I. **NOT-OD-14-124** NIH Genomic Data Sharing Policy

The National Institutes of Health (NIH) announces the final Genomic Data Sharing (GDS) Policy that promotes sharing, for research purposes, of large-scale human and non-human genomic data generated from NIH-funded research. A summary of public comments on the draft GDS Policy and NIH’s responses are also provided. Please read complete notice at http://grants.nih.gov/grants/guide/notice-files/NOT-OD-14-124.html

II. **NOT-OD-14-128**, “Consideration of Sex As a Biological Variable in Biomedical Research.”

In a May 14, 2014, Nature commentary (see Nature. 2014 May 15;509(7500):282-3), NIH leadership stated an intention to develop and implement policies requiring applicants to consider sex as a biological variable in the design and analysis of NIH-funded research involving animals and cells. Although we have made major progress in achieving balance of sex in human studies — women now account for roughly half of the participants in NIH-funded clinical trials — we
have not seen a similar pattern in biomedical research. Animal studies have typically focused on males, and investigators studying cell models have often not reported the sex of the individual from which the cells were obtained. Even if both sexes are included in a study design, resulting data may not be analyzed or disaggregated by sex. This Request for Information (RFI) seeks input from the research community and other interested stakeholders on specific questions regarding the consideration of sex as a biological variable in biomedical research. The RFI will be open for comment through October 13. Responses to this RFI must be submitted electronically using the web-based form at: http://grants.nih.gov/grants/rfi/rfi.cfm?ID=37. Please do not submit comments by other mechanisms, such as fax or email.

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This is a time-sensitive Request for Information (RFI) directed at obtaining public input to assist the National Institute on Drug Abuse (NIDA) in its planning of an initiative on optimized voltage sensors to measure neuronal membrane potential.

The National Institute on Drug Abuse (NIDA) is considering issuing an initiative on optimized voltage sensors to measure neuronal membrane potential of thousands of individual neurons simultaneously. NIDA is soliciting comments on technical requirements of such sensors and whether these requirements can be achieved within a year. The technical requirements can be found in the notice http://grants.nih.gov/grants/guide/notice-files/NOT-DA-14-
All responses must be submitted to jpollock@mail.nih.gov by September 20, 2014.

This RFI is for planning purposes only and should not be construed as a solicitation for applications or an obligation on the part of the government. The government will not pay for the preparation of any information submitted or for the government’s use of that information.

IV. **NOT-RM-14-014** Prize Competition: Challenges in Single Cell Analysis
Phase I prize: $100,000
Phase II prize: $400,000

The NIH Common Fund Single Cell Analysis Program is seeking novel robust methods for analysis of individual cells that can detect and assess changes in cell behavior and function over time either as a result of natural state changes or when perturbed (e.g., by a drug, biological stimulus, infectious agent, pathological lesion, or mechanical forces). It is hoped that such methods will yield creative and new, yet feasible, solutions for following a single cell over time in a complex multicellular environment to detect changing cell properties, preferably using multiple integrated measures.

Solutions submitted to this Challenge should:

- include measurements or assays that are non-destructive and capable of producing temporal data at the individual cell level starting with eukaryotic cells in a complex/mixed cell population;
- address at least one impactful, biological or clinical question proposed by the Solver;
- demonstrate robust reproducibility;
- address gaps or deficiencies in current capabilities that may include,
but are not limited to:

- Tools that provide significant advances in sensitivity and selectivity in the spatiotemporal resolution of molecules/structures/activities within single cells in situ (e.g., high resolution imaging of molecular interactions within single cells, molecular probes that are at least an order of magnitude smaller in size than existing versions of reporter molecules such as fluorescent proteins);
- Automated and scalable assays to detect meaningful functional changes in single cells in complex tissue environments that improve upon processing time and reduce overall cost; or
- New combinations of tools and approaches to maximize data generation over several parameters (e.g., proteins, lipids, metabolites, signal secretion/reception/transduction, migratory changes)

- substantially advance what is currently considered the state-of-the-art.

Solutions describing existing, well-established and/or currently supported approaches, especially commonly used strategies are not of interest unless a compelling case is made that significant, quantifiable advances are proposed and/or the methods and measures are used in unique combinations that have not been previously tested together for the analysis of individual cells in complex environments.

We welcome solutions from individuals, teams and entities from all U.S. sources, including the public sector, private sector, non-profit groups, and those not traditionally supported by NIH. Specific eligibility requirements state Federal grantees and Federal contractors may not use federal funds to develop Challenge submissions.

This $500,000 Challenge is structured in two linked phases: Phase 1 is Theoretical and Phase 2 is a Reduction to Practice of the Phase 1 Solution. Eligibility to participate in Phase 2 of the Challenge is conditioned upon participation in Phase 1 of the Challenge and being
selected as a “Phase 1 Finalist.” Phase 1 Finalists are any and all Phase 1 prize winners and any individual, team and/or entity whose solution received a meritorious rating based on the judging criteria.

For complete information and registration: Federal Register Notice and Registration link.

Inquiries
Please direct all inquiries to:
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- See more at: http://grants.nih.gov/grants/guide/notice-files/NOT-RM-14-014.html#sthash.ZWXumPhN.dpuf