



Amin R. Javer, MD FRCSC FARS  
Endoscopic Sinus and Skull Base Surgery,  
Rhinology and Nasal Physiology

## **ENDOSCOPIC SINUS & SKULL BASE SURGERY FELLOWSHIP**

**St. Paul's Sinus Centre University of British Columbia Vancouver, B.C.**

**Program Director: Amin R Javer, MD FRCSC FARS**

**Number of Positions: One annually**

### **Eligibility:**

The eligible candidate must have sufficient knowledge and technical skills to manage patients with minimal supervision. The fellowship position requires the applicant to have completed residency training in Otolaryngology, and to have successfully passed licensing/board examination(s) in their country of origin. The fellowship is open to Canadian Otolaryngologists, as well as non-Canadian trained Otolaryngologists who are eligible to obtain a training/working visa for Canada, as well as an educational license for British Columbia.

### **Accreditation:**

This fellowship is accredited by the American Rhinologic Society

## **OBJECTIVES AND TRAINING**

A fellow at the St. Paul's Sinus Centre will work under the direct supervision of Dr. Amin R. Javer with potential participation/supervision from Dr. Andrew Thamboo as well as other Sinonasal / Head and Neck surgeons in the division. The St. Paul's Sinus Centre is a very busy tertiary and quaternary care sinus centre dedicated to the surgical and medical treatment of sinus and skull base disorders. It is the dedicated referral centre for British Columbia and western Canada. The sinus and skull base fellow is expected to attain the following basic requirements during his/her fellowship:

### **Objectives:**

1. Complete at least one advanced (bench or clinical) research project and present/publish it at a major national or international Rhinology / Skull base meeting.
2. Help in organizing and participate in the biannual advanced sinus course offered by the St. Paul's Sinus Centre.

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3. Help in organizing and participate in the fellow/resident sinus courses held throughout the year.
4. Actively participate in and carry out monthly rhinology teaching rounds for all rhinology fellows/residents.
5. Actively participate in weekly rhinology professor teaching rounds/lectures.
6. Actively participate in weekly rhinology CT review rounds.
7. Attain an exceptional degree of expertise in endoscopic sinus and skull base procedures.
8. Carry out at least one weekly fellow clinic during the second half of the fellowship year.
9. Help in organizing and teaching the sinus component of the UBC resident's teaching schedule.
10. Attain an exceptional degree of expertise in clinical endoscopic skills and procedures in the outpatient setting.
11. Attain a high degree of knowledge and familiarity with the current research and literature in the field of medical rhinology, sinus and endoscopic skull base surgery.

#### **Operative Experience Expected:**

The operative experience will gradually increase from initial cadaver dissection and observation in the operating room to carrying out ethmoidectomies in primary cases to eventually carrying out tertiary procedures including participating in CSF leak repairs and tumour resections during the last six months. At the end of the fellowship it is expected that the fellow will feel comfortable dealing with tertiary rhinology cases including revision FESS and frontal sinus surgery, endoscopic management of sinus and skull base tumours, endoscopic medial maxillectomies, endoscopic CSF leak repairs, endoscopic DCR's, and endoscopic drainage of orbital and anterior cranial fossa / skull base abscesses, and transnasal endoscopic pituitary hypophysectomies. The average time spent in the operating room varies between two and three days per week. At least half of this time is spent in operating rooms with no resident participation which allows the fellow ample surgical experience. During surgery in the teaching institutions, residents are expected to participate during the initial stages of the operation (often with the fellow acting as the primary teacher) with the fellow taking over for the more difficult stages of the operation e.g. frontal sinus surgery, actual repair of the CSF leak, tumour resections, etc.

#### **Clinic Experience:**

The fellow is expected to participate and intimately become integrated into the two very busy clinic days per week at the sinus centre. Using a graduated approach, the fellow will eventually be expected to carry out the initial assessment and examination of all new

patients seen in the clinic. During the final six months of the fellowship the fellow will be expected to have progressed significantly to competently run a “rhinology fellow” clinic between two and four times a month under minimal supervision.

**Research Experience:**

The sinus centre is very active in clinical and basic research projects with eight to ten research projects running simultaneously at any one time. The fellow is expected to carry out at least one major research project during his/her year at the sinus centre. It is expected that the fellow will present his/her research at a national or international rhinology meeting at the conclusion of his/her fellowship. There is no dedicated time during the working hours of the week set aside for research. The fellow is expected to integrate his research into the workweek and use off hours/weekends to continue his/her projects. Because the sinus centre is highly integrated with the residency training program, it is hoped and expected that resident participation and affiliation with research projects will occur naturally.

**Description of relevant clinical and research infrastructure at host institution:**

The St. Paul’s Sinus Centre has had a fellowship program since 2002. Over the past two decades, a very good infrastructure has been achieved for a successful fellowship program. Over a five-day workweek, two and a half days are dedicated to clinic time. Greater than 95% of patients seen in the clinic are rhinology and sinus referrals from otolaryngologists, pulmonologists, neurosurgeons and other specialists around the province. The rest are tertiary sinus referrals from out of province. Two and a half days of the work week are dedicated to operating time. All surgeries are carried out in highly advanced endoscopic sinus operating rooms with computer guidance systems. Dedicated office space with a desktop computer is provided for the fellow. E-mail communication with patients, clinic staff and residents is encouraged. A weekly CT/Radiology rounds as well as a bi-weekly one-hour fellow teaching session will occur on Monday mornings and Friday mornings respectively. A monthly city-wide rhinology rounds is held on the first Wednesday evening of every month. A weekly research rounds with the research team is held every Thursday morning.

**Other relevant information:**

The integration of the rhinology fellowship program into the UBC division of Otolaryngology residency training program with all of its academic activities has resulted in the creation of a rich academic milieu for the fellow. Ongoing academic rounds in the division and at the sinus centre allow the fellow to present research as well as interesting cases on an ongoing basis throughout his/her year. The fellow is expected to deliver at least one grand rounds to the entire UBC division of otolaryngology-head and neck surgery during his/her year at the centre.

**Financial Arrangements for Fellows:**

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Currently, there is no official funding available for this position. However, there is a potential for this fellowship to become fully funded through a private donation in the near future. The exact date of when funding will start is currently unknown but anticipated to be within the next couple of years.

Ad hoc funding (i.e. through on-call and teaching clinic coverage) has been sought and successfully obtained for some previous candidates.

### **Applying for a Fellowship at the SPSC**

The following documentation is required to make an application for fellowship:

1. CV and cover letter: please email to [sinussurgeon@drjaver.com](mailto:sinussurgeon@drjaver.com)
2. Reference letters: A total of three reference letters should be sent via email to the attention of Dr. Javer at [sinussurgeon@drjaver.com](mailto:sinussurgeon@drjaver.com)

All candidates selected for an interview will be expected to visit the centre for a week long observer-ship and interview process.

### **FOR FURTHER INFORMATION, PLEASE CONTACT:**

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### **Fellowship Program: Weekly Timetable**

#### **Monday**

0700:

Weekly CT/Radiology Review Rounds at the ENT Clinic St. Paul's Hospital.

0800 - 1700:

Rhinology outpatient clinic at St. Paul's Sinus Centre

#### **Tuesday**

0800 - 1700:

Surgery, False Creek Surgical Centre

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## **Wednesday**

0700:

ENT city wide rounds at Vancouver General Hospital.

0800 - 1200:

Clinic at St. Paul's Sinus Centre (occasionally a surgery day)

1300-1700:

Surgery at False Creek Surgical Centre

## **Thursday**

0700-0800: SPSC Rhinology Research Meeting/Rounds

0800 – 1700:

Clinic, St. Paul's Hospital (occasionally a clinic day)

## **Friday**

0800 - 1700:

Surgery at St. Paul's Hospital OR's.

## ***Appendix:***

### **Formal Fellowship Objectives:**

In an initiative to improve patient care, The Royal College of Physicians and Surgeons of Canada adopted an innovative framework for medical education referred to as the CanMEDS framework<sup>1</sup>.

The CanMEDS<sup>1</sup> model of essential physician competencies is being adapted by other organizations around the world. The CanMEDS framework is organized around seven roles: Medical Expert (central Role), Communicator, Collaborator, Health Advocate, Manager, Scholar and Professional.

### ***Medical Expert:***

*“As Medical Experts, physicians integrate all of the CanMEDS Roles, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centered care.”*

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Upon completion of the fellowship, the Fellow in Rhinology/Sinus and Skull Base Surgery will be proficient in:

1. The ability to perform a complete history and rhinologic/endoscopic physical examination,
2. Establishing a differential diagnosis, directing appropriate further investigations and instituting appropriate therapy,
3. The surgical management of disorders affecting the structures of the nose, sinuses, and skull base.

The fellow will be knowledgeable in the areas of:

1. Basic science, including:
  - a. Detailed knowledge of embryology, anatomy, physiology, histology and pathology of the head and neck as it pertains to Rhinology and Anterior Skull Base.
  - b. Neurophysiology of olfactory pathways
  - c. Genetics of rhinologic conditions.
2. Diagnostic and Assessment Procedures, including:
  - a. UPSIT and other olfactory nerve testing
  - b. Imaging Studies (computed tomography, magnetic resonance imaging)
3. Diseases, Disorders, and Conditions, including etiology, diagnostic criteria, historical features, differential diagnosis, prognosis, medical/surgical management, common and unusual complications, and functional impact of congenital, genetic, infectious, inflammatory, idiopathic, vascular, neurological, neoplastic, traumatic, iatrogenic and metabolic disorders affecting the contents of the sinus and skull base;
4. Pharmacology, including neurotoxic medications, antibiotics, nasal steroid sprays, oral steroids, antifungal (topical and systemic medications), antihistamines, anti-inflammatories, analgesics, and anti-viral agents;
5. Basic Concepts of peri-operative management of surgical patients, pre and post operative medications, image-guidance scanning and set-up, anesthesia, intra-operative monitoring, management of complications, and stereotactic radiotherapy.

The fellow will be proficient in the technical performance and the indications, contraindications, risk/benefits and complications of surgical procedures of:

1. Endoscopic Nasal Septal Reconstruction
2. Endoscopic Submucous Resection of Inferior Turbinates
3. Endoscopic Sphenopalatine Artery and Anterior Ethmoid Artery Ligation
4. Computer Assisted Endoscopic FESS
5. Endoscopic Repair of anterior skull base CSF leaks
6. Endoscopic Management of Skull Base Lesions/Tumors/Encephaloceles.
7. Endoscopic Dacrocystorhinotomies (DCR).
8. Endoscopic Pituitary Hypophysectomies.
9. Endoscopic Orbital Decompression

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10. Above and Below Procedures with Osteoplastic flaps or Gull-Wing Incisions or frontal sinus trephines.

The body of knowledge will be obtained through patient encounters, direct experience in the operating theatre, as well as reading from clinical texts and literature and *ex-vivo* training in the Cadaver dissections.

### **Communicator**

*“As Communicators, physicians effectively facilitate the doctor-patient relationship and the dynamic exchanges that occur before, during, and after the medical encounter”*

Vancouver is a multicultural city with inhabitants who have emigrated from many countries around the world. The Fellow will become sensitive to different cultural issues and their relationship to development of rapport, trust and ethical therapeutic relationships with patients and families. The fellow will develop the ability to convey accurately relevant information and explanations, and develop a common understanding on issues relevant to the management of patients with rhinologic disorders.

### **Collaborator**

*“As Collaborators, physicians effectively work within a healthcare team to achieve optimal patient care.”*

Sinus and Skull base surgery is performed by a team of professionals from Ophthalmology, Neurosurgery, Anesthesiology, and Nursing requiring an ability to collaborate in a team approach to effectively manage the patient’s medical condition. The fellow will participate effectively and appropriately within that team, working with other health professionals to prevent, mitigate, and resolve interprofessional conflict.

### **Manager**

*“As Managers, physicians are integral participants in healthcare organizations, organizing sustainable practices, making decisions about allocating resources, and contributing to the effectiveness of the healthcare system”*

Healthcare is entirely a publicly funded system within Canada. The financial resources are finite. The Fellow will integrate into this system to contribute to the effectiveness of the healthcare system and effectively allocate finite healthcare resources to manage the rhinologic medical conditions affecting patients.

### **Health Advocate**

*“As Health Advocates, physicians responsibly use their expertise and influence to advance the health and wellbeing of individual patients, communities, and populations.”*

Physicians occupy a unique position in society. The fellow must be able to identify for example the determinants of health relevant to rhinologic disorders to promote the health of their patients and society.

## ***Scholar***

*“As Scholars, physicians demonstrate a lifelong commitment to reflective learning, as well as the creation, dissemination, application and translation of medical knowledge.”*

The Fellow will develop further skills to maintain and enhance professional activities through ongoing learning. This will involve the critical appraisal of scientific literature, the application of evidence-based decisions to individual patients, facilitation of the learning of students, residents and patients, and contribution to the body of knowledge through ongoing research.

The fellow will assist with the teaching of Rhinology/skull base disorders to residents as part of their academic half-day schedule. The Fellow will also assist with a biennial Sinus and Skull base course organized at UBC; the next course is scheduled for July 2020. The Fellow will also, if required, assist with the annual Canadian Resident Sinus and Skull Base Course organized with the rhinologic faculty in Winnipeg.

Examples of current areas of research at UBC that may be relevant to the Fellow include:

1. SNMT Study: A prospective safety and efficacy study to investigate the transfer of Sinonasal Microbiota via Nasal lavage from a Healthy Donor to Treat Refractory Chronic Rhinosinusitis in a Recipient Patient.
2. Debridement Study: A single-blind, randomized controlled trial **to determine the** efficacy of debridement of the sinus cavity following primary functional endoscopic sinus surgery (FESS)
3. Betadine Study: A double-blind, randomized controlled trial to investigate the efficacy of Topical Povidone-Iodine Rinses in the Management of Recalcitrant Chronic Rhinosinusitis.
4. Frontal Ostium Grade (FOG) Study: A prospective study investigating the Frontal Ostium Grade, a new CT Grading System for a Safe Endoscopic Surgical Approach to the Frontal Sinus.

## ***Professional***

*“As Professionals, physicians are committed to the health and wellbeing of individuals and society through ethical practice, profession-led regulation, and high personal standards of behaviour.”*

The Fellow will exhibit professional behaviours in practice, delivering high quality healthcare, maintain appropriate relations with patients, demonstrate accountability to professional regulatory bodies, and recognize and respond to others' unprofessional behaviours in practice. Ongoing peer review will occur by way of, but not restricted to, regular morbidity and mortality reviews.



<sup>1</sup> Royal College of Physicians and Surgeons of Canada, CanMEDS 2005 Physician Competency Framework,  
<http://rcpsc.medical.org/canmeds/CanMEDS2005/index.php>, September 2005.  
<sup>2</sup> Modified from “Body of Knowledge for the Subspecialty of Neurotology”, American Board of Otolaryngology,  
<http://www.aboto.org/neuroapp.aspx>, accessed February 2006.

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