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## National Centre for Agri-Food Research in Medicine

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I) **LIST OF MEMBERS OF THE**

**NATIONAL CENTRE FOR AGRI-FOOD RESEARCH IN MEDICINE**

A) **Investigators**
1. Hope D.I. Anderson, Ph.D., Assistant Professor, Faculty of Pharmacy, University of Manitoba
2. Mohammed Moghadasian, Ph.D., Assistant Professor, Department of Human Nutritional Sciences, Faculty of Human Ecology, University of Manitoba
3. Karmin O, Ph.D., Associate Professor, Department of Animal Science, Faculty of Agriculture and Food Sciences, University of Manitoba
4. Grant N. Pierce, Ph.D., Director, National Centre for Agri-Food Research in Medicine, and Professor, Department of Physiology, Faculty of Medicine, Professor of Pharmacy, University of Manitoba

B) **Associate Members**
1. Peter Zahradka: PhD, Professor, Department of Physiology, Faculty of Medicine
2. Asad Junaid: MD, Department of Internal Medicine, St. Boniface General Hospital
3. Chris Siow: PhD, Assistant Professor, Department of Physiology, Faculty of Medicine
4. James Gilchrist: PhD, Professor, Departments of Oral Biology and Physiology, Faculties of Dentistry and Medicine
5. Pram Tappia: PhD, Assistant Professor, Department of Human and Nutritional Science, Faculty of Human Ecology
6. Anton Lukas: PhD, Associate Professor, Department of Physiology, Faculty of Medicine
7. Michelle Alfa: MD, Professor, Department of Medical Microbiology, St. Boniface General Hospital
8. Clayton Heyliger: PhD, Assistant Professor, Ross University School of Medicine, St. Kitts

C) **Visiting Scientists**
1. Dr. Pallab K. Ganguly, Professor and Chair, Department of Anatomy, College of Medicine and Medical Sciences, Arabian Gulf University, Bahrain

D) **Research Associates**
1. Elena Dibrov, PhD
E) **Postdoctoral Fellows**
1. Kathy KW Au-Yeung, PhD
2. Paul Cheung, PhD
3. Abbas Jolodar, PhD
4. Ji-Jin Lin, M.D.
5. Kennedy Makondo
6. Caroline Pampolina, PhD
7. Min Wu, M.D.
8. Zuyuan Xu
9. Fan Zheng, PhD

F) **Graduate Students**
1. Denise Aminot-Gilchrist
2. Brad Ander
3. Chantal Dupasquier
4. Melanie Landry
5. Michele Prociuk
6. Connie Woo
7. Behzad Yeganeh

G) **Technical Staff**
1. Alex Austria
2. Lam Dang
3. Andrea Edel
4. Alex Gutsol
5. Melanie Kopilas
6. Thane Maddaford

H) **Administrative Staff**
1. Janet Labarre

I) **Summer Students**
1. Helen Alexander
2. Tanya Friesen
3. Riya Ganguly
4. Annette Kostenuk
5. Natalie Riediger
II) **OVERVIEW OF THE ACTIVITIES OF THE NATIONAL CENTRE FOR AGRI-FOOD RESEARCH IN MEDICINE**

I am very proud of the accomplishments and developments that have occurred in the National Centre for Agri-food Research in Medicine during the year 2005. Despite the fact that NCARM is in its early years of development, this fledgling Nutraceuticals and Functional Foods research group is already experiencing a dramatic stimulation in almost all aspects of its research productivity and accomplishments. The young investigators who were recruited a few short years ago have developed into accomplished young scientists with productive research programs that have attracted significant research funding. The group in its totality has managed to raise funds in excess of $2M which is no small accomplishment for such a small research group. The laboratories all have a large number of staff and trainees beginning to publish papers in excellent journals and are even graduating students, many of whom have received awards during their time within NCARM. The year has also been exceptional in terms of the events that have occurred which will impact upon NCARM’s productivity and development in the future. A $17M agreement has been signed with the University of Manitoba and Agriculture and Agri-food Canada to expand the research capabilities of NCARM beyond just the 4 researchers that are currently part of the National Centre for Agri-food Research in Medicine. Six new researchers will be recruited in the upcoming year through Agriculture and Agri-food Canada. Major construction is already being undertaken to support the new laboratories. The National Centre for Agri-food Research in Medicine will change its name in the new year to the Canadian Centre for Agri-food Research in Health and Medicine. With the development of the Asper Clinical Research Institute and the clinical research that will be associated with this new nutraceuticals and functional foods group, the Canadian Centre for Agri-food Research in Health and Medicine will have research capabilities in basic science and clinical trials that, when associated with a teaching hospital, cannot be duplicated anywhere else in North America or, for that matter, the world. In the next few years the stage has been set for CCARM workers to produce research on nutritional interventions like no other group can across this continent and will rival any in the world. These are exciting times!

This kind of progress and potential does not occur without a tremendous amount of commitment, dedication and faith from a significant number of people. First and foremost, I would like to thank St. Boniface Hospital and Research Foundation for their support of this initiative. Ms. Val Coward and all of the staff within the Foundation have done a great job in supporting this research activity. Dr. Michel Tétreault, President and CEO, of St. Boniface General Hospital has supported the initiative of CCARM and his entire Executive Team has been extremely helpful in providing opportunities for St. Boniface Hospital Research Centre to explore their research potential. Many thanks to the leaders at the University of Manitoba for their help in ensuring CCARM is a viable research group within the University. Dr. Joanne Keselman, Vice President (Research), Drs. Peter Cattini and Digvir Jayas, Associate Vice-Presidents of Research, Ms. Barbara Crutchley, Mr. Guy Levesque, and the Deans of the four faculties that are involved in this research group, Dr. Collins from the Faculty of Pharmacy, Dr. Sevenhuysen from the Faculty of Human Ecology, Dr. Trevan from the Faculty of Agricultural and Food Sciences, and Dr. Sandham from the Faculty of Medicine were all instrumental in making this initiative a successful one. Thank you for your kindness, support and visionary leadership to understand the value of CCARM to your own faculties. I would also like to thank the representatives from Agriculture and Agri-food Canada who have been extremely helpful in fashioning an agreement over the years. Dr. Benoit Girard, in particular, was a cornerstone in ensuring this association between Ag Canada and St. Boniface Hospital Research Centre occurred. Dr. John Foerster from St. Boniface Hospital was critical, as was Vic Janzen and Gary Breit in keeping the negotiations on track and ultimately successful. Finally, I would like to thank the three Principal Investigators who ensure that CCARM will be successful for the next decades. Drs. Karmin O, Hope Anderson and Mohammed Moghadasian have been team players from the very start with incredible energy, hopes and dreams that I am sure will be fulfilled in the years to come. Congratulations to you all in this year of transition as we move NCARM into CCARM! I hope I will leave CCARM on a solid footing as we all watch the program build higher and higher in the years to come.

Sincerely,

Grant Pierce, Director
National Centre for Agri-food Research in Medicine
Vascular Disease Laboratory
Dr. Hope Anderson, Assistant Professor, Faculty of Pharmacy

A number of conditions, such as high blood pressure, heart attack, or cardiac valve disease, increase the risk of heart failure. An intermediate step between these conditions and overt heart failure is cardiac hypertrophy, or abnormal growth of the heart. Therefore, finding effective ways to avert cardiac hypertrophy has emerged as a research priority. In medical practice, emphasis is now routinely placed on dietary modification as a preventative measure to forestall cardiovascular disease. Unfortunately, fully exploiting the preventative value of nutritional intervention is posing a huge challenge given the complex interaction between diet and bodily function. We need more information about specific dietary approaches and how they work. We are evaluating Conjugated Linoleic Acid (CLA) as a therapeutic intervention that prevents hypertrophy. CLA is a polyunsaturated fatty acid (PUFA) that occurs naturally in dairy and meat products from ruminant animals such as cattle. It is currently available in Canada as a nutraceutical that promotes weight loss. Our data indicate that by acting directly on heart muscle cells, CLA inhibits cardiac hypertrophy. Our ongoing research program is focusing on the cellular and molecular mechanisms invoked by CLA to inhibit growth of the heart.
Pathology Research Laboratory

Dr. Mohammed Moghadasian, Assistant Professor, Department of Human Nutritional Sciences

In 2005, we continued to perform research and teaching as well as to provide community services. I taught a graduate course (Lipid Nutrition and Metabolism), an undergraduate course (Maternal and Child Nutrition), and co-taught Functional Foods and Nutraceuticals. We received 2 NSERC undergraduate scholarships for Natalie Riediger and Tanya Friesen during the summer of 2005. Our research activities resulted in interesting data which we presented in Experimental Biology in San Diego, and 2nd CIHR Young Investigator Forum, and published in the Journal of Nutrition, Nutrition Research, Journal of Nutritional Biochemistry, Canadian Journal of Physiology and Pharmacology, and Journal of Cardiovascular Pharmacology. We also continued to receive research funding from CIHR, HSFM, NSERC and the Flax Council of Canada. One graduate student successfully completed his MSc degree and another graduate student continued his studies. Our CFI fund was released and equipment purchasing started in 2005. A new technician was also hired in 2005.
Hyperhomocysteinemia is a condition of increased blood homocysteine levels. Homocysteine is an intermediate amino acid formed during the conversion of methionine to cysteine. Hyperhomocysteinemia is a common and independent risk factor for cardiovascular disorders resulting from atherosclerosis. Folic acid (folate) supplementation, either alone or in combination with other vitamin Bs, has received a lot of attention as a promising approach in the prevention and treatment of cardiovascular diseases associated with hyperhomocysteinemia as well as with other risk factors. We have been actively investigating (1) biochemical and molecular mechanisms of homocysteine-induced adverse effect in the blood vessel wall; (2) the protective effect of folic acid (folate) supplementation on oxidative stress and inflammatory responses in vascular cells. Currently, our research team includes three postdoctoral fellows, two graduate students, one technician and two co-op/summer students. We have established useful experimental models that can be employed to test the biological effects of compounds isolated from plants or herbal medicines on signal transduction pathways involved in cardiovascular diseases.
Cell Biology Laboratory
Dr. Grant N. Pierce, Professor of Physiology and Director of the Division of Stroke & Vascular Disease

Year 2005 was a year of regenerative energy for our Cell Biology Laboratory. I was on sabbatical for the first six months of 2005 and spent this time primarily organizing data, writing papers and submitting many of them for publication. The fruits of this labor should be seen in next year’s report in 2006. We hope to have many papers completed and in press for that year. However, in 2005, a collaborative work with Dr. Karmin O’s laboratory was published in the American Journal of Physiology examining hyperhomocysteinemia and lipid accumulation. Cecilia Hurtado successfully published her paper in the Journal of Molecular and Cellular Cardiology examining short hairpin RNA delivered through adenovirus means and its effects on the sodium calcium exchanger in cardiomyocytes. Our work in the areas of nuclear protein import, nutrition and cardiovascular health, the sodium calcium exchanger and the relationship of infection with atherosclerosis was ongoing. I look forward to some exciting results being published in 2006.
### Research Funding for Dr. Hope Anderson

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<td>Effect of Conjugated Linoleic Acid on Cardiac Ventricular Myocyte Hypertrophy</td>
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# Research Funding for Dr. Mohammed Moghadasian

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## Research Funding for Dr. Karmin O

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<td>Regulation of NADPH Oxidase in Vascular Cells</td>
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<td>Role of Homocysteine in Atherosclerosis</td>
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## Research Funding for Dr. G. Pierce

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<td>Regulation of Nuclear Protein Import in Vascular Smooth Muscle Cells</td>
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<td>Involvement of Na/Ca Exchange in Ischemia/Reperfusion Injury</td>
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<td>Mechanical Stretch and Nuclear Protein Import</td>
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| **TOTAL MISCELLANEOUS SUPPORT:** | $91,489.00 |

| **FUNDING TOTAL FOR DR. PIERCE:** | $769,366.00 |

Total Funding for NCARM in 2005: $2,834,000.00
IV) **INVITED TALKS AND SESSION CHAIRPERSONS**

**A) Invited Symposia Speakers**

**Dr. Grant Pierce:**
1. International Society for Heart Research, American Section Meeting, New Orleans, USA
2. Symposium on “Metabolic Syndrome, Diabetes and Alterations of Vascular Biology: Evolving Concepts and Clinical Management” as part of the 60th Annual Congress of Brazilian Society of Cardiology, Porto Alegre, Brazil
4. Symposium on “Recent Advances in Molecular Clinical and Social Science”, Shantou, China

**B) Invited Talks to Different Institutions**

**Dr. Mohammed Moghadasian:**
1. 25th Anniversary of Lipid Clinic and Healthy Heart Program. Phytosterols and immune function. New Theater, St. Paul’s Hospital, Vancouver, BC.
2. 2nd National Research Forum for Young Investigators in Circulatory and Respiratory Health. Margaret Becklake Thematic Symposium. Room 4, Convention Centre, Winnipeg, MB.
3. Saskatchewan Herbs and Spices Association, Effects of broccoli sprouts on atherogenesis in apo E-KO mice. Saskatoon, SK.

**Dr. Grant Pierce:**
1. The James Hogg iCAPTURE Centre for Cardiovascular and Pulmonary Research, University of British Columbia, Vancouver, Canada
2. Department of Anatomy and Cell Biology, University of Western Ontario, London, Canada
3. Department of Pharmacology, Universite de Sherbrooke, Sherbrooke, Canada
4. Maple Leaf Foods, Toronto, Canada
5. Becel Canada, Toronto, Canada

**C) Session Chairperson**

**Dr. Grant Pierce:**
1. Chairman, International Symposium on Recent Advances in Molecular, Clinical and Social Science, Shantou University, Shantou, China
2. Symposium Session Chairman, 60th Annual Meeting of Brazilian Cardiology Society, Porto Alegre, Brazil
D) Invited Talks at the University of Manitoba and Local Institutions

Dr. Grant Pierce:
1. Faculty of Medicine, University of Manitoba
2. Board of Directors, St. Boniface Hospital & Research Foundation
3. Board of Directors, St. Boniface General Hospital
V) Teaching Activities

A) Supervision of Graduate Students

Dr. Hope Anderson:
1. Denise Aminot-Gilchrist (PhD)

Dr. Mohammed Moghadasian:
1. Rgia Othman (MSc)
2. Behzad Yeganah (MSc)

Dr. Karmin O:
1. E.R.K. Vathsala Edirimanne (MSc)
2. Gamika Prathapasinghe (PhD)
3. Connie WH Woo (PhD)

Dr. Grant Pierce:
1. Brad Ander (PhD)
2. Chantal Dupasquier (PhD)
3. Nicole Gavel (MSc)
4. Melanie Landry (MSc)
5. Michele Prociuk (MSc)

B) Courses Taught by Members

Dr. Hope Anderson:
1. Introduction to Pharmacy. "The Role of Functional Foods and Nutraceuticals" (46.100)
2. Applied Pathophysiology. "Ischemic Heart Disease", Hypertension & Heart Failure" (46.143)
3. Pharmaceutical Sciences Laboratory (46.452)
4. Medical Chemistry IV, Drug Design (46.453)
5. Pharmacy Issues – Writing for Publication “Metabolic Syndrome” (46.463)

Dr. Mohammed Moghadasian:
1. “Lipid Nutrition and Metabolism", Graduate Course, Department of Human Nutritional Sciences, University of Manitoba
2. “Functional Foods and Nutraceuticals", Undergraduate Course, offered by both Department of Human Nutritional Sciences and Department of Food Science at University of Manitoba
3. “Maternal and Child Nutrition”, Undergraduate Course, Department of Human Nutritional Sciences, University of Manitoba

Dr. Karmin O:
1. Animal Science Advanced Seminar Course
2. Cell Biology
3. Nutritional Toxicology
Dr. Grant Pierce:
1. Medical Physiology (90.724)
2. Reading in Physiology (90.701)

C) Student Advisory Committee Functions

Dr. Hope Anderson:
1. M. Abdullah (MSc)
2. Melanie Durston (MSc)

Dr. Mohammed Moghadaian:
1. Chantal Dupasquier (PhD)
2. Rabban Mangat (MSc)
3. Ganesh Sangle(PhD)

Dr. Grant Pierce:
1. Denise Aminot-Gilchrist (PhD)
2. Aran Dangerfield (MSc)
3. Sarah Jimenez (PhD)
4. Danielle de Moissaic (PhD)
5. Connie Woo (PhD)

D) Invited Speaker Program

1. Lynn Megeney, PhD, Senior Scientist, Molecular Medicine, Ottawa Health Institute, Ottawa, Ontario, Canada, “Apoptosis: Cellular Differentiation Taken to the Extreme”

2. Bruce Allen, PhD, Associate Professor, Department of Medicine, University of Montreal and the Montreal Heart Institute, Montreal, Quebec, Canada, “Characterization of HSP-27 Kinase Activities in Heart”

3. Balwant Tuana, PhD, Professor, Department of Pharmacology, Faculty of Medicine, University of Ottawa, Ottawa, Ontario, Canada, “E2F6 Mediates a Repressive Regime Critical for Cell Cycle Control”

4. Hossam Hamdy, MBChB, MCh, FRCS, FACS, PhD (Educ) Dean, College of Medicine & Medical Sciences, Arabian Gulf University, Manama, Bahrain “BEME Systematic Review: Predictive Values of Measurements Obtained in Medical Schools and Future Performance in Medical Practice”

5. Martin Gerdes, PhD, Director, Cardiovascular Research Institute, University of South Dakota and Sioux Falls Hospital, Sioux Falls, South Dakota, USA, “Thyroid Dysfunction in Heart Failure”

6. Rui Wang, MD, PhD, FAHA, Vice President (Research) Lakehead University, Thunder Bay, Ontario, Canada, “Upregulation of HO/CO System and Long-Lasting Antihypertensive Therapy”

7. Thomas Lincoln, PhD., Louise Lenoir Locke Eminent Chair, Department of Physiology, University of South Alabama College of Medicine, Mobile Alabama, USA, “Regulation of Vascular Smooth Muscle Cell Gene Expression by Cyclic GMP”
VI) OTHER SCHOLARLY ACTIVITIES

A) Appointments on Editorial Boards

Dr. Grant Pierce:
1. Editor, Canadian Journal of Physiology and Pharmacology
2. Assistant Editor, Molecular and Cellular Biochemistry
3. Member, Editorial Board, Journal of Molecular and Cellular Cardiology
4. Member, Editorial Board, Bulletin of the International Academy of Cardiovascular Sciences
5. Member, Editorial Board, Canadian Journal of Cardiology
6. Member, Editorial Board, Experimental and Clinical Cardiology
7. Member, Editorial Board, Journal of Cardiovascular Diseases

B) Appointments on Grant Review Committees

Dr. Hope Anderson:
1. Heart and Stroke Foundation of Canada – Doctoral Awards
2. Canadian Institutes of Health Research – Masters Awards A

Dr. Karmin O:
1. Member, Heart and Stroke Foundation of Canada, Research Fellowship Review Committee
2. Member, Manitoba Health Research Council, Personnel Review Committee

Dr. Grant Pierce:
1. Vice Chairman, Senior Awards Personnel Committee, Heart & Stroke Foundation of Canada
2. Vice Chairman, Scientific Research Executive Committee, Heart & Stroke Foundation of Canada
3. Member, Personnel Review Panel, IMPACT CIHR Training Program
4. Member, Awards Assessment Committee, Manitoba Medical Service Foundation
5. Chairman, Heart and Stroke Foundation of Canada Scientific Review Executive Committee
6. Chairman, Senior Personnel Awards Committee, Heart and Stroke Foundation of Canada

C) Referees for Grant Applications

Dr. Hope Anderson:
1. Saskatchewan Health Research – Establishment Grants
2. Heart and Stroke Foundation of Canada – Grant-In-Aid

Dr. Grant Pierce:
1. Heart and Stroke Foundation of Ontario
2. Canada Research Chairs
3. CIHR
4. Alberta Heritage Foundation for Medical Research
5. Forma Group, Sweden
6. Ernest C. Manning Award Foundation
7. Sick Kids Foundation, Toronto
D) Referees for Journals

Dr. Hope Anderson:
1. Canadian Journal of Physiology and Pharmacology
2. Hypertension (American Heart Association Journal)

Dr. Mohammed Moghadasian:
1. European Journal of Neurology
2. Canadian Journal of Physiology and Pharmacology
3. Life Sciences

Dr. Grant Pierce:
1. Diabetes
2. Journal of Molecular and Cellular Cardiology
3. American Journal of Physiology
4. FASEB Journal
5. Journal of Pharmacological Science
6. Plant Medica
7. Metabolism
8. Canadian Journal of Cardiology
9. Hypertension

E) Symposia Organization

Dr. Karmin O:
1. Member, Organizing Committee, National Research Forum for Young Investigators in Circulatory and Respiratory Health, Winnipeg, Canada

Dr. Grant Pierce:
1. Scientific Secretary, National Research Forum for Young Investigators in Circulatory and Respiratory Health, Winnipeg, Canada
2. Co-Chair, Arrangement Committee, National Research Forum for Young Investigators in Circulatory and Respiratory Health, Winnipeg, Canada
3. Member, Poster Judging Committee, National Research Forum for Young Investigators in Circulatory and Respiratory Health, Winnipeg, Canada
4. Member, Organization Committee, Canadian Nutraceutical Congress Winnipeg, Canada
VII) **ADMINISTRATIVE DUTIES**

**A) Committees and Other Administrative Duties**

**Dr. Hope Anderson:**
1. Member, Workplace Safety and Health Sub-Committee, St Boniface Hospital Research Centre
2. Member, Graduate Committee, Faculty of Pharmacy, University of Manitoba
3. Member, Accreditation Team 4, Faculty of Pharmacy, University of Manitoba

**Dr. Mohammed Moghadasian:**
1. Member, Department of Human Nutritional Sciences Graduate Studies Committee
2. Member, Faculty of Human Ecology Computer Use Committee

**Dr. Grant Pierce:**
1. Executive Director, Research, St. Boniface General Hospital Research Centre
2. Director, Division of Stroke and Vascular Disease, St. Boniface General Hospital Research Centre
3. Director, National Centre for Agri-food Research in Medicine, St. Boniface General Hospital Research Centre
4. Member, Research Enterprise Committee, St. Boniface General Hospital Research Centre
5. Member, Research Enterprise Cabinet Committee, St. Boniface General Hospital
6. Member, NRC Genomics and Health Initiative Program Executive Committee
7. Member, Research Policy and Planning Advisory Committee, Heart and Stroke Foundation of Canada
8. External reviewer for Faculty promotions for University of Alberta, University of Western Ontario, University of Nevada School of Medicine, University of Toronto
9. External examiner, PhD thesis of Mr. Scott Levick, Department of Physiology and Pharmacology, School of Biomedical Sciences, University of Queensland, Queensland, Australia
10. Invited participant in Natural Health Products Directorate Consultation on Fatty Acids, St. John’s Newfoundland
11. Member, Nutrition and Health Expert Advisory Committee for Pulse Canada
12. Member, Search Committee, Faculty recruitment for Assistant Professor of Cardiac Surgery, Critical Care Medicine for the University of Manitoba and the Winnipeg Regional Health Authority
13. Member, Research Advisory Committee, Faculty of Medicine, University of Manitoba
14. Member, CIHR Research Advisory Group to the Office of the Vice President (Research) at the University of Manitoba
15. Member, Abstract Review Panel for North American Research Conference on Complimentary and Integrative Medicine
B) Offices Held in Professional Societies and Foundations

Dr. Grant Pierce:
1. Fellow, American College of Cardiology
2. Fellow, International Academy of Cardiovascular Sciences
3. Member, Board of Directors of the Manitoba Medical Service Foundation
4. Member, Board of Directors of the International Academy of Cardiovascular Sciences, Inc.
5. Director of Scientific Affairs, International Academy of Cardiovascular Sciences
6. Member, Board of Directors, Diabetes Research & Treatment Centre, Winnipeg, Canada
7. Member, Scientific Advisory Board for the Institute of Circulatory and Respiratory Health, Canadian Institutes of Health Research
8. Fellow, American Heart Association and the Council on Arteriosclerosis, Thrombosis and Vascular Biology
9. Fellow, American Physiological Society, Cardiovascular Section
10. Fellow, International Society for Heart Research
11. Member, Scientific Advisory Committee, CentreStone Ventures Fund, Winnipeg, Canada
VIII) HONOURS AND AWARDS

Dr. Hope Anderson:
1. Canadian Institutes of Health Research/Canadian Hypertension Society – New Investigator Award

Dr. Grant Pierce:
1. In honour of the hard work, leadership and commitment of Dr. Grant Pierce to the Department of Physiology at the University of Manitoba, an approx. $100,000 endowed research fund named the “Grant Pierce Award for Excellence in Cardiovascular Physiology” was created in the Department of Physiology to recognize students who have demonstrated excellence in research in cardiovascular physiology.

Melanie Landry (Supervised by Dr. G.N. Pierce)
1. Canadian Graduate Scholarship Master’s Award
2. 1st Prize Award for Best Research Presentation at the Alpine Student Research Forum, Banff, Canada

Brad Ander (Supervised by Dr. G.N. Pierce)
1. Heart and Stroke Foundation of Canada Traineeship

Chantal Dupasquier (Supervised by Dr. G.N. Pierce)
1. NSERC Postgraduate Student Award
2. Manitoba Graduate Scholarship Award

Natalie Riediger (Supervised by Dr. M. Moghadasian)
1. NSERC Summer Student Fellowship

Tanya Friesen (Supervised by Dr. M. Moghadasian)
1. NSERC Summer Student Fellowship

Connie Woo (Supervised by Dr. K.O.)
1. MHRC Student Award
IX) GRADUATED STUDENTS

1. Nicole Gavel, MSc – Supervised by Dr. Grant N. Pierce
2. Melanie Landry, MSc – Supervised by Dr. Grant N. Pierce
3. Behzad Yeganah, MSc – Supervised by Dr. Mohammed Moghadasian
X) PATENTS

Dr. Mohammed Moghadasian:
1. A United States Provisional Application was filed on June 16, 2005 entitled “Combination Therapy for Coronary Artery Disease” assigned serial number 60/690,878.
XI) LIST OF PUBLICATIONS FOR 2005

Dr. Hope Anderson

Book Chapters:

Abstracts:


Dr. Mohammed Moghadasian

Refereed Journals:


5. Yeganeh B, Moshtaghi GR, DeClercq V, Moghadasian MH. Combination of dietary phytosterols with fenofibrate or niacin in apo E-KO mice: effects on plasma lipids and atherogenesis. J Nutr Biochem 2005;16:222-228

Conference Proceedings:

Dr. Karmin O

Refereed Journals:
Dr. Grant Pierce

**Refereed Journals:**

**Research Abstracts:**

**Full Length Manuscripts Published in Books and Proceedings:**
XII) COMMUNITY SERVICES

The National Centre for Agri-food Research in Medicine participated in demonstrations for the general public during the St. Boniface Hospital Research Centre Open House.

Members of The National Centre for Agri-food Research in Medicine participated in presentations to school children throughout Winnipeg (400-600 children).