

**GOVERNMENT OF INDIA
MINISTRY OF HEALTH AND FAMILY WELFARE
DEPARTMENT OF HEALTH RESEARCH**

**RAJYA SABHA
UNSTARRED QUESTION NO. 4139
TO BE ANSWERED ON 3RD APRIL, 2018**

RESEARCH PROJECT WORKS ON DISEASES

4139. SHRI SANJAY RAUT:

Will the Minister of **HEALTH AND FAMILY WELFARE** be pleased to state:

- (a) the names of diseases and subjects on which research project works have been going on in the Indian Council of Medical Research (ICMR) and Central research institutes connected therewith in the country;
- (b) the important research and remedy conducted in the medical sector and the amount spent therein and the extent of success achieved by the country thereby during the last three years; and
- (c) the steps taken by Government to improve the current situation and undertake major research in the country?

**ANSWER
THE MINISTER OF STATE IN THE MINISTRY OF HEALTH AND
FAMILY WELFARE
(SMT. ANUPRIYA PATEL)**

- (a): List is annexed.
- (b): The important research and remedy has been conducted in the following areas:
 - Human Immunodeficiency Virus(HIV).
 - Reproductive Health.
 - Nutrition.
 - Communicable & Non-Communicable diseases.
 - Affordable Health Technology.
 - Tuberculosis.
 - Malaria.

903 projects with funding of Rs.127.16 crore, have been sanctioned, during 2014-2017. International Council of Medical Research (ICMR) has recently received an internationally coveted award, '**Kochon Prize 2017**' for research on Tuberculosis.

- (c): Research has been encouraged in the field of Tuberculosis, Malaria, Dengue, Hypertension etc.

Major Research Areas of ICMR affiliated Institutes

S.No.	Institute	Major Research Areas
1	National JALMA Institute for Leprosy & Other Mycobacterial Diseases (NJILOMD)	Leprosy and TB <ul style="list-style-type: none"> • Clinical trials • Epidemiological studies including molecular epidemiology • Basic fundamental research <ul style="list-style-type: none"> • Microbiology and Molecular Biology • Immunology • Biochemistry • Bioinformatics • Animal experimentation • Operational research • Implementation research
2	National Institute of Occupational Health (NIOH)	<ul style="list-style-type: none"> • Epidemiological and environmental monitoring and corollary toxicological studies in hazardous occupations for recognition and evaluation of risk factors • Development of tools for early diagnosis of health impairment and design of appropriate intervention measures for the prevention of hazards at work places. • Occupational and environmental epidemiology • Toxicology (metal, pesticide, reproductive, geno and neurobehavioral) • Environmental pollution (air, water, noise, thermal) • Development of safety norms (chemical physical agents) • Operational research • Women and children health • Agricultural health
3	National Centre for Disease Informatics and Research (NCDIR)	<ul style="list-style-type: none"> • Setting up Registries on Cancer, Cardiovascular Diseases, Diabetes, Stroke and Other relevant Non Communicable Diseases • Translational Research through epidemiological and clinical research • Software development, implementation and adaptation for strengthening data capture, transmission, analysis and reporting. • Surveillance of above diseases using Disease informatics approach • Knowledge translation for public health utility.
4	National Institute for Research in Environmental Health (NIREH)	<ul style="list-style-type: none"> • Health needs of gas exposed population with focus on respiratory diseases, eye related diseases, renal diseases, reproductive and women's health and mental health • Research on cancers, genetic disorders, health status of second and third generation children in the exposed population and community building • Development of tools for biomedical informatics application in predicting disaster outcomes, selection of antidotes and other interventional methods
5	National Institute for Research in Tuberculosis (NIRT)	<ul style="list-style-type: none"> • Clinical trials in pulmonary & extrapulmonary TB, also addressing co-morbidities for framing guidelines • Innovative & indigenous tools for TB diagnosis & drug susceptibility testing • Socio-behavioural aspects of TB & HIV • Epidemiology & Molecular epidemiology of TB • Pharmacokinetic studies for dose optimisation in TB & HIV

6	National Institute of Epidemiology (NIE)	<ul style="list-style-type: none"> • Disease Surveillance(Rotavirus, Bacterial Meningitis, Virus Research and diagnostic Laboratory Network and HIV Sentinel Surveillance) • Non-Communicable diseases • Tribal Health • Health System Research • Leprosy epidemiology
7	National Institute of Malaria Research (NIMR)	<ul style="list-style-type: none"> • Epidemiology of malaria and dengue • Biology and control of vectors of malaria and other vector borne diseases • Evaluation of new insecticides, drugs and diagnostic kits • Biology of malaria parasite • Training, Information Education & Communication and support to National Vector Borne Disease Control Programme
8	National Institute of Pathology (NIP)	<ul style="list-style-type: none"> • Tumor biology (breast cancer, genitourinary malignancies, lymphoma, cancers in north east region), infectious diseases (chlamydia, leishmania), stem cell biology and environmental toxicology. • Genetic susceptibility for various familial and non-familial tumors, predictive and prognostic biomarkers, molecular pathology, molecular functional pathways and drug targets. • Investigation of the gene-environmental link responsible for very high incidence of several malignancies, especially those associated with tobacco and pesticide (oral, esophageal, gastric, lung and breast cancers) in north eastern states in India. • Studies on chlamydia infection on genital tract and coronary artery disease, including study on role of chlamydial heat shock protein in pathogenesis of genital tract infection in women. • Understanding the process of in vitro differentiation of Leishmaniadonovoni. • Studies on role of environmental toxicants especially heavy metal in cases of miscarriage. • Studies on utility of a patented synthetic thermo-reversible hydrogel polymer as supportive matrix towards the development of 3-D composite skin for application in wound healing and other dermatological disorders. • New high priority areas have been identified, viz.: lifestyle diseases, metabolic syndromes, chronic diseases biology and telepathology.
9	National Institute of Medical Statistics (NIMS)	<ul style="list-style-type: none"> • HIV Sentinel Surveillance, Modelling, estimation and projection of HIV/AIDS in India and its States. • Clinical Trials Registry – India (CTRI). • Survey methodology and operations research including programme evaluation.
10	National Institute of Nutrition (NIN)	<ul style="list-style-type: none"> • Community studies to monitor diet and nutrition status of the country. • Effective intervention strategies and models for prevention and control of nutritional problems in the country. • Operational research with respect to planning, implementation and strengthening of national nutrition programmes. • Outbreak investigations of food borne diseases arising from contaminants and toxicants

		<ul style="list-style-type: none"> • Development of food based micronutrient fortification strategies to control hidden hunger in the country • Research in development and dissemination of effective outreach methods for nutrition communication. • Food safety, drug toxicity and safety, dietary management of chronic diseases, preclinical toxicology of drugs, biotech products developed indigenously.
11	National Animal Resource Facility for Biomedical Research (NARFBR)	<ul style="list-style-type: none"> • Care, Breeding, Management and Experimentation using laboratory animals in biomedical research
12	National Institute for Research in Tribal Health (NIRTH)	<ul style="list-style-type: none"> • Hemoglobinopathies • Malaria with specific focus on tribal populations • Tuberculosis specific focus on tribal populations of the region • Viral diseases of public health importance in central India • Health related Social and behavioural practises of Tribal population
13	National Institute of Cholera and Enteric Diseases (NICED)	<ul style="list-style-type: none"> • Behavioural intervention trials and trials of drugs and/or vaccines against cholera and other enteric infections • Identification of emerging diarrhoeal pathogens, investigating outbreaks, developing diagnostics and monitoring antimicrobial resistance in them with exploration of associated genotypic changes and linked mechanisms • Exploring various aspects of pathophysiology and host pathogen relationships in virus and bacterial diarrhoea including tracking of novel pathoges infecting humans, which have implications for intervention development and policy advocacy • Research on Arboviruses, such as Dengue, Japanese Encephalitis, Chikungunya, West Nile virus for rapid and reliable detection as well as molecular characterization
14	National Institute for Research in Reproductive Health (NIRRH)	<ul style="list-style-type: none"> • Fundamental, clinical and operational research on various aspects of reproductive health • Identification of cytogenetic abnormalities in developmental disorders • Diagnosis and management of metabolic disorders • Elucidation of genetic abnormalities in neuro-developmental and neuro-psychiatric disorder • Development of cellular model for various genetic neurodevelopmental disorders
15	National Institute of Immunohaematology (NIIH)	<ul style="list-style-type: none"> • Hemoglobinopathies including beta thalassemia and sickle cell anemia and red cell enzymopathies and membranopathies • Human blood group systems and transfusion medicine • Inherited bleeding disorders including haemophilia and thrombotic disorders • Primary Immunodeficiency disorders • Inherited and acquired marrow failure syndromes including MDS, aplastic anemia and Fanconi's anemia • Hematolymphoid malignancies including ChrnoicMeyloid Leukemia and acute myeloid leukemia • Autoimmune disorders • Transfusion transmitted disorders

16	National Institute of Cancer Prevention and Research (NICPR)	<ul style="list-style-type: none"> • Cytology • Epidemiology • Molecular biology • Bioinformatics • Molecular Diagnostics
17	Rajendra Memorial Research Institute of Medical Sciences (RMRIMS) , Patna	<ul style="list-style-type: none"> • Kala-azar (Visceral leishmaniasis) • Tuberculosis • Viral diseases (AES/JE, Dengue, Chikungunya etc) • Other vector borne disease like malaria, filarial • Diarrheal diseases
18	Vector Control Research Centre (VCRC)	<ul style="list-style-type: none"> • Vector biology, ecology and Integrated Vector management • Bio-diversity of vectors and parasites • Development of tools/agents for surveillance and control of vector/parasite/pathogen • Development of tools for decision support • Optimization of intervention strategies for prevention and control • Surveillance of vector borne diseases for development of early warning system • Development and evaluation of diagnostic tools of vector borne diseases • Understanding the molecular mechanisms of vector-pathogen interactions under different ecological, vector behavioural and changes in climatic conditions • Research on emerging and re-emerging vector borne diseases especially on tribal areas • Knowledge translational and product development for novel and effective vector borne diseases control strategies
19	National Institute of Virology (NIV)	<ul style="list-style-type: none"> • Precise assessment of prevalence of different viruses in different populations at different time points, identifying risk groups requiring interventions. Conducting similar studies in animals / mosquitoes and other insects. • Development of diagnostics, both serological and molecular. • Understanding of the genetic variation in viruses with time, location and clinical presentation • Development of vaccines employing different approaches • Pathogenesis of viral infections in animal models and humans • Partner to several national and international studies assessing efficacy of antivirals / vaccines, prevalence of viral infections and characterization of viruses. • To suggest preventive and control strategies for viral infections discovering viral diseases, outbreak investigations, diagnostic kits preparation and developing therapeutic • AFP Surveillance • Environmental Surveillance • Molecular epidemiology of polio and other Enteroviruses • Immunological studies on Enterovirus infections • Serosurveillance and vaccination strategies
20	National AIDS Research Institute (NARI)	<ul style="list-style-type: none"> • Conduct clinical trial of antiretroviral drugs, microbicides and vaccines • Basic studies on HIV and its immunopathogenesis and identify correlates of immune protection

		<ul style="list-style-type: none"> • Epidemiology of HIV infection • HIV and co-infections and comorbidities such as TB, STIs, Hepatitis and HPV, HIV related cancers. • Social and behavioural studies to identify factors related to the risk of HIV acquisition and drug adherence
21	Regional Medical Research Centre Bhubaneswar	<ul style="list-style-type: none"> • Vector borne Diseases & Neglected tropical diseases • Infectious Diseases (Bacterial & Tuberculosis) • Viral Diseases • Non communicable diseases, Nutrition & Haemoglobinopathy • Social Epidemiology & Maternal and child health
22	Regional Medical Research Centre Dibrugarh	<ul style="list-style-type: none"> • Cancer studies in NE India • Cardiovascular diseases • Malaria and trematode infection • Tuberculosis and other bacterial diseases • Viral diseases and other vector borne diseases
23	Regional Medical Research Centre Port Blair	<ul style="list-style-type: none"> • Vector-borne diseases –diurnally sub-periodic filariasis, malaria dengue, chikungunya, ZIKA virus • Leptospirosis • Tuberculosis • Tribal health and traditional medicine or ethno medicine • Translational research: Development of DNA vaccine and DNA antibodies and diagnostic and herbal formulations
24	Desert Medicine Research Centre Jodhpur	<ul style="list-style-type: none"> • Silicosis and measures of its prevention useful for workers of sandstone quarries of Rajasthan. • Identifying and Implementing various Strategies for Screening, Management and Prevention of Sickle Cell Disease in Rajasthan • Strengthening State Health System for early detection of Breast Cancer involving strategic education and awareness among the women. • Management and control of vector borne diseases. • Improving Health and nutritional status of vulnerable segment of population by implementing multi-component health & nutrition education intervention.
25	National Institute of Traditional Medicine, Belgavi	<ul style="list-style-type: none"> • Traditional Medicine • Ethnopharmacology • Integrative Medicine • Regional Diseases: Water-borne infections and AMR • Regional Diseases: Vector-borne diseases
26	Regional Medical Research Centre Gorakhpur	<ul style="list-style-type: none"> • Japanese Encephalitis/AES • Scrub Typhus • Regional Health Issues