

Center for Inherited Disease Research

Application for Mouse Custom SNP Genotyping

This application should be used only for Mouse Custom SNP Genotyping projects. The following items should be provided to the CIDR Access Committee in a document not to exceed 10 pages (excluding appendices). Text may be single-spaced but the type size must conform to NIH guidelines, i.e., letter height no smaller than 10 point, type density no greater than 15 characters per inch, and no more than 6 lines within a vertical inch. Applications that do not conform to these guidelines will be returned.

Extramural NIH grantees supported by a participating institute require prior approval from the institute liaison before submitting an application to CIDR. Intramural NIH investigators should contact Dr. Camilla Day before preparing an application. See CIDR web site for institute liaison contact information – www.cidr.jhmi.edu.

Please address the following items in the order they are listed.

Principal Investigator Information

Provide contact information including:

- Name
- Institution and address
- Telephone, fax and e-mail
- Name and e-mail of contact person if other than PI

Project Analyst Information

Provide the name and affiliation of project analyst(s)

Co-Investigator / Collaborator Information

Provide the name and affiliation of major co-investigator(s) and collaborator(s)

Project Information

Provide information about the project including:

- Project title
- Illumina chemistry and number of SNPs requested
 - GoldenGate
 - 96, 384, 1,536 or another multiple of 1,536 SNPs
 - iSelect Infinium (note there is a 1,080 sample minimum for this chemistry)
 - Ranges from 7,000 to 60,000 SNPs
- Whether the project has undergone previous peer review, and if so, by whom and the outcome of the review

- Whether this is a resubmission to CIDR, and if so, attach a 1-2 page cover letter addressing the criticisms from the previous review. Note: this cover letter does not count toward the page limit
 - Current and pending funding sources relevant to this project (provide NIH grant number if applicable)
 - If required, whether the project has been approved by the appropriate institute liaison
 - How genotyping costs will be paid if the project is not supported by one of the thirteen NIH supporting institutes
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Sample Information

Provide information about the samples including:

- Approximate number of samples to be genotyped
 - Source of DNA and extraction method used. Note: approximately 4 µg of DNA is required at a concentration of 75-150 ng/ul. For the GoldenGate product, a higher concentration range is recommended for whole genome amplified samples. For the Infinium product, a higher concentration range is recommended for copy number analysis. Blood and cell line derived genomic DNA will give optimal results for copy number analysis
 - When samples will be available to ship to CIDR
 - Whether the samples been previously genotyped, and if so, briefly describe. Note: previous genotyping is not required; this information is useful for internal quality control
 - Whether the project has animal care protection approval by an appropriate Institutional Animal Care and Use Committee, and if so, attach a copy of approval; if no, whether plans been made to obtain such approval. Note: samples will *not* be accepted until IACUC approval is received
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Project Details

Provide details about the project including:

- Abstract
- Specific aims
- Description
 - For projects following up linkage/association, describe the original mapping project including the strength of evidence for linkage/association. Investigators are encouraged to focus on a few best regions
 - For projects focusing on candidate genes, discuss the rationale for candidate gene selection. Candidate genes should be categorized in an appropriate manner (pathways, networks, biological processes, etc.). Since genotyping capacity and institute budgets are finite, the applicant should set priorities in case only a subset of genes can be typed. Provide a categorized and prioritized list of the candidate genes in the appendix
- Power and effect size - Describe the power of the project and the anticipated size of a detectable genetic effect (e.g., main effect of a single gene, or gene-gene interaction effect size). If appropriate, provide a breakdown of the number of subjects in various phenotypic classes and the power of each class to reach a significant finding
- Study design - Include the following:
 - Criteria for sample selection and power calculations if appropriate
 - Detailed information on the phenotyping of the traits used for this study
- SNP selection - Describe the rationale for SNP selection (density, frequency, heterozygosity, level of validation, relevance for the ethnic/racial background of the study, etc.) SNPs can be in one or multiple chromosomal regions or within candidate genes. They need not be named in the application, however, the review committee will assess the rationale and justification for SNP selection

- Data management - Describe plans to manage the large number of genotypes. Even modest sized projects will generate a million or more genotypes
 - Data analysis - Describe plans to analyze the SNP data, including software to be used
 - Plan for next phase - Provide the plan/strategy for the next phase of the project including the names of molecular geneticists and how they will be involved. Attach biographical sketches and letters of collaboration from these individuals
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Appendix

Include the following documents in the Appendix:

- Literature cited
 - CVs of key personnel in four-page, NIH format
 - Letters of support/commitment from major collaborators and/or co-investigators
 - A categorized and prioritized list of the candidate genes, if appropriate
 - Essential reprints or preprints
 - If required, documentation of institute liaison approval
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Application Submission

Submit one original application and three complete copies, including appendices, to Dr. Camilla Day, Scientific Review Officer and Executive Director, CIDR Board of Governors, in the NHGRI Office of Scientific Review:

Camilla Day, Ph.D.
Center for Inherited Disease Research (CIDR)
Suite 4076 MSC 9306
5635 Fishers Lane
National Human Genome Research Institute
National Institutes of Health
Bethesda, MD 20892-9306
(*Courier Services should use Rockville, MD 20852*)
Telephone: (301) 402-8837
FAX: (301) 435-1580
dayc@mail.nih.gov

At the time that you mail in your application, please send Dr. Day an e-mail message so that she will be looking for the application and can confirm receipt.

Last Updated 03/05/2008