The Cooperative Centers of Excellence in Hematology (CCEH) provide a focus for multidisciplinary investigations into gene structure and function; the cellular and molecular mechanisms involved in the production, maturation, and function of blood cells; and the development of strategies to treat nonmalignant hematologic diseases. The CCEH offer unique resources and established hematologic expertise through state-of-the-art facilities. The CCEH consortium is dedicated to the generation of investigative resources that can be made available to the broader research community. They involve integrated teams of investigators from a wide range of disciplines, share specialized equipment, and serve as regional or national resources. The CCEH support pilot and feasibility programs that fund small projects aimed to generate preliminary data for inclusion in larger grant applications as well as short-term enrichment activities.

Research Aims: To advance research in stem cell and transplantation biology.

Research Aims: To advance research in regulation of human and murine hematopoiesis at the level of hematopoieticstem and progenitor cells.

Research Aims: To advance research in iron and heme disorders.

Research Aims: To apply innovative, emerging technologies to normal and perturbed hematopoiesis.

Coarse Available: Iron and Heme Core analyzes biological samples for metal, porphyrin, heme content, heme biosynthetic enzyme activity and metals such as iron by ICP-MS.

Mutation Generation and Detection Core designs and produces custom TALEN and CRISPR-Cas9 DNA nucleases for targeted genomic mutations in standard and non-standard model organisms.

Coarse Available: CRISPR Service

Imaging Core The Imaging Core has Confocal, 2-photon STED, in vivo imaging facility – 2-photon CINEMA – spinning disk, TIRF, SIM, FACS Facility: Imaging Flow Cytometer (Amnis ImageStream), PALM/STORM, STED, Automated time lapse imaging.

Animal Modeling Core Xenografting into Immuno-deficient Mice (NSG, NGS-S, MISTRG), Humanized "BLT" Mice, Transgenic and Knockout Mice (CRISPR), Murine in vivo hematopoiesis assays, Tissue harvest and analysis service, Teaching.

Cores Available: Cell Preparation and Analysis Core

Cores Available: High Titer Virus Service

Cores Available: Animal Modeling Core

Cores Available: Introduction: NIDDK-sponsored Cooperative Hematology Specialized Core Centers

Cores Available: Resources and Services Available from CCEH

Cores Available: Facilities Available from NIDDK-sponsored Cooperative Hematology Specialized Core Centers

Cores Available: Network Resources Available from NIDDK-sponsored Cooperative Hematology Specialized Core Centers

Cores Available: Centers of Excellence in Hematology

Cores Available: NIDDK Sponsored Cooperative Hematology Specialized Core Centers

Cores Available: Individual Core Centers

Cores Available: Resources and Services Available from NIDDK-sponsored Cooperative Hematology Specialized Core Centers

Cores Available: Cooperative Centers of Excellence in Hematology

Cores Available: NIDDK Sponsored Cooperative Hematology Specialized Core Centers

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