Concept Clearance
FY2026

INITIATIVE 1 TITLE: NIH Research Software Engineer (RSE) Award (R50 Clinical Trials Not Allowed)
INITIATIVE TYPE: Renewal
ACTIVITY CODE: R50

OBJECTIVE: Funding opportunity inviting applications to seek salary support for Research Software Engineers (RSE) supporting collaborative projects for building sustainable, open software and tools in biomedical and behavioral science.

DESCRIPTION: This is a renewal of the Research Software Engineer (RSE) Award R50, intended to provide salary support for exceptional software engineers involved in biomedical and behavioral research or positioned to make outstanding contributions to the biomedical and behavioral research fields, but who are not in a traditional independent investigator career path. It is intended to provide incentives to participate in a research career path, with some level of autonomy so that the individuals are not solely dependent on grants held by others for their career continuity.

An applicant, the RSE, must demonstrate clear evidence of skills, experience, productivity, and research ability to advance an existing NIH-supported research project by supporting best practices in software development, and the applicant must document their accomplishments that support their career level. The application must also identify and briefly describe the research project(s) engaging the RSE and define their specific role in the existing NIH project(s).

The RSE must have a full-time, non-tenure track position. Two types of letters will be required, one letter of collaboration from a project PI with whom the RSE will collaborate, and three letters of recommendation from key personnel of other projects who can attest to the RSE's expertise and experience, as relevant to the project. Once awarded, a change of PD/PI will not be allowed. Other specific eligibility criteria and terms of award will apply to ensure appropriate use of this funding mechanism and program. Applications will be reviewed by a CSR special emphasis panel.

Key Aspects of the Solicitation Include:

Budgets may request salary support for the RSE commensurate with the level of funded effort (at least 6 person-months per year) on NIH-funded research grants. Travel expenses will be allowed up to $2,500/year. No other research expenses will be covered under this award. A set-aside of $3 million for FY 2027 is planned, with an expectation to fund 8-10 awards in the first year (exact number contingent upon appropriations and number of highly meritorious applications.) ODSS requests approval of this proposed concept for a 3-year cycle with 2 receipt dates each year.

IMPORTANCE: Software engineers working in research are an increasingly vital part of the research enterprise. This grant is expected to give the RSE protected time to make a transformative impact in developing well-engineered, sustainable software in the context of a biomedical, behavioral, or health research project aligned to the mission of NIH and to help retain these skilled individuals in academic settings by enhancing professional standing and recognition.

HISTORY: This initiative was first launched based on complementary efforts from other funding agencies and non-profit efforts to support professional software engineers to develop dynamic, scalable, open software to facilitate accelerated scientific discovery across fields, including Schmidt Futures, Engineering and Physical Sciences Research Council of Britain, and most recently Renaissance Philanthropy. The initial NOFO was modeled after the successful NCI Research Specialist Award program that provides salary support and autonomy so that individuals are not dependent on NCI grants held by others or other sources of support for cancer research career continuity. We have had 265 applications thus far and have awarded 32 applications since the issue of the NOFO in late 2024.

CONCEPT CLEARANCE DATE:
COUNCIL REMARKS: