The 12th Annual Canadian Resident-Fellow Competition in Respiratory Research was held in Montreal, Quebec, on November 29th and 30th, 2004. Endorsed by the Canadian Thoracic Society and the Canadian Society for Clinical Allergy and Immunology, and benefiting from the unrestricted funding and support from GlaxoSmithKline, the competition has evolved into a showpiece of world-class research highlighting the best and the brightest Canada has to offer. The competition allows young clinicians and scientists to present their research and findings to their peers and colleagues, and a panel of noted scientists. This year, the panel consisted of Dr Darcy Marciniuk (University of Saskatchewan, Saskatoon, Saskatchewan), Dr Shawn Aaron (University of Ottawa, Ottawa, Ontario), Dr François Maltais (Laval University, Sainte-Foy, Quebec) and Dr Redwan Moqbel (University of Alberta, Edmonton, Alberta), who acted not only as competition judges but also served to stimulate, probe and encourage these fine young clinicians and scientists about their research.

We were truly amazed at the presenters’ commitment and dedication, and the level and depth of understanding they displayed throughout the entire competition. This was most evident in the genuine interest and insight the residents and fellows demonstrated to their colleagues during their presentations. The judging was especially difficult due to the extremely diverse and high level of the science, and the quality of the presentations. The winner from each of the Basic and Clinical Research categories received a cash prize of $2,500 to assist in their future studies. A separate resident winner was also chosen to receive $500 to assist with research and clinical training. Importantly, all three winners received a beautiful glass sculpture trophy from the Northwest Coast Native artist David Montpetit entitled The Raven. This sandblasted glass trophy reflects the Canadian rendition of the concept of research and its contribution to the improvement of humankind.

This year’s winner of the Joseph Milic-Emili Award for Best Basic Research Presentation was Dr Warren Lee (University of Toronto, Toronto, Ontario) for his presentation entitled “Phagocytosis: Size Matters”. Honourable mention in this category went to Dr SO Odemuyiwa (University of Alberta) for his presentation entitled “Human Eosinophils Constitutively Express Indoleamine 2,3 Dioxygenase and Regulate T-Cell Functions”. The winner of the David Bates Award for Best Clinical Research Presentation was Dr Véronique Pepin (Laval University) for her presentation entitled “How to Detect Bronchodilator-Induced Improvements in Exercise Tolerance in COPD: Should Patients Walk or Cycle?”. Honourable mention in this category went to Dr John Langridge (University of Western Ontario, London, Ontario) for his presentation entitled “Predicting Post-Operative FEV₁ Using Spiral Computed Tomography to Measure Regional Blood Flow: Comparison with Quantitative Nuclear Medicine Perfusion Scanning”. Finally, the winner of the Peter Pare Sr Award for Best Presentation by a Resident in Training was awarded to Dr Chris Parker (Queen’s University, Kingston, Ontario) for her presentation entitled “Is Asymptomatic Airway Hyperresponsiveness Predictive of the Development of Respiratory Symptoms?”.

As judges, we would like to genuinely thank all of the presenters and their supervisors for the high level of science and the quality of the presentations at the competition. On behalf of our colleagues throughout Canada, we would also like to once again express gratitude to the Canadian Thoracic Society, the Canadian Society of Allergy and Clinical Immunology and GlaxoSmithKline for their leadership in providing a unique opportunity for young investigators and trainees in this area to share and showcase the results of their dedication and hours of hard work. This proud tradition is helping to ensure that the future looks bright for respiratory research in Canada, and we look forward to seeing how these young investigators and their work will help advance that important goal. The presentations and the collegial atmosphere gave us a high degree of optimism about the future of clinical and basic respiratory research in Canada.
**CLINICAL RESEARCH COMPETITION**

**Non-CF Bronchiectasis in Manitoba Children: Past & Present**
S Al-Harbi¹, E Campbell¹, H Pasterkamp¹,², BL Giles¹,²

¹University of Manitoba; ²Manitoba Institute of Child Health, Winnipeg, Manitoba

Evidence of Inflammation and Remodeling in Peripheral Airways of Mild to Moderate Asthmatic Patients – Effect of HFA-Flunisolide
C Bergeron, H Qutayba
Meakins-Christie Laboratories, McGill University, Montreal, Quebec

Is Asymptomatic Airway Hyperresponsiveness Predictive of the Development of Respiratory Symptoms?
Kim Boutet, J-L Malo, H Ghezzo, D Gautrin
The Department of Chest Medicine, Hôpital du Sacré-Coeur, Montreal, Quebec

A Comparison of the Leicester Cough Questionnaire with the St George's Respiratory Questionnaire in the Evaluation of Treatment Response in Patients with Chronic Cough
WJ Davidson, D Sin, P Wilcox, S Attridge, TR Bai, J Hogg
iCAPTURE Centre for Cardiovascular and Pulmonary Research and Respiratory Division, St Paul's Hospital, University of British Columbia, Vancouver, British Columbia
Funding was provided from BC Lung and AstraZeneca

Airway Calibre Variability and Respiratory System Reactance: Sensitive Indicators of Bronchodilator Effect in Asthmatic Children
CA Lall¹, P Hernandez², P Pianosi³, GN Maksym¹
¹Dalhousie University; ²QEII Health Sciences Centre; ³IWK Health Centre, Halifax, Nova Scotia

Outcome of Lung Cancer Patients Admitted to the Intensive Care Unit
JM Maniate, S Sharma
Department of Internal Medicine, University of Manitoba, St Boniface General Hospital, Winnipeg, Manitoba

Mechanisms of Dyspnea During Acute Exacerbations of COPD
C Parker¹, N Voduc², S Aaron², K Webb¹, DE O'Donnell¹
¹Department of Medicine, Queen's University, Kingston; ²Ottawa Hospital, Ottawa; ³Kingston General Hospital, Kingston, Ontario

How to Detect Bronchodilator-Induced Improvements in Exercise Tolerance in COPD: Should Patients Walk or Cycle?
V Pignon, F Whittom, D Saey, P LeBlanc, F Maltais
Centre de recherche Hôpital Laval, Institut universitaire de cardiologie et de pneumologie de l'Université Laval, Sainte-Foy, Quebec

Management of Bronchiolitis In Quebec: Comparison Between First-Time and Recurrent Episodes
J Rochat, D Bérubé
Hôpital Sainte-Justine, Montreal, Quebec

**BASIC RESEARCH COMPETITION**

The Interferon Gamma (IFNG) Gene and its Interaction with Smoking are Associated with Lung Function in Smokers
J-Q He¹, AJ Sandford¹, K Burkett¹, JE Connett², NR Anthonisen³, PD Paré¹
¹University of British Columbia, the James Hogg iCAPTURE Centre for Cardiovascular and Pulmonary Research, St Paul's Hospital, Vancouver, British Columbia; ²Division of Biostatistics, School of Public Health, University of Minnesota, Minnesota, USA; ³Faculty of Medicine, University of Manitoba, Winnipeg, Manitoba

Phagocytosis: Size Matters
WJ Lee¹,², S Grinstein¹
¹Programme in Cell Biology, The Hospital for Sick Children; ²Institute of Medical Science; and Division of Respirology and the Interdepartmental Division of Critical Care, Department of Medicine, Toronto, Ontario

Interleukin-13 Augments Phosphorylation of Myosin Light Chain 20 Induced by Histamine in Human Airway Smooth Muscle Cells
BI Moynihan¹, B Tolloczko¹, MC Michoud¹, PG Ferraro², JC Martin¹
¹Meakins-Christie Laboratories, McGill University; ²University of Montreal Hospital Centre, Montreal, Quebec

Human Eosinophils Constitutively Express Indoleamine 2,3 Dioxygenase and Regulate T-cell Functions
SO Odemuyiwa, AG Ghahary, Y Li, L Puttagunta, A Ghahary, R Moqbel
Pulmonary Research Group, Department of Medicine, University of Alberta, Edmonton, Alberta

**Canadian Resident-Fellow Competition in Respiratory Research**

Treatment of Obstructive Sleep Apnea Reduces Nocturnal Ventricular Ectopy in Patients with Heart Failure
CM Ryan, K Usui, Y Kaneko, JT Floras, T Bradley
Division of Respirology, University of Toronto, and Sleep Research Laboratories of the Mount Sinai Hospital and Toronto Rehabilitation Institute, Toronto, Ontario

Childhood BCG Vaccination and the Risk of Atopic Asthma in Adulthood
C Samuel, P Ernst, R Olivenstein, D Menzies
Montreal Chest Institute, Montreal, Quebec

Is Obesity a Risk Factor for Development of Asthma and Bronchial Hyperresponsiveness?
A Tailor, S Sharma
Section of Respirology, University of Manitoba, Winnipeg, Manitoba

Predicting Post-Operative FEV1 Using Spiral Computed Tomography to Measure Regional Blood Flow: Comparison with Quantitative Nuclear Medicine Perfusion Scanning
J Langridge, R Ince, R Malihan, M Lefcoe, S Mehta, J Mahon, T Lee, D McCormack
University of Western Ontario, London, Ontario
A Carcinogenic Component of Cigarette Smoke Modulates Alveolar Macrophage Functions
LI Proulx, LA Augusto, A Castonguay, EY Bissonnette
Centre de recherche de l’Hôpital Laval, Institut universitaire de cardiologie et de pneumologie, Sainte-Foy, Quebec

Septic Albumin Leak in Human Umbilical Vein Endothelial Cells vs Human Pulmonary Microvascular Endothelial Cells
JL Shelton, LF Wang, G Cepinskas, S Mehta, DG McCormack
Departments of Pharmacology and Physiology, University of Western Ontario; and Division of Respirology, London Health Sciences Centre, London, Ontario

Myeloid Progenitor Inhibitory Factor-1 Inhibits the Production and Release of Leukocytes from the Bone Marrow
C-H Shih, SF van Eeden, Y Goto, JC Hogg
James Hogg iCAPTURE Centre for Cardiovascular and Pulmonary Research, University of British Columbia, St Paul’s Hospital, Vancouver, British Columbia

The Role of Protease Activated Receptor (PAR)-1 in Proteinase-Induced Apoptosis of Human Lung Epithelial Cells
T Suzuki1, TJ Moraes1, E Vachon1, HH Ginzberg2, M Hollenberg2, J Marshall1, T-T Huang, C-W Chow1, GP Downey3
1University of Toronto, Toronto, Ontario; 2University of Calgary, Calgary, Alberta; 3Toronto General Hospital, University Health Network, Toronto, Ontario

Induction of IP-10 Promoter Activity in Human Airway Epithelial Cells by Human Rhinovirus-16: Role of Regulatory Elements and Involvement of the P44/42 Mitogen-Activated Protein Kinase Pathway
RS Zaheer, D Proud
Respiratory Research Group, Faculty of Medicine, University of Calgary, Calgary, Alberta
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