

PITTSBURGH SUMMER INSTITUTE (PSI) SUMMER 2024 PROJECTS

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ADVANCED MOLECULAR LAB PROJECT



2024 Pittsburgh Summer Institute
Project Proposal



Preceptor Name	Viktoria Evdokimova	Phone	412-209-1578
Bureau	Allegheny County Health Department	Program	Public Health Lab
Practicum Location	3901 Penn Ave., Pittsburgh, PA 15224		
Project Summary			
<p>Multiple molecular tests are used in Advanced Molecular Section of Public Health Lab supporting epidemiological surveillance in Allegheny County. The specific aim of the project is for the PSI student to learn, observe and participate in day-to-day Public Health Laboratory operations.</p>			
Primary Activities and Deliverables			
<p>PSI student will assist microbiologists with molecular test performance , clean lab maintenance. Student will gain experience in molecular protocols and learn Public Health Lab policies and procedures. Student will create reports for the participating wastewater plants and summary reports for the county/NWSS dashboards. Upon participation in new tests development and validation, PSI student will learn protocols for the test validation and write preliminary test validation report.</p>			
Specific Qualifications			
<ul style="list-style-type: none"> • Computer skills: Excel, Word, Outlook, Access • Knowledge of aseptic and antiseptic technics, pipetting skills and use of personal protective equipment • Preferred qualification: Prior experience in a laboratory setting 			

ANIMAL BITES IMMUNIZATION



2024 Pittsburgh Summer Institute Project Proposal



Preceptor Name	Linda Henley Coats Lauren Brungo	Phone	412-578-7952 412-578-7901
Bureau	Clinical Services	Department	Immunization
Practicum Location	425 1 st Ave, Pittsburgh, PA 15219		
Project Summary			
<p>*Two students accepted for this project</p> <p>This is a surveillance project within the Immunization Program focused on surveillance and follow-up of reported animal bites in Allegheny County. All animal bite exposures are investigated, and recommendations are made for follow-up care and/or prophylaxis for rabies if needed. ACHD also provides testing for animals involved in human exposures to determine whether prophylaxis is needed. The PSI students will have the opportunity to develop important communication and data management skills, as well as interact with a variety of community partners and other governmental agencies, such as ACHD’s laboratory, hospitals, health care providers, and animal control. Rabies is almost always fatal – you will play a very important role in prevention.</p>			
Primary Activities and Deliverables			
<ul style="list-style-type: none"> • Follow up on reported animal bites (primarily conducted via telephone with clients) • Help oversee follow-up care and prophylaxis, if needed • Work with Animal Control and other community partners to ensure that testing is done in a timely and efficient manner • Help with any community outreach related to rabies prevention • Other duties as necessary <p>The PSI students will be expected to conduct timely follow-up calls for reported animal bites and oversee any follow-up treatment that may be necessary based on the information obtained from the report and interview with the client. This will be documented and added into a database, which the student can assist in the analysis. The student can also get involved in activities in the immunization clinic, if desired.</p>			
Specific Qualifications			
<ul style="list-style-type: none"> • An interest in learning about rabies and its impact on public health • Good oral communication skills and comfort talking to the public via telephone 			

ANIMAL BITES JOINT EPI & IMMUNIZATION



2024 Pittsburgh Summer Institute
Project Proposal



Preceptor Name	Kristen Mertz Linda Henley Coates	Phone	412-578-8323
Bureau	Data Reporting Disease Control & Clinical Services	Program	Infectious Disease Epidemiology & Immunization
Practicum Location	425 First Ave, Pittsburgh, PA 15219 542 Fourth Ave, Pittsburgh, PA 15219		
Project Summary			
<p>This project has 2 main components:</p> <ol style="list-style-type: none"> 1) Investigation of animal bites reported to ACHD to ensure proper follow up with pet owners and care of bite victims 2) Cleaning and analysis of 2023 animal bite data <p>Initially the work will involve investigating reports of animal bites by making telephone calls to pet owners and bite victims. The PSI student will then clean and analyze data from all reported bites in 2023, prepare tables and graphs, and write a summary report. Student will be stationed part time with the Immunization Program and part time with the Epidemiology group.</p>			
Primary Activities and Deliverables			
<ol style="list-style-type: none"> 1. Investigate animal bites reported to ACHD. Information is gathered primarily via telephone calls with bite victims, pet owners, and health care providers 2. Ensure that adequate care and prophylaxis are provided, if indicated 3. Work with animal control agencies and other community partners to ensure that testing or quarantine of animals is done in a timely manner 4. Clean the 2023 animal bite database (remove duplicates, look for irregularities) 5. Analyze data 6. Prepare tables and graphs for main variables of interest 7. Prepare a report of animal bites in Allegheny County in 2023 			
Specific Qualifications			
<ol style="list-style-type: none"> 1. An interest in learning about rabies and its impact on public health 2. Good oral communication skills and comfort talking to the public via telephone 3. Good data management and analytic skills; experience using SAS 			

CONDOM DISTRIBUTION



2024 Pittsburgh Summer Institute
Project Proposal



Preceptor Name	Charles Christen	Phone	412-592-1091
Bureau	Clinical Services	Program	HIV/STI
Practicum Location	1908 Wylie Ave, Pittsburgh, PA 15219		
Project Summary			
<p>The HIV/STI Program provides prevention and treatment services for the residents of Allegheny County for sexually transmitted infections (HIV/STI). This includes services provided by the ACHD Public Health Clinic located in Pittsburgh in the Hill District neighborhood. The clinic provides free scheduled appointments and walk-in visits for confidential STI screening including HIV, syphilis, chlamydia, gonorrhea, trichomonas, and hepatitis C. Treatment is offered for several STIs including chlamydia, gonorrhea, and syphilis. Linkage to care and partner services is provided by the ACHD Disease Investigation Specialists for HIV. Patients 13 years and older are treated, without the need for parental consent, and insurance is not necessary to receive treatment. Patients are treated regardless of immigration status, and language services are available.</p> <p>In addition to the services provided by the clinic, the program also provides prevention services through education and outreach programs. This includes the Condom Distribution Program and outreach to the public through health fairs, community presentations and community events. The program develops targeted advertising and social marketing for the prevention of STIs and HIV. Health Education may also involve contact with health care providers who desire to increase their STI testing capacity.</p> <p>The PSI student will have a cubicle in the Health Education program space and a laptop with access to the County server and resources.</p> <p>The specific role of the PSI student is to manage the Condom Distribution Program, conduct community outreach and assist the Health Educator in identifying new STI testing sites.</p> <p>The project will entail collaboration with the Health Educator to manage, identify new partners and respond and package requests for condoms from program partners. The PSI student will track and report on the program condom usage and quality improvement through the identification of need for improvement or waste. This report could include geo-tracking of where condoms are distributed in conjunction with the locations of positive infections of STIs.</p>			
Primary Activities and Deliverables			
<ol style="list-style-type: none"> 1. Manage condom supply through orders from PA DOH and Global Protect 2. Maintain the database of condoms ordered and delivered 3. Provide condoms to the partners according to the MOU with ACHD and identify new partners 4. Set up outreach events and conduct outreach in the community related to HIV/STI prevention 5. Attend health fairs and community events to provide education and prevention for HIV/STIs 6. Provide quality improvement reports and suggestions for improvement 7. Develop monthly reports on condom usage and where distributed 8. Create a geo map of condom distribution areas and areas of STI infection 			
Specific Qualifications			
<ol style="list-style-type: none"> 1. Comfortable speaking to and engaging with the public in community settings 2. Ability to professionally represent ACHD during interactions with community partners 3. Must be comfortable discussing the range of sexually transmitted diseases and how they are transmitted. This can include demonstrations on the proper way to put on a condom. Training will be provided. 			

CONDOM DISTRIBUTION

4. Ability to enter data into a database and maintain accurate information
5. Must own and operate their own vehicle and possess a valid driver license and insurance (Travel will be reimbursed).
6. Demonstrated ability to work on a team with fellow staff and supervisor.
7. Preferred: Knowledge about STI and HIV transmission and prevention. Training will be provided.

HEP C FREE ALLEGHENY



2024 Pittsburgh Summer Institute
Project Proposal



Preceptor Name	Jen Fiddner	Phone	412-578-8002
Bureau	Data Reporting and Disease Control	Program	Infectious Disease Epidemiology
Practicum Location	542 4 TH Avenue, Pittsburgh, PA 15219		
Project Summary			
<p>Most newly acquired hepatitis C (HCV) infections are associated with injection drug use. In 2018, the ACHD convened a group of stakeholders to establish an HCV elimination initiative, Hep C Free Allegheny (HCFA). Outbreaks of viral hepatitis and HIV are increasingly being identified among people who use drugs. To better understand the availability of viral hepatitis and HIV testing and treatment services to at-risk populations in Allegheny County, the ACHD conducts sentinel surveillance of service access at facilities serving individuals at high risk of infection. This project involves updating the existing survey, administering the survey, analyzing survey data, drafting a report summarizing findings and presenting on findings.</p>			
Primary Activities and Deliverables			
<p>The PSI student will review the existing survey and prior year results and draft recommendations for changes. They will develop the final survey in Qualtrics, refine a recipient list, and disseminate the survey. Although the survey is generally administered electronically, site visits may be required. They will analyze survey data, draft a report, and present findings both in person and virtually.</p>			
Specific Qualifications			
<p>The individual working on this project should be familiar with survey design and be comfortable using SAS to analyze data. They should be detail oriented and experienced in summarizing epidemiologic data and writing reports. Ideally, they would have some knowledge of Qualtrics and hepatitis C. The individual should have completed at least 3 epidemiology credits and coursework in SAS. Although site visits might be necessary, they should be accessible via public transportation, so a vehicle is not required.</p>			

LEAD RISK ASSESSMENTS



2024 Pittsburgh Summer Institute
Project Proposal



Preceptor Name	Stephen Strotmeyer Alyssa Monaghan	Phone	N/A
Bureau	Data Reporting and Disease Control	Program	Chronic Disease Epidemiology
Practicum Location	ACHD Administration: 542 Fourth Ave, Pittsburgh, PA 15219 ACHD Housing and Community Environment: 3190 Sassafras Way, Pittsburgh, PA 15201		
Project Summary			
<p>This project will involve preparing, cleaning, and assessing lead test result data from original reports and investigations for children under 6 years old to update the ACHD’s elevated blood lead level data for the current year. The goal of this project is to disseminate current data on blood lead levels through generation of relevant charts, tables, and maps and to gain an understanding of the current burden of elevated blood lead levels in the county.</p> <p>Hands-on instruction and guidance in PA NEDSS, SAS, and ArcGIS Pro will be provided for the development of charts, tables, and maps. These data will inform county lead inspection teams and community partners, and there will be opportunity to present these data.</p> <p><i>Note:</i> While we rely on the timely receipt of data, delays in acquiring current data may necessitate a restructuring of the PSI project. In this case, lead data from prior years will be used for further descriptive analyses.</p>			
Primary Activities and Deliverables			
<p>PRIMARY DELIVERABLES AND ACTIVITIES:</p> <ul style="list-style-type: none"> Final Elevated Blood Lead Level Dataset for Children <6 - Data will be pulled from records and investigations to create a final dataset with blood lead levels, type of blood test, and demographics, among other variables. The PSI student will provide descriptive statistics of this dataset Tables and Charts will be generated and used to update the ACHD website with the most current data Elevated Blood Lead Level Maps: Addresses from the data will be geocoded using ArcGIS Pro and ArcGIS online tools to map locations of elevated blood lead levels in the county <p>SECONDARY DELIVERABLES AND ACTIVITIES:</p> <ul style="list-style-type: none"> If the most current data is not available to be used, the intern will still perform a descriptive analysis of lead data and generate a report and/or maps with other available data 			
Specific Qualifications			
<ul style="list-style-type: none"> Must be able to commute to different offices, work is not remote Basic knowledge of SAS GIS experience preferred, not required 			

PHL WASTEWATER & AMF



2024 Pittsburgh Summer Institute
Project Proposal



Preceptor Name	Viktoria Evdokimova	Phone	412-209-1578
Bureau	Public Health Lab	Program	Public Health Lab
Practicum Location	3901 Penn Ave., Pittsburgh, PA 15224		
Project Summary			
<p>Advanced Molecular section of Public Health Lab conducts wastewater based epidemiological surveillance of circulation pathogens in the community and Acute Flaccid Myelitis surveillance projects. Multiple molecular tests are used in these projects. Test results are reported to the participating Wastewater Treatment Utilities and epidemiologists. Wastewater data organizing and analysis will be main aim of this internship.</p>			
Primary Activities and Deliverables			
<p>PSI student will enter past test results into the Wastewater Access database. PSI student will form research hypothesis and analyze historical wastewater data followed by writing analysis report.</p>			
Specific Qualifications			
<ul style="list-style-type: none"> • Computer skills: Excel, Word, Outlook, data entry • Statistical analysis • Scientific writing • Preferred skills but not required: Experience using Access and Visual Basic 			

PUBLIC HEALTH POLICY



2024 Pittsburgh Summer Institute
Project Proposal



Preceptor Name	Tori Baker	Phone	NA
Bureau	Food Safety, Housing, Overdose Prevention & Policy	Program	Public Health Policy
Practicum Location	542 4 th Avenue, Pittsburgh, PA 15219		
Project Summary			
<p>ACHD is committed to the promotion and enactment of policy that gives every resident of Allegheny County, particularly those most vulnerable, access to healthy choices and healthy communities. To do that we must: work in partnership with the Board of Health to make best use of the Department’s unique rulemaking responsibility under the law in Allegheny County; collaborate with our public health partners across the Commonwealth to ensure that policy decisions impacting the health of the community are informed by local public health; and support and empower municipalities to enact health policy at the local level.</p> <p>The focus of this internship is to enhance the Department’s public health policy work by assisting in the modernization of Department regulations and procedures. The intern will gain direct experience in the Department’s rulemaking process, supporting staff in the drafting of regulation revisions and in communicating new policies and procedures to both internal and external stakeholders. The intern will also research sustainable mechanisms to increase community member participation during the development and evaluation of policy, and work with relevant staff to plan for future implementation.</p>			
Primary Activities and Deliverables			
<ol style="list-style-type: none"> 1. Support the policy activities by performing public health policy research and outlining findings to program managers and leaderships. Example projects include: briefs on the regulation and enforcement mechanisms of sister jurisdictions and reports on current best practice for increasing civic engagement, particularly from vulnerable populations. 2. Under the supervision of Public Health Policy Specialist, create health policy communication tools for a variety of audiences, including area policymakers and the general public, that demonstrate the intersection of policy and health. 3. Assist in adapting existing health and policy materials to reflect changes in Department regulations and to better address local community concerns. 4. Strategize with the Public Policy team on methods to bring the work of the ACHD and public health generally to the attention of decision-makers and the public. 5. Collaborate with program managers, the Public Health Policy Specialist, and the Public Health Information Officer to present health policy communication materials to the public. <p>Deliverables include policy briefs, PowerPoint presentations and health policy communication materials.</p>			
Specific Qualifications			
<p>The PSI student should possess:</p> <ul style="list-style-type: none"> • A passion for promoting health equity and civic engagement • Strong research and writing skills • A basic knowledge of government and policy development • An interest in health communications and in local and national politics 			

PUBLIC HEALTH POLICY

- Demonstrated ability to work independently and as part of an interdisciplinary team

VECTOR CONTROL



2024 Pittsburgh Summer Institute
Project Proposal



Preceptor Name	J. Nicholas Baldauf	Phone	412-350-3893
Bureau	Food, Housing, Overdose Prevention and Policy	Program	Housing and Community Environment; Vector Control
Practicum Location	Housing & Community Environment Office 3190 Sassafras Way, Strip District, 15201		
Project Summary			
<p>*THE VECTOR CONTROL PROGRAM WILL TAKE TWO STUDENTS FOR THIS PROJECT.*</p> <p>This practicum opportunity is with ACHD’s Mosquito-borne Disease Control Program. The majority of the experience will be spent in the field trapping adult mosquitoes in Allegheny County to be tested for arboviruses such as West Nile Virus. For more information about mosquito surveillance in Allegheny County and Pennsylvania, visit www.depgis.state.pa.us/WNV/index.html.</p> <p>PSI students must be available to work from May 6th – Sept. 27th, 2024, Monday through Thursday for approximately 25-30 hours per week. There is a requirement for interns to work until Sept. 27th therefore flexibility will be given around class schedule once the fall semester begins. A personal vehicle for field work and a valid driver’s license are required (no exceptions). The Pittsburgh Summer Institute is sponsoring 300 hours for this practicum. After the initial 300 hours worked, the interns will be paid \$15/hour up to an additional 300 hours.</p>			
Primary Activities and Deliverables			
<p>PRIMARY ACTIVITIES:</p> <ul style="list-style-type: none"> • Mosquito surveillance (using gravid & BG Sentinel traps to collect adults; larval dipping) • Sorting and preparing mosquitoes to be shipped for laboratory testing • Database entry of surveillance results • Maintaining the equipment used for surveillance <p>POTENTIAL SECONDARY ACTIVITIES:</p> <ul style="list-style-type: none"> • Travel to statewide Vector Academy, hosted by PA DEP Vector Control (2 day educational / training event) • Tick dragging to survey for tick-borne diseases such as Lyme disease • Public interaction & education (e.g. door-to-door neighborhood outreach, responding to mosquito complaint calls, treating mosquito breeding habitat, neighborhood clean-up activities, educational tabling events, etc.) • Mosquito controls • Revising/creating vector control pamphlets & educational materials • Any other mosquito study that the interns would like to use for graduate thesis/essay material <p>PSI students will learn trapping locations from the preceptor for the first few weeks, and then trap on their own for the remainder of the summer. They will assist the preceptor in meeting a weekly trap minimum as set in the 2024 Mosquito-borne Disease Control Grant provided by the PA Department of Environmental Protection to ACHD.</p>			
Specific Qualifications			
<p>A valid driver’s license and personal vehicle are mandatory to transport mosquito traps to and from the field. Mileage will be reimbursed at the Pennsylvania Mileage Reimbursement Rate (currently \$0.655/mile) for the entirety of the practicum. PSI Students must be able to lift 50 pounds and be willing to haul traps in their personal vehicles that may get dirty and have an odor from the bait used to lure</p>			

VECTOR CONTROL

mosquitoes. The majority of time will be spent in the field therefore the students must be physically able to conduct such work for the duration of the summer. A personal GPS device would be helpful when driving around to locate trap sites. When interacting with the public, students must be able to professionally represent the Vector Control Program and provide information about the roles and responsibilities of the program.

OVERDOSE SURVEILLANCE



2024 Pittsburgh Summer Institute
Project Proposal



Preceptor Name	Earl Hord	Phone	412.208.0655
Bureau	Data Reporting and Disease Control	Program	Overdose Epidemiology
Practicum Location	Hartley Rose Building 6 th Floor		
Project Summary			
<p>This project will be completed within Overdose Epidemiology with the purpose of contributing to larger program goals around surveillance and analysis of data related to substance use and overdose death, as well as focusing on an analysis related to controlled substance prescribing, and its relation to fatal overdose.</p> <p>This individual will work alongside our team of epidemiologists and other DRDC personnel, as well as overdose prevention staff to complete this project. Background research of relevant articles on broad topics related to substance use, as well as those focused on opioid prescribing will be required in order successfully complete the project.</p>			
Primary Activities and Deliverables			
<ul style="list-style-type: none"> • Brief literature review of relevant articles related to substance use and prescribing • Descriptive and statistical analysis of controlled substance prescribing as a risk factor for overdose death • Summary of analysis findings to be presented to epidemiology and prevention staff • Perform other analytic tasks as required 			
Specific Qualifications			
<ul style="list-style-type: none"> • Knowledge of statistical methods • Data management and analytic skills • Experience with SAS or other statistical programming software 			