

**PRIMARY DIFFERENCES BETWEEN NSF AND NIH PROPOSAL SUBMISSIONS  
BIOENGINEERING RESEARCH**

Item	NIH	NSF
<b>Mission</b>	Seek fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce illness and disability.	Promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense.
<b>Leadership</b>	Office of the Director sets policy for NIH and for planning, managing, and coordinating the programs and activities of all the NIH components; provides leadership to the Institutes.  Assisted by the NIH Deputy Directors including the Principal Deputy Director, who shares in the overall direction of the agency's activities.	The National Science Board (NSB), comprised of 24 of eminent individuals, establishes the overall policies of the foundation. The NSB oversees the Director, who is responsible for NSF staff and management; program creation and administration, merit review, budget and daily operations.
<b>Organization</b>	Comprised of 27 separate institutes and centers, each with a specific research agenda.	Comprised of seven Directorates; each directorate is comprised of Divisions, each with a specific research agenda.
<b>Program Mechanisms</b>	<ul style="list-style-type: none"> <li>• Parent Announcements.</li> <li>• Three-character activity code identifies a specific category of extramural research activity (e.g., R01 [Standard]; R21 [Exploratory]; R03 [Small Grants]).</li> <li>• Standard due dates unless specified otherwise in program solicitation.</li> <li>• Multiple PD/PI projects</li> </ul>	<ul style="list-style-type: none"> <li>• Unsolicited proposals (standard due dates/submission windows).</li> <li>• Solicited Proposals (specific programs and due dates).</li> <li>• Collaborative Research (linked proposals)</li> </ul>
<b>How it Funds Biomedicine/ Bioengineering</b>	Generally funds research on the <b>health-related application</b> of devices, computation, instruments (e.g., testing effectiveness of imaging instrument on tissue; using computation to help solve/address a critical health issue); conducting trials on animals or human subjects.	Funds research on the <b>basic science</b> of health-related devices, computation, instruments (e.g., mechanical aspects of a medical device; developing a software program to process vast amounts of health data).
<b>Review Process</b>	<p><b>First-Level Review:</b> By a Scientific Review Group (SRG) composed primarily of non-federal scientists with expertise in relevant scientific disciplines and current research areas.</p> <p><b>Second-Level Review:</b> By Institute and Center National Advisory Councils or Boards. Councils are composed of both scientific and public representatives chosen for their expertise, interest, or activity in matters related to health and disease.</p>	<p>Proposals are assigned to the appropriate NSF program. NSF Program Officers identify experts in their particular fields to review the proposal. Usually, a proposal is reviewed by at least three external reviewers. The review may be conducted by ad hoc reviewers, a panel of experts, or a combination of both.</p> <p><b>Merit Review Process:</b> In addition to any program-specific review criteria, reviewers evaluate all NSF proposals through the use of two NSB-approved merit review criteria: <b>Intellectual Merit and Broader</b></p>

Item	NIH	NSF
	<p>Only applications recommended for approval by <b>BOTH</b> the SRG and the Advisory Council may be recommended for funding.</p>	<p><b>Impacts</b>, which are based upon Merit Review Principles. Reviewers are asked to consider <a href="#">five elements in the review for both criteria</a>.</p> <p>NSF staff will give careful consideration to the following in making funding decisions:</p> <ul style="list-style-type: none"> <li>– Integration of research and education</li> <li>– Integrating diversity into NSF projects, programs, and activities</li> </ul>
<p><b>Review Ratings/Scores</b></p>	<p><b>Overall Impact Score.</b> Reviewers will provide an overall impact/priority score (<b>1=exceptional; 9=poor</b>) to reflect their assessment of the likelihood for the project to exert a sustained, powerful influence on the research field(s) involved, in consideration of the following review criteria, and additional review criteria (as applicable for the project proposed).</p> <p><b>Scored Review Criteria.</b> Reviewers will consider each of the review criteria below in the determination of scientific and technical merit, and give a separate score for each.</p> <ul style="list-style-type: none"> <li>– Significance</li> <li>– Investigator</li> <li>– Innovation</li> <li>– Approach</li> <li>– Environment</li> </ul> <p>The <b>final overall impact score</b> is determined by calculating the mean score from all the eligible members' impact scores, and multiplying the average by 10; the final overall impact score is reported on the summary statement. Thus, the final overall impact scores range from <b>10 (high impact) through 90 (low impact)</b>.</p> <p>Numerical impact scores are not reported for applications that are Not Discussed (ND), which may be reported as ++ on the face page of the summary statement and typically rank in the bottom half of the applications.</p>	<p><b>Excellent:</b> Outstanding proposal in all respects; deserves highest priority for support.</p> <p><b>Very Good:</b> High quality proposal in nearly all respects; should be supported if at all possible.</p> <p><b>Good:</b> A quality proposal, worthy of support.</p> <p><b>Fair:</b> Proposal lacking in one or more critical aspects; key issues need to be addressed.</p> <p><b>Poor:</b> Proposal has serious deficiencies.</p>
<p><b>Reviewers' Comments</b></p>	<p>Applicants will receive a <b>Summary Statement</b>. Applications that are not discussed at the review meeting will be given the designation "Not Discussed (ND)" as an overall impact score, but the applicant will see the scores from the assigned reviewers and discussants for</p>	<p>Applicants will receive: (1) description of the context in which the proposal was reviewed; (2) copies of all reviews used in the decision (with any reviewer-identifying information redacted); and (3) copy of panel summary, if the proposal was</p>

Item	NIH	NSF
	each of the scored review criteria as additional feedback on their summary statement.	reviewed by a panel at any point in the process.
<b>Final Funding Decisions</b>	Final funding decisions are made by the Institute/Center Directors.	Reviewers do not make funding decisions. The analysis and evaluation of proposals by external reviewers provide information to NSF Program Officers in making their recommendations to award or decline a proposal. Final programmatic approval for a proposal is generally completed at the Division level.
<b>Proposal Submission</b>	<b>Grants.gov:</b> Proposal documents are loaded into an Adobe file stored on your computer. The file is sent to OSP, which uploads it to the Grants.gov system and submits it electronically.	<b>FastLane:</b> Proposal documents are uploaded and stored into a Web-based portal and electronically submitted.
<b>UWM OSP Review</b>	Grants.gov file sent to OSP when forms are completed for initial review. OSP will return comments as needed. PI retains working copy of the Grants.gov file.	Proposal released in FastLane for SRO (OSP) review; PI can continue working on proposal in FastLane. OSP will return comments as needed. When final submission is ready, release for SRO to submit.
<b>Proposal Format Requirements</b>	<ul style="list-style-type: none"> <li>• <b>Margins:</b> Minimum half-inch, all sides. No information should appear in the margins, including the PI's name and page numbers.</li> <li>• <b>Fonts:</b> Arial, Helvetica, Palatino Linotype, or Georgia typeface in 11pt or larger.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Margins:</b> Minimum one inch, all sides.</li> <li>• <b>Fonts:</b> Arial10, Courier New, or Palatino Linotype at a font size of 10 points or larger; Times New Roman 11pts or larger; or Computer Modern family of fonts at 11pts or larger.</li> <li>• <b>Line Spacing:</b> No more than six lines of text within a vertical space of one inch.</li> </ul>
<b>Nomenclature Differences</b>	<ul style="list-style-type: none"> <li>• Specific Aims</li> <li>• Principal Investigator/Project Director (PI/PD)</li> <li>• Co-Investigator (Co-I) (do not use "Co-PI" in proposals)</li> </ul>	<ul style="list-style-type: none"> <li>• Objectives (do not use "Specific Aims" in proposals)</li> <li>• Principal Investigator (PI)</li> <li>• Co-Principal Investigator (Co-PI)</li> </ul>
<b>Proposal Budgets</b>	<ul style="list-style-type: none"> <li>• <b>Modular budget</b> for projects \$250,000 or less in direct costs</li> <li>• <b>Detailed budget</b> for projects &gt;\$251,000 in direct costs</li> <li>• Requests of \$500,000 or more in direct costs require prior approval.</li> <li>• Budget limits usually exclude indirect costs, including subaward indirects; indirects are paid on top of the direct costs (unless specified otherwise).</li> </ul>	<ul style="list-style-type: none"> <li>• Same budget format for all NSF programs (unless specified otherwise)</li> <li>• Budget limits usually include indirect costs (unless specified otherwise).</li> </ul>

Item	NIH	NSF
<b>Salary Support</b>	<ul style="list-style-type: none"> <li>• Capped at \$183,300 per year</li> <li>• Salary request must match level of effort (e.g., 2 summer months)</li> <li>• No limit on number of months</li> </ul>	<ul style="list-style-type: none"> <li>• Maximum two months of salary support; can be used in summer or during academic year. No dollar cap.</li> </ul>
<b>Required Proposal Sections*</b>	<ul style="list-style-type: none"> <li>• Project Summary/Abstract</li> <li>• Project Narrative</li> <li>• Specific Aims</li> <li>• Research Strategy (which must include these subsections) <ul style="list-style-type: none"> <li>– Significance</li> <li>– Investigator</li> <li>– Innovation</li> <li>– Approach</li> <li>– Environment</li> </ul> </li> <li>• Equipment</li> <li>• Facilities &amp; Other Resources</li> <li>• Biosketch (use NIH template)</li> <li>• Budget</li> <li>• Budget Justification (level of detail depends on budget type and activity code)</li> <li>• Bibliography &amp; References Cited</li> </ul>	<ul style="list-style-type: none"> <li>• Project Summary</li> <li>• Project Narrative (which must include these subsections) <ul style="list-style-type: none"> <li>– Intellectual Merit Statement</li> <li>– Broader Impact Statement</li> <li>– Results of Prior NSF Support</li> </ul> </li> <li>• Biosketch</li> <li>• Collaborators &amp; Affiliations</li> <li>• Current/Pending Support</li> <li>• Data Management Plan</li> <li>• References</li> <li>• Equipment, Facilities &amp; Other Resources</li> <li>• Budget</li> <li>• Budget Justification</li> </ul>
<b>Optional/As-Needed Proposal Sections/Items</b>	<ul style="list-style-type: none"> <li>• Data sharing plan</li> <li>• Human subjects</li> <li>• Animals</li> <li>• Letters of support/collaboration</li> <li>• Institutional letters of commitment from subawardees</li> </ul>	<ul style="list-style-type: none"> <li>• Post-doc Mentoring Plan</li> <li>• <a href="#">Letters of collaboration</a></li> <li>• Institutional letters of commitment from subawardees</li> </ul>
<b>Required Forms</b>	<p><b>Included in Grants.gov Package:</b></p> <ul style="list-style-type: none"> <li>• SF-424 (R&amp;R)</li> <li>• PHS 398 Research Plan</li> <li>• PHS 398 Cover Page Supplement</li> <li>• Research &amp; Related Senior/Key Person Profile</li> <li>• Research &amp; Related Other Project Information</li> <li>• Project/Performance Site Location(s)</li> <li>• Modular or Research &amp; Related Budget Form</li> </ul>	None, unless specified otherwise in the program solicitation.
<b>Proposal Resubmissions</b>	<ul style="list-style-type: none"> <li>• Limited to one resubmission per proposal</li> </ul>	<ul style="list-style-type: none"> <li>• No limit on resubmissions</li> </ul>
<b>Links to Proposal Guides</b>	<a href="#">SF424 (R&amp;R) Application Guide for NIH and Other PHS agencies</a>	<a href="#">Grant Proposal Guide</a>