**National Institute of Neurological Disorders and Stroke - HNQ**

Conducts, fosters, and supports research and research training on the causes, prevention, diagnosis, and treatment of neurological and muscle disorders through: (1) intramural, collaborative, and field research in its own laboratories, branches, and clinics, and through contracts; (2) research grants to scientific institutions and to individuals; (3) individual and institutional research training awards to increase trained professional research personnel in the neurological fields; and (4) cooperation with various agencies in collecting and disseminating educational and informational material related to neurological disorders.

**Office of the Director - HNQ1**

(1) Provides leadership, direction, planning, evaluation, and coordination of NINDS programs and policies in extramural, intramural, clinical, and translational research; (2) advises the Director, NIH, on policy matters concerning neuroscience and stroke related matters; (3) develops, coordinates, and implements communication activities and clearinghouse projects; (4) provides management and administrative services to the Institute, including budget, human resources, and management analyses; (5) manages legislative and Congressional issues, coordinates strategic and disease planning, conducts policy and program analyses, advises NINDS leadership on research policy issues, and helps facilitate new Institute initiatives; (6) oversees communication of the basic and translational research conducted and supported by NINDS to diverse scientific audiences; and (7) represents NINDS at all levels of NIH in matters of training, career development and workforce diversity.

**Office of Communications and Public Liaison – HNQ1-4**

1) Advises the Director and other senior Institute staff members on the effective interpretation and utilization of Institute-conducted and supported research findings in a broad program of scientific and health reports for targeted audiences. 2) Maintains information and clearinghouse call center to respond to publication requests and inquiries. 3) Develops and produces online information, brochures, fact sheets and other materials on common and rare neurological disorders; grants, training, and high priority programs that support the research mission of the Institute; and educational publications and interactive materials targeted to students in K-12. 4) Plans and implements NINDS public education programs, and collaborates with patient and professional societies in the planning and production of public health educational materials for various special audiences. 5) Manages the Institute's media relations, including writing, clearing and issuing all Institute news releases; responding to media inquiries; facilitating media interviews, and maintaining up-to-date contacts and a database of interactions with media. Also advises the Director and principal staff on the appropriate response to media interest and inquiries. 6) Manages the Institute's Exhibits Program. 7) Provides liaison with patient organizations and voluntary agencies; responsible for hosting annual Nonprofit Forum and managing communications with the groups including a Facebook page. 8) Maintains liaison with the NIH Associate Director for Communications and serves, on request, as the information source for public affairs matters relating to the Institute's programs. 9) Establishes standards and guidelines for the Institute's use of social media tools and works with Institute staff to clear and help develop social media platforms that are managed by OCPL, DER or DIR staff. 10) Develops and maintains graphics, vodcasts, and podcasts for use on the NINDS public website related to health education campaigns, disorder information, news stories and releases, and other information for patient advocacy groups, professional societies, other interested organizations, and the general public. 11) Collaborates with the Office of Science Policy and Planning and the Office of Scientific Liaison to identify important research advances for dissemination to both public and professional audiences.

**Scientific Publications/Public Information Branch - HNQ1-46**

(1) Communicates and serves as the primary public information resource with many different audiences, including (but not limited to) other government agencies, non-governmental organizations, professional societies, policy makers, children, adults, families, and communities; (2) Ensures that information about the Institute and its research is communicated accurately and appropriately to any audience; (3) Develops, coordinates, and implements an inquiry response plan for the Institute; (4) Maintains information and clearinghouse call center to respond to publication requests and inquiries; (5) Responds to public inquiries; (6) Manages the Institute's Exhibits Program.

**Health Education/Public Liaison Branch - HNQ1-47**

(1) Plans and implements activities related to the public liaison function of the Institute; (2) Plans and directs all special projects related to health communication and education; (3) Manages the Institute's media relations, including writing, clearing and issuing Institute news releases; responding to media inquiries; facilitating media interviews; maintaining up-to-date contacts and a database of interactions with media; and advising the Director and principal staff on the appropriate response to media interest and inquiries; (4) Disseminates public health related research results to the public, media, health professionals, constituency groups, and Congress; (5) Develops and produces health related publications, reports, articles, exhibits, and other materials on Institute research, activities, and programs; (6) Plans and implements NINDS public education programs, and collaborates with patient and professional societies in the planning and production of public health educational materials for various special audiences; (7) Develops and maintains graphics, vodcasts, and podcasts for use on the NINDS public website related to health education campaigns and disorder information.

**Office of Management-HNQ1-5**

1) Advises the Director, Deputy Director, and other top staff on managerial and administrative matters relating to the planning and execution oflnstitute programs; (2) evaluates developments in administrative management and the implications and effects on program management; (3) directs and conducts administrative management activities of the Institute by providing services in the areas of financial management, information resources management, personnel management, office services management, and management analysis; (4) develops policies on administrative management and prepares and issues procedures and guidelines for implementation of administrative policies and requirements; (5) implements a comprehensive ethics program; and, (6) oversees Institute technology transfer activities and practices.

**Administrative Services Branch - HNQ1-52**

(1) Serves as the NINDS coordinating point in handling general administrative or management problems that cross Institute program lines and which cannot be resolved at program levels; (2) analyzes effects of changes in general administrative policies and practices by organizational echelons above the Institute and advises the Associate Director for Administration and Analysis, and Division Administrative Officers of these effects; (3) provides overall administrative support services to the Office of the Director including budget, personnel, procurement, travel, and office services; and (4) provides overall support to the Institute in the processing of foreign travel, space management, and property accountability.

**Financial Management Branch - HNQ1-53**

(1) Serves as the Institute focal point on financial management aspects of the planning, formulation, execution, and evaluation of the Institute's program; (2) collaboration with the Chief, Office of Legislation and Analysis, in the development and coordination of the Institute's short- and long-term planning efforts with the budget process; (3) formulates and monitors the Institute's financial management program and establishes systems for effective control of funds utilized through the intramural research, grants, and contracts processes; (4) compiles and prepares the Institute budget; (5) devises or oversees development of accounting systems that are beneficial to the Institute in obtaining data management decisions while remaining compatible with the central NIH budget and accounting systems; (6) develops budget back-up material for OMB and Congressional appropriation hearings and assists in briefing of witnesses in defense of the budget; (7) serves as focal point for the monitoring and clearance of budgetary and fiscal data as the result of Congressional and public inquiries; and (8) maintains control over the allotment of funds and utilization of employment positions for the Institute.

**Information Resources Management Branch - HNQ1-56**

(1) Administers the Institute information and data systems which involves the collection, classification, organization, storage, and retrieval of computerized data related to research and training grants, research contracts, intramural research projects, and NINDS personnel resources; (2) serves as the Institute resource for office automation needs including management of NINDS Local Area Network (LAN); and (3) maintains contact with all necessary Institute staff to assure that their data and office automation requirements are met accurately and in a timely manner.

**Data Management Section - HNQ1-562**

(1) Develops and maintains the Institute's computerized information and data systems on research and training grants, research contracts, intramural research projects, and NINDS personnel resources; (2) produces special and recurring reports and other computer generated documents to meet the Institute's information and data needs; and (3) develops, implements, and advises Institute staff on processes to facilitate retrieval, reporting, or other usage of computer stored data.

**Network Management Section - HNQ1-563**

(1) Serves as the Institute focal point for development, implementation, and maintenance of the NINDS Local Area Network (LAN); (2) assists users and potential users in determining the hardware and software which will best meet their needs; (3) identifies and resolves problems in the hardware and software within the LAN; (4) analyzes and enhances the network's ability to meet the ADP and office automation requirements of its users; and (5) provides training for new users and maintains liaison with other offices within the NIH and DHHS, other Government agencies, and vendor staff to maintain awareness of new office automation developments.

**Technology Transfer Branch- HNQ1-57**

(1) Lead, oversee and have responsibility for all NINDS technology transfer (TT) activities and practices in compliance with and in consideration of pertinent statutes, regulations, policies, and practices, especially the Federal Technology Transfer Act of 1986 and the National Technology Transfer and Advancement Act of 1995; (2) serve as experts and advisors on intellectual property (IP, especially patent rights), collaboration and transactional agreements as well as other transfer mechanisms, case law and other factors impacting TT efforts and initiatives, as well as act as liaisons with internal and external communities for NINDS TT activities, including those associated with NIH grantees and contractors; (3)create, develop and support entrepreneurial environment through outreach, dialog, and training, including dissemination of operating procedures, discussion and reporting of NINDS-specific and broadly relevant TT matters, training and special projects for TTO staff, and subject matter specific in-house designed educational programs; and, (4)develop, apply, implement, balance and revise strategic initiatives to advance TT objectives, including advancing development, utilization and impact of technologies, through a combination of scientific research, publication, IP, legal and market considerations, development pathways, TT solutions and partnerships.

**Office of Science Policy and Planning - HNQ1-6**

(1) Coordinates and prepares a wide variety of programmatic reports and other documents associated with NIH, PHS, and other Federal agencies; (2) Collaborates with the Financial Management Branch to develop narrative materials for the budget process and to prepare for and follow up on annual appropriations hearings; (3) Prepares reports and provides program information in response to Congressional requirements; (4) Represents the Institute on committees and other trans-NIH activities; (5) Maintains contact with the NIH Associate Directors for Legislation and Science Policy and other components of the Office of the Director and furnishes information and advice in support of those offices' activities; (6) Provides staff support for Institute's activities as appropriate; (7) Collaborates with scientific program staff to identify significant research advances and assess the progress of the Institute in meeting its objectives; (8) Collaborates with voluntary and professional societies in areas of common interest; (9) Performs writing and analytical tasks for senior Institute staff; (10) Organizes and oversees major NINDS planning and evaluation efforts; (11) Collaborates with OPCL and OSL to ensure that NINDS scientific activities and contributions are accurately and completely communicated to the relevant constituencies.

**Division of Translational Research - HNQ18**

(1) Supports the discovery and development of therapeutics and diagnostics for treatment of neurological diseases and stroke, thorough a broad range of grant programs and contract resources; (2) implements and manages science policies, training, and program activities related to translational research including the Blueprint Training in Neurotherapeutics Discovery and Development for Academic Scientists, and the NINDS Epilepsy Therapy Screening Program (ETSP) (3) implements and oversees the NIH Countermeasures Against Chemical Threats (CounterACT) program-(4) supports the design, development, implementation, and management of research activities and technologies with broad applicability to neuroscience and stroke; and (5) implements and oversees the NINDS Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Programs.

**Division of Clinical Research - HNQ19**

(1) Guides the development and implementation of investigator-initiated clinical trials across all age groups to test the safety and efficacy of innovative treatments for neurological disorders and stroke and to compare the efficacy of existing treatments; (2) provides guidance and leadership to NINDS-funded extramural networks that implement clinical trials in neurological disorders and stroke; (3) develops initiatives to effect the translation of ideas from preclinical animal research to testing the safety and early indications of efficacy; (4) promotes epidemiological studies of the natural history and early markers of neurological disorders and stroke, to elucidate the causative path leading to the disorders and to stimulate the search for new treatments and prevention strategies; (5) develops research initiatives aimed at reducing health disparities in neurological disorders; (6) promotes research that focuses on how clinical research outcomes can be translated into clinical practice; (7) provides oversight and serves as a resource to the Institute and to the investigators, to ensure proper level of patient safety monitoring; organizes Data and Safety Monitoring Boards to oversee patient safety and scientific integrity of clinical research; (8) serves as a resource to the Institute to monitor enrollment in clinical trials and epidemiological studies and to document gender and minority participation in clinical research; (9) promotes sharing of clinical research data through use of common data elements and archiving of public use datasets from NINDS-funded clinical trials; (10) supports the coordination and development of programs and initiatives that foster international research, training and collaborations that are relevant to the lnstitute's mission;(11) participates in the lnstitute's efforts to develop a cadre of physician investigators who will contribute to clinical research in the future; (12) provides expertise in statistics and clinical trial design to the Institute and to clinical investigators; and, (13) catalyzes and coordinates basic, clinical, and translational biomedical research and research training within the emergency care under the Office of Emergency Care Research by serving as the NIH point of contact for the extramural research community, fostering communication and interactions related to emergency medicine efforts across HHS and other federal agencies.

**Office of Scientific Liaison – HNQ1A**

1) Coordinates the Institute's public and private web sites, specifically: a) Develops, coordinates, and oversees the design, application, and management of electronic communication systems both for the external communities and within NINDS; b) develops and executes business practices to insure that timely and accurate information is posted on both the NINDS internet and intranet; c) maintains state of the art knowledge about available electronic communications, serving as a resource within NINDS: d) develops materials for the public website on science advances, Institute initiatives and programs including the Director's message e) Manages, coordinates, reviews, and when appropriate, prepares content for all NINDS external and internal websites, including NINDS-managed websites of major trans-NIH activities such as the NIH Blueprint, NIH Pain Consortium, and Interagency Pain Research Coordinating Committee. 2) Develops and manages a program to interpret and disseminate the findings of current and historical basic scientific research supported and carried out by NINDS to specific target audiences, including the biomedical community and other specialized groups. 3) Facilitates the understanding of neurobiological and neurological scientific concepts by the biomedical community and scientific media. 4) Prepares up-to-date information on basic research advances by NINDS scientists and grantees for distribution via NINDS website. 5) Develops, coordinates, and manages processes and systems for updating and disseminating Institute scientific reports, publications, conference summaries, and other research materials. 6) Advises Institute management on scientific reporting and communication issues related to research initiatives and accomplishments within the NINDS portfolio in conjunction with OCPL and OSPP. Works with the leadership team on activities related to the NIH Blueprint.7) Prepares written documents related to NINDS basic research advances to be used in scientific editorials, publications, web-based messages, and policy statements. 8) Assists the Institute Director and other senior staff in developing and delivering talks to public and professional audiences.9) Collaborates with the Office of Science Policy and Planning and the Office of Communications and Public Liaison to identify important research advances for dissemination to public and professional audiences.

**Office of Pain Policy and Planning – HNQ1C**

The responsibilities of the Office of Pain Policy and Planning includes: (1) overseeing the development, implementation, and evaluation of initiatives related to pain research across NIH through leadership and coordination of NIH Pain Consortium activities and programs; (2) translating program objectives into scientific agendas and broad strategic plans by working closely with the Pain Consortium's Executive Committee (five Institute and Center Directors); (3) overseeing the development, integration, implementation, and evaluation of trans-agency pain research initiatives through leadership and coordination of the Interagency Pain Research Coordinating Committee's (IPRCC) activities and programs; (4) supporting the implementation of the objectives of the National Pain Strategy to improve pain care; (5) conducting outreach to the scientific and advocacy community on issues related to pain research, improving pain care through the research enterprise, and opportunities for enhancing the federal pain research agenda; (6) advising the NINDS and NIH leadership on ongoing trans-NIH and trans-agency pain research programs, activities, and policies and represent the Institute and the NIH Pain Consortium on issues related to pain research strategies and contributions; (7) supporting targeted activities of NIH's response to the opioid crisis as they relate to development and dissemination of effective treatments, including non-addictive medications and non-pharmacological approaches for the effective treatment of pain serves as the NIH point person for related pain research initiatives being developed by NIH leadership; (8) developing, reviewing, and coordinating Congressional reports, responses, and materials related to NIH pain research and other related activities with the NINDS Office for Strategic Planning and Policy and other Institute's Policy staff to provide such information as requested; and, (9) serving as spokespersons for NINDS and NIH leadership to the pain community and broader public on relevant government activities.

**Division of Intramural Research - HNQ2**

(1) Plans and conducts the Institute's intramural basic and clinical research program in neurological disorders and stroke; (2) ensures optimal utilization of available resources in the attainment of Institute objectives; (3) evaluates research efforts and establishes division priorities; (4) integrates new research into the program structure; (5) collaborates with other Institute and NIH programs; and (6) maintains an awareness of national research efforts and provides advice to the Institute Director and staff regarding intramural research in scientific areas of interest to the Institute.

**Animal Health and Care Section - HNQ2-2**

Provides (1) professional, technical, and administrative support for the proper housing, containment, use, surveillance, and health care of NINDS research animals; (Z) coordination and oversight of NINDS efforts to establish and maintain AAALAC accredited animal facilities, practices, procedures, etc.; (3) direction and assistance to the NINDS Animal Use Committee and the execution of its responsibilities for approval of animal protocols, inspection of facilities, etc.; (4) administration and operation of the Building 376 Central Animal Facilities which serve the needs of NINDS, NIMH, NHLBI, and NICHHD; and (5) animal technical support and collaborative research with NINDS researchers as needed.

**In Vivo NMR Center – HNQ2-3**

The mission of the In Vivo NMR Center is to provide instrumental resources and expertise to the NIH Intramural Program for the conduct of in vivo research in NMR imaging and spectroscopy, and the development of new methodology to improve such services. The Center will be staffed to provide for: (a) operation and maintenance of existing equipment and computer network hardware and software (augmented by service contracts as needed); (b) professional guidance to users and prospective users on carrying out in vivo NMR research and analyzing data; and, (c) technical assistance and oversight of studies involving human subjects and animals.

**Stem Cell Characterization Facility Center - HNQ2-4**

(1) Establishes conditions to permit growth of hESC lines; (2) tests hESC lines for markers of undifferentiated cells; (3) provides a side-by-side comparison of the available human embryonic stem cell lines; (5) establishes standard assays to monitor the pluripotentiality of the hESC; and (6) will eventually coordinate transcriptome analysis of the hESC lines in the differentiated and undifferentiated state.

**Intramural Administrative Management Branch - HNQ2-5**

(l) Plans, directs, coordinates and provides administrative management support to the NINDS intramural laboratories, branches and offices; (2) manages and facilitates budget, personnel, space, travel, and other administrative functions for the Division of Intramural Research (DIR); (3) works in collaboration with the Scientific Director to develop and interpret policies, guidelines, and procedures on matters relating to administrative management and disseminates to relevant staff; (4) provides day-to-day acquisition support services; and (5) provides logistical support for DIR including management of DIR property.

**Intramural IT and Bioinformatics Program - HNQ2-6**

(l) Directs and manages information technology (IT) infrastructure and resources to support all intramural research and administrative programs; (2) manages and supports the information and database systems with computerized data related to administration, personnel resources, training, and research projects; (3) provides bioinformatics and clinical study consultation and support to advance intramural biomedical and translational research; (4) maintains the vision to adapt and adjust to NINDS customer needs, to proactively enhance NINDS business processes, maximize existing and future IT investments, and new uses of IT for its research support missions; (5) serves as a liaison to NINDS and NIH IT working groups and committees for setting IT policy and guidelines.

**Scientific Computing Support Section - HNQ2-62**

(l) Provides IT infrastructure and scientific computing support services including helpdesk, networking, security, file sharing, printer management data backup and scientific computing services; (2) administrates and maintains multi-platform servers and workstations for scientific computing and application hosting; (3) provides software and office application support and installs, trouble-shoots and configures desktops, laptops and scientific equipment computers used to support intramural research missions according to federal security standards and polices.

**Information Management Section - HNQ2-63**

(1) Manages and supports the information and database systems which involve the collection, classification, organization, storage, and retrieval of computerized data related to administration, personnel resources, training, and research projects; (2) Designs, customizes, develops and supports in-house applications and/or software, database applications, websites and other solutions not available in off-the-shelf modular software required to support scientific and administration functions utilizing system development life cycle (SDLC) with the available information technology and best practices; (3) provides required systems analysis, design, development, test, implementation, training and maintenance to cover all aspects of life-cycle software database development as well as designing and maintaining the institutional public and private web sites.

**Bioinformatics Section - HNQ2-64**

(l) Provides scientific consultation and support to facilitate and collaborate in scientific research with investigators and research staff including, computational biology, bioinformatics, medical imaging processing and clinical studies to advance intramural biomedical and translational research; (2) Provides scientific programming, application development and statistics support for scientific data management, manipulation, exchange and analysis; (3) Designs and develops databases to integrate data and tools from different data sources (e.g. microarray, proteomics and other biological and genomic databases) to better support and advance biomedical research.

**Clinical Neurosciences Program - HNQ22**

(1) Plans and conducts clinical neurosciences research in such areas as neuroimmunology, infectious diseases, therapeutics, developmental and metabolic disorders, neurosurgery, immuno-pharmacology, neuroepidemiology, human neurophysiology, speech disorders, oncology, vascular disease, autonomic nervous system, epilepsy, and degenerative disorders; (2) assures optimal utilization of available resources; (3) conducts studies in diseases such as Alzheimer's Disease, Parkinson's Disease, AIDS, multiple sclerosis, epilepsy, Huntington's Disease, primary malignant brain tumors, vascular malformations of the central nervous system, cerebellar degenerations, stroke, focal and generalized dystonia, autonomic dysfunction, Gaucher's Disease, and Niemann-Pick Disease; and (4) serves as the focal point for clinical services at the NIH Clinical Center for neurology, neurosurgery, otolaryngology, and audiology.

**Clinical Neurocardiology Section - HNQ22-4**

The Section conducts patient-oriented and preclinical research about neurocardiologic disorders, with an emphasis on catecholaminergic systems. Long-term goals of the Section are to (1) elucidate pathophysiological mechanisms and rest novel treatments of neurocardiologic disorders; (2) test concepts of integrative medicine, via collaborative studies about the physiology and pathophysiology of catecholaminergic systems; and (3) direct a world-class. CLIA-certified Catecholamine Assay Laboratory, both to support neurocardiology protocols of the Section and support collaborative studies about catecholaminergic systems.

## Clinical Epilepsy Section - HNQ22-6

The Clinical Epilepsy Section conducts research on uncontrolled epilepsy, emphasizing non-invasive approaches to localization of epileptic foci, cognitive mapping, and imaging the development and progression of epilepsy. Our goals are to understand the effects of epilepsy in man, and improve diagnosis and treatment.

## Viral Immunology Section - HNQ22-9

(1) Plans and conducts clinical and basic laboratory investigations about the association of human retroviruses in chronic-progressive neurologic disease; (2) as part of this research, performs a variety of immunological studies defining the cellular immune response to pathogenic viruses; (3) isolates and characterizes viruses from patients with neurological disease and individuals at risk for exposure; (4) performs in situ hybridization studies to co-localize virus expression in central nervous system tissue; (5) defines viral peptide and T cell receptor usage of pathogenic T cells from patients with HTLV- I -associated neurologic disease; and (6) develops immunotherapeutic strategies to intervene in the immunopathologic process in these patients.

**Office of the Clinical Director - HNQ221**

(1) Provides clinical and administrative services relating to neurological patient care; (2) coordinates educational activities related to the practice of neurology; (3) provides electroencephalography, electromyography, and consultation services for neurology, neuropathology, and paraprofessional support; and (4) monitors quality assurance of neurological care.

**Electroencephalography Section - HNQ2212**

(1) Provides electrophysiological diagnostic services to the entire NIH and conducts its own research activity, including routine diagnostic electroencephalographic (EEG) recordings and evoked potential testings (somatosensory, auditory and visual) and provides timely interpretation and reports; (2) conducts video-EEG monitoring patients with epilepsy as well as other episodic neurological disorder; (3) conducts research in pathophysiology and neurophysiological mechanism of epileptogenic activity; (4) conducts research in sleep physiology and sleep related disorders in terms of physiology and mechanis; and (5) functions as consultant to the investigators in the Institute and the other institutes and trains clinical associates toward the certification by the American Board of Clinical Neurophysiology.

**Electromyography Section - HNQ2213**

(1) Records electrical impulses from the muscles and nerves of patients, with or without electrical stimulation; (2) studies spinal muscular atrophies, radiculopathies, polyneuropathies, mononeuropathies, mononeuropathies, neuromuscular transmission defects, and primary muscle disease; and (3) initiates and develops new electromyographic techniques, in order to provide insights into the behavior of the human neuromuscular system in disease.

**Stroke Branch - HNQ22C**

(1) Plans and conducts clinical neurosciences research in the areas of stroke and thrombosis; (2) conducts clinical trials to determine methods for the prevention and treatment of stroke in progress and thrombosis; (3) plans and conducts basic neurosciences research on stroke, cerebral blood vessels, and thrombosis risk factors; and (4) assures optimal utilization of available resources.

**Clinical Investigations Section - HNQ22C2**

(1) Conducts clinical neurosciences research in the areas of stroke and thrombosis; (2) conducts trials to determine methods for the prevention and treatment of stroke in progress and thrombosis.

**Acute Stroke Research Section - HNQ22C5**

(1) Conducts a research program in the acute treatment of stroke. (2) Administers therapeutically promising experimented agents to brain attack patients leading to the identification of therapies that merit full scale clinical trials. Analyzes evolving brain changes during acute stroke through the application of state-of-the-art neuroimaging techniques.

**Surgical Neurology Branch - HNQ222**

(1) Investigates and treats clinical problems of disordered neuronal and glial proliferation and differentiation with a major emphasis on the study of intracranial tumors including: (a) tumor cell biology, (b) tumor and host humoral and cellular immunological mechanisms, and (c) tumor chemotherapeutic sensitivity with the goal of improved individualized chemotherapeutic and/or immunotherapy and glial growth and differentiation; (2) investigates and develops x-ray and radioisotope procedures for the study of nervous system structure, function, and blood flow dynamics in normal and pathological conditions; (3) investigates neuroendocrine mechanisms in patients with hypothalamic-pituitary dysfunction; (4) studies mechanisms and treatments of malformation of the neurovascular system; (5) studies methods for clinical surgical management of patients with epilepsy; and (6) provides clinical neurosurgical care for patients at the NIH Clinical Center.

**Biochemistry Section - HNQ2223**

(1) Designs and synthesizes new therapeutic proteins to kill brain tumor cells, (2) studies how proteins enter cells, and (3) investigates the regulation and mechanism of physiologic cell death.

**Neurosurgical Biology and Therapeutics Section - HNQ2224**

Conduct research on the basic, translational and clinical aspects of neurologic disease including (1) treats and investigates central and peripheral nervous system tumor (a) origin, (b) pathogenesis and (c) therapeutic pathways; (2) investigates neuroendocrine mechanisms of disease; (3) investigates methods and properties of nervous system drug delivery paradigms; (4) investigates physiology and clinical effects of functional disorders and epilepsy; and (6) provides clinical neurosurgical care for patients at the Clinical Center at the National Institutes of Health.

**Neurogenetics Branch - HNQ225**

(1) Plans and conducts laboratory and clinical research on the genetic basis of neurological disorders, including the identification of genes responsible for neurological diseases; (2) elucidates the mechanisms by which altered genes disrupt function; (3) develops application of research findings to the care and treatment of individuals or families with neurological genetic disorders.

**Hereditary Neurological Disease Section - HNQ2252**

The proposed section: (1) conducts research in hereditary neurological and neuromuscular diseases, including muscular dystrophy, hereditary neuropathy, motor neuron disease, hereditary ataxia, and Huntington's disease; (2) provides diagnostic evaluation of patients and families with these diseases in order to find pedigrees for genetic linkage analysis and identification of the disease genes; (3) investigates the mechanisms of human neurodegenerative diseases in neuronal cell culture and other model systems; (4) studies protective mechanisms that maintain the health and survival of neurons, and (5) evaluates potential therapies for hereditary neurological disorders.

**Cell Biology Section - HNQ2253**

Conducts research investigating the common pathogenic themes underlying inherited neurological disorders, particularly the hereditary spastic paraplegias. The focus is on (1) identifying and characterizing new forms of hereditary spastic paraplegia, (2) understanding the cellular functions of the proteins mutated, and (3) identifying and investigating common pathogenic themes at the cellular level. Studies are multidisciplinary with clinical, translational, and basic science components. Laboratory investigations emphasize biochemistry, cell biology, and structural studies of disease-related proteins as well as analysis of genetically-engineered mice representing disease models.

**Neuromuscular and Neurogenetic Diseases of Childhood Section - HNQ2254**

Conducts research investigating the common pathogenic themes underlying inherited neurological disorders of childhood, particularly congenital disorders of muscle. The focus is on (1) identifying and characterizing new focus of congenital disorders of muscle and other neurogenetic disorders of childhood, and understanding the genotype-phenotype correlations and the natural history of known conditions, (2) understanding the physiological and cellular functions of the proteins mutated, and (3) identifying and investigating common pathogenic themes at the cellular and organisaml level in order to identify targets for interventions and treatments. Studies are multidisciplinary with clinical, translational, and basic science components. Laboratory investigations emphasize biochemistry, cell biology, physiology and the analysis of genetically-engineered mice representing disease models with the goal at moving preclinical therapeutic interventions towards clinical trials.

**Medical Neurology Branch - HNQ227**

To understand the physiology of movement and the pathophysiology of different human movement disorders, including stroke, Parkinson's disease, dystonia, tremor, ataxia and myoclonus. To develop treatments, including rehabilitation techniques, for the different movement disorders based on physiological principles.

**Human Motor Control Section - HNQ2274**

To understand the physiology of human voluntary movement, including skilled movements and motor learning. To understand the pathophysiology of different human movement disorders, including stroke, Parkinson's disease, dystonia, tremor, ataxia and myoclonus, and to develop appropriate therapies.

**Human Cortical Physiology Section - HNQ2275**

To understand the mechanisms underlying plastic changes in the human central nervous system and develop novel therapeutic approaches for recovery of function based on this knowledge; the main focus will be in the plasticity of the human motor system; additional studies will be on plastic changes across sensory modalities (blindness); human research protocols focus on the evaluation of patients with stroke, amputations, and blindness.

**Translational Neuroscience Branch - HNQ22G**

Conducts research to 1) develop new assays for screening new therapeutic entities, 2) modifying therapeutic agents to improve access across the blood brain barrier, 3) develop techniques for transforming skin fibroblasts to neurons and glial cells for studying disease pathogenesis, 4) develop surrogate markers for neurological diseases, 5) provides an infrastructure for conducting clinical trials, including statistical support and data management.

**Infections of the Nervous System Section - HNQ22G2**

Conducts research to determine the mechanism of 1) retroviral persistence in the brain, 2) reactivation of retroviruses, 3) mechanisms of viral entry into the brain, 4) imm1IDe modulation of viral infection, 5) mechanism of neuronal and dendritic injury, 6) viral and host genetic factors that contribute to retroviral neuropathogenesis. This will impact the pathophysiology, diagnosis, and treatment of neurological complications of HIV infection and neurological diseases where endogenous retroviruses have been implicated.

**Basic Neurosciences Program - HNQ23**

(1) Plans and conducts research in basic neurosciences concerning neural and vascular properties and functions of the brain and the peripheral nervous systems and their changes in neurological disorders and stroke; (2) assures optimal utilization of available resources; (3) examines at the molecular level, normal and abnormal neuronal, glial and other brain cell properties such as membrane conduction, neurotransmitter binding and release, signal transduction, intracellular transport of organelles, growth and differentiation of these cells, and their stimulation by intracellular factors; (4) investigates the cellular and neurotransmitter interactions between neurons, glia, muscle cells, etc., the events during neural regeneration and resulting from implantation of neuronal tissues, properties of the blood-brain barrier and of cochlear cells by the most advanced biochemical, genetic, electrophysiological, imaging, and other techniques; and (5) analyzes the properties of viruses affecting neurons and especially the effect of the AIDS virus on the brain.

**Cellular and Developmental Neurobiology Section - HNQ23-C**

CDNS conducts fundamental research on neurogenesis of placodally derived neurons, and regulation of neuroendocrine cells. Using multidisciplinary approaches, the section specifically examines neuronal migration, developmental and homoeostatic regulation of neuropeptide gene expression, and neurosecretion in luteinizing hormone releasing hormone (LHRH) neurons: neurons essential for reproductive function. The ability to manipulate the molecular and cellular biology of the LHRH system enables us to look at mechanisms controlling reproductive development. In addition, such work addresses basic neurobiological issues such as phenotypic commitment, neuronal development, and regulation of gene expression.

**Molecular Physiology and Biophysics Section - HNQ23-G**

(1) Studies the molecular structure and the biophysical mechanisms that regulate the activity of numerous types of cation channel proteins (e.g. voltage-activated potassium and calcium channels, capsaicin receptor channels) using a range of experimental techniques, including biochemical, molecular biological, electrophysiological and biophysical methods; (2) explores the molecular mechanisms by which regulatory proteins and drugs modify the activity of cation channels; (3) searches for new regulatory proteins and organic compounds that influence the activity of cation channels; (4) studies the role of specific types of cation channels in a range of cellular processes, including neurotransmitter and hormone release, and activation of pain pathways.

**Molecular Neuropharmacology Section - HNQ23-H**

Conducts studies of the characterization of neurotransmitter receptormediated information transduction, and its regulation, across neuronal membranes. Primary model systems under investigation are receptors linked to their effector function via guanine nucleotide binding regulatory proteins. Conducts interrelated lines of research in the areas of: 1) investigation of the cell biology, function and regulation of the receptors at the protein level; and 2) the molecular cloning of the receptor genes and investigation of gene structure and regulation in normal and pathophysiological states.

**Developmental Neurobiology Section - HNQ23-J**

Conducts research on fundamental studies of the development of the neural mechanisms involved in the control of movement by the vertebrate central nervous system, with emphasis on the structure and function of neural circuits and of individual neurons during embryonic development.

**Mammalian Development Section - HNQ23-L**

Section focuses its research on the understanding of human genetic disorders by analyzing mice harboring specific mutations in genes relevant to the development of the nervous system; analyzes the function and pathogenetic role of genes that are important for inner ear and eye development as well as synapse formation. Findings in mice are then correlated with normal and abnormal development in humans.

**Synaptic Functions Section - HNQ23-N**

Conducts research on the molecular and cellular mechanisms underlying (l) the axonal transport of synaptic components and organelles essential for the assembly of synapses and activity dependent presynaptic plasticity, (2) the regulation of synaptic vesicle (SV) priming for fusion, and (3) intracellular membrane trafficking that regulates lysosomal-autophagy function in neurons. The research is multidisciplinary including biochemistry, molecular and cellular biology, and electrophysiology combined with live cell imaging and loss-of-function analysis of genetically engineered mice. Given that defects in axonal transport of mitochondria and dysfunction in lysosomal-autophagy system have been implicated in neurodegeneration, the studies will have an impact on the understanding of human neurodegenerative disorders.

**Synaptic Physiology Section - HNQ23-P**

Explores the dynamics and regulation of synaptic transmission and the role of particular synapses in network function and plasticity. Focuses on the synapses and networks in the mammalian hippocampus and retina, using whole-cell patch recording and multiphoton imaging techniques in acute slices. Reports results at national and international meetings and publishes findings in scientific journals. Facilitates scientific interaction among students and fellows with lab meetings and journal clubs.

**Membrane Transport Biophysics Section – HNQ23-Q**

Conducts research on the molecular and cellular mechanisms underlying (1) the mechanisms of acidification in endosomal organelles as required for activation of receptor cycling and lysosomal macromolecular degredation, (2) the dynamic mechanisms of transporter function at the molecular level. The research is multidisciplinary including biochemistry, molecular and cellular biology, and electrophysiology combined with live cell imaging and loss-of-function analysis of genetically engineered mice. Given that defects in transporter function and lysosomal acidification have been implicated in excitotoxicity and neurodegeneration, the studies will have an impact on the understanding of human neurological disorders.

**Synaptic Transmission Section - HNQ23-R**

Studies the molecular and cellular mechanisms underlying synaptic transmission. This aim will be divided into three sub-aims. 1) studies how calcium channels control and regulate transmitter release and generate synaptic plasticity. 2) studies how synaptic vesicles fuse with plasma membrane to release transmitter and act of postsynaptic receptors to generate postsynaptic response. 3) studies how fused vesicles are retrieved from the plasma membrane to form new vesicles for the next round of exocytosis, which maintains synaptic transmission. 4) provides a training place for graduate students and postdoctoral fellows.

**Receptor Biology Section - HNQ23-S**

Studies synapse-specific expression of postsynaptic NMDA and metabotropic glutamate receptors. Characterizes the molecular mechanisms underlying neurotransmitter receptor transport and localization at the synapse using several research strategies which include (l) defining sorting motifs present in neurotransmitter receptor cytosolic domains, (2)isolating neurotransmitter receptor-associated proteins, and (3) determining the role of protein-protein interactions in trafficking and specific synapse localization. Using these cell biological approaches, elucidates the mechanisms of neurotransmitter receptor trafficking in neurons and the role of accessory proteins at central synapses.

**Molecular Neurophysiology Section - HNQ23-T**

Explores structure and biophysics of membrane ion channels and transporters. Presently concerned ion channels and the sodium/potassium ATPase; the former moving ions at rates near diffusion, while the latter at rates of about 100 per sec. Understanding how RNA editing alters the function of membrane proteins by examining RNA editing in a variety of membrane proteins including ion channels and transporters. Studying the regulation of membrane proteins by RNA editing will reveal how nature functionally tunes these proteins, and guide questions on the structure and function of these important cellular machines.

**Developmental Neural Plasticity Section - HNQ23-U**

Conducts research to understand the principles and mechanisms that underlie neural plasticity and regeneration in the brain. Using the mammalian olfactory system as a model the laboratory focuses on four main topics: (1) Identification of neural circuits within the olfactory system that exhibit functional plasticity; (2) Determining the molecular and functional mechanisms that govern olfactory based plasticity; (3) Understanding the relationship between plasticity and the capacity of olfactory circuits for repair following disruption; (4) Establishing the role of sensory induced activity on the restoration of neural circuits. The research is multidisciplinary including biochemistry, molecular biology and electrophysiology as well as in vivo imaging, optogenetic and behavioral techniques combined with genetically engineered mice. Given the strong connection between olfactory dysfunction and many neurological disorders such as Alzheimer's Disease and Parkinson's Disease, this work will have direct impact on the understanding of human neurodegenerative disease and help establish a means for repair.

**Neurophysiological Pharmacology Section - HNQ23-V**

Concerned with the application of single cell recording and iontophoretic techniques to basic studies of synaptic function in histologically identified neurotransmitter pathways. In addition, the mechanisms of action drugs are investigated by correlating their effects on nerve impulse activity in central neurons.

**Viral Immunology and Intravital Imaging Section - HNQ23-W**

Conducts research on how the immune system responds to states of acute and persistent infection of the central nervous system (CNS) with a specific focus on 1) CNS immune surveillance and regulation, 2) innate immune detection of microbes, 3) mechanisms that give rise to persistent infection, and 4) the pathogenesis of meningitis. The research spans the disciplines of neuroscience and immunology, relying on contemporary approaches such viral reverse genetics, advanced flow cytometry, genomics, and intravital deep tissue imaging to study how the immune system operates in the living brain following infection. The studies impact directly upon many neurological diseases in humans (e.g. meningitis, encephalitis, neurodegeneration, autoimmunity) triggered when infectious agents access the nervous system.

**Laboratory of Functional and Molecular Imaging - HNQ232**

(1) Develops novel magnetic resonance imaging (MRI) techniques to assess anatomy, function and metabolism in the brain. Emphasis is on development of functional and molecular MRI techniques for very high magnetic fields. (2) Integrates new imaging techniques with molecular biology techniques for functional genomic studies. In particular, the LFMI is interested in cell energetics and the development and function of the brain.

**Functional and Molecular Metabolism Section - HNQ2322**

Is dedicated to understanding the complex interplay between tissue anatomy, function and metabolism in the brain. Molecular genetics is used to make specific changes and imaging techniques are developed and used to monitor how these changes affect anatomy, function and metabolism. Two major research themes are: (1) to use information about functional, cellular, and molecular processes to design novel techniques to image the brain. In particular, we are interested in developing magnetic resonance imaging and optical imaging techniques that are sensitive to the cascade of events that are required for normal brain function. This includes high resolution anatomical imaging, imaging vascular responses to specific stimuli, imaging neuronal connections, imaging second messenger signaling, imaging cell movements and imaging changes in gene expression. An important aspect of these studies is to integrate imaging with molecular genetics to aid in the analysis of functional genomics; and (2) to understand cellular energy metabolism combining molecular genetics, proteomics, and imaging. The major interests in this area are to understand the role of specific cellular components important in energy metabolism, such as creatine kinase and mitochondria, in normal and pathological cellular metabolism. An important aspect of these studies is to make use of proteomic techniques to assay protein changes that occur due to molecular biological interventions in combination with non-invasive imaging of function.

**Advanced MRI Section - HNQ2323**

Pursues integration of novel and existing MRI techniques in biomedical research. The laboratory's main emphasis is on brain research, specifically anatomical and functional organization of normal human brain. In addition, the laboratory focuses on the development of new MRI contrast mechanisms to elucidate disease processes.

**Cerebral Microcirculation Section – HNQ2324**

(1) Conducts research on the physiological and cellular regulatory mechanisms of neurovascular coupling; (2) employs experimental approaches that include development of neuroimaging methods, such as functional magnetic resonance imaging (fMRI) and two-photon laser scanning microscopy, to study neurovascular coupling during complex brain tasks in animals; (3) investigates the mechanisms of neurovascular coupling that are disrupted in pathological states such as hypertension and stroke; (4) develops transgenic animal models expressing genetically encoded calcium indicators (GCaMP); and (5) develops transgenic animal models of microvascular disease.

**Laboratory of Molecular Medicine and Neuroscience - HNQ23B**

(1) Investigates neurological diseases at the clinical, biological, and molecular levels; (2) conducts experiments on the pathogenesis of diseases involving cellular dysfunctions caused by neurotropic viruses, toxic cytokines or possible genetic alternations; (3) investigates progressive Multifocal Leukoencephalopathy (PML) caused by the human polyomavirus, JCV, AIDS associated encephalopathy involving HIV-1 infection, and neurodegenerative diseases such as Parkinson's; (4) conducts experiments to detail the molecular mechanisms of disease in neural derived cells and correlate the biology of laboratory findings with the clinical course of disease as recognized in clinical cases; and (5) develops molecular and cell therapy models in non-human primates.

## Molecular Medicine and Virology Section - HNQ23B2

Investigates viral induced damage to the nervous system. Establishes biological models of viral induced diseases, chiefly HIV-l and JC Virus infections in immune compromised patients in cell cultures of human fetal brain. Studies the molecular mechanisms of viral host interactions to determine the most appropriate and specific means to intervene. Examines clinical case studies with outside collaborators and develops new technologies to diagnose and treat neurological disease.

**Laboratory of Neurobiology - HNQ23D**

(1) Conducts structural research on the organization of the nervous system at the cellular, membrane, and molecular levels to provide a basic understanding of cell biology as well as the organizational principles of nervous system function; (2) studies specific cell biological problems such as synaptic transmission, glial and neural membranes, and the intracellular sequestration of various ions; (3) investigates the principle organizational problems which are blood-brain barrier, and neural development and regeneration; and (4) develops and improves structural tools, such as electromicroscopy, x-ray spectroscopy, immunocytochemistry, cryotechniques, and computer-processed imaging to solve these fundamental problems in neurobiology.

**Structural Cell Biology Section - HNQ23D2**

Develops and applies innovative structural techniques, e.g., cryogenic, spectroscopic, immunological, and computer-enhanced imaging, to solve fundamental problems in cell, membrane, and molecular neurobiology. Areas of study include secretion as it applies to synaptic transmission, organelle movement as it applies to fast axoplasmic transport, cytoplasmic organization as it applies to the organization of neural and glial membranes, and the distribution of ions in nerve cells, particularly with respect to their sequestration in organelles which control ionic effect on various intracellular junctions.

**Analytical Cell Biology Section - HNQ23D4**

Develops and emphasizes modern analytical techniques along with structural studies, temperature and analytical methods of electron microscopy, light microscopy and immunocytochemistry to study major problems in cell and molecular neurobiology. Areas of study include the distribution or molarity of diffusible and structural components in axons, dendrites, glia, and synapses, and how these distributions facilitate the action and concentration of second messengers such as calcium; the structure, organization and assembly of cytoskeletal filaments and their mechanistic interactions with motor proteins such as kinesin; the arrangement, concentration, and association of membrane proteins and cytoskeletal components at specialized structures such as synapses; and, transport and assembly of integral and peripheral proteins in specialized membrane such as myelin

**Division of Extramural Activities - HNQ7**

(1) Advises the Director on issues relevant to policy and procedures related to the Institute's extramural programs; (2) represents the Institute Director as required in extramural relationships; (3) coordinates program planning in the extramural areas; (4) provides technical support activities, including technical merit review of grant and contract applications and proposals, and grants and contract management services; (5) provides coordination, support, and staff services for committee management; (6) manages the operations of the National Advisory Council on Neurological Disorders and Stroke; (7) co-directs the analysis working group with the Office of Science Policy and Planning (OSPP); and (8) directs the office of rigor and reproducibility.

**Scientific Review Branch - HNQ72**

(1) Directs and carries out the scientific and technical merit review of grant applications, cooperative agreements, and contract proposals including program projects and center grants, clinical trial networks, translational research initiatives, research training and career development awards, and conference grants; (2) originates and coordinates policies and procedures of the NSD-A, NSD-B, NSD-C, NSD-K, NST-1 and NST-2 Review Committees and NINDS Special Emphasis Panels; (3) conducts the search for most qualified and representative individuals to serve as members of initial review groups; and (4) organizes and coordinates scientific and technical merit review meetings.

**Grants Management Branch - HNQ73**

(1) Participates with the Director for the Division of Extramural Activities in the development of Institute policies on the business management of research grant programs; (2) develops guidelines, procedures, and internal controls to ensure proper and continuing implementation of NINDS and other applicable policies, including those from NIH and HHS; (3) is responsible for the business management of Institute grant programs including negotiation of awards; (4) processes all documentation necessary for administration of Institute grant programs; and (5) responsible for awarding functions and the signing of awards.

**Grants Management Section A - HNQ732**

(1) Develops and maintains an operating relationship with the NINDS Extramural scientific program staff to provide business and administrative advice and consultation necessary to fulfill the objectives of the grant programs; (2) provides lead coordination of grants management activities in two of four functional areas: training grants, clinical studies and pilots, clinical trials, and specialized neuroscience research programs; (3) provides fiscal and administrative policy review of grant applications; (4) participates in negotiating grant budgets and terms of the award; (5) interprets and applies existing grants management policies; (6) provides liaison with other components of NIH and officials of grantee institutions; and (7) responsible for maintaining files on all grants, fellowships and cooperative agreements.

**Grants Management Section B - HNQ733**

(1) Develops and maintains an operating relationship with the NINDS Extramural scientific program staff to provide business and administrative advice and consultation necessary to fulfill the objectives of the grant programs; (2) provides lead coordination of grants management activities in two of four functional areas: training grants, clinical studies and pilots, clinical trials, and specialized neuroscience research programs; (3) provides fiscal and administrative policy review of grant applications; (4) participates in negotiating grant budgets and terms of the award; (5) interprets and applies existing grants management policies; (6) provides liaison with other components of NIH and officials of grantee institutions; and (7) responsible for maintaining files on all grants, fellowships and cooperative agreements.

**Grants Management Section C - HNQ734**

(1) Develops and maintains an operating relationship with the NINDS Extramural scientific program staff to provide business and administrative advice and consultation necessary to fulfill the objectives of the grant programs; (2) provides lead coordination of grants management activities in two of four functional areas: training grants, clinical studies and pilots, clinical trials, and specialized neuroscience research programs; (3) provides fiscal and administrative policy review of grant applications; (4) participates in negotiating grant budgets and terms of the award; (5) interprets and applies existing grants management policies; (6) provides liaison with other components of NIH and officials of grantee institutions; and (7) responsible for maintaining files on all grants, fellowships and cooperative agreements.

**Administrative Services Branch - HNQ75**

(1) Advises the DEA Director and Directors of NINDS Division of Neuroscience, Division of Translational Research, and Division of Clinical Research on matters relating to the general management and administration of NINDS extramural programs; (2) maintains financial records on programs supported by grants and research contracts and on funds to support the direct operations of extramural programs; (3) provides support services for budget formulation and justification, personnel administration, space management, procurement, travel, reproduction, and other support services; and (4) provides advice on the effective organization of the extramural program.

**Office of Programs to Enhance Neuroscience Workforce Diversity – HNQ77**

(1) Represents NINDS at all levels of NIH in matters pertaining to NINDS workforce diversity; (2) develops and implements specific funding opportunities (individual and institutional) and works across the NINDS scientific portfolio to promote inclusion; (3) develops and implements training and career development programs and activities to facilitate the creation of a diverse scientific workforce in the neurosciences; (4) initiates conferences, workshops, symposia and professional development activities to enhance diversity in the neuroscience workforce; (5) oversees research education partnerships across NIH, scientific societies and research Institutions; (6) establishes criteria/standards for the planning, reviewing and evaluation of diversity programs with relevant metrics for measuring success; (7) manages a comprehensive database and tracking system for monitoring diversity programs; (8) conducts outreach to diverse stakeholders to promote the research mission via site visits/panel presentations to universities, research institutions, government agencies, diversity outreach societies; organizing workshops, conferences, and symposia to stimulate research; and (9) coordinates with NINDS intramural efforts to raise awareness about diversity and recruit diverse staff members.

**Office of Training and Workforce Development - HNQ78**

(1) Develops and implements training and career development programs and activities to facilitate the creation of a future scientific workforce in the neurosciences; (2) develops and implements initiatives, specific funding opportunities (individual and institutional), conferences, workshops, symposia and professional development activities to more efficiently and successfully produce clinician-scientists; (3) evaluates training and career development programs to ensure their effectiveness; (4) ensures that training programs evolve as scientific technologies develop and needs change; (5) oversees research education granting mechanisms and outreach activities to enhance the pipeline of students at all levels into the scientific workforce; (6) serves as a resource to the extramural community on questions of grant-writing, grant application, NIH procedures and NIH organization; and (7) oversees the NINDS Loan Repayment Program (LRP).

**Division of Neuroscience – HNQA**

(1) Plans and directs a program of extramural and collaborative research in neuroscience, including, but not limited to: fundamental cellular, molecular and systems neuroscience; developmental neurobiology, developmental disorders, neurogenetics, stroke, traumatic injury to the brain and nervous system, neurodegenerative disorders, brain tumors, development of prosthetic devices to restore function to the damaged nervous system; convulsive disorders, including epilepsy, infectious and immune disorders of the brain and nervous system, and disorders related to sleep mechanisms; (2) maintains surveillance over developments in these program areas and assesses the national need for research in the cause, prevention, diagnosis, and treatment of disorders of the brain and nervous system; (3) determines program priorities and recommends funding levels for programs to be supported by grants and contracts; (4) collaborates NIH-wide on national research efforts related to these program areas; and (5) consults with voluntary health organizations and with professional associations in identifying research needs and developing programs to meet these needs.