

# **Frederick County Public Schools**

In Partnership with the

**United States Army Medical Research Institute of**

**Infectious Diseases, Fort Detrick**

**Student Intern Program**

**2017-2018  
Application**

**Application Period Opens 1 November 2016**

**FINAL APPLICATION DUE TO TRANSITION EDUCATION TEACHER  
January 13, 2017**

## **STUDENTS**

**\*KEEP A COPY OF THIS APPLICATION PACKAGE FOR YOUR  
RECORDS AND FUTURE REFERENCE REGARDING INTERNSHIP  
REQUIREMENTS**

**Please Note: Applications Will *Not Be Returned* to Applicants or to the School System.**

**TEACHER RECOMMENDATIONS WILL NOT BE RELEASED WITHOUT A RELEASE  
APPROVAL FROM THE TEACHER**

## APPLICATION FOR USAMRIID STUDENT INTERN PROGRAM

### *Parent/Guardian Letter*

#### **Dear Parent/Guardian:**

Your daughter/son has expressed interest in applying to the Fort Detrick Student Intern Program, offered by United States Army Medical Research Institute of Infectious Diseases (USAMRIID) through the partnership with Frederick County Public Schools, Maryland and Fort Detrick. We encourage and welcome all students who are interested to apply. The objective of the program is to provide students the opportunity to work and learn in a research setting and to encourage them to pursue a career in a field related to biomedical research. The attached Program Information Section describes the program in detail, including general information, eligibility requirements, application and selection process, and participant responsibilities. This introductory letter is to highlight and emphasize several key conditions regarding your daughter's/son's participation in the program if selected. The application process opens November 1, 2016 and closes January 13, 2017.

#### **PROGRAM OVERVIEW**

This program is a one-year program (June-May) for scientific interns. Accepted students begin the internship during the summer prior to their senior year of high school. The time consideration for the internship is not negotiable and is a requirement for all interns. All interns participate in the mandatory eight (8) week, 40 hours per week summer segment of the program to learn valuable skills necessary to participate in the internship program. Student interns have a break beginning 12 August 2017 and return to their internship assignment when the school year begins. When the school year begins student interns will be required to participate at least 3 hours per day based on the student and mentors schedule established for the year. The preference of the intern's program mentor will be taken into consideration with regard to morning or afternoon assignments. Interns will receive four credits toward their high school diploma and a stipend during their internship of approximately \$2600 to \$3000. Interns are required to reduce their school course load to a maximum of two classes per semester.

Interns must be at least 17 years of age before the internship begins on 19 June 2017. Interns participating in the internship are not considered Federal employees. Training and internship participation hours are not credible for leave accrual or any other employee benefits. As a minor under the age of 18, your daughter/son will need your approval to participate in the program. Additionally, all internship fellows or volunteers are subject to a security background screening. Your daughter/son will be required to be fingerprinted as part of this screening. Interns are required to attend a mandatory orientation and safety/security trainings before entering the laboratory areas, which are planned for the first few days of the internship. Program participants must provide proof they have adequate health coverage. Interns are required to undergo a general health assessment by their physician and provide a written document signed and dated by the physician, including documentation of immunization and complete a confidential medical history form prior to starting their internship. Your daughter/son, if selected, as a scientific intern, will be in a research laboratory environment with all the associated hazards and risks. Interns receive appropriate training in safety, handling hazardous materials, and proper animal care and treatment. They are required to comply with established safety regulations and procedures. While emphasis is always given to maintaining a constant state of safety awareness, risk is inherent to the environment and accidents can and do occur, even in programs in support of science/research.

#### **TIME COMMITMENT**

We hope you and your daughter/son will consider the commitment this program requires before applying. The time commitment is a non-negotiable point. Students will intern from 19 June – 11 August 2017, with a break beginning August 12, 2017. The internship experience will resume the first week of the FCPS 2017 – 2018 school year based on the student's class schedule. Interns must satisfactorily complete the entire internship to earn course credit with Frederick County Public Schools. It is imperative that applicants understand this is a full immersion internship in a

working federal government scientific laboratory and that student interns might have to forego a significant portion of their time spent on other interests or activities if those activities interfere with the requirements of the internship. For example, if students plan to play on a sports team, practices and games cannot infringe on the requirements of this internship. There are times when accommodation by a program mentor is possible, but it is not the norm, and any missed time will have to be made up. Each program mentor will work with the intern to establish a work schedule and duties prior to the start of the internship. Scientific interns selected for this program begin their participation on 19 June 2017 for the summer segment of eight consecutive weeks during their break between the junior and senior year of school. The summer segment timeframe is a requirement of the internship and is non-negotiable. Any planned absences will require prior approval and the missed time will need to be made up. Interns should plan to take family vacations prior to or after internships to permit continuous training. If, upon selection, interns are aware of planned vacation time, they must inform their program coordinator, mentor, and administrative lab contact as promptly as possible.

During the school year, when interns are required to participate at least three hours per day, the normal school calendar will be in effect. Interns may be excused from their program responsibilities on all days when the school system is closed (including inclement weather) after consultation with their program mentor, and on federal holidays when the program is closed (also including closure due to inclement weather). However interns must realize that at some times their projects may require them to be at the program on days that school is not in session. Because of the nature of the work in a laboratory, time needed to complete an experiment might impact the interns' schedule, and the intern must be available to complete an ongoing project or portion thereof. In scientific laboratories the length of a work day can fluctuate depending on the work being done, and the intern must be available to put in their participation time necessary to bring a project or portion of a project to a conclusion or point where it can be resumed at a later time. The intern has a responsibility to be available if the project requires their presence. This holds true for the summer internship as well as the school-year internship.

## **TO APPLY**

Applying to the program requires submission, by the student to the authorized school reviewing official, all the documents requested on the attached *Cover Sheet and Application Checklist*. All documents must be complete, legible and contain the necessary signatures. The school will forward complete applications to the Colleen Beall, Secondary Science Curriculum Specialist, FCPS, 191 South East Street, Frederick, MD 21701. Student applications that are incomplete applications will be returned and not considered. The names of students meeting the eligibility requirements in the *Program Information* attachment will be provided to program mentors, and the program mentors will select the students to be interviewed. Students will arrange their interview appointment through the Educational Outreach Coordinator or directly with the program mentors and will receive more information on this process at a later date. The USAMRIID program coordinator will notify students of their acceptance or not into the program and the processing procedures and requirements. If, after reading all the material contained in this application packet, you and your daughter/son remain interested in the program, we encourage the student to apply. Students willing to make the substantial commitment of time and energy required will be rewarded with the unique opportunity to work side-by-side with USAMRIID researchers and associated staff performing cutting edge work. We look forward to receiving applications from tomorrow's future research leaders.

**APPLICATION FOR FORT DETRICK USAMRIID INTERN PROGRAM  
Cover Sheet and Application Checklist**

**Return Application for Review on January 9, 2017 to the Transition Education Coordinator Teacher**

**Final Complete Application Due To Transition Education Teacher on January 13, 2017**

Student's Name: \_\_\_\_\_

Student's Signature: \_\_\_\_\_

School Name: \_\_\_\_\_

School Mailing Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Transition Education Coordinator Teacher: \_\_\_\_\_

I, the school reviewing official, have reviewed the SIP application and all the documents specified below are attached and complete. The application was turned in to me by January 13, 2017

Transition Education Coordinator's Signature: \_\_\_\_\_

1. ***Cover Sheet and Application Checklist***, to be signed by an authorized school representative.
2. ***Parental Consent and Acknowledgement form***: Required for all interns who are under 18 years of age.
3. ***Student Data Collection Form with a copy of Birth Certificate or US Passport*** attached.
4. ***Projected Senior Year Plan*** form.
5. **Two signed teacher evaluations**: These forms must be completed by the student's teachers. At least one evaluation must be from a science or mathematics teacher. The evaluations should **not** be shared with the students and should be provided to the students in a sealed envelope for submission with the application. **Teachers must sign the form and/or narrative letter (if written).**
6. **Official school transcript**: This transcript must contain either an official stamp or be signed and dated by the individual providing the transcript to the student. Transcripts that do not display either an official stamp or a signature/date will not be accepted.
7. **A letter from the student describing**:  
Academic goals and career interests: Do not reiterate your transcript; look toward the future and what you might like to be doing and how you plan to get there academically. If you have several goals/career interests in mind, please describe them. Explain what **you** can bring to the program and position. Mentors are looking for highly motivated, responsible, dedicated students who enjoy new challenges; keep this in mind when preparing your letter.

*It is recommended that particular emphasis be placed on completing this letter which should be no more than two pages double-spaced. Remember, this letter is a representation of you the applicant and the first contact you have with the mentors.*



**APPLICATION FOR FORT DETRICK USAMRIID STUDENT INTERN PROGRAM**  
*Student Data Collection Form*

Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_ MI: \_\_\_\_\_

Social Security Number: \_\_\_\_\_ Gender:  Female  Male

Date of Birth: \_\_\_\_\_ Country of Birth: \_\_\_\_\_

City and State of Birth: \_\_\_\_\_

Are you a citizen of the US:  Yes  No (Student must be a U.S. Citizen to participate in this program)

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_

Daytime Phone No.: \_\_\_\_\_ Home Email Address: \_\_\_\_\_

If student's addresses or telephone numbers change after applying, please provide new information to MAJ Carl Soffler at 301.619.0369, USAMRIID Educational Outreach Coordinator.

***COMPLETE FINAL APPLICATION DUE January 13, 2017 to Transition Education Coordinator Teachers at each school.***

**Emergency Contacts Information:**

1. Name: \_\_\_\_\_ Relationship to Student: \_\_\_\_\_ Day Phone #: \_\_\_\_\_

Evening Phone #: \_\_\_\_\_ Cell Phone #: \_\_\_\_\_

Address: \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

2. Name: \_\_\_\_\_ Relationship to Student: \_\_\_\_\_ Day Phone #: \_\_\_\_\_

Evening Phone #: \_\_\_\_\_ Cell Phone #: \_\_\_\_\_

Address: \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

**Specified Field of Research Interest:** \_\_\_\_\_

**Have you had any "hands-on" laboratory experiences? If so, please describe.**

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**Scientific Interns - Preference to type of laboratory setting:**

- Wet (bench-type lab setting, hands on research)
- Dry (computational biology, computer science, mathematics)
- Not Sure

APPLICATION FOR FORT DETRICK USAMRIID STUDENT INTERN PROGRAM

Projected Senior Year Plan

Student's Name \_\_\_\_\_

Date \_\_\_\_\_

School \_\_\_\_\_

List the classes to be taken each semester:

First Semester:

Period One

Period Two

Period Three

Period Four

\_\_\_\_\_

\_\_\_\_\_

(Projected SIP)

(Projected SIP)

Second Semester:

Period One

Period Two

Period Three

Period Four

\_\_\_\_\_

\_\_\_\_\_

(Projected SIP)

(Projected SIP)

List your anticipated senior year extracurricular activities (clubs, sports, student service learning, drama, etc.):

\_\_\_\_\_

List any outside activities you plan for your senior year (church, job, etc.):

\_\_\_\_\_

List any college classes you may take during your senior year:

\_\_\_\_\_

I have reviewed the above schedule and believe that I can commit the three hours per day\* necessary to participate in the USAMRIID Student Intern Program.

Signature of Student

Date

Signature of Parent/Guardian

Date

Signature of School Coordinator

Date

By signing, the Coordinator ensures that the student has adequate time to devote to the Student Intern Program.

\*NOTE: When planning your senior year schedule, please keep in mind that participation in the USAMRIID Student Intern Program requires a minimum daily time commitment of three hours. There may be days when a longer time period may be necessary in order to complete a task. There may also be days when school is not in session that projects may require an intern to report to the lab. Please make sure you have read the information package carefully so you fully understand your time commitment (during the summer and the school year) and responsibilities to the Program as these are not negotiable and will take priority over all other activities. If you plan to take a full class schedule during your senior year or you have many sports or extracurricular activities to which you are committed, your participation in the Program will not be possible. Scientific interns must keep in mind that there will be times in the laboratory which might require your presence for more than the three hours stipulated if you are in the middle of a procedure or experiment that requires completion.

COMPLETE APPLICATION DUE:

January 13, 2017 to Transition Education Coordinator Teachers at each school

## APPLICATION FOR FORT DETRICK USAMRIID STUDENT INTERN PROGRAM

### *Program Information*

The USAMRIID Student Intern Program at Fort Detrick is designed to expose high school seniors to research in a Bioscience environment. The scientific interns experience the basic methods of research through hands-on laboratory training.

### **GENERAL INFORMATION**

1. Students selected as scientific interns will be trained at USAMRIID in laboratory techniques and safety procedures. The student will intern beginning on 19 June 2017 for a mandatory eight consecutive weeks forty hours per week break between their junior and senior years of school. Students completing the internship will receive four credits toward their State Diploma and a stipend of approximately \$2600 - \$3000. Students accepted into the program will have to apply/enroll in the Army Educational Outreach (AEOP) Science and Engineering Apprenticeship Program (SEAP). Additional details will follow in the acceptance notification.
2. Interns take the internship for four credits towards their State Diploma. Any exceptions to this must be approved by (1) the appropriate school system staff, (2) Student Intern Program mentor scientist, (3) school principal, and (4) the USAMRIID Student Intern Program Coordinator. If there is an exception to be processed, it is the responsibility of the school system to notify the USAMRIID Student Intern Program Coordinator.

Please Note: Students participating in the Student Intern Program will be required to reduce their home school course load to a maximum of two (2) classes per semester. It has been our experience that students taking a full class load cannot devote adequate time to their Student Intern Program obligation thereby creating concern for both the student and the research lab. The course load requirement is necessary to avoid inhibiting the productivity of the lab while providing an excellent educational opportunity for each student. Any exceptions to this requirement must be approved by the USAMRIID Student Intern Program Coordinator and appropriate school system staff.

3. Interns will be evaluated by the school coordinator or appropriate school system staff with quarterly input from the intern's Student Intern Program mentor. As part of their evaluation, Transition Teacher Coordinators will require interns to complete specific assignments related to their Student Intern Program internship.

### **Assignments May include the Following and are Determined by your Transition Education Teacher:**

- a. A Student Intern Program Project Planning Form (see sample attached) - This is a one-page description of the intern's overall objectives to be accomplished for the school year. This requirement will be due in September of the internship year.
- b. An Independent Project - This project will be directly connected to work completed in the lab and described in the Student Intern Program Project Planning Form, and will include a presentation in one of several possible forums which may include the local science fair, the Ft. Detrick/NCI-Frederick Research Festival, publication in a scientific journal, or other venue agreed upon by the school coordinator and the Student Intern Program mentor. The independent project is due in the spring of the internship year.
- c. An Internship Journal - This component will include copies of the intern's lab notebook pages (properly reviewed by the mentor regarding the release of proprietary information); **the Student Intern Program Mentor must initial and date their review**, and the intern will include a brief



(no more than one page) summary explanation of the lab notebook pages. The internship journal or mentor certification that it has been done will be collected **monthly** by the school coordinator or appropriate school system staff. *If the information contained in the journal is proprietary or the school coordinator or appropriate school system staff do not need to see the journal or the summary, then documentation signed and dated by the mentor that the journal has been submitted, reviewed, and is acceptable must be submitted by the intern.* This requirement is evaluated on the intern's Progress Report. ***Journals or appropriate documentation should not be submitted to the school coordinator or their representative until they have been reviewed and signed by the mentor. It is up to the Student Intern Program mentor, in consultation with the intern, as to when the lab notebook will be initiated (i.e., during the summer or at the start of the school year). The journal summary or mentor certification will be submitted monthly to the school system representative only after the start of the school year by the student intern.***

- d. Preparation of a College Application portfolio. This will include a resume, the SAT examination scores, written personal goals, and letters of recommendation. Student Intern Program mentors may choose to submit letters of recommendation, but are not required to do so.

These assignments will be completed outside the internship laboratory experience, although advice/guidance from the Student Intern Program mentor may be required to complete some components of the assignments. These assignments should not detract from the intern's time in the lab or impact their performance in the lab. As assigned by the school coordinator, copies of the assignments and pertinent related information will be provided to the Student Intern Program mentor. It will be the intern's responsibility to monitor due dates and ensure assignments are submitted to the school coordinator in a timely manner. The school coordinator will notify the Student Intern Program mentor as assignments are completed and, if possible, provide the Student Intern Program mentor with a copy of the completed assignment.

4. Each Student Intern Program mentor or appointed designee will work with the intern to establish their work schedule and duties prior to the start of the internship. The scientific intern will be expected to participate in a mandatory eight consecutive 40 hour week start to the internship during the summer before the next school year. During their senior school year, all interns will be expected to perform their assigned duties for at least three hours per day and may work either mornings or afternoons. However, the preference of the intern's Student Intern Program mentor will be taken into consideration with regard to morning or afternoon assignments. If the Student Intern Program mentor and student propose to work on the SIP project outside normal working hours (8:30 am to 5:00 pm), there must be a supervisor present to continue mentoring the student during that time. Interns are expected to arrive at the lab on time unless they have notified their Student Intern Program mentor and received approval for a late arrival.
5. During the school year, the normal school calendar will be in effect. Interns may be excused from their lab responsibilities on all days when the school system is closed (including inclement weather) after consultation with their Student Intern Program mentor, and on Federal holidays when Fort Detrick is closed (also including closure due to inclement weather). Participants must realize that their projects may require them to be in the lab on days that school is not in session. Interns are expected to notify their Student Intern Program mentors if they are not able to participate for both scheduled (holiday) and unscheduled (inclement weather) school closings or illness. Interns can request a Federal holiday schedule from their Student Intern Program mentors and may learn of Fort Detrick campus inclement weather closures by calling 301-619-7611 for a recorded message after 6:00 a.m. at the Fort Detrick website: [www.detrick.army.mil](http://www.detrick.army.mil)
6. There is no fee or charge for participation in the Student Intern Program. However, students are responsible for their own transportation to Fort Detrick and any meals or snacks they may need while on campus.

7. Relatives of Fort Detrick employees may be appointed. However, direct or indirect Student Intern Program mentorship between interns and relatives is not allowed. Furthermore, Fort Detrick employees may not advocate or participate in the review, evaluation or selection of any fellowship application involving a relative.
8. Prior to the start date of their appointments, all interns are required to visit their physician for a general health assessment and have the physician complete a written health assessment. Parental consent is mandatory for individuals under the age of 18.
9. The internship may be terminated at any time by USAMRIID, the intern, or the school system. A one-week notice will be given by the mentor prior to the effective date of the termination. It is the responsibility of the student to contact the Student Intern Program Coordinator and their school coordinator if they are experiencing problems associated with their internship and are unable to resolve them. The Student Intern Program Coordinator or their designee will work with the intern to attempt to resolve the problem(s) in the best interest of all parties involved.
10. The students selected for the bioscience program are required to complete a Student Intern Program Laboratory Safety Training Course at USAMRIID. This course is MANDATORY. Students who do not complete the course will not be permitted to work in USAMRIID laboratories.
11. Students participating in the Student Intern Program will be evaluated at the end of each quarter by their Student Intern Program mentors. Each Student Intern Program mentor will provide a written evaluation to both the student and their school coordinator based on the following areas: (1) willingness to perform assigned tasks, (2) performing assigned tasks in an acceptable manner, (3) punctuality, (4) commitment of time to their research, (5) ability to work without direct supervision, (6) ability to work cooperatively with others, (7) contributions to the program, and (8) overall performance.

In addition, each semester (not each quarter) (two total for the internship) students will be evaluated on an additional requirement to include, but not limited to, (a) presenting their project at one or more public scientific events, such as the NCI Fort Detrick Spring Research Festival, the Maryland Junior Science and Humanities Symposium, and/or the Frederick County Science Fair, (b) writing a paper and/or research proposal, and (c) presenting a paper or their research. Evidence of the completion of one of these requirements must be provided to the Student Intern Program mentor prior to the completion of their evaluation for that period. Student evaluations may also be based on weekly homework assignments given at the discretion of the Student Intern Program mentor. The homework assignments may include reading, researching a topic, evaluating a process, or any other topic relevant to the internship experience. Evaluation items are to be completed outside laboratory time or during “down time” in the lab.

Grades for students participating in the Student Intern Program will be assigned by their school coordinators or appropriate school official and will be primarily based on the written evaluations provided by the Student Intern Program mentors. However, additional considerations (class assignments, school attendance, etc.) may impact a student’s grade as determined by the school coordinator or appropriate school official.

12. Students should fully discuss this internship with their parent/guardian to ensure that the parent/guardian is aware of the nature of the program and the student’s responsibility to the program. The responsibility of the

student to this program is paramount and may impact other activities in which the student would like to participate. Careful consideration must be given to the amount of time the student is willing to dedicate to this intern program.

13. Questions regarding this program should be addressed to the FCPS Secondary Science Curriculum Specialist, (301) 644-5188 or MAJ Carl Soffler, USAMRIID Educational Outreach Coordinator at (301) 619-0369.

### **ELIGIBILITY REQUIREMENTS**

Students must:

1. **Be in their junior year of high school when applying and 17 years of age before 19 June 2017.**
2. Have successfully earned two credits in science and mathematics, all with grades of B or above. (See Item 4. for exception.)
3. Be enrolled in their junior year in both a science and mathematics course or have the equivalent of three math/science years of credits.
4. Have an overall un-weighted grade point average of 3.0 or greater (based on a 4.0 maximum). *Students with a GPA lower than 3.0 may apply if they attach a strong, detailed recommendation from either a science or math teacher describing why the student would be a good candidate for consideration. If special circumstances exist as to why the student's GPA is lower than 3.0, the teacher recommendation should address the reason. This recommendation is in addition to the application requirements and does not replace any of them. Please make sure that this attachment is identified as being part of the application package for that student.*
5. Be able to qualify for the Program which requires that the student be a U.S. citizen.

**There are no waivers to the age and citizenship requirements.**

### **APPLICATION PROCESS**

To assist you in ensuring that your application is complete, please use the *Cover Sheet and Application Checklist* included in this application package. All requested documents, as listed below, must be included in the application package, must be complete, and must contain the required signatures in order for the application to be considered complete. Incomplete applications will be returned.

**ATTENTION APPLICANTS: Return Application to Transition Education Teacher for Review: Jan. 9, 2017**  
**Complete Application Due to Transition Education Teacher: Jan. 13, 2017**

1. ***Cover Sheet and Application Checklist***, to be signed by an authorized school representative.
2. ***Parental Consent and Acknowledgement form***: Required for all interns under 18 years of age.
3. ***Student Data Collection Form with a copy of a Birth Certificate or US Passport*** attached.
4. ***Projected Senior Year Plan form***.
5. **Two teacher evaluations**: The form is attached. These forms must be completed by the student's current year science and/or mathematics teachers. The evaluations should not be shared with the students and should be provided to the students in a sealed envelope for submission with the application. Teachers must sign the forms. Hard copies of the form may be obtained by contacting Colleen Beall, Secondary Science Curriculum

Specialist , Frederick County Public Schools, 191 South East Street, Frederick, MD 21701 or by email at Colleen.Beall@fcps.org.

6. **Official school transcript:** This transcript must contain either an official stamp or be signed and dated by the individual providing the transcript to the student and in a sealed envelope. Transcripts that do not display either an official stamp or a signature/date will not be accepted.
7. **A letter from the student describing academic goals and career interests:** Do not reiterate your transcript; look toward the future, what you might like to be doing in the future and how you plan to get there academically. If you have several goals/career interests in mind, please list them. Mentors are looking for highly motivated, responsible, dedicated students who enjoy new challenges; keep this in mind when preparing your letter. Focus on reasons for wishing to participate in the Student Intern Program, and what you can bring to the program. Please be specific; do not use generalities like: because it looks good on a college application. Include hobbies and other areas of interest and participation you have outside of the school setting that may not have been identified in other parts of the application, including but not limited to organized programs and volunteer organizations. Provide relevant personal experiences that define you as an individual. Describe something important to you and how it affected you. Some examples are volunteering, a special teacher or other individual who has influenced or motivated you in some way, competitions entered, when you became interested in a subject you consider as one of your career goals including but not limited to science.

Remember, this letter is considered to be a critical part of the application package and should not be a reiteration of the resume or the transcript. Reflect yourself in this letter; do not repeat information that can be found elsewhere in your application. Mentors are looking for characteristics that make the applicant the unique individual that he or she is and also to gain some insight into the student's personality which a resume and transcript do not provide.

*It is recommended that particular emphasis be placed on completing this letter which should be no more than two pages double-spaced. Remember, this letter is a representation of you the applicant and the first contact you have with the program mentors.*

## **SELECTION PROCESS**

The Student Intern Program is a competitive program. The Educational Outreach Coordinator will review student qualifications, as submitted in the application materials, and distribute the information to the Student Intern Program mentors. Mentors will select the students from among the received applications and conduct an in-person or phone interview. The purpose of this process is help in the final selection of student interns and facilitating the best match of the student and mentor, recognizing that there are many more well-qualified applicants than the program can support.

## **RESPONSIBILITIES**

### 1. STUDENTS

- a. Appropriate attire, attitude, work habits, compliance with all USAMRIID safety rules, and punctuality regarding work hours is expected of all interns. Students must read and respond to, when appropriate, all Student Intern Program related e-mails and other correspondence that will be mailed to the student at their e-mail address.
- b. Scientific students are expected to make a firm time commitment to pursuing research as part

of their internship in the program. Because of this time commitment, students are strongly discouraged from attempting a full load of classes at their school in conjunction with participation in this program. Any such attempt must be reviewed and approved by appropriate staff in the participating school systems.

- c. Participation in outside activities is not acceptable if these activities interfere with the student's responsibilities in the Student Intern Program.
- d. Scientific interns must complete a mandatory USAMRIID safety training course prior to beginning the laboratory portion of the program.
- e. Scientific students are required to complete two assignments (as identified in GENERAL INFORMATION/Item 11) during the school year (one each semester).
- f. Students are required to complete weekly homework assignments, if assigned.

## 2. FREDERICK COUNTY PUBLIC SCHOOLS

- a. Submitting completed application packages of candidates to the Student Intern Program Coordinator.
- b. Participating in progress reviews with the student and Student Intern Program mentor at least once a semester and providing any necessary documentation to the SIP program mentor which would impact this evaluation.
- c. Ensuring that the Student Intern Program mentor is notified of any excused absence of the student from school and/or work.
- d. Communicating with school-based mentor-intern coordinators as necessary to assure a productive mentor-student experience.

## 3. USAMRIID EDUCATIONAL OUTREACH COORDINATOR

- a. Receiving the applications for the USAMRIID Student Intern Program from the school system.
- b. Review of the qualifications of each student, i.e., a review of the documents submitted by each student which verifies that the student meets all eligibility criteria.
- c. Distributing the applications to the Student Intern Program selection mentors/reviewers through their point of contact.
- d. Providing written notification to the applicants and school system regarding the selected and non-selected students.

## 4. MENTORS/LABS

- a. Reviewing and interviewing the applicants, following the Program criteria, and selecting students with consideration given to qualified minority applicants.
- b. Developing an appropriate training plan(s) for each intern and cooperatively working with the transition education teachers of each student.
- c. Establishing a participation schedule and duties mutually agreed upon and assuring that the intern is supervised at all times.
- d. Immediately reporting any intern injury to the Parent/Guardian, USAMRIID Student Intern Program POC, Fort Detrick Child, Youth, & School Services Liaison, Education and Outreach Services Director and the USAMRIID SIP Coordinator point of contact.
- e. Providing advice, guidance, and instruction to each intern under their supervision and evaluating progress in the training program with the intern, a school representative and a representative from the school systems at least once a semester, including a written quarterly progress report which is shown to, discussed with, and signed off by the student and SIP mentor prior to submission to the SIP Coordinator.
- f. Ensuring that interns receive and follow all necessary instructions in safety procedures and the proper use and care of animals and equipment.

- g. Monitoring daily attendance and contacting the school transition education teacher coordinator of the student's school directly in the event the intern is absent from work without prior notification from either the student or the school.
- h. Communicating with school-based mentor-intern coordinators as necessary to assure a productive mentor-student experience.
- i. Evaluating the student at specified time periods.
- j. Assuring the intern completes the Fort Detrick Clearance form and process by obtaining all the mandatory signatures, and assuming responsibility to get those signatures in the event the intern departs without properly completing the clearance process.
- k. Providing the student with weekly homework assignments, as appropriate. These assignments may include but are not limited to reading, researching a topic, evaluating a process, or any other topic relevant to the internship experience. These assignments will be included as part of the students' periodic evaluations.
- l. Providing the student with assistance in meeting the semester-based requirement to complete one of the following (or another activity approved as appropriate by the Student Intern Program mentor): presenting their project at one or more public scientific events, such as the NCI-Frederick Spring Research Festival, the Maryland Junior Science and Humanities Symposium, and/or the Frederick County Science Fair; writing a paper and/or research proposal; presenting a paper or their research.

**Fort Detrick USAMRIID Student Intern Program  
PROJECT PLANNING FORM SAMPLE**

**PROJECT PRINCIPALS INFORMATION:**

- a. Intern Name: \_\_\_\_\_
- b. Intern Mentor: \_\_\_\_\_
- c. Intern Lab Assignment: \_\_\_\_\_
- d. Project Plan Form Submission Date: \_\_\_\_\_

**PROJECT TITLE:** Specific Retroviral Detection by Primer Sensitivity

**OBJECTIVES:**

- a. To develop the primers containing the base pair sequence most sensitive for individual retroviral DNA/RNA detection.
- b. To test the primer sensitivity in the PCR (Polymerase Chain Reaction) assay.
- c. To develop a set of "universal primers" which detect several retro-viruses within a class and give equal signal strength in the PCR assay.

**METHOD OF INVESTIGATION:**

- a. Identify the already existent and current primers in use for an individual retrovirus.
- b. Determine the effectiveness of the primer by examining the PCR assay conditions that have been used with this primer set.
- c. Run the primers against positive controls at various temperatures and concentrations. Compare the sensitivity by log dilution of the template and identify each temperature that results in a strong PCR signal.
- d. The PCR should be tested in both the Perkin Elmer and MJ PCR machines. The cycle temperature can be varied by only changing this variable and not the time and number of amplification cycles in each assay. The machine that proves to be more sensitive may not be as sensitive when testing a new set of primers.
- e. Note and record the results of temperature, dilution of the viral DNA and PCR machine utilized with a specific primer sequence as to not confuse it with results obtained with another primer set.

**AFTER THE EFFECTIVENESS OF THE CURRENT PRIMERS IS DETERMINED:**

- a. Enter the specific virus or general virus class into the Blast find program through the Scientific Library and Internet. The number of "DNA/RNA base pairs must be specified and can be varied. Try to use the primers of a virus which best classifies the desired virus subtype.
- b. Note the specific sequence that is the best fit for a virus class.

**TESTING THE NEW PRIMERS:**

- a. The new primers are tested against the positive control with the same conditions of the original primers; the variable tested is simply the primers themselves. If the primers are working, the PCR reaction will show a positive signal because the primers will bind to the test DNA and amplify the target. The sensitivity will be displayed by the strength of the signal obtained when the acrylamide gel is run to visualize the product.
- b. Based on the results, the more effective primers will be the sets that produce a stronger signal in the same sample.

**FURTHER INVESTIGATION:**

- a. This procedure of increasing PCR sensitivity and subsequent DNA sequencing can be used in identifying and characterizing any retrovirus: SRV1, SRV7, HIV, SIV, HRV, etc.
- b. The primers can be tested against monkey and human viral DNA/RNA to see if the primers are equally effective against the same virus class that infects different species.
- c. The overall objective is to identify one set of primers that can equally detect all retroviral signals used commonly in the lab.
- d. The more effective PCR machine and temperature conditions may also be determined for each virus and eventually for the general PCR assay.

**TEACHER RECOMMENDATION FORM**  
**Fort Detrick USAMRIID**  
**Student Intern Program**

Name of Student: \_\_\_\_\_

Name of Teacher: \_\_\_\_\_

Teacher's Phone: \_\_\_\_\_

Teacher's Email: \_\_\_\_\_

Subject Taught: \_\_\_\_\_

**To the Student:** This form should be given to two or three of your teachers to whom you are assigned this year or last year.

**To the Teacher:** The student forwarding this recommendation form is applying for an Internship at USAMRIID. The interns will experience the basic methods of science research through "hands on" laboratory training. Students will be expected to perform their assigned duties for three (3) hours per day throughout the school year.

**It is essential in our selection process that you provide us with your candid assessment of the student. Please give this form to the student in a sealed envelope when you have completed it or no later than January 9, 2017. Thank you for your time and input to help students applying for this competitive internship opportunity.**

	<b>Outstanding</b>	<b>Above Average</b>	<b>Average</b>	<b>Below Average</b>
Quality of Work				
Ability to Work Independently				
Ability to Relate to Others				
Oral Communication Skills				
Written Communication Skills				
Creative Ability				
Self-Motivation				
Problem Solving Ability				
Organizational Skills				
Attendance				
On-time to class/school				
Timely submission of assignments				
Initiative				

**If you wish to, please comment on any of the above ratings:**

**Continued>>>>**



