**Cornell University Budget Justification (Generic)**

(**Add for NSF**) Cornell utilizes the calendar year for compliance with the NSF’s limitation on senior personnel salary requests**.**

**Salaries and Wages**

Principal Investigator (First Last): This proposal requests salary support for # month(s) of summer salary and # month(s) of academic-year effort each period to oversee the coordination and scientific direction of the proposed work. PI will [describe duties].

Co-Principal Investigator (First Last): This proposal requests salary support for # month(s) of summer salary and # month(s) academic-year effort each period to [describe duties].

Research Associate (First Last): This proposal requests salary support for # month(s) of calendar-year effort each period for # Research Associate(s) to [describe duties].

Post-Doctoral Associate (First Last): This proposal requests salary support for # month(s) of calendar-year effort each period for # Postdoctoral Associate. The Postdoctoral Associate(s) will [describe duties].

Other Professionals (Technicians, etc.) (First Last): This proposal requests salary support for # month(s) of calendar-year effort each period for # [Position Title(s)] to [describe duties].

Graduate Students: This proposal requests salary support for # month(s) of effort for # Graduate Research Assistant(s) (GRAs) in each budget year. The salary support includes the stipend each period, inclusive of a 5% increase at the beginning of each academic year (in August). The GRA(s) will [describe duties].

[Insert GRA stipend table]

Undergraduate Student: This proposal requests support for undergraduate researcher stipends for # undergraduate student(s) who will also be working on the project for their senior thesis or summer study in the [PI Name] group.

Secretarial - clerical: This proposal requests support for # month(s) of calendar-year effort each year for # administrative personnel. This project requires an extensive amount of administrative support that is greater than the routine level provided by the administrating academic department. The administrative support for this project is justified by [describe reason/duties].

Other (First Last): This proposal requests salary support for # month(s) of calendar-year effort each period for # position(s) to [describe duties].

All Cornell University non-student salaries use a base rate of current FY24 salary rates and include a budgeted increase in July of each budget period, with the exception of personnel with salaries above the current NIH salary cap.

Consistent with federal cost principles applicable to universities, Cornell University estimates and invoices personnel costs as a percentage of total effort, or level of effort basis. Cornell

University does not track work hours for FLSA exempt staff and is unable to provide billing or time records based on hours. For the purpose of this requirement only, we have estimated

hours by converting the level of effort using a 39 hour standard work week.

**Fringe Benefits**

Employee Benefit rates budgeted within this proposal are 37.0% through June 30, 2024, 35% through June 30, 2026, 35.5% through June 30, 2027, and 37% in subsequent years for Cornell’s endowed colleges. Employee Benefits are 67.1% through June 30, 2024, 70% through June 30, 2025, 71.5.0% through June 20, 2026, and 73% in subsequent years for non-student compensation for Cornell’s contract colleges.

Fringe benefit rates comply with rates approved by Cornell's Cognizant Agency: Department of Health and Human Services. For more information on Cornell University employee benefit rates, see <https://www.dfa.cornell.edu/capitalassets/cost/employee>.

**Equipment**

This proposal requests funds to purchase [describe the item(s)] for [describe necessity and suitability]. See the attached quote(s) for further details and pricing verification.

[**ATTACH QUOTE(S)]**

**Travel**

Domestic: This proposal requests funding for domestic travel to enable the project participants to attend conferences and PI meetings to promote technology transfer by presenting their research results. Cost estimates rely on current airfare and GSA per diem rates for lodging and meals and incidental expenses (M&IE). Examples of possible travel used for budgeting purposes include [describe travel].

[Insert domestic travel detail table]

International: This proposal requests funding for international travel to enable the project participants to attend conferences and PI meetings to promote technology transfer by presenting their research results. Cost estimates rely on current airfare and US Department of State per diem rates for lodging and meals and incidental expenses (M&IE). Examples of possible travel used for budgeting purposes include [describe travel].

[Insert international travel detail table]

***[Add only if Cornell will host a conference***] To comply with NSF PAPPG 19-1, Cornell University will disseminate a code-of-conduct or policy to all conference participants before and at the event that addresses sexual harassment, other forms of harassment, and sexual assault, that includes clear and accessible means of reporting violations of the policy or code-of-conduct.

**Participant Support Costs**

This proposal requests funding for participant support costs to [describe the purpose of costs] for # participants.

**Other Direct Costs**

Materials and Supplies

This proposal requests funding for the purchase of materials and supplies necessary to complete the proposed project. These include [insert list of supplies].

Publication Costs

This proposal requests funding for publication costs to promote technology transfer by presenting research results at the planned conferences, the submission of manuscripts for publication in peer-reviewed journals (printing, page charges, and postage), and costs associated with the creation of posters.

Consultant Services

This proposal requests support for [consultant name, institution], for # day(s) at a rate of $# per day, as outlined in the attached statement of work and payment schedule. The consultant will [summarize duties].

[**ATTACH SOW & PAYMENT SCHEDULE]**

Data Management and Sharing Costs

Data Management costs not separately budgeted as data storage will be handled by pre- existing data storage resources at Cornell University in Ithaca. All personnel on this project will archive data as a part of executing the described experimental plan.

All repositories and software needed to comply with Data Management and Sharing Plan are readily available at no additional costs to this project.

Computer Services

This proposal requests funding for [describe computer services].

***Include for CIS faculty only:*** Computing support provided to Computing and Information Science researchers is not covered in Cornell’s negotiated indirect cost rate. Consistent with the university's costing practices and disclosure statement (DS-2), computer support is directly charged to benefitting activities. Note that any computing support for PIs, researchers and graduate research assistants associated with instruction and administration are directly supported by unit funds.

Subcontracts

This proposal requests funds for a subcontract to [Institution Name] in the amount of $# to [summarize duties].

**Other**

Graduate Tuition and Mandatory Fees

This proposal requests support for # month(s) of effort for # Graduate Research Assistant(s) (GRAs) in each budget year to conduct research work for this project as outlined above. The support includes tuition and mandatory health insurance fees each period. Health insurance fees include a 10% annual increase, effective August 1st of each year. GRA tuition does not include an annual escalation. Due to a one-time change in GRA tuition rates, tuition will decrease incrementally to $12,400 in FY2024, and $10,400 in FY2025 and going forward.

[Insert GRA tuition & fees table]

Animal Costs

This proposal requests funding for the purchase of [describe animal costs not related to CARE facility use, which should be described below under Cornell Shared Facilities].

Human Subject Fees

This proposal requests funding for human subject fees to recruit [#] participants for [describe purpose or activities], at a compensation of [$] per participant.

Communications

Funds are requested for communications costs consisting of project-specific conference calls, faxing, long-distance and shipping.

Cornell Shared Facilities

This proposal requests funding for shared cost facility access and services at Cornell. It is anticipated that the following:

Cornell Center for Advanced Computing (CAC): The Cornell Center for Advanced Computing (CAC) is a university core facility that recovers costs via services. CAC staff effort is recovered via its consulting service rate, except for staff with substantial funding on multi-year grants. This rate is approved by the University’s Department of Financial Affairs and is cost recovery only. For the proposed project, the CAC internal consulting service rate (in support of Cornell-led projects) will be $81.71/hour for the period 07/01/2023 through 06/30/2024, and covers staff salaries and associated benefits at a rate of 35.7% until amended. This hourly consulting rate increases annually due to annual raises for CAC staff members (projected at 2% for planning purposes). For more information and fee schedule see: <https://www.cac.cornell.edu/>

Cornell Biotechnology Resource Center (BRC): Cornell’s Biotechnology Resource Center Imaging Facility (formerly called variously Cornell Imaging, the CT Facility, the Imaging and Microscopy Facility, and the Microscopy Imaging and Fluorometry Facility or MIF) provides researchers with access to instrumentation for cell and tissue imaging, such as fluorescence light microscopy and confocal microscopy, as well as ‘macro’ imaging systems (e.g., whole mouse luminescence and fluorescence imaging), high-resolution ultrasound, and high resolution X-ray computed tomography (CT). Peripheral prototyping and analysis tools, such as stereo microscopes, spectrofluorometry and image processing software are also available. The facility provides training on these tools and expert advice on image analysis and visualization, live cell microscopy, tissue, plant and animal imaging, and fluorescence and other imaging techniques and measurements. The Imaging Facility has several locations on the Cornell University campus in Ithaca, NY. Multiple locations are made available because live systems are sensitive to climate and are not very transportable. Locations include a vibration-free section of the basement in Weill Hall, and both before and behind animal barriers in various buildings of the College of Veterinary Medicine.

For more information and fee schedule see: <http://www.biotech.cornell.edu/brc/imaging>

The Cornell Center for Animal Resources and Education (CARE): Cornell’s Center for Animal Resources and Education is a service and a resource to the AAALAC accredited Cornell research and teaching community. CARE provides high quality animal care and veterinary services, and advises and educates researchers, staff and students on animal experimentation issues while promoting best practices for the responsible use of animals. These actions result in quality science merging with animal welfare. For more information and fee schedule see: <https://ras.research.cornell.edu/care/index.html>

Cornell NanoScale Science & Technology Facility (CNF): Cornell has unparalleled resources both for fabrication and for characterization. The Center for Nanofabrication has extensive user facilities that will be utilized for this research. These include usage of the cleanroom, ebeam lithography, UV lithography, plasma and wet etching, DRIE, microscopy (e.g., SEM), surface characterization tools (e.g., XPS, AFM, STM), etc. CNF charges include fees that are not considered a part of capital fabrication.

Facility Billing: All Users are charged by the hour for the use of most instruments. Equipment charges help pay for the expendables and maintenance costs associated with that tool. Academic users are for bonafide academic research only by students, post-doctoral researchers, and full time university staff members. Users are billed at the end of each month for accumulated user charges.

Equipment/Cleanroom Charges: Instrument Charges are assessed for the entire time the tool is in use, including setup and any cleaning steps required after operation. Some steps that use high cost materials, such as the evaporation of previous metals, have a separate materials charges to pay for these expensive supplies.

A daily entrance fee is charged to all users for each day they enter the cleanroom.

CCMR Facility: Our facilities provide maximum productive use of scientific instrumentation and research expertise, ensuring that the highest quality equipment, instruments, and services are available to users, at Cornell and elsewhere including other universities and industry.

The seven CCMR shared experimental facilities are:

Integrated Advanced Microscopy Facilities

Hudson Mesoscale Processing Facility

Polymer Characterization Facility

Materials Facilities

X-ray Diffraction Facility

Molecular and Cellular Surface Imaging Facility

Research Computing Facility

For more information see: <http://www.ccmr.cornell.edu/>

NMR: CU NMR Facility: provides public access to NMR spectrometers. The facility is staffed by the director ([Ivan Keresztes](http://nmrscheduler.chem.cornell.edu/contact.shtml)) and assistant director ([Anthony Condo](http://nmrscheduler.chem.cornell.edu/contact.shtml)). Mr. Condo also serves as the manager of the Polymer Characterization Facility. The Facilities Committee headed by Professor [Geoffrey Coates](http://www.chem.cornell.edu/faculty/index.asp?fac=21) provides faculty oversight. The staff is responsible for maintaining and repairing instrumentation, providing training for all users, as well as assisting them in selecting, acquiring, processing and interpreting experiments, as needed.

Located in the basement of S. T. Olin Laboratory (rooms B63-B73, see map), the facility currently houses five high-field spectrometers ranging in field strength from 300 to 600 MHz. To find out more about our instruments, please click the map to the left or use the navigation bar at the bottom of the page.

The facility is used regularly by approximately 150 graduate students and postdoctoral fellows. New users may operate a particular spectrometer independently once they have undergone [training](http://nmrscheduler.chem.cornell.edu/training.shtml) by facility staff and can demonstrate the knowledge required for operating each instrument.

For more information see: <http://nmrscheduler.chem.cornell.edu/about.shtml>

Geotechnical Lifelines Large-Scale Testing Facility (GLLSTF): The Cornell Large – scale Lifelines Testing Facility is a unique, resource for research, education, and outreach focused on underground lifeline response to large ground deformation and the seismic performance of highly ductile structures using advanced materials and construction.

Cornell University, through its School of Civil and Environmental Engineering, has been performing research which has influenced the oil, gas, electric power, and water supply industries for over 30 years. The Lifelines Group at Cornell specializes in full-scale tests to quantify and understand soil-pipeline interaction. Research conducted through innovative testing has resulted in improved modeling, application of advanced materials and improved code and practices adopted worldwide.

**Indirect Costs**

Facilities and Administrative Costs (F&A) rates are 64% for endowed college research, and 57% for contract college research, as approved by Cornell's Cognizant Agency: Department of Health and Human Services. For more information on Cornell University’s indirect cost rates, see <http://www.dfa.cornell.edu/sites/default/files/dhhsrateagreement.pdf>.

Modified Total Direct Cost (MTDC) exclusions for this proposal include equipment, capital expenditures, charges for patient care, rental costs, GRA tuition remission, GRA health insurance fees, scholarships and fellowships, participant support costs, and the portion of each subaward in excess of $25,000.

**(Add for NSF) Endowed F&A:** Total Direct Costs $500,000 – Exclusion of $20,000 = MTDC Cost Base $480,000. **$480,000 \* 64% = $307,200 F&A.**

**(Add for NSF) Contract F&A:** Total Direct Costs $500,000 – Exclusion of $20,000 = MTDC Cost Base $480,000. **$480,000 \* 57% = $273,600 F&A.**