National Institute of Environmental Health Sciences - HNV

Conducts, fosters, and coordinates (in its own laboratories and through contracts, grants, and support of Environmental Health Sciences Centers) research and research training on the biological effects of chemical, physical, and biological substances in the environment to: (1) develop understanding of the mechanism of action of such substances; (2) provide the scientific basis for evaluating their extent and severity on a national scale; (3) establish the toxicity of chemical substances of significant public health concern; (4) define and develop methods for diagnosis and treatment of environmentally induced illnesses; and (5) collect and disseminate information in furtherance of the program.

Office of the Director - HNV1

(1) Plans, develops, and directs Institute program and activities; and (2) provides overall administrative guidance and services.

Office of Management - HNV12

(1) Directs and conducts administrative and facilities management activities of the Institute by providing services in the areas of financial management, personnel management, contract and procurement management, supply and property management, and other administrative and office services; (2) plans, directs and operates the facilities/physical plant of the Institute; (3) advises the Director and the Institute Divisions on developments in administrative management and their implications and effects on program management; and (4) develops policies on administrative management and prepares and issues procedures and guidelines for the implementation of administrative policies and requirements.

Operations and Security Branch - HNV122

Plans, directs, and coordinates all security, emergency management, and limited biomedical equipment design, fabrication, maintenance and repair activities, including but not limited to: (1) the delivery of a comprehensive protection and security program, encompassing responsibility for education, training, technical assistance, physical security, parking and traffic control, crime prevention, criminal investigation, and maintaining law and order at NIEHS facilities; (2) in partnership with the NIEHS Health and Safety Branch, plans, conducts and coordinates all emergency and crisis management (preparedness, mitigation, response and recovery) activities to protect life, property, and the environment in the event of fire, explosions, accidental release of hazardous materials, natural disasters and an intent to harm; (3) establishes, directs, and coordinates the process for personnel security for NEBS and employees' background investigations and application for security clearances; (4) in consultation with the NIH, implements Federal, Departmental and NIH regulations and policies and develops NIEHS policies and procedures in the area of security, emergency management, and protection; and (5) designs, fabricates, and alters maintenance and repair of scientific instrumentation.

Financial Management Branch - HNV124

(1) Advises the Director and top Institute managers in the financial management aspects of planning, formulation, and execution of the Institute's programs; (2) provides budget guidance to program areas; (3) compiles and prepares the Institute budget for forwarding to OMB; and (4) develops and maintains control systems to assure proper use of funds.

Administrative Services and Analysis Branch - HNV125

Plans and provides management support to the Office of the Associate Director for Management and NIEHS as a whole for (1) employee and logistical services and (2) management analyses. NIEHS-wide support services include supply and property management; office services communications; travel (foreign and domestic); training and transition; employee wellness activities; timekeeping; conference services and audits; studies and analyses of management functions and administrative operations; implementation of newly developed management and administrative policies; policy compliance; organization change coordination; performance appraisal systems and award programs; records and forms management; and OMB project clearance services.

Office of Acquisitions - HNV126

(1) Manages and conducts a comprehensive program of all research and development contracting, non-research and development contracting, station support contracting, commercial item acquisitions using simplified acquisition procedures, GSA Federal Supply Schedule acquisitions and simplified acquisitions for customer ICs. (2) Provides advice and assistance regarding all phases of the acquisition cycle from planning to closeout with the purpose of accomplishing all acquisitions needed for the scientific mission and all related acquisitions required by its customers.

Health and Safety Branch - HNV128

(1) Plans, directs, and coordinates programs to create and maintain an environment that is safe and without negative health effects for NIEHS employees, visitors, and guest workers; (2) provides advice and assistance to NIEHS in the areas of biological safety, chemical safety, physical safety, radiation safety, safety engineering, fire protection, personal protective equipment, and environmental protection; (3) oversees Institute programs related to employee health, such as occupational health surveillance, workman's compensation, employee assistance programs, and the employee health clinic; and (4) plans studies and special investigations of health and safety issues related to biomedical research activities.

Division of Intramural Research - HNV2

(1) Plans and conducts the Institute's basic laboratory and clinical research, which encompasses the environmental areas of medicine, biology, pharmacology, neurosciences and pulmonary pathobiology, chemistry, toxicology, genetics, and biophysics; (2) plans and conducts a program of toxicology and carcinogenesis studies to establish and characterize the toxicity of chemicals and other environmental agents, and to develop, validate, and evaluate such methods; (3) plans and conducts basic and applied research related to environmental health in the areas of risk assessment, statistics, biomathematics, and epidemiology; (4) ensures optimal utilization of available resources in the attainment of Institute objectives; (5) evaluates research efforts and establishes intramural priorities; (6) integrates ongoing and new research activities into the division structure; (7) collaborates with other NIH Institutes, divisions and programs; (8) maintains an active association with peer groups in other Federal agencies, academic and private institutions, and international organizations with similar environmental health research interests, and disseminates research results; and (9) provides advice to the Institute Director and staff on matters of scientific interest.

Administrative and Research Services Branch - HNV28

Provides administrative and research services support and advisory services to the staff of the Division of Intramural Research and the Division of the National Toxicology Program in the areas of: (1) personnel management, budget and financial management, procurement, and travel; (2) provides program planning guidance and assistance, and general administrative management, including advising senior intramural staff on the administrative management of the Institute and its programs, making recommendations to improve the effectiveness and efficiency of intramural administrative functions, and providing input on administrative policy development regarding intramural administrative matters; and (3) designs, implements, and coordinates administrative and related automated information systems for the Divisions.

Reproductive and Developmental Biology Laboratory – HNV2G

(1) Plans and conducts research directed toward the understanding of basic mechanisms underlying environmentally-induced, developmental and reproductive disorders, including those associated with fetal origins of disease; (2) Studies the effects and mechanisms of action of environmental agents on development of reproductive system organs, tissues, and germ cells; (3) Studies mechanisms of steroid hormone actions and metabolism and how the environment influences these processes; (4) Studies basic mechanisms of reproductive system function and dysfunction using methods including genetic models and epigenetic analysis; and (5) Serves as a focal point for research and information concerning the complex interaction between the environment and male–female human reproductive health.

Epigenetics and Stem Cell Biology Laboratory – HNV2H

(1) Plans and executes mechanistic studies on the contributions of chromatin structure and epigenetics to transcriptional regulation and development; (2) Studies environmentally-responsive gene expression through global analyses of transcription, chromatin and epigenetic features of the genome; (3) Investigates molecular mechanisms of RNA regulatory pathways responding to environmental signals in development and disease; (4) Explores mechanisms controlling embryonic stem cell self-renewal and pluripotency; (5) Undertakes epidemiologic studies of epigenetic change in relation to cancer risk; (6) Studies the role of DNA methylation and chromatin dynamics in cellular differentiation and disease; (7) Uses integrative interdisciplinary approaches to investigate how gene regulatory networks and epigenome specify cell identity during development, differentiation and environmental fluctuations; and (8) Investigates the role of epigenetic modification of repetitive elements on the transcriptional regulation of development and disease.

Genome Integrity and Structural Biology Laboratory – HNV2J

(1) Plans and conducts studies of the molecular basis of genome stability; (2) plans and conducts research directed at the elucidation of tertiary structure and at the interactions of chemical and/or pharmaceutical agents with biological target molecules using modern biophysical methods, such as X-ray crystallography or nuclear magnetic resonance spectroscopy; (3) plans and conducts studies of the molecular basis of DNA replication, including studies of DNA polymerases whose physical structures have been defined, mutagenesis, recombination, and the repair of DNA damage and replication errors; (4) plans and conducts studies of the effects of environmental agents upon genome stability; and (5) advises scientists in the NIEHS and in the extramural scientific community on issues pertaining to these subjects.

Immunity, Inflammation and Disease Laboratory – HNV2K

(1) Plans and conducts research to: obtain greater insights into the immune response pathways involved in inflammatory disease, including neurologic, (cardio)pulmonary, neoplastic, reproductive, obesity/metabolic, renal, infectious disease, and autoimmune disorders, at the cellular, biochemical and molecular levels; (2) to broaden our knowledge of genetic and epigenetic susceptibility to inflammatory diseases; (3) to better understand how the environment induces and regulates immune responses in inflammatory diseases; and (4) to integrate and apply knowledge gained from basic, translational, clinical, and epidemiological studies to develop novel interventional strategies aimed at preventing or managing (environmentally induced) inflammatory diseases.

Neurobiology Laboratory – HNV2M

(1) Investigates the cellular and molecular mechanisms that allow the nervous system to adapt to the environment. These mechanisms are examined within the framework of both normal and disrupted development and aging. Such mechanisms include proliferation, migration, differentiation and death of neurons and glia; the formation, transmission and plasticity of synapses; gene expression and electrical excitability; metabotropic signaling by cytokines, hormones, integrins, and neurotransmitters; inflammation and neurodegeneration; (2) Mentors new investigators and trains them in the underlying concepts and techniques of neurobiology.

Signal Transduction Laboratory – HNV2N

(1) Defines the mechanisms that cells, tissues and organisms use to respond to physiological and environmental stimuli by investigating cellular signal transduction systems, including regulation of ion channels, G- proteins, second messenger systems, steroid hormone and other nuclear receptor pathways, as known or potential sites for pathological interaction with environmental agents; (2) plans and conducts studies on the regulation of programmed cell death (apoptosis) by environmental agents and other stress-inducing compounds.

Biostatistics and Computational Biology Branch – HNV2P

(1) Works to devise new biostatistics/bioinformatics tools to improve the power, informativeness, and inferential validity of studies related to environmental effects or to genetic co-determinants of risk; and (2) to collaborate with NIEHS scientists in applying the best available biostatistics/bioinformatics techniques to the design, analysis, and interpretation of experimental and observational studies related to environmental health.

Clinical Research Branch – HNV2Q

(1) Develops and manages a program in clinical research to study interactions between the human body and the environment in the maintenance of health and the development of disease; (2) provides the infrastructure needed to promote high quality clinical research and to ensure patient safety including: protocol review, clinic infrastructure, nursing and physician support, clinical informatics, data and safety management; (3) integrates established research themes and projects with clinical relevance from various DIR investigators; (4) provides administrative and research support to NIEHS and other intramural or extramural investigators in the conduct of translational research; (5) monitors and maintains quality assurance of NIEHS clinical research; (6) provides training, education, and community outreach in environmental health and clinical research practices; (7) develops novel approaches for carrying out translational research in an efficient and cost-effective manner; (8) coordinates the credentialing of health care providers within the Institute; (9) is responsible for protecting the rights and welfare of human subjects participating in research conducted by intramural investigators through the NIEHS Office of Human Research Compliance which includes the NIEHS IRB.

Comparative Medicine Branch – HNV2R

(1) Manages the program for experimental animal procurement, housing, husbandry, breeding, and utilization within the Institute; (2) develops, refines, and advises Institute scientists and programs of appropriate animal models and techniques for use in Institute research programs; (3) provides administrative infrastructure and training opportunities for the Institute's Animal Care and Use Committee (ACUC); (4) ensures compliance with NIH mandates for research using animals; (5) maintains support facilities in microbiology, experimental surgery, and laboratory animal medicine; (6) plans and conducts research appropriate to these laboratory functions; and (7) provides veterinary care for animals housed within the Institute.

Epidemiology Branch – HNV2S

(1) Investigates the effects of environmental factors on human health, including reproduction, fetal and infant development, and a wide range of chronic diseases including respiratory, neurologic and immunologic diseases and cancer; and (2) takes advantage of developing biotechnology and statistical methods to detect diseases early, identify genetic and epigenetic reasons for enhanced susceptibility to environmental factors, and explore gene-environment interactions.

Division of Extramural Research and Training - HNV3

(1) Plans, directs, and evaluates the Institute's grant program which supports research and research training in environmental health; (2) develops program priorities and recommends funding levels to assure maximum utilization of available resources in attainment of Institute objective; (3) through cooperation relationships with NIH and public and private institutions and organizations, maintains an awareness of national research efforts and assesses the need for research and research training in environmental health; (4) prepares reports for and provides advice to the Institute Director, staff, and advisory groups to assist them in carrying out their responsibilities; and (5) represents the Institute Director in the development and implementation of grant policy.

Worker Education and Training Branch - HNV33

(1) Plans and administers grants, contracts, cooperative agreements, and interagency agreements to assist organizations in the development of institutional competency to provide training and education to hazardous waste workers, nuclear cleanup workers, chemical emergency responders and to new minority workers entering the environmental remediation/construction workforce; (2) supports the development and administration of innovative, model worker health and safety training programs for workers and their supervisors; (3) fosters partnerships with local, state and federal public health entities and private sector organizations with an interest in protection programs for hazardous waste workers and emergency responders; (4) stimulates the development of a network of non-profit organizations that are committed to protecting workers and their communities; (5) creates and delivers high-quality, peer-reviewed safety and health curricula to target populations of hazardous waste workers and emergency responders; and (6) assesses the effectiveness of training and education programs for workers in high risk occupations.

Program Analysis Branch - HNV3A

(1) Provide guidance in shaping the direction of the portfolio through grant assignment and tracking, and coordination of division activities; (2) conduct long and short-term scientific evaluation and analyses of grant portfolio to provide a basis for priority setting, decision-making, and strategic planning; (3) develop methodologies to conduct impact analyses to assure maximum benefits of research funding; (4) uses results of program analyses to recommend areas for program development and to identify emerging emphasis areas for consideration by the Institute Director and advisory groups; and (5) communicates high impact science and public health relevance of extramural research.

Scientific Review Branch - HNV3E

(1) Plans, directs, and carries out the initial review (including site visits, where appropriate) of all Institute applications for grants not reviewed by the Center for Scientific Review, NIH; (2) plans, directs, and carries out the technical merit review of all research and development contract proposals for the Institute; (3) manages chartered review committees, the establishment of Special Emphasis Panels, and identification and selection of qualified experts to serve on these review committees; (4) works with program and grants management staff in writing solicitations for grants and contracts and is the official review expert for development of these announcements; (5) serves as the information and coordination center for all grant applications pending review by Institute initial review groups; (6) coordinates and maintains liaison relating to grant and contract review activities with Institute staff and the Center for Scientific Review; (7) fosters effective communication and relationships with the scientific community to enhance review activities; and (8) develops and coordinates policies relating to scientific review and implements review policies established by NIH.

Grants Management Branch - HNV3G

(1) Interprets and applies grants management policies and procedures for grant programs; (2) provides fiscal and administrative review of grant applications; (3) assists program staff in determining grant funding levels; (4) negotiates, awards, and obligates grant funds; (5) maintains records of grant expenditures and balances on hand and provides this information to program staff and other Institute officials; (6) maintains all official grant files; (7) works with the program staff and review staff in writing Requests For Applications and Program Announcements and is the official fiscal and administrative expert at the review sessions for applications submitted under RFAs and PAs; and (8) functions as an expert on grants management policies and procedures for components of DHHS, NIH, Institute staff, advisory councils, other Federal Agencies, grantee institutions, and the general public.

Exposure, Response and Technology Branch - HNV3H

(1) Plans, develops, and administers a program of research and training grants, contracts, and cooperative agreements that address the relationship between environmental exposures and biological response; (2) Emphasizes integrative exposure research for which there is a link to chronic complex diseases; (3) Builds on systems biology and technology-driven biomarker development and application; (4) Develops approaches to address exposure-pathway-disease relationships; and (5) Provides support of fundamental research that focuses on the effects of exposure on molecular and cellular processes underlying environmental health including genome integrity, plasticity, oxidative stress, signal transduction, and related pathways.

Population Health Branch - HNV3J

(1) Plans, develops, and administers a program of research grants, contracts, and cooperative agreements that addresses population-based, laboratory-based, and community-engaged research projects related to environmental exposure and its effect on individual and population health; (2) Includes individual and population susceptibility as broadly determined by genetic, environmental, behavioral and sociocultural factors; (3) Focuses on laboratory-based studies and epidemiologic studies to define and elucidate relationship between exposure during sensitive life stages and disease risk; (4) Supports research programs that include community-based intervention and prevention as well as environmental public health research as it relates to environmental health disparities and environmental justice; and (5) Supports trans-disciplinary approaches that integrate and span basic, clinical and translational activities.

Genes, Environment and Health Branch - HNV3K

(1) Plans, develops, and administers a program of research grants, contracts, and cooperative agreements that address the fundamental mechanisms by which environmental exposures combine with genetic susceptibility to influence risk of complex human diseases and disorders; (2) Builds on evolving knowledge in the fields of genomics and epigenomics to understand mechanisms that act at the interface of genes and environment to influence gene activity and phenotype; (3) Emphasizes laboratory-based studies in model systems at the cellular, organ and system level; (4) Supports integrative research programs that span basic, clinical and translational activities; and (5) Focuses on the multifactorial etiology of brain behavior disorders.

Hazardous Substances Research Branch - HNV3L

(1) Plans, develops, and administers a program of research and training grants, contracts, and cooperative agreements in biomedical and environmental science/engineering to address consequences associated with hazardous substances in the environment, including (a) advanced techniques for the detection, assessment, and evaluation of the effect on human health of hazardous substances; (b) methods to assess the risks to human health presented by hazardous substances; (c) methods and technologies to detect hazardous substances in the environment; and (d) basic biological, chemical, and physical methods to reduce the amount and toxicity of hazardous substances. (2) Supports all activities of the Superfund Hazardous Substances Basic Research and Training Program (Superfund Research Program [SRP]) including (a) supports, promotes, and acquires fundamental scientific and engineering knowledge that advance society's understanding of human health risks from exposure to hazardous substances; (b) develops innovative technologies for the prevention of such exposures; (c) trains the next generation of interdisciplinary scientists; (d) translates results into applied research to be used for informing the risk assessment decision-making process, the communities, and the larger audiences; (e) coordinates and provides the materials for the Congressional Justification and the Interior, Environment, and Related Agencies appropriations for NIEHS's Superfund Research Program and the Worker Education and Training Program, as well as other programs that come before this appropriations committee; (f) initiates and coordinates external reporting requirements; (g) formulates and tracks internal annual budget requirements; and (h) coordinates global environmental health and sustainable development activities, enhancing collaborations institutions abroad, to understand effects of, measure, or reduce exposures, primarily in vulnerable populations.

Division of the National Toxicology Program – HNV5

(1) Provides toxicological evaluations on substances of public health concern; (2) develops and validates improved toxicology methods (more sensitive, specific, and rapid); develops approaches and generates data to strengthen the science base for risk assessments; and (3) communicates results with all stakeholders. Program goals are achieved through a highly integrated, cooperative research and testing program carried out through research and development contracts and other support activities.

Office of the Scientific Director – HNV51

The Scientific Director of the Division of the National Toxicology Program (DNTP) reports to the Director of the National Institute of Environmental Health Sciences (NIEHS) and also serves as the Associate Director of the National Toxicology Program (NTP). The Office of the Scientific Director is responsible for establishing the vision, mission, and strategic direction of the DNTP; providing oversight for policies, scientific review, and stakeholder engagement; managing a highly integrated research program; and ensuring the availability of personnel and fiscal resources to deliver on the strategic mission. The Scientific Director represents the DNTP within the NIEHS Leadership Team contributing to strategic direction of the Institute and assuring DNTP's alignment and contribution to the missions of the NIEHS, NIH, and HHS.

Predictive Toxicology Branch - HNV52

The Predictive Toxicology Branch will partner across DNTP in the development and application of innovative approaches to predict human-relevant health effects from agents of interest to the DNTP. Capabilities will include the development, validation, and application of computational tools, dose-response models, and systems toxicology models. The Branch will serve as the DNTP lead for key partnerships like the interagency Tox21 Program and NICEATM/ICCVAM activities.

Comparative and Molecular Pathogenesis Branch - HNV53

The Comparative and Molecular Pathogenesis Branch will provide technical and professional comparative medicine and pathology expertise to the DNTP and other NIEHS Divisions. Core laboratory resources will include a full spectrum of ultrastructural, histologic, image analysis, immunohistochemistry, mouse embryo phenotyping, and clinical pathology capabilities.

Integrative Health Assessments Branch - HNV54

The Integrative Health Assessments Branch will develop and apply innovative informatic and systematic approaches to integrate evidence across different types of data to support evidence-based human health assessments of environmental substances. The Branch will also provide support and develop approaches for providing human context around non-human evidence to facilitate its application to human health decision-making. It will also prepare the congressionally-mandated Report on Carcinogens.

Systems Toxicology Branch - HNV55

The Systems Toxicology Branch will provide primary responsibility for the design, interpretation, and reporting of outcomes from studies designed to assess the potential health effects of substances in the environment. The Branch will use guideline-compliant in vivo toxicity studies to characterize exposures and hazards of substances under investigation at the cellular, organ, system, individual, and population levels.

Mechanistic Toxicology Branch - HNV56

The Mechanistic Toxicology Branch will provide on-site laboratory capability and support to DNTP program and project teams for exploratory, ancillary, and mechanistic studies on agents and issues critical to the NTP. These efforts will include the development, evaluation, and implementation of innovative methods that provide insight into the human health effects of agents and exposures of interest to the DNTP.