

List of Ongoing CSIR Funded Projects:

Sr. No.	Project Name	Total Cost (in lakhs)
1.	Digitization of Indian System of Medicine – Siddha and Sowa Rigpa	319.62
2.	Process development for production of 4-alkyl resorcinol compounds for health care applications	97.756
3.	CSIR Floriculture Mission Phase II	2000.01
4.	CSIR Integrated Skill Initiative (Phase II)	230.308
5.	CSIR Aroma Mission Phase – III: Catalyzing rural empowerment and entrepreneurship development through cultivation, processing, value addition and marketing of aromatic plants	1466.49
6.	Jigyasa 2.0: Virtual Laboratory Integration	100.18
7.	Identification of potential locations across India for seaweed cultivation and their valorization (Phase II)	50.8912
8.	Phenome India-CSIR Health Cohort Knowledgebase	83.00
9.	CSIR Mission on 'Millet – Sustaining Health through Research and Innovation by Analysis of Nutrients and Nutraceuticals to Achieve global Awareness (SHRI ANNA)'	50.00
10.	CSIR Mission project on "Waste to Wealth: Comprehensive solutions towards circular economy and sustainability"	221.20
11.	CSIR Mission project on "Region specific smart agrotechnologies for enhancing soil and plant health (RSSA)"	222.70
12.	Phytopharmaceutical Mission - Phase III	408.84
13.	Specialty Chemicals for Industrial Applications	64.00
14.	Fermentation Scale up and Technology Development of Lead Industrial Enzymes for Biofuel, Food, Feed, Agriculture and Vaccine Applications	64.0376
15.	Genome-editing for crop improvement" (GE-Crop)	320.00
16.	How does heat signaling machinery coax DNA methylation and gene expression patterns in plants - connecting the heat waves and gene waves	88.895
17.	CRM 2-Candidate Indian Certified Reference Materials (CRMs)/Bhartiya Nirdeshak Dravya (BND) of Phyto & Aroma Chemicals for Quality and Safety Assessment of Derived Products	122.60
18.	Phycobiliproteins-based nutraceutical from edible microalgae for the management of fatty liver disease	90.33
19.	Understanding flowering regulation and underground storage organ (USO) formation in economically important geophytes	80.00

Sr. No.	Project Name	Total Cost (in lakhs)
20.	Mass-scale propagation of monk fruit (<i>Siraitia grosvenorii</i>): A new initiative towards health and livelihood improvement	25.00
21.	Understanding epicotyl dormancy for seed-to-seed cycle shortening in Kala Jeera (<i>Bunium persicum</i>)	20.1096
22.	Characterization of Mannanase enzyme (ThMan) from <i>Trichoderma harzianum</i> for applications in Biomass Deconstruction	19.11
23.	Evaluation of cinnamon (<i>Cinnamomum verum</i>) in non-traditional areas of Himachal Pradesh	19.11
24.	Unraveling how Polyphenol oxidase (PPO) senses stress and triggers retrograde signaling through theaflavins to induce stress resilience in Tea (<i>Camellia sinensis</i>)	23.12
25.	Cold or Hot? What determines flowering competency in saffron? Understanding the role of contrasting temperatures in regulating saffron flowering.	23.11
26.	Molecular and chemical characterization of genus <i>Cremanthodium</i> Benth.: A Himalayan Sunflower	19.11
27.	Transcriptional Artists of Amaranthus Leaf Color: Deciphering the Role of MYB TFs in Betalain Biosynthesis	24.12
28.	Exploring the Potential of Oral Thin Films for Nutraceutical Delivery	24.16

List of Ongoing Consultancy, Grant-In-Aid and Sponsored Projects:

SNo	Title of the ongoing Project
1.	Chemometrics as Inventive Tool for Quality Assessment of Medicinal Plants: A Case Study with <i>Conium heterophyllum</i> (Nation Priority Plant)
2.	Development of processing technologies for traditional complementary foods of Western Himalayas and establishment of training and processing center for local artisans
3.	Development of remunerative organic waste management systems for colder regions of India with the intervention of psychrophilic aerobic and anaerobic microbial consortia
4.	Evaluation of genetic consequences of climate change on high altitude specialist species at the altitudinal range limit of the Himalayan mountains
5.	Nutrient enrichment of selected edible flowers of ayurvedic importance through hydroponics and popularizing their cultivation in Himachal Pradesh
6.	Implementing multi-omics approaches to probe thermal sensitivity of C4 grain amaranths (<i>Amaranthus hypochondriacus</i> , <i>A. cruentus</i> and <i>A. caudatus</i>)
7.	Production of Quality Planting Materials of Medicinal Plants Including the Rare Endangered Threatened Species for Conservation and Distribution
8.	Integrated Scientific Solutions for Improving Legacy Municipal Solid Waste Management in the Indian Himalayan Region
9.	Technical and hand holding support by CSIR-IHBT Palampur for saffron production
10.	Preparation and Updating People's Biodiversity Register (PBR) for Selected Biodiversity Management Committees (BMCs) of Himachal Pradesh
11.	Surveillance, multiplex virus diagnostics, raising quality rootstocks for promotion of low chilling varieties of apple (<i>Malus domestica</i> Borkh) in Manipur to improve the livelihood of local farmers
12.	Captive Cultivation, Development of Location Specific Agrotechnology, Downstream Processing and Value Addition of <i>Mentha piperita</i> : A Sustainable Option for Livelihood Improvement and Security in the Himalayan Region
13.	Technology for manufacturing of Spirulina based products and Spirulina fortified multigrain granola energy bars
14.	Prospection and value addition of indigenous foods and vegetable crops of cold regions of Western Himalayas for livelihood and nutrition security
15.	Prospection and value addition of indigenous foods and vegetable crops of cold regions of Western Himalayas for livelihood and nutrition security
16.	Micropropagation of gerbera, potato and bamboo (<i>Bambusa balcooa</i>)
17.	Inter-Institutional Programme Support on the Development and Sustainable Utilization of Bioresource of Mizoram Sub-Project Title: Captive production of Shitake and Oyster mushroom and their processing for Vitamin D2 enrichment
18.	Inter-Institutional Programme Support on the Development and Sustainable Utilization of Bioresource of Mizoram Sub-Project Title: Introduction of low chilling varieties of apple (<i>Malus domestica</i> L.) in Mizoram to improve the livelihood of tribal farmers
19.	Inter-Institutional Programme Support on the Development and Sustainable Utilization of Bioresource of Mizoram Sub-Project Title: Livelihood generation through cultivation and value addition of aromatic plants in Mizoram
20.	Breaking the Barrier of Saffron Cultivation through Technological Interventions for Enhancing Production and Livelihood of Farmers in Kashmir and Non-traditional Areas
21.	Technology for manufacturing/processing of multigrain protein powder
22.	Process for extraction and stabilization of natural colours and their applications in food and cosmetics
23.	Technology for manufacturing/processing of granola bars (millets & cereals based)
24.	Technology transfer on herbal incense cones and herbal soap

25.	Development of mycovirus based biological control strategy for the control of <i>Rosellinia necatrix</i> infecting fruit crops and <i>Sclerotinia sclerotiorum</i> infecting vegetable crops in the Indian Himalayan Region
26.	Value addition and Product Diversification in Tea
27.	Establishing efficient platform for genetic engineering in Indian Tea
28.	Germplasm characterization, genomics analysis and gene discovery for yield, metabolite and stress tolerance in Tea
29.	Development of Probiotics for Plant Tissue Culture Boosting the performance of micro propagated plant materials by supplementing plant associated useful endophytes
30.	Enhancing thermostability of Himalayan processive endoglucanase for application in bioethanol industry
31.	Development of Hand Sanitizer
32.	Enhancing C and N assimilation in <i>Brassica juncea</i> by genetic engineering for yield enhancement
33.	Process optimization and up-scale production of lignocellulosic extremozymes from Himalayan microbes for biomass valorization/depolymerization
34.	Population studies and establishment of field conservatories of threatened medicinal species <i>Eremurus himalaicus</i> Baker and <i>Polygonatum cirrhifolium</i> (Wall.) Royle in the cold desert, Himachal Pradesh
35.	Triloki Enriched Composting / Vermicomposting Cluster
36.	Moonew Tareybhair Enriched Composting / Vermicomposting Cluster
37.	West Sikkim Shiitake Mushroom and Other Food Processing cluster
38.	Sumbuk Shiitake Mushroom and Other Food Processing Cluster, Sumbuk, South Sikkim
39.	Norbu Choelling Shiitake Mushroom and Other Food Processing cluster
40.	Formulation of stevia liquid drops
41.	Running and maintenance of the Institutes' bamboo nurseries for generation and supplying quality planting material
42.	Building scientific competency through training in R&D
43.	Shansha Cut Flower Cluster
44.	Formulation of stevia liquid drops
45.	Role of viral and host factors in circulative transmission of tomato begomoviruses by the whitefly <i>Bemisia tabaci</i>
46.	Manufacturing/processing technology of ready to eat foods (RTE) free from chemical preservatives
47.	Development of Tea Based Vinegar
48.	Deciphering Chloroplast Oxi-proteome for Engineering Oxidative Stress Resilient Chloroplasts in Plants
49.	Targeting HRas-SOS1 interaction: Rational drug design and validation
50.	Technology of herbal soaps and herbal incense cones
51.	Production of Heeng in Himachal Pradesh - A new approach (RNS)
52.	Captive production vitamin D2 enriched Shiitake mushroom and cold-tolerant indigenous efficient hydrolytic bacterial formulation supplemented with biofertilizers for vermicomposting).
53.	Investigation of novel formulation approaches for augmenting the bioavailability of a universal antioxidant
54.	Genome wide identification, characterization and functional evaluation of basic leucine zipper (bZIP) transcription factors regulating biosynthesis of bioactive picrosides in <i>Picrorhiza kurroa</i> , an endangered Himalayan medicinal herb
55.	Technology for manufacturing/processing of granola bars (millets & cereals based)
56.	Cultivation of shiitake mushroom and its enrichment with vitamin D2

57.	Integrating imaging, multi-omics, and machine learning to capture stress-resistant leaf traits
58.	Transcriptional and hormonal regulation of epicotyl dormancy in Kala Jeera (<i>Bunium persicum</i>)
59.	Anthocyanins as a food additive: Strategy for nanoencapsulation influences stability and bioavailability
60.	Technology for commercial production of formulation promoting cartilage health
61.	Cultivation of Shiitake mushroom and its enrichment with Vitamin D2
62.	Technology for commercial production of nutraceuticals fortified beverage mixes and energy bars
63.	Establishment of hydroponic facility for production of Liliun and Tulip plants
64.	Technology transfer agreement for Herbal Formulation for Immunity Modulation
65.	Allele Mining for High-temperature Tolerance in Buckwheat - a Cold Desert Pseudocereal from The Himalayas
66.	Development of genomic resource and genetic diversity characterization to strategize sustainable cultivation and conservation of medicinally important Hedychium spicatum
67.	Taxonomy and DNA metabarcoding authentication of endangered and rare Astavarga group of Medicinal Plants
68.	Technology transfer agreement to make herbal soap and herbal oil
69.	Cultivation and Production of Kutki and Jatamansi plant under hydroponic system
70.	Selective grading of tea leaves using deep learning with the integration of hyperspectral images and metabolites to enhance tea quality
71.	Technological innovations for development of functional foods from ethnic fermented foods of the Indian Himalayas
72.	Molecular approaches to understand the role of Apple scar skin viroid RNA structural features in pathogenesis and disease development
73.	Elucidation of plant responses to high UV radiation and low temperature stress at high altitudes in Juniperus polycarpus K. Koch, a highly adapted woody evergreen species of Trans-Himalaya
74.	Understanding the molecular mechanism underlying cambial meristematic cells (CMCs) differentiation and their utilization for specialized metabolite production in Picrorhiza kurroa
75.	Technology for manufacturing of (i) Granola bars - (millet and cereals based), and (ii) Spirulina peanut bar PRODUCTS
76.	Study of ecosystem responses to early snow melting in western Himalayan alpine environment
77.	Cultivation and production of medicinal plants (Picrorhiza, Valeriana) under hydroponic system tissue culture protocols and extraction of the Produce
78.	Cultivation of Shiitake mushroom and its enrichments with Vitamin D2
79.	Transfer of technology for Tea Wines and RTD Tea
80.	Transfer the lab scale technology for ready to reconstitute oral formulations utilizing microalgae and carry out need based R&D project for development of Algae based nutraceuticals and derived food formulations
81.	Ramanujan Fellowship RJF 12020 I 000070- Effects of alpha2-antiplasmin on fibrosis, neovascularization and inflammation in chronic deep vein Thrombosis
82.	Development of Bioelectronic Sensor Technology Coupled with High-Throughput Metabolomics for Quality Control of <i>Jatamansi</i> : An Economically Important medicinal plant
83.	Establishment of Institutional Herbal Garden at CSIR-IHBT, Palampur
84.	Production and supply of "Compost Booster" and "Effective Microbial" solution and consultancy for its usage for efficient organic waste/night soil management
85.	The Himalayan Centre for High-throughput Computational Biology (HiChiCoB) - BIC at CSIR-IHBT, Palampur (HP)

86.	Investigation of Electrospun Fast Dissolving Nanofibers for Augmenting the Therapeutic Efficacy of Nutraceuticals against Intracerebral Haemorrhagic Stroke
87.	Dynamics of DNA methylation in grain filling under heat stress and development of epimarkers for buckwheat (<i>Fagopyrum sp</i>) breeding programs
88.	Technology for Herbal Formulation for Immunity Modulation
89.	Technology for making, manufacturing, designing and using the said distillation units of different capacities for processing aromatic herbs for extraction of essential oils as per technical know-how of CSIR-IHBT
90.	Technology for making travel/pocket perfumes (4-5 variants)
91.	Technology for producing floriculture plants by using facilities at CSIR-IHBT premises for its commercial sale
92.	Pan-India multicentric study on NeuroCYSTicercosis: Unravelling its metabolOMICS and proteOMICS architecture to enable its diagnosis and understand epilepsy (CYST-OMICS)
93.	Mapping of Downy Mildew resistance genes in <i>Cucumis sativus</i> L. using BSA Seq approach coupled with RNA Sequencing
94.	Production and supply of "Compost Booster" and "Effective Microbial" solution and consultancy for its usage for efficient organic waste/night soil management
95.	Technology for making/ preparation of Tea Mouthwash as per technical know-how of CSIR-IHBT
96.	Technology/process for establishment of processing/making facility for ready to eat instant Seera in convenience package
97.	Analytical services under analytiCSIR, CSIR-IHBT
98.	Deciphering the stress-induced and chloroplast-triggered programmed cell death in <i>Arabidopsis thaliana</i>
99.	Compost Booster-Single solution for stabilization of night soil/ kitchen waste
100.	Collection, Conservation and Characterization of <i>Fritillaria cirrhosa</i> gerplasm
101.	Development of Chemometric Database: A Futuristic Approach for the Quality Assurance of Commercially Important Himalayan Medicinal Plants
102.	Technology for manufacturing/production of tissue culture plants (Saffron)
103.	Fabricating distillation units of 5 kg to 250 kg per batch capacity for extraction of essential oils and use of the trademark "HerbostillTM" for fabricated 5 kg and 10 Kg capacity distillation units
104.	Technology for (i) Granola/protein/energy bars - (millet and cereals, protein based) PRODUCTS, and (ii) instant protein beverage mixes products/ variants
105.	Technology Transfer Agreement for taking up the lab scale technology (further upscalable for commercial production) for Instant Tea (KNOWHOW)
106.	Technology for manufacturing/processing of multigrain protein powder plus variants as per technical KNOW-HOW of CSIR-IHBT, Palampur
107.	Millet for Health, Well Being and Nutritional Security Collection and Mapping of Traditional Millet Based Food Products of Western Himalaya and their Value Addition
108.	Understanding the molecular mechanism underlying seed-associated endophytes regulated seed germination process of Himalayan medicinal plants and their application in food crops as synthetic microbial communities for stress tolerance
109.	Therapeutic Efficacy of mitochondrial superoxide dismutase (mSOD)-Loaded Nanoparticle Formulation in an Animal Model of Cerebral Ischemia-Reperfusion Injury
110.	Technology Transfer Agreement to establish facility for "Process for production of dual bio-products (bioplastic and violacein pigment) from Himalayan bacterial isolate PCH194"
111.	National Network Project of CSIR-IHBT, Palampur
112.	Technology Transfer Agreement to establish processing technology for extraction of steviol glycosides

113.	Cultivation of Lentinula edodes (Shiitake mushroom) in synthetic logs and Pleurotus Ostreatus (Oyster) in wheat/rice straw bags and development of vitamin D2 enriched Shiitake and oyster mushroom
114.	Computational investigation into the role of alternative splicing in cellular differentiation, tissue regeneration, diseases, and evolution
115.	Technology for manufacturing/ processing of manufacturing/ processing of iron enriched bars PRODUCT
116.	Technology for commercial production of formulation promoting cartilage health
117.	Micropropagation of Apple and Monk Fruit
118.	Technology for manufacturing/processing of multigrain protein powders fortified with Mushrooms
119.	Technology for Herbal Soap
120.	Captive cultivation of shiitake mushroom its enrichment with vitamin D2 and development of value-added products like Vitamin D-rich shiitake soup with 1 RDA
121.	Technology for making/ preparation of Tea Mouthwash
122.	Transfer of technology for manufacturing / processing of multigrain protein powder
123.	Technology for manufacturing/ processing of millet panjeeri (i) Plain millet panjeeri, (ii) Multi millet panjeeri i.e. multipurpose flour for laddoo
124.	Unraveling the intricacies of plant microbe interactions using advanced high-resolution mass spectrometry and stable isotopes