



APPLICATION FOR ACCREDITATION OF AN AREA OF FOCUSED COMPETENCE PROGRAM IN TRAUMA GENERAL SURGERY

This questionnaire is to provide the Royal College with a complete description of the AFC program. The completed questionnaire must be signed by the AFC director and submitted to the decanal unit within the faculty of medicine responsible for oversight of AFC programs.

Please submit completed applications by e-mail to:

accreditation@royalcollege.ca

University	University of Toronto
Date of Application	August 01, 2017
Name of AFC Director	Dr. Najma Ahmed MD, FRCSC, FACS
University Appointment of AFC Director	Dr. Najma Ahmed MD, FRCSC, FACS Professor of Surgery Vice Chair Education, Department of Surgery University of Toronto
Department(s) Responsible for AFC Program	Department of Surgery, Division of General Surgery
Name of Department Head (or equivalent)	Dr. Carol Swallow
Program Internet Address (if applicable)	https://surgery.utoronto.ca/trauma-program

The following information **MUST BE INCLUDED** with the application:

Appendix A – Supporting documentation including:

Appendix A.1 - Covering letter indicating that the Faculty has approved and supports this program

Appendix A.2 - Covering letters from the Chief Executive Officer of each of the participating institutions indicating support for the program

Appendix B - Terms of Reference for the AFC program committee (if applicable)

Appendix C - Research support in the form of operating grants (Standard C1)

Appendix D - Peer-reviewed publications of faculty members (Standard C1)

Appendix E - Objectives for the educational experiences (Standard C3)

Appendix F - Signed agreements of affiliation (if required)

Appendix G - Curriculum of the program (Standard C3)

STANDARD C1: ADMINISTRATIVE STRUCTURE

"There must be an appropriate administrative structure for each AFC program."

1. AFC Director

- a) Provide the specialty qualifications of the AFC director. (Standard C1.1.1)

Degrees

MDCM - McGill University, Montreal, Quebec, Canada

PhD - McGill University, Montreal, Quebec, Canada

Post Graduate and Specialty Training

Residency Training in General Surgery - McGill University, Montreal, Quebec, Canada

FRCS(C) – Royal College, Ottawa, Ontario, Canada

FACS- American College of Surgeons, Chicago, Illinois, US

Trauma Fellowship, Department of Surgery, University of Toronto, Toronto, Ontario, Canada

Critical Care Medicine Fellowship – University of Michigan, Ann Arbor, Michigan

Years in Specialty Practice

AFC Chair, Dr. Najma Ahmed - 16 years in the practice of trauma general surgery

- b) Describe the resources (time and support) that will be available to the AFC Director to administer the AFC program. (Standard C1.1.3)

The AFC Director will have 0.5 days per week to oversee the responsibilities of the Program. The AFC Director is responsible for the overall program and is also the site lead at SMH. The Trauma Program Medical director will act as the site lead at the SHSC site.

The AFC Director is supported by the AFC Program Committee to ensure the smooth running of the Program.

There is a 0.5 FTE Program Administrator for the Trauma General Surgery AFC Program.

The trauma team resources include:

A cohort of approximately 10 specialty trained trauma team leaders, largely emergency medicine specialists at each site

A cohort of 5-6 full time fellowship trained trauma surgeons at each site

A cohort of multidisciplinary specialists in areas such as neurosurgery, orthopaedic surgery, plastic surgery and critical care medicine

The AFC Program in Trauma General Surgery will oversee 2-3 trainees per year. The training program is 1 year in duration. Some of these trainees may be pursuing critical care training either before or after their trauma surgery AFC year

2. AFC Program Committee

- a) Briefly describe how the AFC program committee functions **OR** attach a copy of the Terms of Reference of the AFC program committee as **Appendix B**. (Standard C1.2; C1.3)

There is a collaborative process in place for selection, evaluation and training of current trainees in the University of Toronto Trauma fellowship program. This program will become more robust and evolve into the RC AFC Trauma General Surgery Training Program. The building blocks for collaboration have long existed and are evident in the current training program and through joint activities such as the Annual Trauma Visiting Professor, hosted by alternating sites each year.

The AFC Committee will be comprised of the AFC director, the Trauma Program Medical Director from both adult trauma programs, and 2 additional faculty members at large. The CCM program director will be included by invitation on matters pertaining to trainees who chose to complete both training programs.

The AFC Committee will meet quarterly to review AFC trainee progress (see appendix B)
 The AFC Committee will oversee all application processes and acceptances to the Program
 The AFC Committee will oversee all rotations assignments and evaluations processes related to trainees

An AFC trainee will be nominated or appointed to sit on the committee and represent the view of the AFC trainees.

b) Committee membership (underline the name of the Chair of the Committee) (Standard C1.2; C1.2.1)

Name	Major Responsibility within the Program
<u>Dr. Najma Ahmed</u>	Trauma General Surgery AFC Training Director and site director (SMH)
Dr. Sandro Rizoli	St. Michael's Hospital, Trauma Director, and site research lead (SMH)
Dr. Avery Nathens	Sunnybrook Health Sciences, Trauma Director, and site research lead and site director (SHCS)
Dr. Barbara Haas	Trauma Surgery Faculty member at large (SHCS)
Dr. Joao Rezende	Trauma Surgery Faculty member at large (SMH)

c) How will AFC trainees be chosen to be members of the AFC program committee? (Standard C1.2.1)

The trainee that sits on the AFC program committee will be nominated by their peer(s). In the case of an inability to agree, then the AFC director will appoint one of the two AFC trainees to sit on the committee and represent the view of the AFC trainees. Representation from AFC trainees will be sought on relevant issues, by inviting input on relevant matters from the 2 AFC trainees completing the program in the current academic year.

3. AFC Selection Process

a) Describe the process that will be used to select trainees into the AFC program. (Standard C1.3.3)

Application Process

Invitations for applications will be posted to the Trauma Association of Canada, Trauma.org and the

Eastern Association for Trauma website and the PD for all General Surgery residency training program will be asked to invite applications from the members of their PGY4 class the next academic cycle. Application process details and forms are available on the website: <https://surgery.utoronto.ca/trauma-program>

The Program Administrator will respond to enquiries and collect applications from trainees. Applications include a current CV, 3 letters of recommendation, one from their General Surgery Program Director, and a letter of intent written by the trainee. The application deadline is set for June 01, of each academic year.

The application data will be collated and scored by members of the AFC program committee, based upon pre-determined criteria, including academic performance, clinical abilities, technical abilities, potential for scholarship in trauma related activities, leadership and team skills.

Generally, the top 5-6 candidates will be selected for interviews by the AFC Program Committee. Offers of interviews would be sent out in the spring and interviews would be conducted in July/August.

Each candidate will undergo 2 group interviews; each interview team is comprised of 2 AFC committee members. The interview is comprised of a pre-determined set of questions that generally cover many of the CanMEDS roles, as well as questions related to career plans, motivations for training and fit for the Program. Specific questions related to unexpected gaps in training could also be asked.

Each Committee member scores and then ranks each trainee independently. These data are collected by the Program Administrator. The AFC committee meets generally in late August to review their findings related to trainee file review and interview and achieve consensus on top ranking trainees.

Letters of offer are sent out in early September.

Screening criteria

AFC candidates must have completed specialty training in General Surgery or equivalent and be eligible for their Royal College examinations in General Surgery, or equivalent if internationally trained. Completed applications include an up to date CV, letter of intent and 3 letters of reference, one written by the trainee's PD.

Criteria for selection that are utilized by the Committee include:

Academic standing including: evidenced by teaching awards, research grants, publications, in training examination data

Clinical judgment and technical abilities gleaned from letters of recommendation.

Personal characteristics that would make the candidate a good fit for our Program – usually reflected on letters of reference from the General Surgery PD, such as commitment to patient care, ability to work in teams, ability to work in crisis situations, clinical judgment and technical abilities.

Candidates understanding of the trauma general surgery as a discipline – evidenced by electives, scholarship and advocacy work in this area.

b) How many AFC trainees are expected to be admitted to the program on a yearly basis?

2-3 per year

4. AFC Trainee Assessment (Standard C1.3.4)

a) Describe the role of the AFC Program Committee in the review of trainee assessment and decisions

about completion of training.

The AFC Committee will meet quarterly, minus the AFC trainee representative, to review all pertinent assessment data for each trainee included in the Competency Portfolio:

- Clinical performance
- Case log data
- Trauma Surgery portfolio data
- Research / Scholarly contributions
- Leadership / Team skills
- Professionalism issues

Other matters that will be discussed for each trainee outside of the competency portfolio include:

- Plans for electives
- Career planning

Trainees will submit their competency portfolios to date in advance of each quarterly meeting. Feedback will be given by the AFC director or designate (another faculty member)

A promotion decision will be based upon performance in all components of the Training Program's evaluation system. These data will derive from the AFC Site Director's evaluations (inclusive of data from all faculty and 360 evaluation), and the competency portfolio.

The Site Director will provide each trainee with a formal performance review in a face – to – face meeting every six months. Less formal meetings can occur with other faculty members more frequently. Key aspects of the 6 month review meetings will be documented and sent on to the AFC program director. Trainees will be informed by the AFC director of the outcome all meetings.

- b) Describe briefly the appeals process for decisions regarding trainee assessments including how trainees are informed of the process.

The AFC appeals process will follow the principles and recommended process of the University of Toronto Governing Council Policy on Academic Appeals. This information is available on the PGME website and in the annual PGME information booklet.

Trainees are informed of the appeals process directly when presented with a performance concern or failure to be promoted. Trainees may appeal the decision on evaluation to an Appeals Committee which can include AFC director of the Trauma General Surgery Training Program, as well as 2 attending surgeons in Trauma General Surgery from the alternative training site.

Trainees must submit their appeal in writing. The notice will include the grounds for the appeal and any relevant supporting data or information. Trainees have a right to address the appeals subcommittee of the Trauma General Surgery AFC program, to present their evidence and arguments. The process will ensure confidentiality.

If an AFC trainee's performance exhibits significant deficiencies, and there is concern regarding the ability of the trainee to successfully complete the training program, the AFC committee will propose a program of remediation, in accordance with PGME process and guidelines.

5. Ongoing Review of the AFC Program

- a) Describe the process that will be used to review the educational environment of the AFC program.
(Standard C1.3.6)

The educational environment and its components will be reviewed at each quarterly meeting

These will be a standing agenda item for each meeting. The formal review will include:

- Formal teaching rounds and curricula
- Operative opportunities
- Case mix
- Leadership and trauma team leading opportunities
- Feedback from AFC trainees
- Faculty review – concerning issues
- AFC trainee participation in local, regional, national, international leadership, advocacy or academic committees or meetings
- AFC trainee review

Quarterly, the AFC director will review trainees log books and other data to ensure adequacy of training materials and opportunities.

- b) Describe the process that will be used to assess and provide feedback to the teachers participating in the AFC program, including the role of trainees in providing this feedback. (Standard C1.3.7)

The on-line system for registration and evaluation is known as "Postgraduate Web Evaluation and Registration System (POWER). The POWER system will be used by AFC trainees to provide confidential feedback on teaching Faculty Members. An alert system is built into the POWER system to allow the AFC director to access real time data, whenever a teacher or rotation receives a score below a minimum threshold.

Faculty members will have access to aggregate summary reports for prior years, once a minimum of 3 evaluations have been completed.

In addition to these central process, the Trauma General Surgery AFC Program Administrator will send confidential emails to the AFC trainees every 6 months, to solicit feedback about the learning environment, quality of teaching rounds, and for each faculty member, specific feedback will be sought regarding mentoring ability, quality of their teaching and ability to provide salient feedback and coaching. In addition, there will be space provided for free form narrative feedback.

The results will be collated by the Program Admin and then provided to the AFC director. Results will be held in confidence for at least 3 years and provided in summary fashion to protect the anonymity of the trainees.

Important negative feedback such as intimidation and harassment or a coercive training environment will be brought to the attention of the Faculty member in a manner that protects the identity of the trainee.

6. Environment of Inquiry and Scholarship (Standard C1.4)

- a) Attach as **Appendix C**, the research support in the form of operating grants of Faculty members in the Area of Focused Competence during the **PAST 12 MONTHS**. Include the annual dollar amounts and the source of research funds.
- b) Attach as **Appendix D**, the peer-reviewed publications of faculty members in the Area of Focused Competence during the **PAST 12 MONTHS**. □

Trauma Rounds

Each AFC trainee will participate in weekly Hospital based trauma rounds. Each AFC trainee will present at these rounds at least quarterly. Rounds are accredited as a group learning activity by the Royal College.

Case based reviews

Each AFC trainee will supervise case based reviews twice per month weekly with the housestaff team to review interesting cases and emphasize salient clinical teaching points. Sessions are approximately an hour in length. There is faculty supervision.

Scholarly project

Each AFC trainee shall complete a scholarly project, with the expectation of presentation at a national meeting and or publication in a peer reviewed journal. Projects are presented to faculty and other interested parties quarterly at Trauma Research in Progress (TRIP meetings). An attending surgeon acts as a research mentor. There is a Trauma Program quality assurance manager at each site who is able to collaborate on quality improvement projects. A strong local and provincial data base housing trauma patient data elements is also available to assist in the completion of scholarly projects. Off service time will be protected as longitudinal research time. Many faculty members are considered national and international leaders in trauma related research and scholarship. The program supports each AFC trainee to attend on academic trauma related meeting per year.

Trauma Visiting Professor

Each trainee will participate in the University of Toronto, Annual Trauma Visiting Professor in the spring of each year. The program of activities for this event includes a journal club and a research rounds. The journal club will be organized by trainees and the trainees will present innovative research findings at the journal club. The Research rounds will also be organized by the trainees and the trainees will present their own research / scholarly findings at this forum.

In addition to the completion of a formal scholarly project, AFC trainees will be expected to develop expertise in the trauma literature, including knowledge of landmark papers and current research areas that are moving the field forward. Trainees will be expected to apply current literature to their day to day practice, and disseminate this knowledge to more junior trainees.

STANDARD C2: RESOURCES

“There must be sufficient resources including teaching faculty, the number and variety of patients, physical and technical resources, as well as the supporting facilities and services necessary to provide the opportunity for all trainees in the AFC program to achieve the educational objectives and receive full training as defined by the AFC requirements.”

1. Teaching Faculty (Standard C2.1)

List the members of the teaching faculty **who have a major role** in the AFC program, including members from other departments.

Name	Specialty and AFC-specific Qualifications	Role in the Program
Dr. Najma Ahmed	General Surgery, Trauma Surgery, Critical Care Medicine	AFC Program Director, Surgeon-Educator
Dr. Sandro Rizoli	General Surgery, Trauma Surgery, Critical Care Medicine	Trauma Director, St. Michael's Hospital, Surgeon-Scientist
Dr. Joao Rezende	General Surgery, Trauma Surgery	Faculty Member, Surgeon-Scientist
Dr. Bernard Lawless	General Surgery, Trauma Surgery, Critical Care Medicine	Faculty Member, Surgeon-Investigator
Dr. John Marshall	General Surgery, Critical Care Medicine	Faculty Member, Surgeon-Scientist
Dr. David Gomez	General Surgery, Trauma Surgery	Faculty Member, Surgeon-Scientist
Dr. Avery Nathens	General Surgery, Trauma Surgery, Critical Care Medicine	Trauma Director, Sunnybrook Health Sciences Centre, Surgeon-Scientist
Dr. Barbara Haas	General Surgery, Trauma Surgery, Critical Care Medicine	Faculty Member, Surgeon-Scientist
Dr. Lorraine Tremblay	General Surgery, Trauma Surgery, Critical Care Medicine	Faculty Member, Surgeon-Scientist
Dr. Peter Chu	General Surgery, Trauma Surgery	Faculty Member, Surgeon-Educator
Dr. Fred Brenneman	General Surgery, Trauma Surgery, Critical Care Medicine	Faculty Member, Surgeon-Investigator and the current General Surgery Program Director.

2. Resources

a) Is the Trauma General Surgery program affiliated with a University? Yes No

This affiliation is a specific requirement of this AFC Program

b) Is the Trauma General Surgery program accredited by the Trauma Association of Canada and/or Accreditation Canada as a Regional Trauma Centre? Yes No

The Trauma Programs at St. Michael's Hospital and Sunnybrook Health Sciences Centre were accredited by the Trauma Association of Canada in 2006.

c) Does the Trauma General Surgery program participate in quality assurance activities? X Yes No

Each site has a robust Quality Assurance (QA) program and a full time Trauma Program quality assurance program manager.

The Trauma Programs at each site evaluate trauma outcomes and processes of care against U.S. trauma centres as part of the American College of Surgeons, **Trauma Quality Improvement Program (TQIP)**. TQIP includes over 700 centres across the United States and Canadian data from Ontario sites including: St. Michael's Hospital, the Ottawa Hospital and Sunnybrook Health Sciences Centre.

TQIP reports provide an opportunity to identify areas of clinical practice where we excel and identifies areas for improvement, and provides opportunities to learn from the clinical experience of top performing centres.

Biannual TQIP risk adjusted benchmark reports have led us to initiatives designed to decrease complication rates for adverse outcomes such as Ventilator Associated Pneumonia and Urinary Tract Infections. We have worked closely with our colleagues in Geriatrics to ensure elderly trauma patients receive the additional expertise the geriatric program has to offer. We have collaborated with other TQIP hospitals sharing our best practices in the care of neurosurgery patients and supported the onboarding of other Ontario trauma centres with TQIP.

We also evaluate trauma outcomes and processes of care using the **Ontario Trauma Advisory Committee Performance Improvement Report Card**. The Quarterly PI report card evaluates processes of care including: rate of unplanned return to the Operating Room, risk adjusted mortality, referring hospital time to transport, TTL response time, time to open long bone fracture fixation. We regularly review this data, provide feedback to care providers and develop QI initiatives based on this data. We are a low outlier in risk adjusted mortality and have demonstrated consistent compliance with the OTAC performance measures over time.

We participate in the **National Surgical Quality Improvement Program (NSQIP)** and have worked in partnership with IPAC on initiatives designed to decrease surgical site infections as one example.

d) Are there an adequate numbers and complexity of injured patients to provide an immersive experience in trauma resuscitation, trauma surgery and management of the injured patients? X Yes No

There are 2 adult trauma centres at the University of Toronto. Our AFC trainees spend 6 months each at each of these two sites. The faculty collaborate on issues of trainee training, research, educational, scholarship, trauma related advocacy work and improvements in regional trauma care.

At SMH – there are approximately 1200 trauma resuscitations per annum, with approximately half of these patients having an ISS > 16. At SHSC, there are approximately 1800 trauma resuscitations per annum, with approximately 1000 of these patients having an ISS > 16.

Each site houses a closed intensive care unit, with dedicated resources, nurse training and expertise in the care of the injured patient.

e) What is the number of operative interventions (excluding tracheostomies) done by Trauma General Surgeons for traumatic injuries at the trauma centre per annum?

At SMH, in 2016, Trauma General Surgeons operated on 95 trauma patients. These patients underwent

386 procedures by trauma general surgeons over 153 visits to the operating room. These data exclude tracheostomies.

At SHSC, in 2016, Trauma General Surgeons operated on 148 trauma patients. These patients underwent 450 operations by trauma general surgeons, excluding tracheostomies.

f) What is the number of patients undergoing massive transfusion at the trauma centre per annum?

On average, there are approximately 92 massive transfusion protocol (MTP) activations per annum at each the Sunnybrook site and the St. Michael's Hospital site.

At the **SMH** site, 2016, there were 136 MTP activations, in 2015 there were 74 MTP activations and in 2014 there were 62 discrete activations.

At the **SHSC** site, in 2016 there were 129 MTP activations.

g) Is there an adequate number of "fellowship" trained Trauma General Surgeons on faculty to provide supervision and mentorship for AFC trainees in Trauma General Surgery? Yes No

Yes, there are 5 full time faculty members at SMH and 5 full time faculty members at SHCS

h) Is there sufficient capacity on the TTL on call roster to enable at least several 24 hour TTL call shifts per month for the AFC trainee? Yes No

A minimum of five 24-hour shifts per month.

i) Is there a dedicated trauma surgery on call roster for the trauma centre Yes No

The 5 faculty members share in an on call roster exclusively for trauma general surgery, apart from General Surgery.

j) Does the trauma centre have a closed intensive care unit that provides care for injured patients? Yes No

The ICU is closed at each site, with a dedicated faculty member with expertise in the care of the injured patient who is responsible for their clinical care.

k) Is there academic environment that can support scholarly and quality improvement activities? Yes No

Among our trauma faculty, almost all have made and will continue to make important academic, scholarly, policy, and education related contributions in the field of trauma general surgery. We house a very active quality assurance program with a full time coordinator.

Trainees would have access to a wealth of project ideas, supervision and mentorship to devise scholarly questions and move projects along.

The Trauma Program at the University of Toronto hosts a quarterly Trauma Research in Progress session. AFC trainees are required to present their work, feedback and suggestions for improvement are liberally provided to ensure more robust research methodologies and outputs related to scholarly work including quality improvement projects.

The Trauma Program at the University of Toronto hosts an annual Visiting professor in Trauma in June of each year. This Visiting Professorship includes a half day to showcase research activities related to trauma as well as a journal club, during which generally the AFC trainees would present an important

paper from the world of Trauma General Surgery.

- l) Are there an adequate number of qualified faculty members able to supervise scholarly work of AFC Trauma General Surgery trainees? Yes No

Avery Nathens - Senior Scientist, Sunnybrook Health Sciences Centre,

Appointments and Affiliations:

- Senior scientist, Evaluative Clinical Sciences, Trauma, Emergency & Critical Care Program (director), Sunnybrook Research Institute
- Surgeon-in-chief and trauma surgeon, Sunnybrook Health Sciences Centre
- Professor, department of surgery, U of T
- Adjunct scientist, Institute for Clinical Evaluative Sciences
- Institute of Medical Science, U of T
- Institute of Health Policy, Management, and Evaluation, U of T
- Director, American College of Surgeons Trauma Quality Improvement Program

Research Foci:

- Health services
- Injury and trauma systems
- Emergency surgical care
- Performance improvement
- Patient safety

Research Summary:

Dr. Nathens' research interests include trauma systems and emergency surgical care with a particular focus on access and quality. He uses a variety of methodological approaches, including cohort studies and qualitative analyses. His work is designed to be policy-oriented and actionable through changes in structure or processes of care at the institution or system level.

Sandro Rizoli - Dr. Sandro Rizoli is the first St. Michael's Hospital-University of Toronto Endowed Chair in Trauma Research, to support his research and innovation in trauma care. Dr. Rizoli is a national leader in trauma resuscitation research, his research focuses on developing new, more effective approaches to stopping life-threatening bleeding and ensuring that blood products are used appropriately in acute trauma patients. As the director of trauma at St. Michael's Hospital, Dr. Rizoli is uniquely positioned to apply his research discoveries to improve outcomes for trauma patients. St. Michael's is one of 11 Ontario hospitals designated by the Ontario Ministry of Health and Long-Term Care as a Level 1 trauma centre, equipped to receive the most severely injured patients. Dr. Rizoli is also a full professor in the Department of Surgery and Critical Care Medicine at the University of Toronto and a research scientist at the Keenan Research Centre of the Li Ka Shing Knowledge Institute, chief of Region XII (Eastern Canada) of the Committee on Trauma of the American College of Surgeons and president of the Trauma Association of Canada.

Associate Scientist, Keenan Research Centre for Biomedical Science

Joao Rezende-Neto - Associate Scientist, Keenan Research Centre for Biomedical Science.

Dr Rezende-Neto is a Trauma/Acute Care General Surgeon at St. Michael's Hospital. He has two main lines of research: Basic science on systemic inflammatory response to hemorrhagic shock and development of medical devices. Dr. Rezende Neto holds three patents on medical devices. He has more than 100 publications.

Najma Ahmed – Professor of Surgery, University of Toronto. Previous Program Director for the General Surgery Residency Training Program, current Vice Chair Education, Department of Surgery, University of Toronto.

Appointments and Affiliations

- AFC Chair, Trauma General Surgery, Royal College.
- Participated in Royal College led National Steering Committee on Resident Duty Hours as the working group chair for procedural disciplines

Her clinical practice and focus is in the area of Trauma and Acute Care Surgery, and Critical Care. Dr.

Ahmed is the author of over 65 peer-reviewed papers. Her areas of academic interest are in models of care that support clinical excellence and patient outcomes in Acute Care and Trauma Surgery, as well as post graduate education in Surgery. Her current areas of scholarship are related to the application of CBD in General Surgery, mitigating resident fatigue and distress during Residency, duty hour restrictions and the role of simulation in surgical training.

Homer Tien - Associate Scientist, Sunnybrook Research Institute

Appointments and Affiliations:

- Associate scientist, Evaluative Clinical Sciences, Trauma, Emergency & Critical Care Research Program, Sunnybrook Research Institute
- Chief medical officer, Ornge
- Associate professor, department of surgery, faculty of medicine, U of T
- Colonel, Canadian Forces Health Services
- Chief of reserve forces specialists
- Major Frederick Banting Chair in Military Trauma Research

Research Foci:

- Health services
- Combat trauma care and war surgery
- Coagulopathy and bleeding
- Prehospital Trauma Care and Transport
- Time-to-treatment and outcomes

Research Summary:

The focus of Dr. Tien's clinical and research work has been on improving trauma care to populations working and living in remote areas. These include soldiers injured on the battlefield, First Nations people living in remote communities, and Canadians living in rural and remote locations far from urban trauma centres. His interests include telemedicine, Point-of-Care testing, and prehospital treatment of trauma associated coagulopathy and bleeding.

Barbara Haas – Scientist

Appointments and Affiliations:

- Scientist, Evaluative Clinical Sciences, Trauma, Emergency & Critical Care Program, Sunnybrook Research Institute
- Trauma surgeon, Sunnybrook Health Sciences Centre
- Intensivist, Sunnybrook
- Assistant professor, department of surgery, U of T
- Adjunct scientist, Institute for Clinical Evaluative Sciences

Research Foci:

- Trauma systems
- Geriatric trauma and emergency surgery
- Inter-specialty communication

Research Summary:

Dr. Haas' research program focuses on trauma and emergency surgery in the elderly. Her work aims to optimize long-term outcomes in this patient population as well as improve inter-specialty communication regarding these complex patients.

David Gomez (beginning Jan 2018)

Dr. Gomez is a surgeon scientist with clinical and academic expertise in trauma systems and how systems impact the health of populations.

Bernard Lawless practices general surgery, traumatology and critical care medicine at St. Michael's Hospital and is also the Provincial Lead for Critical Care and Trauma at Critical Care Services Ontario. In this role he oversees activity under the provincial Critical Care Strategy, work being done on provincial trauma systems organization and is actively involved in policy and strategy development in other program areas such as Wait Times, Surge Capacity Planning and Transplantation. He has a special interest in program evaluation as it relates to initiatives of the Ministry of Health and Long-Term Care as

well as in areas of health policy development, and holds a Master's degree in Health Science (Health Policy, Management and Evaluation) at the University of Toronto. Dr. Lawless' other appointments include Assistant Professor in the Department of Surgery, University of Toronto and Assistant Scientist, Li Ka Shing Knowledge Translation Institute

John Marshall is a Professor of Surgery at the University of Toronto, and a Trauma Surgeon and Intensivist at St. Michael's Hospital in Toronto, Canada. His academic interests are sepsis, trauma, and the innate immune response. His laboratory studies the cellular mechanisms that prolong neutrophil survival in critical illness by preventing neutrophil programmed cell death, or apoptosis. Professor Marshall has an active clinical research interest in sepsis and Intensive Care Unit-acquired infection, and in the design of clinical trials and outcome measures. He has published 315 manuscripts, and 80 book chapters, and is the editor of 2 books. He is the founding chair of the International Forum of Acute Care Trialists (InFACT) – a global network of investigator-led critical care clinical research groups, Secretary-General of the World Federation of Societies of Intensive and Critical Care Medicine, and vice-chair of the International Severe Acute Respiratory Infections Consortium. He is past-chair of the International Sepsis Forum, past-President of the Surgical Infection Society, and past-chair of the Canadian Critical Care Trials Group. He has given invited lectures at more than 460 meetings around the world, and is a member of the editorial boards of seven journals.

Fred Brenneman - Affiliate Scientist, Sunnybrook Health Sciences Centre, Program Director, General Surgery, University of Toronto,

Appointments and Affiliations:

- Affiliate scientist, Evaluative Clinical Sciences, Trauma, Emergency & Critical Care Research Program, Sunnybrook Research Institute
- Medical director, trauma services, Sunnybrook Health Sciences Centre
- Associate professor, department of surgery, University of Toronto

Research Foci:

- Trauma
- Evaluation of diagnostic tests
- Abdominal trauma

Research Summary:

Dr. Brenneman's trauma surgery research has focused on the evaluation of diagnostic tests in blunt trauma patients. Specifically, his team has evaluated the use of CT scan as a diagnostic test in the evaluation of blunt traumatic aortic rupture. They have also looked at the finding of IV contrast on CT scan in blunt abdominal trauma. Current scholarly interests include the application of CBD to education paradigms in General Surgery.

Ori Rotstein - Director of the Keenan Research Centre for Biomedical Science, holds the Keenan Chair in Research Leadership. He is also a Professor and Associate Chair of the Department of Surgery at the University of Toronto, as well as the Surgeon-in-Chief at St. Michael's Hospital. He is a practicing Trauma and General Surgeon with a research interest in understanding how traumatic injury leads to alterations in the immune response of patients such that these individuals are at high risk of developing organ injury and death. He uses these insights into the mechanisms of disease to generate novel therapeutic approaches to preventing poor outcome in these patients. His work spans the "bench to bedside" continuum, wherein he investigates cellular and animal models with a view to translating these to novel therapies in humans. This translational research has led to the investigation of the use of additives in resuscitation fluids in patients sustaining such injuries. Dr. Rotstein is an acknowledged expert in the management of intra-abdominal infection and inflammation. He is the former Director of the Institute of Medical Science, University of Toronto, the postgraduate arm of the Faculty of Medicine at the University of Toronto from 2001-2011 that was responsible for graduate training programs for more than 500 MSc/PhD students. In 2012, the Institute of Medical Science honoured him with an annual lecture 'The Ori D. Rotstein Lectureship in Translational Research'. He is a member of several prestigious medical societies including the Society of University Surgeons, the American Surgical Association, and the American Society for Clinical Investigation. He is a Past President of the Surgical Infection Society and has contributed significantly to the activities of the American College of Surgeons through his participation on the Program Committee, Surgical Forum Committee, and the Scholarship Executive Committee.

- m) Is there a mechanism to ensure adequate exposure of the AFC trainee to leadership activities in trauma care at the local hospital, regional level related to trauma care delivery? X Yes No

Trainees are required to attend trauma care committee meetings monthly at each site. They are required to be involved in the creation and revision of protocols and guidelines related to the care of the trauma patient. AFC trainees are able to participate in provincial trauma leadership activities. Dr. Lawless chair and co-chairs a number of provincial committees related to regionalization, quality metrics and the role of trauma centres within the province of Ontario.

- n) Is there access trauma registry data for scholarly and quality assurance work? Yes No

At both sites, there is a 1.0 FTE trauma program Quality Assurance Manager and multiple trauma registry coders.

- o) Is there protected time to enable the completion of scholarly activity? Yes No

Each trainee will complete a scholarly project with the objective to learn how to create disseminate, apply and translate medical knowledge in the field of trauma general surgery.

Trainees are responsible for identifying a research question, developing a protocol, submitting the REB application and seeing the project through to completion as evidenced by presentation of findings to a scientific meeting, and/or publication of a manuscript, development and study of a quality assurance protocol, or educational/training initiative related to the care of the injured patient. A faculty mentor will act as supervisor/mentor for such a project. The AFC committee will review project submissions; candidates will present project proposals in September of the academic year for feedback.

Academic time will be protected longitudinally and will be generally equivalent to 0.5 days per week. Greater academic time and productivity is expected during the winter months (November – March) as trauma volumes fluctuate with the season. The research mentor and trainee will meet regularly to review progress, at least monthly.

Research time will continue to be protected during elective rotations.

Trainees will receive support from faculty that have expertise in project design, methodology, on-going projects or development of new projects.

- p) Is there a mechanism to allow the AFC trainee to participate as an ATLS course instructor in at least one ATLS course? Yes No

- q) Are there level and discipline specific goals and objectives available to support the training of an AFC trainee in Trauma General Surgery? Yes No

See Appendix E.

- r) Is there a mechanism for the AFC trainee to participate in local, regional or national injury prevention activities? Yes No

Each site participates in monthly trauma injury prevention activities. There are several province wide and national initiatives that AFC trainees could easily access and become involved in.

- s) Is there a regular educational activity (rounds) to discuss and review trauma and injury related topics? Yes No

Each site hosts weekly trauma rounds, exclusive of July and August. Each quarter there is a dedicated

morbidity and mortality review, run by the AFC trainee, the Q/A coordinator and the Trauma Medical Director.

- t) Is there a mechanism for the AFC trainee to participate in the review major complications and deaths of injured patients admitted to the trauma centre? Yes No

This is a requirement of the Program. The trauma program Q/A coordinator identifies mortalities and morbidities. Any unexpected death is reviewed and each complication is reviewed quarterly. This process is a collaborative effort between QA, trauma medical director, AFC trainee

- u) Are there an adequate number of residents and medical students that the AFC trainee can teach and supervise? Yes No

At both the SMH and the SHCS sites, there are ample General Surgery Residents, non General Surgery residents, arising from various disciplines and medical students, as well as Nurse Practitioner and students and Physician Assistant students.

- v) Are there clearly articulated criteria for admission to the AFC program in Trauma General Surgery? Yes No

AFC Candidates must have completed specialty training in General Surgery or equivalent and be eligible for Royal College Certification in General Surgery, or equivalent if trained internationally.

Admission criteria include: academic performance, clinical abilities, technical abilities, potential for scholarship and or leadership in trauma related activities and team skills.

Academic standing as evidenced by teaching awards, research grants, publications, and performance on in-training examinations will be taken into account.

Personal characteristics including commitment to patient care, ability to work in teams, performance in crisis situations, clinical judgment, acumen and technical abilities will be gleaned from letters or recommendation including, letters from the candidates' former program directors.

Understanding of Trauma General Surgery as a discipline and interest in contributing to the field will be taken into account. This would be evidenced by electives, scholarship and advocacy work in this field.

- w) Are there clearly articulated criteria for completion of the AFC program in Trauma General Surgery? Yes No

Criteria for completion of the AFC program include:

Demonstration of ample and immersive clinical and operative experience in the management of complex trauma patients

- with a demonstration that the candidate is a key decision maker and assumes a leadership role in creating and executing management plans for patients in the trauma bay, intensive care unit and wards
- With a demonstration that the candidate is a key decision maker and assumes a leadership role in the surgical management of patient with complex injuries
- Completion of a scholarly project
- Demonstration of teaching success of more junior trainees
- Demonstration of successful advocacy on behalf of injured patients
- Contribution to educational and administrative activities of the trauma program

Review of the AFC portfolio contents to ensure that these contents are aligned with the expectations set out by the trauma general surgery AFC training program.

3. Information/Space Resources

a) Do AFC trainees have adequate administrative space to carry out their daily work?

Yes No Partially If "No" or "Partially", please explain.

Each trainee will have an office at each site.

b) Do AFC trainees have access to computers with access to email, internet, laboratory information system and patient electronic chart (or equivalent), and a microscope?

Yes No Partially If "No" or "Partially", please explain

Each trainee will have access to a computer, access the Hospital medical electronic record, access to email and the internet.

4. Summary of Adequacy of Resources (Standard C2)

Comment on the adequacy of the resources in the overall AFC program. In particular, comment as to whether the facilities are sufficient to provide adequate teaching and experience for trainees in this program.

The AFC Program has sufficient resources to meet the training objectives over their one year training period in Trauma General Surgery.

As the largest University based trauma program in the country, housing many academically focused faculty, who are considered thought leaders in their field, the University of Toronto has sufficient facilities, clinical materials and faculty to provide excellent academic and clinical training in the field of Trauma General Surgery. There are ample resource related to care of ICU patient, access to social workers, respiratory therapists, and rehabilitation services and occupational therapists to ensure that trainees can develop a depth of understanding of these specific dimensions of the patients' care and recovery.

Teaching Faculty - There are 10 very clinically and academically active faculty members across two sites, with advanced subspecialty training in Trauma General Surgery.

Number and variety of patients - There is a wealth of clinical materials, operative procedures and case based teaching to learn from.

Facilities - There are several tertiary and quaternary care ICUs, ample operating rooms, blood banking facilities, angio suites and emergency departments where AFC trainees can glean and learn from patient experiences.

A fellowship in Trauma General Surgery has existed at the University of Toronto for approximately 20 years. Over the recent 10 years, this fellowship has formally been shared and spans two teaching hospitals (SMH and SHSC). Over the last decade, the Program has trained perhaps 20 very well qualified trainees, many of them who have gone on faculty positions at various universities and communities in which practice Trauma General Surgery across the country.

STANDARD C3: EDUCATIONAL PROGRAM

“There must be a defined educational program that includes clinical, academic and scholarly content relative to the AFC discipline. The program must be designed to ensure that each AFC trainee is able to achieve all the competencies as outlined in the AFC-specific Training Requirements.”

1. Goals & Objectives (Standard C3.1; C3.2)

Attach as **Appendix E**, a copy of the objectives for the educational experiences of this program. The document should indicate how each objective will be achieved.

a) How will the trainees and faculty be provided with the objectives:

- | | |
|--------------------------|-------------------------------------|
| i) Yearly | <input checked="" type="checkbox"/> |
| ii) At start of rotation | <input checked="" type="checkbox"/> |
| iii) Other | <input type="checkbox"/> |

b) How often will these objectives be reviewed by the AFC Program Committee:

- | | |
|-----------------------------|-------------------------------------|
| i) Yearly | <input checked="" type="checkbox"/> |
| ii) Bi-yearly | <input type="checkbox"/> |
| iii) Other, please describe | <input type="checkbox"/> |

c) Describe the process for reviewing objectives.

Objectives will be reviewed annually by the AFC Committee. Due considerations will be given to novel innovations and new knowledge that may have recently moved the specialty forward. Input from faculty members and trainees will be considered.

Tracking and monitoring mechanisms for portfolio review will also be utilized.

d) Describe how the program works with the AFC trainee at the beginning of each educational experience to develop individual learning strategies to meet the objectives.

Each AFC trainee will meet with the AFC director, to create an individualized learning plan that includes areas of specific interest, areas of potential weakness or areas of research interest. The AFC director will assist the AFC trainee identify key faculty who may assist in the achievement of the learning plan/goals.

2. Educational Experiences (Standard C3.3)

a) Describe the mandatory educational experiences required in this program, including the duration and location of the experiences.

The trauma general surgery AFC training program is 12 months in duration. 10-11 months will be spent on a Trauma Service, at rotating between the Sunnybrook site and the St. Michael's site.

The trauma services at SMH and SHSC are comprised of large (approximately 40) in-patients, inclusive of ICU patients), with complex trauma and acute care surgery problems. There are anywhere from 5-12 acute admissions via the emergency department or the trauma bay to the service daily. These patients require resuscitation, diagnostic workup and operative and non-operative management, led by the trainee. There are at any one time generally 5-15 patients in the various ICUs co-managed by the trauma service; the trainee is expected to lead treatment related to acute resuscitation and operative management of these patients. There are anywhere from 0-5 emergency operations on a daily basis and the trainee is expected to participate in the most complex of these cases. There is a weekly follow

up clinic, led by the nurse practitioners that trainees are expected to participate in when possible.

1-2 months can be taken as elective experiences. There is half a day of longitudinal academic protected time during whilst the trainee is on service at each site.

b) Describe the elective opportunities available in this program.

One – two months can be taken as elective experience. Electives can be taken in any of the following areas at the University of Toronto or another North American University.

- Academic research
 - Thoracic surgery
 - Vascular surgery
 - Cardiac surgery
 - Orthopedic surgery
 - Neurosurgery
 - Anesthesia
 - Critical Care Medicine, including neuro-ICU or Burn-ICU
 - Pre-Hospital Medicine
 - Or any combination of the above disciplines

International electives beyond the US, can be granted at the discretion of the AFC Committee.

3. Affiliations

Will the AFC program require any **mandatory** affiliations? Yes No

If yes, attach as **Appendix F**, a copy of the signed agreement.

4. Increasing Professional Responsibility and Supervision of AFC Trainees (Standard C3.5)

Describe how the program will ensure that all trainees are provided with appropriate supervision and increasing professional responsibility.

AFC Trainees in Trauma General Surgery are qualified General Surgeons.

Adequate supervision - A trauma surgeon is always on call with the AFC trainee. SHSC and SMH Hospital guidelines require that the attending surgeon must be in the Hospital, if their patient is undergoing an operation. At morning report all major clinical decisions related to patient care are reviewed with the team, led by the attending surgeon.

Increasing professional responsibility – Trauma team leading (TTL) activities are initially buddied, if adequate progress is made, then the AFC trainee takes on independent TTL responsibility after the initial 4-6 week period. An attending trauma surgeon is always available to discuss issues of concern.

In the operating room, it is the goal of the AFC program to allow AFC trainees ample opportunity to

- a) Develop comfort and competency in the operative management of complex torso trauma. This will be enabled by a gradually increasing level of professional responsibility in the operating room for such cases, as their training progresses.
- b) Supervise Residents for various cases throughout their training. The attending surgeon often will scrub, and let the AFC trainee and resident do the case or not scrub, but be present or near the operating rooms.

The attending surgeon will be responsible for morning report and all major clinical decisions related to patient care while on service. As the academic year progresses, increasingly this responsibility will be given the AFC trainee along with the senior resident on the team, beginning with more common clinical problems, and then increasing to more uncommon and complex clinical problems. Oversight will be

provided by the Faculty in a graded fashion.

5. **Academic Program** (Standard C3.4)

Attach, as **Appendix G**, the planned curriculum for the program. Indicate the teaching format for each element of the curriculum.

a) Describe how the curriculum is established.

The AFC Committee establishes and reviews the overall program curriculum, based on the competency training requirements outlined in the Royal College of Physician and Surgeons of Canada Competency Training Requirements for the Area of Focused Competence in Trauma General Surgery documents and faculty member expertise.

The Trauma General Surgery curriculum is established with consideration given to the major content areas related to the care of the injured patient and with consideration given to ensure multi-specialty representation. The curriculum is designed to support the trainee's functioning as a competent specialist diplomat in the area of Trauma General Surgery. Expertise will be developed in the following areas:

- Resuscitation of the multisystem injured patient
- Operative management of complex neck and torso injuries
- ICU care for injured patients
- Injury prevention
- Rehab outcomes

Competency and knowledge will be developed in the following areas:

- Concussion, brain, neurosurgical injuries
- Orthopaedic injuries
- Complex face and hand injuries

The curriculum undergoes bi-annual refinement based upon feedback from trainees and faculty. Please see Appendix E: Objectives for educational experiences and Appendix G for the Trauma General Surgery Rounds schedule.

b) How will trainees be ensured of protected time to attend academic sessions? (Standard C3.4)

The trauma rounds curriculum occurs at both sites on Wednesday afternoons 4:30 – 5:30 pm. These sessions are attended by all attending surgeons and other senior residents. With the exception of life saving activities, all other clinical activities are suspended during this time.

Another half day per week is protected as research time for AFC trainees.

6. **CanMEDS Specific Teaching** (Standard C3.2; C3.4)

Describe the teaching methods for the relevant CanMEDS competencies as described in the AFC Competency Training Requirements.

Medical Expert – the teaching method will be a combination of

- immersive clinical exposures with hands on and bedside teaching including in the operating room
- at morning report
- case discussions with multidisciplinary faculty members
- attendance and participation and feedback generated during the trauma rounds curriculum
- Q/A and feedback during oral examinations
- attendance and participation in a national trauma conference

Communicator – the teaching method will be related to

- discussion about performance
- 360 feedback related to clinical encounters and written medical documentation in the trauma bay, operation rooms, ICUs, wards and teaching rounds
- specific feedback will be sought from patients.

Collaborator - the teaching method will be related to

- performance and 360 feedback related to clinical encounters and written medical documentation in the trauma bay, operation rooms, ICUs, wards and teaching rounds
- specific feedback will be sought from multidisciplinary team members

Leader – the teaching method will be largely through

- faculty mentorship in assisting the AFC trainee develop and hone their own unique leadership style, with an understanding of key concepts arising from the modern medical leadership literature
- specific teaching related to developing and sustaining a successful clinical and academic practice and career will be given
- a culture of patient safety and specific rounds given jointly by the trainee and the Trauma Program Manager related to quality improvement for specific cases
- specific teaching related to the balance between health advocacy and stewardship of scarce health care resources

Health Advocate – the teaching method will include

- immersive experience that enriches the trainee's ability to advocate for adequacy of health care
- especially post discharge care and resources for the disadvantaged populations through developing greater skill and knowledge of such resources
- social workers among other professionals will teach and engage specifically with respect to resources related to intimate partner violence, injury prevention strategies, prevention of trauma recidivism

Scholar – the teaching method is through

- discussion of relevant papers at Journal Clubs, discussion and feedback given to the AFC trainee regarding their scholarly project
- feedback on the trainees monthly teaching sessions to more junior residents on a range of topics and will be given

Professional - the teaching method will be related

- performance and 360 feedback related to clinical encounters and written medical documentation in the trauma bay, operation rooms, ICUs, wards and teaching rounds
- specific attention will be paid to the trainee's knowledge of medical jurisprudence, ethical conduct and the roles and responsibilities of a physician as defined by the CPSO, as well the University of Toronto's medical research institutes

7. Scholarly Activity

a) Is research or scholarly activity mandatory? Yes No

What amount of time will be provided to allow trainees to participate?

Approximately 0.5 days per week is allocated to allow trainees to develop some expertise in the current areas of controversy in the subspecialty. Each trainee will complete a scholarly project with the goal of learning how to pose a relevant research question, design a study, complete a project, disseminate and

translate medical knowledge. A greater proportion of protected academic time will be taken from October through to April, as trauma volumes have a seasonal variation with greater patient volumes during the summer months.

The research mentor and the trainee will meet monthly to review progress.

b) What support will be available to trainees?

Supervision



Funding



- regular salary support

Material support including infrastructure



- computer, office

Other, please describe:

Financial support to allow trainees to attend one trauma related conference per annum is provided by the Program. This usual allocated amount is \$2,000 per trainee per annum.

Trainees may apply for U of T internal research awards as applicable and also for research awards available from specialty societies.

STANDARD C4: COMPETENCY BASED ASSESSMENT OF TRAINEE PERFORMANCE

"There must be mechanisms in place to ensure the systematic collection and interpretation of assessment data on each trainee enrolled in the AFC program."

1. Trainee Assessment

- a) Describe the in-training assessment processes (written, oral and other) that will be used to assure satisfactory mastery of core competencies of the AFC program. Include a description of who will perform the assessment and how it will be related to the goals and objectives of the AFC program. (Standard C4.1)

Clinical knowledge, skills and attitudes will be assessed monthly via 360 feedback and workplace assessments. These assessments will include input from faculty members, Physician Assistants, Nurse Practitioners, Members of the nursing team, Respiratory Therapists, Social Workers as well as junior members of the medical team.

Leadership, team and professionalism skills– this will be assessed monthly and will include performance assessments from the operating room, trauma bay and ICU. The trainee's the ability to organize, communicate with and lead a team in the setting of a critically patient will be evaluated via 360 feedback.

Oral examinations – these will occur twice during the academic year.

Review of the AFC Competency portfolio is an important means to assess progress throughout the training period. These materials include resuscitation records, operative records, discharge summaries, evidence of scholarly work, evidence of teaching efficacy including ATLS courses, evidence of policy or advocacy work such as injury prevention activities. Materials will be reviewed by the AFC director quarterly along with a check list of materials pending.

- b) How will the program ensure that feedback is regularly provided to the trainees? Indicate how often the AFC director will meet with each trainee and how it will be done. (Standard C4.1.1; C4.1.2)

The AFC director will meet 4 times over the academic year with each AFC trainee. The meetings will be arranged by the trauma program coordinator in advance in the AFC Director's office. The topics discussed will be disclosed in advance to the trainee and will include generally:

- Clinical performance
- Academic performance including status of scholarly / research project
- Status of the portfolio materials including resuscitation logs and operative logs
- Elective time
- Career plans
- Additional stressors
- Intimidation / harassment issues
- Inter or intra – professional conflict
- Anything else the trainee wishes to discuss

- c) How and by whom will the "Competency Portfolio for the Diploma" be completed for subsequent submission to the Royal College? (Standard C4.2)

The data and all data elements for the Competency Portfolio for the Diploma will be collected by the AFC trainee and submitted to the AFC Director. The AFC Director will sign off to confirm that all data elements and competencies have been achieved. The AFC Committee will review prior to submission to the Royal College. The AFC director will submit the completed Competency Portfolio to the Royal College.

SUMMARY

1. Summarize the strengths of the proposed AFC program.

1. Abundance of clinical materials over 2 sites, each level one trauma centres. (C2)
 2. Important academic representation at provincial national and international trauma related societies. (C3)
 3. Culture of enquiry and scholarship. (C1)
 4. Engaged and enthusiastic faculty members. (C2)
 5. Robust educational program. (C3)
 6. Robust Quality Assurance activities. (C2, C3)
 7. Closed ICUs dedicated to care of injured patients. (C2)

2. Summarize any potential difficulties associated with offering the program.

1. None anticipated at present

Signature of AFC Director

Signature of Associate/Assistant Dean

Date