

[www.nau.edu/pmi](http://www.nau.edu/pmi) No application deadline – they are accepted on a rolling basis

*This is **your** opportunity...*

# Be a part of an internationally renowned research facility

Engage your mind, build your professional skills, make a lasting contribution, and experience unique opportunities



## Pathogen & Microbiome Institute (PMI)



### Working at PMI provides opportunities to:

- Do cool things
- Be involved in publishable research
- Experience professional mentorship
- Build your professional skills and networks
- Expand your professional opportunities

The Pathogen & Microbiome Institute (PMI) at NAU is an internationally recognized research facility focused on developing technologies to better understand and manage pathogens that affect humans and wildlife.

PMI is committed to the professional development of undergraduate student employees and accept students from diverse departments (Biology, Chemistry, Computer Science, Business, etc.). Students in our program work on exciting research projects or provide logistical support (business office, and IT) under the careful mentorship of faculty (professors), staff scientists, and associate directors ([see students' research statements](#)).

There are over 100 faculty, full time staff, graduate and undergraduate students currently conducting research at PMI. **Don't miss this opportunity to apply and expand your horizon.**



## PMI student success stories...



**Austin Dikeman, February 2016- May 2018**  
**Currently studying abroad in France**  
**Plans to enroll in Graduate School**

Research Undergraduate Student  
Majors: Biology and French  
Minor: Chemistry

**Opportunities:**

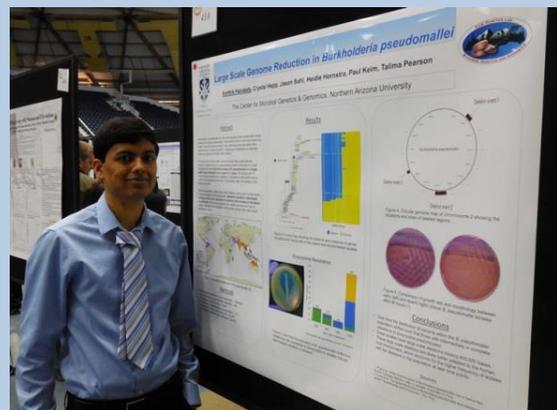
- Applied and awarded the Goldwater Scholarship
- Applied and awarded a student grant
- Will be a co-author on several publications
- Developed technologies

**Karthik Handady, May 2013- May 2015 (Undergrad)**  
**Currently in Graduate School**

NAU - Computer Science. Minor in Biology

My research contribution consisted of performing cutting-edge bioinformatical analyses (using algorithms and software to identify useful information) on data generated from the lab. I will be a co-author on several manuscripts containing data from my computational analyses.

My research primarily focused on the evolution of *Burkholderia pseudomallei*. Working at PMI has sharpened my analytical and programming skills.



**Madeline Lummis, November 2012 - Dec 2015**  
**Currently working as a medical scribe at OrthoArizona**  
**Will pursue my Masters in Physician Assistant Studies**

NAU - Biomedical Sciences

Due to my contributions at PMI, I am a co-author on two publications. I got the opportunity to investigate the antibiotic resistance properties of *Burkholderia pseudomallei*, the causative agent of melioidosis. This research experience really complemented my interest in clinical medicine.

I learned techniques, analytical strategies, and organizational systems that have professionally prepared me for my next career stage.

## **PMI General Job Description:**

- Perform research to support grant-funded projects at PMI in one of the following fields:
  - Genetics/genomics
  - Protein/immunology
  - Bioinformatics/computational analysis
- Undergraduate research is conducted under the direction of an immediate supervisor
- Present a research poster at the annual NAU UGRADS symposium.

## **Basic Requirements:**

- Must be a full-time NAU undergraduate student in good academic standing.
- Must commit to a minimum of 12 full months of employment.
- We welcome applications from freshmen, sophomores, juniors, and seniors who can make the minimum 12 month commitment.

## **Expectations:**

### **Research Project Duties:**

- Perform research to support grant-funded projects at PMI.
- Specific molecular techniques depend on supervisor's project needs. Examples include PCR, DNA sequencing, protein techniques, bioinformatics computational analyses, preparation of chemical stock solutions, and other highly specialized procedures required by your project.
- Computer data entry, keeping a detailed and organized lab notebook, writing protocols, and performing calculations for lab work.
- Follow technical procedure protocols; trouble-shoot technical problems.
- Comply with all biosafety and security protocols.

### **General Laboratory Duties:**

- Tasks related to upkeep of lab instruments and computers.
- Contribute to routine lab cleaning every 2 weeks or as needed.
- Resupply lab reagents and supplies by placing orders as needed.
- Lab maintenance (washing laboratory glassware and equipment, and recycling cardboard and styrofoam).
- Take out lab trash (on a rotation basis).
- Filing paperwork, conducting office-related tasks, and generally keeping the office area clean.

### **Professional mindset:**

- Be committed and dedicated to the job.

## UNDERGRADUATE RESEARCH ASSISTANT APPLICATION PACKET - PMI

- Be prepared for training, evaluation, and technical certification for all procedures and instruments.
- Be open to instruction and feedback.
- Be self-motivated, responsible, and accountable.
- Be proactive. Think ahead –towards logistical processes, technical challenges, and professional relationships.

### Professional Conduct:

- Fulfill job commitments.
- Communicate with supervisor all relevant work-related information in a timely manner (project or logistical information, project progress, planned or unexpected absences, and other relevant topics deemed important by your supervisor).
- Communicate with other lab members in a timely manner.
- Work as a team with colleagues. Communicate clearly, agree on plans, provide support on multiple projects, and follow through on commitments.
- Practice an effective personal organization strategy. Focus on tasks at hand.
- Interact in a respectful and positive manner with other lab members and teammates.

### Positional Duties:

- Work with supervisor to setup a weekly work schedule and commit to work those dedicated hours.
  - No less than 15 hrs per week. The most successful students engage in 20-25 hrs of research weekly
  - Summertime work is also important for success and is supervisor-dependent
- Attend weekly lab meetings.
- Attend and actively participate in (come prepared, fulfill assignments) undergraduate meetings that cover professional development topics that occur every 2 weeks.
- Sign up for BIO485 to receive research credits during Fall and Spring semesters.

Additional Materials Required for Application (page 7)

## PMI Undergraduate Research Assistant Application

Date: \_\_\_\_\_

Name: \_\_\_\_\_  
(Last) (First) (MI) (NAU ID#)

Phone: \_\_\_\_\_ NAU Email: \_\_\_\_\_

Local Address: \_\_\_\_\_

Permanent Address: \_\_\_\_\_

Major: \_\_\_\_\_ Minor: \_\_\_\_\_

Cumulative GPA: \_\_\_\_\_ Current Semester (in college) GPA: \_\_\_\_\_ Credits Completed: \_\_\_\_\_

Current Class Status:  Freshman  Sophomore  Junior  Senior

Anticipated Graduation Date: \_\_\_\_\_

How did you learn about this job? \_\_\_\_\_

Do we have permission to copy your NAU transcript?  Yes  No

Which campus do you prefer to work at?  
 NAU campus only  
 TGen North campus only  
 Either

Are you eligible for Federal Work Study?  Yes  No

Will you agree to a background check?  Yes  No

Select areas that interest you (can select more than one):  Life science emphasis  
 Computer and programming emphasis  
 Business administrative support  
 IT administrative support

**UNDERGRADUATE RESEARCH ASSISTANT APPLICATION PACKET - PMI**

**Previous Employment Experience:**

<b>Employer</b>		<b>Supervisor</b>	
<b>Job Title</b>		<b>Supervisor Contact #</b>	
<b>Employment Dates</b>			
<b>Responsibilities</b>			
<b>Employer</b>		<b>Supervisor</b>	
<b>Job Title</b>		<b>Supervisor Contact #</b>	
<b>Employment Dates</b>			
<b>Responsibilities</b>			
<b>Employer</b>		<b>Supervisor</b>	
<b>Job Title</b>		<b>Supervisor Contact #</b>	
<b>Employment Dates</b>			
<b>Responsibilities</b>			

**Other References:**

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

Relationship: \_\_\_\_\_

Phone: \_\_\_\_\_

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

Relationship: \_\_\_\_\_

Phone: \_\_\_\_\_

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

Relationship: \_\_\_\_\_

UNDERGRADUATE RESEARCH ASSISTANT APPLICATION PACKET - PMI

Phone: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Additional Materials Required for Application**

- A. Please attach a separate, typed essay addressing the following questions in separate paragraphs:
  1. Please describe how your previous work experiences (preferably) or class experiences have developed your professional skills thus far.
  2. Why are you interested in further developing your professional, intellectual, and personal skills through science research and discovery?
  3. Please describe a time or situation with a job, an organization, or class where a lot of responsibilities were placed on you and you experienced challenges. Please carefully describe why the situation was a challenge. How did you manage the situation?
- B. Include a weekly schedule of your available work hours (Example: Mon-Fri schedule when you are available for work).
- C. Include a copy of your resume with your application.
- D. Include Unofficial transcripts of all College courses you have taken.
- E. Submit a letter of recommendation from a professor or professional mentor in a sealed signed envelope (*Recommendation should have original signature and be on letterhead if possible*) – **if a freshman, then a former high school teacher/coach is fine.**

**Submit the completed PMI application packet (page 5-7) and hand-deliver it to PMI during business hours at:** The Applied Research & Development (building #56) PMI Business office (suite 210) located on the 2<sup>nd</sup> floor. Incomplete packets will not be reviewed. For questions, direct your email to [Dawn.Birdsell@nau.edu](mailto:Dawn.Birdsell@nau.edu) and copy email to [pmi@nau.edu](mailto:pmi@nau.edu)

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**FOR STAFF USE ONLY**

Essay       Recommendation       Work Schedule       Unofficial Transcript

Resume       NAU Background Check       Reference Check

Received on:      Interview (date/time):

Hire? YES  NO       Notified (date/by):

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