## UTTARAKHAND COUNCIL FOR BIOTECHNOLOGY (UCB)

## **R&D** Projects running in state under the coordination of Director, UCB

S.No.	Name of PI of Address	Project Title	Released Amount (Rs.)
1.	Dr. Girish Chandra (PI) Associate Professor, Shri Guru Ram Rai University, Patel Nagar, Dehradun	Establishment of small scale hydroponics facility to increase the yield and nutrient quality of potato ( <i>Solanum tuberosum</i> L) tuber	2,70,000.00 70,000.00
2.	Dr. Narendra K. Singh (PI) Professor G.B. Pant University of Agri. & Tech. Pantnagar.	Diversification and development of maize through domestication of wild alleles from teosinte	4,15,000.00 2,49,245.00
3.	Dr. Shiv Kumar Dubey (PI) Assistant Professor G.B. Pant University of Agri. & Tech., Pantnagar	Design, Synthesis, characterization, in silico and in vitro evaluation of novel curcumin analogs as adjunct drugs targeting breast cancer stem cells (CSCs)	5,05,000.00 3,32,702.00
4.	Dr. Rajesh Kumar (PI) Associate Professor, G.B. Pant University of Agri. &Tech.,	Evaluation of population of guava hybrids (F1)	2,29,000.00 2,08,936.00
5.	Pantnagar  Dr. Ravendra Kumar (PI)  Assistant Professor,  Department of Chemistry, CBSH,  G.B. Pant University of Agri. & Tech.,  Pantnagar	In vitro and in silico Evaluation of Novel Nematicidal Biomolecules from Plants Growing in Uttarakhand	1,95,000.00 1,74,886.00
6.	Dr. Kuldip Chandra Verma (PI) Assistant Professor, G.B. Pant University of Agri. & Tech., Pantnagar	Value addition in buckwheat (Fagopyrum esculentum Moench) cultivars from Himalayan region for enhancement of livelihood of local farmers	3,90,000.00 3,03,989.00
7.	Dr. Lokesh Gambhir (PI) Assistant Professor, Shri Guru Ram Rai University, Dehradun	Biomining endophytic fungi for selective Nrf2:DNA complex inhibitor(s): A targeted approach for curbing breast cancer	3,60,000.00 3,45,000.00
8.	Dr. Sweta Rai (PI) Assistant Professor Department of Food Science & Technology, College of Agricultural Sciences, GBPUA&T, Pantnagar	Effect of bovine milk exosome supplementation on drug induced colitis and gut microbiota in mice	2,45,000.00
9.	Dr. Anuj Tewari (PI) Assistant Professor Department of Veterinary Microbiology, College of Veterinary & Animal Sciences, G.B.P.U.A.&T., Pantnagar	Peste des petits ruminants (PPR) surveillance and identification of candidate viral epitopes for PPRV vaccine to strengthen the goat farming avenues for farmers in Uttarakhand	370,000.00
10.	Dr. Vineeta Rathore (PI) Assistant Professor College of Agriculture G.B. Pant University of Agri. & Tech., Pantnagar	Enrichment And Vitalization of Cattle Dung Extract for Improving Crop Production and Sustaining Soil Health	1,70,000.00
11.	Dr. Pooja Saklani (PI) Associate Professor Department of Biotechnology H.N.B. Garhwal University Srinagar, Garhwal	Phytochemical Characterization of Medicinally Important Herb Delphinium Vestitum and Antimicrobial and Synthetic Dye Degradation Potential of Green Synthesized Silver Nanoparticles From it.	1,55,000.00
12.	Dr. Shivangi Chamoli (PI) Assistant Professor Department of Biotechnology Graphic Era (Deemed to be University), Dehradun	Harnessing Nature's Cleanup Crew: Bioprospecting Laccase-Producing Bacteria from Municipal Wastewater Treatment Plants in Uttarakhand for Xenobiotic Degradation	3,00,000.00
13.	Dr. Piyush Kumar (PI) Assistant Professor Allied Health Sciences School of Health Sciences & Technology University of Petroleum and Energy Studies (UPES), Dehradun	Development of flavored yogurt with indigenous Himalayan yellow berries and lactic acid bacterial strains isolated from ethnic fermented food of Uttarakhand	3,15,000.00
14.	Dr. Vinod Kumar (PI) Assistant Professor Department of Chemistry School of Sciences Uttarakhand Open University, Haldwani	Exploration of the Uttarakhand Himalayan Lichen for Tyrosine Kinase Inhibitors and Assessing Their Anticancer Efficiency to Generate Anticancer Agents	1,90,000.00

15.	Dr. Ranjana Rohilla (PI) Assistant Professor Shri Guru Ram Rai Institute of Medical & Health Sciences, Shri Guru Ram Rai University Patel Nagar, Dehradun	Epidemiology of circulating serotypes of Dengue in a tertiary care hospital and its correlation with laboratory and clinical profile	2,40,000.00
16.	Dr. Saraswati Nandan Ojha (PI) Department of Botany School of Sciences Uttarakhand Open University, Haldwani	Promotion of Industrial Potential Thymol and Carvacrol Rich Germplasm or Oregano in Central Himalayan region (CHR)	1,25,000.00
17.	Dr. Vishal Kumar Sharma (PI) Department of Physics School of Sciences Uttarakhand Open University, Haldwani	Virtual Screening of Medicinal Plants of Uttarakhand Targeting HER2 Receptor for Breast Cancer and Evaluation of Their Anticancer Efficiency	1,50,000.00
18.	Dr. Sulekha Nautiyal (PI) Professor & Head Shri Guru Ram Rai Institute of Medical & Health Sciences, Shri Guru Ram Rai University Patel Nagar, Dehradun	Implication of Sexually Transmitted Infections with regard to their influence on Female Infertility, in a tertiary care hospital of North India	2,10,000.00
19.	Dr. Pushpa Lohani (PI) Assistant Professor Department of Molecular Biology and Genetic Engg. CBSH, GBPUA&T, Pantnagar	Morpho-Physiological and biochemical characterization of tolerance traits in global collection of finger millet subjected to drought stress	2,60,000.00
20.	Dr. Narayan Singh (PI) Head Deptt. of Natural Resource Management (NRM) AAROHI Village Satoli, P.O. Peora. Distt. Nainital	Cluster base Integrated Development of a Sustainable Model of Farming – As a Source of Sustainable Livelihood	2,40,000.00
21.	Dr. Maneesha Singh (PI) Professor & Head Department of Botany Shri Guru Ram Rai Institute of Medical & Health Sciences, Shri Guru Ram Rai University Patel Nagar, Dehradun	Assessment of Genetic Diversity, Conservation and Utilization of OriganumvulgareLunder agroforestry system as livelihood for farmers in Uttarakhand, India	1,55,000.00
22.	Dr. Shiv Prasad (PI) Professor and Head Department of Veterinary Gynaecology & Obstetrics G.B. Pant University of Agri. & Tech. Pantnagar & Dr. Naresh L Selokar (Co-PI) Scientist	Production of elite progenies of Badri cattle of the Himalayan region through cloning technology	75,70,000.00 3,00,000.00
22	ICAR-NDRI, Karnal	Dispresseding for industrial utilization of investive wood	
23.	Dr. V.K. Varshney (PI) Scientist 'G' Chemistry & Bioprospecting Division Forest Research Institute, Dehradun &	Bioprospecting for industrial utilization of invasive weed Hyptis suaveolens (L) Poit	1,29,523.00 2,88,628.00
	Dr. Sanjay Gupta (Co-PI) Swami Rama Himalayan University, Jolly		2,38,866.00 3,07,650.00
24.	Grant, Dehradun  Dr. M.K Nautiyal (PI)  Professor  Deptt. of Genetics and Plant  Breeding, G.B. Pant University of A.&T.,	To develop premier quality Basmati varieties with high scent	4,30,000.00 2,43,398.00 2,90,487.00
25.	Pantnagar  Dr. Narotam Sharma (PI)  Social Scientist	Development of Diagnostics Algorithm by Studying	2,35,000.00
	Senior Scientist, DNA Labs-A Center for Applied Sciences, Dehradun	Genetic Polymorphisms and genotypic distributions in different grades of Cervical anomalies and Cancers due to Oncogenic Human Papillomaviruses (HPVs) and other etiological factors in females of Uttarakhand Population	2,55,000.00
26.	Mr. Siddharth Madhav (PI) Chief Technical Officer Techno-Hub Laboratories Dehradun	Hands-on Workshop cum Conference (EDP Program)	10,35,450.00

27.	Dr. Pallavi Joshi (PI)	Molecular Characterization of aquatic biodiversity of	185000.00
	Assistant Professor, Graphic Era Hill University,	Uttarakhand's First Ramsar Site – "ASAN WETLAND"	1,78,811.00
28.	Dehradun Dr. Zahid Hussain (PI)	Freeze-dried Platelets Rich Plasma (PRP) preparation	30,000.00
-	Sr. Research Scientist Revita Life Sciences, Rudrapur	for wound healing application	&
	& Dr. Kanchan Karki (Co-PI) Scientist B		1,40,000.00
29.	UCB, Haldi Dr. M.K Nautiyal (PI)	Development of short duration cowpea varieties to	4,26,538.00
20.	Professor Deptt. of Genetics and Plant Breeding, G.B. Pant University of A.&T.,	enhance the nutritional status of hill agriculture	6,93,931.00
30.	Pantnagar Dr. Kuldeep Kumar (PI)	Development of Biomaterial using mesenchymal stem	30,000.00
00.	Sr. Research Scientist Revita Life Sciences, Rudrapur	cell culture conditioned media with Aloevera to augment wound healing	&
	& Dr. Kanchan Karki (Co-PI) Scientist B		3,20,000.00
31.	UCB, Haldi Dr. Preeti Chaturvedi (PI)	In-vitro Propagation, elicitation and ex-situ conservation	1,57,000.00
	Professor Biological Sciences	of arnebia benthamii (wall ex G.Don) I.M. Johnst a high valued endangered medicinal plant of Uttarakhand	2,16,983.00
	G.B. Pant. University Agri. & Tech., Pantnagar, Uttarakhand	Himalaya	
32.	Dr. Disha Pant (PI) (Assistant Professor) Department of Pharmacology & Toxicology, College of Veterinary & Animal Sciences, G.B. Pant	Ameliorative potential of Teminalia arjuna and Capsicum annum on freund's complete adjuvant induced rheumatoid arthritis in rats	2,20,000.00
33.	University of Agri. & Tech., Pantnagar  Dr. Lokesh Gambhir (PI)	Isolation and Characterization of cyclooxygenase-2	2,85,000.00
	Assistant Professor SGRR college of basic & Applied Sciences, Shri Guru Ram Rai University, Dehradun	inhibitor from endophytic fungi inhabiting from endangered ethnomedicinal plants of high altitude regions of Uttarakhand	3,25,000.00
34.	Dr. K.P.S. Kushwaha (PI) Professor Plant Pathology & Joint Director G.B. Pant University of Agriculture & Technology, Pantnagar-263145	Dissemination of Production Technology of Mushroom and spawn among farmers of selected villages of Gadarpur (U.S. Nagar), Uttarakhand	2,37,597.00
35.	Dr. M.K Nautiyal (PI) Professor, Genetics & Plant Breeding, G.B. Pant University of Agri. & Tech. Pantnagar	Two line hybrid rice to improve the economy of hilly agriculture (2 <sup>nd</sup> Phase)	5,80,755.00 6,89,143.00
36.	Dr. Dwarika Prasad (PI)	Formulation of bio-primer from some weeds plants of	2,42,258.00
	Professor & Head Deptt. of Chemistry Shri Guru Ram Rai University,	Uttarakhand as bio-corrosion inhibitors.	2,95,000.00
37.	Dehradun Dr. Mamta Arya (PI)	Screening and evaluation of thermophilic bacteria for the	1,98,344.00
	Assistant Professor Department of Zoology & Biotechnology H.N.B Garhwal University Srinagar, Garhwal	Bioremediation of heavy metals present in waste water of industrial area of Roshanabad, District Haridwar, Uttarakhand	2,20,215.00
38.	Dr. A.K. Sahani (PI) G.B. Pant National Institute of Himalayan Environment, Garhwal Regional Centre, Srinagar (Garhwal)	Cultivation and conservation of indigenous medicinal plants through technological backstopping for sustainable livelihood of Raji Tribes of Indian Central Himalaya	2,90,778.00
39.	Dr. Prashant Singh (PI) Associate Professor, DAV (PG) College Dehradun,	Water safety planning of microbiological contamination for improved public drinking water sources in Dehradun and Haridwar	6,14,301.00 5,19,874.00
40	Uttarakhand		
40.	Dr. Vijay Kant Purohit (PI) Senior Scientific Officer Department of High Altitude Plant	Evaluation and standardization of applicable fast propagation techniques (biotechnological and conventional) of highly valued and high risk plant species	2,42,558.00 2,32,441.00
	Physiology Research Centre (HAPPRC) Hemvati Nandan Bahuguna Garhwal University (A Central University) Srinagar, Garhwal	"Inula racemosa (Pushkarmool)" and "Paris polyphylla (Satuwa)" for promotion of cultivation and conservation of the species in Higher Himalayan region of Uttarakhand.	

41.	Dr. Ravi Mohan Srivastava (PI) Associate Professor Department of Entomology College of Agriculture G.B. Pant University of Agri. & Tech., Pantnagar	Molecular characterization and phylogenetic studies of white fly (Bamisia tabaci and Trialeurodes spp.) and its natural enemies together with bio-intensive pest management of vegetable crops in Uttarakhand	2,53,616.00 1,99,499.00
42.	Dr. Prashant Singh (PI)	Bioprocess Development for the Biological Removal of	7,13,718.00
	Associate Professor, DAV (PG) College Dehradun,Uttarakhand	Iron from Subsurface Drinking Water	3,47,611.00
43.	Dr. Sushma Tamta (PI)	Hydroponics, Supplementary livelihood option for	2,67,996.00
	Associate Professor Department of Botany D.S.B campus Kumaun University Nainital-263002	vegetables/fruits cultivation	3,03,800.00
44.	Dr. Prabhakar Semwal (PI)	Assessment of nutraceuticals and chemicals composition	2,65,473.00
	Assistant Professor Graphic Era Deemed to be University 566/6, Bell Road, Clement Town, Dehradun & Dr. Vijaylaxmi Trivedi (Co-PI)	of the Himalayan spice "Allium stracheyi" and their micropropagation for sustainable utilization	3,07,204.00
	Assistant Professor HAPPRC Hemvati Nandan Bahuguna Garhwal		2,24,416.00
	University, Srinagar, Garhwal		2,53,946.00
45.	Dr. Santosh Kumar Yadav(PI) Assistant Professor Deptt. of Agronomy G.B. Pant University of Agri. & Tech., Pantnagar	Evaluation of effectiveness of Zero Budget Natural Farming inputs and prevailing organic farming practices in rice-wheat cropping systems in <i>tarai</i> region of Uttarakhand	63,510.00 2,35,396.00
46.	Dr. Naveen Kumar Navani (PI)	Development of Indigenous synbiotic beverage to boost	5,47,403.00
	Indian Institute of Technology, Roorkee	gut health and immunity	
47.	Dr. Tapan Kumar Nailwal (PI)	Green synthesis of nanoparticles from	2,80,000.00
	Sr. Associate Professor Deptt. of Biotechnology Sir J.C. Bose Technical Campus Bhimtal, Kumaun University, Nainital	medicinal/industrial <i>Cannabis</i> species of Uttarakhand Himalayan region and establishment of its micropropagation protocol	2,75,800.00
48.	Dr. Shailaja Punetha (PI) Scientist-C Centre for Socio-Economic development G. B. Pant National Institute of Himalayan Environment, Kosi-Katarmal, Almora	Biochemical and molecular characterization of selected legume crops for identification of suitable germplasm to bridge the nutritional and yield gaps in Uttarakhand	3,13,845.00 2,17,606.00
49.	Dr. Geeta Bhandari (PI)	Bio-Prospecting of Microalgae for Biomass Production	2,16,718.00
10.	Assistant Professor Swami Rama Himalayan University Jolly Grant, Dehradun-248016	and Treatment of Hospital Wastewater	3,17,443.00
50.	Dr. (Mrs) Sonu Ambwani (PI) Assistant Professor Department of Molecular Biology and Genetic Engg. CBSH, GBPUA&T, Pantnagar-263145	Evaluation of herbal immunomodulators as feed additive for improved performance in broiler	2,17,118.00 3,58,900.00
51.	Dr. Manu Pant (PI) Associate Professor Deptt. Of Life Sciences Graphic Era Deemed to be University, 566/6 Bell Road, Clement town, Dehradun	Development of production and utilization methods for cattelya orchids in Uttarakhand	2,26,304.00 2,89,559/-
52.	Dr. K.P.S. Kushwaha (PI)	Dissemination of Production Technology of Mushroom	5,47,418.00
	Professor G.B. Pant University of A.&T. Pantnagar	Among Farmers of Selected Villages of Bhimtal block near Patwadangar, Distt. Nainital, Uttarakhand	3,41,557.00
53.	Dr. (Er.) Kishan Singh Rawat (PI) Associate Professor Geo-informatics, Civil Engineering Department, Graphic Era (Deemed to be University), 566/6, Bell Road, Society Area, Clement Town, Dehradun-248002	Modeling of aquatic environment quality of the high altitude water bodies using remote sensing data and ground information	1,38,605.00
54.	Prof. (Dr.) D.K. Singh (PI)	Collection, Characterization and conservation of	2,91,136.00
	G.B. Pant University of Agri. & Tech. Pantnagar.	vegetable crops biodiversity of Uttarakhand	

55.	Prof. (Dr.) D.K. Singh (PI) G.B. Pant University of Agri. & Tech., Pantnagar.	Studies on seed quality traits and root stock production of Kiwi plant ( <i>Actinida deliciosa</i> c.v. Haward)	3,96,785.00
56.	Dr. Sanjay Gupta (PI) Professor and Head Swami Rama Himalayan University, Jolly Grant, Dehradun	Molecular and Phytochemical Characterization of Rheum sp. In Uttarakhand	2,86,400.00
57.	Dr. B.P. Nautiyal (PI) Professor and Dean College of Horticulture VCSG Uttarakhand University of Horticulture and Forestry, Bharsar	To Develop Suitable Propagation Methods, Establishment of Model Nursery and Cultivation Technology of <i>Lilium Polyphyllum</i> D.Don ex Royle (Chirkakoli): A Critically Endangered Medicinal Plant and other Wild Lily	1,63,765.00
58.	Dr. Anil Kumar Sharma (PI) Professor G.B. Pant University of Agri. & Tech., Pantnagar	Product development of bioinoculant for enhancing productivity under field conditions of Uttarakhand	3,33,262.00

## In-house R&D Projects

S.N.	Name of PI of Address	Project Title	Installments
			Released (Rs.)
1.	Dr. Sanjay Kumar Sharma (PI) Director	High Quality essential oil isolation from Uttarakhand plants, screening of their biological	6,55,000.00
	Uttarakhand Council for Biotechnology, Haldi &	applications and product development.	63,282.00
	Dr. Prabhakar Semwal (Co-PI)		2,20,000.00
	Assistant Professor		70,167.00
	Graphic Era University, Dehradun		
2.	Dr. Sanjay Kumar Sharma (PI)	Biotechnological Intervention to Horticulture	11,00,000.00
	Director Uttarakhand Council for Biotechnology,	Agriculture and Animal Husbandry Sector for Sustainable Upgradation of Uttarakhand Hilly	5,48,206.00
	Haldi	Districts Local Farmers	
3.	Dr. Sumit Purohit (PI)	Studies on propagation of different methods for	18,20,000.00
	Scientist B	large scale multiplication of Kiwi fruit (Actinidia	3,08,924.00
	Uttarakhand Council for Biotechnology Haldi	deliciosa) Uttarakhand	
4.	Dr. Kanchan Karki (PI)	Development of Nanoparticle Based Herbal	36,14,000.00
	Scientist B	Products Using Invasive Plant Species	
	Uttarakhand Council for Biotechnology, Haldi		
	& Dr. Sonu Ambhwani (Co-PI)		1,15,000.00
	Assistant Professor		1,64,986.00
	MBGE, CBSH		1,01,000.00
	G.B.P.U.A.&T., Pantnagar		
	&		1,05,000.00
	Dr. Pooja Saklani (Co-PI)		1,02,649.00
	Associate Professor		
	H.N.B. Garhwal University Srinagar, Garhwal		
5.	Dr. Sanjay Kumar Sharma (PI)	Development of a Multilingual android	3,45,000.00
	Director	application for the sustainable agriculture and	-, -,
	Uttarakhand Council for Biotechnology, Haldi	animal husbandry practices for the farmers from	
	&	hilly and terrain regions of Uttarakhand, India	
	Dr. Sakshi Painuli (Co-PI)		
6.	(Scientist B), UCB, Dehradun  Dr. Manindra Mohan (PI)	Water quality assessment of River Ganga in	46,60,000.00
0.	Scientist B	Uttarakhand	4,64,010.00
	Uttarakhand Council for Biotechnology,		.,0 ,,0 ,0.00
	Haldi		
7.	Dr. Sakshi Painuli (PI)	Phytochemical and biological analysis of	17,30,000.00
	Scientist B	traditional spices used in Uttarakhand.	66,579.00
	Uttarakhand Council for Biotechnology, Dehradun		
	Demaduli		

8.	Dr. Kanchan Karki (PI) Scientist B Uttarakhand Council for Biotechnology, Haldi	Phytochemical analysis of fifteen wild edible fruits of Uttarakhand	28,04,000.00
9	Dr. Sanjay Kumar (PI) Director, Uttarakhand Council for Biotechnology, Haldi & Dr. S.K. Singh (Co-PI) Professor Department LPM, CoVASc. G.B. Pant University of Agri. & Tech., Pantnagar & Dr. Monika Sodhi (Co-PI) Principal Scientist ICAR – National Bureau of Anima Genetic Resources, Karnal	Elucidating positive attributes of Badri cattle and Pantja goat of Uttarakhand for their Value addition	57,88,000.00 29,97,206.00 3,59,000.00 2,63,701.00 13,00,000.00
10.	Dr. Sumit Purohit (PI) Scientist B Uttarakhand Council for Biotechnology, Haldi & Dr. Balwant Rawat (Co-PI) Associate Professor Graphic Era Hill University, Dehradun	In vitro propagation and large scale multiplication of some high value commercial medicinal plants (Zanthoxylum. armatum, Saussurea costus, Swertia chirayita, Amomum subulatum) of Western Himalaya	38,10,000.00 4,65,802.00 1,00,000.00
11.	Dr. Sumit Purohit (PI) Scientist - B/ In-charge Regional Centre, Patwadangar Uttarakhand Council for Biotechnology, Patwadangar, Nainital	Establishment of Plant Quarantine Centre for Strengthening of Regional Centre, Patwadangar, Nainital	52,30,000.00
12.	Dr. Manindra Mohan (PI) Scientist B Uttarakhand Council for Biotechnology, Haldi	Quality Evaluation and Monitoring of Soil & Air of U.S. Nagar District of Uttarakhand	13,60,000.00