How to apply for an internship in the life sciences

Preliminaries

This document gives information on the application process for a summer internship. It was put together for students of Biochemistry and Cell Biology at Jacobs. You may have heard other things elsewhere but this is how, in the life sciences, an application process should be conducted.
Don't be discouraged. There seem to be a lot of steps but if you leave yourself time they can all be dealt with.

Leave ample time beforehand. Prepare your application well in advance. Inform yourself first about the deadlines for any programs you are interested in. A typical deadline for summer internship programs is February 1st. You need two weeks for mailing your application, and another two weeks before that to get your letters of recommendation. If you are applying to individual laboratories it is a good idea to start the process during the January break. Start earlier if you are from a non-EU country (see below).

Think about the visa you will need. Especially if you wish to go to the US, or if you are from a non-EU country and you wish to do your internship in the EU, you must find out about the type of visa (work, student, tourist) that you will need to do your internship. The type of visa will often depend on whether your work is unpaid, paid below the minimum wage, or paid above the minimum wage.
First, ask students who have been to the same country (or countries) that you are interested in. But rules change surprisingly fast, so often the advice even of students who did an internship in the same country last year do not apply anymore, and IUB's Careers Office cannot keep track of all the changes. It is therefore a good idea to check with the consulates or embassies of the countries you are interested in beforehand (nine months before your intended start date) what kind of visa you will need.

In principle, there are three kinds of internships.

- Some US universities (and a few European universities and research institutes) have organized **internship programs**. You apply to the program, not an individual lab. Applications for such programs often have to be made on a specific form. The defined application processes, outlined in their prospectus, must be accurately followed. I have a tentative list of some good programs.
- Most European and American universities have no internship program. You apply to individual laboratories. Such applications should consist of:
    - a cover letter,
    - a CV,
    - a transcript (copy is enough), and
    - a sheet with the addresses of two or three referees (professors who will write a letter of recommendation for you).
- If you want to apply to a company, the application process is usually also requires cover letter, CV, transcript, and referees' addresses. It always pasy to know someone inside the company to whom the materials can be addressed.

Cover letter

The letter is important because it is the **first impression** that the recipient of the application gets of you.
It should state who you are and what you do, that you are interested in an internship position, and why you find this particular laboratory interesting. To make the latter point, it is enough to mention that you are interested in the respective field (e.g. cell cycle regulation or prions), mention an article by that particular person, and say that this is a topic that you would be interested in working on. (This does not actually commit you to working on that subject later, just that this is something that you could imagine doing. It is no use detailing an exact project since that is determined by the head of the laboratory anyway.)
Close on the note that you feel that your training so far enables you to make a small contribution to a research effort, and that you are highly motivated to do so. The letter should be 1.5 pages maximum. If you would like further inspiration, I have put together a sample letter with comments.
Even in these days of e-mail, it is advisable to send a letter **on paper**. The first impression that you make is very important, and you have no control whatsoever over the formatting that the recipient's e-mail software will give your letter. Also, professors usually receive several e-mails per day soliciting internships which are usually mass mailings. Thus, most are suspicious towards e-mails. The most promising way to success, in contrast, is to stand out by quality.
If you have a **non-Western name** take care to write your name in the correct manner: either "Firstname Lastname" (e.g. Fred Miller) or "Lastname, Firstname" (e.g. Miller, Fred). Otherwise there will be a confusion about what your name is, and your file may get lost.
The best way to writing an excellent letter is to use (but not to copy slavishly) letters of senior students, to have your letter proof-read by the service that exists at IUB for this purpose, and to have faculty look it over before you send it.

CV

Potential internship hosts want to know about your personal history, the initiative with which you have followed your interests (in- and outside science) so far, and the depth and quality of your theoretical and practical training. Your CV should tell about these things. Especially, it should have a brief description of the contents of courses and your practical laboratory experience. Further information on writing a scientific CV is here.
The best way to writing an excellent CV is to use (but not to copy slavishly) those of senior students, and to have faculty look it over before you send it.

Letters of Reference

If you apply to an internship program, you will be asked to submit letters of recommendation at the time you send in your application form. They may ask that you put them into the same letter (in sealed envelopes), or that your referees write to the program separately.
If you apply to individual laboratories, you should not include letters of reference in your first letter. It is usually enough to enclose a sheet with the addresses of two or three referees. The principal investigator will contact them if she or he is interested, and ask for a reference.
It is essential that you talk to your prospective referees before sending their names to someone. Nobody likes to be called out of the blue.
There should be at least two referees, and they should know you, i.e. you should have interacted with them in an academic setting. Contact them about two weeks in advance of when you require the letters, and bring all your own application materials. This is so they can make their letters more personal and convincing, and raise specific points which emphasize your specific strengths. Also bring some information about all the programs or people you are applying to, and a list of each program and the respective deadline.
A website with information on letters of reference (meant for graduate school but everything applies for internships too):http://www.yale.edu/career/students/gradprof/gradrec.html

Sending your application

Leave enough time for the application to reach its destination. Some programs operate absolute deadlines where, if even one element of your applications is missing by the deadline, you will not be considered. Calculate two weeks for the US (even by airmail) and one week for within Europe.
How many applications should you send?
Mass mailings are always identifiable as such, and they betray a careless attitude and make a bad impression. A successful application is tailored to the recipient. Thus, you will not be able to do very many. A good number is to have three to five applications active at all times until you receive your first offer. It is important to send your first round of applications at the same time since this way you will get some synchrony in the offers.

After you have sent your application - Following up

Send the letter and wait for two weeks after the date at which the recipient should have received the letter. Do not draw any conclusions if you hear nothing. Scientists are usually extremely busy people.
After two weeks, you should contact the recipient again. This time, it is appropriate to write a short e-mail stating that you have sent a letter with an internship / graduate position request, and asking whether it has been received. State that you are still interested, that you are looking forward to the recipient's answer, and that you will call them on the phone in a few days' time to ask in person. This second contact will usually bring about a response, either cautiously positive ("I could give you a position but...") or negative.
If you receive a positive or cautiously positive answer, ask what you need to do to secure the place (these will be different things for an internship and a graduate position). Carefully follow the instructions that you get.
If, at any stage of the process, you have to wait for an answer for more than two weeks, write another email and remind. It is seen as a good sign if you are constantly interested in the position.
If you are asked for an interview in person or on the phone - see the page on interviews.

When you receive an offer

and it appears excellent to you, take it up and do not think twice. If you are in doubt, and if your other applications have not resulted in offers yet, it is acceptable to ask for a week's time to think about it. During this time, you can wait for another offer. To prompt other offers, you can write to the other laboratories you have applied to, mention that you have received an offer from elsewhere, and ask when they can make a decision. This will usually precipitate either an offer, or a rejection.
If you have more than one offer:

- When you are asked by one investigator whether you are applying to (or have been offered a position in) another one's lab you must be totally open, honest, and truthful. Science is a small field and the two people who you talk to may be personal friends, or collaborators.
- As long as you do not have a definite offer it is totally acceptable that you go after other offers as well.
- When you have received an offer, then you are free, within the time given to you to decide, to follow up on your other current applications. Again, you must be truthful about that to the person who made the offer to you.
- If you have received two (or more) competing offers then you should make up your mind between them as soon as possible.
- After having committed to take one position write to the other places that you have found something, and are no longer a candidate. Never go back on a commitment once you have made it - this will upset the investigator very much, and it may hurt you in the future in ways that you cannot anticipate.

Best wishes for your application process, and have a great internship!
