Summary of Factors Determining the "Best Candidate" Selection by Departments of Chemistry:

A strong scientific pedigree and personal connections

This means having done graduate and post-doctoral work with well-known and well-liked advisors. People of scientific influence (innovators in new and emerging fields) and of administrative power (chairmen of departments, those who sit on editorial boards and society committees) are heavily favoured. Personal connections between past advisors and faculty in the department you are applying to are the gateways to securing academic positions. Your CV will first be scanned for names that are familiar to the reader (those that are known to the reader personally or are famous names such as Nobel laureates, etc.). Beware that personal conflicts between advisors can carry over to their students though the students may not be involved. A well-liked advisor can have greater influence than one who is known only for the quality of their work. Make sure you know the scientific lineage of your advisors (check the Index pages and the Top Cited Chemists page) to establish useful connections.

Consistency between your recommendation letters and your CV

Academics place a heavy emphasis on recommendation letters. Recommendation letters that reinforce achievements in your CV are credible. Again any inconsistencies either way will adversely lower your chances of getting an academic position. Make sure your advisors have copies of your most updated CV for handy reference when drafting letters. Personal connections between past advisors and faculty in the department you are applying to will facilitate credibility in recommendation commentary. Person-to-person communication by telephone or conference meetings is the most effective means of making such connections. Recommendation letters from post-doctoral advisors have greater weight than those from Ph.D. advisors. Any personal conflicts between advisors or between yourself and an advisor will severely lower your chances of securing an academic position. Make sure you establish and maintain clear communication between yourself and your advisors on the topic of career goals. This is especially important with post-doctoral advisors. Finally, letters from chemists outside your field but who may be familiar with your work can have significant impact as this indicates that your work has importance in other fields.

A CV showing upward progression from small institutions to top research universities is convincing evidence that you are moving up the career ladder. It has a positive impact compared to a CV with educational experience from institutions all at the same level. For example doing a B.Sc. at a Canadian university that is equally balanced between teaching and research, then progressing to a top research university in Canada (or U.S.), followed by a post-doc at a top U.S. university with a big name professor can increase consideration of your CV substantially.

Top ranked research schools and institutes

Check the list of universities and research institutes that current faculty have attended in order to get an idea of which are the top schools. Note that some departments have fetishes for certain schools. Get to know the department culture.

Regionalism factor

Note that the four regions of Canada have distinct employment patterns with respect to securing academic positions. Check the Department Profiles and the Regionalism Factor pages to discover how important this is for the department you may be applying to.

Professional awards and prizes

Prizes and awards are important flags that reinforce your abilities as a future scientist. Prizes in the form of research grants are looked upon highly. Amass as many as possible. Make sure your advisors are aware of all awards that you can be eligible for within the university and outside the university (e.g., society awards, corporate sponsored awards, thesis prizes, etc.) Ask to view grant proposals from your advisor. Note the formats and writing styles for each granting agency. You will need to be familiar with these for your academic job application package.

Area of chemistry

Work done that is associated with prestigious names at prestigious schools and in emerging areas of chemistry is highly favoured. This means research in areas with strong links to biological and materials science such as medicinal chemistry and nanoscience. The creation of new chemical structures with new chemical properties is the strongest driving force in chemistry today.

Consistency between awards received and publication track record

Any inconsistencies will adversely lower your chances of securing an academic position. A compilation of awards that is not balanced with an appropriate publication list indicates that the awards may have been hyped. The opposite scenario may also call into question your credibility; that is, your work may not be recognized as important though you may have a sizeable publication list.

A strong publication track record

For securing an academic position you MUST publish papers on your own. Your publication track record should show that you are progressing to becoming an independent scientist where you come up with your own ideas and defend them in the form of peer review. Take the initiative to write papers yourself especially if the research ideas and outcomes are your own. Even if ideas originated from your advisor take the initiative to write the first draft. In either case make sure your advisor knows your intentions from the start. This criterion will be looked for in the part of your publication list corresponding to your post-doctoral appointments. The post-doc period is the time to show your merit and mettle as a future scientist. Publications in prestigious journals are a must. Number of papers is not always the determining criterion. Take an active role in the peer review process by requesting from your advisor all referee comments to papers for which you are an author. Offer your own written comments along with those from your advisor. Participating in peer review gives you a glimpse of the culture, tactics, and process of doing science. Check the publication track records of new faculty recruits to verify this yourself. One should resist the temptation to

increase one's publication list by engaging in multiple collaborations. You don't want to end up on multiple author publications (commonly known as "football papers") in disconnected fields. This may give incorrect impressions. The focus should be on your own work and your unique contribution to a field. Reserve collaborations for the future, but identify future collaborators during your post-doctoral years.

Advertising your research

This is best done by your advisors at conferences close to graduation time or the end of your post-doctoral appointment. The mention of your name in their talks will hopefully be associated with exciting areas of chemistry your advisor has been working on. You should take the opportunity yourself to do your own PR work at conferences especially when describing results from your own ideas. Do this in the form of talks. Oral presentations are most effective at captivating the interest of a sizeable audience on your work; posters are recommended for beginning graduate students, not senior graduate students or post-doctoral fellows. However, use the triangulation principle to make personal connections with potential contacts in academia for future post-doctoral or faculty positions. This means that your advisor should make the introductions to people he/she knows on your behalf. This approach is more effective than introducing yourself to someone who has never met you before, even though they may be aware of your work through published literature. Remember that academics value opinions of people they have personal connections to. Go to conferences with the purpose of advertising your work and to make connections with future supervisors and faculty at departments you are targeting for employment. Departments that are on the hunt for faculty members scout conferences and canvass people they know who can direct them at up and coming candidates. It is often not surprising to know that a person is already earmarked for an academic position at a given institution well before a formal job advertisement appears.