

| Sponsored Research Projects |  |   |           |          |             |
|-----------------------------|--|---|-----------|----------|-------------|
| S.No                        | Title  | PI  | Duration  | Agency   | Funding     |
| 1                           | Studies on genetic variability in <i>Ganoderma lucidum</i> to study elite strain for commercial purposes   | Dr. Savita Jandaik  | 2009-2012 | DST      | ₹ 1,414,000 |
| 3                           | Identification of substrates for <i>S. cerevisiae</i> Polo- like kinase (PLK), Cdc5 during meiotic cell division   | Dr. Anuradha Sourirajan                                       | 2011-2015 | DBT      | ₹ 4,548,000 |
| 4                           | Steam Cooking  | Dr. Munish Sethi  | 2012-2013 | MNRE     | ₹ 4,560,192 |
| 5                           | Fabrication and characterization of substrate for patch antenna by using nano magneto-dielectric materials for the missile applications                                      | Dr. Atul Thakur (PI) Dr. Preeti Thakur (Co. PI)               | 2012-2014 | DRDO     | ₹ 990,000   |
| 6                           | Prevalence and Characterization of <i>Echinococcus granulosus</i> strains isolated in Himachal Pradesh   | Dr. Umar Farooq   | 2012-2015 | ICMR     | ₹ 3,500,000 |
| 7                           | Identification of genes involved in the pathogenesis of <i>Rosellinia necatrix</i> causing white root rot of apple   | Dr. Saurabh Kulshrestha                                       | 2012-2015 | DST      | ₹ 2,300,000 |
| 8                           | Nano magneto-dielectric materials for high frequency applications  | Dr. Atul Thakur   | 2012-2015 | DAE      | ₹ 1,724,000 |
| 9                           | Identification and characterization of medicinal plants of North-West Himalayas with synergistic effects on traditional antibiotics to control clinical bacterial infections | Dr. Anuradha Sourirajan                                       | 2012-2016 | SERB/DST | ₹ 2,270,000 |
| 10                          | Identification of genes conferring beneficial biofertilizer and biocontrol activities in plant-growth-promoting rhizobacteria (PGPR) for crop improvement                    | Dr. Adesh K Saini (PI)  | 2013-2016 | DST      | ₹ 2,340,000 |
| 11                          | Isolation & Characterization of bioactive leads from <i>Pinus</i> for prevention of osteoporotic syndrome  | Dr. Rohit Goyal   | 2013-2016 | DST/SERB | ₹ 2,130,000 |
| 12                          | Isolation, optimization and cloning of nitrilase of thermophilic isolate from hot springs of Himachal Pradesh and its application in mandelic acid synthesis                 | Dr. Amit Seth (PI)  | 2013-2016 | DST/SERB | ₹ 1,780,000 |
| 13                          | Process optimization for recovery and purification of Zein and xanthophylls (resp. valuable maize proteins and pigments) and its stability application in food products      | Dr. Dinesh Kumar (PI) & Dr. Somesh Sharma                     | 2013-2016 | DBT      | ₹ 1,620,000 |
| 14                          | Isolation & characterization of putative efflux pump inhibitors in mdr phenotype <i>Pseudomonas aeruginosa</i> from plant sources  | Dr. Sunity Singh  | 2013-2016 | SERB     | ₹ 1,800,000 |
| 15                          | Isolation and identification of bioactive compounds from wild mushrooms for new drug discovery   | Dr. Astha Tripathi (PI), Dr Saurabh Kulshrestha (Co-PI)       | 2014-2017 | DBT      | ₹ 1,580,000 |
| 16                          | Testing for the Efficacy of Functional Foods: Collaborative Development of an Assay to Determine Impacts of Foods on Antioxidant Activity                                    | Dr. Adesh Saini, Prof. Christine Winterbourn, Dr. Vikas Kumar | 2014-2017 | DST MBIE | ₹ 6,480,000 |
| 17                          | Chitosan-thiomer, sulphide and sulphonium salt particulates in arsenic Detoxification.   | Dr. Kalpana Chauhan   | 2014-2017 | BRNS     | ₹ 2,321,000 |
| 18                          | Synthesis and characterization of nano-ferrites for the development of radar absorbing materials   | Dr. Preeti Thakur   | 2014-2017 | DST      | ₹ 2,172,000 |
| 19                          | Isolation characterization and evaluation of endophytes of plants of Himachal Pradesh in search of some novel antitubercular molecules                                       | Dr. Abhishek Budhiraja  | 2014-2017 | DST      | ₹ 2,050,000 |
| 20                          | Utilization of Wild Himalayan Fig for the sustainable livelihood of weaker sections of the society in mid hill region of Himachal Pradesh                                    | Dr. Somesh Sharma (PI) & Dr. Pankaj Kumar Chauhan (Co-PI)     | 2014-2017 | DST      | ₹ 1,855,000 |
| 21                          | Identification and characterization of hypovirulence factors from <i>Rosellinia necatrix</i> causing white root rot on apple   | Dr. Saurabh Kulshrestha                                       | 2014-2017 | DST      | ₹ 2,785,000 |
| 22                          | Creation of Infrastructure facilities for B.Tech (Food Technology) course  | Dr. Dinesh Kumar (PI) & Dr. Somesh Sharma                     | 2014-2017 | MoFPI    | ₹ 7,371,000 |

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|-------------------------|---|---|--------------------|-------------|--------------|
| 23                      | Search for physics beyond standard model at hadron colliders using DZERO and compact muon solenoid (CMS) detectors  | Dr. Suneel Dutt   | 2014-2017          | DST         | ₹ 1,779,600  |
| 24                      | Food Processing and Technology:Current and Future Prospects   | Dr. Naveen Kumar  | 2015-2016          | SERB        | ₹ 75,000     |
| 25                      | Development of Lead free piezoelectric nanofibers via Electrospinning for piezoelectric energy harvesting   | Dr. Rajesh Kumar  | 2015-2018          | DRDO        | ₹ 2,690,000  |
| 26                      | Evaluation of withanolide lactones as immunomodulators to induce granulysin expression in immune cells conferring cytotoxicity towards cancerous  | Dr. Reena Saini (PI), Dr. Neeraj Mahindroo (Co-PI)                            | 2015-2018          | DBT         | ₹ 2,500,000  |
| 29                      | Development of Green campus under MNRE Scheme on Development of Solar Cities  | Dr. Ranchan Chauhan (PI), Dr. Bhaskar Goyal (Co-PI), Dr. Raj Kumar (Co-PI)    | 2016-2017          | MNRE        | ₹ 500,000    |
| 30                      | Setting up of New Food Testing Laboratory   | Dr Dinesh Kumar   | 2016-2018          | MoFPI       | ₹ 28,539,000 |
| 31                      | Design and application of new green adsorbents-cum-sensor for water application from industrial area of Himachal Pradesh.   | Dr. Kalpana Chauhan   | 2016-2018          | SCSTE       | ₹ 600,000    |
| 33                      | Quality Standards of Indian Medicinal Plants and Preparation of Monographs Thereon  | Dr. Neeraj Mahindroo (Pi), Dr. Sameer Sapra (Co-PI), Ms. Swati Pundir (Co-PI) | 2016-2019          | ICMR        | ₹ 3,834,492  |
| 34                      | Compact Muon Solenoid (CMS) Upgrade, Operation and utilization  | Dr. Suneel Dutt   | 2016-2019          | DST         | ₹ 5,600,000  |
| 38                      | Surface fluorinated graphene-lanthanide orthovanadate nanohybrid with enhanced photocatalytic activity for water purification   | Dr. Pardeep Singh   | 2014-2017          | DST         | ₹ 2,500,000  |
| 39                      | Graphitic Carbon Nitride Based Metal-Free Semiconductor Heterojunctions For Effective Photocatalytic Water Purification   | Dr. Pankaj Raizada  | 7March2016-2019    | SERB        | ₹ 2,920,000  |
| 40                      | Trade chain, trade pattern and value chain of 5 RET medicinal plant species namely Aconitum heterophyllum (Ateech), Saussurea lappa (Kuth), Inula racemosa (Pushkarmool), Picrorhiza kurra (Kutaki) and Pistacia integerrima (Zebrawood, Kakkarsingi)" - Reg. | Prof. Neeraj Mahindroo  | Mar.2018-June 2018 | HPSBB       | ₹ 250,000    |
| <b>Student Projects</b> |   |   |                    |             |              |
| 46                      | Abiotic stress mediated consequences on antioxidant defense system and secondary metabolites in <i>Andrographis paniculata</i> Wall. Ex Nees  | Ms. Sujata  | 2010-2014          | DST INSPIRE | ₹ 1,200,000  |
| 47                      | Characterization of betagalactosidase from thermophilic bacteria  | Ms. Varsha  | 2010-2015          | DST INSPIRE | ₹ 1,700,000  |
| 48                      | In vitro culture standardization of <i>Podophyllum hexandrum</i> for production of Podophyllotoxin  | Mr. Jitender Kumar  | 2010-2015          | UGC         | ₹ 1,700,000  |
| 49                      | Identification and characterization of promiscuous peptides from vaccine candidate antigen of <i>P. falciparum</i> by using In silico approach  | Ms. Nazam Khan  | 2011-2016          | UGC         | ₹ 1,700,000  |
| 50                      | Isolation characterization, immobilization and application of an alkaliphilic thermos tolerant protease   | Ms. Poonam Kumari   | 2012-2016          | UGC         | ₹ 1,700,000  |
| 51                      | Quality assessment of surface and ground water  | Ms. Navdeep Kaur  | 2012-2017          | UGC         | ₹ 1,080,000  |
| 52                      | Phenotypic and genotypic characterizations of Extended spectrum beta lactamase (ESBL) producing MDR isolates of <i>pseudomonas aeruginosa</i> from clinical case in Himachal Pradesh  | Ms. Bharti  | 2013-2017          | UGC         | ₹ 1,700,000  |
| 53                      | Isolation, characterization and biological evaluation of novel phytoconstituents for anti-cancer activity   | Mr. Sunil Kumar   | 2013-2018          | DST INSPIRE | ₹ 1,721,400  |
| 54                      | Development of Stability Indicating Assay Method for TAZQ, a Potential Anti-cancer Agent, and Comparative Stability Analysis of Digoxin and $\beta$ -Acetyldigoxin  | Ms. Megha Sharma  | 2013-2018          | DST INSPIRE | ₹ 1,684,000  |
| 55                      | Pharmacological Evaluation of Nitrogen Heterocycles with Special Emphasis on Quinoline Analogues  | Ms. Kamana Sharma   | 2013-2018          | DST INSPIRE | ₹ 1,729,100  |

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|--------------------------------------|--|---|-----------|--------------|----------------------|
| 56                                   | Role of Th-17 and T regulatory cells in pathogenesis and immunity in <i>Salmonella typhi</i> infection | Ms. Neha                                  | 2014-2018 | DST INSPIRE  | ₹ 1,700,000          |
| <b>Consultancy/Industry Projects</b> |  |   |           |              |                      |
| 59                                   | Consultancy project for new product Development in Fruits and Vegetables for HPMC, Shimla              | Dr Dinesh Kumar                           | 2013-14   | HPMC         | ₹ 200,000            |
| 61                                   | Development of food products   | Dr. Dinesh Kumar (PI) & Dr. Somesh Sharma | 2013-2015 | HPMC         | ₹ 200,000            |
| 66                                   | Akaash Research and Development Center   | Mr. Pankaj Vaidya                         | 2014-2016 | IITB         | ₹ 350,000            |
|                                      |  |   |           | <b>Total</b> | <b>₹ 127,742,784</b> |