APPLICATION FORM FOR FELLOWSHIPS

Program: **McGill Scoliosis and Spine Fellowship (2 year fellowship)**
Name of Program Director: **Dr Jean A Ouellet**
Name of Institution: **McGill University Health Centre**
Location: **Montreal General Hospital**
Montreal Children Hospital
Shriners Hospital
Montreal Neurological Hospital
Jewish General Hospital

Type of Fellowship: **Surgical Program touching on all aspect of spinal management**

Point Form Program Information:

- Number of fellowship positions: **2**
- Academic affiliation: **McGill Orthopedic Department**
- Name of hospitals involved in training:
  - Montreal General Hospital: **25%**
  - Montreal Children Hospital: **25%**
  - Shriners Hospital: **25 %**
  - Montreal Neurological Hospital: **15 %**
  - Jewish General Hospital: **10 %**
- Research activity: **Extended experience in fundamental research & Clinical Research**
- Publications: **See attached C.V. - publication of faculty**
- Mission:

  Fellowship will ensure that Trainees will master in an incremental fashion over a 24 months period: the fundamentals sciences, clinical and therapeutic knowledge required to treat adult spinal disorders and pediatric patients with spinal deformities.
- Outline how intended fellowship will enhance residency training

  The fellows will enhance the teaching of residents both from a didactic point of view as well as hands on teaching in the OR and clinics. Fellows are responsible for Friday morning didactic lecture series and quarterly journal clubs. They will also supplement surgical skill education via daily clinical activities, daily OR. The second role of the trainees is not only to supplement educational, but to advance research endeavors at McGill scoliosis and spine group. We expect the trainees to complete a research project either clinical or of basic science in our spine lab which will lead to a publication.

Names of the Teaching Faculty

Dr Peter Jarzem: Orthopedic spine surgeon; director of spinal research
Specialized in degenerative spinal surgery
Dr Rudy Reindl: Orthopedic spine surgeon; Specialized in spinal trauma
Dr Benoit Goulet:Neurosurgeon; Specialized in degenerative spinal surg

Academic Facilities

- Outline facilities for clinical and academic pursuit:

The spine service current clinical activities and its manpower across the MUHC and its affiliated hospital are as follows:

Staffs:

Four spine surgeons; two spine fellows
One designated spine resident at MGH
Three pediatric residents spread across the MCH & Shriners (Resident cover all pediatric case and activity which include the spinal activities)
No spine resident at JGH
Inconsistent presence of residents on the spine service at the MNH

Activities

OR Days: Mondays MCH, MGH
Tuesdays MCH,
Wednesdays Shriners,MNH
Thrusdays MGH, JGH
Fridays MNH, MGH
CLINICS Wednesday MGH multidisciplinary ,Shriners Scoliosis
Thursday MCH spine, MNH spine
Fridays MCH scoliosis, JGH degenerative
(Average wait list to see spine specialist is 9 months)
SPINE ROUNDS
Monday 7:00 - 8:00
Friday 7:00 – 9:00
MULTIDISCIPLINARY SPINE ROUNDS
Wednesday 7:00-8:30 am research rounds
Wednesday 12:00-13:00

- Outpatient clinic responsibilities need to be outlined

Fellows will attend clinics and OR's to gain knowledge as well as to share their knowledge with resident attending the clinics and OR.

- Library access, materials relevant to fellowship training &
- Multimedia learning materials available

Fellowship is funded by the AO Spine North America which is an organization axed on education and development of spine surgeons. Via the AO website, fellows have access to DVD, surgical techniques, free acess to Spine journal online. .

- Availability of a skills lab if applicable

Once a year local faculty provide cadaveric spinal seminar allowing acquisition of new technology in a safe and controlled education fashion at the McGill Simulation Center

Fellow Duties and Responsibilities

- Call responsibilities to cover service

  Fellow spine call will follow quebecs recommended call 1:4 The fellows will be responsible with the respective residents on either services to ensure that daily notes and orders are covered
- Include whether the fellow is the senior supervisor of residents

  The fellows will function both as junior staff but also as senior residents coordinating management of emergency cases, emergency consult, as well as managing a supervised first line screening clinics.
- Outline whether there are fixed rotations at various institutions

  The general template of fellow assignment will divide their time equally between the pediatric and adult site roughly for half of the year respectively. Depending on fellows interest they would also rotate for a short interval at the MNI with Dr. Goulet. As they would also rotate with the pain clinic, particularly with Dr. Assenjo. Schedules and assignments of the fellows would remain flexible and remain at the discretion of the fellowship director. All be keeping it coordinated with the program director in order to coordinate with residents' assignments. The assignment to adult site versus pediatric site as well as the assignment to protected research time would also remain flexible to answers the residents, the fellows, as well as the staffs needs

- Describe any support staff available to the fellow:

- Proposed meetings to be attended by the fellow

  Fellows must attend the annual Fellows forum where they present their research project to the balance of the AO Spine Faculty. Fellows are also expected to attend a AO Spine course of their choice. Further meeting fellows are encourage to attend are Scoliosis Research Society annual meeting, North American Spine Society, Canadian Spine Society

- Research productivity and publications expected by the Fellow

  As stated earlier fellows are expected to publish on paper at the end of their fellowship

Curriculum

- Intended case load

  Fellows are expected to perform or be 1st assistant in 300 cases per year
- Intended Percentage of varieties of cases

Adult reconstructive (include adult deformity)	**35 %**
Trauma	**15 %**
Neoplasia and Infection	**15 %**
Pediatric Deformity	**35 %**

McGill's Combined Spine Fellowship
- Goals & Objectives -

General Objectives

Trainees should master in an incremental fashion over a 24 months period: the fundamentals sciences, clinical and therapeutic knowledge required to treat, adult patients with any spinal disorders and pediatric spinal deformity.

By spinal disorders we specifically expect the trainees to be able to initiate conservative management, assess if treatment is successful and if not proceed to surgical management for all the following pathologies:

1. Occipital Cervical, Cervical, thoracic, lumbar, and sacral fracture with or with out dislocation
2. Spinal Deformities: Acquired or congenital of the Scoliotic or Kyphotic type. Spondy / lolysis / lesthesis / loptosis
3. Degenerative disc disease: cervical, thoracic, lumbar disc herniations; cervical or lumbar spinal stenosis
4. Spinal infections
5. Spinal tumors

The second role of the trainees is to supplement educational and research endeavors at McGill. This includes teaching residents basic science and clinical knowledge as well as surgical skill via daily clinical activities, daily OR, bi weekly spine rounds, and formal quarterly didactic talks. We expect the trainees to complete a research project either clinical or of basic science in our spine lab which will lead to a publication.

Basic scientific knowledge to be acquired:

1. Detailed knowledge of anatomy, embryology and physiology of the spine
2. Congenital, developmental and acquired non-traumatic conditions of the spinal column
3. Musculo-skeletal anatomy of Cervical, thoracic, lumbar spine; osseous ligamentous and neural elements including Inter vertebral disc morphology
4. Biomechanical and functional anatomy of the spine
5. Natural degeneration of the spine
6. Systemic inflammatory illness affecting the spine

Basic clinical knowledge:

1. Appreciation of Classification (discal, degenerative disorders, mechanical instabilities, spinal deformities).
2. Display knowledge of appropriate investigative techniques
3. Interpretation of advanced investigative techniques:
   Computerized axial tomography.
   CT Myelography.
   Magnetic resonance imaging.
4. Display a detailed knowledge of operative approaches to the spinal column.

These factors are judges using standardized rating system described bellow.

A low rating indicates the trainee shows serious gaps in his/her knowledge of clinical sciences or that he/she does not apply this knowledge correctly. A satisfactory rating indicates that the trainee has a good knowledge of clinical sciences that he/she applies well in problem- solving and other aspects of patient care. This factor should also consider the trainee's knowledge of current scientific literature and his/her application of this knowledge to case presentation and daily patient management.

History & physical examination:

1. Display clinical competence in evaluation spinal disorders:
   Relevant history taking to all spinal disorders
   Relevant physical exam assessing for spinal deformity, spinal instability
   Relevant neurological exam

This factor judges whether or not a trainee takes a complete medical history and performs an adequate physical examination to permit a valid formulation of the patient's problem. The factor should also judge whether or not the information elicited and observed is recorded in an organized and sequential manner which permits a clear definition of the problem and a rational approach to differential diagnosis and management.

Interpretation and utilization of information:

The trainee must master:

1. Role of physiotherapy and occupational therapy in the management of spinal disorders - acute and chronic
2. Display competence in operative and non operative management of spinal disorders in respect to indications, contraindications and complications related to surgical intervention

This factor judges whether or not the trainee is able to interpret correctly the information gathered and shows discrimination in identifying the important and less important information that will allow the identification of the problems affecting the health of the patient. The trainee's concern for the cost of unnecessary investigation and sensitivity to patient inconvenience and discomfort should also be considered.

Clinical judgment & decision making:

1. Display competence in the non operative management of spinal disorders.
2. Display adequate knowledge in advanced non operative management of spinal disorders - bracing techniques, physiotherapy
3. Appreciate indications for surgery for spinal disorders
4. Understand principle of fusion levels in spinal deformity with their implication regarding complications, natural history
5. Recognize and manage postoperative complications.
6. Recognize and evaluate vertebral sepsis: Osteomyelitis, Discitis.

This factor judges the trainee's ability to effectively and efficiently establish a program of investigation and management adapted to the patient's condition, recognizing the limits of his/her ability, the hazards of drugs and other therapy and the need to modify therapy when indicated. The trainee should also demonstrate his/her appreciation for the total needs of the patient, recognizing factors that may limit compliance with prescribed therapy and the non-medical (socio-economic and other) factors that may affect the patient's health.

Technical skills required in the specialty:

1. Display surgical competence in the following areas:
   Laminectomy, Lumbar fusion techniques anterior vs posterior, discectomy cervical, thoracic and lumbar, foraminotomy, spinal tumor debulking
2. Display surgical competence in complex spinal instrumentation:
   Transpedicular vertebral fixation, application of spinal hooks
   Anterior and Posterior vertebral instrumentation for the cervical, thoracic and lumbar spine; either with plates, screws, or rods; Different pelvic fixation, Interbody spacers as well as vertebral body replacements
3. Display a detailed knowledge of the principles of internal fixation with regards to:
   Indications. Complications.Contraindications.Limitations.

This factor judges if the trainee can carry out professional techniques correctly and efficiently.

Communicator

Interprofessional relationships with physicians:
This factor judges if the trainee can work effectively with other physicians in the healthcare team, shows consideration and tact for junior members of the team and is respectful of team members.
Communications with other allied health professionals:
This factor judges the trainee's ability to communicate and work effectively with the other members of the healthcare team.
Communications with patients:
This factor judges if the trainee is able to communicate easily with patients, showing respect for his/her patients and gaining their cooperation and confidence.
Communications with families:
This factor judges if the trainee is able to communicate easily with patients' families, showing respect for his/her patients and gaining their cooperation and confidence.
Written communication and documentation:
History, physical, diagnostic formulation, progress notes, plans, discharge summaries and consultation reports are complete and accurate with satisfactory organization and assessment.

Collaborator

Interacts and consults effectively with all health professionals by recognizing and acknowledging their roles and expertise

Delegates effectively:
This factor judges that the trainee delegates effectively to other members of the healthcare team.

Manager

Understands & uses information technology:
This factor judges if the trainee is able to use current information technology in the course of their professional life.
Uses health care resources cost-effectively:
This factor judges that the trainee has concern for the cost of unnecessary investigation and sensitivity to patient inconvenience and discomfort in the course of their professional duties.
Organization of work & time management:
This factor judges whether or not the trainee effectively organizes his/her work in such a way that priorities are established and that coordination occurs with the other members of the team ensuring total, acute, and continuing care of his/her patients.

Health advocate

Advocates for the patient:
This factor judges the trainee's ability to advocate for the patient.
Advocates for the community:
This factor judges the trainee's ability to advocate for society and the community.

Scholar

Motivation to read and learn:

This factor judges the trainee's knowledge of current scientific literature and his//her application of this knowledge to case presentation and daily patient management.

Critically appraises medical literature:

This factor judges the trainee's ability to critically-appraise research methodology and medical literature.

Teaching skills:

This factor judges whether the trainee takes the initiative and develops the ability to teach other health care professionals and/or patients about specific relevant health care issues.

Completion of research/project:

This factor judges that the trainee is able to organize and complete successfully a research, or a project.

Professional

Integrity & honesty:

This factor judges whether the trainee is dependable, reliable, honest and forthright in all information and facts.

Sensitivity & respect for diversity:

This factor judges that the trainee is able to understand and be sensitive to issues related to age, gender, culture and ethnicity.

Responsible and self-disciplined:

This factor judges whether the trainee adequately accepts professional responsibilities, placing the needs of the patients before the trainee's own, ensuring that the trainee or his/her replacement are at all times available to the patients, recognizing the limits of competence, and seeking and giving assistance when necessary. The trainee is punctual, and respects local regulations relating to the performance of his/her duties.

Communicates with patients with compassion and empathy

Recognition of own limitations, seeking advice when needed:

This factor judges that the trainee is able his/her limits of competence, and is able to seek and give assistance when necessary.

Understands principles of ethics; applies to clinical situations:

This factor judges the trainee's ability to understand the principles and practice of biomedical ethics as it relates to the specific specialty or subspecialty, and to practice medicine in an ethically responsible manner.

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Global evaluation of competence and progress

The trainee will be evaluated quarterly in a informal fashion. At mid rotation and

at the termination of his fellowship a formal written evaluation will be completed judging his performance and on completion of his objectives. This factor judges the total professional competence and progress of the trainee in consideration of his/her stage of training in his/her specialty. This judgement synthesizes the assessments given in the above criteria, keeping in mind their relative importance and indicating the degree to which the trainee has shown progress and diligence during his/her rotation.

Explanation of Ratings:

Please assess the trainee's overall clinical competence using the following ratings:

Superior: Far exceeds reasonable expectations.
Satisfactory: Meets reasonable expectations.
Borderline: Often falls short of reasonable expectations.
Unsatisfactory: Falls far short of reasonable expectations.
"**Reasonable expectations**" should be appropriate to the level of training of the candidate.
"**Could not judge**" in the global evaluation of competence and progress: This means that the trainee did not complete the rotation.