



For the Improvement of Mine Safety and Health, Inc

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<http://www.alpha-foundation.org/>

2nd SOLICITATION AND CALL FOR CONCEPT PAPERS

Purpose and Vision

The Alpha Foundation is seeking to award research addressing the root causes of disease, injuries, and fatalities in the mining industry and achieve successful implementation of practical solutions derived from the research effort. The Foundation is committed to fund projects that explore innovative ideas and concepts, complement existing research efforts and address knowledge or technology gaps in mine safety and health. To this end, cooperative research efforts with mining entities, stakeholder groups and state and federal institutions are encouraged. The Foundation plan is a balanced approach, incorporating a blend of engineering and health science with behavioral science and training, needed to solve mining safety and health problems.

The Foundation seeks to engage the best researchers, of any discipline and expand the field of research expertise that can provide solutions to complex mining safety and health problems. Researchers from disciplines and settings outside of mining are encouraged to interact with mining entities to gain a full understanding of the mining environment, particularly when access to a mine is required, to fulfill the project objectives. Projects that include matching grants from other sources are also welcomed. Consistent with Foundation values, this program embraces diversity and inclusion across multiple dimensions such as race, ethnicity, gender, age and disadvantaged socioeconomic status.

A major aim of the Foundation is to support research projects that have practical implications for mine safety and health workers, operators, and policy-makers. For this reason, a particular emphasis is placed on the early translation and rapid dissemination of project findings. Upon completion of the project, grantees will be required to develop a Final Technical Report that conveys the findings and conclusions of the study.

The Foundation awarded 16 grants in November 2013 following a thorough review process of invited proposals. The Foundation subsequently funded 6 short-term proposals in May 2014 to provide support for the early and conceptual stages of project development.

A listing of all awards and project synopses is available on the Foundation website:

http://alpha-foundation.org/press_releases.html.

Eligibility Criteria and Limitations

Concept papers will be accepted only from U.S.-based, academic institutions and not-for-profit organizations qualifying as exempt from taxation under Section 501(c)(3) of the Internal Revenue Code. If the Proposer is invited by the Foundation to submit a Full Proposal, the Foundation may request a current copy of the organization's IRS Determination Letter or a statement from the academic institution describing its formation and status as a tax-exempt entity organized and operated exclusively for educational purposes.

In addition:

- Submission is limited to one concept paper per principal investigator and one concept paper as a co-principal investigator.
- The maximum number of active grants per lead organization is limited to four.
- Proposed projects must be relevant to the U.S. mining industry and address one of the designated focus areas.
- Second party funding to for-profit organizations is discouraged and must be limited to equipment purchase or specialized services only and not performing research activities.
- The allowable overhead rate for Foundation-supported research is 20% of eligible direct expenditures.

Focus Areas and Specific Aims

Four focus areas are defined:

- 1) Health and Safety Interventions
- 2) Mine Escape, Rescue, and Training
- 3) Safety & Health Management and Training
- 4) Injury and Disease Exposure and Risk Factors

Topical areas are also used to further define specific aims within a focus area. The following provides a listing of topical areas and associated specific aims of elevated interest to the Foundation. Other specific aims may be funded with appropriate justification.

Focus Area - Health and Safety Interventions: The goal is to prevent conditions, circumstances, or events that cause illness, disease, injury or death to mine workers. All proposals should have implications for mine safety and health, and provide for early translation and rapid dissemination of the project health and safety interventions.

Dust Control: Proper dust control is a core mining functions that is critical to eliminating fires, explosions and controlling disease associated with dust exposure. While considerable research has been accomplished in this area, new questions have been raised following recent disasters. Prominent among these are the deficiencies in controlling and neutralizing float coal dust and the unanticipated increase in coal workers pneumoconiosis and silicosis. The Mine Safety and Health Administration (MSHA) has also recently reduced the overall dust standards in coal mines from 2.0 to 1.5 milligrams per cubic meter of air, and requires dust samples to be taken when mines are operating at 80 percent of production or more, as opposed to the existing 50 percent requirement, so that samples are more representative of actual working conditions. The new provision also requires use of the continuous personal dust monitor (CPDM) to be worn by miners in high-risk occupations.

Six specific aims are identified as elevated areas of interest in dust control:

- Conduct studies to assess the state of compliance of the industry with respect to the new regulations.
- Assess the impact of real time monitoring of dust levels on the effectiveness of control technologies and reactionary measures to intervene.
- Develop technologies or enhanced methods for eliminating or suppressing the generation of respirable dust.
- Conduct fundamental studies to explore the potential and practicality for particle charging technologies to reduce dust generation.
- Assess innovative cutting technologies.
- Develop and assess ventilation system design to improve dust capture in active mining zones.

Ground Control: Ground control is also a core function of mining and encompasses intervention efforts to ensure global and local stability as well as surface control of exposed underground mine areas and slope and highwall stability in surface mines. Ground control issues are the predominant limiting factor in deep cover mining, especially in seismically active and bump prone conditions. The challenges posed by these conditions have eluded engineering solutions that reduce the risk to desired levels. Somewhat surprising is the lack of any universal design methodology for the application of support systems for local stability intervention. The Foundation recognizes and encourages efforts that engage in field studies to produce fundamental data sets that expand the knowledge base and drives advancement of the science or definition of design criteria for engineering controls or safety technologies.

Seven specific aims are identified as elevated areas of interest in ground control:

- Monitoring, reinforcement, containment or management of mine ribs and development of an engineered design methodology for rib control.
- Improved numerical models of ground behavior, with particular emphasis to simulate post failure ground response or coal behavior.
- Underground monitoring studies to assess ground behavior including pillar loading, stress developments, gob loading, abutment loading and extent, and support response.
- The design, monitoring, and reinforcement of mine slopes such as highwalls, pit walls, and waste embankments/impoundments.
- Development and performance assessment of energy absorption support systems, particularly for seismically active mining conditions.
- Mine design and intervention measures that mitigate mining-induced seismicity that can lead to regional and local unstable ground conditions.
- Development of enhanced rock mass characterization technologies and methods.

Fire and Explosion Prevention: The recent catastrophes in mining, including the one that led to this Non-Prosecution Agreement, command that elevated efforts be sought to prevent such catastrophes from occurring. A predominant cause of these catastrophic events has been mine explosions caused by methane inundation and coal dust. These events typically occur under abnormal conditions often relying on a sequence of unusual events to occur; but there is also strong evidence to suggest that some fundamental aspects of ventilation and dust control are inadequately understood or improperly managed. The Foundation is seeking research to address the root causes and failure mechanisms as well as enhanced monitoring and intervention control to prevent the conditions that lead to these disastrous events.

Nine specific aims are identified as elevated areas of interest in fire and explosion prevention:

- Investigate the feasibility of lightning-induced mine explosions and the mechanism for energy transfer from the ground surface to the mine level.
- Development or assessment of effective rock dust strategies, including innovative rock dust materials, deployment practices, real time monitoring and predictive models of dispersion.
- Development and/or performance assessment of active or passive barriers for secondary explosion prevention.
- Control of methane releases that overwhelm the ventilation system, including gas outbursts, roof or floor fracturing, gob outgassing.
- Development of methods to de-energize equipment during an emergency to prevent occurrence and propagation of secondary explosion events.

- Measurement of longwall gob methane releases into the working face, particularly in the tailgate region, and assessment of the ventilation dynamics that aggravate or control it.
- Improved methods of gob degasification and inertization, including an operating mine study/demonstration that collects relevant data.
- Assessment of seal engineering design specifications and performance transition from plug to flexural design.
- Noninvasive methods to assess in-place seal integrity and strength.

Monitoring Systems and Integrated Control Technologies: An integral part of intervention is monitoring. The communication and tracking infrastructure has provided the mining industry, for the first time in its long history, a robust backbone to operate a complete, wireless, mine-wide monitoring system. Additional research is needed to examine remaining limitations of this backbone, develop subsystems, and define deployment strategies and operational requirements.

Five specific aims are identified as elevated areas of interest in monitoring systems and integrated control technologies:

- Demonstration and evaluation of electrically-passive monitoring technologies, including tube bundle systems, which overcome permissibility and power limitations.
- Integration of monitoring systems with mine communication infrastructure and technologies, especially in remote areas that are not readily accessible.
- Studies to determine the optimal sensor deployment and data analysis to interpret, on a real time basis, and use information to affect intervention and control technologies.
- Investigate feasibility and conduct in-mine demonstrations of ventilation-on-demand with modern monitoring and control technology.
- Investigate ways to optimize integrated mine planning, ground control and ventilation design to minimize ventilation requirements, explosion potential and to optimize mine escape and communications and tracking deployment and survivability.

Machine Design and Ergonomics: Safety improvements are integrated into mining equipment at greater levels than ever before, but stationary and mobile equipment accidents continue to plague both coal as well as metal/non-metal mining and include underground and surface mining operations. Therefore, enhanced proximity detection remains a high priority for mining safety. More also needs to be done remove the worker from the hazard by leveraging machine design or remote controlled operations.

Four specific aims are identified as elevated areas of interest in machine design and ergonomics:

- Improved proximity detection and collision avoidance systems including integration of multiple components/machines.
- Develop improved mining equipment technologies that can significantly impact accident reduction by removing the mine operator from the hazard (such as automated or remote roof bolting).
- Identify gaps in noise control and machine design and develop practical solutions to reduce noise levels.
- Development and assessment of machine-assisted interventions or design features to prevent musculoskeletal disorders and injuries.

Personal Protective Equipment: There have been many enhancements in recent years to personal protective equipment in all occupations including mining. The proposed effort must clearly justify in terms of surveillance data that the problem area seeking protection is of high priority. The Foundation is willing to entertain ideas for continued innovations in areas that are deemed significant, but is not interested and will not fund concepts or proposals that do not fully address limitations associated with and often unique to mining, especially regarding permissibility constraints. It is incumbent upon the submitter to learn, and fully understand, exactly what are these constraints and address them in any submission. The proposer must also clearly justify rationale for a proposed administrative or personal protective solution that is not currently supported by MSHA philosophy or compliance regulations. The Foundation will support performance or design assessment of newly released technologies or prototype systems developed by third parties.

Three specific aims are identified as elevated areas of interest in personal protective equipment:

- Development and use of protective devices that are acceptable to miners and do not interfere with or degrade job function or safety.
- Development and assessment of personal protective equipment that can work to protect mine workers during routine mine operations: including hearing protection, respiratory protection, and eye protection.
- Assessment of recently developed technologies that require performance review to advance to a more mature or enhanced technology.

Focus Area - Mine Escape, Rescue, and Training: Mine emergencies encompass a suite of unusual and unique issues that must be managed through specialized training and implementation of advanced monitoring and communication technologies. The MINER Act mandated the incorporation of Emergency Response Plans into mine emergency response planning. This has laid the foundation for a more cohesive framework for conducting mine emergency response. Mine rescue and escape encompasses a wide range of opportunities for research submissions, ranging from technological developments and assessments to decision-making, crisis management, and behavioral studies.

To build upon this framework, the Foundation is seeking research proposals to address the following topical areas:

Communications and Tracking: Communications and tracking systems have been enhanced significantly since their introduction through the MINER Act mandate. Both primary and secondary systems are now functional in most mines throughout the industry. However, some challenges remain in order to make these systems integrated and fully functional post disaster.

Four specific aims are identified as elevated areas of interest in communications and tracking:

- Evaluation of optimal energy source and frequencies for seismic-based, trapped miner technologies.
- Determination of survivability thresholds and assessment metrics for communication and tracking systems, and development and testing of hardening concepts.
- Evaluation of signal path transmission loss and noise interference in communication technologies, particularly through-the-earth communication devices.
- Assessment of the coverage capability, quality of service and accuracy of current communication and tracking technologies.

Training and Decision Making: An essential element of emergency response is decision-making and training. To effectively respond to an emergency, miners must have the psychological tools to detect signs that an emergency exists and then to use these tools to make effective decisions about how to act. Training can attempt to simulate conditions during mine emergencies, but simulation of the panic and fear that occurs is exceedingly difficult. While training in simulated real life conditions certainly improves the chances of survival, the early decision-making during an emergency is likely to be most critical. Specialized training efforts to address issues such as human-systems integration including leadership roles, situational awareness, sensitivity and bias to decision making when faced with multiple options, and best practices to access information about the state of the mine using best available technology needs to be explored to the fullest. Similarly, early rescue actions immediately following an emergency can be critical and require similar studies of leadership and operational planning.

Five specific aims are identified as elevated areas of interest in training and decision-making:

- Determine the bias that exists in mine workers and the impact this is likely to have on escape efforts and efficiencies.
- Determine factors that impact miner's sensitivity to onset of conditions leading to a mine emergency and whether training can be used to improve situational awareness among all miners or only those with certain core competencies.

- Determine if there are any perceived unintentional false escape securities developed because of enhanced mine monitoring technologies.
- Determine how loss of working memory impacts mine escape and if there are profiles that suggest this is more prevalent in certain types of people.
- Develop profiles of common trends that lead to mistakes during mine escape simulation exercises and recommend training exercises or technology enhancements to overcome them.

Sheltering and Escape Strategies: Refuge chambers have been made available through the Miner Act mandate, but the sentiment within the industry is that other forms of safe havens such as in-place shelters are preferred. Although there have been initial studies conducted, there remains challenges to designing and implementing this approach.

Three specific aims are identified as elevated areas of interest in sheltering and escape strategies:

- Investigate primary and secondary escapeway positioning in terms of survivability and redundancy compared to optimal layout for shared refuge and escape resources.
- Analyze and develop strategies/technologies to facilitate mine escape from the inside-out instead of outside-in philosophy, by having systems activated at critical locations within the mine post event.
- Study of mine escape in terms of built in-place shelters or safe havens.

Focus Area - Safety & Health Management and Training: The Foundation is seeking to fund efforts that will demonstrate the effectiveness of Safety and Health Management Systems, identifying the characteristics and key attributes that determine what works and why, and studies to address the roles that intangibles of leadership and behavioral elements play in this process. While this could involve some fundamental behavioral research, the Foundation is especially interested in studies that can produce some form of measurable metrics. A similar philosophy is applied to training. The goal is not to support routine training efforts, but rather to assess the effectiveness of training methods, identify weaknesses, and develop improved training approaches with emphasis placed on impact metrics.

Specific aims of elevated interest in safety culture include:

- Identify best-fit risk management techniques and tools that provide effective safety and health management and validate their effectiveness through evidence-based measurements that correlate accident rates with safety and health management practices at discrete mining operations.
- Develop a means and conduct studies to assess and measure the role and impact of leadership and its development on safety and health culture.
- Develop a means to assess behavioral aspects of safety culture and approaches to overcome barriers that impede safety culture effectiveness.

- Review accident and injury data and identify how behavioral issues interact with adequacy of safety measures in order to develop a better and more comprehensive understanding of how these factors interact to affect worker safety.
- Identify what data is needed beyond compliance violations that will provide a strong indicator of safety culture deficiencies and a strategy to collect resulting empirical data including a proof of concept study at operating mine sites.
- Assessment of individual, organizational, and systems variables and intervention strategies and evaluate these in practice for discrete mining operations.

Another important and complementary element to enhancing safety beyond intervention measures is (safety) training. As with safety and health management, there are many existing and effective training methods, and the Foundation is less interested in developing variants of current approaches than in understanding the attributes of what makes training practices effective. The focus here is on safety training. Training with respect to mine emergencies involves a different set of issues and is covered in a separate area.

Five specific aims are identified as elevated areas of interest in training:

- Develop post-training strategies and tools and conduct studies to assess and improve training effectiveness and retention.
- Identify training needs and methods that consider differences between new and experienced miners and younger vs. older miners.
- Examine methods of training, reinforcement and renewal of skills accounting for different demographic features of miners.
- Examine active learning, virtual reality (VR) simulators, and use of alternative and distance-education modes of training.
- Examine effectiveness of varied drill simulations.

Focus Area - Injury and Disease Exposure and Risk Factors: The health of the mining workforce is impacted by a variety of work-related health effects. Prominent among these is respiratory disease, but there are also a number of less well-studied conditions including noise-induced hearing loss, musculoskeletal disorders, cardio-vascular disease, and stress-related conditions.

The Foundation is seeking to identify and evaluate exposure and risk factor relationships that lead to the onset or advancement of injuries and diseases among miners. While causal relationships are the ultimate objective, the impact of any studied relationship must have a level of significance and the potential for a near term solution to a specific mining related health and safety issue. Funding preference will also be given to studies that have potential for contributing to or leading to an intervention as opposed to studies focused solely on detection without a direct link to an intervention measure. The following conditions are of interest to the Foundation but studies of any illness that is related to

mining are welcome.

Musculoskeletal Disorders (MSD): Mining is among industries with the highest exposures to both biomechanical and organizational risk factors associated with MSDs. Mining is also associated with significant exposure to whole body and hand/arm vibration. The long-term health effects of these exposures are poorly understood especially in an aging workforce.

Cardiovascular Disease (CVD): Studies from Scandinavia, Germany, South Africa show increased death from CVD in miners. Multiple risk factors (personal and occupational) are related to CVD. Among the occupational factors of interest for miners are exposures to particulates, chemicals and work-related stress.

Respiratory Disease: It is important to better understand the observed hotspots of CWP, the importance of work-related chronic obstructive pulmonary disease, the association of occupational asthma with chemical materials use in mining, as well as silicosis risk in metal/non-metal mining operations or in surface mining.

Hearing Loss: The importance of chronic exposure to noise in mining needs better assessment as an ameliorative risk either alone or in combination with other exposures (ototoxins).

Surveillance and Risk Assessment Enhancements: An important aspect of injury and disease prevention concerns better methods and programs to routinely measure and effectively track exposures and accidents, injury or illness among miners.

Award Process and Criteria

The selection process will be based on a two-tier approach. Concept papers will be submitted in response to this solicitation.

Step 1 - The concept papers will be screened to segregate them into the appropriate focus areas and to confirm that eligibility requirements have been met. An advisory panel of external experts within these focus and topical areas will technically review the concept papers and recommend to the Foundation which concept papers should be considered for full proposal invitations. The Foundation Directors will evaluate the concept paper rankings and request full proposal submissions from those ranked as high priority.

Step 2 –Full proposal invitations will be conveyed to the selected concept papers. All full proposal submissions will be peer reviewed by content experts within the focus and topical area of submission. The Foundation Directors' final decisions will be based on the proposal evaluations, funding limitations, and priorities. The following criteria will serve

as a basis for the award judgment of all eligible proposals.

- Is the proposed effort captured in one or more of the subject areas specified in the proposal?
- Is the problem area well defined and is the proposed effort aligned with the focus/topical area directives and specific aims identified in the solicitation?
- Has knowledge of the area been demonstrated by providing a clear assessment of the state of the problem and progress toward solving it?
- Has the proposer successfully done work in this area previously or related areas that are appropriate to the proposed study?
- Is the proposed approach clear and achievable?
- Does the solution or hypothesis require validation, and if so, is there a proper validation effort including commitment from a mine site or other stakeholder(s) for participation or access to a mine(s) or data that is critical to the validation effort?
- Is there an experimental design associated with the effort, and if so is it adequately described and achievable?
- Has the proposer demonstrated sufficient knowledge of the mining industry to successfully execute the proposed effort?
- Are there any insurmountable barriers that are unrecognized by the proposer that would preclude successful completion of this project?
- Is the proposed time frame adequate and reasonable?
- Is the proposed cost adequate and reasonable?

How to Submit a Concept Paper

Concept Papers must be submitted electronically, in PDF format, to the following email address: AlphaFoundation@Glenmede.com.

Specific requirements for Concept Paper submission are described below. These requirements are also posted on the Foundation website at:

<http://www.alpha-foundation.org/callforproposals.html>.

In fairness to all applicants, late submissions will not be accepted. Questions regarding the submission of the concept papers can be addresses to AlphaFdnQuestions@Glenmede.com.

Significant Dates and Times

- **Concept Papers:** Proposers are responsible for submitting concept papers electronically in PDF format by midnight Eastern Time on **August 1, 2014**. Any Concept Paper, modification, or revision received after the exact time specified for receipt of offers is “late” and will not be considered.

- **Review:** The Foundation is aiming to complete concept paper reviews and inform proposers of their concept paper status within 90 days from the submission date.
- **Subsequent Submission of Full Proposals:** Invited full proposals will be due approximately six weeks after notification by the Foundation (notifications are expected to be sent the first week in November). Further description and information will be provided at that stage to successful applicants.

Concept Paper Format

The Concept Paper shall be limited to 7 pages in total length, plus a cover page. Papers shall be prepared on standard letter size pages with 1-inch margins with single spaced Cambria 11-point font. Submissions exceeding the page limit **will not be evaluated**. The submission must include the following elements and follow this template. Failure to comply with providing the required information will result in rejection of the proposal.

Disclaimer Notification: The Foundation is not responsible for the content or correctness of materials supplied in response to its solicitations and generally and specifically disclaims any responsibility for the same. Proposers are expected to appropriately mark each page of their submission that contains proprietary information. The Foundation will exercise reasonable care in protecting proprietary information from unauthorized disclosure.

Cover Page Template (not to exceed one page)

CONCEPT PAPER
ALPHA FOUNDATION
FOR THE IMPROVEMENT OF MINE SAFETY AND HEALTH

Title: Descriptive title of proposed work.

Submitting Organization: Name and address of organization.

Principle Investigator: Name and contact information (phone and email)

Administrative Contact: Name and contact information (phone and email)

Focus Area and Topical Area (one only): Selected from the following:

1) Health and Safety Interventions

- Dust Control
- Ground Control
- Fire and Explosion Prevention
- Monitoring Systems and Integrated Control Technologies
- Machine Design and Ergonomics
- Personal Protective Equipment

2) Mine Escape, Rescue, and Training

- Communications and Tracking
- Training and Decision Making (may overlap with “Training”)
- Sheltering and Escape Strategies

3) Safety and Health Management and Training

- Safety and Health Management
- Training (may overlap with “Training and Decision Making”)

4) Injury and Disease Exposure and Risk Factors

- Musculoskeletal Disorders
- Cardiovascular disease
- Respiratory Disease
- Hearing Loss
- Other

Cost: Total cost.

Body of Proposal Template - (not to exceed 7 pages)

PROJECT TITLE

1. **Problem Statement:** Provide a concise, but descriptive statement of the problem.
2. **Relevant Specific Aim:** (Taken directly from the solicitation when appropriate.)
3. **Assessment of the Previous Research on this Topic:** Explain the status of what's been done previously to address this problem and the gaps or barriers that remain. Briefly summarize your top three previous accomplishments toward solving this problem.
4. **Objectives:** List project objectives with enough description to make it clear what they are addressing.
5. **Research Approach:** Explain in simple terms your research strategy and exactly what you are planning to do to resolve barriers that are preventing solution to this problem and why your proposed approach has a high chance for success.
6. **Validation Plan:** Explain what you plan to do to validate your research approach or findings.
7. **Type of Effort Required:** Provide a breakdown of effort by percentage (totaling to 100 pct) for the following categories:
 - Computational efforts or computer studies
 - Theoretical studies
 - Laboratory studies
 - Activities at a mine site
 - Report writing
 - Other (explain)
8. **PI's Role:** Explain PI's role in the project and time allocation per year.
9. **Partnerships:** Identify partnerships needed and commitments obtained. Also briefly discuss contingency plans and project impact if partnerships are not sustained.
10. **Cost of Effort:** Summary of cost for entire project with a semiannual (6-month) breakdown. Provide cost estimate by major research task.
11. **For Profit Activity:** Identify any for-profit activity and provide justification for why it is needed with recognition that only fee for services or equipment purchases is permitted.

Level of Awards

Approximately \$10 million is committed to this solicitation, and it is expected that up to 15 qualified projects will be funded through this solicitation. Typical projects will be of two-year duration. Although three-year projects may be considered under special circumstances, such projects will require additional justification in the concept paper before they are eligible.

Performance Assessment and Reporting Requirements

Grantees are expected to meet Foundation requirements for the submission of narrative and financial reports, as well as periodic information needed for overall project performance monitoring and management. Written reports on interim results will be required on a semi-annual basis. Project directors may be asked to participate in periodic meetings and to give progress reports on their grants.

Grantees are encouraged to participate and submit abstracts for publication in trade magazines and/or peer-reviewed venues and give presentations at established conferences or other venues during the grant award period.

Upon completion of the project, grantees will be required to develop a Final Technical Report that conveys the findings and conclusions of the study with appropriate content suitable for wide dissemination within the public domain.

Use of Grant Funds

Grant funds may be used for project staff salaries, consultant fees, data collection and analysis, meetings, supplies, project-related travel, and other direct project expenses, including a limited amount of equipment essential to the project. In addition, the approved overhead rate for Foundation supported research is 20% of eligible direct expenditures (details will be provided in the instructions for the full proposal solicitation). In keeping with Foundation policy, grant funds may not be used to support clinical trials of unapproved drugs, to construct or renovate facilities, for lobbying, for political activities, or as a substitute for funds currently being used to support similar activities.