**Activities**

I anticipate the execution of the research aims laid out in this application will take 5 years. I will spend my time accordingly:

**Year 1:**

Classes 60%

Research 30%

Literature Review 5%

Writing 5%

In my first year I will be completing coursework for my PhD, which is as follows:

**Fall**

|  |  |  |  |
| --- | --- | --- | --- |
| Class | Description | Schedule | Hours/Week |
| IMUN 506 | Immune Mechanisms | MON 12-3,WED/FRI 1-3 | 7 |
| IMUN 599 | Faculty Research Seminar | THURS 12-1 | 1 |
| IMUN 601 | Cellular Immunology | TUES 9-10:30 | 1.5 |
| BIOM 600 | Cell Biology and Biochemistry | M/W/F 10:30-12 | 4.5 |
| Journal Club |  |  | 1 |
| Total Hours |  |  | 15 |

**Spring**

|  |  |  |  |
| --- | --- | --- | --- |
| Class | Description | Schedule | Hours/Week |
| BIOM 555 | Eukaryotic Gene Expression |  | TBD |
| BIOM 611 | Biological Data Analysis |  | TBD |
| IMUN 507 | Immune Functions |  | TBD |
| IMUN 599 | Faculty Research Seminar |  | 1 |
| Journal Club |  |  | 1 |
| Total Hours |  |  | 15 |

I anticipate that preparation for my coursework outside of the classroom will take a further 10 hours per week. Time spent carrying out research during my rotations will be approximately 15 hours per week during which I will be generating preliminary data, developing my research aims, and applying to fellowships. The rest of my time will be spent reviewing the primary literature. I will also begin laboratory rotations. My first rotation will be in the lab of Dr. Golnaz Vahedi with whom I anticipate I will eventually be conducting my thesis research. My second rotation will be conducted in a lab that Dr. Vahedi and I believe will be a useful counterpart to the dry lab research. I will also prepare for my preliminary exam that will take place at the end of the first year. This preliminary exam is a half-hour, chalk talk-style presentation in a closed session before an examining committee composed of immunology faculty.

**Year 2:**

Research 40%

Classes 40%

Writing 10%

Qualifying exam 10%

Conferences: 1%

In my second year I will continue to complete coursework for my PhD, as well as prepare for my qualifying exam. My course load is as follows:

Fall:

|  |  |  |  |
| --- | --- | --- | --- |
| Class | Description | Schedule | Hours |
| Elective | TBD |  |  |
| Elective | TBD |  |  |
| Total Hours |  |  | 10 |

**Spring**

|  |  |  |  |
| --- | --- | --- | --- |
| Class | Description | Schedule | Hours |
| IMUN 899 | Predissertation |  |  |
| IMUN 607 | Grant Writing |  |  |
| Total hours |  |  | 10 |

Starting my second year I will have the option of taking electives as part of my coursework. An interdisciplinary research project as the one I am undertaking will require knowledge in multiple fields. Thus I plan on taking elective courses offered by the computational biology and genomics group here at the University of Pennsylvania. I will also prepare for my qualifying exam, which will be carried out in the middle of fall semester of my second year and consists of a short paper and a presentation to the immunology community. I will also begin to attend scientific conferences to present the preliminary results of my research project and network with potential collaborators. I will undertake a third laboratory rotation in another potential lab.

**Year 3:**

Research 80%

Upon completion of the required coursework, qualifying exams, and rotations I will settle down in my thesis lab and spend the majority of my third year on research concerning Aims 1 and 2 of this application.

**Year 4:**

Research 80%

Writing 20%

Conferences: 1%

I will continue to spend the majority of my time performing research concerning the aims of this application. In addition I will spend 20% of my time preparing manuscripts for publication in peer-reviewed journals. I anticipate that at least one manuscript will be completed within this year of fellowship. I will continue to attend scientific conferences to share my work and gain insight from other scientists.

**Year 5:**

Research 80%

Writing 20%

Conferences: 1%

Post-doctoral candidacy <1%

During my final year of this fellowship, I plan to spend 80% of my time performing research completing the aims of this application. I plan to spend the remaining time preparing additional manuscripts for publication in peer-reviewed journals. I will also gain permission to write my graduate dissertation from my thesis committee and defend my dissertation at the end of my fifth year. I will use a portion of this time seeking out post-doctoral research position at an academic institution to continue my research training.