THE NATIONAL HUMAN GENOME RESEARCH INSTITUTE
MEDICAL SEQUENCING PROGRAM

Exemptions from Data Release Requirement

February 2007

In its initial efforts to implement its Medical Sequencing program, NHGRI has found that there are some projects for which obtaining reconsent or waiver is an excessive barrier to the initiation of the project, compared to the size of the project and the relative utility of the wide availability of the sequence data. After discussion with the National Advisory Council for Human Genome Research, NHGRI has decided that, in such cases, it may be more appropriate to determine that such projects should not be considered to be community resource projects and that the individual project should be exempted from the standard NHGRI requirement for pre-publication data release (i.e., pre-publication deposition of sequence data). For reference, please see http://www.wellcome.ac.uk/doc_wtd003208.html for a detailed discussion of the concept of "community resource project."

NHGRI has come to this decision after its first experiences in attempting to obtain re-consent for small sample sets that were submitted for targeted sequencing within mapped disease loci. In most of these cases, obtaining re-consent that would be adequate to allow data deposition would have been extremely difficult, if not impossible. Typically, the samples were from individuals with rare Mendelian diseases who had provided consent years ago and could not be re-contacted In all of these cases, NHGRI concluded that the most valuable information to advance the state of scientific knowledge would be the sequence variant(s) that implicated a specific gene in the cause of the disease and that the sequence trace (or analogous) data from these sample sets would be of minimal value to the wider community, for any individual study.

NHGRI will use the following criteria to identify projects that are eligible for exemption from deposition:

- The project must be small, <50,000 reads (assuming that ABI 3730 or a similar sequencing platform is used) and must involve the use of a small number of samples, 50 or fewer.
- The sequence data themselves would be of minimal interest to anyone other than those working on the disorder.
- The community working on the disorder must be a small one (usually implying a rare disease).
- The main, if not only, purpose of the work would be to find a variant likely to be involved in causing the disease and rapid publication of that result would be the most important contribution of the project to the public at-large.

So far, exemptions have been provided in projects where the aim was to identify a gene variant within a single mapped interval associated with a Mendelian disorder. NHGRI will also consider exemptions in projects where the aim is to sequence, in multiple individuals, a single locus that is already known to contain a gene implicated in a rare disease, for example to identify additional alleles of the gene.

Even when a project is eligible for an exemption, NHGRI will first ask the requesting investigator to make reasonable attempts to obtain adequate consent and/or a waiver in all situations where it is practicable, so that data can eventually be deposited. We emphasize that NHGRI will only consider exemptions on a case-by-case basis, and that eligibility for exemption must be approved by NHGRI staff in advance of sequencing.

NHGRI will institute several additional steps to ensure that exemption from data release requirements remains limited to those kinds of projects that fit the criteria above, and also generally to limit the likelihood of unintended negative consequences of this policy. First, projects that receive exemptions will not occupy more than 1% of NHGRI's total annual capacity (and no more than 1% of the annual capacity of any one sequencing center). In addition, to encourage the research community to begin to use consents that are compatible with data release, these policies will apply only to samples consented before January, 2008. Finally, these exemptions will be reported to the National Advisory Council for Human Genome Research (NACHGR) retrospectively. The policy for exemptions is subject to review by NHGRI staff and the NACHGR.