Advice from the 2005 MSP Graduating Seniors

Ed Plowey – Matched at Pitt in Anatomic Pathology/Neuropathology

1. Ed was looking for a program that would give him significant time off to pursue research. On the interview trail he received a variety of responses:
   a. We don’t really want you to do research
   b. We will let you do research, but we don’t want to pay you to do research
   c. Department agrees to pay your salary to do research and does not give you any clinical commitments during your research time (Pitt, UT-Southwestern, Iowa, Wash U, and Vanderbilt).

2. Ed also made it clear that he was looking for a strong clinical training program.

3. Structure of his program at Pitt will likely be: Year 1 & 2: Anatomic Pathology; Year 3: Neuropathology; Year 4: Research; Year 5: may opt to do another year of Research.

Mickey Trockel – Matched at Stanford in Psychiatry

1. Psychiatry as a field is very interested in MD/PhD graduates
2. Psych requires that you do at least 36 months of clinical training which possibly leaves 12 months available to conduct research.
3. UCSD, Medical College of Wisconsin, and Stanford were all very supportive of Mickey’s desire to spend a significant amount of time pursuing his research.
4. He found a strong correlation between NIH funding levels and the program’s level of interest in allowing residents periods of full time research experience.
5. He suggests identifying potential research mentors at institutions before you go to interview, particularly at your top 3-5 programs. Tell the Program Directors ahead of time that you are interested in meeting these people. It is good to start email communication with these prospective mentors so that you can meet them when you go to your interview.
6. He recommends, if interviewing in psychiatry and planning a research career, do not be afraid to explain your career goals clearly in your ERAS personal statement. Psychiatry programs are likely to relish your desire to do research and seem less likely to question your dedication to clinical medicine based on intent to do research.

Ramji Rajendran – Matched at Penn in Radiation Oncology

1. Ramji notes that this was a particularly competitive year for Radiation Oncology and that there were about 50 MD/PhD graduates vying for positions.
2. He encouraged people to carefully market their research – make sure that a layperson can understand what you have done. Do not go into a great deal of detail: emphasize clinical applications of your work.

3. Away rotations are vital – try to get a letter of recommendation from the chair of the department. Ramji went to UCSF for about 3.5 months and did both research and clinical work. He received a strong letter of recommendation from one of the top people in his field and this was brought up at a number of his interviews.

4. Brought up the Holman pathway which gives those selected two full years of research time during the residency. There are only 4 Holman Pathway sites in Radiation Oncology throughout the country each year.

5. Important to be nice, relaxed, and use good manners while on the interview trail. Be quiet, use good posture, think through your answers, and be enthusiastic.

6. During interviews he emphasized how he was looking for a strong clinical foundation in order to launch his career as a physician-scientist.

7. He said that one department chair told him a few years ago that the two traps MD/PhDs fall into are burnout and not being able to clearly communicate their research experience.

8. Radiation Oncology interviews are typically scheduled for late December and early January.

9. Ramji often e-mailed the chair of the department directly to set up away rotations and kept in touch with people from away rotations.

10. Memorize the name of every administrative assistant you meet. Write the names down and refer to them by name when you call back about interviews, thank you notes, and general questions.

11. Consulted http://www.studentdoctor.net and used their student forums on Radiation Oncology throughout the interview process.

12. Recommended going to S&K for 2 suits + 2 ties + 2 shirts = $250.

13. Tailor interviews to each program. Research the website of each program before you go there.

Janet Jokela, MD – Internal Medicine Doctor

1. The training as an MD-PhD is very valuable to residency training programs of any specialty.

2. It is important to know the programs and culture of the places you are investigating: seek out those programs that support a culture of academic excellence and research.

3. Away rotations are very important, as they are your opportunity to "interview" the programs as much as they are for the programs to "interview" you. Would you be happy there? Are the physicians good role models for you?

4. At the interview, you want to demonstrate a high level of personal and professional integrity, and that you are the type of person that others would want to have as a colleague. They already know that you are intelligent and accomplished, and the interview is an opportunity for the program to get a better sense of you as a person.
Shalu Manchanda, MD – Internal Medicine Doctor

1. Use the UICOM-UC faculty and MSP alums to help you set up away rotations.
2. When you do away rotations make sure that you work as hard as you possibly can – it is so important to make a good impression.
3. Take your CV and a photograph with you on your aways and do your homework on the program before you go on the away.
4. Shalu reiterated that she is available to do taped mock interviews before students head out for residency interviews. Just e-mail her at smanchan@uiuc.edu.
5. She thinks an M.D.Ph.D candidate should be able to communicate their thesis project to the interviewer in a succinct manner. This should be well rehearsed ahead of time. When you meet a research mentor the talk can be research oriented.
6. Be consistent and honest with each answer.

Advice from the 2004 MSP Graduating Seniors

On Monday, March 29, 2004, the Office of Student Affairs/Medical Scholars Program hosted a Preparing Future Physician-Scholars workshop for MSP student who will be going through the 2005 Match. Four of this year’s seniors: Corey Hardin, Sheela Konda, Jackie Payton, and Hanna Stevens shared their experiences on the interview trail this year. In addition, Dr. Brad Schwartz, Regional Dean of the College of Medicine at Urbana-Champaign and Dr. Shalu Manchanda were also there to share their expertise. Here is some of the advice that was shared:

Corey Hardin matched at Massachusetts General Hospital in Internal Medicine and will be participating in their short-track program. Corey spoke extensively about the short-track option available in Internal Medicine. Generally these short track programs involve two years of internal medicine, one or two years of a fellowship, and then two years of paid salary to conduct research. A potential disadvantage of the short track is that usually you don’t have much time for electives. Corey also mentioned that some short track residency programs are not bound to the Match rules and thus you may find out quite early whether you are selected for the short track option, but you still have to wait for Match Day to find out where you have matched for Internal Medicine.

Sheela Konda matched at the University of Chicago in Radiology and will be participating in the Holman pathway. The Holman pathway is the short-track program for Radiology. She mentioned that the Society of Interventional Radiology has a website that lists short-track programs (http://www.sirweb.org/).

Hanna Stevens match in a combined Adult/Child Psychiatry program at Yale University. Hanna emphasized the importance of having a consistent story that you tell throughout the process – from your personal statement to interviews. She also encouraged the
students to seek out MSP alumni in your field to ask them where they think the best programs are and to ask them which programs they applied to when they went through the match. Please note that you can come to the SA/MSP Office anytime to get a listing of MSP graduates by specialty, by location, and/or by graduate department.

Jackie Payton went through the Couples’ Match with her husband, Rick Perrin. They both matched at Washington University in St. Louis in Pathology. Jackie said that Pathology is very interested in attracting physician-scientists to the field.

Dr. Schwartz told the students to remember that they are in the driver’s seat during the Match process because of their research experience and career goals. He mentioned that programs have established short-track programs because there are so few physician-scholars out there that institutions are trying to “grow their own” physician-scholars. He reminded the students that they look carefully at programs and not just choose a big name program because it has a big name. He said to remember what matters is what you do, not where you do it at. He urged them to select the residency that will give you time to do research and to probe to see that the faculty have really bought into the concept of giving the residents actual time to do research. He also advised that you ask to speak to at least one new faculty member (on staff three years or less) to ask how well protected their research time is.

Dr. Schwartz also spoke about the NIH’s Career Development Awards which are called “K” awards. Information about the K Awards can be found at: http://grants2.nih.gov/training/careerdevelopmentawards.htm and http://grants2.nih.gov/training/kawardhp.htm. He said that these awards were mainly for salaries and projects and that they could be awarded to either institutions or individuals. He suggested asking about the institution’s K Award track record during your interviews.

Dr. Manchanda encouraged the students to set their sights high. She also told them that she would be happy to do mock interviews with them as well as help with editing personal statements and CVs.

Please remember to send thank you notes to people you met with during your interview. It is fine to send these notes via e-mail because many of the seniors found that they were more likely to get responses to e-mails than to letters.

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Advice from 2003 MSP Graduating Seniors

On Wednesday, March 5, 2003, the Medical Scholars Program sponsored a special Preparing Future Physician-Scholars (PFPS) workshop at Carle Foundation Hospital for our dual-degree students who will be M-3 and M-4 students next year. The topic was a “Guide to the Match for MSP Students” and the panel of presenters included: Steve Boppart, MD, PhD, an Assistant Professor of Electrical & Computer Engineering and a Resident in the Internal Medicine program here, Shalu Manchanda, MD, an Internal Medicine physician, and three MSP students who went through the Match this year:
Rachel Coel, PhD, Adrian Rodriguez, and Stacie Shepherd, PhD. Each of the panel members shared advice with the audience on how to best present themselves as MD/PhD graduates to residencies.

**Dr. Steve Boppart - Assistant Professor in ECE as well as a resident at Carle**

1) Have to ask yourself what role research is going to play in your career. Doing well in research and maintaining an active interest in research during the residency is a challenge. He likes that he is able to maintain his research momentum while he completes his residency.

2) If you want to continue doing research during your residency program, inquire about the flexibility of each program first.

3) Investigate Clinical Investigator Pathway programs – five-year internal medicine residencies that have allowed him to do 6 month clinical blocks followed by 1 year of research. He says this is difficult to do, but doable...you must be willing to put in long hours and give up most weekends.

4) Check out all funding agencies that are especially good for academic medicine, particularly the NIH funding mechanisms – http://www.nih.gov

5) Strongly consider becoming board certified.

6) Be proud of both your degrees and use them to your advantage.

**Dr. Shalu Manchanda – Internal Medicine**

1) Find a residency program that is good for you and for your family.

2) She also reminded students that she is available for mock interviews, help with personal statements and CVs, and advice on away clerkships, residency opportunities and what information to divulge or not.

**Rachel Coel – Pediatrics**

1) Be prepared to answer why you pursued dual degrees. With a PhD in the social sciences, you will likely get asked more questions. Use these types of questions as an opportunity to educate the people you are meeting with about the connections between your graduate work and medicine.

2) Do not play down your research or hide your PhD; use it to your advantage.

3) She said in her interviews that she planned on devoting 95% of her time to clinical and 5% to research and that was well received for her particular area and institution of choice.

4) The most surprising thing she encountered on the interview trail:
   a) Interview days were much harder than she expected. Her days would often start at 7 a.m. or before to see rounds and make morning reports and then the interviews lasted all day until 4 or 5 p.m. Often she was asked to meet with individual faculty in their offices until 6 or 6:30p.m.
b) Questions were much tougher than she expected. She was given some ethical scenarios that she had to respond to. Rachel stressed that you must have your value system in place.

5) When asking a faculty member to write a letter of recommendation at the end of an away clerkship, Rachel gave the faculty member a copy of her CV and a picture. Faculty at large academic medical centers write a lot of letters, so it is helpful for them to have a picture to remember you by after you leave.

**Adrian Rodriguez – Dermatology**

1) Make a specialty choice sooner rather than later. Force yourself to pick what your specialty area is now—you can always change your mind later!

2) Make sure that you do away clerkships – choose locations that you are considering for your residency. It is important to do really well during your away clerkships. Be willing to do whatever is asked of you – you will be admired for trying. Stick your neck out, you will be able to keep up with the best of the residents as the clinical training in Urbana prepares you well due to the large amount of hands-on training you have received. Most medical students do not get to do as much hands-on clinical work as we do in Urbana.

3) Strongly consider doing an international clerkship/residency.

4) Learn the lingo!

5) Highlight your extracurricular activities in your interviews.

6) Do your homework on residency programs now!

7) Dermatology offers more flexibility in research. Academic dermatology is especially hungry for good residents.

8) Work on your personal statements and polish your ERAS application.

9) Be confident and poised about your education here at UIUC. However, be prepared to educate others about the quality of your training. We come from a great place and our name is getting out more and more.

**Stacie Shepherd – Pediatrics**

1) Family is Stacie’s priority. Stacie has two kids in elementary school and she was very up-front about this in her residency interviews. It was important for her to look at the whole picture when interviewing for pediatrics residency programs—a community with good schools and positive family values were key factors in her decision.

2) Stacie traveled across the country looking at peds programs. She found that having strong medical school and graduate school letters of recommendation (LOR) set her apart from the crowd.

3) Because you have your PhD, you may find that some physicians may initially feel uncomfortable talking to you. Therefore, you have to set the right tone and let them know that you are human.

4) Questions that were asked:
a) “How do you envision your future 10-15 years from now?” Stacie suggested that the best way to answer this is to give a firm answer whether you are convinced of it or not. Have goals and a plan to make them work, even if you may change your mind later.

b) When she was asked, “What do you want to know?” she replied, “When I sit down with my rank list, what do you want me to remember about this program? Sell me on your program. Why should I come here?”

5) Try to meet faculty that have similar research interests. Be flexible and willing to meet with faculty at the end of the day.

6) Contact MSP alums to stay with them or to get advice.

7) When considering where to do your away clerkships, ask yourself:
   a) What are my priorities?
   b) What are my career goals?
   c) What part of the country do I want to live?
   d) What kind of support system will I have there?

8) Work on your rank lists as you go.

**Additional Advice**

1) When requesting letters of recommendation, give your recommenders a packet of information that includes your CV and personal statement. Highlight the things that you would specifically like your letter writers to showcase in their letter. Do not wait until the last minute to request a letter of rec.

2) When you do request LORs, make sure to mark a follow-up date on your calendar to nicely remind your recommender about the LOR.

3) Select a wide variety of faculty to get letters from and get more letter than what you will need. Dr. Kies will help you choose the strongest letters to submit with your ERAS application.

4) Personalize your personal statements for each program.

5) If you are an MD/PhD student it is absolutely critical to get a letter of recommendation from your PhD advisor.

6) Make sure to spend time working on your CV. Revise. take the time to make it right and make it look good. Have other people read it and give you feedback - Jenny Bloom and Shalu Manchanda are happy to edit your CV.

7) Interview Trail Advice
   a) Check your e-mail messages often. Invitations are often sent out very quickly and they require prompt responses. as interview slots tend to fill up quickly.
   b) Take your MSP Guide to the Match book with you.
   c) Stay with people you know on the road! It helps cut down on the loneliness and disconnectedness and saves you money!
   d) Do your homework on the residency program and the faculty members! The more you know about whom you will be meeting with the better. Print information from the website and read through it on the plane or the night before your interview.
   e) Make sure to attend the pre-interview social events. Dress appropriately.
l) Always send a thank you to those that you met with as soon as you get home if not before! Sending an e-thank you often opens up dialogue and an avenue of correspondence and communication that a written card doesn’t allow. Keep in mind that correspondence you send is likely to be put in your file.

8) Timeline for the Match
   a) Be aware or earlier deadlines if the specialty you are selecting has an early match.
   b) Leave Mid-November to January open to be on the interview trail. You also want to allot time for “second looks.”
   c) Be an early bird—it will pay off! Get your ERAS application in early—late August to early September. October is too late!
   d) Consider taking Step 2 early. Be aware that some programs and specialties require that you have passed Step 2 before the interview. If you did not perform well on Step 1, a strong performance on Step 2 can be helpful.
ADVICE FOR NATIONAL RESIDENCY MATCH PROGRAM

Daniel McGee, Medical Scholars Program, UIUC

1) Be aggressive in using connections with faculty and residents, even 'loose' connections -- people will surprise you by their willingness to bat for you!

2) When doing away clerkships and when visiting a residency, get to know residents as well as faculty -- we UIUC med students are used to working directly with attendings, and this looks great with the attendings, but at most programs the residents also have some say in match decisions.

3) Keep a lookout for early research opportunities. If you finish rotations early, don't take a vacation like a sane person, continue to act like an MSP. CONTACT PEOPLE. Are there any RESEARCH OPPORTUNITIES at institutions you are applying to? Perhaps they can offer you an interim job or a fellowship.... I managed to get a nice 6-month fellowship at U of C, which on top of defending my dissertation and prepping for boards, made for a lively Spring semester. Not only am I getting paid (well they claimed they were paying me, I'm still waiting...) but this opportunity turned out to be the real clincher for me to get my foot in the door.

4) DON'T be FOOLDED by big-name programs -- Some university residencies have a great name but don't really let residents do big research. My great expectations of a few big name places were shattered. On the other hand, a couple of community programs I looked at SHOCKED me with their level of interest in my research, including one place that trotted out an MD/statistician and a research support team who would help me... They weren't joking about wanting their residents to do research!

You should be just as interested in how many publications the residents get as in how many publications the faculty get. What kind of funding is available, is there protected time (dream on...), etc.?

5) Don't get sucked in by a guts and glory, "are you tough enough for our program?" presentation of a program on interview day. This appeals to all of us med students -- yep, we all want to be BAD. But this may be a precursor not to glory, but an abusive program. Not worth it to me, maybe it is to you. In such cases, you should really cross-examine several residents about how happy they are, do they have time for research, partners, etc.

5) Find out how a program is positioned relative to other services within the teaching hospital. Ask leading questions about turfing -- here is where the relative power of departments rears its head). If you get stuck working on a service that can't throw its weight, you may waste half your clinical time fighting with residents from other
services who don't want to do consults, try to get you to admit their patients, won't admit patients you send them, etc. This info is hard to get, requires talking to people OUTSIDE the residency, i.e. residents in other services, people in other programs, etc. You want to be on a service that is universally respected at the hospital you work, where outside your department your word will be taken without ands, ifs, or buts.

6) Keep a realistic picture in your head! AIM HIGH, of course! But remember that if you create a good rank order, ANY program you get would be a WIN-WIN situation. You are a kid in a candy store, enjoy the experience!
Matching in Internal Medicine
Hilary E. L. Reno, M.D., Ph.D.
June 12, 2002

Types of Residency Programs

Residencies in internal medicine come in different flavors:
- academic vs. community, and within each you also find:
  - private patient systems vs. ward based patient systems
  - large vs. small
- research centered programs vs. patient care centered programs

Academic centers have a medical school, ample research and offer better opportunities to get a fellowship after residency. Community programs are perfect if you want to practice as a general internist or hospitalist. Research centered academic programs tend to have better fellowship programs and offer a wider variety of research opportunities.

Internal medicine also has a number of “short track” programs consisting of two years of internal medicine, one year of fellowship, and three years of research. These are designed for M.D., Ph.D.s or medical students with lots of research experience. I chose not to apply to these programs. I did not want to lose 12 months of internal medicine electives since I feel there are so many areas I have had little experience with. Aimee Yu did successfully apply in this area and I’m sure she could offer advice (she’s at Mayo).

A word about private patient systems. In these systems, you will have patients with a private doctor and that will be the person you go to for patient care decisions. As a whole, it requires tracking doctors down and sometimes serving as simply a secretary by writing the orders you have been given. Ward based systems (like the VA) are known for greater resident autonomy. Each may have their drawbacks, but great doctors are trained in both.

1. Determine what you want to do in your career. If you want to specialize, choose an academic program.
2. Apply to around 10-20 programs unless you are limiting yourself geographically. Internal medicine is relatively easy to match in, so really think about you want. I was sick of interviews by #2 and ended up turning down interviews at two programs and canceling two more. I did a total of eight interviews.

Away rotations

1. Absolutely imperative to do rotations as other hospitals. You don’t have to do a rotation at the hospital you want to match with, but get out and see how other programs work. Especially try a rotation at a big academic hospital…you’ll be surprised.
2. Plan and arrange aways as soon as possible. I started researching programs in January of my third year. Yes, this was probably 2-3 months early, but I never had to worry about not getting my paper work in on time.
3. Be aware that some programs require only a phone call to register while some require an application and registration fee (up to $300).
4. Some of the top programs make it impossible to find a phone number or email of the person in charge of signing up away students. With one school, I started with the main number and talked to 3 people before getting the person I needed.
5. After you send in an application, call, call, call the programs. I made a pest of myself trying to get an ID rotation at Johns Hopkins, but in the end, my application was hand delivered to the department and they accepted me.
6. Do aways early enough to get a recommendation letter from a faculty member.
7. Do a sub-internship in general medicine or do a consult specialty? I’m not sure if either would be an advantage. I only did specialties (ID, endocrine, and palliative care). We do much more general medicine here than other schools (at least 4 weeks more), so doing a sub-I did not interest me. Consult services tend to be an easier schedule without call, so if you want time to read or finish off ERAS. that may help.

Letters of Recommendation

Again, I’m not sure there is a right or wrong with this. You need at least three letters, but some schools require four. A few require a letter from the head of the department of medicine... I waited to send this one so it ended up as an extra letter in my files.

ERAS

Just get this done early. I submitted my application at the end of September and had all my interviews set up by the beginning of November. Aimee Yu submitted her ERAS 3-4 weeks later and had no problems getting the dates she needed for interviews. The earliest deadlines are the end of October.

Interviews

I applied and interviewed at 8 Midwest schools ranging from Washington University to UIC. I did not apply to two big residencies in the area, Mayo and Michigan. Aimee Yu did interview at those schools and I’m sure she would offer you opinions about them (she’s at Mayo).

An interview day was preceded by dinner the night before with residents. This is a casual and low-key time to get the feel of a program. In general, each interview was low pressure, consisting of 1-3 faculty interviews with them selling the program to you. They will ask general questions. The questions I always got was “Why entomology?” and “What do you want out of residency?” I got very good at answering those!

I prepared for the interviews by going through the materials I was sent, reading through their web pages, and having a mock interview with Dr. Manchanda (do this!). I had files on each program which, after the first three interviews, I stopped looking at. You end up getting a lot of information at the dinner the night before.
I’ll address each school interview in turn and give examples of the questions I was asked. Of course, things could change year to year, and I won’t comment on my general feelings on a program since I’m sure that’s an individual thing.

1. Iowa: Interview until early afternoon. Includes 2-3 faculty interviews and one with the program director. Questions included: “What do you want out of residency?” “How do your research skills help you on the wards?” “Compared to the thought process in research, what are the drawbacks of clinical medicine?”

2. UIUC: The first time I had ever been on campus. A full day. Included 2 faculty interviews: “What do you want out of residency?” “Why entomology?” “Where do you see yourself after training?”

3. Loyola (Chicago): I had done an away here. Ended mid-afternoon. Included 2 faculty interviews, one with the program director. He asked: “Where did you grow up?” “How was your experience here on Endocrine?” “Your dean’s letter and letter of recommendations are so positive. Have you had any constructive criticism through your rotations?” The other interview consisted of talking about why and how I did both degrees.


5. Northwestern: A short, easy day. Two interviews, one of which is one doctor with 2-3 students. It’s not at all a pressure situation although I had heard it was. Just play well with others...the doctor is just trying to get to know you. “What’s your background?” “Tell me about your extracurricular activities?”

6. Wisconsin: could be a long or short day. You have one faculty interview followed by a wrap-up meeting with the program director when you’re done. My one faculty interview consisted largely of discussing his son’s interest in going to U of I for undergrad. He did not ask me anything really. The program director will answer your questions but he won’t ask you questions.

7. Indiana: Ended mid-afternoon. Includes one faculty interview and then an interview with the program director or the assistant program director. “What do you want out of residency?” “What were your best and worst medical school experiences?” “What are your future plans?” The program director stuck to my ERAS application.

8. U of Chicago: Ended mid-afternoon. Included 2 faculty interviews and a wrap-up with the head of the selection committee. “Why entomology?” “What are your other interests?” The second faculty interview was a bit strange. We talked for over an hour about life, travel, really everything except medicine and research.
Making the decisions

Leave some time at the end of interview season for second-looks. These are days you arrange through the program to revisit them—no suit, no interviews. It’s just a day to follow a team on rounds and maybe see an admitting day. It really cemented my top choice for me. Given time, I probably would have revisited my second choice as well.

Finally

Feel free to contact me with questions: he_reno@hotmail.com
Washington University does not pay for a hotel room. so MSP and Urbana campus students are welcome to crash at our place.
Definitions:
Training program: same as residency program. Training = residency.

Program coordinator: An administrative person, like a secretary, who handles day-to-day paperwork for residents and who will be scheduling your away rotations.

Program director (PD): A faculty member, usually an MD (but rarely a PhD) who is in charge of the residency program. This person often selects interview candidates.

Chairman: Please.

Sub-internship: A fourth-year elective is termed a “subinternship” because – having completed your junior year of medical school – you are expected to be “just below” an intern. The short form is “sub-I” and people will often talk about where they did a sub-I. This is more common than the term “away” because if you do a senior clerkship at your own program, you are doing a sub-I but it is obviously not an away. Medicine II at the VA is actually a medicine sub-I, at least when done as an M4.

“Greenberg”: *The Handbook of Neurosurgery* by Mark Greenberg, MD, which anyone thinking of going into neurosurgery should own. Current edition is 6th. Fits (barely) into your white coat pocket. Available on Amazon for about $70.

Applying to neurosurgery from UIUC has some advantages and disadvantages.

Disadvantages: Urbana-Champaign has no neurosurgery training program. This is the single biggest institutional disadvantage you will face. Neurosurgery is a very small field (170 residency spots annually. approx. 3,000 total neurosurgeons practicing in the US – an average of only 60 per state!) and as a result, everybody knows everybody. The majority of those who match in the field from the US are coming from a medical school with a training program, and thus their program is a known quantity, and often these chairman are making telephone calls on behalf of their own applicants. Since you won’t have this, you will need to find a neurosurgery advocate elsewhere.

You will also spend some time explaining that you are not from U of I – Chicago (where there is a training program) or U of I – Peoria (where they also have a training program). Get ready to do this. At least know the names of the chairman there so that if you are asked, you can say, “no, he is in Chicago/Peoria and I am in Champaign.” You will get tired of doing this, believe me.

Advantages: UIUC gives you a lot of flexibility in scheduling away clerkships. which happens to be the best way to overcome the institutional disadvantage above.

These are the statistics for the neurosurgery match 2008:

The average Step I score for matched applicants was 236. If you have a lower score than this, you can certainly match. The one thing you need to be able to do is tell a story. About yourself. That people will remember. So start thinking about it. Presenting yourself is the single most important part of this process.

Away rotations / Sub-internships
This is the best place to find an advocate. Some chairmen are more involved with their sub-I’s than others. When I was at one sub-I, the chairman scheduled an “exit interview” on the last day of the clerkship, in which he reviewed my CV, we talked about my background, and he took careful notes. He even asked questions about my family background, which he then incorporated into my letter in such a way that it was unique and personalized — exactly the kind of letter likely to be taken seriously by program directors because it shows that the chairman took time for the student. This was not due to any merit on my part — he also wrote a personalized letter for the other sub-I who rotated with me. So in effect, I “lucked into” a program with a good chairman, who rewarded hard work (and I did work hard) with a letter which was commented on in every single interview I went on. It was a huge help.

**Choosing sub-I’s:** You traditionally do one sub-I at your home program and then one or two away. Because UIUC has no such program, there is really no reason to do a sub-I in neurosurgery here beyond the two weeks you do during your surgery rotation. This means you need to choose two or three programs at which to do a rotation. There are several considerations:

- **Geography:** If you have a specific desire to end up in a certain region of the country (like East Coast, West Coast), do a sub-I there. If you want to end up at a certain institution, do a sub-I there.

- **Type of program:** If you are interested in ending up at an academic/research program, do a sub-I at one. If you are interested in ending up at a clinically-oriented program, do a sub-I at one.

- **Length of sub-I:** Just because we have four-week rotation blocks doesn’t mean you need to do four-week sub-I’s if the department will let you do a shorter one. (There is no reason to ever do a longer one.) I found that three weeks is actually the perfect length of time — two weeks is not enough to get to know everyone and have them know you. Four weeks is ok but can be a long time if you schedule back-to-back rotations: that’s a lot of overnight call and standing in the OR.

- **Timing:** As of the 2008-2009 application year, neurosurgery is leaving the SF (early) Match in favor of NRMP. (See [http://societyns.org/match_information.html](http://societyns.org/match_information.html) for official confirmation.) This gives you a bit of extra time to schedule sub-I’s that I did not have. **HOWEVER, do not expect neurosurgery programs to completely assimilate this change in the first year of their participation in NRMP.** Programs often have fixed interview dates that are built into their schedules each year, and are used to interviewing people starting in early- or mid-October. What will happen with this in the first year of NRMP is anyone’s guess. Try to schedule an early rotation just in case. Who knows.

- **Strength of program:** Getting a good letter from a “famous” chairman is nice. However, you should evaluate how strong you think you are in neurosurgery before choosing to go to a place where you might be severely tested. The key is not to overshoot (or undershoot) your abilities. If you think you can go to UCSF and deal with a famously malignant department to get a letter from their chairman, do it. But don’t be wrong. A sub-I can hurt you as much as it can help you.

Once you have decided on some programs, check their web pages and see what the requirements are. These requirements may be negotiable. UCLA requires a radiology rotation before registering for a neurosurgery clerkship, but a nice email to the program coordinator explaining the impossibility of fitting radiology into my schedule before my desired UCLA dates elicited a sympathetic reply email and a waiving of the requirement. A similar email to Colorado (about a neurology requirement) got me a “sorry, those are the rules” response, and thus I did not go there. Do your homework in the spring (like,
March). If some place has a requirement you don’t have scheduled, there is always the two weeks in June between 6I and 1A to get it done at Carle. But you need to know that ahead of time.

As of the 2008-2009 application year, the AAMC has instituted a pilot program involving ten schools called the Visiting Student Application Service (VSAS). This is intended to be a standardized application to better manage the fragmented process that now exists. Jim Hull is familiar with this as he was a “guinea pig” for the system at the last AAMC meeting and reports that students will have to go through UIC this year as the system does not yet deal with multi-site schools. So that will be another reason people will think you are from UIC. Get ready. Again, the system is only for ten schools. One of them is Michigan.

http://www.aamc.org/programs/vsas/start.htm

Since most of the schools you’ll be applying to don’t use VSAS yet, what you’ll probably end up doing is sending in several overlapping applications. It may happen that you get the same date at two places. Don’t be afraid to cancel a sub-I if you need to – just do it well in advance. Some places (Mayo, Northwestern. WashU. Barrow) are very popular and there may be some scheduling congestion. Other places may not have anyone else on service. READ THE REQUIREMENTS CAREFULLY because immunization requirements can mean multiple trips to McKinley if you don’t get enough documents. One place wanted me to get a “TB mask fit.” WTF is that? Cancelled.

You may wait some time for confirmation of your sub-I’s. Don’t be afraid to contact programs to find out your status if you haven’t heard by June. I applied for a sub-I at Program “A” in March, heard nothing ever (waste of $35) and forgot about it. I ended up scheduling Program “B” in that slot. While I was in my last week at my first sub-I (at Program “C”) I got an email from Program A saying “Hey, we’re looking forward to you showing up on Monday” and I was completely bewildered since I hadn’t heard anything from them about it until that point. Since I was already confirmed for B, I had to explain to A that this was the first I had heard in response to my application of five months ago. I got a nice apology, but the point is that just because you don’t think you’re going somewhere doesn’t mean they don’t think you’re coming.

Housing: Some places will have student housing available, but it is usually much more expensive than something you can find on Craigslist. Staying for free with someone you know is cheaper still.

Preparation

Read anatomy: You are going to get asked questions on your sub-I’s. However, the most common questions are not going to be neurosurgical. Rather, they will usually be anatomical. People don’t expect you to be up on the differential diagnosis of an intra-axial posterior fossa lesion in a pediatric patient (ANSWER: 1. PNET. 2. pilocytic astrocytoma, 3. brainstem glioma) but they will likely ask you basic cranial anatomy questions. Know what traverses which foramen. know your vasculature, know where every cranial nerve is, etc. That is M1 stuff and if you don’t know it you look really bad. The excuse that “that was so long ago” is invariably met with, “well, it was five times longer ago for me!” Not knowing basic cranial anatomy makes you look like you are not interested in neurosurgery. You are expected to be reading up on this stuff in your spare time.

Learn to read film: You are going to need to read a lot of film. If you did not pick this up during your excellent Medical Imaging class in M2, you are going to need to remedy this deficiency in some way. You will need to know what subarachnoid hemorrhage looks like on CT. You will need to know what
spinal stenosis looks like on MRI, both axial and sagittal views. (You don’t usually look at a coronal for that.) It might be that the first day of your sub-I, you are sent to the chairman’s clinic and his secretary or nurse sets up the film reader for you and the chairman says “go for it” and you are expected to read the film. then examine the patient, then come back and present the case. You may think that you can read the radiologist’s report, but what if the patient had the MRI just a few minutes prior to coming to the appointment? If you think this is a hypothetical situation, you obviously don’t recognize the factual documentary nature of this paragraph.

**Knots:** I did not learn one-hand tying in my surgery rotation. Some surgeons at Carle and Provena discourage one-hand tying. Explain to them that you need to do it for neurosurgery, and if they still decline, teach yourself. I was tying two-hand knots on my first sub-I until one resident very kindly took me aside and told me that if he were my attending he would throw me out of the OR for tying like that. I spent the rest of that sub-I practicing one-handed knots. Later, on the interview trail, I was ambushed into tying a series of one-handed knots at the end of one interview. Had that resident not taken me aside, I would have blown that interview. Get good at all knot-tying.

**What to do on your sub-I**

Once you get to your sub-I, you need to have a plan to do two things: do a good end-of-rotation presentation, and get a letter from the chairman.

You also want the residents to like you, because if you want to match there, the residents will have some say in it (mostly in that they “pre-screen” people they don’t like). Residents can veto someone pretty easily. After all, they are the ones who will be working with you most closely, so if they think you are a jerk, they will make sure the faculty knows it. If you do not get invited back for an interview after a sub-I – and your paper credentials are good – you should think back to which residents you pissed off.

**The presentation:** Almost all programs expect rotating students to present at grand rounds in the last week of the rotation. Education days are usually Wednesdays. When you meet with the program coordinator on the first day, you should confirm the date of your presentation, and any special requirements. If you are an MD/PhD student, you may or may not be expected to present on your research. One place I rotated expected me to present my research, one expected a regular case presentation, and one gave me a choice (so I recycled my research talk from my first rotation). Get this clarified up front. If the chairman is known to like specific things, like video, then find that out. It is all about impressing the chairman.

The presentation is your chance to shine when everyone is watching you. Make it count. You will usually only have 30 minutes, so if you are an MD/PhD student with a lot of research to present, make sure you can talk about it in an accessible way in no more than 30 minutes. You may want to get this organized before you leave for the rotation. Neurosurgery faculty are notorious for wanting to know how your many years of research relate to neurosurgery. The further your research is from neurosurgery, the more time you will need to spend making it seem at least partially relevant.

**Chairman’s LOR: You MUST get a letter of recommendation from each away rotation you do.** A letter from the chairman is expected all around: you are expected to ask for one, and he/she (there is one female chair – at Michigan) is expected to give you one, assuming you did not completely screw up the rotation. What the letter says is a different story: “So-and-so rotated here” is not a good letter. “So-and-so rotated here and worked hard and gave a great presentation about his/her research and has the faculty looking forward to his return for an interview” is much better. Because the chairman is writing
it. He/she will obviously be most influenced by what he/she saw personally. That’s why you should see the chairman’s clinic as often as possible.

**Chairman’s clinic:** You need to find out when the chairman’s clinic day is and go each week of your sub-I if possible. The whole point is to get the chairman to know you, like you, and write you a good letter. Go as often as possible, and once you find out what is expected, dive right in. Make sure you let the staff know who you are so you get included on chart distribution, etc. Sometimes you will be asked to see only new patients, sometimes you will be asked to see everyone. There will usually be a nurse practitioner there, so make friends and try to fit in. The whole point is to look smart and hard-working but not seem like a jerk. If there is more than one sub-I on service, you may need to work out between yourselves who is going to the chairman’s clinic when.

**Everything else:** Everything else is variable. When to show up in the morning, whether or not to pre-round, whether or not to spend time on neuro-intensive rounds (most boring things ever), how much time to spend at other hospitals (if there are hospitals other than the main university hospital). Some of this (when to show up, etc.) is best asked of the chief resident. What he says, goes. You want to get other residents’ input on other things, though. For example, neuro-intensive rounds are bo-ring, but the neuro-intensivist is likely on the interview/selection committee. You don’t want to show up for your interview having avoided the neuro-intensivist during your rotation. Likewise, there may be attendings at other hospitals who interview candidates – you want to find these people and make yourself known. I had a case where I got to know one pediatric neurosurgeon on one of my rotations very well, and the other one not at all. Guess who ended up interviewing me? Not the one I knew. That was hard to explain: yeah, uh, I was here for a month this summer but we never met. Crazy luck of the draw I guess! Right.

This stuff is all best asked of the residents. Ask them who is involved in interviews. All of the neurosurgery attendings will be, so make sure to get to know each of them at least a little. But if someone is known to be a big jerk, you don’t have to get to know that person as well as others. Above all, avoid getting into positions that may make you look bad. If someone is known to be a yellow in the OR or throws instruments, or just beats on med students, you want to avoid that since the chance of some incident occurring that you will be linked with (whether or not it was your fault) is higher than if you just avoided that person. You will need to operate with as many of the attendings as you can, but some probably more than others.

Neurosurgeons operate. If you are not rounding or in the chairman’s clinic, you should be in the OR, unless someone has told you that you are expected to do floor work. Cases are always posted the day before – find out where they do this. It may be in the OR or in the residents’ office. Decide which cases you will attend and read up on them the night before. Sometimes the chief will direct you to a particular case, which means you will say “great!” and go. When you go, always ask if you can scrub. Sometimes you will be able to, and sometimes not. If you are scrubbed in, try to help, by first asking what you can do. Don’t just stand there. Be confident and polite. If you cannot scrub, be attentive to the sterile zone and when the microscope is in use, watch the screen. This can be really tough because you will be standing for hours and doing nothing.

**Applications and interviews**

Choosing where to apply can be tough. You should obviously apply to a mix of top-, middle-, and lower-tier programs. If you are an MD/PhD, you should apply to those programs which value basic science research, like Iowa, Rochester, UCSF, Duke, WashU, etc. Unless, of course, you are done with basic science research and don’t want to do it in residency. The average number of applications per applicant has been in the thirties for years. In 2008 it suddenly dropped to 24. No idea why.
Also understand that you may get interviews at good places and at the same time get rejections from much lesser places. This is especially true if you are an MD/PhD. Some places have limited research opportunities and feel that an MD/PhD you simply would not be happy there. Or they may simply want to train clinical neurosurgeons with no interest in research, and don’t want residents who will be “distracted” by research interests. That’s fine. Never take a rejection personally.

Once you have applied, you will get interviews. Schedule all of them. Most programs will have 3-4 dates available to choose from. (Some have only two.) Interview invitations are almost always done by email, while many rejections will come by postal mail. Interview invitations will all have “interview” somewhere in the subject line, while email rejections will usually have a subject line that just says “application” or “neurosurgery residency.” You should set up your email so that emails with “interview” in the subject line get sent to your pager. Having a phone/PDA with email is essential. If you do not respond to interview requests within 30 minutes you are in danger of not getting your preferred interview date. I missed one interview (at a good place) because they sent out 40 interview invitations for 30 interview slots, and I happened to be out to dinner and didn’t respond to the email until 90 minutes after it was sent. So I ended up on the waiting list, and I didn’t get an interview spot in the end. Most programs will send out initial invitations, then send out additional ones to people on the “B-list” if others decline interview spots (or cancel them). So you may not hear from a program for a while. I was told by one chairman that a phone call to the program coordinator reiterating interest can get you placed at the top of the “to-be-called” pile because it shows them you are really interested in their program. I have no idea how accurate that is in general, but it’s something to keep in mind.

There is nothing wrong with double-scheduling interviews. You can always ask a program to move your interview (but they may be full, don’t expect it to be automatic) and if you end up with two or more interviews on the same date, you can cancel the extra ones, as long as you give the program sufficient notice so they can contact more people and fill those interview spots. I would consider two weeks prior to the interview to be the absolute minimum notice if you are canceling. Poor form with cancellation timing can get your name sent around to other programs with a “black mark.” Be careful.

I’m not going to give a lot of advice here on the interview itself – it just seems obvious. This is a job interview. Treat it like one. The one thing I would encourage is for you to attend every resident dinner that is offered. The traditional format is to have a dinner with the residents the night before the interviews.

The “second look”: The second look is a dangerous trap masquerading as a chance to show a program that you’re really interested in them. Programs will often tell you, “if you want to do a second look, just let [program coordinator] know.” Beware. Some programs may expect you to do this to express “further interest” in that program. I would advise against this. If you have some actual, honest questions about a program and want to go back, contact the program coordinator and make sure you schedule a visit which specifically addresses these questions. But don’t go back just to play the political game, because it can hurt you. Here is a story about that.

I went back to one program at which I had had a really good series of interviews, in order to do a “second look” but really just to say I was interested. First, the chairman was out of town, so I didn’t even get to talk to him and say I was interested in coming to his program. Second, I got assigned to a really interesting open crani which happened to be the first case of a new faculty member. Like, that surgeon’s very first case at this place. Right before the case was scheduled to start and after the patient had been sedated, it became clear that the scans hadn’t been uploaded to the Brain Lab system, and thus we couldn’t start the case. We spent the next four hours trying to get the situation resolved, with a lot of tension and discomfort. Then, the surgeon did the case and didn’t let the chief resident do anything – he was like a med student and just retracted. I spent 12 hours in this case, and ended up getting apologies from the chief, who tried to explain that this was the surgeon’s first case and wasn’t representative of how much a chief resident gets to operate at this program. The surgeon was probably very embarrassed.
that I had witnessed such a snafu. (The program coordinator definitely was, judging from how she interacted with me on the phone.) So now I am associated with a negative picture of the program. Maybe they think I will rank the program lower.

You can end up having a negative experience at a second look without anything approaching this level of disaster. You are rolling the dice with any second look, *unless the program itself is paying for you to go*. That is extremely rare in neurosurgery (almost unheard of, in fact) but if it happens, go. If they are paying, it totally changes the picture. Otherwise, be careful.

The network

Neurosurgery is an amazing field, and it is also very small. You will see the same people on the interview trail over and over. If you like them, get their emails or phone numbers or whatever. You will want to keep in touch with these people. Some of the best phone calls I got on match day were from people to whom I had given my phone number after the resident dinner (because I had a rental car and was picking them up to take them to the interview site or vice versa) who then saw my name/result on Uncle Harvey (dot com) and called me to say congratulations, or texted me, or whatever. There are many more people I wish I had gotten contact info from, and will be looking for at neurosurgery meetings. Some day, you may be looking for a job and need to get info (or a good word) from somebody you met on the interview trail. Cultivating these relationships is very important.