

# **THE PLANT PATH GRAD STUDENT HANDBOOK**

**OR**

## **"EVERYTHING YOU ALWAYS WANTED TO KNOW ABOUT PLANT PATHOLOGY AT CORNELL"**

Compiled by The Plant Pathology Graduate Student Association, Cornell University

Updated September 29, 2010

### **INTRODUCTION**

This handbook was compiled from suggestions and ideas provided by graduate students in the Field of Plant Pathology. It is a lighthearted, but honest, summary of information we think you will find helpful. Read through it right away; some information may be useful to you immediately.

The Field of Plant Pathology and Plant-Microbe Biology at Cornell University is comprised of numerous facilities and faculty members housed at several different locations spread across the Ithaca campus and other locations within New York State. The main body of the field is made of the departments of Plant Pathology at Geneva and at Ithaca. Adjunct faculty are located at the Boyce Thompson Institute for Plant Research (BTI), in other Cornell academic departments (such as Plant Biology), at the USDA research facility on the Cornell campus, at Wells College, and at Pennsylvania State University. Additionally, some faculty members are located at various locations in New York, including experiment stations near Lake Placid, the Hudson Valley, and Long Island.

The Geneva and Ithaca departments have separate administrations and funding. Some adjunct faculty members are associated with the Ithaca department, while others are associated with the Geneva department. This separation of the Field into many different departments and locations can be very confusing, but remember that all of them are united under the Field of Plant Pathology at Cornell University, and a graduate student in the Field may be mentored by any of these faculty.

### **CHAPTER ONE: ARRIVAL AT CORNELL**

When you are accepted to Cornell you will be assigned a student host who is available to answer any questions you have about grad school life and can offer advice about preparing for your move to Ithaca. Once you arrive, either your host or some of the New Student Coordinators will show you around the department and help you adjust to your new surroundings as quickly as possible.

You are strongly encouraged to arrange housing before you arrive, as it will be difficult to find affordable housing right before the start of the fall semester. Housing is

expensive! For example, in Ithaca, rent for a single bedroom apartment ranges from \$600-800 and rent for a two bedroom apartment ranges from \$750-950. Sharing a house with several other people usually costs about \$300-500 per person and on-campus housing in one of the graduate dorms (Sage, Schyler, the Oaks, for example) is about the same. There are two apartment complexes operated by the university, Maplewood Apartments and Hasbrouck Apartments, and both have single and family units available. The cost is approximately \$750 for a single unit and this includes everything except parking, phone and cable. Cooperative houses (10-20 people in a house who usually dine together) range from \$200-250. The Off-Campus Housing Office, (607) 255-5368, is very helpful if you are looking for housing off campus. Visit their website at [http://campuslife.cornell.edu/graduate\\_housing/default.asp](http://campuslife.cornell.edu/graduate_housing/default.asp). You may also find the private business Housing Solutions ([www.housingsolutions.com](http://www.housingsolutions.com) or (607) 272-6091), helpful in this area. The Ithaca Craigslist is also a good source of apartment listings.

In Geneva there is some housing available at the experiment station: family units range from \$350 to \$500 (plus utilities), and four bedroom homes are rented out at \$170 per person (including utilities, telephone, and cable TV). Students who plan to live in station housing are encouraged to request housing at least six months in advance of moving to Geneva, as there is usually a waiting list for these units. Other housing in Geneva is generally a bit less expensive than in Ithaca. Since all new students have course requirements in Ithaca, it is likely you will be living and taking classes in Ithaca for the first two years at Cornell, regardless of whether you choose to work in Ithaca or Geneva.

In order to assure that your funding is secure for the academic year, also check in with the Administrative Managers of the department. This is especially important if you have been offered financial assistance from either the Ithaca or Geneva departments. Please contact Tracy Holdridge, (607)255-5474, if you believe that you will be an Ithaca-based student or Janice Valerio, (315)787-2331, if you will be a Geneva-based student.

Also, when you arrive, be sure to contact Jackie Armstrong who is in charge of desk assignments. She will assign a desk for you in one of the graduate student offices in Ithaca. Be sure to ask for a key to your desk so that you can secure your possessions. Every grad student is guaranteed a desk.

Before classes begin, the Geneva and Ithaca Departments will hold an orientation session, during which you will be introduced to the departmental facilities, faculty, etc. A new student picnic will be held so that you can get to know the other new students and some of the veteran students. You will also register with the Graduate School during your first week, and have a prescriptive interview with some of the faculty to determine your course background and to discuss your research interests. These will be covered in subsequent chapters.

CHAPTER TWO: University Registration (not to be confused with course registration):

· Fall

All NEW graduate students must check in with the Graduate School table at Bartels Hall to pick up their Student Packets on Registration Day (after that day pick up Student Packets in 143 Caldwell Hall). There will be a New Student Coordinator (a current PPPMB student) to help you do this. It is during this time new graduate students will receive a packet containing the following: your student I.D. card (if you sent in the form and a picture during the summer), your parking permit--optional (if you already sent in the form during the summer), your Cornell User I.D. (which is your initials followed by a number), and other miscellaneous information, some of which may indicate a hold on your registration (see below about what to do if this happens to you). Your Cornell I.D. card will also serve as a TCAT OmniRide bus pass, so that you receive free bus service for the first year of your Cornell studies. If you did not send in information for your student I.D. card or for a parking permit, you will have the luxury of getting them at registration where there will be long lines, so scrounge up some patience. Several information booths will be set up during registration regarding various activities one of them being off-campus e-mail access. Take your time and explore.

Continuing Graduate Students at Cornell should check Just the Facts on Bear Access (student services folder) to see if you are registered with the university or if you have any "holds" preventing registration. Clear all holds through the office that placed the hold. Use Just the Facts to confirm holds have been cleared. Please note that completion of course pre-enrollment during the spring semester does not mean you are automatically registered with the university for the fall semester.

Summer registration is required by ALL students who will be receiving some sort of financial assistance during the summer. Summer registration, which is during the last three weeks of May, is required for use of the health center (Gannett) and other campus facilities. If you do not register for the summer, your paycheck will be deducted for FICA.

### **Tuition**

If you have an assistantship or fellowship, you do not pay your tuition. However, you will still be expected to pay the university activity fee (\$35 per semester). Check to make sure your tuition is paid on time via just the facts. If it is not, you might be assessed a late fee. You are not responsible for this fee; call the Bursar's office to have it removed sooner rather than later.

### **Holds**

If you have a hold on your bursar statement then you must register and clear the hold in the field house during the last week of August. A "hold" can mean any of the following:

Your funding hasn't cleared official channels. Foreign students should note that checks drawn on a non-US bank will take at least two weeks to clear. Try to arrange for its

arrival at Cornell earlier or you will not be allowed to register. Late registration will cost you an additional \$200.

A medical hold may be in effect if you have not provided evidence of having had various vaccinations (e.g. rubella, tuberculosis (BCG) and measles). The University takes this precaution because of recent epidemics at some colleges. Foreign students, in particular, may need to provide a chest X-ray. If you cannot provide this medical documentation, you will need to go to the health center and have the vaccinations done again.

If you have an outstanding balance on your Cornell Card, an on-campus credit card-like system, you will have to pay at registration in order to register. Accounts from the previous semester must be paid in full before you can register for the upcoming semester.

### **Course Registration**

Graduate students can register for classes at any time during the first three weeks of classes. This allows you the opportunity of trying out a number of courses before committing yourself for the semester. Continuing graduate students at Cornell can pre-register for classes through the Bear Access computer system during the last part of the previous semester, but registration does not begin until the week before classes start. Graduate students can also register for classes at any time during the first three weeks of classes. This allows you the opportunity of trying out a number of courses before committing yourself for the semester. If you have pre-registered for classes but then decide to change the classes you are taking, you can add, drop and make changes to courses on-line through Just the facts within the deadline dates. Only if a course requires instructor's permission will you usually need to fill out the paper add/drop form, but this depends on what your advisor has specified with the college. But it's probably a good idea to check with your advisor before making changes to your schedule anyway. If you have to fill out the paper add/drop form you will need signatures from your advisor (or the Field Representative Michael Milgroom if you do not yet have a committee) and a representative of the department from which the course is offered (usually one of the administrative assistants for that department can do this).

NEW students who are entering in either the fall or spring semester can also register on-line. Usually your first semester class schedule will be determined at your prescriptive interview (see below). Nevertheless, all necessary information and forms are available at Graduate School located in Caldwell Hall.

### **Car Registration, Parking, and Public Transportation**

All faculty, staff, and students MUST register their vehicles whether or not they buy a parking permit. Registration is not a parking permit and provides no parking privileges, but it does ensure that the owner or operator may be identified rapidly and contacted if necessary. If you want to park on campus during business hours without getting a ticket, you must buy a parking permit. **PARKING IS EXPENSIVE!!!** Parking permits for graduate and professional students are about \$688 regardless of what lot you are parking

in. For more information on parking, contact the Traffic Bureau at 116 Maple Ave., (607) 255-7275, or refer to their website, [www.transportation.cornell.edu](http://www.transportation.cornell.edu).

Because of the high price of parking, most graduate students either walk, bike, or take the bus to campus. Ithaca's bus service is called Tompkins Consolidated Area Transit (TCAT), and it provides service to many locations in the Ithaca area. Your first year as a graduate student you will be able to ride TCAT buses for free, by swiping your student ID card when you get on the bus. After your first year, you can purchase an OmniRide pass, which allowed you unlimited bus use throughout the Ithaca Area for \$200/year. Visit them at [www.tcatbus.com](http://www.tcatbus.com) or through the Cornell transportation site.

## **CHAPTER THREE: FUNDING**

### **Assistantships**

If you were notified that you will receive a Research Assistantship through the department, you must be placed on the payroll. See Tracy Holdridge in Ithaca, or Janice Valerio in Geneva - they are the Administrative Managers of the Ithaca and Geneva Plant Pathology Departments, respectively. Processing can take as long as one month, and the sooner you sign in the sooner your checks will arrive. You will get paid on the 15th and 30th of every month through direct deposit into your bank account. You can sign up for direct deposit at [www.univco.cornell.edu/payroll/](http://www.univco.cornell.edu/payroll/). Those students whose funds are administered through the graduate school must pick up their checks in Caldwell Hall at the Fellowship Office. Direct deposit is also available through Caldwell. International students with a J-1 visa should go to ISSO for an I-9 form if they are receiving department funding.

Some students prefer to arrive some time during the summer, and in some cases summer funding can be arranged. This can, by the way, be a good time to work on rotations (which are explained later in the Handbook). Contact the Director of Graduate Studies, Michael Milgroom, if you would like to arrive in Ithaca earlier but are concerned about summer funds.

### **Fellowships**

If you have been awarded a Cornell Fellowship, you must contact the Fellowship Office in Caldwell Hall when you arrive in Ithaca. Generally fellowship funds are provided as lump sums at the beginning of each semester, rather than on a bi-weekly basis, as is the case with department Research Assistantships. Even though you may be supported on departmental funds, you are generally encouraged to apply for prestigious fellowships or other external funding. The Graduate School maintains a fellowship database for such funding at [www.cornell.edu/Student/GRFN/](http://www.cornell.edu/Student/GRFN/).

### **Student Loans**

Graduate school financial aid web page:  
[www.gradschool.cornell.edu/f\\_and\\_fa/f\\_and\\_fa.html](http://www.gradschool.cornell.edu/f_and_fa/f_and_fa.html)

Graduate students may apply for both federal and private educational loans. Federal loans are limited to those who are U.S. citizens or permanent residents. International students may be eligible to apply for private loans with a U.S. co-signer. Federal loans are much easier to obtain for graduate students than for undergraduates. FAFSA is shorter and less detailed, and you no longer have to fill out information about your parent's income. You may be eligible for up to \$8500 in subsidized loans, which earns no interest while in school, and even more in adjustable rate unsubsidized loans.

In general, private loans have interest rates higher than those of federal student loans and interest typically accrues from the date you take the loan. Four private loan agencies have web sites:

- CitiAssist
- Grad Achiever
- Grad Access
- Nellie Mae Excel

### **Changing Advisors: Some Warnings**

In some cases a student may decide to change programs after initiating a project with one professor. Switching programs may have some consequences for your funding, mainly because of funding splits. Because Cornell-Ithaca, Cornell-Geneva (Agricultural Research Station), and the Boyce Thompson Institute for Plant Research (BTI) are distinct departments, they have separate sources for funding. If you are working with a professor in Ithaca and your funding comes from Cornell-Ithaca, changing to another Ithaca-based professor is easier if you wish to change programs. Likewise, if you begin in Geneva or at BTI, you may have to switch to a program within that department. For a student from Geneva to come to Ithaca, new funds must be allocated from Ithaca's program. The allocation MAY be possible IF funds are available, or if your new advisor is able to provide your funding from his/her own program. It might be best to talk with the person to whose program you would like to change, since the move may be contingent on funding. You should also talk with Dr. George Hudler the Department Chair in Ithaca or Dr. Harvey Hoch the Department Chair in Geneva.

### **Traveling to Professional Meetings**

The departments will usually provide one car, including gas, for every four students wishing to attend a national or regional professional society meeting, whether they are presenting a paper or not. Some meetings provide travel grants on a competitive basis. For example, The American Phytopathological Society provides a minimum of 20 travel

grants of \$400 each for students who plan to present posters or talks at the national meeting (<http://www.apsnet.org/foundation/travelgrant.asp>). The Graduate School also provides funding (maximum amount of \$600 for travel expenses, lodging and meals) for students to attend meetings if they are presenting a paper.

([http://www.gradschool.cornell.edu/pubs\\_and\\_forms/Forms/FinancialForms.html](http://www.gradschool.cornell.edu/pubs_and_forms/Forms/FinancialForms.html))

Note: The application deadline is the first day of the month proceeding the month in which the conference is scheduled. For example, for a conference in March, the deadline for submitting travel grant applications is February 1. In general, the opportunity to attend a professional meeting is largely determined by your major advisor.

## **CHAPTER FOUR: PROGRAM OF STUDY**

### **Thesis Projects**

If you have a specific project in mind when you arrive, chances are good that you'll be able to work on that project or on a similar one. Most of the faculty are very interested in what interests you. If your goals are unclear now, the Graduate Faculty Representative or your professor may guide you into a project, but the final choice is yours.

### **Special Committees**

Since the Special Committee plays such an important role in the life of graduate students at Cornell, the following suggestions were offered by some of the older and wiser students on what to consider when choosing your special committee:

Take your time in selecting a committee (you have at least 6 months to do so), and seek out the advice of other students who work with or have worked with professors that you are considering for your committee. You will want to be sure that potential committee members are willing and able to provide ideas, time, MONEY (for equipment and travel), supplies, and greenhouse and/or growth chamber space. Also, make sure you know what their expectations of YOU will be. Good rapport, with both you advisor and research group is a must! Until you form a committee, or at least a chairperson, Michael Milgroom (Director of Graduate Studies) will sign the required forms, and he will be happy to talk with you about possible research programs and committee members.

You are expected to meet with your committee regularly to update them on your accomplishments and research progress, although this also varies based on your committee. Because professors have notoriously bad memories for details of their student's projects, giving an outline of your accomplishments and projections of the next six months or so to your Special Committee will be helpful for all of you. Regular meetings also give you the opportunity to identify idiosyncratic members of your committee in advance of exam time. A special warning in case you have problems with your committee: NEVER discharge your committee chairperson from your committee BEFORE you have found another professor willing to serve as your new committee

chairperson! Once you have formed a committee, your tenure as a graduate student is dependent on its continued existence. That is, if it falls apart and you are not able to reconstitute it within a certain period of time, you will be discharged from the graduate school.

### **Minors**

You must choose minor fields of study, with corresponding minor members for your Special Committee. One minor is required for M.S. students and Ph.D. students with an M.S. Two minors are required for M.S./Ph.D. students or Ph.D. students without an M.S., although some advisors will require two minors even if you have an M.S. Some typical minors for graduates in plant pathology include biochemistry, statistics, horticulture, plant molecular biology, genomics, genetics, microbiology, mycology, plant breeding, international agriculture, and crop and soil science.

Course requirements for these programs vary. Go to the department in which you want to minor and ask if they have a list of requirements. If there is no list, your minor committee members can suggest courses. Ultimately, your minor advisors determine if you have fulfilled your minor requirements. It is wise to have your committee members list required courses in writing to avoid misunderstandings.

### **Rotations**

Rotations give students the chance to try out a research program before they sign on. For example, some students are interested in molecular aspects of plant pathology, but aren't sure if they would rather work with fungi, bacteria, viruses, or nematodes. Thus, a rotation is a good way to get a feel for what the pros and cons of working with each type of pathogen might be. It's also a very good way to get to know some of the people in the department, and to find out what they're doing. Even if you already know which professor you want to work with, you may do a rotation in other labs to get different research experience.

A rotation lasts for 3-12 weeks (but beware, some rotations have been known to last almost one year!). Each MPP student has up to a year to do rotations. Remember that rotations are largely the student's responsibility, so do not be afraid to assert yourself if you felt you have done what you need to for the rotation. Oftentimes the project is not finished, but it is not necessary, even if the professor says so, for you to stay in the lab longer than necessary.

The professor leading each lab/program will suggest a small project for you to carry out during your rotation. You might also work with more senior students, postdocs, or technicians to give you an introduction to the program. The project should be one that can be completed within the time limit of the rotation (although this is not always true). You **DO NOT HAVE** to choose one of the professors with whom you did a rotation as your major professor. If you're not sure what you want to do at Cornell, consult with the

Director of Graduate Studies, Michael Milgroom, to arrange a rotation in research programs complementary to your interest.

## **CHAPTER FIVE: ENTRANCE INTERVIEW AND EXAMS**

### **Prescriptive Interview**

You will have this interview soon after your arrival and BEFORE the first week of classes of your first semester at Cornell (if possible). The interview is designed to determine if you have deficiencies in your background that would require you to take particular courses. A committee, consisting of 3 faculty members (including your major professor if you have chosen one), will discuss with you your research experience and educational background. The interview committee will ask if you have any preferences for the kind of research you would like to do while at Cornell and will "prescribe" some courses for you to take during your first (and possibly second) semester at Cornell. However, feel free to discuss their suggestions with other students and faculty, especially if you're not sure if a particular course is right for you. This interview is not meant to be intimidating, just to guide you as you being at Cornell.

### **The A Exam**

The A exam is THE COMPREHENSIVE EXAM. You will take your A exam at the end of your second year.. You must pass this exam in order to become a "Ph.D. candidate" and proceed with your program. Besides your Special Committee, you must appoint two plant pathologists who are not connected with your program to the examining committee (for breadth), giving a total of at least five examiners. It is possible to fail this exam, but this doesn't happen often. You will want to review everything that may be even remotely related to plant pathology and your specialization in plant pathology before you take this exam. Talk to all committee members before the exam to get an idea of their expectations. Some faculty will even tell you the types of questions they routinely ask. Talk to other students for advice on strategies. The exam will be challenging. You are expected to be a conversant, analytical "scientist", but you will probably not be able to answer every question. There is variation in the format of each student's A exam depending on their Special Committee. The purpose of the exam is to determine the limits of your understanding and knowledge. Be prepared to give an oral summary of what research you have been doing to fill in the examiners who are not part of your committee. Bring a written list of course work completed. To top it all off, you should bring beverages (coffee, tea or juice, etc.) and some sweet snacks.

### **The B Exam**

This is otherwise known as your thesis defense, during which you discuss your thesis with your Special Committee and they pass on additional suggestions and editorial changes for your thesis. This is the last thing you'll do before you leave Cornell with your M.S. or Ph.D., besides making final changes to your thesis, cleaning out your desk and getting MUGGED (when a student leaves Cornell, the department traditionally holds a

small ceremony, in which the student is presented with a speech and a Cornell mug by his/her major professor.) It should be easier than your A exam, mainly because you can prepare for it more easily than for the A exam. In general exams take roughly 3 hours. The student is usually expected to provide coffee and doughnuts or pastries for the examiners.

## **CHAPTER SIX: COURSES**

The specific courses you'll take will depend on your interest, your previous experience, the guidelines for the concentration that you are pursuing, and your special committee's desires. However, you can probably expect to take one or more of the following:

### **Departmental Seminar (PLPA 6810)**

Meets on Wednesdays 12:20 - 1:25 pm. You will be expected to take this at least six semesters for credit. You must also sign in. You are required to attend 75% of the seminars before losing credit for the course. However, if you cannot attend the quota, you may check out individual seminar tapes from Kent Loeffler as an alternative to attendance. Incentives for the course are the coffee and tea available just before seminars. Also, each student is generally expected to present one seminar for M.S. and two for Ph.D. during his/her program, but your committee members dictate the actual requirements.

### **Student seminar (PLPA 6820)**

This is a required course for Plant Pathology graduate students. All second year students and senior must present a 40 minute talk on their research.

### **Biology and Management of Plant Diseases (PLPA 3010)**

This has historically been the cornerstone course for the department, providing both breadth and depth for graduate students new to or minoring in plant pathology. It is generally taken in the first semester of grad school by all incoming students who have not previously taken an introductory plant pathology course. For this course you will actually attend PLPA301 lectures in addition to attending an extra lab session solely for PP301.

### **Concepts of Plant Pathology and Plant-Microbe Biology (PLPA 6010)**

This course is expected to provide you with an understanding of the interactions between plants and the major groups of plant pathogens on the molecular to organismal level.

### **Biology of Plant Pathogens (PLPA 602)**

This course explores plant pathogens on a population basis.

### **Sadistics (Oops.. Statistics!)**

Many graduate students in applied areas take Biometry 6010 and perhaps 6020. These will give you a solid foundation in statistical analysis. Expect to put a fair amount of time into these courses, as they have weekly (lengthy) homework assignments. Afterwards

you'll realize it was worth it. Note: BTRY 602 has some valuable experimental design topics that might be nice to have in mind as early as possible for your research.

## **CHAPTER SEVEN: TEACHING ASSISTANTSHIPS AND THE TEACHING REQUIREMENT**

The department requires that each student teach one semester to get a M.S. and two semesters for a M.S./Ph.D. or a Ph.D. The main incentive to be a teaching assistant (TA) is that it offers students a chance to get some teaching experience. The department has NO TA-ships, that is, the department does not offer financial support to students through teaching. However, there are some students who have been supported for a few semesters through a TA-ship from another department such as the Biology department. In this case you would be paid to teach undergraduate general biology labs. These TA-ships are A LOT of work and are usually only required when your major advisor cannot fund you.

The chair of the curriculum committee will be in charge of coordinating teaching assistants and assigning students to classes. The sooner the curriculum committee is aware of your preferences the more likely you will be assigned the class of your choice. There is a large variety of teaching experiences since each professor and class has a particular interest, need and style. The final decision as to which class to assist with should be made in conjunction with your special committee, but experienced grad students are an excellent source of info on what each class is like. You should also contact the professor of the class as soon as possible to discuss your responsibilities and needs.

Cornell offers a three-day workshop for teaching assistants before the beginning of each semester. If you are interested in taking the TA workshop you can contact Suzanne Alexander or let the plant pathology department chair know the semester before you wish to take the workshop. Obviously, you would get the most out of the workshop if you take it the same semester you are planning to teach. The workshop includes learning about grading exams and papers, leading discussions and lecturing, how to make a teaching portfolio for your resume, and information about teaching resources at Cornell. If you take the TA workshop you become eligible to take the course EDU620 where you are video-taped for 20 minutes while teaching. You later watch the tape to learn how you can improve your presentation and interaction with your students. Students who have taken the workshop have found it to be beneficial, especially if they have never taught before. If you have questions about the TA workshop or EDU620 contact Virleen Carlson at the Center for Learning and Teaching, 400 Computing and Communication Center, phone 5-8427, E-mail [vmc3@cornell.edu](mailto:vmc3@cornell.edu), or talk to students who have participated in the workshop.

Graduate students can also become involved in the John S. Knight Writing Program, which offers a chance for students to TA courses on teaching writing. There are stipends available. ([http://www.arts.cornell.edu/knight\\_institute/support/tasupport.html](http://www.arts.cornell.edu/knight_institute/support/tasupport.html))

Graduate students in the Field of Plant Pathology and Plant-Microbe Biology can receive credit for assisting with courses by enrolling in Graduate Teaching Experience (PP 789).

## **CHAPTER EIGHT: FACILITIES**

### **Lab Space**

The amount of space available to you depends on who your major professor is, and how much space that person has in her/his lab. Some professors have very crowded labs. This may be an item to consider when choosing your professor!

### **Incubators and Growth Chambers**

These may be owned or shared by professors. In Ithaca, contact Sandra Jensen-Tracy if you need growth chambers. In Geneva, John Ludwig is in charge of them; your major professor's program will make the necessary arrangements. You'll need an idea of how much space you need, how long you'll need it, and particulars required for your experiment such as temperature and lighting.

### **Greenhouse Space**

In Ithaca, Kim Goodwin (255-4541, kg10@cornell.edu) is the greenhouse manager and should be contacted to request greenhouse or cold frame space. Greenhouse services include watering, fertilizing, pesticide applications, general housekeeping, and greenhouse supplies. The greenhouse consortium manages a staff 24hrs/day, 365 days/year and help is just a phone call away if no one is in the greenhouse when you have questions about how to use the facilities. If you are renting a growth chamber, however, you will need to do these duties yourself. Weekly pesticide applications are usually done on Fridays, but applications may be made on other days. However, the greenhouse staff may send you an email the day before to let you know so that you can plan accordingly. Some professors have their own space allotment already, and your professor just might share it with you. Don't be afraid to make temporary deals, if necessary, with those who have space. Most of the greenhouse space available to members of the Ithaca Department is located in the Virology/Nematology and Dimock facilities, which you will see during your orientation.

In Geneva, each professor's program is allocated greenhouse space, and each program is responsible for its own greenhouse space maintenance. Again, contact your major professor to make the necessary arrangements. Pesticide applications, fertilization, and other operations are usually handled on an individual need basis.

### **Other Equipment**

Most professors are generous in allowing students not in their program to utilize some of their equipment - providing the professor is not using it at that time. Be courteous; ask, don't take. Get to know who can help you.

### **Photography**

The departmental photographers, Kent Loeffler in Ithaca and Joe Ogrodnick and Fred Hickey in Geneva, are willing to provide you with advice and technical assistance in compiling photographs, slides, etc. BTI also has excellent photographic services.

### **Statistics**

Statisticians are available for free consultation in the Statistics and Biometry Department on the 4th floor of Warren Hall. See <http://www.biom.cornell.edu/consult.php> for more information. You are welcome to make an appointment with them to help you in the design of your experiments and in the evaluation of your data. If you want to discuss your design with a plant pathologist, in Ithaca, Michael Milgroom is a faculty expert on statistical design and analysis. In Geneva, Bob Seem is Mr. Stat. They are very willing to help you, but remember: you should see them or another statistician BEFORE (this can't be stressed enough!) you conduct your experiments if you have any concerns about the statistical validity of your experimental design.

### **Computers**

Many of the research labs are equipped with computers, which may be available to students working in those programs. Workshops and a mini-course are held on campus to familiarize you with the systems available to you. You can find information at <http://www.cit.cornell.edu/training/students/students.html>. The Geneva department also has a number of computer facilities located in Barton Hall. The main facility is located in the Library on the first floor of Barton Hall.

If you have a computer and modem at home, you get free internet access from home through the Cornell server at slow speeds, in up to four (in reality unlimited) 15 minute chunks of time. Find out more about it here:

<http://www.cit.cornell.edu/expresslane/>. Alternatively, you can pay \$11.33 per month to get faster internet access from home through EZ-Remote. Get more information and subscribe at: <http://www.cit.cornell.edu/ezremote/subscribe.html>. For faster service you can get a cable modem such as <http://www.rnow.com/home/index.cfm> for around \$45 per month. Go to CIT at the Computing and Communications Center for more information on how to get on-line or check it out at <http://www.cit.cornell.edu/computer/connect/>.

## **CHAPTER NINE: THE GENEVA EXPERIMENT STATION: A SPECIAL SITUATION**

Although nearly all of your course work will be completed on the main campus in Ithaca, students who choose to do their research with a professor in Geneva are in a unique situation. The Department of Plant Pathology at Geneva is situated at the New York State Agricultural Station, a large facility that also houses departments of Entomology, Food Science and Technology, Horticultural Sciences, as well as the Plant Genetic Resource Unit. Nearly 500 faculty members, staff members, students and support personnel work at the station. Officially, there are no classes taught at the Experiment Station. Special seminars in each department, however, are very frequent.

Students with advisors at the Experiment Station in Geneva will be doing most of their thesis research in Geneva. The research facilities are modern and well equipped with extensive greenhouse space. Another perk is abundance of field sites within just a few miles of the laboratories. The station has several vineyards, orchards, and vegetable crop fields, and has close ties to nearby commercial growers for additional research sites. The library system is very good and readily accessible.

Doing research at Geneva is a unique situation. Because you need to spend your first year in Ithaca in order to take classes, doing research may be difficult. (But then, heavy class loads give Ithaca-based students the same challenge). Geneva students often load up on classes for the first few years, researching during the summer, before being able to research full time at the Station. If you are leaning towards a Geneva program it might be useful to spend part of the summer before your first semester of classes in Geneva. That way you can do a rotation or two and get a feel for how things work in Geneva since you won't have much time to visit once the first semester gets going.

Students doing research in Geneva will quickly become familiar with the way things are done. Greenhouse space is assigned on a permanent basis to a professor's program. It is possible to negotiate additional space to meet experimental needs. Growth chambers are assigned on an experiment to experiment basis. Two labs have been designated for use with radioisotopes and provide opportunity for graduate students to work with others using similar protocols. Sharing of equipment is common and routine.

Ithaca lab or greenhouse facilities may be made available for Geneva-based students to do some research during the first few semesters that a student is taking classes in Ithaca; discuss your research plans with your advisor to determine if this is feasible. After the first year or two, students often move to Geneva and drive to Ithaca a few times each week to finish remaining course requirements. Otherwise, students can live in Ithaca and commute to Geneva each day.

A free commuter vehicle is supplied by the Station in both directions for these purposes. The trip takes approximately one hour in each direction. To go to Geneva from Ithaca, the commuter van meets at 7:00am in front of Kennedy Hall, and 7:15am at Cass Park, just North of Ithaca, to pick up students. Between Kennedy Hall and Cass Park the van stops at several sites in town to pick up students. The van leaves Geneva at 5:00pm Monday through Thursday, and 4:00pm on Fridays to return to Ithaca. For the commute from Geneva to Ithaca, a vehicle is available to students. Usually at the beginning of

every semester the students develop a driving schedule convenient to everyone's class schedules. The student vehicle parks on the Cornell campus, close to the Plant Science Building. For more information see <http://www.nysaes.cornell.edu> or email the van listserve at [gvriden-L@cornell.edu](mailto:gvriden-L@cornell.edu).

### **Parking**

Unlike the campus in Ithaca, parking is FREE in Geneva and access to facilities is convenient. There are no station dining facilities, but area restaurants or your own kitchen are nearby. A favorite lunch spot is the Scandling Center, the dining facility for Hobart and William Smith Colleges, a small liberal arts college in town. Station employees and students have access to the faculty dining area at the Scandling Center which has excellent food, all-you-can eat for only \$6.00, including the famous Scandling Center Dessert Cart.

### **Desk space**

Most graduate student desks at Geneva are located on the first floor of Barton Lab. There are 8 students housed in a room off the main lobby and several more students have desks in the Plant Pathology library. Phone service, internet connections, and adequate shelving and filing space are supplied. To place a phone call to the Geneva Experiment Station from Ithaca, dial 49 and the last three digits of the phone number. To place a call from Geneva to Ithaca, dial 8 and the last five digits of the phone number. If the call is off campus in Ithaca, dial 8-8 and the full seven digit phone number.

Geneva students can take PLPA6810, the Plant Pathology Seminar, for credit in Geneva, alleviating the need to travel to Ithaca to fulfill the seminar requirement. Students also participate in informal journal clubs that are organized based on the interest of students. The topics change regularly and participation is lively. The other three departments in Geneva also offer weekly seminar series, many of which are of interest to plant pathology students. New video conference technology is available for watching certain seminars and other talks on-line. In Ithaca, the Seminar Committee has video conference equipment that can be linked on-line to a meeting room at the Station. Ithaca seminars can thus be broadcast to Geneva if arrangements are made ahead of time.

### **Recreation**

Geneva ("Lake Trout Capital of the World") is a smaller town than Ithaca, and consequently there are not as many concerts, lectures, and sports events as in Ithaca. It does not have the feel of a university town like Ithaca, and can seem somewhat isolated at times. However there are plenty of activities to keep students busy outside of work.

SAGES (Student Association of the Geneva Experiment Station) is an interactive group coordinating activities for all graduate students at the station (<http://www.nysaes.cornell.edu/grads/>). With approximately 100 graduate students, interests vary and events appeal to many. A summer welcome picnic is followed by a

volleyball tournament, Halloween Party, SAGES sponsored seminars, a bonfire, potluck dinners, film nights, wine and cheese tasting seminars, late nights dancing at clubs in Rochester, and lots of fun. The group is also instrumental in advocating student interests and needs.

In the summer there is a recreational Station softball league, weekly volleyball games, and weekly soccer pick-up games. In wintertime, sports activities move indoors, with indoor volleyball and soccer. Geneva students also have free access to the fitness center at Hobart and William Smith Colleges. The modern fitness center has an indoor track, volleyball and tennis courts, weight room, and pool. There is also a local YMCA and several private athletic clubs.

Along with the sports facilities Hobart and William Smith Colleges bring in cultural events such as concerts, festivals, and art films. Geneva also has three movie theaters, including the Smith Opera House, which brings in art/independent films and live music. There is a city park and a state park along the beautiful lakeshore, and there are several weekend festivals throughout the summer including the Geneva Whale Watch with food, games, live music, and fireworks.

### **Housing**

Station-owned housing is available for graduate students to rent, located within just a block or two from the laboratory buildings. Prices as of 2001 are: \$375/month + utilities for a single bedroom apartment, \$255/month for a room in a 4-bedroom house with shared kitchen, living room, and bath. For students or others with families there are entire houses available to rent at \$560/month + utilities (unfurnished) and \$595/month + (furnished). There is a waiting list for station housing so sign up with the coordinator, Charene Hibbard at [cah3@cornell.edu](mailto:cah3@cornell.edu), far in advance if you wish to live at a station house. If demand is high there is a time limit on how long a person can remain in Station Housing, around 14 months. After that people are expected to locate other housing. If demand is low, these time limits might be relaxed. There are other housing options in Geneva as well, but decent places sometimes can be hard to find. The best method is often to send an email to all Station employees that you are looking for housing, and by word-of-mouth they'll offer suggestions on apartments, rooms to rent, or houses to share. The Geneva new student coordinator can help, too.

## **CHAPTER TEN: THE PLANT PATHOLOGY GRADUATE STUDENT ASSOCIATION**

### **Membership**

As a graduate student in Plant Pathology at Cornell, whether you are based in Ithaca or Geneva, you are automatically a member of the Plant Pathology Graduate Student Association, affectionately known as the GSA. This organization exists to "represent and

promote the professional activities of graduate students and to facilitate communication among graduate students and between graduate students and faculty of the Field of Plant Pathology and Plant-Microbe Biology at Cornell University", as stated in the GSA constitution. The GSA also serves as a grievance board for the students and is actively involved in improving the conditions for graduate study in the department. The GSA is "governed" by five individually elected members (President, Vice President, Treasurer, Secretary, and Representative to the Graduate and Professional Student Association (GPSA)) and several committees (Social, Colloquium, Retreat, Prospective Student, and New Student). Elections for GSA members occur early in the fall semester. Each member is eligible for re-election.

### **GSA meetings**

These are usually held once each semester to discuss a wide variety of issues that affect graduate students (munchies are provided). You are strongly urged to attend these meetings, especially if you want to have input in departmental activities.

### **Activities**

Various activities are sponsored by the GSA or in conjunction with the department throughout the semester. Past activities have included movie nights, ski trips, potlucks, student vs. faculty/staff softball and weekly coffee breaks. We are always open to suggestions about new and fun things to do so be sure to show up for the GSA meetings with lots of ideas.

### **Colloquium**

Every spring semester the graduate students nominate, vote and invite a speaker to present a special seminar on some aspect relating to Plant Pathology. This event is entirely organized by the GSA and is usually a great success. Members of the department meet with the speaker individually or in small groups. Often, we have a potluck or BBQ dinner to which all department members are invited.

### **Officer Descriptions (according to our constitution and personal experience)**

Chairperson:

Serves as the main GSA contact for students and faculty.

Schedules and facilitates discussion at GSA meetings.

Registers the GSA with the Student Activities Office (<http://www.sao.cornell.edu/so/>).

Encourages involvement in GSA and its associated activities as well as delegating responsibility to other members.

Assistant Chair:

Works together with the President and the Treasurer to:

Plan and submit the annual budget

Organize graduate student meetings on a regular basis (or as needs arise)

Contact faculty or others to address concerns of the plant pathology graduate students

Keep in touch with other student committee members, like the colloquium and social committee members, in order to ensure that members are serving in their roles and keeping deadlines, etc.

Secretary:

Records minutes at the meetings and submits them for the minute's webpage.

Conducts elections and correspondence designated by the GSC.

Treasurer:

Records all financial transactions.

Coordinates all funds and fund-raising activities of the GSA.

Assists the Colloquium committee in preparing and submitting a colloquium budget to the Graduate and Professional Student Assembly Finance Commission (GPSAFC) and keeping track of cash flow before, during and after the Colloquium. Also, is a member of the colloquium committee.

Prospective Student Coordinators (2):

Inform Plant Pathology graduate students of dates when prospective students will be visiting (as advised by the Director of Graduate Studies, Michael Milgroom)

Coordinate lunch and informal group meetings between the prospective students and the graduate students and/or faculty in the department (individual meetings between faculty and prospective students is arranged by the Director of Graduate Studies).

NOTE: Prospective students may come any time and may come individually or as a large group in the spring, so the coordinators need to be prepared to spend anywhere from a day to a week planning.

**New Student Coordinating Committee:**

Works with the GFR to organize an orientation program for incoming students each semester (this includes orienting the students to the facilities and faculty both in Ithaca and Geneva, scheduling social events such as an ice cream social, the New Student BBQ, and making sure all students register with the graduate school).

Assigns a student host to each incoming student.

**The Graduate and Professional Student Association (GPSA) Representative:**

Represents the Plant Pathology GSA at the GPSA meetings by voicing the concerns, suggestions and questions of the GSA.

Keeps the GSA informed of the activities of the GPSA.

**Colloquium Committee:**

Consists of any number of people to help write a ballot, conduct the election, formally invite the speaker and make travel and accommodation arrangements. If the speaker is able and willing they will give a seminar in Ithaca and Geneva requiring people at both campuses to help schedule and post the seminar time and place (in the department as well as a Cornell newspaper), provide refreshments at the seminar and schedule individual meetings between faculty and the visiting scientist. Finally, a departmental dinner reception is held in Ithaca that could be as simple to plan as a potluck or as involved as having to reserve a place and coordinate with a caterer.

**Geneva Coordinator(s) (GC):**

Serves as a link between Geneva and Ithaca based graduate students.

Communicates the concerns of Geneva students to the GSA, transfers information and concerns of Ithaca students to those in Geneva.

Coordinates activities that facilitate interaction between Geneva and Ithaca students.

### **Departmental Committees**

Although serving on a committee within the department is not required of students, you may be asked to serve on one at some time during your career at Cornell. Examples of committees on which students have served are the Teaching Committee, the Computer Committee, the Greenhouse Committee, the Seminar Committee etc. These are small groups of faculty, students, and staff, which get together as often as it takes to make the department function in these particular areas. As a student you may have a valid contribution to make in these areas, and you are certainly urged to get involved. If you are interested in joining a committee talk to the GSA chairperson to find out how.

### **CHAPTER 11: Getting Help and Graduate Student Forms**

Jackie Armstrong (334 Plant Science) serves as the administrative assistant for the Graduate Field of Plant Pathology. Michael Milgroom (216 Bradfield) serves as the Director of Graduate Studies (DGS). Both Jackie and Michael can help with all graduate student issues and she should be consulted whenever questions arise. As you proceed through your graduate program, there are a number of forms that you'll need to submit to the graduate school in a timely manner. These forms generally require signatures of your special committee chair and the DGS.

Below is a checklist of forms that need to be signed by the DGS. These forms must be on Michael Milgroom's desk at least 3 days before they are due at the Graduate School. In the event that he is not in, please drop off all forms to be signed in Jackie Armstrong's office. She will give them to Michael to sign and then put the signed form in your mailbox.

**DO NOT GIVE FORMS TO ANY ONE OTHER THEN JACKIE.** If Jackie is not in her office please place the form on her desk. If the office is locked place the form in her mailbox. This should not be a problem if the forms are dropped off 3 days before they are due. Forms submitted at the last minute may not be signed in time for submission to the graduate school.

### **Special Committee Selection and Change Forms**

Make sure Jackie has a copy of this form once all signatures are obtained and before it goes to the graduate school. Effective Spring 2003, only the signature of the student and DGS will be required on the Special Committee form for NEW students. The name of the special committee chair or temporary advisor should be PRINTED on the form.

If a student has a Committee Nomination letter from the Graduate School with a date the Special Committee Selection and Change form has to be completed to avoid a "hold" being placed on university registration, the form must be in Jackie's office 3 days prior to the date it needs to be at the graduate school (we have a copy of this letter - so we know when it is due).

### **In Absentia Petition**

In Absentia forms should be submitted three weeks prior to first day of classes. Registered in Absentia is full-time student status. There is a tuition charge of \$200, which should be paid at the Bursar Office before submitting the in absentia petition to Caldwell Hall.

### **Leave of Absence/Withdrawal**

Leave of Absence forms should be submitted as soon as student knows that university registration is not needed while they complete their degree. Leave of Absence can be approved for up to 12 months at a time. The maximum number of total years allowed is 4. If student have to extend their status while on leave, they can submit another Leave of Absence form.

### **General Petition**

If you have received a letter from the graduate school stating that you need to complete a petition form by a certain date in order to be permitted to register for the next semester, please have your form in Jackie's office 3 days before it is required at the graduate school. We also have copies of these letters and know when the due date is.

### **Request for Transfer of Registration Units**

Application for Change of Status or Readmission

No DGS signature required. Please give Jackie a copy of this form before it goes to the graduate school.

### **Schedule of Examination**

Due at the graduate school 7 days before the exam is to take place. These means it needs to be on Jackie's desk 10 days before the exam. Make sure she has a copy of this form once all signatures are obtained and before it goes to the graduate school.

### **Results of Examination**

DGS does not need to sign this form, but a copy should be given to Jackie after all signatures are obtained and before it goes to the graduate school. This needs to be done within 3 business days of the exam.

### **Designation of Proxy for Examinations/Thesis Approval**

This form does not need to be signed by the DGS. When it is agreed that an individual is designated to serve as a proxy, the regular committee member must inform both the DGS and the graduate school of the agreement.

Other Forms that may be needed by some students:

### **Change of Status or Readmission**

### **Course Enrollment Petition**

### **CONCLUSION**

Well, that's about everything! It is probably more than you can handle at once, but keep this as a reference manual for the future. If you have any questions, first ask your student host or the New Student Coordinator. GSC members, Michael Milgroom (Director of Graduate Studies), George Hudler (Chair, Ithaca) or Harvey Hoch (Chair, Geneva) can also help you with whatever concerns you may have. Everyone is willing to help. GOOD LUCK!