

Scaling to Solutions (STS) Grant

Proposal Guidelines & Instructions

Deadline for Application

FY2027 Proposal Deadline

NOON, Wednesday, December 2, 2026

This solicitation is open to proposals focused on **Food Innovation** within North Carolina, *except personal protective equipment, solely AI-centered or in silico solutions, and/or mobile apps.*

This program will fund only life sciences-based projects.

Specifically, for this cycle of the STS program, Food Innovation topics of interest include but are not limited to:

- Gene editing for increased crop production
- Novel detection/diagnostic systems for food-borne pathogens, or food safety technologies
- Precision fermentation, traditional, and enzymatic fermentation - for emulsification, gelation, or nutrition enhancement
- Aquaculture/marine culture for food production
- Novel feed stocks and supplements for animal health and production
- Food production in challenging environments/conditions (soil depletion, salt intrusion, drought, unique terrains, etc.)
- Vertical farming and hydroponics
- Circular processing for food production and waste recycling
- Novel algae production for animal/human food
- Novel biodegradable/edible packaging materials
- Plant-based egg replacements
- Novel processing technologies to reduce sodium and sugar in preserved foods

At-A-Glance Overview

All applicants should read these STS Proposal Guidelines and Instructions thoroughly prior to preparing an application. If you have any questions about the program, use the contact information at the end of this document.

- **Important First Step** - The PI must have an account on the NCBiotech Funding Portal in order to submit a proposal. The funding portal link is <https://ncbiotech.fluxx.io>.
 - If you have applied for a grant using the funding portal previously (for any NCBiotech funding program), you do not need to register again.
- A maximum of \$250,000 may be requested.
- Budget considerations:
 - Within the \$250,000 maximum request, there is a \$100,000 maximum for all personnel salary requests.
 - No match is required, except for any request for a single piece of equipment costing over \$25,000, in which case a 25% cash match is required.
 - NCBiotech grants do not pay for any type of overhead or indirect costs.
- Projects may last up to 24 months.
- A two-stage review process includes evaluation of the written proposal followed by invitations to select teams for pitch presentations.
 - For those invited to pitch, pitch presentations will be scheduled on **March 17, 2027**.

Purpose

The NCBiotech *Scaling to Solutions* (STS) grant supports North Carolina universities and non-profit research institutes in developing life sciences technologies to scale the most promising technologies and discoveries towards commercialization at scale.

Each cycle of the STS grant will address a specific research challenge in the life sciences that would benefit from significant 2-year project funds.

The STS program, agnostic to the topic of the given cycle, is meant to address far-reaching and long-lasting challenges felt across the state of North Carolina.

Pre-Submission Information

All application materials can be found on the NCBiotech Grants webpage at ncbiotech.org/sts.

Online Submission Portal - Important First Step

The Principal Investigator for the proposal must register for an account on the NCBiotech Funding Portal, Fluxx, at least **five (5)** days prior to the deadline in order to submit a proposal.

The link to create an account is: ncbiotech.fluxx.io.

- **If you have applied for a grant using the Funding Portal previously** (for any NCBiotech funding program), you do not need to register again.

Eligibility

Eligible Institutions

Proposals may be submitted by any North Carolina university or non-profit research organization. The research proposed should be primarily conducted within NC.

- ⊗ *Projects that appear to be subsidized R&D for any commercial entity will be administratively declined. Direct funding of R&D expenses for commercial firms, except contracted services, even if they have ties to NC-based universities and research institutions, is not consistent with the objectives of the program.*

Principal Investigator Eligibility

At the time of submission, the Principal Investigator (PI) must hold a full-time, tenure-track or tenured faculty appointment, or an appointment as full-time research faculty with dedicated laboratory space at the applicant institution, or an equivalent faculty designation in a medical/professional school.

- ⊗ *The PI may not have more than two active awards from the North Carolina Biotechnology Center at the same time.*

Intellectual Property Eligibility

Eligible projects support inventions or technologies that, at a minimum, have been disclosed to the university's technology transfer office at the time of application.

If the technology or product in development is not subject to regulatory approvals nor intellectual property protection, then this information must be included in a Letter of Support from the organization's technology transfer office.

The applicant must attest that the IP rights are assigned to the applicant's institution and have not been committed through license or option to license to any third party at the time of application.

Program Details

Taking scientific discoveries from the lab to market-ready solutions requires multiple well-devised development strategies. The STS program seeks to advance transformational technologies through and beyond translational research at an accelerated pace. Key attributes of competitive STS proposals include the appropriate team, realistic and achievable milestones, and concrete success metrics that address common hurdles for scaling. Scaling technologies for market entrance and adoption are key project considerations for STS projects.

Team-Driven Research

The STS proposal should clearly identify the contributing team members, define how each team member will contribute, and how the team will coordinate to achieve the proposed project outcomes.

The Principal Investigator (PI) is the faculty researcher responsible for oversight and execution of the overall project. They are also responsible for building the appropriate team, with the requisite skills, to support the proposed efforts. Team members should be identified and their contributions to the project detailed in the associated Roles and Responsibilities section of the project narrative.

- *Any and all potential conflicts of interest pertaining to financial relationships among team members and/or commercial firms subcontracted through any grant award **MUST** be disclosed in the written proposal.*

Milestone-based Project Plan

An STS project should be at the mature translational research phase of development and, therefore, must be centered on a focused, achievable scientific or technical research project with clearly defined milestones, success criteria, and go/no-go decision-making points.

Note that foundational (basic) research studies designed to primarily delineate underlying biological mechanisms are typically not considered for STS funding. Compelling STS projects are those for which the underlying biological mechanisms have been suitably established, so as to support near-term product development.

Establishing well-defined, realistic, and appropriate milestones, with clearly defined success criteria for each, is crucial to scale-up success. To encourage the timely completion of critical milestones, award fund tranches will be disbursed at bi-annual intervals as the result of milestone achievement (see Post-Award Oversight below for details).

Addressing Scaling Solutions

STS projects detail a pathway to scalable real-world implementation. Scaling strategies should rely on experimental data that has been sufficiently tested. Scaling technologies often include translational research and post-translational efforts related to engineering and process development/design, pre-product optimization, and preliminary calculations of cost of goods and technical or monetary barriers to market entry.

Proposals must describe how the proposed experimental plan and business case development activities fit within the definition of a scalable solution specific to the technology in development and how the project aims to mitigate or address any barriers to market entry.

Review Process and Evaluation Criteria

Review Process

Upon intake, all submitted proposals will be examined by NCBiotech Center staff to ensure the proposed project meets all eligibility and program requirements.

The written review process includes evaluation of the proposal with associated materials by NCBiotech staff as well as commercialization and scientific/technical experts consisting of external professionals with significant industry experience in developing, scaling, and commercializing life sciences technologies.

Subject matter experts and life sciences commercialization experts external to NCBiotech with significant academic and industry experience may be among the reviewers of the written proposal to ensure the proposed project demonstrates scientific novelty, likelihood of success, scalability of the solution, and a realistic pathway to commercialization or widespread application.

Written Review

Each written proposal and supporting materials will be reviewed by three commercialization and/or scientific/technical experts consisting of NCBiotech staff and external professionals. The reviewers will be asked to consider and rate the proposals on all the evaluation criteria listed below. All reviewers of the written proposal documents will sign a confidentiality agreement.

In-Person Pitch Presentation

An in-person live pitch presentation is an integral part of the STS proposal review process as it prepares teams to describe the impact of their scientific solution, how their solution and technology addresses the solicitation topic, why and by what parameters will scalability be measured, and with an emphasis on potential future commercialization pathways. The STS pitch presentation provides a similar experience as presenting to potential investors.

STS teams with top-scoring written reviews will be invited to present their projects in a live, in-person pitch-style presentation of no more than 15 minutes to NCBiotech staff and pitch judges. The pitch will consist of a prepared presentation, followed by a question-and-answer session from pitch judges and audience members.

Invitations to present will be emailed to the PIs of the selected proposals approximately two weeks prior to the presentation date.

The pitch presentations will be held March 17, 2027.

A selection of morning and afternoon times will be available from which invited teams may choose. Teams submitting STS proposals should be fully prepared to present during the pitch day(s) if invited.

Pitch judges will include NCBiotech program staff and members of the STS Pitch Judging Panel. All pitch judges will sign a confidentiality agreement.

Evaluation Criteria

Upon submission, NCBiotech staff will evaluate each proposal to determine its compliance with the eligibility criteria, adherence to proposal requirements and fit for the program topic area.

Written Proposal Review

Proposals will be evaluated based on the following criteria:

1. Is this proposal fundable with the information presented, as is?
2. Degree of fit with the purpose and topic area of the grant program
3. Likelihood of success to identify solutions that have potential to lead to scale up, broadscale adoption, and future commercialization
4. High level of innovation/scientific novelty of the solution/technology
5. Clarity and specificity of the rationale that directly addresses a recognized unmet need within the topic area
6. Strength of the scientific approach; proposal describes a well-defined scientific or technical experimental or developmental plan
7. Likelihood of IP generation or advancement
8. Detailed anticipated workable findings or deliverable(s)
9. Appropriate next steps to implementation, adoption, and commercialization
10. Realistic budget and timeline

Pitch Presentation Evaluation

The pitch evaluation criteria include the following:

1. Is this proposal fundable with the information presented, as is?
2. Is the technology scalable?
3. How well did the PI/team tell the story?
4. Did the presenter convince you their team has the requisite skills to build a technology that will lead to commercialization?
5. Experimental Study Design
 - a. Does this line of research/solution/technology have a strong scientific foundation?
 - b. Is the study design clear, comprehensible, and without significant problems?
6. Intellectual Property
 - a. Does the technology transfer office have a plan to advance the IP?
 - b. Will the project generate or strengthen the IP position?
7. Did the team build a business or market adoption case for the technology?
8. Are milestones likely to be achieved and/or deliverables produced?
9. Are the next steps in the technology development pathway clear at the conclusion of the proposed project?

Other Program Information

Information Release

The North Carolina Biotechnology Center (NCBiotech) announces its awards through press releases and other publications. These communications typically include the Project Title and Public Information Summary that are provided by the applicant with the online application. No information is released on declined proposals.

Confidentiality

As part of our grants review process, NCBiotech routinely shares the contents of grant applications with both internal and/or external experts to assess the merits of each application. NCBiotech will endeavor to maintain the confidentiality of all information provided by the applicant. While measures are in place to assure the appropriate handling of all information provided, the applicant is responsible for limiting the disclosure of any sensitive information that should not be shared outside of NCBiotech.

We encourage applicants to consult with their university's technology transfer office (academic applicants) or an intellectual property professional for more specific counsel as necessary.

Final Decision

Final award decisions will be made by a designated sub-committee of NCBiotech's Board of Directors. Funding decisions will be announced within 120 business days of submission.

Notification

Notification of awards will be made within two weeks of the final decision date by the appropriate subcommittee of the NCBiotech Board of Directors.

Post-award Oversight

The program includes several post-award activities that are intended to facilitate the timely and successful completion of the awarded project.

Kick-off Meeting

An in-person or video/conference call kick-off meeting with NCBiotech staff is required. The purpose of the meeting is to review roles and responsibilities and to review the reporting requirements for the award.

Disbursements

If awarded, grant funds will be disbursed in a five-part payment structure with 50% of funds released after the kick-off meeting at the start of the funding period and the remaining 50% will be disbursed in

equal allotments every six months thereafter, dependent upon milestone completion within those six month timelines.

Biannual Review - Request for Release of Funds

Biannual reporting requirements serve as twice yearly milestone achievement reporting and trigger a request for disbursement of funds subject to successful completion of milestones within each reporting period. Each bi-annual report consists of two documents:

1. A technical report showing data and evidence that progress is being made and milestones for that 6-month period have been achieved.
2. A current financial status report that presents an accounting of the project funds expended and remaining.

Upon receipt of the Biannual Report, NCBiotech staff will schedule a meeting/call with the project team to discuss the report contents. If it is determined that sufficient progress has been made and the milestones have been achieved, NCBiotech staff will authorize the release of one quarter of the remaining funds awarded for this project.

Final Technical and Financial Reports

Final technical and financial reports are required for the release of the final biannual grant fund tranche. The final technical report provides a comprehensive analysis of the project, including achievement of proposed milestones and success criteria, and data to support the successful completion of each phase of development. Final technical and financial reports are due within 60 days of the end of the period of performance for the award.

Follow-up Impact Surveys

After a grant is closed, participation is expected in periodic surveys to track information on subsequent funding, patents, licenses, companies and jobs created, *etc.* that are a direct result of the award. This information will be used to demonstrate the impact of our programs and may be collected for up to 10 years.

Application Instructions

Step 1: Read the Guidelines & Instructions

Read these STS Program Guidelines & Instructions thoroughly prior to preparing an application. If you have any questions about the program, use the contact information at the end of this document.

It is recommended that you consider the Evaluation Criteria (page 6) when composing your proposal.

- ⊗ *Applications that do not follow all requirements and instructions may be administratively declined without external review.*
- ⊗ ***Applications that do not have a fully signed coversheet at the time of application may be administratively declined without external review. Signatures of the sponsored research office are required and can take several weeks to obtain. Plan your submission accordingly.***

General Proposal Formatting Guidelines

- Use standard font (such as Times New Roman, Calibri, or Cambria) generally no smaller than 12 point.
- Page set-up should be for single-spacing on 8½"x11" paper.
- Number each page.
- Margins should be ¾" to 1".
- Each section should be titled using the header sections listed below and should match the Table of Contents.
- Do not use logos or letterhead on any pages of the proposal except for support letters.
- Judicious use of headings and white space for ease of reading is appreciated.

Step 2: Prepare the Research Project Technical Proposal

Proposal Requirements

The Proposal must include the sections listed below. Use the headings provided to identify the sections of the proposal.

A. Table of Contents

(does not count toward page limit; should be on a separate page)

Include title, PI name, institution, and Table of Contents.

B. Project Overview

(1 page maximum; does not count toward page limit; should be on a separate page)

Summarize the entire project as it relates to the purpose/problem to be addressed, methodology, anticipated results, and potential impact towards scaling and commercialization of the technology.

C. Technical Research Project Narrative

The technical narrative has a **15-page limit** and should contain the following sections:

1. Technology/Solution/Product in development (suggested ½ page)

Briefly describe what you envision your “product” to be and how it will be used.

2. Expected application for technology/solution/product (suggested 1 page)

- Define the problem or unmet market need that your technology/solution/product will address.
- Reference the current “gold standard” solution and explain how your technology/product is superior.
- Describe how your technology/solution is scalable to meet a large-scale market need.

3. Intellectual Property (suggested ½ page)

The minimum intellectual property eligibility status for STS projects is an invention disclosure submitted to the university’s technology transfer office at the time of application.

For food production technologies that are not subject to FDA/USDA regulation or other form of regulation, a statement from the technology transfer office stating that the technology in development is not required to have intellectual property protection or regulatory clearance is required.

The Letter of Support from the technology transfer office must include a statement indicating that, if IP is/will be generated, then any IP rights are assigned to the applicant’s institution and have not been committed through license, option, or letter-of-intent to license to any third party at the time of application.

Describe the intellectual property held by the university surrounding this technology/solution/product. This description must include:

- a. Current type of IP protection (invention disclosure, provisional patent application, patent application, PCT application, issued patent, trademark, copyright, trade secret, *etc.*)
- b. Title of the disclosure or application with brief summary of claims
- c. Patent application numbers/patent number and issue date if applicable
- d. Filing dates
- e. Assignee name(s), inventor name(s), *etc.*
- f. A description of the nature of all IP protection to date relating to this innovation (*e.g.*, composition of matter, field of use, manufacturing methods, *etc.*) and the strategic value provided (*e.g.*, freedom to operate, barrier to competitive entry).
- g. A description of how the proposed research will influence, support, and/or clarify the IP claims, improve the patentability of the invention, improve the licensing position, or other considerations related to the IP.

4. Foundational Research (suggested 2 pages)

Describe the status of background and foundational research that has been done to date, both as the state-of-the-art for the field and in the laboratory of the PI. Explain why this collective knowledge base is sufficient to support scalability of the solution advanced by this project.

5. Current Stage of Development (suggested 1 page)

- Describe the current stage of development for the technology/solution/product (*e.g.*, prototyping, feasibility testing, pre-clinical testing, *etc.*).
- Describe the current scale of the project or technology (bench, laboratory, pilot, demonstration, commercial, other, *etc.*).

6. Milestones (suggested 1 page)

Provide *clearly defined and realistic* milestones for each six month reporting period of the project timeline. Milestones indicate the completion of key project tasks and are different than goals, aims, or deliverables.

List each milestone(s) to be achieved and for each milestone list:

- a. A brief description of the experimental plan for that milestone
- b. The milestone success criteria (*e.g.*, How do you define success? How do you know when you have met a milestone?)
- c. A brief summary of one or more contingency plans to be completed if the proposed milestones are not achievable

7. Experimental Design and Project Plan (suggested up to 5 pages)

- a. Describe in detail the experiments that will be performed in order to meet the project milestones. Include study design, protocols, measurement methodology, end points, and data analysis methods.
- b. Discuss any potential challenges and provide contingency plans for each experiment or protocol.
- c. Explain how the research plan will:
 - Provide clear and unambiguous results that support go/no-go decisions regarding continued development of the technology,
 - and
 - How the research plan will de-risk the technology for further development and funding

8. Deliverables (suggested ½ page)

Projects should have at least one defined, measurable success/completion metric, with a clear endpoint or deliverable identified. Discuss the deliverable from each of the milestones and overall for the project.

9. Next Steps (suggested ½ page)

Describe the immediate critical next steps for translating and scaling your invention. Discuss the immediate and long-term next step(s) after completion of the project. Include information pertaining to future intellectual property protections and/or regulatory approvals to be sought based on the results of this project.

10. Pathway to Scale up and Commercialization (suggested ½ page)

Discuss how the deliverables will advance the scientific knowledge and pre-product development towards a scalable commercialization plan. Detail how the technology/product will compete in the existing market, including price and/or features of the technology/product in development that differentiate this product from existing products on the target market.

11. Roles and Responsibilities (suggested one short paragraph of 3 – 4 sentences per person)

Describe the specific roles and responsibilities for any key personnel conducting the work on this project.

Each person listed in the Roles and Responsibilities section must have an NCBiotech Biosketch included in the Supporting Documents.

- ⊗ Inclusion of a to-be-determined postdoctoral fellow, graduate student, research technician, or other staff member is strongly discouraged. Significant delays can be anticipated for hiring and training of TBD personnel. This does not apply to undergraduate student interns, who may be hired after receipt of award.

D. Unmet Market Need and Business Case

(does not count towards overall page limit, 2 page maximum)

1. Anticipated Market

Describe the beachhead or target market that the technology or product will address. Identify the size of the market and the unmet need that this technology or solution will address.

2. Pathway to Adoption and Commercialization

(required for all proposals, even if the project does not include a Business Case Advisor or Business Case Development Activities)

Describe the anticipated path towards commercialization or towards a market. Include the following details:

- Who is your customer? Who will buy your product/technology?
- Where is your target market?
- What regulatory approvals will your technology/product need to achieve in order to enter the market?
- What competition is present in the target market?

Please indicate which, if any, of the questions above will be addressed by a Business Case Advisor or through the Business Case Development Activities.

3. Business Case Development Activities

(required only if the project team includes a Business Case Advisor or other business case-related and activities)

Examples of appropriate Business Case activities for which funding may be directed include, but are not limited to:

- A long-term technology development plan that identifies critical developmental milestones required to meet end-user, investor, or regulatory requirements and presents a logical roadmap to guide further technical development.
- A cost of goods (COGS) calculation and COGS competitive analysis.
- Market research intended to assess the commercial opportunity for the invention/product.
- Analysis of the intellectual property (IP) landscape within the intended application.
- A regulatory plan or assessment of the anticipated regulatory path necessary to gain market approval.
- Competitive or SWOT (strengths, weaknesses, opportunities, threats) analyses of the technology within the target market.
- Assessment of the scalability and commercial feasibility and guide further IP protection or investment.
- Analysis of other factors influencing commercial development.

The proposal should describe how the business case project will complement the scientific/technical project and how the Business Case Advisor (BCA) or other business case contractors will be integrated into the project team.

This section of the proposal should describe in detail the scope of work for which the BCA will be responsible, including:

- The specific activities and deliverables
- The methods and sources used to develop the business case, technology development plan, *etc.*
- Other information to be gathered that will assess and guide the commercial product development strategy.

E. Project Timeline (does not count toward page limit)

Provide a graphic (*e.g.*, Gantt chart) that depicts the timeline, milestones, and sequence of tasks to complete the research plan, including both technical steps and business case deliverables (if applicable). Indicate in the graphic which team member(s) will perform each step.

F. Bibliography (does not count toward page limit)

Give full citation including title and complete author list for publications cited in the project narrative. If the complete author list is extensive, include the first three (3) authors listed.

Convert Your Technical Proposal into a PDF Document

Once items A-F are created, merge all technical proposal sections into one Technical Project document. Then, convert your proposal document into a PDF file.

- ⊗ *Do not print and scan the proposal into a PDF document as this may cause the size of the PDF to be too large for submission.*

Step 3: Complete the Budget Package

The Budget Package consists of one (1) PDF document that encompasses three parts, which include:

- A. Budget Form
- B. Budget Justification
- C. Quotes

Budget Guidelines

Note: The maximum amount of funds requested for the STS grant is \$250,000.

Instructions for completing each section of the budget package are described below.

Prepare your budget using the **Budget Form** provided on the STS webpage. The form is provided in Excel format and **must be converted to a PDF file before submission**. Before you convert your Budget Form to a PDF, please scale to print to ensure information is not cut off and additional blank pages are not included in the final document.

Funds can be allocated toward salary, technical project costs, and business case activities of the project.

Budget Guidance

- The total maximum budget request is \$250,000.
- Of the \$250,000 project maximum, the total budget request for salary is \$100,000.
- Of the \$250,000 project maximum, the total budget request for business case activities, including any Business Case Advisor fees, is \$25,000.
- Any single piece of equipment costing over \$25,000 requires a direct 25% cash match.
- No other match is required.
- Please review each budget line item amount for consistency with the project narrative and the accompanying Letters of Support.

Allowable budget requests

- Salary costs for research scientist(s), post-doctoral fellows, graduate students, and technical personnel directly conducting work on the project, including undergraduate students.

Note: there is a \$100,000 maximum for all personnel salary requests.

- Laboratory equipment and equipment fees
- Lab supplies, chemicals, disposables, etc.
- Core laboratory fees/costs
- Animal purchase, per diems, and associated costs
- Contractual and consultant fees, including fee-for-service contract research costs

Unallowable budget requests

- ⊗ Indirect costs/overhead/facilities and administrative (F&A) costs
- ⊗ Travel by ANY personnel to scientific or business conferences or meetings FOR ANY REASON
- ⊗ Legal fees, including licensing or litigation fees
- ⊗ Patenting costs
- ⊗ Publication costs
- ⊗ ***Technical project activities cannot be subcontracted to any commercial firm that has a financial relationship with the PI(s), or other team members. Such arrangements carry the risk that the project may appear as subsidized R&D for a company, which is not consistent with the objectives of the program.***

Budget Package Instructions

The Budget Package consists of one (1) PDF document that encompasses three parts. The three parts of the Budget Package include:

1. Budget Form: Prepare your budget using the STS Budget Form provided on the grants webpage.

- **Use of the Budget form is required.**
- **It is required that the project title and principal investigator's name be included at the top of the Budget Form.**
- **It is required that the title at the top of the Budget Form match EXACTLY with the title on the Coversheet and the Technical Research Project Technical Proposal.**

The Budget Form is provided in Excel format and should be converted to a PDF and merged with the other PDF documents in the budget package.

- **Please ensure that all line-item row heights and columns widths are fully readable after document conversion.**

- ⊗ *Proposals with budget components uploaded as separate files are subject to administrative declination.*

Budget form instructions:

A. Technical Personnel

- All technical personnel who will be paid from grant funds should be included on separate lines.
- Salary and fringe benefit costs should be entered into the column “Amount requested from Grant.” Do not separate salary from fringe benefits.

B. Technical Project Direct Costs

- Description of project scientific/technical direct costs – standard laboratory supplies, experimental materials, chemicals and reagents, kits, and other supplies.
- Experimental costs entered into this section do not require quotes but should be sufficiently described.
- Any individual item over \$1,000 should be listed in Section E, and a quote is required.

C. Contract Manufacturing (CMO), Contract Research (CRO), Core Laboratory (including vivarium *per diems*), DNA/RNA sequencing and synthesis, animal purchase, and contractual and consultant fees.

- **All line items in this section require quotes or Core Laboratory rates to be submitted as part of the Budget Package.**
- All quotes must match the line item expense **exactly**. Electronic links to pricing are not allowed.
- All expenses to conduct the technical research plan that are outsourced to a company or a laboratory outside of the PI’s lab (including on-campus cores labs such as vivarium, sequencing, microscopy, clinical lab, or mass spectroscopy, *etc.*) or purchased from an external vendor (*e.g.*, animal purchase, DNA/RNA/viral constructs, *etc.*) must be entered as individual line items.

D. Business Case Activities

- Fees, consultant costs, and direct costs cannot exceed \$20,000.
- Description of direct costs related to business case activities - market research report purchases, focus group incentives, intellectual property landscape analysis, *etc.*
- Consultant fees – *e.g.*, Business Case Advisor fees or hourly rate, regulatory consultant costs, market and competitor analysis consultant fees, *etc.*
- Advisor and consultant fees or hourly rates must be described in detail in a Statement of Work or Letter of Commitment included in the Supporting Documents.

E. Lab Equipment, Instruments, and Machinery

All equipment in this section requires the inclusion of a quote in the Budget Package. Electronic links to pricing are not allowed.

- Equipment is defined as tangible, nonexpendable property having a useful life of more than one year.
- Any single piece of equipment, instrument, and/or machinery over \$500 must be listed in this section of the Budget Form.
- Equipment includes software and software subscriptions. For software subscriptions, the cost must be for the duration of the project or a maximum of 2 years access.
- Required information:
 - Name of equipment, model number if appropriate, vendor, and description of any/all equipment above \$500.
 - If an item exceeds \$25,000, a 25% cash match is required, which must be detailed in a Letter of Support by a university representative committing the cash match to the equipment purchase.

2. Budget Justification:

All funds requested on the Budget Form must be justified by line item in a separate document and then merged into the Budget Package PDF.

Describe each budget line item and provide justification for each cost. Personnel for whom salary is requested should be identified by name and title in the budget justification.

3. Quotes:

All quotes must be on letterhead, dated, and signed by the vendor. Electronic links to pricing information are not allowed.

Quotes are required for all contracted services, fees/rates, or equipment listed on the budget form, which includes:

- Core facility fees
- Animal purchase and *per diems*
- Contracted manufacturing costs
- Contracted research costs
- Equipment costing over \$1,000
- Business case development materials

Limit quotes to a maximum of 3 pages each.

For consultants, a Letter of Commitment or Statement of Work may be provided in lieu of a quote, provided that the letter/SOW is dated, is on letterhead, and directly references the total cost,

tasks, and deliverables to be provided.

For *per diem* or fee schedule documents, the exact rates being used must be clearly highlighted on the quote and justified within the budget justification.

Step 4: Supporting Documents

Please note: Statements of Work (SOW) or quotes for Business Case Activities services and consultants are required, if applicable. All SOW/quotes for consultants should be included within the Supporting Documents listed below.

Combine the following Supporting Documents into a single PDF file.

- ⊗ *Proposals with letters uploaded as separate files are subject to administrative declination.*

Required NCBiotech Biosketches

The use of the NCBiotech Biosketch Form is required.

NCBiotech Biosketches are required for all personnel named in the Roles and Responsibilities section of the proposal.

Prepare your Biosketches using the NCBiotech STS Biosketch Form provided on the grants webpage (ncbiotech.org/STS).

Required Letters of Commitment

All letter(s) must be on letterhead, dated, and signed.

1. Letter of Commitment from the Technology Transfer Office Representative (or appropriate authorized institutional official)

This letter should:

- Confirm the current status of intellectual property (IP) protection relating to the core technology (minimally, an invention disclosure) including filing numbers, titles, and dates where appropriate
- Confirm the university's commitment to continued IP development
- Describe the university's broader IP strategy to be pursued related to this technology
- Provide a non-confidential summary of any licensing discussions to date relating to the technology
- Indicate how the proposed project will support continued IP development and licensing efforts

This letter should align with the activities described in the roles/responsibilities section and in the description of the intellectual property contained within the technical narrative.

2. Letter of Commitment or Statement of Work from the Business Case Advisor

(if applicable)

This letter should include a brief statement summarizing the activities that this individual/team will perform on the project, the deliverables to be produced, the hourly rate and approximate hours to complete the tasks to produce the deliverables, or the total costs of the business case activities to be conducted as described in the roles/responsibilities section of the proposal.

An SOW can also serve as the Letter of Commitment to the project, and this should be reflected within the SOW.

3. Letter of Commitment or Statement of Work from any/all Business Case Consultants

(if applicable)

This/these letter(s) should include a brief statement summarizing the activities that this individual/team will perform on the project, the deliverables to be produced, the hourly rate and approximate hours to complete the tasks to produce the deliverables, or the total costs of the business case activities to be conducted.

For projects involving human subjects or animal studies (required)

IACUC or IRB Notification or Approval

- A letter from the PI's Institution's IACUC or IRB documenting that notification of the proposed research project has been made at the time of the application and that approval from the IACUC/IRB will be sought if the project is awarded if an approved protocol is not currently in place. This letter must be on the institutional IACUC/IRB's letterhead, signed, and dated.

Or

- Documentation from the applicant's institution's IACUC or IRB stating that an approved protocol is in place to support the research. This letter or other documentation must provide the name of the investigator of the approved protocol, all persons entitled to work under that approved protocol, the title of the approved protocol, the approval date and duration of the approved protocol, and confirmation from the IACUC/IRB that the proposed research project falls within the approved protocol.

If the investigator of the approved protocol is not listed in the Roles and Responsibilities section of the proposal, then a letter of intent to collaborate on the project with the PI must be included in the Supporting Documentation. This letter must acknowledge that the project will use the approved protocol under the collaborator's name. This letter must be on the collaborator's institutional letterhead, signed, and dated by the collaborator. This letter does not replace the letter from the IACUC/IRB.

Power Analysis

- Provide a power analysis indicating that the studies proposed have the correct number of human or animal subjects required to achieve an *a priori* confidence level of at least 80%.
- Or
- For proof-of-concept studies, provide the rationale for why a power analysis is not warranted.

For projects requesting a single piece of equipment costing more than \$25,000

Letter of Commitment of matching funds (required)

The signed and dated letter should come from an individual authorized to commit the matching funds and should include the dollar amount of the match (25% of the cost of the piece of equipment).

Step 5: Complete the Cover Sheet

Use the Coversheet form provided on the STS webpage (ncbiotech.org/STS).

It is required that the title on the Coversheet match EXACTLY with the title on the Scaling to Solutions Technical Proposal and at the top of the Budget Form.

The Cover Sheet must be signed by the PI and an authorized official of the Sponsored Research Office of the university or non-profit.

Step 6: Complete the Online Application Form

After completing the registration in the funding portal (Fluxx™), log into your Fluxx account. The STS application form will be located under the “Apply for Funding” folder at the left of the screen. Follow the instructions provided.

The PI for the proposal must submit the proposal through her/his account. STS proposals cannot be submitted through accounts belonging to OSR personnel or others.

Click [here](#) for more information on the registration and application process.

Proposals sent by e-mail or hard copy will not be accepted.

Complete all fields of the STS online application form

A. Project Summary

Enter the following project information into the corresponding sections on the online application. Space limitations apply.

- IP status
- IRB/IACUC requirements

B. Public Information Summary

The online application form includes a field for the Public Information Summary. If your proposal is funded, this concise, easy-to-read summary may be used in NCBiotech press releases and other publications.

This summary is intended for a general audience, allowing NCBiotech to share granting information with the general public and other interested parties.

- This summary should not include complex scientific terminology.
- The summary should convey to the citizens of North Carolina why the project is important.
- The maximum allowable length for this summary is 50 words.

C. Start Date

The earliest projected start date for STS awards is **June 1, 2027**, depending on the terms and conditions of the award.

Step 7: Attach the Required Documents

Follow the instructions for attaching the four required documents to the online application:

- Coversheet
- Scaling to Solutions Research Project Proposal
- Budget Package (Budget Form, Justification, Quotes)
- Supporting Documentation

Important Note: Only one of each of the proposal files may be attached to the application for a total of four attachments.

Step 8: Review and Submit

Carefully review your application package for completeness and consistency throughout, using the checklist provided on the website. Then, submit your STS application prior to the Program Deadline.

Submission of your grant application indicates that:

1. You have read and understand the information and directions in this Application Package and agree to be bound by the conditions stated herein.
2. You release the North Carolina Biotechnology Center from any claim for damages caused by:
 - a. Disclosures required under the provisions of any North Carolina or United States law, statute, or regulation
 - b. Disclosures made in connection with the North Carolina Biotechnology Center's funding review and approval process

- c. Disclosures required by rule or order of any court of competent jurisdiction
 - d. Any other non-negligent, inadvertent, unintentional, unknowing, or immaterial disclosure.
3. All research conducted during the proposed project is performed in accordance with established university policies and procedures, including - but not limited to - policies and procedures applicable to research involving human subjects, laboratory animals, or hazardous agents and materials.
 4. If the project proposed involves vertebrate animals, the project complies with federal guidelines for vertebrate animal care and experimentation.

Submission Notification

You will receive a confirmation email once your application has been successfully submitted. If NCBiotech requests additional information regarding your proposal, please respond promptly.

Contact Information

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