Research Activities for Research at Home

This list is intended to generate ideas about relevant research activities during this unusual time and is not comprehensive or exclusive. For all funded research: PIs should closely monitor any guidance provided by sponsors and work closely with program managers to determine appropriate telework activities that may be considered allowable charges.

Note: This document has many embedded links. To access those links, you may need to change how you are viewing the document from “editing” to “viewing” in the menu bar at the top of the page.

Continue Research

- Literature review pertaining to the grant/project
- Bibliographic collections pertaining to the grant
- Write and revise of papers on the work
- Develop introductions and methods sections for articles related to work currently under way
- Conduct data analysis
- Data preparation and organization
- Conduct statistical runs using various models
- Metadata preparation
- Data management preparation to meet DMP requirements
- Data repository searches for use with the project, etc.
- Conceptualizing future work/studies with procedures that feature options for social distancing as well as interpersonal contact (so both options are prepared)
- Library resources continue to be available including chat, inter library loan, Ask-a-Librarian, etc.
- Build in structure to your research. Form a writing group or other accountability group (or meet regularly with your team/grad students) to report on your goals and accomplishments.
- Explore the resources available to scholars at MSU from the National Center for Faculty Development and Diversity (productivity support, writing challenges, etc.)
- Do research/data analysis utilizing public data sets. See, for example, COVID-19 related data sets
- Read scholarly resources related to COVID-19. See numerous resources
- Record the talk you would have given or prepare the poster you would have presented this spring, and deposit those (or other research) at MSU’s institutional repository, Scholars Junction

Manage Existing Awards/Projects

- Document additional costs, changes, etc. for current projects while they are fresh
- Contact your project’s assigned OSP Administrator to learn of any agency-issued guidance, reporting instructions, or notices of revisions or supplemental funding. View list of sponsor guidance compiled by ORED/OSP.
- Work with your assigned administrator to request modifications, if needed.
- Project Reporting:
  - Reach out to your Program Officer to confirm deadlines for reporting or deliverables (if applicable)
  - Prepare status updates, rationale for modifications, or other information needed for meeting reporting obligations per your award’s terms and conditions.
- The Council on Government Relations (COGR) has perhaps the most comprehensive “one-stop-shop” for information on research impacts of Covid-19 by agency at this site.
Develop Research Skills and Research Communication Skills/Research Training

- Complete required (if needed) and optional information security training modules—accessed through the “office” tab at my.msstate.edu
- Engage in optional trainings to learn more about research ethics, compliance, etc. (e.g., Citi modules accessed with your MSU net ID and password at www.citiprogram.org).
- Attend online training offered by MSU Libraries. See expanded slate of online workshops.
- Any session taught by the library can also be tailored and taught to a research group or lab. And if a group needs a topic not on the schedule for this summer library staff will gladly work with folks to provide the needed instruction. Contact Deborah Lee.
- Learn new statistical methods or research methodologies (e.g., online tutorials, books, etc.)
- Complete NIH training related to COVID 19 and wellness but also social media use, job search strategies, and others: VIRTUAL NIH ACTIVITIES FOR TRAINEES OUTSIDE THE NIH
- View archives of previous ORED and Graduate Seminar Series on a number of topics (communicating science, developing a literature review, research ethics, working in teams, project evaluation, funding, etc.)
- Investigate resources for communicating science. See Alda Center and PLOS blogs (e.g., by Dr. Jason Organ)
- Engage in study about research/writing productivity (e.g., How to Write a Lot by Paul Silvia, Publish and Flourish by Tara Gray, etc.)
- Learn more about Open Science including federal regulations related open data for publicly funded research. Some resources:
  o MSU Library guide: https://guides.library.msstate.edu/opendata
  o Open Data Institute online training options. Specifically, this course for beginners
  o World Bank has an open data toolkit
  o Open Knowledge Foundation’s Open Data Handbook
  o Global Open Data for Agriculture & Nutrition’s (GODAN) training courses
  o City of Cambridge, MA started an open data training for the public and interactive Open Data User Guide webpage,
  o FOSTER project training
  o US General Services Administration Open Data page
- See more data management and sharing resources below

Develop Professional Materials

- Update your vita
- Create professional documents in formats required by particular sponsors such as NSF Current and Pending, biosketch etc.
- ***NSF is implementing a NEW required template for biosketches and Current and Pending support. Effective June 1, 2020, proposers will be required to use one of the NSF-approved formats for both the Biographical Sketch and Current and Pending Support sections of NSF proposals. Proposals submitted via FastLane, Research.gov and Grants.gov will be compliance
checked to ensure that the documents were prepared in accordance with this new policy. More info can be found in the most current version of NSF’s Proposals and Awards Policy and Procedures Guide (PAPPG) and in a February 2020, webinar on the new PAPPG, accessible here. Here are some links with further instructions, details, and resources, as well: 

**Biographical Sketch Resources**
- NSF-Approved Formats for the Biographical Sketch website
- SciENcv Guidance on Creating an NSF Biographical Sketch, including step-by-step instructions and screenshots for each of the four required sections (This is a subsection of the guidance at SciENcv Help.)
- YouTube Video - SciENcv for NSF Users: Biographical Sketches (This is a new video targeted to the NSF research community.)
- YouTube Video - SciENcv Tutorial
- YouTube Video - Integrating with ORCID
- FAQs on using NSF Fillable PDF

**Current and Pending Support Resources**
- NSF-Approved Formats for Current and Pending Support website
- SciENcv Guidance on Creating an NSF Current and Pending Support document, including step-by-step instructions and screenshots for the two required sections (This is a subsection of the guidance at SciENcv Help.)
- FAQs addressing policy questions related to the PAPPG (NSF 20-1) clarifications to the current and pending support coverage, as well as questions regarding use of an NSF-approved format for current and pending support
- FAQs on using NSF Fillable PDF

**Develop Research Outreach and Education Resources**
- Develop writing for non-academic audiences. Specifically, pitch (and possibly write) a piece for The Conversation. Learn more about writing for The Conversation:
  - Contact Allison Matthews, Harriet Laird, or James Carskadon for assistance with making a pitch.
  - Introduction video created by The Conversation
  - MSU faculty talking about their experiences
  - Example of Conversation article written by an MSU faculty member
- Develop and launch a website aimed at a public audience to promote your research activities and findings.
- Develop K-12 activities related to your research. Provide step-by-step directions so these activities can be disseminated and carried out by teachers when they are back in school or even students while they are staying home.
- Consider developing a design challenge that would reinforce skills related to your research.
- Develop an online course related to your research activity.
- Create an infographic to share the importance of your research, career opportunities in your field.
- Identify mentoring opportunities through professional organizations.
• Develop professional development training materials for students and early career faculty in your field.
• Draft policy proposals using evidence-based principles, practices, and methods from your area of research.

As you develop outreach and education materials, consider contacting Katie Echols or Devon Brenner in ORED for ideas about how to disseminate to networks of K-12 educators and through other venues.

Revisit your personal research agenda and future/complementary funding opportunities
Your research focus may evolve as your experiences, assignments, institutional infrastructure, and extrinsic expectations change. Your research and scholarly activities (and the types of future funding you seek) should be viewed as stepping-stones to your specific goals. Consider the following as you refine your personal research goals and agenda:
• Develop your education and outreach agenda – what are your interests and capacity related to education in your discipline? (mentoring, training programs, future outlook of scientific or technical workforce in your discipline/field, impacts on underserved populations, etc.)
• Read voraciously within and outside of your field to identify trends or important implications of your work with regard to impact and merit. Look for ways your work (alone or as part of a multi- or transdisciplinary effort) has social, environmental, economic, health, education, and/or other broad impacts. Brainstorm innovative ways your work can improve quality of life for some element of society at large. Likewise, how does your work contribute to the advancement of your discipline and the future of knowledge in your field?
• Identify and reach out to mentors and potential collaborators – these people will influence your direction and expand your support resources – perhaps even providing funding via subawards on existing or planned projects.
• Get to know potential funders – understand the mission, culture, and procedures of agencies, as well as program officials, reviewers, and researchers who are well-funded in your area. Become a reviewer in your field of expertise!
• Engage with potential stakeholders and beneficiaries of your work. Spend time in the “trenches” to understand how your work may be impactful.

Resources from other other Institutions

General Guidance for Graduate Students
• ***The University of Minnesota Vet Med school has a curated playlist of things that lab managers and researchers can do while working from home: https://docs.google.com/document/d/1Cil7R64VglQykHIFvqrT_HrbT-Mcg5dMq0cuzl6iarg/edit
• West Virginia University has remote research activities for graduate students as does Kansas State University:https://www.k-state.edu/keeplearning/

Research Data Management and Sharing Resources/Training Opportunities
• ***Data Management Short Course for Scientists - ESIP (Earth Science Information Partners) in cooperation with NOAA and the Data Conservancy have compiled the resources for this course.
• ***Data Management Training Clearinghouse – a registry for online learning resources focusing on research data management.
- **DataONE Education Modules** - DataONE provides several lessons in PowerPoint format available for download that can be incorporated into teaching materials. Also available are webinars and screencast tutorials.

- **Coursera: Research Data management and Sharing** – [COURSE Started April 1](#) A five week course designed to provide an introduction to research data management and sharing. $49 for a certificate of completion and free to participate.

- **NISO Research Data Management** - the National Information Standards Organization has a primer to cover the basics of research data management.

- **ICPSR Data Management & Curation** - ICPSR is an international consortium of more than 750 academic institutions and research organizations and provides training in data access, curation, and methods of analysis for the social science research community. This site provides information specifically on Data Management & Curation, and there is a Guide to Social Science Data Preparation and Archiving: [https://www.icpsr.umich.edu/files/deposit/dataprep.pdf](https://www.icpsr.umich.edu/files/deposit/dataprep.pdf)

- **Educopia ETD+ Toolkit** - Designed for training Graduate Students how to manage research for Thesis/Dissertations, but the curriculum can be used by anyone involved in research.

- **MANTRA: Research Data Management Training** - MANTRA is a free online course for those who manage digital data as part of their research project. It is managed by the University of Edinburgh. Modules include data protection, rights, and access; sharing and licensing; and metadata and curation.

- **Disciplinary RDM Training** - This site lists Research Data Management materials specific to five areas (performing arts, archeology and social anthropology, health studies, psychology, and geosciences, social sciences & clinical psychology). Other courses are listed as well. Maintained by the [Digital Curation Centre](#) of the U.K.