The SURGICAL Beacon

DEPARTMENT OF SURGERY - DALHOUSIE UNIVERSITY - OCTOBER 2005, VOL. 10, NO.1

Life Science Research Institute

The New Home of the Brain Repair Centre

DALHOUSIE
University

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Surgical Beacon

This is a publication of the Department of Surgery at Dalhousie University. The Surgical Beacon will be published annually by the Department of Surgery Research Office.

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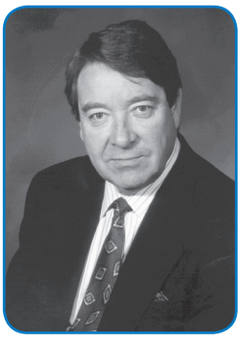
MESSAGE FROM THE DEPARTMENT HEAD



This year we celebrate the 9th Annual Research Information Day. This day was designed to introduce our new Resident Staff, of whom there are 18 this year, to the spectrum of research activities taking place in our Department. There are new initiatives this year so it is also important to update more Senior Residents and Faculty as well as Medical Students.

During the past year we have successfully completed the first year working under the aegis of an Alternate Funding Plan. Our Department is very pleased with this arrangement.

Our challenges for the coming year include making every effort to improve the waiting times for our patients, continuing our growth in our research efforts and modifying our Residency Programs to meet the new reality.

During the past year, three new Division Heads have been appointed: Dr. Gregory Hirsch in Cardiac, Dr. Justin Paletz in Plastics and Dr. David Amirault in Orthopedics. Welcome Gentlemen to your new roles.

As usual a special thank you to Dr. Ivar Mendez, who serves the Department of Surgery as both Division Head of Neurosurgery, Director of Research.

Robert M. Stone, MD FRCSC FACS

DEPARTMENT OF SURGERY RESEARCH DAY

Dr. James Waddell
Latner Professor and
Chair of Orthopaedic Surgery
University of Toronto

The 16th Annual Resident Research Day was held on April 13th, 2005 at the Westin Nova Scotian. Twenty-nine of the forty-eight abstract submissions were accepted for presentation by the Department of Surgery Research Committee. Dr. James P. Waddell, Latner Professor and Chair of Orthopaedic Surgery at the University of Toronto joined the Department as the 2005 Gordon W. Bethune Visiting Professor in Surgery presenting the noon time lecture entitled: "Perspectives in Postgraduate Education". The distinguished judges for this year's event were Dr. James P. Waddell, University of Toronto, Dr. Robert Brownstone, Professor for the Division of Neurosurgery, Dalhousie University and Dr. Richard Brown, Chair for the Department of Psychology, Dalhousie University.

The Department of Surgery congratulates all the residents, students and staff members for their tireless work in research and we encourage you to keep up the great work!

DEPARTMENT OF SURGERY RESEARCH DAY AWARD WINNERS

RESIDENT PLATFORM PRESENTATIONS

1ST PRIZE
Dr. Chris Drover
(Division of Otolaryngology)

2ND PRIZE
Dr. Karim Mukhida
(Division of Neurosurgery)

POSTER PRESENTATION

Celine Dawson
Medical Student - Year 3 (Division of Neurosurgery)

STUDENT PLATFORM PRESENTATIONS

1ST PRIZE
Mr. Colin Franz
(Department of Surgery)

HONOURABLE MENTIONS
Ellen Vessie
(Department of Surgery)

Phil Nickerson
(Division of Neurosurgery)

*Dr. Chris Drover was also the co-winner of the Dalhousie Faculty of Medicine Research Day.

THE HALIFAX SKULL BASE PROGRAM

Submitted by Dr. Manohar Bance

Overview;

Interdisciplinary Maritime resource program. A collaboration between Otologists (Otolaryngologists specializing in disorders of hearing, balance and the temporal bone) and Neurosurgery to manage tumors of the lateral skull base.

This program is unique in this area in Canada, in that it allows members from both disciplines (Otolaryngology and Neurosurgery) to make joint management decisions in the same clinic, and operate together on these patients.

Team members:

Dr's Manohar Bance and David Morris (Otolaryngology)
Dr's Simon Walling and Renn Holness (Neurosurgery)
Linda Clarke RN (Program coordinator), Belinda Nicoll (Administrative Coordinator)
Jean Lessel, Eleanor Young (Administrative Assistants)

Collaborators:

Stereotactic Radiosurgery Group
Nova Scotia Hearing and Speech
Neuro-radiology
Vestibular physiotherapy
Disorders of the lateral skull base

The lateral skull base includes the deep temporal bone and the cerebello-pontine angle (CPA). The anatomy in this region is very compact and complex. Numerous structures, critical for function and for life, run in this region. These include most of the cranial nerves, the brainstem, the cerebellum, the carotid and jugular bulb and the cochlea and balance organs. The temporal bone, housing the inner ear, itself has some of the most intricate three-dimensional anatomy in the body. Approaches through this structure are common for surgical access to the CPA, requiring a detailed knowledge of this whole area.

The most frequent tumor seen here is the vestibular schwannoma, also mis-named as acoustic neuroma, which occurs in the CPA. Other tumors seen in the CPA are meningiomas, lipomas and epidermoids. In addition, epidermoids and other lesions can occur deep in the bony petrous temporal bone. Because of the numerous structures at risk in this region, treatment options have to be carefully weighed to balance morbidity of treatment with morbidity of disease.

Dr. Manohar Bance

The situation is even further complicated by the presence of genetic diseases such as NF2, in which vestibular schwannomas occur on both sides, in addition to multiple other CNS tumors. Nova Scotia is home to several families which each have several affected members.

There are a multitude of treatment options. These include surgical options and focused stereotactic radiosurgery. The latter option has recently become available locally in Halifax, and we work closely with the stereotactic radiosurgery group. The surgical options include several approaches designed to save hearing, and some that deliberately sacrifice hearing but more often preserve other vital structures. A recent approach is that of watchful waiting, the "wait and scan" policy. Our group is one of the world leaders in this area. Currently we are following close to 200 vestibular schwannomas with a wait and scan policy. This approach has allowed us to avoid the morbidity of treatment in increasing numbers of patients.

These tumors often present with complaints in hearing and balance, and are first seen and diagnosed by Otolaryngologists. In many centres, there are multiple care providers, with Otolaryngologists and Neurosurgeons developing differing and diverging approaches to these disorders. This leads to confusion and fragmentation of care. Our centre is unique in allowing both specialties and other health care providers to asses the patient simultaneously, and develop and execute joint treatment decisions.

Advantages of the program

- Extensive and growing expertise in these disorders, developed due to volume of patients seen as a

regional referral resource

- Coordinated patient investigations. All patient's receive an audiogram and MRI scan at each visit, often on the same day as the clinic visit
- Extensive database of patient outcomes
- Consensus developed and directed clear messages to patients from all members of the group
- Administrative support to coordinate follow-up and tracking
- Each team member brings unique expertise to the clinic with sharing of knowledge and skills
- Access to very specialized investigations in hearing and balance

Research in the Skull Base Program

We have developed several research fronts in this program. Some are listed below:

- What is useful hearing? Speech in noise comprehension with asymmetric hearing in acoustic neuroma subjects, when does the tumor ear stop contributing to binaural hearing?
- Database of tumor growth and outcomes. One of the largest series in the world with the "wait and scan" policy
- Patient expectations and attitudes to acoustic neuroma – questionnaire for all patients in our database
- Subjective hearing handicaps measured with standardized instruments
- Comparison of hearing outcomes with radiosurgery and conservative treatment

Conclusions

The Skull Base Program is a very successful "template" program for complex disorders that span multiple disciplines. It has quickly become the regional referral centre for both Otolaryngologists and Neurosurgeons for these disorders. Future directions include a full time coordinator, a database manager, and increasing collaborations between the radiosurgery group, other groups and our program. The Skull Base Program has allowed our centre to become one of the leading world centre in these disorders.

EDUCATION REPORT

Submitted by Dr. Renn Holness and Sheila Reid

Undergraduate Education

The Department continues to contribute significantly to the Medical School Curriculum in the first and second years. As usual we were well represented by COPS Tutors this year and have a large number of tutors for the upcoming year. Once again, General Surgeons and Orthopedic Surgeons participated in the Med II Patient/Doctor Sessions. Dr. Simon Walling of Neurosurgery is our Representative on the Admissions Committee.

The Surgery Clerkship has undergone some major changes as part of the recommendations by the Dalhousie Undergraduate Clerkship Review Committee. The Surgery/Emergency Unit is now twelve weeks in total with nine weeks devoted to Surgery and three weeks to Emergency. All Clerks will rotate through General Surgery for three weeks and Emergency for three weeks. Clerks will have a choice for the remainder two-three week rotations. The Clerks can choose from Cardiac Surgery, Neurosurgery, Orthopedic Surgery, Otolaryngology, Pediatric Surgery, Plastic Surgery, Thoracic Surgery, Urology and Vascular Surgery. Clerk Seminars will be offered on Mondays, Tuesdays and Thursdays, and will be teleconferenced to allow the Emergency Clerks rotating outside of Halifax access to the seminars.

Dr. Renn Holness
Director of Education

The NBME examination will still be given to the Clerks; however, the Evaluation Committee has decided it

should remain a “practice” examination.

There are two Department of Surgery Excellence in Undergraduate Teaching Awards that are presented to a Staff and a Resident each year. These awards are selected by the medical students. This year the students chose Dr. Brock Vair, General Surgery for the Staff Award and Dr. Chris Murphy, General Surgery for the Resident Award. Congratulations!

Postgraduate Education

Congratulations to the 12 graduating Residents, 11 were successful in their Royal College exams this summer. They were: Drs. Angel Alkarain, Martin Dzierzanowski, Jim Ellsmere, Peter Midgley, Anton Skaro, Mohammed Zamakhshary, General Surgery; John Campbell, Chris Robertson, Orthopedics; Robyn Watts, Jason Williams, Plastic Surgery; Rob Hart, and Neil Smith, Otolaryngology. Most of the graduates are headed for sub-specialty Fellowships.

All of our Programs received excellent candidates in the recent CaRMS Match. We extend a warm welcome to all!

The Royal College of Physicians and Surgeons will be reviewing all of the Surgical Programs in February 2006; the last Royal College Review took place in 2000.

In April 2005 we were well represented at the Joint Spring Meeting of the Association of Surgical Education, Residency Coordinators and Program Directors which was held in New York, New York. The Department of Surgery Resident representative was Dr. Phil Barnsley, Plastic Surgery, who is working on his MSc, and CIP.

A good time was had by all at the Annual Department of Surgery Resident Golf Day. Dr. John Sullivan, Cardiac Surgery and Dr. Chris Drover, Otolaryngology had low scores for Staff and Resident.

Atlantic Health Sciences Skills Center

Submitted by Dr. Jaap Bonjer

The plan to establish a multidisciplinary training center which will provide training opportunities for all health care professionals at Dalhousie University and Capital Health District Authority has received wide support. Various locations for such a building are under review. Physical linkage with the Department of Anatomy and the Animal Care Facility is preferable. The funding of the Skills Center is still under discussion between involved parties and external sources.

Don Ford, CEO Capital Health, has recently assigned room 2041, Main Floor, Victoria Building as a temporary space for the Skills Center. This room, measuring over 1,500 square feet, will be used for training skills in simulators and as telehealth room. A small class room will be put together allowing lectures on site and at a distance, via videoconferencing. On September 21, representatives from most surgical specialties, gastro-enterology and cardiology convened in room 2041 to discuss best use of the space. The goal is to open this temporary Skills Center before the end of 2005. Meanwhile preparations for the new building will continue.

PROGRAM PROFILE

Submitted by: Dr. Geoffrey Porter
Division Of General Surgery Profile

It is an exciting time for the Division of General Surgery! Over the past two years, the Division has seen the recruitment of five new staff and significant program development in Minimally Invasive Surgery, Transplantation, Surgical Oncology, and Colorectal Surgery.

The recent recruitment of internationally-renowned Dr. Jaap Bonjer, in addition to the recruitment of Dr. Dennis Klassen two years ago, has fortified Minimally Invasive Surgery as a strength within the Division. Ongoing work in video-linked remote surgery is very exciting and has great educational and training potential for community surgeons in Nova Scotia. The Division of General Surgery has seen an increase of minimally invasive procedures as well as, with the international reputation of Dr. Jaap Bonjer, the inception of multi-institution clinical trials comparing minimally invasive surgery to standard open surgery. The development of a Skills Centre, under Dr. Bonjer's leadership, will be integral to undergraduate, postgraduate and continuing medical education at Dalhousie.

Under the leadership of Dr. Bjorn Nashan, and with the recent recruitment of Dr. Mark Walsh (July 2004) and Dr. Michele Molinari (August 2005), transplantation activities within the Division have re-emerged. There have been sixteen liver transplants performed since re-opening the program in December 2004. In addition, the active translational research program of Dr. Nashan, in collaboration with Dr. Tim Lee has resulted in successful grant capture and exciting ongoing research. Members of the Division of General Surgery have also taken on major responsibilities in renal transplantation, and specifically have further developed the use of minimally invasive techniques in the living-related kidney transplantation program. Future endeavors include the development of pancreatic transplantation in addition to living-related liver transplantation.

In Surgical Oncology, a major focus will continue to be the development of a multidisciplinary breast centre, including the outpatient and operative care of breast cancer. This large project, spearheaded by Dr. Carman Giacomantonio, is expected to be operational in April 2006 and will involve multiple stakeholders. The annual Surgical Oncology Symposium, an educational event aimed at community surgeons, and this year devoted to sentinel node biopsy in breast cancer, was an unmitigated success. In addition, active outcomes research in Surgical Oncology has been very fruitful over the past two years. Clinically, specific complex oncologic procedures such as peritonectomy with intraoperative hyperthermic peritoneal perfusion have been developed and are not available anywhere else east of Montreal.

In Colorectal Surgery, we have seen the addition of Dr. Paul Johnson, who obtained his Colorectal Fellowship training in Toronto along with a Master's Degree in Epidemiology. This group functions in an extremely cohesive manner and is currently developing a model for patient-centered care, as well as database-driven clinical research.

This year marked the retirement of one of the most prolific academic General Surgeons in Canada, Dr. Allan MacDonald. Allan's accomplishments are numerous and the breadth of his research contributions is remarkable. For these reasons, the Department of Surgery has agreed to support an annual Allan MacDonald Lectureship in Surgery, aimed at recognizing outstanding research contributions by a Canadian surgeon. The inaugural lectureship was given in June 2005 by Dr. William Wall, the Director of Transplantation at the university of Western Ontario.

The Division of General Surgery has been challenged by resource limitations present throughout the health care system; we are continually striving to identify means to work within these limitations and improve care for our patients. In a Division of where almost half of the 16 members are within the first third of their academic career, and with planned recruitment in breast surgery/oncology over the next year, the next ten years promise to be truly exciting.

RESEARCH CORNER

Submitted by Dr. Robert Brownstone

The primary goal of the research in Dr. Brownstone's laboratory is to identify the way in which the nervous system controls motor activity, in particular, at the level of the spinal cord. To this end, a combination of techniques is used with electrophysiology at the core, supported by methodologies including molecular biology, anatomy and computer modeling.

Dr. Robert Brownstone's research objective is to determine the way in which the central nervous system produces coordinated locomotor activity. To this end, he studies the properties of spinal cord networks involved in the production of locomotion, as well as the neuronal properties of the network elements. Most recently, the work in Dr. Brownstone's laboratory has led to the identification and characterisation of a new class of spinal interneuron that may be involved in producing the rhythm underlying walking. These studies make use of transgenic technology in which fluorescent proteins are expressed by specific subsets of neurons, which can then be targeted for study in living tissue. Such novel techniques are being used to study several different classes of spinal interneurons at this time.

In addition to the study of interneuronal networks, Dr. Brownstone is also investigating the mechanisms whereby spinal motoneurons, the final common pathway for the production of movement, integrate their synaptic inputs in order to produce outputs appropriate for muscle contraction. These studies are shedding light on this fundamental process.

The third branch of studies in the lab examines the directed differentiation of mouse embryonic stem (ES) cells into spinal motoneurons. This work, in collaboration with Dr. V. Rafuse of the Department of Anatomy & Neurobiology / Cross appointment in Surgery, have revealed that a rather simple differentiation paradigm can lead to the production of neurons which have many of the characteristics of spinal motoneurons, including appropriate electrical properties and the ability to innervate muscle and effect muscle contraction.

Dr. Brownstone is also one of the core investigators of the Brain Repair Centre. This initiative has led to the acquisition of a two photon laser scanning microscope which has become an integral part of the research conducted by Dr. Brownstone and his trainees.

Under the direction of Dr. I. Mendez, the Brain Repair Centre is planning to bring together investigators with common interests into contiguous space in the new Life Sciences Research Institute. This would include investigators within the newly-forming Spinal Cord Research Group.

Dr. Robert Brownstone
Associate Professor

Dr. Brownstone's laboratory underwent physical expansion in 2002, and is about to expand again. There are currently three post-doctoral fellows (Dr. J. Wilson, Dr. G. Miles, and Dr. E. Blagovechtchenski), two graduate students (D. Yohn and A. Al-Mosawie), and three technicians (H. Zhang, N. Farbstein and A. Alcos), as well as summer and undergraduate students, with plans to increase the number of people once space is available.

Recent publications include, among others, two papers in the highly-ranked Journal of Neuroscience, and one paper each in the Journal of Physiology, and the Journal of Comparative Neurology. In addition, Dr. Brownstone recently co-authored a review in the prestigious Trends in Neurosciences.

Peer-reviewed grant funding has been obtained from the Canadian Institutes of Health Research, the Nova Scotia Health Research Foundation, Project A.L.S., and the Christopher Reeve Paralysis Foundation. In addition, as part of the Brain Repair Centre, Dr. Brownstone is a co-investigator on a grant from the Atlantic Canada Opportunities Agency / Atlantic Innovation Fund.

Dr. Robert Brownstone, Associate Professor
2001 – 2006 Senior Clinical Research Scholar
Major Appointment: Department of Surgery/Division of Neurosurgery
Cross Appointment: Department of Anatomy & Neurobiology

GRADUATING RESIDENTS

Congratulations to the 2005 graduating residents. The Department of Surgery is proud of your accomplishments and wishes you success in your future careers as surgeons.

Picture: Left to Right: Anton Skaro (General Surgery), Neil Smith (ENT), Jim Ellsmere (General Surgery), Angel Alkarain (General Surgery), Jason Williams (Plastics), Robyn Watts (Plastics), Mohammed Zamakhshary (General Surgery), Peter Midgley (General Surgery), Martin Dzierzanowksi (General Sugery), John Campbell (Orthopedics) and Chris Robertson (Orthopedics). Missing: Rob Hart (ENT)

New Residents

Cardiac Surgery
Billie Jean Martin

ENT
Hosam Amoodi
Genevieve McKinnon
Shahryar Shahnavaz

General Surgery
Andrew Beckett
Rene Boisvert
Yarrow McConnell
Alfin Mukhi
George Roxin
Jeffrey Singer

Orthopedics
Abdullah Raizah
Rick Lau
Nadia Murphy
Ben Orlik

Neurosurgery
Khaled Aal Ali
Philippe Magown

Plastics
Khalid Almutairi
Martin LeBlanc

RESEARCH ACHIEVEMENTS

Cardiac Surgery

After approval from the Department of Health, the QEII HSC became one of only a few centers in Canada to have the capability to implant long term mechanical circulatory support devices or Mechanical Heart. These devices have become an important tool in the treatment of patients with refractory heart failure who cannot afford to wait for a heart transplant. The Division of Cardiac Surgery has implanted 5 such devices to date and bridged successfully 4 to transplantation. All patients were supported for a period of more than 4 weeks (1-5 months) and required tremendous commitment from many individuals. I would like to take this opportunity to congratulate all who were involved in the care of these patients who would not have survived without their help. (Submitted by Dr. JF Legare.)

Otolaryngology

Dr. Morris and Dr. Manohar Bance won a DMRF capital equipment award, as well as a new investigator award.

Dr. Manohar Bance has been made Full Professor.

Dr. Mark Taylor was awarded the Jack Anderson Prize – American Board Facial Plastic Reconstructive Surgery. He was the 700th Diplomat of the American Board Facial Plastic and Reconstructive Surgery. He is now Board Certified with the American Board of Facial Plastic Reconstructive Surgery and now is a Fellow of the American Academy Facial Plastic Reconstructive Surgery.

Dr. Chris Drover won first prize in the Department of Surgery Resident Research Day for his presentation entitled, " A Preoperative Measure of Tumor Thickness as a Predictor of Cervical Nodal Metastasis in Oral Carcinoma." Dr. Dover was also the co-winner at the Dalhousie Faculty of Medicine Research Day.

Plastic Surgery

Dr. Don Lalonde has been elected as a Director of the American Board of Plastic Surgery for a six year term. He has also received an appointment as Chair of the Specialty Committee of Plastic Surgery of the Royal College of Physicians and Surgeons of Canada in 2004.

General Surgery – Pediatrics

Dr. Natalie Yanchar, as co-supervisor, has been successful in obtaining an IWK Research Associateship awarded for Ms. Gaetane LeBlanc Cormier, a new research facilitator for the IWK Department of Surgery. As well, she has received a research grant from the Canadian Hospitals Injury Reporting Program (CHIRPP)

Orthopaedics

Dr. David Amirault is the new Chief, Division of the Orthopaedic Surgery. He was voted Professor of the Year by graduating residents '05.

Dr. Ross Leighton won the Austrian Swiss German Traveling Fellowship (Canadian Fellow). He also won the Best Paper Award at OTA (Orthopaedic Trauma Association) 2004 "Prospective Randomized Trial Study Bone Graft Substitute"

Dr. Michael Dunbar won the ABC Traveling Fellowship (one of 2 Canadians) and 2 CIHR grants valued at $250,000.00

Dr. Mark Glazebrook was awarded the Allan E. Marble Prize, Doctoral Category for Excellence in Research, School of Biomedical Engineering, Dalhousie University.

Division of Neurosurgery

Dr. Robert Brownstone received the following grants as a co-investigator with Dr. S. Burrell: Nova Scotia Health Research Foundation and Radiological Society of North America. He also received both a Canadian Institutes of Health Research Award and a Christorpher Reeve Paralysis Foundation Grant

Dr. Renn Holness received The Dr. John P. Savage Memorial Award in International Health, The Caribbean Health Research Council Award and The Regional Award (Region 5).

Dr. Robert Brownstone was named The Assistant Dean of Research – Clinical Departments.

Dr. Karim Mukhida won second prize in the Department of Surgery Resident Research Day for his presentation entitled, "Differentation of Bioreactor-Expanded Human Neural Precursor Cells for Parkinson's Disease Neural Transplantation Strategies."

NEW APPOINTMENTS

Division of General Surgery

DR. MICHELE MOLINARI: - TRANSPLANTATION

Dr. Molinari obtained his M.D. from the University of Milan School of Medicine in Italy in 1992. He served for 2 years with the Italian Military before moving to Chicago, USA. From 1994-2002 he completed both research and clinical training at both the University of Chicago and the University of Illinois at Chicago. Between 2003-05 he completed a Masters Program in Clinical Epidemiology at the University of Toronto, and Hepatobiliary and Pancreatic as well as Solid Organ Transplantation Fellowship in Toronto and Edmonton.

During his training he has won numerous awards for excellence.

He will be a key number of the Multi-organ Transplant Team along with Drs. Nashan and Walsh.

Michele is appointed at the rank of Assistant Professor.

DR. GUY BRISSEAU
PEDIATRIC GENERAL SURGERY

A native Maritimer, Dr. Brisseau received his MD from Dalhousie University in 1989. After a one-year Internship in London, Ontario he went to Toronto where he completed a combined Research/Residency program in General Surgery in 1998. After completing a 2 year Fellowship in Pediatric General Surgery at the Hospital for Sick Children he spent five years at State University of New York at Buffalo. Dr. Brisseau returned to the Maritimes with his wife Susan and three daughters in January, 2005. He has a special interest in surgical education and minimally invasive surgery in children.

Dr. Brisseau is appointed at the rank of Assistant Profressor.

NEW APPOINTMENTS

Division of Orthopedic Surgery:

DR. RANY (RON) EL-HAWARY: - PEDIATRICS

Dr. El-Hawary obtained his M.D. from Dalhousie in 1998. He completed his Residency in Orthopedic Surgery at the University of Western Ontario in 2003. While a Resident he completed a Masters Degree in Medical Biophysics from Western as well. He has just completed a 2-year Fellowship Program in Pediatric Orthopedic Surgery, one year in London, Ontario and the second in Dallas, Texas.

He has been the recipient of several awards for scholarship.

We heartily welcome Ron back to Dalhousie as an Assistant Professor in the Department of Surgery.

Division of Otolaryngology

DR. DAVID P. MORRIS

Dr. Morris obtained his MBBS from St. Bartholomew's Hospital, London, England in 1991. He completed his Residency in Otolaryngology in Manchester in 2003 and was awarded the Royal Society of Medicine Gold Medal for his performance in the Intercollegiate Specialty Examination.

In 2002, he completed a one-year Fellowship in Otology/Neurotology at Dalhousie. He joined our permanent staff in October, 2003, and has been working to consolidate our Otology Service and expand the cochlear implant and bone-anchored hearing aid programs. He is cross-appointed to Neurosurgery for his work in the combined Skull Base Clinic.

He continues his work as a co-researcher in the Ear Lab with a special interest in middle ear micro-anatomy and its impact on disease. David is appointed at the rank of Assistant Professor.