



Inspire! Grants for Small Museums

Sample Application IGSM-260302-OMS-26
Project Category: Lifelong Learning
Project Type: Small Project (\$5,000-\$25,000)

Catawba Science Center

Amount awarded by IMLS:	\$24,829
Amount of cost share:	\$0

The Catawba Science Center (CSC) will update a popular permanent exhibit exploring medical careers and the human body. Enhancements include a new engaging exhibit component, Operation Deluxe (a giant recreation of the classic board game Operation); updated signage about health science careers and local educational pathways for these fields; and new costumes, models, and props reflecting an expanded number of medical fields. Project activities include purchasing a new exhibit component and refreshing current favorites in Gross Labs, including an interactive that simulates remote surgery and the imaginative dress-up section. Alongside local public-school systems, community colleges, and Lenoir Rhyne University, CSC will update signage highlighting the local pathways to health science careers. The project will benefit its general visitors, school field trip participants, and group visitors.

Attached are the following components excerpted from the original application.

- Narrative
- Schedule of Completion
- Performance Measurement Plan

When preparing an application for the next deadline, be sure to follow the instructions in the most recent Notice of Funding Opportunity for the grant program to which you are applying.

Project Justification

With which Inspire goal will Catawba Science Center's project align?

Catawba Science Center (CSC) kindly requests \$24,828.03 in support of Gross Labs Rehab. This project will fund the inclusion and improvement of interactive elements in Gross Labs, an exhibit dedicated to health sciences careers, the local educational pathways to support this industry, and general human body knowledge. The project elements will support CSC's efforts to improve its permanent exhibits and increase interest and comfort with this content. Gross Labs Rehab perfectly aligns with the IMLS Inspire program goal to build the capacity of small museums to provide services to their communities through the development of experiential learning and discovery (objective 1) via enhancements to an exhibit space. This support will allow CSC to further IMLS's agency-level goal to champion lifelong learning for CSC's community of Western North Carolina.

How will your project advance your organization's strategic plan?

Gross Labs Rehab will result in the update of a popular exhibit exploring medical careers and the human body. Enhancements include a new exhibit component, updated signage, recreation of an existing experience, and new costumes and props reflecting an expanded number of medical fields. The exhibit updates will be completed by November 2026, ready for the influx of school field trips.

Gross Labs Rehab moves forward CSC's current four strategic plan priorities (bolded). A refurbished permanent exhibit is a priority of **Updating All Infrastructure**. Working with local schools and community hospital partners to address educational content needs in this updated space allows CSC to support the goals of **Defining and Pursuing Values**. Team support, through the proposed solution to purchase a tested and popular blockbuster exhibit interactive aligns with **Modifying and Supporting Team CSC**, freeing the exhibits department of two from taxing development work while other priorities require focus and attention. Finally, work to address the concerns of current funders, eager for necessary renovations for a declining exhibit via federal support fits within the directive of **Growing Financial Health**.

During the strategic planning process, CSC staff focused on how to support all CSC needs, including updating older permanent exhibits spaces, while furthering its greatest need of an aquarium renovation. The capital campaign project to renovate aquarium galleries will remain a top priority due to the condition and degradation of this important community resource. IMLS support of Gross Labs Rehab allows CSC to invest in simple, but expensive, solutions to address a need without taxing staff during this larger institution project.

What need, problem, or challenge will your project address, and how will it be identified?

CSC's Gross Labs opened in July 2017. The exhibit, which occupies 1071 square feet, was purchased from Morehead Planetarium and Science Center after its initial run that coincided with their planetarium show *Grossology and You*. Both are based on the popular book series, using high interest content to address health sciences careers, including emerging skills like remote surgery, and the science of the human body and health. For example, one interactive, Be A Poop Analyzer, addresses gastroenterology and the digestive system through a digital experience where one receives a poop score based on color, size, consistency, and frequency (using either personal information or a test case). Radiologic Technologists are highlighted in Imaging Center, an interactive that recreates a visitor's body movement as their skeleton projected onto a screen. CSC worked with local school systems and higher educational institutions to promote their available career pathways to fields in medicine, as well as salary information for relevant careers. CSC has worked to keep all ageing exhibits in working order but has not made significant changes in the nine years of its existence. Gross Labs is the next scheduled space for major renovation; CSC will maintain the connection between health sciences careers and human body and health educational content goals in this next iteration.

Despite its age, the space has remained a favorite for most visitors; data from CSC's feedback survey (see

Catawba Science Center, Gross Labs Rehab

SupportingDoc1-SurveyData) indicates that over 84% of respondents shared they visited the main building exhibit halls housing Gross Labs. While loved, the exhibit needs updating, as is also indicated via visitor feedback. When reflecting on all of CSC's exhibits, over one third have a neutral or negative opinion about exhibits' working order. Repeatedly, visitors comment that spaces are 'run down significantly' or 'need updating'.

The value of Gross Labs to CSC is immeasurable but CSC intends for the space to raise awareness of health sciences careers and health for its general visitors and school/group field trip participants (over 22,500 fiscal year 2025). North Carolina, particularly the mostly rural region of CSC's service audience, is facing a coming crisis in healthcare. According to the North Carolina Healthcare Association's 2024-2025 workforce needs assessment, by 2030, North Carolina will have a shortage of more than 9,000 registered nurses just as (in 2035) 20% of North Carolina's population will be aged 65 or older, increasing the need for healthcare. US Bureau of Labor predicts that overall employment in healthcare occupations is projected to grow much faster than the average for all occupations from 2024 to 2034.

While not the only factor in attaining STEM careers or improving understanding of healthy attitudes and practices, science learning through participation in engaging and inspiring informal environments can be the spark for developing deeper interest and excitement for learners of all ages. Well-designed spaces in science centers increase comfort and meaningful engagement as well as increased comfort with science enterprise, a key factor in future outcomes (Bell et. al. 2009). (The bibliography can be found in Supportingdoc2-Research.)

Who is the target group for the project and how have they been involved in planning, and who are the ultimate beneficiaries?

The beneficiaries of Gross Labs Rehab are the science center's visitors; CSC serves over 75,000 on-site visitors annually, including over 22,000 school and field trip participants. The project's need has been outlined in feedback obtained by surveys of visiting families and evaluation feedback from school staff and chaperones. Conversations with local school system Career and Technical Education Directors and local hospital leaders have indicated an interest in maintaining robust exhibits that highlight human health, medical career fields, and the local pathways available to students wishing to enter these fields. UNC Health Caldwell's Dr. Franklin McGuire shared, "as a pulmonology specialist practicing in this region, I see firsthand the growing demand for skilled healthcare professionals and the importance of helping young people understand both the science of the human body and the many career pathways available in healthcare." Dr. McGuire reached out to CSC directly with ideas for exhibition improvements, inspiring this proposal. Caldwell Community College & Technical Institute, Lenoir Rhyne University, and Catawba Valley Community College are eager to update their program offerings outlined in the exhibit, as well as local school system partners, Hickory City Schools, Catawba County Schools, Caldwell County Schools, and Newton-Conover City Schools. Additionally, IMLS support allows CSC to use the evaluation collected during this project to best thoughtfully plan the future renovation of Gross Labs, slated for 2030, to continue serving visitors for many years to come, inspiring greater awareness and interest in health and medical professions. (Supportingdoc3-Supportletters)

Project Work Plan

What specific activities will you carry out and in what sequence?

The Gross Labs Rehab project will result in the update of a popular exhibit exploring medical careers and the human body. Enhancements include a new component, updated signage, a recreation of an existing experience, and new props reflecting an expanded number of medical fields. The exhibit updates will be completed by November 2026, ready for the influx of school field trips.

Catawba Science Center, Gross Labs Rehab

With notification of funding, CSC will order a new interactive, Operation Deluxe (a giant recreation of the classic board game) from Interactive Entertainment Group, to provide hands-on exploration of the human body, highlight the skills of surgeons, and increase the time visitors spend in the Gross Labs exhibit. The interactive was chosen based on thorough research of available, highlight pieces supporting CSC's content goals. Operation Deluxe is a dependable and successful component that will immediately enhance the overall exhibit, providing visitors with a new experience without taxing staff in the work of developing featured hands-on components; customization will allow messaging to reflect intended connections to the greater Gross Labs exhibit as well as fit into the overall space's theming. Delivery will take up to eight weeks.

While anticipating delivery on Operation Deluxe, CSC staff will begin recreating the exhibit component Be A Remote Surgeon. Funds will support a re-build using a more robust cabinet than currently on display. Ordered from a dependable supplier, the chamber will deliver within two weeks. As this interactive is a favorite that staff have repaired many times, there is a clear direction on how best to fortify its 'remote arms' for increased durability. The project can be completed by the installation timeline. The new costume pieces and props will provide more opportunities for visitors to dress the part of highlighted medical careers; delivery and preparation will take no longer than a month. A new torso model, for Be A Surgical Extractor, will also be purchased.

Beginning with notification of awarded funding, staff will partner with educational institutions and hospitals on updated signage, replacing their existing information in Gross Labs. Catawba Valley Health System and Hickory Career and Arts Magnet High School's Health Sciences Academy staff will participate in the creation of text for Operation Deluxe. These partnerships will minimize demands on CSC staff departments with limited time for new projects. The first instructional and educational sign for Operation Deluxe will be temporary, allowing time for feedback from visitors. This feedback will be collected via visitor surveys and evaluations for participating school groups. The finalized sign will be recreated based on this feedback and installed by April 2027. CSC will continue to collect feedback to inform next steps in the eventual complete refurbishment of Gross Labs in 2030, as prescribed but the current Strategic Plan to routinely updated permanent spaces.

What are the risks to the project and how will you mitigate them?

Potential risks to the success of Gross Labs Rehab include delivery and rehabilitation delays of the two main exhibit pieces. While Interactive Entertainment Group has confidently communicated their ability to deliver Operation Deluxe within two months of order, unforeseen circumstances could delay this delivery. Additionally, CSC exhibits staff may have priorities ahead of reworking Be A Remote Surgeon, as well as order delays of necessary parts. Project partners may also have difficulty working with the prescribed timelines for assistance with updated signage. If the final pieces cannot be ready by the November installation target, CSC will update the exhibit as much as possible with each available new piece. CSC's project team will provide consistent communication about the progress of various components and partner work to align the installation as closely as possible. Evaluation feedback will provide updates on components as they are installed informing the greater goal of increased interest and comfort in the content presented.

In addition to delays, costs may vary from the proposal's estimates. If components become more expensive between the grant's deadline and purchase dates, CSC will work with existing funders of the Gross Labs exhibit to cover additional costs. UNC Health Caldwell has committed to working with CSC on the ultimate refurbishment of Gross Labs. If necessary, resources from this future work can be diverted to Gross Labs Rehab as the pieces may remain as part of the exhibit's next phase.

Finally, if the new and refurbished pieces do not positively impact visitor satisfaction with the exhibit space, hold up to use by visitors, or increase interest in the content presented, CSC will work from feedback in revisioning Gross Labs as it enters the next phase as a permanent exhibit. While staff have worked diligently in selecting the components that will improve the exhibit in this interim project, direction from visitors will

Catawba Science Center, Gross Labs Rehab

ultimately provide for a more effective and engaging experience in 2030.

Who will plan and implement the project?

Erin Graves, CSC Programs Director, will lead Gross Labs Rehab. Graves brings over 24 years of informal stem management experience, including work on large projects supported by IMLS, the National Science Foundation, and (former grantor) Howard Hughes Medical Institute. Graves will coordinate contributions from project partners, manage the evaluation of general CSC visitors and fieldtrip school staff, and update all on the project's progress throughout its timeline. Exhibit Project Coordinator Chris Holmes will facilitate the purchase and installation of the two exhibit components, working with his department's other staff member, Exhibit Technician Jon Lovelace. Holmes has worked at CSC for 7 years, managing large exhibit projects during his career. LeighAnna Courtney, Marketing Manager, will create all new content signs, within the exhibit's current themes, provided by community partners.

What time, financial, personnel, and other resources will you need to carry out the activities? will you track your progress toward achieving your goals?

CSC requests \$24,828.03 from IMLS for Gross Labs Rehab. Funds will support the purchase of a new exhibit component, necessary pieces to update an additional component, new signage, torso model, and additional dress-up pieces reflecting a broader range of medical fields. While staff time will be necessary for the successful completion of Gross Labs Rehab, all grant activities fit within current work responsibilities and will not require grant support.

How will you track your progress toward achieving your goals?

Survey feedback from both general visitors and school staff and chaperones clearly indicated the need for CSC to address the condition of Gross Labs. Graves will continue to monitor feedback collected by these same surveys for visitor satisfaction with the state and engagement of CSC exhibits. To narrow feedback, the forms will include specific questions about Gross Labs, beginning July 2026 with the new fiscal year. An additional question for teachers and chaperones will seek to measure their perceptions of student interest and comfort with the content presented in Gross Labs. She will report the data quarterly, allowing for corrections in the temporary sign for Operation Deluxe as the project year progresses. All feedback will be used to formulate the plan for Gross Labs' eventual, full refurbishment.

Project Results

What are the project's intended results and how will they address the need, problem, or challenge you have identified?

CSC anticipates Gross Labs Rehab to result in improved experiences in the Gross Labs exhibit, providing deeper opportunities to explore the exhibit's content. Overall, perceptions of the engaging experiences CSC exhibits provide will improve, with measurable gains in satisfaction with the state of exhibits institution wide, and specifically Gross Labs. While current surveys indicate that 68.8% agree with the statement "The exhibits were in good working order" successful completion of the project will result in an increase to 75% agreement overall.

How will the knowledge, skills, behaviors, and/or attitudes of the target group change as a result of your project?

While improved satisfaction with CSC's offerings is beneficial internally, intended long-term outcomes include increased participation in the medical care field. CSC hopes to provide visitors with increased awareness of health sciences professions and the local educational pathways available to achieve these varied careers. The

Catawba Science Center, Gross Labs Rehab

enhanced exhibit will increase their understanding of health and the human body, as well as increase their comfort with science and STEM careers. These positive, early experiences can ultimately impact career choices, ideally resulting in improved health services throughout CSC's service area. Feedback from evaluations provided to school staff and chaperones participating in field trips will indicate positive experiences for learners in Gross Labs, and increased understanding of health sciences careers and the local educational pathways for these jobs available. Finally, participants will feel more confident in their science identities to pursue these fields. Survey results will show that 75% of visitors learned or understand more about jobs in the medical field than before their visit.

How will you sustain the benefits of your project beyond the conclusion of the period of performance?

Successful completion of Gross Labs Rehab will provide engaging experiences for CSC's visitors for years to come; additionally, project work will provide a strong foundation for staff to best create a successful, thoughtfully designed exhibit about health, the human body, and related careers when complete renovation begins in 2030. The future iteration of this exhibit will include the pieces purchased with and updated in this project, as well as additional experiences to further CSC's goal to change lives and inspire learning through science and wonder!

Schedule of Completion

[illegible]

Applicant Name: Catawba Science Center

Project Title: Gross Labs Rehab

Performance Measure	Data We Will Collect (e.g., counts, costs, weights, volumes, temperatures, percentages, hours, observations, opinions, feelings)	Source of Our Data (e.g., members of the target group, project staff, stakeholders, internal/external documents, recording devices, databases)	Method We Will Use (e.g., survey, questionnaire, interview, focus group, informal discussion, observation, assessment, document analysis)	Schedule (e.g., daily, weekly, monthly, quarterly, annually, beginning/end)
Effectiveness: The extent to which activities contribute to achieving the intended results	Once exhibit components are updated and installed, CSC will monitor survey data for changes in perception, knowledge gains, and satisfaction with exhibit experiences. Staff will also increase observational assessments of visitors in Gross Labs. The general visitor survey plus teacher and chaperone evaluations are voluntary opt-ins; observations of groups will provide a broader range of information – including dwell time. Staff will spend their regularly slated shifts when assigned to main building exhibits collecting this information as well. This data will inform of necessary changes, to signage for Deluxe Operation and the next exhibit reiteration. Graves will report the survey and evaluation data in quarterly check-ins. Activities have been well researched, if effectiveness is not evident from data collection there will be opportunity for revisions in future iterations of the exhibit.			
Efficiency: How well resources (e.g., funds, expertise, time) are used and costs are minimized while generating maximum value for the target group	CSC has opted to add and improve tested and popular pieces. Solutions for purchase and repair will be researched again, when funding is granted, for options that may be more efficient. Graves will monitor progress against schedule of completion and amend responsibilities as necessary, particularly concerning work on hospital partners.			
Quality: How well the activities meet the requirements and expectations of the target group	Evaluations, survey results, and observations will be compiled quarterly and compared to intended results of increased satisfaction and greater awareness and comfort with health sciences careers.			

Timeliness: The extent to which each task/activity is completed within the proposed timeframe

Graves will use schedule of completion and quarterly check-ins to compare project activities against expectations. When staff encounter delays with timeline, the project team will assess how partners may increase timeliness. Activities were selected partially due to their ease; if this isn't the case, CSC will evaluate alternatives that will not impact quality or effectiveness.