# How to Get into a Good Fellowship?

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A specialist in the medical field is probably one of the most time-consuming professions to train for before one is considered an expert. Inclusive of medical school, it can take as long as 20 or more years of structured training before one graduates as a new specialist in a particular surgical subspecialty or medical field. A fellowship is often the last official phase in this professional marathon, typically defined as a 1 to 2-year full-on clinical subspecialty experience. One would expect this important "finishing school" to be well researched and written about, however, as compared to other professionals and fields, there is scanty literature on how one can get into a good fellowship program. This is a perspective piece on the intricacies of securing a position in a good fellowship program, drawn from the collective experience of the authors, their colleagues and friends. There are several ways to achieve this and many processes one will encounter. A variety of factors one will need to consider, decide and works towards in this effort of optimizing of their chances of success in getting into their fellowship program of choice. The thought processes, suggestions and solutions at each phase may be helpful. In conclusion, obtaining a choice fellowship position is as much an art as a science, and maybe some luck. Many factors, some more obvious and objective, some softer and more subtle, can all influence the outcome in one way or another.

Key Words: Fellowship, Subspecialty training, Education

# INTRODUCTION

Amongst all the professions, a medical specialist probably has one of the longest training journeys. Depending on the country, field or subspecialty, it can take at least 10 or more years of grueling training before one can be considered an expert. This stretches up to 20 years or more particularly in some of the more complex surgical subspecialties, as surgical disciplines often require more time for an adequate "hands-on" experience to allow stepwise progression of surgical skills and overcoming multiple learning curves. 1,2 This is in stark contrast to other professions and occupations in which most will become an expert in their field after 3-5 years.<sup>3-5</sup> In many cases, the fellowship serves as the last phase in this marathon. Much has been written about the state and evolution of the medical education and residency system but in contrast, little

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has been written about this last crucial period of fellowship.<sup>6,7</sup> One would expect this important "finishing school" to be well researched and written about, however, as compared to other professionals and fields, there is scanty literature on the process of how one can get into a good fellowship program. We aim to share our collective experience and the process into the various steps- by asking important questions and detailing the right things that can be done.

### Why is It Important?

Subspecialization has become more the norm than the exception, parallel with the decline of general surgery.8 The practice of medicine has evolved tremendously; it is no longer enough to be a general specialist without a subspecialty or even a 'super-subspecialty', especially in tertiary centers or academic medical institutions. 9,10 More and more often, fellowship has become a common and basic requirement and requisite for applications for an attending or consultant position at many centers worldwide. Necessity is the mother of invention, in fact; many have suggested that the introduction and flourishment of fellowships is borne out from the inadequacies of the residency system.<sup>8</sup> In a large North American survey of fellowship program directors, there is

a sentiment that most of the general surgery residency graduates were not well trained enough or ready for fellowship.<sup>11</sup>

Without dismissing the importance of basic medical education and training, I would argue that in this day and age, from a specialist's point of view, a fellowship is probably as important, if not more, than residency or medical school education, as it is the skills that one honed during this penultimate training phase that one will need the most when practicing as a specialist. Besides these skill sets, this is also when one acquires the experience and clinical maturity required to treat complex conditions or tackle procedures with narrow margins of error. Moreover, it is this role that many specialists will be fulfilling on a daily basis in the latter 20 to 30 years of their professional life. The fellowship is the single most definitive period to prepare oneself for that.

Despite the growing consciousness of the importance of fellowships, glaringly very little has been written about how one can get into one. 14 A quick search on Google any day will reveal that most information of this search term "how to get into a good fellowship" is hidden in informal blogs and forums rather than in mainstream validated information databases such as PubMed or Google scholar. The selection process for fellowship is far less organized and more complex than the established processes for medical school and residency worldwide. 15 There is a complex interplay of objective and subjective factors that goes in the minds of fellowship directors and selection committees every cycle. 15-18 We shed light on some of these based on our experience.

### How to get started?

It's never too late to think about it and plan for it, if one has not done so already. A mentor once told me, "Decide on who you want to be, you can't and won't be training forever". Decide or come to understand what is your passion and more importantly, what are you good at? Simply put, you are more likely to fall in love with something you have a talent or aptitude for than something you don't excel at. Notwithstanding generalizations, if you prefer to work with your hands or are good with it since young, it's more likely you will like and do well in surgery compared to someone who hated carpentry classes in school and prefers math or subject matter dealing with theories and solving equations. Decide on what makes sense and where your final destination is. Using HPB surgery as an example - Do you want to be just a general surgeon with an interest in HPB i.e. one who does simple gallbladder and liver surgery, or do you want to be a HPB generalist, a HPB surgical oncologist, a HPB/

Liver transplant surgeon or a HPB Minimally-invasive surgeon (MIS) surgeon -the permutations go on. Does your dream job include doing some research, as a clinical researcher or a clinician-scientist or running a laboratory full-on and writing grants while doing the occasional surgery? Are you good in and do you like to teach? If so, what is the preferred work place: an academic institution, a community hospital or in private practice? If an academic setting is your goal, then choosing a reputable academic institution for fellowship will put you in good standing for the next job and provide networking opportunities for future collaborations. 19,20 Similarly, a fellowship with "big name" or well-known hospital will provide you with some clout and "branding" for getting the private practice job. On the other hand, for those with wish to serve in the community and non-tertiary establishments, a broad-based fellowship may serve one better in terms of the appropriate skills and experience in the long term.

Do your homework and research. Talk to experts in the field about the future of the field you wish to embark in? The last thing you want to do is blindly, foolhardily and over-enthusiastically plunge into a sunset industry. If one insists in doing so, one should dive in with eyes open. A good start will be by talking to seniors in the field and asking for their insight and opinions of the particular subspecialty and its future. Read widely, and just as importantly, write and publish in and around the field of interest of your destined or desired specialty. A mentor once said "if you write enough, you do not need to read." Attend, present and participate in conferences, meetings and courses - these serve well to broadens one's perspective. These are great platforms that highlight where the cutting edge lies and allow a sharp eye to catch a glimpse of the future; take note of where are these innovations or good work are being developed. These meetings also provide an opportunity to talk and listen to the thought leaders and know the industry's "Who's who's", so to speak. In doing so, putting aside potential future personal achievement, on an altruistic note, based on your own insight on your abilities, aptitude and passion, choose a fellowship that will help you contribute the most to the field, this will be ideal.

Forums and blogs are also a great resource and contain a wealth of information from people with similar interests and questions but like everything on the internet, the accuracy of the information is only as accurate as the source. One should read it with some perspective and exercise sound judgment. Lastly, if time and finances permit, find opportunities to visit the programs or institutions you have in mind, at least a cycle before the application opens, as this will allow

one to have a first-hand account and experience of the place, its culture and most importantly of all, its people. Information gained from being on the ground is golden. Besides the program directors and attending staff, interact with the current fellows, residents and various members of the team if the opportunity arises, and hear what they have to say. You will be surprised what useful information you may garner during an informal social setting, like over coffee or a couple of drinks. Regardless whether these are good or bad bits of information- these may help you make a more informed decision. Also, if you are able to obtain permission to do so, attending the weekly meetings (e.g. Mortality and Morbidity conferences, fellow teaching sessions) or observing their operating theatres or sit in their clinic sessions can be very valuable experiences. These visits will better provide you with the "feel" of the place and enable you to see if you would be a 'good fit'. Additionally it will display your sincerity and genuine interest in the program. I feel that these unofficial ad-hoc interactions and casual conversations may hold more weight in decision-making on both ends than a formal interview where everyone is more guarded and it is difficult to obtain a sense of the working environment.

### How do I choose? The journey and destination

Perhaps you already have a destination in mind, but the journey there may have many routes or involve a number of detours. Choose the journey well as it is as important as the destination itself. Using HPB as an example, there are 3 traditional ways to become a HPB surgeon- A pure HPB fellowship, a Surgical Oncology fellowship (with HPB rotations) or a Multi-visceral transplant fellowship (with focus on Liver Transplantation).<sup>21</sup> Other non-traditional routes will include a Minimally-Invasive Digestive surgery/HPB fellowship or HPB research fellowship coupled with short observerships or proctorships. There are also what I termed as "super fellowships". These are back-to-back formal accredited fellowships, and may involve for example, a Surgical Oncology fellowship followed a HPB or a HPB/liver transplant fellowship or a Minimally-Invasive Digestive surgery followed by a HPB fellowship or vice-versa. These are no doubt ideal and comprehensive but it requires the most commitment and hard work, notwithstanding financial constraints and time sacrifices. This is also not necessary and may be an overkill or even detrimental for some specialties. Inclan et al. reported that the additional fellowship in certain surgical fields has a significant negative impact in adjusted future earnings of the individual, for example addition surgical oncology or a

breast fellowship adds a negative net value of over \$200,000 to 300,000 to its graduates, respectively.<sup>22</sup>

## How do I choose? The geographical location

The next question is where? North America currently has the most comprehensive and structured fellowships programs with many subspecialties having their own fellowship match systems administered under various organizations e.g. The Fellowship Council and the Society of Surgical Oncology.<sup>21,23</sup> Fellowships are also well established in many parts of Europe and Asia, albeit not administered into a central matching system.<sup>24</sup> Most institutions outside of North American requires applicants to apply to the respective programs individually. Herein lies and illustrates another difference and potential hurdle in the application for fellowships vs. basic training. Most countries have an adequate basic medical education and training facilities, including residency training. However, many have not reached the maturity of developing their own structured fellowship program.<sup>7</sup> This leads to many graduating residents applying to established programs abroad as international applicants. From a personal perspective, going abroad to train further comes with an array of family and social considerations, especially when undertaken in a point of life when many graduating residents are in the midst of or may have already started their families. As one can imagine, uprooting a young family to a foreign land for a couple of years has its own considerations. Social, financial and family issues aside, realistically, language and cultural factors cannot be under-emphasized. Being able to communicate effectively with patients and colleagues is essential to optimal functioning in a team. It is perfectly reasonable for an attending to be able to trust and work well with the fellow before he or she allows the fellow to operate and care for his or her patients. There have been numerous examples of international fellows, however competent, well-intentioned or hardworking they were, who felt handicapped, or lost in countries where they are not able to speak fluently in the local language. This can result in a great deal of frustration on both ends, and possible loss of training opportunities or a less-than-ideal educational experience. This would indeed be a tragedy, considering the investment and sacrifices that were poured into preparing for the fellowship.

### How should I choose? The institution or the mentor

Decide on your priorities. The fellowship is a finite period, and unlike medical school and basic specialist training, it

meant to be narrow in scope and very goal-oriented. What are the skill sets you want to acquire, or the disease you would like more in-depth knowledge and exposure of? For surgeons and other procedural-related specialties, hands-on experience is essential. To gain experience in rare conditions or novel procedures, it is crucial to look for an institution that already has the reputation or a track record of being the national (or international) referral center, or has existing high volume and expertise. One may be able to see, manage, observe or participate in a rare procedure or condition on a weekly (or even daily) basis there, as opposed to once or twice a year elsewhere. Some institutions may have the reputation or volume, while some mentors or teams may have the skill sets or experience. Your choice or decision will depend on what you aim to achieve during this fellowship stint, be it a special skill set or a specific experience in managing certain conditions.

#### How do I choose? Other factors

Support from your current (and future) departmental chairs and potential hiring institutions or practices are also very important. A fellowship in an area that serves an unmet need in the current department's repertoire of services or expertise will be favorable and more welcomed. This also serves to improve the spread of new knowledge and expertise to other members of the fraternity or community leading to improved healthcare standards overall.

Real life issues are worthy of a mention here. Funding is an issue for many international applicants. Short of matched salaried positions, many fellowships worldwide do not have substantial funding aside from basic allowances for foreign fellows. Considering the costs of moving, including having to buy local malpractice insurance coverage, rental, transport and other living expenses combined with a sudden loss of income, this can serve as the highest barrier of entry especially when the graduating residents at this stage in their life are often bogged down with student loans, costs of starting a family such as childcare expenses, mortgages etc.<sup>22</sup> One solution is to apply or source for funding from the one's own institution or the prospective hiring practice after completion of the fellowship with a corresponding repayment system or bond in kind.

Family considerations must not be neglected. In the hectic work schedule of a fellowship, family support is important. This stint not infrequently requires moving states or across continents, one may be faced with the dilemma of leaving the family behind and slogging through the fellowship alone

or uprooting the whole family to accompany you, with the logistics of potential loss of spousal employment, change of school environments for the children - each scenario has its own slew of issues. These also include the weight given to considerations such as whether the city is a safe place to live, whether there are good schools for the kids or work available for the spouse, and so on.

### How to I optimize my chances?

Now that one has singled out a few top choices, it's time to do everything to get in. For starters, a good curriculum vita (CV) is a basic requisite. <sup>15,16</sup> It's CV, CV, CV, and more and not a little luck. While your surgical skills or clinical competence is important, perhaps only your closest colleagues or seniors would know how good one really is, and not readily apparent to not the fellowship director or the selection committee miles away. But most can read, evaluate and discern between an excellent and a mediocre CV. In another words, a decent CV is the minimum ticket for entry for a shot at an interview.

Letters of recommendation and references serve as a testimony of one's work ethics and performance. It lends a voice of validity and credibility when a senior vouches for someone; it generally helps if the reference is a respected member of the community or profession, or even a well-known or reputable physician or professor. However, it should be from people who know you well and with whom you have worked with before, and not just a famous professor who is a mere acquaintance. It is evident and lends more weight when someone truly knows you well and writes in that manner rather than a mere standard run-of-the-mill template of recommendation letter, even it if it is from a "lesser-known" mentor. It is also not uncommon that the selection committee might choose to speak to the reference directly for more insight; in this case, it is often immediately clear if the reference truly worked with you or knows you well.

Some programs require a personal statement. This is a good idea in the form of a letter of interest or email of intent even if the program does not ask for it. This serves as the initial introduction of the candidate and provides insight into the interests and motivation that you have for the program. It is also notably the only place before the interview that the candidate has some degree of latitude to express his/her intention, or highlighting his/her unique characteristics or qualities.

Intelligence (IQ), emotional (EQ) and adversity quotients (AQ) are all measures of an individual's ability in different aspects and each plays a part in determining success in many

aspects of our daily life. 25-27 I will argue that the latter two are probably more important in the process of attaining the choice position and doing well in the fellowship respectively. Simply put: IQ gets you through school, EQ gets you though work, AQ gets you through life. This is especially pertinent in the interview process regardless of its form: be it distance video-conferencing, phone-calls or face-to-face interviews. First impressions do count, probably more than most will admit or realize. It is also not uncommon that the preliminary decisions about which fellow to award have already been made by the group or the individual fellowship director with the interview only serving as the final confirmation or "tie-breaker". It differs according to the scenario, ranging from the most basic of things to more subtle nuances. A panel interviewing an international or foreign candidate may place heavy emphasis to how well he can communicate or how proficient his command of the local language is; whereas for a local candidate (where it is assumed language would not be a barrier), the emphasis may be on a different matter such as his/her future job plans or research experience lies for a local candidate. In other words, fellowship directors will use it as an opportunity to evaluate applicants for non-cognitive skills and assess "red flags". 28,29 Besides having the proper interview etiquette, it be important to understand who you will be speaking to and research as much as you can garner about the interview panel if this information available to you. In other words, be prepared.<sup>30</sup> For example, someone who interviewed me cited "You can't possibility know the world's literature but you must know your own center's... or at least the current and best level of evidence to date" The last thing one should do is to try to outsmart an expert in a particular field or topic.

It is painfully important to be realistic about your chances. Generally, the better or more reputable the fellowship is, the more popular and naturally competitive it will be. I always quote the 100:10:1 ratio, i.e. 100 applicants will apply, and about only 10% will get an interview for 1 position. <sup>15</sup> If you do not realistically think you have a "decent shot", then it might be more worthwhile to concentrate your efforts and resources elsewhere, and optimize your efforts there. Besides asking around, having a survey of the caliber or the "standard" of the past or the recent graduating fellows will provide some gauge of the minimum entry criteria of the program.

# Be ready, Get set and Go!

Readiness in term of having a PhD or a double Masters

on hand often impresses fellowship directors, especially so in the heavyweight academic institutions where research capabilities are highly valued. Get the basic requirements settled early. As an international applicant aiming for a matched fellowship in the United States, you should have the necessary credentialing and qualifications on-hand e.g. United States Medical Licensing Examination (USMLE) and Education Commission for Foreign Medical Graduate (ECFMG). A background of research fellowships in similar or reputable institutions may stand one in good stead as well. In fact, many successful candidates were actually rejected the first time, but decided to spend their year doing research in the institution of interest or elsewhere. This would allow both parties to know one another well and if it fits, it will place them in a good stead for the next application, in the least get a gleaming reference, more experience and perhaps a few more publications under their belt.

Get Set. One needs to ask oneself these brutal questions. What will make me special enough to be considered and eventually accepted? What will make them happy and comfortable enough to be working with me on a daily basis and entrust their patients to my care? Understanding one's strengths and weaknesses is key. Very few possess the "Trifecta" of excellence in medicine i.e. in the areas of clinical or surgical technical excellence, a strong research and training background, and possess elusive and enigmatic "X-factor". This can be hard to qualify, but it could be a winning personality, an endearing demeanor, a comfortable and likable face, or good public speaking skills; or more often a winning combination of these natural or acquired soft skills and talents.

Go! You got the interview or you have a feeling that your chances are high. Hit the ground running. Nothing pleases the faculty more than genuine interest, an infectious energy and drive in doing work for the department, be it a new project or a grant etc. It will be even better if one have an awarded grant ready to go start in the institution of the fellows' choice; or have a project already planned and running before the fellowship starts. A word of caution: one should also not to be overly ambitious as most clinical fellowships are hectic and can be physically and mentally exhausting. You should not risk not finishing something you started or promised. A mentor advised me during my exit interview at the end of my fellowship? "There are only 24 hours a day, pace yourself, do not burn-out".

# I got it! What do I do now?

It is never too early or late to prepare. It is important

to settle your work, family and personal matters properly and leave things are in good order. Arrange for a trusted colleague to care for your patients who still needs follow-up or care when you are away, always do a proper handover and where possible explain to patients. Do not leave loose ends at work or at home. Sell the car, lease out your apartment if necessary. Tell your friends and family and have a plan and conversations about the anticipated period when you will be away for training. Put in contingencies plans and work out the "in-case-of-emergencies, who to call and what to do scenarios".

It is also good to arrive a couple of weeks before the start date. This allows you acclimatize and familiarize yourself, as well as settle any administrative details, so you can be ready to hit the ground running on the first day of work. If possible, arrange to spend some hours each day with the team, and orientate yourself with the institution grounds and its surrounds, as well as have a gauge of the work culture and the patients you will be caring for. Set realistic goals and work towards them. Once you are there, soak it all in, it goes by faster than one realizes. Enjoy the fellowship, learn, absorb and makes friends. Enjoy the different living environment and explore, enjoy life and cherish the experience.

### Oh no, this is not working out....

Sometimes, despite our best intentions, research and planning, things might not work out well and the fellowship does not pan out as expected, sometimes due to circumstances beyond our control. Perhaps your expectations were not met or were not well managed. Social, cultural or professional frictions and frustrations are not uncommon in the stressful hospital environment. One has to be prepared to work at it, in order to make the best out of the situation or be prepared to cut your losses and try for another fellowship, if time and resources permit. Should one interrupt the fellowship and quit, you should be professional about it, and aim to be fair to the host institution as they may not able to cope with the loss in manpower or have a replacement in time. Practice due judgment in such tricky situations, handle the separation as amicably as possible and try not to burn bridges in the process.

# CONCLUSION

One should note that the fellowship is just the beginning of a life-long learning process and as such does not guarantee

mastering a subspecialty. You will encounter yet another learning curve beyond fellowship years as a newly minted attending caring for your patients, perhaps with your team of residents and own fellows to train. I have learnt that in my own time now and during my fellowship years that fellowship is not finishing school but just another step in our journey in the mastery of surgery. Family and friends are important especially in those tough training years as they help remind you why you were there for, they make the tough days better and good days great. Be open to new ideas, take notes, learn and absorb - takes what's good and leave what's not. Try to make yourself better and just as importantly, try to make them better too and improve the fellowship for the future generations to come. Be the best version of yourself as you are an ambassador for your home country and institution. Avoid burn out.

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