem cells specific MicroRNA assisted gene regulation in breast Cancer"** published in the 14th Young Investigator meeting from 4-6 June 2022. Organized by IndiaBioscience and DBT, Govt. of India.
- Attended a national symposium on "**trendys in Biochemistry"** from 25th January to 26th January 2020 organized by Department of Biochemistry, The M.S. University of Baroda, Vadodara.
- Attended an international conference on "**Proteins, miRNA and Exosomes in Health and Disease"** from 11th December 2018 to 13th December 2018 organized by Department of Biochemistry, The M.S. University of Baroda, Vadodara.

- Actively Participated in Workshop on **"The STEM Teacher Training workshop on Research- Based Pedagogical Tools (Level 1)"** jointly sponsored by Department of Biotechnology (DBT), Govt. of India; Newton Bhabha fund of the British Council, Centre of Excellence in Science & Mathematics Education, IISER Pune supported by MHRD. From 26th Feb to 1st March, 2017 at IISER, Pune.

- Oral presentation on **"To understand the etiopathogenesis of BPH at Cellular and molecular level"** at A two days Researchers ferret Confabulation: 4th Annual meeting on 11th-12th April, 2015 at IIT-Gandhinagar, Gujarat, India

- **Actively participated in** the four days' stem cell workshop on **"advanced techniques in stem cell research"** from 31st Dec, 2014 to 3rd Jan, 2015 at Dr. Vikram Sarabhai Institute of Cell and Molecular Biology, Faculty of Science, The M.S. University of Baroda.

- Oral presentation on **"BPH stem cells and Epithelial-to-Mesenchymal Transition-phenotypic cells: Are they siblings?" at** A National Seminar entitled "Evolving Concepts in Stem Cells and Regenerative Medicine" on 27th Feb, 2014 at GCRI, Ahmadabad, Gujarat, India **(Best Oral Presentation Award)**

- Poster presentation on **"Human Prostate Cell Population Derived From Benign Hyperplasia Specimen Demonstrate Pluripotent Stem Cells Properties at** 11th annual meeting, ISSCR, Boston, MA, USA. 12-15th June, 2013**.(International Travel Award By DBT Govt. of India)**
- Poster presentation on **"To Assess the Possible Role of Cadmium in BPH Pathogenesis via Steroid Hormone Receptor Blocker",** in International conference on Reproductive Health with emphasis on strategies for family planning & 22nd annual meeting of the Indian society for the study of reproduction and fertility (ISSRF) "ICMR Centenary celebration 1911-2011, organized by AIIMS, at New Delhi from 19 – 21st Feb, 2012.
- Poster presentation on **Identification of novel Population of Nestin positive cells from rat Prostate for insulin Producing cell differentiation.** Nidheesh Dadheech, Akhilesh Kumar Prajapati, Sanket Soni and Sarita Gupta. Abstract book, 9th annual meeting, ISSCR, Toranto, Canada 2011. (abstract Published)
- Poster presentation on **"Cadmium: a Potent Benign Prostate hyperplasia inducer in rat ",** in International conference on MOLECULAR MEDICINE, organized by Charotar University of Science and Technology, Changa, Gujarat. Jan-2011
- Poster presentation on **"Association of Benign Prostate Hyperplasia with Respect to environmental Pollutant Cadmium", i**n the SRBCE Sponsored 'international symposium on endocrinology and Reproduction: molecular Mechanisms to Molecular Medicine' Organized by Jawahar Lal Nehru University, New Delhi. Feb-2010.

Invited lecture as a guest speaker:

1. Delivered an invited lecture at "Intense crash workshop for cracking IIT-JAM, JNU-CEEB entrance exams of phase II" on 17th January 2019 sponsored by the Gujarat State Biotechnology Mission, Govt. of Gujarat at Uka Tarsadia University, Bardoli.

2. Delivered an invited lecture at "Intense crash workshop for cracking IIT-JAM, JNU-CEEB entrance exams on 10th January 2020 sponsored by the Gujarat State Biotechnology Mission, Govt. of Gujarat at Uka Tarsadia University, Bardoli.

3. Delivered an invited lecture at "GujBT e-Lecture Series: New Initiative" by Gujarat State Biotechnology Mission on 1st August 2021.

Achievements & Awards:

- DBT-CTEP International Travel Grant to present work at International Society for Stem Cell Research (ISSCR) 11th annual meeting, Boston, MA, USA from 12-15 June, 2013.
- Best Oral Presentation award on "BPH stem cells and Epithelial-to-Mesenchymal Transition- phenotype cells: Are they siblings?" in A National Seminar entitled "Evolving Concepts in Stem Cells and Regenerative Medicine" on 27th Feb, 2014 at GCRI, Ahmadabad, Gujarat, India.
- Best PhD Thesis Award in Gujarat State by Gujarat Science Academy, Feb, 2015
- Indian National Science Academy (INSA) visiting scientist fellowship award, 2021-22.
- Certificate of excellence in outstanding reviewing, Journal of Pharmaceutical Research International.2022 (twice)
- Certificate of Appreciation by student start-up and innovation policy and Gujarat knowledge society, Education department, Govt. of Gujarat for students' mentorship in Hackathon-2022

Peer Reviewed Research Publications:

https://scholar.google.dk/citations?user=kJ35XFIAAAAJ&hl=en **(citation link)**

- Prajapati A, *et al.* 2013. **Prostate Stem Cells in the Development of Benign Prostate Hyperplasia and Prostate Cancer: Emerging Role and Concepts**. *BioMed Research International* **2013**: 10. http://dx.doi.org/10.1155/2013/107954
- Pandya C, *et al* 2013. **Association of Cadmium and Lead with Antioxidant Status and Incidence of Benign Prostatic Hyperplasia in Patients of Western India.** *Biol Trace Elem Res* **2013**. 152:316–326 DOI 10.1007/s12011-013-9630-y
- Prajapati A**,** *et al.* **2014a**. **Pluripotent Stem Cell within the Prostate could be Responsible for Benign Prostate Hyperplasia in Human.** *J Stem Cell Res Ther* **4**: 2 http://dx.doi.org/10.4172/2157-7633.1000164

- Prajapati A, *et al* **2014b**. **A single low dose of cadmium exposure induces benign prostate hyperplasia like condition in rats: A novel benign prostate hyperplasia rodent model**. *Exp Biol Med (Maywood).* 2014 May 28;239 (7): 829-841. DOI: 10.1177/1535370214536118

- Pulipaka R, *et al* 2014. **Cu (II) Complexes of Isoniazid Schiff Bases: DNA/BSA Binding and Cytotoxicity Studies on A549 Cell Line** *Advances in Chemistry*. Vol. 2014 **(2014)**, Article ID 630575, 14 pages http://dx.doi.org/10.1155/2014/630575

- Komal Vyas, *et al 2015*. **Pyrazolone incorporating bipyridylmetallointercalators as effective DNA, Protein and lung cancer targets: Synthesis, characterization and in-vitrobiocidal evaluation.** *Chemico-Biological Interactions (2015)* 240, 250-266. http://dx.doi.org/10.1016/j.cbi.2015.08.022

- Akhilesh Prajapati, *et al* 2016**Analysis of AR, PSA (KLK) and ER-β genetic variants and Benign Prostate Hyperplasia (BPH) pathogenesis in Indian Population**. *Biomed Res J 2016;3 (1): 88–103* DOI: 10.4103/2349-3666.240607

- **Prajapati A**, *et. al.,* 2020 **Oncogenic transformation of human benign prostate hyperplasia with chronic cadmium exposure.** Journal of trace element in medicine and research 62 (2020) 126633. **(first and corresponding authorship)** https://doi.org/10.1016/j.jtemb.2020.126633

- Chauhan G, **Prajapati A**, Gupta S. **Complexities of Androgen Receptor signals in prostate cancer stem cells**. **(**Under communication, Current Urology Reports 2022)

- Nihar Purohit. **Akhilesh Prajapati. "Cancer Cachexia and Breast Cancer Stem Cell Signalling – A Crosstalk of signalling Molecules" (Under communication 2022)**

- Mira Vaishnani, Sabera Bijani, **Akhilesh Prajapati**, Sejal Shah, Vicky Jain*, Danish Iqbal* "Design, synthesis and in silico modeling of 1,2,3-triazole acetamide linked with phenyl piperazine derivatives as potential anticancer agents against MCF-7 cell line" **(Under Communication 2022)**

- Sejal S. Shah**, Akhilesh Prajapati**, Nihar Purohit, Bhavika P. Turakhia and Khushal M. Kapadiya. "Facile Synthesis of Turmeric rhizome (Curcuma amada) Iron Nanoparticles and its Cytotoxic, Antioxidative and Bactericidal Behaviour" **(Under Communication 2022)**

Book Chapter:

1. Prajapati A, **"Hematopoiesis and Cancer stem cells: the seed and soil crosstalk"** Book on Hematopoiesis" by AAP/CRC Press, USA, **ISBN:** 9781774914724 (in production) 2022 **(first and corresponding authorship)**

Served as a Reviewer in the journals:

1. Cell Biology International, Wiley-published journal.
2. Uttar Pradesh Journal of Zoology, MB International Media and Publishing House
3. Journal of Pharmaceutical Research International.
https://www.journaljpri.com/index.php/JPRI/about

Editorial Board member:

1. Advanced Chemicobiology Research (ACBR) Universal Wiser Publisher Pte. Ltd, Singapore. https://ojs.wiserpub.com/index.php/ACBR/about/editorialTeam

Faculty Development Programme attended:

1. Attended Two Weeks Faculty Development Programme on "MANAGING ONLINE CLASSES and CO-CREATING MOOCS: 2.0" from **May 18 - June 03, 2020**. Conducted by Teaching Learning Centre, Ramanujan College University of Delhi. Sponsored by the Ministry of HRD, Govt. of India, Pandit Madan Mohan Malviya National Mission on Teachers and Teaching.

2. Attended One Week Faculty Development Programme on "Open Source Tools for Research" from **June 08 - June 14, 2020**. Conducted by Teaching Learning Centre, Ramanujan College University of Delhi. Sponsored by the Ministry of HRD, Govt. of India, Pandit Madan Mohan Malviya National Mission on Teachers and Teaching.

3. Attended Two Weeks Faculty Development Programme on "MANAGING ONLINE CLASSES and CO-CREATING MOOCS: 3.0" **from July 25 - August 10, 2020**. Conducted by Teaching Learning Centre, Ramanujan College University of Delhi. Sponsored by the Ministry of HRD, Govt. of India, Pandit Madan Mohan Malviya National Mission on Teachers and Teaching.

4. Attended one-week Faculty Development Programme from **25-06-18 to 30-06-2018** at Knowledge Consortium of Gujarat, Ahmedabad. Sponsored by the Department of Education, Govt. of Gujarat. India.

Language proficiency:

- English (S.R.W), Hindi (S.R.W), Gujarati (S.R.), Sanskrit (R.)

Scientific Committee Memberships:

- International Society for Stem Cell Research (ISSCR), USA
- Vigyan Gurjari (Vigyan Bharti: Baroda Chapter)
- The Society of Biological Chemists (INDIA).