

## Department of Biochemistry

### Award won by the faculties of department (Since 2004) :

<b>1</b>	Kalyani S. Kulkarni and Sarng Sapre, P.G. student's of Biochemistry department have bagged <b>1st and 2nd position</b> respectively in <b>Oral presentation</b> in the "National Symposium on Perspective in the Plant Health Management organized by Dept. of Plant Pathology, BACA, AAU, Anand and Indian Phytopathological Society, New Delhi on Dec. 14-16, 2010 at AAU, Anand".
<b>2</b>	<b>Dr. Diwakar Patel Gold Medal</b> awarded for Best Post-Graduation Research work for M.Sc. student in the field of Plant Biotechnology was awarded to Vishal Patil, M.Sc. student in the year 2010-11.
<b>3</b>	Diwakar Singh, Reetu Mehta and J.G. Talati Dept. of Biochemistry, BACA, AAU received <b>Dr. Harbhajan Singh Gold Medal</b> for best research paper entitled "Identification of chilli ( <i>Capsicum annum L.</i> ) genotype through RAPD" published in <i>Vegetable Science</i> , 35(1) : 10-13 (2008) on April 4th, 2011.
<b>4</b>	Arpan Modi was awarded <b>Second Position</b> in Research Poster in UGC Sponsored One Day National Seminar on Biochemistry: Recent Advances in Molecular Research organized by Dept. of Biochemistry, Saurashtra University, Rajkot on 20th February, 2011 at Rajkot.
<b>5</b>	Department of Biochemistry/Botany, B.A.C.A. : Three partial gene sequences of bread wheat fraction of high molecular weight glutenin sub-unit Dx5 (HMW-GS) has been published online in National Center for Biotechnology Information (NCBI) Gene Bank, USA with accession numbers (1) JN 034036.1 (2) JN 034037.1 and (3) JF 303652.1. This is useful for elasticity of wheat dough quality. Authors : Patil, V.R., <b>Talati, J.G.</b> , Jadeja, G.C. and Parekh, V.B.
<b>6</b>	Transcriptome sequencing of pearl millet (genotypes, J2290- resistant 7042S-susceptible to downy mildew), for identification of genes imparting resistance against downy mildew has been done. The transcriptome sequencing has revealed differential expression of pathogenesis related proteins, various transcription factors, disease resistance genes, enzymes involved in plant defence pathways and secondary metabolic pathways among the resistant and the susceptible genotypes. These gene sequences have been deposited at the Gene Bank, National Centre for Biotechnology Information (NCBI) under the BioProject ID PRJNA82923 (GenBank JT845713-JT846175), BioProject ID PRJNA82919 (GenBank JT845351-JT845712), BioProject ID PRJNA8292 (GenBank JT845031-JT845350), BioProject ID PRJNA80967 (GenBank JT844186-JT844343) for use by the scientific community internationally. Authors : Miss Kalyani S. Kulkarni; Tejas Bosamia and <b>Y.M. Shukla</b> .
<b>7</b>	<b>Dhruve, J.J.</b> , Acharya R.R., Gupta Pooja, Patel Jalpesh and Vakharia, D.N. (2011). Influence of seed treatment of benzyladenine on some osmolytes groundnut ( <i>Arachis hypogaea L.</i> ) under water stress condition. <b>3rd position in Oral presentation</b> in "National symposium on Status, Challenges & Opportunities in Life-Sciences" at Department of Microbiology and Department of Integrated Biotechnology (Environmental) during 10th September, 2011 and secured <b>third prize in Oral presentation</b> .
<b>8</b>	<b>Dr. Diwakar Patel Gold Medal</b> awarded for Best Post-Graduation Research work for M.Sc. student in the field of Plant Biotechnology was awarded to Ku. Kalyani S. Kulkarni, M.Sc. student (Biotechnology) in the year 2011-12.
<b>9</b>	<b>Dr. Diwakar Patel Gold Medal</b> awarded for Best Post-Graduation Research work for M.Sc. student in the field of Plant Biotechnology was awarded to Ku. Poonam D. Kanani, M.Sc. student (Biotechnology) in the year 2012-13.

<b>10</b>	<b>Young Scientist Award</b> awarded to Swati Gandhi for her research work “Biochemical and Molecular characterization of mungbean genotypes” I International Conference on “Role of plant biochemistry and biotechnology in food and nutritional security” at Sri Venkateswara University, Tirupati during December 11-14, 2013.
<b>11</b>	Transcriptome sequencing of okra (GAO 5 and Pusa Savani resistant and susceptible to YVMV), for identification of genes imparting resistance against YVMV has been done and 54 gene sequences have been deposited at the Gene Bank, National Centre for Biotechnology Information (NCBI), for use by the scientific community internationally.: <b>Dr. J. J. Dhruve</b> , Rutika Shah, Jalpesh Patel, Tejas Shah, Dr. Chaitanya Joshi and Dr. K. B. Kathiria., 2017.
<b>12</b>	Dr. J. P. Tivedi Award (2017) sponsored by Hari-Om-Ashram Nadiad Awarded to <b>Dr. N. J. Patel</b> as co-worker with Dr. A. D. Patel.
<b>13</b>	<b>Chancellor Medal</b> (2019) awarded to Mr. Dhruvin Vadee.

### Future Thrust:

- ❖ Nutraceutical characterization of cereals, oilseed and pulses.
- ❖ Nutraceutical characterization of horticultural and medicinal plants.
- ❖ Prevent diseases by using various biomolecule such as benzyl adenine, silicic acid, melatonin, ascorbic acid, aromatic amino acids etc.
- ❖ Characterization of Antiviral and antimicrobial compounds in plant
- ❖ Find out Anti-nutritional factors in food crops.
- ❖ Strengthening of Biochemistry Department as centre of proteomics research
- ❖ Biochemical tests for the pesticide residues or other toxic waste in plant, food grain and soil can be evaluated.

***Confidence and Hard work is the best medicine to kill the disease called failure. It will make a Successful Person.***