

## Center for Iron and Heme Disorders (CIHD)

<http://cihd.cores.utah.edu>

*Our Cores facilitate CHSCC research*

- **Iron and Heme Core** analyzes biological samples for metal, porphyrin, heme content, heme biosynthetic enzyme activity and more
- **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
- **Metabolomics Core** LC-MS & GC-MS metabolic profiling and isotope tracer analysis

*We support investigators in the field of non-malignant hematology through workshops, pilot and feasibility programs, and career development*



**FRED HUTCH**  
CURES START HERE

## Cooperative Center for Excellence in Hematology (CCEH)

<http://sharedresources.fredhutch.org/core-facilities/cceh-administration>

*Provides resources for isolating large numbers of stem cells, gene editing and clonal tracking of progeny in vitro and in vivo.*

- Large scale Hematopoietic Cell Processing and Repository
- Vector production
- Gene editing
- Clonal Tracking
- Canine Resource Development
- Specialized Mouse Services

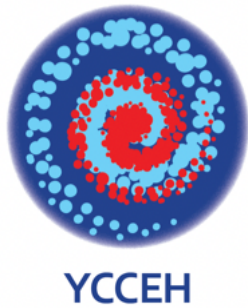
**NIDDK**



NIDDK Cooperative Centers of Excellence in Hematology (CCEHs) are designed to enhance multidisciplinary research and facilitate sharing of resources in nonmalignant hematology



**NIDDK Sponsored CCEHs  
2019**



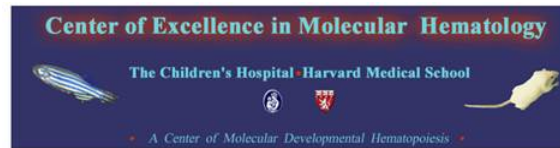
## Yale Cooperative Center of Excellence in Hematology (YCCEH)

<http://medicine.yale.edu/labmed/ycceh/>

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Enhancing research in blood diseases by facilitating synergy between scientists at Yale and across the country, providing access to and training in state-of-the-art technologies via three cores

- Cell Preparation and Analysis Core
- Imaging Core
- Animal Modeling Core



## Center of Excellence in Molecular Hematology

<http://zfrhmaps.tch.harvard.edu/cemh/>

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Provides resources and services to support and expand hematology research in model organisms, human pluripotent stem cells, and engineering of models of human disease through use of contemporary genetics and genome editing

- Mouse Embryonic Stem (ES) Cell and Gene Targeting Core
- Zebrafish Core
- FACS and Epigenetics Technology Core



## Indiana University Cooperative Center of Excellence in Hematology (IU-CCEH)

<http://www.ccehindy.org/>

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Leveraging different technologies to improve the advancement of the clinical utility and efficacy of HSC/HPC-based therapies

- **Experimental Mouse Resources Core** provides immunodeficient and genetically modified mice for multiple in vivo HSC/HPC functional assays
- **Optical Microscopy Core** provides services in high resolution optical microscopy & imaging
- **Angiogenesis Core** conduct validated in vitro and in vivo assays of cells involved in angiogenesis
- **Flow Cytometry Core** provides flow cytometric services and genomic and proteomic analysis at the single cell level