



CSIR INSTITUTES - RESEARCH AREA FOR JOINT DOCTORAL PROGRAM, (JDP)

Sr. No.	Area of Collaborative Research for JDP	Sub-areas of Collaborative Research of JDP	Supervisor with designation and e-mail ID	CSIR-Institutes
1	Cell Death Biology	Cancer Biology, NAFLD/NASH, Cerebral stroke & Traumatic Brain Injury	Dr. Durga Prasad Mishra, Senior Principal Scientist, Professor (AcSIR); dpm@cdri.res.in	CSIR-CDRI
2	Pulmonary and Cardiovascular, Pharmacology and Therapeutics	COPD, Asthma, Cardiomyopathy	Dr. Baisakhi Moharana, Scientist, Assistant Professor (AcSIR); b.moharana@cdri.res.in	CSIR-CDRI
3	Drug discovery (antibacterials)	Microbiology	Dr. Sidharth Chopra, Principal Scientist, Associate Professor (AcSIR); skchopra.007@cdri.res.in	CSIR-CDRI
4	Parasitology	Malaria Biology	Dr. Satish Mishra, Principal Scientist, Associate Professor (AcSIR); satish.mishra@cdri.res.in	CSIR-CDRI
5	Cardiovascular System Diseases	Hypertension, Pulmonary Hypertension, Cardiac hypertrophy	Dr. Kashif Hanif, Principal Scientist, Associate Professor (AcSIR); k_hanif@cdri.res.in	CSIR-CDRI
6	Formulation Development and Pharmacokinetics	Drug delivery	Dr. Manish Kumar Chourasia, Senior Principal Scientist, Professor (AcSIR); manish_chourasia@cdri.res.in	CSIR-CDRI
7	Male & Female Reproductive Health	Infertility & Gynaec Cancers	Dr. Monika Sachdev, Principal Scientist, Associate Professor (AcSIR); monika@cdri.res.in	CSIR-CDRI
8	Biochemistry and Biophysics	Characterization of natural compounds and biomolecules by NMR spectroscopy, ITC, HPLC, and DSF	Dr. Ashish Arora, Senior Scientist, Assistant Professor (AcSIR); ashish_arora@cdri.res.in	CSIR-CDRI
9	Natural Products Chemistry	Phytochemistry	Dr. Richa Pandey, Senior Scientist, Assistant Professor (AcSIR); richa.pandey@cdri.res.in	CSIR-CDRI
10	Neurotherapeutics	Neuroprotection	Dr. Shubha Shukla, Principal Scientist, Associate Professor (AcSIR); shubha_shukla@cdri.res.in	CSIR-CDRI
11	Isolation and structure elucidation of Natural Products from indian medicinal plants, endophytic microbes and marine organisms including synthesis and bioactivity testing.	Detailed studies of extracts/ molecules against biological targets for cancer/neurological disorder and Immunomodulator	Dr. Asif Ali, Principal Scientist, Associate Professor (AcSIR); asifali@cdri.res.in; asifchem73@gmail.com	CSIR-CDRI
12	Validation and Redefining of Ayur foods in alleviation of Anemia	1. Formulation of foods with ayurvedic herbs for alleviation of anemia 2. Community based studies	Dr. Jyothi Lakshmi A, Sr. Principal Scientist, jyothi.lakshmi@cftri.res.in, Traditional Foods & Applied Nutrition, CSIR – CFTRI, Mysore	CSIR-CFTRI
13	Ayush Aahaar & Ayurceuticals	1. Phyto profiling of novel Ayurceuticals 2. Safety, pre-clinical & clinical trials of Ayurveda Aahar for immune & live health	Dr. Madan Kumar P, Scientist, madanperumal@cftri.res.in Dept. of Biochemistry, CSIR – CFTRI, Mysore	CSIR-CFTRI

14	Exploirng the functioal attributes of traditional Ayurvedic foods	1. To study the nutritional and nutraceutical potential of Ayurveda signified rice varieties sali, sastika and Vrihi and optimize cooking properties for better bioaccessibiltiy of nutrients through various ayur foods ; 2.Kulatha (horse gram) based ayurvedic soup 'Yusa' and studies on its hidden health benefits preparations.	Dr. Shruti Pandey, Principal Scientist, shruti@cftri.res.in Grain Science Technology, CSIR – CFTRI, Mysore	CSIR-CFTRI
15	Food Grade Polyherbal formulations and evaluation of efficacy against Life style diseases	Broadly areas of plantation products, spices, herbs and flavours and innovations complementary to Food science Technology and Ayurveda such as 1.Life style issues (LSI), health, nutracueticals, cognition	Dr. B B Borse, Sr. Principal Scientist, borsebb@cftri.res.in Plantation Products, Spices & Flavour Technology CSIR – CFTRI, Mysore	CSIR-CFTRI
16	Fermented Ayur products and Gut health	1. Gut microbiota modulation studies in existing ayurvedic products 2. Microflora and health benefit studies of fermented ayurvedic products, & 3. Health benefits of phytochemicals and bioactive from ayurvedic products available commercially.	Dr. Praksh Halami, Chief Scientist prakashalami@cftri.res.in, Microbiology and Fermentation Technology, CSIR – CFTRI, Dr. Praveena B Mudliar, Principal Scientist praveena@cftri.res.in, Microbiology and Fermentation Technology, CSIR – CFTRI Dr Mahejibin Khan, Sr. Scientist mahejibin@cftri.res.in, Microbiology and Fermentation Technology, CSIR – CFTRI,	CSIR-CFTRI
17	Scientific validation of traditional claims/leads using Reverse Pharmacology Approach under AYUSH guidelines.	<input type="checkbox"/> Development of standardized herbal formulations, based on Ayurveda [proprietary Ayurvedic formulations] (mono or polyherbal) using traditional claims. <input type="checkbox"/> Pre-clinical [efficacy and safety study on small animal model]. <input type="checkbox"/> Standardization of Medicinal plant or plant based Formulations based on Ayurveda, Siddha, Unani against. <input type="checkbox"/> Diabetes <input type="checkbox"/> Arthritis <input type="checkbox"/> Gut inflammation [Ulcerative Colitis] <input type="checkbox"/> Allergy & Asthma <input type="checkbox"/> Pyrexia [Javar], <input type="checkbox"/> Hepatoprotective.	Dr. Daya Nandan Mani Professor, dn.mani@cimap.res.in, 0522-2718587 cell-No: 9415251464	CSIR-CIMAP

18	Pharmacology and Toxicology	Inflammation-linked diseases using in-vitro and in-vivo pharmacology on the following diseases <input type="checkbox"/> Immuno-Pathogenesis of Malaria <input type="checkbox"/> Sepsis; A systemic inflammatory response <input type="checkbox"/> Skin Inflammation <input type="checkbox"/> Liver Inflammation <input type="checkbox"/> Lung Inflammation <input type="checkbox"/> Pain, Fever, and Inflammation Management <input type="checkbox"/> Rheumatoid Arthritis <input type="checkbox"/> Low-grade inflammation induced Insulin Resistance in mice	Dr. Dnyaneshwar Umrao Bawankule, Professor (AcSIR), du. bawankule @cimap.res.in, 0522-2718646 (Office) +91-9415329719 (Mobile)	CSIR-CIMAP
19	Biological Sciences; Medicinal Plant Biotechnology; Ayurveda Omics	(I) Biotechnology with focus on alkaloid-producing plants; (II) Modern science-based evaluation of selected Ayurvedic medicinal plants for antidiabetic, hepatoprotective, antiallergic, and IBD-managing potential; (III)* Exploration of the molecular basis for dosha-balancing property-based classification of plants in Ayurveda.	Dr. Ashutosh K. Shukla, Associate Professor, ashutoshshukla@cimap.res.in; ashupov@yahoo.com, 91-522-2718553 (Off); 91-9450932113 (Cell)	CSIR-CIMAP
20	Immunity and Infectious Diseases	In-vivo studies related to prospecting Medicinal and Aromatic Plants for Gut Immunity, Malaria, Staphylococcus aureus and Salmonella	Dr. Anirban Pal Professor, a.pal@cimap.res.in, drapaul@gmail.com, +91 522 2718644, +91 9415011404	CSIR-CIMAP
21	Pharmacology and Toxicology	Cardiovascular Pharmacology and safety evaluation	Dr. Debabrata Chanda, Associate Professor d.chanda@cimap.res.in, 0522-2718643, 9919873638	CSIR-CIMAP
22	Analytical Chemistry of Aromatic and Medicinal Plants Natural Product Chemistry	Separation of natural product compounds using various chromatographic techniques including gas chromatography (GC), gas chromatography - mass spectrometry (GC-MS), high-performance liquid chromatography (HPLC) are the research works being carried out in the lab. Our lab also works on the evaluation of quality parameters for essential oils and medicinal plant extracts. Development of methods/methodologies for separation, identification and quantification of secondary metabolites from plants using various analytical techniques are also carried out by our lab.	Dr. V S Pragadheesh Assistant Professor (Chemical Sciences), vspragadheesh@cimap.res.in, Mobile : 994558650	CSIR-CIMAP
23	Natural Products Chemistry	1. Isolation, characterization and bioactivity of natural products 2. Chemical and catalytic modification of natural products for enhancing bioactivities	Dr. Prasanta Kumar Rout, Associate Professor, pk.rout@cimap.res.in, 0522-2718662 (Office) 9598683304 (mobile)	CSIR-CIMAP
24	• Standardization and QA/QC of herbs and Herbo-mineral products • Phytochemistry • Analytical Chemistry	<input type="checkbox"/> Phytochemical investigations of the Indian Medicinal plants used in AYUSH <input type="checkbox"/> Validated chromatographic development for the standardization of raw herbs and derived products	Dr. Karun Shanker Professor, k.shanker@cimap.res.in 0522-2718580, Cell-No: 9415329718	CSIR-CIMAP

25	Phytochemistry	Natural Product Chemistry, especially on aromatic plants	Dr. R.C. Padalia, Associate Professor rc.padalia@cimap.res.in, 9917472497	CSIR-CIMAP
26	Microbiology,	Anti-infective: Prospecting plants, phytomolecules for antimicrobial properties	Dr. D. Saikia, Chief Sci., Professor d.saikia@cimap.res.in, 0522-2718650	CSIR-CIMAP
27	Integrative Genomics of Host-Pathogen	Infectious Disease, Clinical Genomics, Pathogen genome, Host response	Dr. Rajesh Pandey, Principal Scientist, CSIR-IGIB, rajesh.p@igib.res.in, https://www.igib.res.in/?q=RajeshPandey	CSIR-IGIB
28	Machine Learning and Artificial Intelligence on Big Data from Biological Domain	Genotype-Phenotype Association Analysis, Genome Informatics	Dr. Kumardeep Chaudhary, Senior Scientist, CSIR-IGIB, kumardeep@igib.in, https://www.igib.res.in/?q=Kumardeep	CSIR-IGIB
29	Machine Learning and Artificial Intelligence	Physiological Understanding of bio-signal data, NAFLD/Lung Diseases and Immunology	Dr. Viren Sardana, Principal Scientist, CSIR-IGIB, viren.sardana@igib.in, https://www.igib.res.in/?q=VirenSardana	CSIR-IGIB
30	Ayurgenomics	physiological and genomic correlates of Dosha and prakriti ; Mechanistic understanding of therapeutic interventions of Ayurveda through Ayurgenomics approach; Application of prakriti and vikriti in disease stratification for precision interventions_ cardiometabolic disorders	Dr. Bhavana Prasher, Senior Principal Scientist, CSIR-IGIB, bhavana.p@igib.res.in, https://www.igib.res.in/?q=bhavnaprasher	CSIR-IGIB
31	Scientific Validation of Plant Traditional Knowledge	1. Plant Traditional Knowledge Derived Discovery of Lead Anti-malarial Agents 2. Scientific Understanding of Anti-microbial Formulations used in Traditional System of Medicines 3. Phytochemical Investigation of Himalayan Medicinal Plants used for Immunomodulation in Ayurveda	Name: Dr. Upendra Sharma Designations (CSIR and AcSIR): Senior Scientist & Asst. Professor Email ID: upendra@ihbt.res.in	CSIR-IHBT
32	Pharmacognosy and Phytochemistry	1. Standardization and quality control of Ayurvedic drugs 2. Pharmacognostical and phytochemical investigations of medicinal plants 3. Formulation development and standardizations as per AYUSH	Name: Dr. Dinesh Kumar Designations (CSIR and AcSIR): Senior Scientist & Asst. Professor Email ID: dineshkumar@ihbt.res.in	CSIR-IHBT
33	Computational Structural Bioinformatics	1. Exploration of Himalayan bio-active leads against MDR-TB. 2. Identification of natural molecules for the treatment of type 2 diabetes mellitus. 3. Mechanistic insight into the synergistic effect of plant extract given for curing diseases.	Name: Dr. Rituraj Purohit Designations (CSIR and AcSIR): Principal Scientist & Associate Professor Email ID: rituraj@ihbt.res.in	CSIR-IHBT

34	Medicinal plant biotechnology and tissue culture	1. Hydroponic and aeroponic cultivation of medicinal plants for metabolite enriched quality plant biomass production for the preparation of herbal formu+A9:D9lations 2. Ayurvedic herbal formulation development from hydroponically grown plants 3. Quality assessment of herbal formulations developed from hydroponically cultivated medicinal herbs	Name: Dr. Ashish R. Warghat Designations (CSIR and AcSIR): Senior Scientist & Asst. Professor Email ID: ashishwarghat@ihbt.res.in	CSIR-IHBT
35	Skeletal and Respiratory Biology	1. Efficacy evaluation of polyherbal formulation on a preclinical model of osteoarthritis. 2. Studies for unraveling molecular mechanisms involved in the mitigation of allergen-induced asthma. 3. Therapeutic potential of polyherbal formulation on bleomycin-induced pulmonary fibrosis.	Name: Dr. Narendra Vijay Tirpude Designations (CSIR and AcSIR): Senior Scientist & Asst. Professor Email ID: narendra@ihbt.res.in	CSIR-IHBT
36	Diabetes and metabolic diseases, immunity dysfunction and inflammation	To be discussed and decide later after due deliberations	Dr. Y. S. Padwad, Designations (CSIR and AcSIR): Principal Scientist & Asst. Professor Email ID: yogendra@ihbt.res.in	CSIR-IHBT
37	microbiology	drug resistance in microbes	Dr. Suchi Srivastava Principal Scientist, CSIR- National Botanical Research Institue, Lucknow, S.srivastava@nbri.res.in	CSIR-NBRI
38	Herbal Drug	Pharmacognosy and Ethnopharmacology	Dr. Sanjeev Kumar Ojha, MD (Ayurveda) Senior Principal Scientist, E-mail: dr.sanjeevojha@nbri.res.in drsanjeevojha@yahoo.co.in	CSIR-NBRI
39	Pharmacognosy and Phytochemistry	Monographic studies of ayurveda drugs; Shodhana process; Adulterants and substitutes; Rasanaya; Pharmacopoeial standardizations	Dr. Sharad Srivastava, Sr. Principal Scientist and Head Pharmacognosy Division, Email: sharad@nbri.res.in	CSIR-NBRI
40	Medicinal and Aromatic plant	Abiotic stress- salt, drought and moisture (Soil Science)	Dr. Lal Bahadur, Principal Scientist, lb.yadav@nbri.res.in	CSIR-NBRI
41	Biological Sciences	Botany/Ethnomedicine	Dr Bikarma Singh, Senior Scientist, drbikarma.singh@nbri.res.in	CSIR-NBRI
42	Pharmacology	Invivo safety and efficacy studies	Dr Ch V Rao, Chief Scientist, Head Pharmacology Division CSIR-NBRI, Lucknow chvrao72@nbri.res.in	CSIR-NBRI
43	Noanobiotechnology Microbiology and drug developmet		Dr B N Singh, Principal Scientist brahmasingh99@gmail.com	CSIR-NBRI
44	Phytopharmaceuticals and nutraceuticals	Plants and Microorganisms	Thulasiram H V, Chief Scientist, CSIR-NCL, Pune 411008	CSIR-NCL
45	Microbiology, Mycotoxins	Microbial Quality of Herbal products and drugs and Process for decontamination	Dr.V.Koteswara Rao; v.koteswara@ncl.res.in	CSIR-NCL
46	Chemical characterization of Prakriti (Vata, Pitta, and Kapha) by using proteomics and metabolomics approaches	Proteomics and Metabolomics	Dr. Mahesh Kulkarni, Senior Principal Scientist, CSIR-NCL, Pune E-Mail: mj.kulkarni@ncl.res.in	CSIR-NCL

47	Area: Phytochemistry of medicinal plants	Bioactivity-guided Isolation and characterization of biologically active metabolites from natural origins Expertise in isolation and characterisation of complex phytomolecules Scientific validation of herbal formulations, Development of protocols for scientific validation, and other related aspects in Dravyaguna	Dr. KV Radhakrishnan, Sr Principal Scientist Email:radhu@niist.res.in ,Mobile: 9446555258	CSIR-NIIST
48	Area : AYUSH Drugs and Phytopharmaceuticals	Bioactivity-guided Isolation and characterization of biologically active metabolites from natural origins Development of New Herbal Formulations/Nutraceuticals Development of new analytical methods for herbal drugs and validation of methods Research focus: Diabetes mellitus, Rheumatoid arthritis, Reproductive health, and Alzheimer's disease.	Dr. A. Kumaran, Principal Scientist CSTD, CSIR-NIIST, Thiruvananthapuram akumaran@niist.res.in, 8714510546	CSIR-NIIST
49	Area-Biochemical validation of AYUSH DRUGS	Biomarker level validation in in vitro and in vivo conditions against inflammation, cancer and maintenance of gut health and intestinal microflora.	Dr. Priya S, Principal Scientist APTD, CSIR-NIIST, Thiruvananthapuram priyasulu@niist.res.in, 8606135606	CSIR-NIIST
50	Area :Food Science Formulation of P & P Products and physico chemical characterization	(1) Modernization of process for the preparation of classical products and process efficacy evaluation (2) Phytochemical characterization (3) Byproduct valorisation: Recovery and application of bioactives and biopolymers	Dr. P Nisha, Principal Scientist APTD, CSIR-NIIST, Thiruvananthapuram, pnisha@niist.res.in, 9846777133	CSIR-NIIST
51	Area: Phytochemistry and Phytopharmaceuticals	Bioactivity guided isolation and identification of medicinally significant metabolites from natural origins Development of New Herbal Formulations/Nutraceuticals Research focus: Metabolic disorders, inflammation and Alzheimer's disease.	Dr. Sasidhar B S Principal Scientist CSTD, CSIR-NIIST, Thiruvananthapuram drsasidharbs@niist.res.in Mobile: 9497260897	CSIR-NIIST
52	Area: Targeted Drug Delivery System / Nanomedicine	Development of Synergetic combination of drugs / phytomolecules; Drug loading and release profile; in vitro screening in the area of cancer and neurodegenerative disorder, e.g. Alzheimer's disease.	Dr. Kaustabh Kumar Maiti Sr Principal Scientist CSTD, CSIR-NIIST kkmaiti@niist.res.in	CSIR-NIIST
53	Area : Modernizing ayurvedic drug manufacturing	Standardisation of fermentation processes in the manufacturing of Arishtas and Asavas including development of standard inocula Development of quality control parameters based on detection of molecule(s) for monitoring the manufacture of Arishtas and Asavas	Dr Rajeev K Sukumaran Sr. Principal Scientist MPTD, CSIR-NIIST, Thiruvananthapuram rajeevs@niist.res.in 9446482557	CSIR-NIIST
54	Area : Phytochemistry of medicinal plants & Microbial natural products	Expertise in isolation and characterisation of complex phytomolecules and microbial natural products, especially the fermentation products in arishta, asava etc	Dr. Ravishankar L ,Principal Scientist CSTD, CSIR-NIIST, Thiruvananthapuram ravishankar@niist.res.in ,Mobile: 9037386623	CSIR-NIIST

55	Area : Food Science	Food products & nutraceuticals based on classical ayurveda Protocol development for validation of classical ayurveda products and P& P products in herbal sector	Dr. Reshma MV, Principal Scientist APTD, CSIR-NIIST, Thiruvananthapuram mvreshma@niist.res.in, 9496100937	CSIR-NIIST
56		Development of fermented ayurvedic formulation(s); Development of novel biocompatible delivery systems for ayurvedic treatment	Dr. Anirban Roy Choudhury	CSIR-IMTECH
57		Data analysis specifically dealing with NGS and evaluation of small molecules including peptides for new drug discovery or drug repurposing	Dr. Anshu Bhardwaj	CSIR-IMTECH
58		In silico screening of ayush libraries on low resolution and low confidence models from SAXS and ED.	Dr. Ashish	CSIR-IMTECH
59		Computational Biology, Bioinformatics, Molecular modeling and Simulations	Dr. Balvinder Singh	CSIR-IMTECH
60		Infectious Diseases more specifically pathogenesis of Tuberculosis.	Dr. Charu Sharma	CSIR-IMTECH
61		Antimicrobial Resistance (AMR); Bacterial signaling mechanisms; ONE health; Microbiome	Dr. G. Rajamohan	CSIR-IMTECH
62		Antimicrobial resistance and its management by drug/ antibiotic/inhibitor discovery from phytochemicals of medicinal plants as well as unexplored plants for infectious disease indications.	Dr. Hemraj S. Nandanwar	CSIR-IMTECH
63		Protein biochemistry; Structural Biology; Enzymology.	Dr. Karthikeyan Subramanian	CSIR-IMTECH
64		Plant/microbe based bioactives, nutraceuticals, and development of new methods for their production.	Dr. M. S. Bhattacharyya	CSIR-IMTECH
65		Pharmacological and toxicological studies of ayurvedic products. Safety and efficacy studies/scientific validation of value of ayurvedic products in preclinical research.	Dr. Neeraj Khatri	CSIR-IMTECH
66		Probiotics and Antimicrobials	Dr. P. Anil Kumar	CSIR-IMTECH
67		Naturopathy with specific area of using ginger compounds as remedy for Chronic Kidney disease (CKD) and the identification of active ingredients from beet root for lowering blood pressure.	Dr. Raman Parkesh	CSIR-IMTECH
68		Microbiology and Microbial ecology	Dr. S. Krishnamurthi	CSIR-IMTECH
69		Microbial diversity and antimicrobial peptides,	Dr. Suresh Korpole	CSIR-IMTECH
70		Exploitation of plant-based pigments for Biotherapeutic applications.	Dr. V. Venkata Ramana	CSIR-IMTECH
71		Nanotechnology/immunodiagnostics /Biosensors	Dr. Vijayender Bhalla	CSIR-IMTECH