This document outlines some of the major individual fellowship and grant opportunities for graduate students in bioscience and health science research fields.

The first section aims to familiarize the reader with major federal grant and fellowship opportunities for graduate students in these fields, and is organized by funding agency: NIH, NSF, and DoD.

The second section presents a list of other opportunities that may be of interest to students in these fields, including some awards for specific areas of research (heart disease, infectious animal disease, etc.) and some general graduate fellowship programs open to students in a wide range of disciplines, including bioscience and health science fields. An appendix to this section names some major international and language training opportunities open to graduate students in STEM fields, including the Fulbright U.S. Student Program.

This is not intended as a comprehensive list, and students are encouraged to familiarize themselves with search tools and databases to locate funding opportunities specific to their area of interest.

A few notes on these awards:

- Many award programs, particularly federally funded programs, are limited to U.S. citizen (and in some cases permanent residents.) Opportunities for international students exist, but are more limited and as a result, generally even more competitive.
- Most awards are designed to support the student at a specific stage of graduate study (early stage, dissertation, etc.) However, students should be mindful of the long timeline on graduate fellowship applications and plan far ahead. Many awards require you to begin working on the application a year or more before the award will be made.
- A few fellowship and grant programs require that the application be submitted on the student’s behalf by the Office of Sponsored Programs. This requirement is noted below. If this is the case, be aware that OSP will set an earlier deadline.
- Students are urged to always work closely with their academic mentors in preparing grant and fellowship applications, and to discuss their plans with their advisor.
- The Office of Graduate Fellowships is available to provide advice in navigating the application process and proposal review after the advisor has vetted the proposal.
The National Institutes of Health (NIH) supports research that advances its mission to seek fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce illness and disability.

NIH F31: Ruth L. Kirschstein National Research Service Award
https://researchtraining.nih.gov/programs/fellowships/F31
Many institutes within NIH offer training fellowships for individuals pursuing doctorates on topics of priority interest for health research. This award, which is renewable, provides stipend and tuition support plus a small award to the institution to cover the costs of administration. The purpose of this program is to enable promising predoctoral students to obtain individualized, mentored research training from outstanding faculty sponsors while conducting dissertation research. The proposed research training is expected to clearly enhance the individual’s potential to develop into a productive, independent research scientist. This program is limited to U.S. citizens and permanent residents. The NIH runs 3 competition cycles per year with deadlines in April, August, and December. The application requires the support of a faculty mentor with an NIH funding track record to serve as sponsor, plus a proposed affiliation with a participating NIH institute. This application must be submitted through the Office of Sponsored Programs.

NIH R36: Dissertation Award
https://researchtraining.nih.gov/programs/research-education/R36
These grants support dissertation research costs of students in accredited research doctoral programs in the United States pursuing doctorates in specific areas of priority for NIH (Aging Research, Drug Abuse, Mental Health Research, and Health Services Research.) The award provides stipend and tuition support, plus funds to support dissertation research costs. Application submission due dates vary by award category; see web site. This application must be developed in close cooperation with the dissertation supervisor and submitted through the Office of Sponsored Programs.
The National Science Foundation (NSF) funds research and education in science, mathematics, and engineering, including most branches of the social sciences. NSF funding opportunities for graduate students are focused on making investments in promising early-career scholars, with an emphasis on basic science research and discovery.

Graduate Research Fellowship Program (GRFP)
http://www.nsfgrfp.org/
The NSF Graduate Research Fellowship Program (GRFP) helps ensure the vitality of the human resource base of science and engineering in the United States and reinforces its diversity by supporting outstanding graduate students in NSF-supported STEM and social science disciplines who are pursuing research-based master’s and doctoral degrees at accredited United States institutions. The award provides three years of support, including a stipend, tuition/fees, and access to special research and training opportunities designed only for GRFP fellows. The competition is open to U.S. citizens and permanent residents who have completed LESS THAN twelve months of full-time graduate study at the time of application. For most students this means they can apply in the fall semester of the first or second semester of graduate study (including master’s programs and all post-baccalaureate study. The applicant may be a master’s student at the time of application so long as their ultimate goal is the Ph.D.) Application deadline falls in October annually for funding to commence in the subsequent academic year. This application is completed and submitted by the applicant and NOT through the Office of Sponsored Programs.

Doctoral Dissertation Improvement Grants (DDIG): Directorate of Biological Sciences
The National Science Foundation awards Doctoral Dissertation Improvement Grants in selected areas of the biological sciences. Proposals must fall within the scope of any of the clusters in the Division of Environmental Biology (DEB) or the Behavioral Systems Cluster in the Division of Integrative Organismal Systems (IOS). These grants provide partial support of doctoral dissertation research for improvement beyond the already existing project. Allowed are costs for doctoral candidates to participate in scientific meetings, to conduct research in specialized facilities or field settings, and to expand an existing body of dissertation research. Application deadline falls in October annually. This application must be developed in close cooperation with the dissertation supervisor and submitted through the Office of Sponsored Programs.

East Asia and Pacific Summer Institutes for Graduate Students (EAPSI)
NSF and selected foreign counterpart science and technology agencies sponsor international summer research institutes for U.S. graduate students in seven East Asia and Pacific locations. Applicants must propose a location, host scientist, and research project that is appropriate for the host site and duration of the international visit. An EAPSI award provides: 1) first-hand research experiences in Australia, China, Japan, Korea, New Zealand, Singapore, or Taiwan; 2) an introduction to the science, science policy, and scientific infrastructure of the respective location; and 3) an orientation to the society, culture, and language. It is expected that EAPSI awards will help students initiate professional relationships to enable future collaboration with foreign counterparts. The NSF award includes participation in the Pre-Departure Orientation, summer stipend of $5,000, and round trip airfare to the host location. EAPSI partner agencies pay in-country living expenses during the Summer Institutes.

Dr. Kathryn E. Ágoston, Director of Graduate Fellowships, George Mason University
kagoston@gmu.edu • 703-993-3131 (Office) • http://gradfellows.gmu.edu/ • @GradFellowsGMU
The Department of Defense supports graduate study and research for candidates focused on topics of interest to the DoD.

National Defense Science and Engineering Graduate Fellowship (NDSEG)
https://ndseg.asee.org/
As a means of increasing the number of U.S. citizens and nationals trained in science and engineering disciplines of military importance, the Department of Defense (DoD) annually awards approximately 200 new three-year graduate fellowships through the NDSEG program. These awards are offered to individuals in the early stages of graduate study who have demonstrated the ability and special aptitude for advanced training in science and engineering, including Biosciences. The award provides stipend and full tuition support for three years. The application is due annually in December for funding to begin in the subsequent academic year. At the time of application, applicants must have completed LESS THAN two full-time years of graduate study (or the part-time equivalent) in the discipline in which they are applying. For most students this means they can apply in the fall semester of the first or second semester of graduate study (including master’s programs and all post-baccalaureate study. The applicant may be a master’s student at the time of application so long as their ultimate goal is the Ph.D.) This application is completed and submitted by the applicant and NOT through the Office of Sponsored Programs.

DoD SMART Scholarships
https://smart.asee.org/
The SMART Program aims to increase the number of scientists and engineers in the DoD by supporting both undergraduate and graduate students in STEM discipline (including biosciences) whose research and career interests align with the mission of the Department of Defense. The program is particularly interested in supporting individuals that demonstrate an aptitude and interest in conducting theoretical and applied research. As such, the program primarily targets “hand-on-the-bench” researchers and engineers. Individuals applying to the program should have a strong interest in working for the DoD as a civilian research scientist or engineer after graduation, and be able to commit to mandatory paid summer internships in DoD-affiliated labs during the tenure of the award. The award provides stipend, tuition, paid research internships, and a research allowance for up to five year, plus post-graduation employment. Applicants must be U.S. citizens at the time of application. Students may apply to the SMART program at any point during their graduate studies. All DoD SMART scholars are paired with a DoD sponsoring facility. The list of sponsoring facilities in the biosciences (and other fields) may be viewed at the web site.

DoD Congressionally Directed Medical Research Programs (CDMRP)
http://cdmrp.army.mil/funding/
The CDMRP program funds medical research in a list of priority fields (see web site). In the past, this program has supported doctoral students through Pre-Doctoral Traineeship grants, particularly in the area of breast cancer research. Pre-Doctoral Traineeship grants have not been offered since FY 2010, but it may be worth monitoring this funding source to see if such grants are offered again in the future. Some CDMRP research programs still support post-doctoral research, which may be of interest to students who are near the end of their Ph.D. program.

Dr. Kathryn E. Ágoston, Director of Graduate Fellowships, George Mason University
kagoston@gmu.edu • 703-993-3131 (Office) • http://gradfellows.gmu.edu/ • @GradFellowsGMU
Other Opportunities

American Association of University Women (AAUW) Fellowships
http://www.aauw.org/what-we-do/educational-funding-and-awards/
The American Association of University Women offers dissertation completion fellowships for women in all fields of study as well as fellowships for international women students.

American Heart Association
http://my.americanheart.org/professional/Research/FundingOpportunities/Funding-Opportunities_UCM_316909_SubHomePage.jsp
The AHA offers pre-doctoral and post-doctoral fellowships for Ph.D. candidates pursuing careers in cardiovascular and stroke research. The award is $23,000/year for up to two years. Open to non-U.S. citizens (list of accepted visas on web site.) Note that this award is administered regionally; George Mason University is in the mid-Atlantic region. Deadline: January.

American Lung Association Dissertation Grant
This award supports doctoral research training for dissertation research on issues relevant to lung disease. These awards are intended for nurses or students with an academic career focused on the various disciplines of social science. Research areas of particular interest to the American Lung Association are: psychosocial, behavioral, health services, health policy, epidemiological, biostatistical and educational matters related to lung disease. $21,000/year for up to 2 years.

Autism Speaks / Dennis Weatherstone Predoctoral Fellowship Program
http://www.autismspeaks.org/science/grants-program/grants-and-fellowships
This program offers two-year fellowships for pre-doctoral students from a wide range of academic disciplines interested in pursuing careers in autism research. Fellows work directly with mentors who are leading scientists in the field of autism research. $28,000 / year for two years. Deadline falls in November.

CDC Fellowships
http://www.cdc.gov/fellowships/
The U.S. Centers for Disease Control and Prevention offers a variety of fellowship opportunities, including research fellowships, professional development fellowships, and diversity initiatives for students and recent graduates seeing careers in public health and related fields.

Christine Mirzayan Science & Technology Policy Graduate Fellowship Program
http://sites.nationalacademies.org/pga/policyfellows/
Funds graduate students and recent graduate degree recipients to participate in a 12-week DC-based program focused on science and technology policy. Open to students in social/behavioral sciences, medical/health disciplines, physical or biological sciences, any field of engineering, law/business/public administration, or any relevant interdisciplinary field. Application deadline falls in September and fellowship term begins in January. Fellows are expected dedicate themselves full time to the fellowship during the spring semester.

Dr. Kathryn E. Ágoston, Director of Graduate Fellowships, George Mason University
kagoston@gmu.edu • 703-993-3131 (Office) • http://gradfellows.gmu.edu/ • @GradFellowsGMU
Cosmos Scholars Grants
http://www.cosmosclubfoundation.org/scholars/grants-program.html
Small grant ($500-$4,000) in support of graduate level research in any field to graduate students at D.C. metro area universities. Deadline: November 1, annually.

Ford Foundation Fellowship Program
http://sites.nationalacademies.org/PGA/FordFellowships/index.htm
Pre-Doctoral, Dissertation, and Post-Doctoral awards for PhD and Sc.D students intending academic careers as scholars and teachers. This award is open to US citizens in most fields of study. The award aims to promote diversity in higher education by funding candidates: (a) Who are a member of an under-represented minority, including Alaska Natives, Black/African Americans, Mexican Americans, Native American Indians, Native Pacific Islanders, and Puerto Ricans. (b) Whose research and career aims demonstrate a likelihood of using the diversity of human experience as an educational resource in teaching and scholarship.

Institute for Infectious Animal Diseases
http://iiad.tamu.edu/
The DHS / Texas A&M IIAD offers Career Development Grants for students whose research focuses on infectious animal diseases and related biological issues. Consult the web site for upcoming announcements and/or to sign up to receive calls for applications when they are released.

Paul and Daisy Soros Fellowship for New Americans
http://www.pdsoros.org/competition/
Supports students who are recent immigrants (e.g. naturalized citizens of the U.S.) or the children of recent immigrants for graduate study in the United States. All fields are eligible, but student must not be beyond their second year of graduate study in their chosen field.

PMF (Presidential Management Fellowships)
http://www.pmf.gov/
The PMF Fellowship places graduating graduate students in a two-year paid position in the US federal government. U.S. citizens only. The fellowship offers a STEM track for scientists interested in leadership positions in government labs, institutes, and scientific policymaking positions.

SREB-State Doctoral Scholars Program
http://www.sreb.org/page/1074/doctoral_scholars.html
SREB (Southern Regional Education Board) is a regional award open to Ph.D. students. Two types of fellowship are offered: The Doctoral Award supports new Ph.D. students. The Dissertation Award is a one-year award for students who are completing their dissertations. Open to U.S. citizens and permanent residents who are members of a racial or ethnic minority and plan to become a full-time college or university faculty member after earning the Ph.D. Open to most fields, with STEM fields particularly encouraged to apply. Prospective applicants must inform the Office of Graduate Fellowships if they intend to apply for this award program.

Dr. Kathryn E. Ágoston, Director of Graduate Fellowships, George Mason University
kagoston@gmu.edu • 703-993-3131 (Office) • http://gradfellows.gmu.edu/ • @GradFellowsGMU
USAID Global Health Fellows Program (GHFP-II)
https://www.ghfp.net/
The GHFP-II program identifies, recruits, hires and manages the performance and professional development of fellows and interns at all levels. Fellowships are generally two years with the option to extend for an additional two years. In the US, placements can occur in Washington DC, USAID Bureaus, other federal agencies, and USAID partner organizations. Outside the US, placements can occur in Missions, Ministries, NGOs, and USAID partner country offices. Internships include a cohort summer program based in Washington, DC and international placements and internships on-demand and upon-request. Both fellowships and internships are compensated. Qualifications and deadlines vary according to the position, though in general fellowship placements will require higher levels of experience, whereas internships are targeted at students and early-career professionals. Current openings are posted at the web site and via subscription email list (sign up at the web site.)

UNCF / Merck Graduate Science Research Dissertation Fellowships
http://umsi.uncf.org/
Up to two years of support for doctoral level (Ph.D. or M.D.) research and degree completion in the sciences and engineering for African American candidates. Funding level varies according to length of award, up to $53,500 plus mentorship by a Merck scientist or engineer. Candidate must be a citizen or permanent resident of the U.S. Undergraduate and post-doctoral awards also available.

If you are interested in international research and language training opportunities, the following prestigious programs support graduate students in STEM fields:

Boren Fellowships
http://www.borenawards.org/boren_fellowship
Supports overseas study and/or research with an emphasis on language training and on research/career goals related to U.S. national security interests. Projects in Western Europe are NOT eligible; see web site for list of preferred countries/languages. Open to U.S. citizens in all fields. Special opportunities exist for applicants in STEM fields and those studying certain African languages. Fellows are required to work for the U.S. federal government (in most cases for 1 year) following graduation; the Boren program provides assistance with job placement. Deadline: Late January.

Critical Languages Scholarships
http://clscholarship.org/
CLS sends participants on fully funded overseas summer language programs in “critical” languages. Currently 14 languages are offered. For some, no background is required and students at all stages (including beginners) may apply. Others require some prior formal or informal study. U.S. citizens only; heritage speakers are considered so long as they require additional training to attain meaningful fluency. Open to undergraduate and graduate students in all fields of study (including STEM fields) who can demonstrate long-term commitment to the language and host culture. Applicants may apply to one language per year. Application deadline: November for subsequent summer.

Dr. Kathryn E. Ágoston, Director of Graduate Fellowships, George Mason University
kagoston@gmu.edu  •  703-993-3131 (Office)  •  http://gradfellows.gmu.edu/ •  @GradFellowsGMU
Fulbright U.S. Student Program
http://us.fulbrightonline.org/
Fulbright grants support U.S. citizens who will hold a bachelor’s degree (but not yet have received their Ph.D.) by the start date of the grant. (The name of the program notwithstanding, student status is NOT required.) There are two principle types of Fulbright grants available to U.S. students: “Research” grants allow students to engage in independent self-designed research and study projects overseas for one academic year. “ETA” grants fund students to assist in ESL classrooms at various levels around the world. In addition, some countries also offer other specialized types of Fulbright grants, including grants for students of business, public policy, public health, music, and other fields. Regular research and ETA grants are open to candidates in AL fields, including the Arts. Requirements vary by country. This award requires a campus-level review process; applicants must consult with the Director of Graduate Fellowships. Application is due September 15 annually.