Specialty/Field Questions:

1. a) What are some strengths about your specialty? What draws and keeps people in your specialty?

Otolaryngology is both a clinical and surgical specialty. If you become unable to perform surgery during your career due to extenuating circumstances, you may still have a thriving practice as a clinic based only otolaryngologist. Therefore, you always have a safety blanket, even into retirement. The clinics of otolaryngology are also full of minor procedures and patients generally easy to evaluate (as opposed to a general internal medicine patient with multiple co morbidities). The demand for our specialty is enormous; you will be never short of patients.

From the surgery point of view, the types of surgeries you can perform are diverse, from easy to complex and delicate, and from macro to micro. One can select from a range of cases to perform such as inserting ventilation tubes in ear drums and performing tonsillectomies (very easy) to microsurgery of the middle ear (requires a high level of skill but surgeries can be short 1 to 4 hours surgery) to resecting a tongue tumor, performing bilateral neck dissections and microvascular reconstruction of the tongue (requires extreme skill and endurance up to 16 hours).

The specialty is cutting edge is terms of equipment and technology that is utilized: image guidance surgery, robotic surgery, and endoscopic surgery are examples. There is wide range of patient ages covered in our specialty from pediatrics (ie. ear tubes) to treating older patients with head and neck malignancy. The subspecialties are diverse: head & neck oncology – microvascular reconstructive surgery (very intense), facial plastic and reconstructive surgery (with a high focus on cosmetic facial surgery), otology – neurootology & skull base surgery (microsurgery of the ear, and provide approaches to the brain for neurosurgeons through the ear, cochlear implants), rhinology and skull base surgery (endoscopic sinus surgery and provide access to the brain for neurosurgeons through the nose), and pediatric otolaryngology (perform delicate surgery on pediatric airways).

The lifestyle of general otolaryngology is among the best of the surgical specialties – call is typically involves phone consults (ie. don’t have to go in), 745 – 330 pm ORs 1-2 times per week with mostly day surgery patients (ie not much rounding), 1-2 days of clinic 9 to 4 pm per week, ½ day of
paper work per week. You are considered the airway expert in the hospital and for this, you command a lot of respect among your colleagues treating patients with impending upper airway obstructions.

**b) What are some common complaints your specialty?**

In general otolaryngology, you may have to see about 10 patients in clinic to get one surgery patient. Nevertheless because of your popularity, you will always have at least a 6 month waiting list for patients to get into surgery. As with many specialties, patients being sent are not worked up properly, and many patients may have multiple minor nonspecific complaints that you can do very little for except for reassuring them that they are not suffering from serious underlying condition. ie) tinnitus, globus, nonspecific headache. The Initial overhead setup with scopes, video towers, sterilization units, appropriately equipped examination rooms for a private office can be up to 500000. ENT surgery (except head and cancer surgery) may be considered low priority compared to other services such as gyne, ortho, general surgery, and therefore acquiring OR time can be challenging at many hospitals.

2. **Why did you choose your specialty?**

Our patients are extremely happy and see immediate gratification from our interventions. The patient with the blocked and crooked nose can breathe and looks more attractive after a rhinoplasty. The patient with a block sinus has relief of their chronic headache with sinus surgery. The patient who can't hear because of fluid in their middle ear is relieved by a myringotomy and tube, etc. A laryngologist can restore a normal voice and swallowing in a patient with a recurrent laryngeal nerve paralysis in less than 1 hour. Pediatric otolaryngologists will work in collaboration with OBGYN/Peds ICU to perform lifesaving EXIT procedures for infants with critical airways. Many other specialties also perform very specific components of head and neck surgery quite competently, but none have intricate knowledge, breadth, and skill to navigate the head and neck like those that have core training in Otolaryngology – Head and Neck surgery. As a result, Otolaryngologist around the world are pushing the limits of head and neck surgery, performing the first face transplant in North America (Alam, Cleveland clinic), performing the highest volume of free flap micro-vascular reconstruction of the head and neck at most centers in North America (U of A), reverse digital bony reconstruction with dental implants of the jaws (U of A), working with neurosurgeons to resect brain tumors and treating brain aneurysms by providing access to the brain with minimally invasive approaches through the ear and nose (U of A), becoming world class experts in facial nerve paralysis (Hadlock, Harvard) and even restoring hearing with new technologies such as bone anchored hearing aids, middle ear implants,
cochlear implants (U of A), and brain stem implants. Because of their confidence attained in the head and neck acquired in their core training, facial plastic surgeons are now performing a significant portion of facial cosmetic surgery in North America. In fact, many innovative leaders in facial plastic surgery have emerged (Tourimi for rhinoplasty, UIC). Professional performers/singers/actors/actresses regularly consult and place their trusts in Laryngologists to maintain their voice and if necessary, perform delicate microscopic laser surgery on their vocal cords.

3. **What types of clinical cases do you commonly see?**

A **general otolaryngologist** in a clinic will typically see patients with various ear, nose/sinus, and throat complaints, and even neck masses. Most of these patients will be examined with otomicroscopes and endoscopes in the office and most diagnoses are made visually. Most of these patients will be managed with medical treatment with a few going on to requiring surgery. In clinic, the otolaryngologist will also perform many office-based procedures including local excisions, biopsies, local flaps, and myringotomies and tubes. In the OR, a general otolaryngologist can perform a wide variety of cases such as parotidectomy, thyroidectomy, scopes and biopsies of potentially malignant lesions, microscopic laser excision of a vocal cord lesion, mastoidectomies for chronic ear disease, adenotonsillectomies, septorhinoplasties, and functional endoscopic sinus surgery.

On call, the otolaryngologist in the ER will treat patients with severe epistaxis, drain peritonsillar abscesses but otherwise most consults are handled over the phone. On call in the OR, the otolaryngologist will typically drain neck abscesses, remove foreign bodies, and perform life saving airway securing maneuvers such as tracheostomies. More rare, the otolaryngologist may also repair laryngotraacheal apparatus injuries, and repair other structures damaged in a penetrating trauma of the head and neck. A subspecialist in ENT will have a more tailored practice as described in #3. For example, a facial plastic and reconstructive surgeon provide both reconstructive and cosmetic services such as nasal reconstruction, facial fracture repair, rhinoplasty, microvascular free flap reconstruction of the head and neck, facelifts, etc.

4. **a) What are the varieties of lifestyles within your field?**

A general otolaryngologist lifestyle is described above. In general working 4 days a week, you may comfortably generate the aforementioned income. In terms of subspecialists, otologists, rhinologists, and laryngologists have the best lifestyle with mostly day surgery patients and significant compensation. Head and neck oncology – microvascular reconstructive surgeons work long hours,
performing surgeries up to 20 hours but have the opportunity to operate and reconstructive some of the most intricate anatomy in the human body. Their patients also require the most pre and postoperative care.

Students are usually attracted to otolaryngology because of their exposure to the incredible head and neck anatomy they witness on the head and neck service. Facial plastic surgery can be very challenging. One has to have competencies in business management. Furthermore, one has to become very comfortable in performing cosmetic surgery on the most conspicuous part of the human body, the face, especially on patients with very high expectations and demands. Although the stakes are very high, the results can be very rewarding for you and the patient can be very rewarding.

b) *Specifically, how able is your specialty to accommodate family life?*

Depending on how hard you want to work clinically, which subspecialty you select, and academic demands of teaching/research, you can tailor this specialty to be among the most conducive in having an excellent family life.

5. **Range of incomes?**
   400000 to 1000000+/yr

6. **How do you see your discipline changing over the next decade?**

There are expanded applications of endoscopic skull base surgery with CT and MRI guided navigation to deeper regions of the brain. Robotic surgery will be increasingly utilized in extirpating tumors of the upper aerodigestive tract. Middle ear implants to directly vibrate the bones of hearing, and brain stem implants for damaged cochlear nerves are technologies that are rapidly evolving. Bony reconstructions and dental implants are now being completely driven by computer rapid prototype modeling in Edmonton (IRSM, U of A). This technology will only continue to get better. Gene therapy for head and neck cancer is real possibility. Bioengineering of structures of the head and neck will significantly improve reconstruction. Intraoperative fluorescent tagged antibodies will create better delineation of tumors to be resected while at the same time improve visualization of critical structures such as the facial nerve which are to be preserved.
**Residency Program Questions:**

1. **What are you specifically looking for in an impressive candidate?**

   Ideally, a Student should have an outstanding 2 week elective performance at U of A. Candidates should try to demonstrate the CANMED competencies while on rotation. Practically speaking, this means assigning yourself to the chief resident on head and neck. You should be present on the ward prior to the arrival of the head and neck team, getting charts ready. You should take notes on the ward and take on increasing responsibilities as the junior resident offers them to you. ie, removing sutures, inserting feeding tubes, helping with trach changes, etc. You should gradually become familiar with the protocols involved in looking after postoperative head and neck patients. Essentially, you should be able to integrate yourself into the head and neck team (collaborator). You should attend the 730 am to 830 am seminars, reading about the topic the day before so you can demonstrate some knowledge (medical expert). In fact, you may want to offer to present a portion of a topic (communicator, scholar) or even better, offer to help with grand rounds on Friday. In clinics, you should be able to present a concise history, physical exam, and differential diagnosis, and suggest possible interventions in about 3 minutes. The concise ENT history notes and physical exam videos on the surgery wiki will be beneficial.

   Try to learn to perform flexible laryngoscopy in the clinic once you have developed proficiency with history and physicals. Obviously, you will have to have a good knowledge of general otolaryngology (medical expert). You will want to be engaged in the OR, having been well read about the procedure being performed. You should always review the patient’s chart prior to scrubbing into the OR (aware of their name, age, occupation, family life, diagnosis, and why the procedure is being performed); only this way you become intimately aware of the patient’s situation and can put their needs first above all else (Advocate). As the junior resident offers it to you, demonstrate your ability to suture (subcuticular) and perform skin grafts.

   Always remember to maintain the highest standard of professionalism; just because another senior team member maybe acting unprofessionally does not mean you need to role model this behavior to fit in. Dress professionally on the wards and clinics; scrubs and appropriate sterile technique in the OR. Be humble, error on the side of conservatism, and focus on learning and helping. After clinics and ORs are done at 5:00 pm, page the on call resident to help with ER/ward consults and attend the late room for head and neck. Your postop notes should be neat and concise and you should have learned how to write the postop orders.
You will be evaluated by staff, residents, nurses, speech path, RT’s, etc. and any negative final evaluations from any of these members may compromise your chances. Get advice from the residents about their expectations at the beginning of the rotation, and ask for intermediate feedback at the end of each learning experience. Ask the residents and staff for a research project to become involved with; consider helping writing and publishing a paper and even presenting at the Canadian National meeting(scholar). Demonstrate that you are efficient with your time and do not waste any opportunities (manager). Make sure you assist with rounds and consults on weekends. Never overstep the junior resident. Try to spend some quality time with the members of the interview committee: Wright, Ansari, Seikaly, Harris, El Hakim, Seemann.

b) What can a potential candidate do now, in order to be an appealing applicant to your program?

Good to excellent evaluations with no red flags on any rotations. All of your electives do not have to be in otolaryngology. Students should attempt to secure an excellent reference from at least one prominent otolaryngologist.

2. How is your residency program organized?

Please see the attached brochure.

3. What is your residency program’s orientation and focus?

The mission of the residency-training program at the University of Alberta is to produce graduates who have all skills and competencies necessary to function as a consultant in General Otolaryngology as well as the ability to transition seamlessly into post-graduate fellowship training.

4. What is the availability of experiences in subspecialty areas during training?

All subspecialties are well represented in our program and are reflected in the core experiences in the residency program.

4. Are there sufficient elective opportunities during training to explore your special interests?

In the second year, you will have a single month to move flexibly between subspecialties to gain early exposure to potential areas of interest. All subspecialists are happy to provide mentoring to guide your research, electives, provided strong references, and make phone calls to fellowship directors to maximize your chances of acquiring a well reputed fellowship. In 3rd year, you will have a 1 month elective and then in 4th year, another 2 months is offered. You will be given additional time off for interviews, although it is recommended to schedule them as part of your elective time. Because of the highly regarded reputation of our program across North America, it is not suprising that our residents
acquire some of the most prestigious fellowships in the world: recently, Duvochel in France – first face transplant in the world, Alam – first face transplant in North America at Cleveland Clinic, Hilger – American board otolaryngology president and renowned facial plastic surgeon, Urken – renowned head and neck surgeon in New York, House group in LA known as the top otology fellowship, etc and the list goes on.

5. **What is the on-call schedule during each year of residency?**

   Our program is very strict in following PARA guidelines. Except for off-service rotations, all call in otolaryngology is home call. There is a graded call schedule. You are covering the two major tertiary care hospitals, Royal Alex and University of Alberta Hospital which are approximately 15 minutes away from each other by driving. In the PGY1 and 2, you are doing 1 in 4 call; PGY3 is 1 in 7; PGY4 is 1 in 9, PGY5 is 1 in 9 backup call. As a junior resident, you will always have a senior resident and staff backing you up. As a senior resident, you will take on more of a consultant role.

6. **What distinguishes the U of A program from other programs?**

   - Greatest number of OR cases to avail than any other residency program because Alberta is such a well-funded healthcare system and staff are hard working. In fact, our residents are often in a situation where they have to choose between 2 operating theatres running at once. Residents often can operate 5 days a week, but in order to develop other competencies, residents are also encouraged to attend 1 or 2 clinics/week.

   - Great research mentoring. We have staff with an outstanding track record in basic, clinical science, and as well as, educational research. We have no limit on the funded conferences you can attend to present your research. Our residents are traditionally the recipients of prominent research awards every year.

   - Subspecialist mentors covering the entire breadth of otolaryngology. This means your training will be the most up to date and advanced. These staff have helped residents secure among the most competitive fellowships in North America and abroad.

   - Funding for strictly instructional courses such as the temporal bone course, endoscopic sinus surgery course, a head and neck course, and a final review course.

   - Preceptor based training model where you will learn from 2 or 3 preceptors on a given rotation from 2 to 3 months. Such a system allows you to progressively build your skill level towards competence with a handful of preceptors over a concentrated and intense period of time.

   - We have a few fellows, but residents have first priority with all resident level cases. Other institutions, the fellows are given preference over residents for cases.

   - We have an “everyday” as opposed to an academic ½ day. The didactic content of otolaryngology is based on the learning objectives prescribed by Royal College. This is delivered in the form of a 1 hour seminar from 730 to 830 Monday through Thursday during the academic year. On Friday, there are grand rounds. Residents also receive an additional ½ day/week of protected time to do research and studying. No other residency program offers so much protected time for academics.
• As a result of the above, no resident has EVER failed the Royal College Otolaryngology exam from the University of Alberta.

• International electives to Peru and China.

• Extensive opportunities to teach medical students in our program.

6. **Who can we contact for more information or to set up electives?**

   Please contract the office of Undergraduate Surgical Education at 780-735-5953 or email specsurg@ualberta.ca.

7. **How competitive is it to get in, and then to succeed in your field?**

   On average, we have 40 applicants to University of Alberta, conduct 20 interviews and accept 2 candidates each year. There are about 30 spots across Canada. The programs in Eastern Canada will have a greater number of applicants because of the greater population.

   As systems in Canada are government funded and hospitals are usually affiliated with a teaching center, acquiring operating room time in major cities is very competitive. You will likely need to perform very well in your residency, have done plenty of research, have a good track record with teaching, have a master’s degree, and completed 1 to 2 years of fellowship following residency to acquire a job at a major center. Suburbs and non-teaching centers are easier to acquire operating room time. As said, you have the option to practice only clinical ENT with no call, and in fact, a greater income. Because of the huge demand, competition is small in the market, and there it is very easy to become busy very quickly.

8. **Is there active and/or required research in your residency program?**

   You are required to complete one research project per year in your residency program. This translates in opportunities to present a many conferences every year fully funded. There are opportunities in the basic and clinical sciences as well as medical education research.

18. **What local, national or international conferences would be of benefit to candidates interested in your residency program?**

   • University of Alberta Otolaryngology Annual Research Day (Local)
   • Alberta Society of Otolaryngology Annual Research Day (Provincial)
   • Canadian Society of Otolaryngology Annual Meeting (National)
   • Combined Otolaryngology Scientific Meeting (USA)