

CANADIAN INSTITUTE FOR THE RELIEF OF PAIN AND DISABILITY

# AGM 2007

“IMPROVING PATIENT OUTCOMES:  
**MOVING RESEARCH  
INTO PRACTICE**”



Canadian Institute for the Relief of Pain and Disability

204 – 916 West Broadway Avenue, Vancouver, BC V5Z 1K7 Canada

E-mail: [info@cirpd.org](mailto:info@cirpd.org) ♦ Website: [www.cirpd.org](http://www.cirpd.org)

Tel: 604 684-4148 ♦ North American: 800 872-3105 ♦ Fax: 604 684-6247

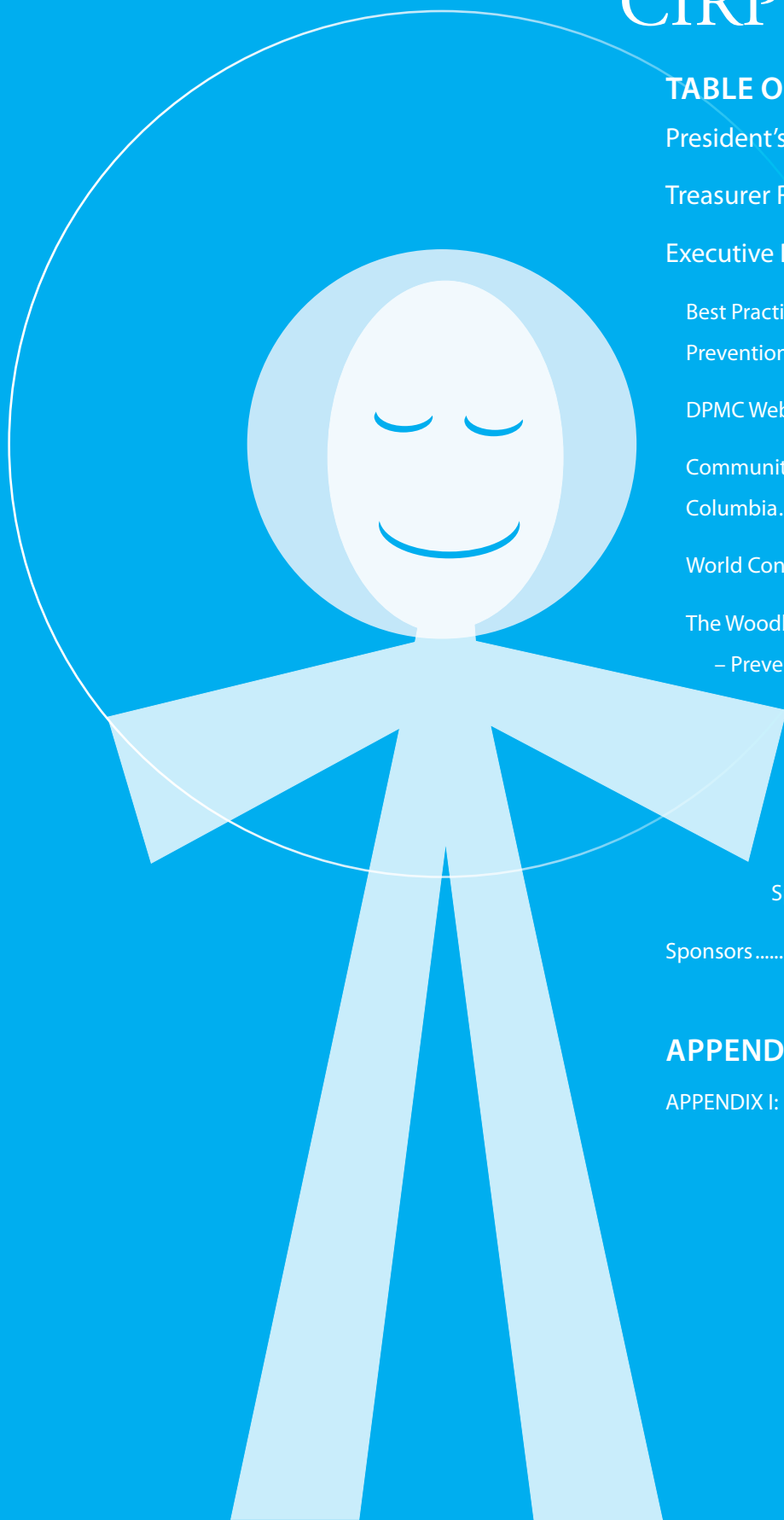
# CIRPD AGM 2007

## TABLE OF CONTENTS

President's Report.....	3
Treasurer Report.....	4
Executive Director's Report.....	5
Best Practices Leadership Summit on Disability Prevention .....	6
DPMC Web-Portal .....	7
Community Education Programming in British Columbia.....	7
World Congress on Neck Pain.....	9
The Woodbridge Grants and Awards Program – Prevention and Mitigation of Injuries .....	10
Doctoral Awards .....	10
Masters Awards .....	11
Canada Science Fair .....	11
Special thanks .....	25
Sponsors .....	26

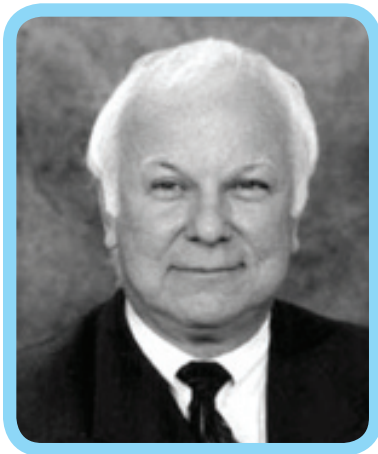
## APPENDICES

APPENDIX I: Financial Statements
----------------------------------



# President's Report

Jack Richman MD



The Canadian Institute for the Relief of Pain and Disability (CIRPD) is a federally incorporated non-profit voluntary organization. CIRPD relies on the knowledge and talent of its volunteers who contribute to shaping CIRPD's strategic plans and activities to address its mission. CIRPD's mission - the prevention and reduction of pain, pain-related suffering, and disability through the creation and dissemination of evidence-informed best practices requires active engagement and participation of a broad-base of stakeholders including academic and community-based researchers, business and labour leadership, consumers and consumer organizations, health professionals, and policy-makers.

I would like to thank CIRPD's board, committees and office volunteers who commit their time, knowledge and enthusiasm for the work of the Institute and support CIRPD's office staff under the leadership of Marc White, our executive director. CIRPD continues to amaze me on its accomplishments each and every year building on the strengths of prior activities and

reflecting on its challenges. CIRPD is primarily a project-based organization. It has no core funding and therefore relies on the commitment and interest of government, corporate and organization partners and funders. We would like to thank the Government of BC, Direct Access Program for providing funding to deliver educational services in British Columbia, the Canadian Institute for Health Research (Institute for Musculoskeletal Health and Arthritis & Partnership Program), Healthcare Benefit Trust, HRSDC – Labour Management Partnership Program, Auto21 – National Centre for Excellence, The Woodbridge Group and the many sponsors for this year's projects.

I invite you to read further about this year's activities and celebrate the winners of The Woodbridge Grants and Awards program and the Canada Science Fairs – Automotive Division. Learn more about the development of Health and Work Productivity Web-Portal. Visit our website to download a copy of the Best Practices Leadership Summit on Disability Prevention- Final Report, and join us January 20-22nd in Los Angeles for the World Congress on Neck Pain.



# Treasurer Report

## Acting Treasurer

Jason Yip was our Treasurer for the first part of the year. Mr. Yip who is a senior associate working in the Audit and Assurance Group at PricewaterhouseCoopers, moved to Hong Kong. Tammy Hughes CIRPD's Vice President became CIRPD's Acting Treasurer in the interim.

The Canadian Institute for the Relief of Pain and Disability successfully secured project funding from a variety of stakeholders. It received workshop support under the Canadian Institutes for Health Research competitive grants program to support workshops and conferences. CIRPD received the second year of funding from HRSDC – Labour Management Partnership Program, continued its partnership with Auto21 and The Woodbridge Group to support Training Grants and Awards to foster new research into disability prevention and award secondary students participating in the Canada Science Fairs – Automotive Division.

This past year CIRPD received an increase in funding support from the BC Gaming Commission Direct Access Program to transform its infrastructure to deliver more programming across British Columbia. Delays in receiving funding (funding received in August 2007, rather than February) forced some delays in programming however we have fast-tracked work on this project and have applied for further funding to complete the infrastructure over the course of next year's Direct Access program.

There are always challenges for organizations without core funding. With the development of the Health and Work Productivity Web-Portal - CIRPD will be providing knowledge-based services which will contribute to building CIRPD membership and provide subscription revenue to support its ongoing activities.



# Executive Director's Report

Marc White PhD

Thank goodness for Annual Reports. This year has been so busy that it is wonderful to take the time to reflect on the past years activities in the context of how these projects and activities strategically contribute to fulfilling CIRPD's mission.

The year has been full of events – with every event strategically building on each other. Under the auspices of CIRPD's Disability Prevention and Management Collaborative (DPMC) a core group of volunteers and staff planned and implemented a series of tasks and activities to reduce the gap between high quality research and current policies and practices. In July 2006, CIRPD hosted the Business Health – Employee Health: Creation, Retention and Renewal – Connecting Research to Training and Practice Conference in collaboration with the University of Northern British Columbia, Simon Fraser University and University of British Columbia. The conference addressed two primary questions (i) What do we know about the relationship between business health and employee health? and, (ii) How can we translate this knowledge into training and best practices? The conference brought together academic, business and labour leaders to review and discuss the convergence of research which demonstrated business health and employee health are inextricably linked (further information about the conference is available on CIRPD's website – [www.cirpd.org](http://www.cirpd.org)). The conference was the launching event for the Disability Prevention and Management Collaborative (DPMC). The vision of DPMC is to create and sustain healthy, safe and productive workplaces. Project partners and funders included Labour Management Partnership



Program, Canadian Institutes for Health Research, Healthcare Benefit Trust, Pacific Blue Cross, etc.

The Conference website remains active and provides enduring materials including the speakers list, the conference program, related committees, venue and academic and corporate sponsorship as well as media downloads about conference topics. It can be accessed at <http://www.cirpd.org/ctf/conf2006/home.html>. Conference delegates, speakers and sponsors received a Conference Program Booklet. Speakers and sponsors received a thank you CD, which includes the speakers PowerPoint presentations which is enclosed in this report package. Please find promotional materials including a poster, a brochure / registration form and a Business Health – Employee Health CD enclosed for your review.

The responses below cited on the Business Health – Employee Health: Creation, Retention and Renewal conference CD are among Messages Flowing out of Conference Proceedings from the conference evaluation.

As a result of this conference, delegate-intended changes to practice included:

- ✦ focus more on training/coaching managers supervisors
- ✦ begin to focus disability management on mental health and the bottom line
- ✦ do more mental health education/promotion
- ✦ be more specific in communications with physicians
- ✦ implement work wellness program
- ✦ promote Employee Access Plan in organization
- ✦ set up early intervention programs with resources
- ✦ be more detailed in job descriptions
- ✦ treatment with Return to Work emphasis
- ✦ expand hiring practices based on demographic shifts
- ✦ listening skills – what do the staff want?
- ✦ get labour more involved
- ✦ as a small employer, implement job shadowing as part of Return to Work
- ✦ monitor absenteeism and presenteeism

The challenges facing the implementation of best practices in disability prevention, management and work productivity are multi-faceted. There are many different stakeholders who play a role in creating and sustaining a healthy workplace including policy-makers, business/labour leaders, business educators, operational managers, human resource personnel, service providers, health

care professionals, academic and community-based researchers. All stakeholders are seeking easily accessed credible knowledge, tools and resources to facilitate best practices. Over 100 stakeholders have participated in various activities to identify common and stakeholder specific information and resource needs.

## **BEST PRACTICES LEADERSHIP SUMMIT ON DISABILITY PREVENTION**

To build on the success of the Business Health – Employee Health conference, CIRPD immediately began planning a follow-up strategic planning session called the Best Practices Leadership Summit on Disability Prevention with leadership across interested stakeholders including government, academic, business, organized labour, and health professionals. The Summit was held at Simon Fraser University on April 30, 2007.

The Summit engaged stakeholders in a visioning process to inform the continuing development of the proposed Health and Work Productivity Web-Portal. The Summit identified high priority information and resource needs to facilitate the creation of safe, healthy and productive workplaces. For a complete report of the Summit please visit our website at [www.cirpd.org](http://www.cirpd.org) and download a copy of the report. The Summit identified key topics and sub-topics of interest to different stakeholders as well as Web-Portal characteristics and features required to facilitate stakeholder engagement and in-kind and financial investment in this project. Academic sponsors included the Department of Family Practice, University of British Columbia; Simon Fraser University's Faculty of Health Sciences, SFU Business;



and, the University of Northern British Columbia. Healthcare Benefit Trust was a collaborating partner. We would like to thank HRSDC Labour Management Partnership Program, Purolator Courier Ltd, Ceridian Canada Ltd., Organizational Solutions Inc., Industrial Alliance Pacific and The Woodbridge Group for their financial support for the summit. Other financial project sponsors included Canadian Association of Disability Management Coordinators, Canadian Institutes for Health (CIHR) – Institute for Musculoskeletal Health and Arthritis, CIHR Partnership Program, Great-West Life, Manulife Financial, Marsh & Mercer, Pacific Blue Cross, United Steelworkers, WorksafeBC, Yukon Workers Compensation Health and Safety Board, the Insurance Corporation of British Columbia and the Government of British Columbia – Direct Access Program.

## **DPMC WEB-PORTAL**

The DPMC Web-Portal mandate is to provide tools and resources to support knowledge transfer and implementation of best practices in workplace innovation, productivity in the context of disability prevention and management. The Web-Portal will provide easy access to evidence-informed, peer-reviewed research and summaries, implementation tools and resources providing all stakeholders with one-stop access to comprehensive, accurate and credible knowledge resources and implementation tools. For a complete list of topics and subtopics identified by stakeholders please review Appendix I of the report.

Thanks to donations from Microsoft Canada, Nintex, and Radiant Communications the project has moved from the planning phase to the development and

implementation phases. Since the Best Practices Leadership Summit, CIRPD has been actively moving this project forward. Thanks to funding from the Government of British Columbia and the Labour Management Partnership Program we created technical specifications for the web-portal project and a set of deliverables. We have contracted with Habaneros Consulting to be the primary IT developer for the project working in collaboration with Mehmet Ali Vural, CIRPD's Senior IT Programmer and Manager. In addition we have solicited, interviewed and hired an Information Resource Officer and project leader for the project who will begin in the New Year.

## **COMMUNITY EDUCATION PROGRAMMING IN BRITISH COLUMBIA**

Thanks to the support of the BC Government Direct Access Program we delivered the following direct service programs with our community partners. Dr. Kenneth Craig presented a summary of current research on the potential for mood, worry or social problems to complicate the lives of people with chronic pain. The presentation, Chronic Pain: Beat the Blues held on September 28, 2006 at the Dunbar Community Centre, included a discussion of factors associated with resiliency and emotional health, as well as non-pharmacological or behavioural treatment options and their cost effectiveness. Dr. Jacek A Kopec presented findings of his work in Physical Activity and Osteoarthritis on October 19, 2006. Dr. Kopec's study looked at lifetime history of physical activity (occupational, recreational and domestic activities) in a large group of Canadians to find out which activities



increase the risk of osteoarthritis and which help keep the joints healthy. On October 26, 2006, Dr. Andrew Chalmers delivered his presentation Research Updates for People Living with Arthritis in which he described how new developments in the fields of molecular biology and genetics have led to improved outcomes for patients with rheumatoid arthritis and lupus as well as a better understanding about osteoporosis.

Dr. Jonathan Fleming, associate professor of psychiatry and co-director of the Sleep Disorder Clinic at UBC Hospital, presented recent research on Improving your Quality of Sleep on November 2, 2006. Fibromyalgia: Learn to Recover and Thrive was presented by Dr. Teresa Clarke on November 9, 2006. Dr. Clarke presented her integrated bio-psycho-social model for helping fibromyalgia patients learn how to support their recovery from this complex chronic pain condition with non-pharmacological approaches.

It took over a year's worth of planning for the community-based arthritis education program entitled Roundtable On Arthritis Research. This program was planned in partnership with the Arthritis Research Centre and its Consumer Advisory Board and The Arthritis Society. The goal of the health fair was to bring researchers and their research results on the prevention, treatment and self management of arthritis directly to the public. The Roundtable On Arthritis Research took place on Saturday, September 30, 2006. One hundred and sixty participants attended the workshop to learn about current research and how to apply this knowledge to everyday living. Media attention was nurtured through PSA's to the following media contacts: Vancouver Coastal Health e-news (2000 dist.); Vancouver Coastal Health Website, West Side Neighbourhood list serve (through Vancouver Coastal Health), Dunbar Neighbourhood list serve (through Vancouver Coastal Health), The

Arthritis Society e-news, The Georgia Straight - Time Out, The West Ender, The Courier, The Vancouver Sun, 24 hour, City TV - Breakfast TV, Co-op Radio, and TAS disseminated information electronically in their newsletter – Answers. The organizing committee was delighted with the pre workshop media attention that raised awareness about the event and provided additional educational opportunities for those who could not attend the event. Through educational programming, working collaboratively with community partners, we can close the gap between current care and evidence-based prevention, treatment and management of arthritis.

Thanks to Direct Access funding this year (received in August 2007) we have managed to fast-track the infrastructure renewal process to enhance service delivery across British Columbia – the new delivery platform being developed over the next 16 months will provide multi-media programming, audio-conferencing, downloading of podcasts providing evidence-informed knowledge, tools and resources to help people make more informed choices about their health and health care decisions.

During this transitional period our website continues to update and provide new resources and tools for consumers with chronic pain conditions. These programs could not take place without the funding support CIRPD receives from BC Government Direct Access Programs and the many hours of volunteer and staff support of our community partners. Community partners provide facilities, support marketing and promotion and assist with program planning, implementation and evaluation. For a complete list of programs and resources CIRPD offers please visit our website at [www.cirpd.org](http://www.cirpd.org)





## WORLD CONGRESS ON NECK PAIN

Final preparations are underway for the World Congress on Neck Pain and the rapid dissemination of the findings of the latest evidence-based synthesis on neck pain. The congress will take place in Los Angeles, California January 20-22, 2008. The congress has secured participation of 39 professional organizations and government agencies as well as 7 academic sponsors. The world congress is organized by the Canadian Institute for the Relief of Pain and Disability in collaboration with the American College of Occupational and Environmental Medicine in partnership with the National Institute for Occupational Safety and Health (NIOSH).

Neck pain and its associated disorders, including headache and radiating pain into the arm and back, are major health concerns in society. It is estimated that neck pain disables 5% of the population and between 10% and 20% of the population experience persistent or chronic neck pain. Whether neck pain arises from occupational injuries, motor vehicle collisions or recreational activities the socio-economic burden of neck pain is a major population health concern. Given the staggering socio-economic burden of neck pain and whiplash, CIRPD continues to focus its external research activities on injury prevention. Clearly the best way to deal with neck pain is to prevent it.

The World Congress will launch the release of the findings of The Bone and Joint Decade 2000-2010 Task Force on Neck Pain and Its Associated Disorders (BJD-NPTF). The BJD-NPTF is comprised of a group of international clinician-scientists and methodologists who undertook a best-evidence synthesis on neck pain and its associated disorders. The Task Force will have

reviewed over 32,000 citations on neck pain and created a best evidence-synthesis based on 550 high quality studies. The final report will address "the economic consequences, risk and prevention measures, diagnosis, prognosis, treatment and rehabilitation of neck pain and its associated disorders." The BJD-NPTF report is expected to be published in the journal SPINE after the congress, mid-February 2008.

A unique aspect of the congress is the commitment of the organization co-sponsors in post-congress activities to facilitate the rapid dissemination of congress findings. To this end the congress organizers are establishing a NIOSH Rapid Dissemination Partnership Initiative with government agencies, insurers and interested stakeholders. This fund will provide competitive awards to health care provider organizations, academic centers and researchers to facilitate and implement evidence-based best practices in the prevention, diagnosis and management of neck pain.

The congress scientific program is available on the World Congress on Neck Pain website: [www.neckpaincongress.org](http://www.neckpaincongress.org). We are encouraging early registration to take advantage of advance registration rates.

## THE WOODBRIDGE GRANTS AND AWARDS PROGRAM – PREVENTION AND MITIGATION OF INJURIES

Thanks to the funding from The Woodbridge Group, CIRPD has managed to leverage significant investment from across North America to support The Woodbridge Group Grants and Award Program and related initiatives. The Woodbridge Grants and Awards Program had two primary objectives – (1) to build research capacity across the continuum of education of scientists in training (secondary students through to doctoral training) with a goal to stimulate scientists-in-training to create real world solutions to reducing disability through scientific innovation, and, (2) to promote effective mobilization of research evidence to all stakeholders.

Since 2005 we are pleased to have supported the Doctoral Awards in partnership with the Canadian Institutes for Health Research and Auto21 – National Centre of Excellence.

### DOCTORAL AWARDS

\*ALI ASADKARAMI University of British Columbia Modeling and Assessment of Vehicle Side Impact Protection (\$20,000 over one year)

E. KENT GILLIN Faculty of Health Sciences, University of Western Ontario. A virtual simulation of factors influencing older adults' line of sight during automobile driving (\$44,000 over 2 years)

JANESSA DRAKE Callaghan Spine Biomechanics Laboratory, Department of Kinesiology, University of Waterloo. Influence of Torsion on Intervertebral Disc Injury Mechanisms and the Development of Worker Safety Guidelines for Injury Prevention and Treatment (\$66,000 over 3 years)

NADINE DUNK Faculty of Applied Health Sciences, University of Waterloo. Time varying changes in the lumbar spine from exposure to sedentary tasks and their effects on injury mechanisms and pain

DIANE GREGORY Faculty of Applied Health Sciences, University of Waterloo. Examining the effects of prolonged standing on the lumbar spine and the potential for low back pain using an in vitro and in vivo approach. (\$66,000 over 3 years)

BRENDA H. VRKLJAN Rehabilitation Science, Faculty of Health Sciences Advancements in vehicular technology and older drivers: The capacity of older drivers to meet the visual, cognitive, and motor task demands of in-vehicle technology and their relationship to safe transportation (\$44,000 over 2 years)

FEARON A BUCK University of New Brunswick, Effects of shoulder pain on strength and work performance in auto-manufacturing] (\$66,000 over 3 years)

PAUL D PRENEY Computer Science, University of Windsor, A robust infrastructure Child Safety and Injury Prevention (\$66,000 over 3 years)

MYLÈNE HAZEL Psychologie, Université de Montréal Les facteurs neuropsychologiques impliqués dans une conduite automobile sécuritaire : une étude sur simulateur chez des individus atteints d'un déficit cognitif (\$66,000 over 3 years)



## MASTERS AWARDS

**\*DIANE GREGORY** (Masters Award) Faculty of Applied Health Sciences, University of Waterloo. Examining the effects of prolonged standing on the lumbar spine and the potential for low back pain using an in vitro and in vivo approach (\$10,000 over one year)

**\*RITA TURCHI** (Masters Award) University of Windsor Injury Potential for Children in Vehicle Crash with Three and Five Point Child Restraint Systems (\$20,000 over one year)

**\*TANYA KAPOOR** (Masters Award transferred from Rita Turchi) University of Windsor Injury Potential for Children in Vehicle Crash with Three and Five Point Child Restraint Systems

Note: \* Funded by Auto21 (50%) & The Woodbridge Group (50%); All others funded by CIHR (50%), Auto 21 (25%) and The Woodbridge Group (25%)

## CANADA SCIENCE FAIR

With the participation of Auto21 (33%), the Yves Landry Foundation (33%) and The Woodbridge Group (33%), CIRPD took a lead role in establishing the new Automotive Division under Youth Science Foundation's Canada Science Awards Program. The Automobile Division has been a roaring success. In the first two years the Automotive Division has provided 42 project awards to 48 students across senior, intermediate and junior levels. This program has been tremendously rewarding to all participants including the judges.

## CANADA SCIENCE FAIR 2006 - AUTOMOBILE DIVISION

The Canadian Institute for the Relief of Pain and Disability under The Woodbridge Group Grants and Award program in partnership with AUTO21 National Centre for Excellence, and the Yves Landry Foundation established the Automotive Division at the Canada-Wide Science Fair. This interdisciplinary division allows the young scientists to investigate issues relating to all aspects of the automotive sector, including health, safety and injury prevention; societal issues; materials and manufacturing; design processes; powertrains, fuels and emissions; and intelligent systems and sensors.

### Gold Medals

SENIOR	Poly(vinyl chloride) Bioplasticizers	Thomas Sun Robyn Thom	Greater Vancouver, BC
INTERMEDIATE	Distractions and Reactions	Amanda Affleck	Qu'Appelle Valley, SK
JUNIOR	Now You See Me, Now You Don't	Laura Larson	Alberta Central East, AB

### Silver Medals

SENIOR	Bio-Gly-Kool	Brittany Faye	Parkland, SK
	The Improvement That Makes a Difference in the Company	Cao Thang Bui	Windsor, ON
INTERMEDIATE	M.R. Fluids	Hassan Siddiqui	Lambton County, ON
	Propulsion par le Vent	Tovel Boucher	Vancouver Island, BC
JUNIOR	A Curve in the Road	Riley O'Hagan	Bluewater, ON
	Generate As You Brake in Gas-Fuelled Cars	Ratna Varma	London District, ON

### Bronze Medals

SENIOR	Black Eccentric Magic	Kenneth Ka Ho Wong	Greater Vancouver, BC
	A Dynamic Analog Concurrently-Processed Adaptive Chip	Malcolm Stagg	Calgary Youth, AB
	Potential de la production de méthane à la codigestion du matériel bovin hydrolysé	Benjamin Leis	Fransaskoise, SK
INTERMEDIATE	Consomption de carburant	Ken Dolson Justin Hogan	Sudbury, ON
	Biodiesel on Ice	Gary Hood	Cape Breton, NS
	Fuel Cells	Jonathon Krest	Edmonton, AB
JUNIOR	Pay Attention!	Hannah Prince Eryn Stewart	Bay Area, ON
	Safe Streets: Preventing Drunk Drivers	Nirusan Jayaranjan	St. James-Assiniboia, MB
	Veggie power	Kimmie Gulevich	Northern British Columbia, BC

### Honourable Mention

JUNIOR	A.W.A.P.S.: Automobile Wildlife Accident Prevention System	Gary Kurek	Edmonton, Alberta
INTERMEDIATE	Sun Shines on Wind Power	Roopa Suppiah	Renfrew County, ON



## CANADA SCIENCE FAIR 2005 - AUTOMOBILE DIVISION

### Gold Medals

SENIOR	Trajectoire à D.A.V./FLC-01: Conceptual Design of a High Speed VTOL Demonstrator Aircraft	Jonathan Holla	United Counties
INTERMEDIATE	Slip, Sliding, No Way!	Brittany Faye	Parkland
JUNIOR	Silent Witness	Katherine Brown	Bluelwater

### Silver Medals

SENIOR	Robotic Vision Gait Coordination	Russell Kramer	Vancouver Island
	Pressure's Up On Fuel Cells!	Asha Suppiah	Renfrew County
INTERMEDIATE	Ergonomics Today	Mihail Buse	Waterloo-Wellington
	La production d'énergie à partir de la biomasse: une option intelligente?	Benjamin Leis	Fransaskoise
JUNIOR	The Backseat Driver	Anjali Pandey	Northern Manitoba
	Where Under the Sun Are You?	Sarah McCuskee	Regina

### Bronze Medals

SENIOR	Longitudinal Suspension System: An Innovation In Automobile Safety	Yaw Amoako-Tuffour	Strait
	Object Avoiding & Heat Seeking Robot	Artie Shostak/Mohamed Ismail	Niagara
	Dynamic Noise Cancellation Using Wave Superpositioning	Jaspreet Rayat/Evgeny Ternovsky	Toronto
INTERMEDIATE	Heating the Hydrogen Fuel Cell	Arthur Yip	Greater Vancouver
	Metals and Their Weldability	Joseph Querques	Bay Area
	Road Ice Detector II	Braden Affleck/Tyler Kane	Qu'Appelle Valley
JUNIOR	Oh Deer!	Jeremy Witmer	Fraser Valley
	None for the road: The effects of small amounts of alcohol on driving skills	Travis Payne	New Brunswick
	The ePoC	Taro Yamashita/Sahil Bhayana	Windsor

### Honourable Mention

SENIOR	Dual Transmission System	Robyn Halliday	Prince Albert & Northeast Saskatchewan
INTERMEDIATE	Particulate Matters, or Does it? Phase II	Jordan Bowman	Bay Area
	Greasy Secrets	Celise Kowalchuk	Parkland
JUNIOR	Aerodynamic Efficiency	Philip Riessner	Northern British Columbia
	The Green Machine	Chris Zylik	Bay Area

## CANADA SCIENCE FAIR 2006

# GOLD MEDALISTS

### SENIOR GOLD MEDAL

#### THOMAS SUN and ROBYN THOM

**Project Title:** Poly(vinyl chloride) Bioplasticizers  
Gold Medal – Automotive- Senior  
Silver Medal - Earth & Environmental Sciences  
University of British Columbia Science Entrance Award  
Senior Silver Medalists  
The University of Western Ontario Scholarship Gold Medalists  
The University of Western Ontario Scholarship Silver Medalists  
Division: Earth & Environmental Sciences  
City: Vancouver, BC School: Sir Winston Churchill Secondary  
**Abstract:** PVCs are dangerous to the environment, and also pose human health risks through the leaching of DEHP, a primary plasticizer. We replaced DEHP with safe, readily-available vegetable oils and tested for plastic performance. From our results, safflower oil appears to be a safe, biodegradable DEHP replacement.

### INTERMEDIATE GOLD MEDAL

#### AMANDA AFFLECK

**Project Title:** Distractions and Reactions  
Gold Medal – Automotive Intermediate/  
Honourable Mention - Health Sciences Canadian Institutes of Health Research  
The University of Western Ontario Scholarship Gold Medalists

Division: Health Sciences

City: Pilot Butte, SK School: Greenall School

**Abstract:** This project investigates the braking reaction time of driving with a cell phone or a hands free device, compared to distraction free driving. Braking reaction time was tested using a driving simulator. When traveling at a velocity of 100km/h, drivers using a cell phone had a considerably slower reaction time compared to the hands free and distraction free trials.

### JUNIOR GOLD MEDAL

#### LAURA LARSON

**Project Title:** Now You See Me Now You Don't  
Gold Medal - Automotive  
Honourable Mention - Engineering  
The University of Western Ontario Scholarship Gold Medalist  
Division: Engineering  
City: Hanna, AB School: J.C. Charyk Hanna School  
**Abstract:** This project studied the effectiveness of laser technology to measure distance between two moving vehicles while driving in heavy fog conditions. Using lasers to alert motorists when they are following too closely or approaching a vehicle ahead, could prevent thousands of traffic accidents causing serious injury or death.



# SILVER MEDALISTS

## SENIOR SILVER MEDALIST

### BRITTANY FAYE

**Project Title:** Bio-Gly-Kool

Silver Medal - Automotive

Honourable Mention - Engineering

The University of Western Ontario Scholarship

Division: Engineering

City: Foam Lake, SK School: Foam Lake Composite High School

**Abstract:** The purpose of this project was to see if a waste by-product could be processed into a competitive environmentally-friendly antifreeze for engines when compared to glycol-based commercial antifreezes. The results proved that the new product created through chromatography had comparable efficiencies as well as being environmentally-friendly which was the objective.

## SENIOR SILVER MEDALIST

### CAO THANG BUI

**Project Title:** The Improvement that Makes a Difference in the Company!

Silver Medal - Automotive

Bronze Medal - Engineering

The University of Western Ontario Scholarship Silver and Bronze Medalist

Division: Engineering

City: Windsor, ON

School: Assumption College S.S.

**Abstract:** The project is based on a fixture called 'slip tongue nest', used to support the webbing and slip tongue of seat belts during the manufacturing process.

The slip tongue nest was improved with modifications and new designs to decrease the time taken during the manufacturing process at a certain stage.

## INTERMEDIATE SILVER MEDALIST

### HASSAN SIDDIQUI

**Project Title:** M.R. Fluids

Silver Medal - Automotive

Bronze Medal - Physical & Mathematical Sciences

The University of Western Ontario Scholarship Silver and Bronze Medalist

Division: Physical & Mathematical Sciences

City: Sarnia, ON School: Northern C.I. & V.S.

**Abstract:** This project studied special liquids that turn more viscous in the presences of a magnetic field. The variables were the strength of the magnetic field and the degree of solidification, or the viscosity of the fluid. The experiment found that as the magnetic field increased so did the viscosity of the fluid.

## INTERMEDIATE SILVER MEDALIST

### TOVEL BOUCHER

**Project Title:** Propulsion par le Vent

Silver Medal - Automotive

The University of Western Ontario Scholarship Silver Medalist

Division: Engineering

City: Sidney, BC School: L'école Victor Brodeur

**Abstract:** My question is : is it possible to create a vehicle that can propel itself up wind using only wind . I designed and created two vehicles , both of which worked according to the criteria above.



## JUNIOR SILVER MEDALIST

### RILEY O'HAGAN

**Project Title:** A Curve in the Road

Silver Medal - Automotive

The University of Western Ontario Scholarship Silver Medalist

Division: Engineering

City: Walkerton, ON

School: Brant Township Central E.S.

**Abstract:** Transportation vehicles carrying loads with a high centre of gravity can become unstable when entering a curve due to an increase in lateral g-force. Using a device to shift the load to the inside of the curve and to tip it in the opposite direction of the g-force would change its centre of gravity, increasing the force required to tip the load over.

## JUNIOR SILVER MEDALIST

### RATNA VARMA

**Project Title:** Generate As You Brake in Gas-Fueled Cars

Silver Medal - Automotive

Natural Resources Canada (NRCAN) Office of Energy  
The University of Western Ontario Scholarship Silver Medalist

Division: Engineering

City: London, ON School: Orchard Park P.S.

**Abstract:** An innovative concept of applying electric regenerative braking in existing gasfueled cars is proposed. Different electric braking techniques - Resistive, Plugging and Regenerative, are evaluated. Regenerative braking is implemented to prevent the loss of car's kinetic energy as frictional heat, and save it as energy in capacitors for other applications. This novel scheme has potential to decrease world's fuel consumption and emission of greenhouse

## BRONZE MEDALISTS

## SENIOR BRONZE MEDALIST

### KENNETH KA HO WONG

**Project Title:** Black Eccentric Magic

Ministère du Développement économique, de l'Innovation Cash Award

Bronze Medal - Engineering

Bronze Medal - Automotive

The University of Western Ontario Scholarship Bronze Medalistp

Division: Engineering

City: Vancouver, BC Sir Winston Churchill Secondary

**Abstract:** The frequency-independent characteristics of five original elliptical dipole antennas of various eccentricities are evaluated using homemade equipment. Preliminary results indicate a flat frequency response from 770MHz to 2600MHz. The novel antenna demonstrates potential for electronic devices operating at multiple frequencies, such as PDAs or notebook computers with cellular, Wi-Fi, and GPS capabilities. Moreover, the antenna can be integrated

## SENIOR BRONZE MEDALIST

### MALCOLM STAGG

**Project Title:** A Dynamic Analog Concurrently-Processed Adaptive Chip

Silver Medal - Engineering

Bronze Medal - Automotive

The University of Western Ontario Scholarship Silver and Bronze Medalists

Division: Engineering

City: Calgary, AB Alberta Distance Learning Center

**Abstract:** The purpose of this project is to design a neural



network chip to improve existing designs, which have poor reconfigurability and learning accuracy. A general-purpose analog design is made for the TSMC 0.35um CMOS process. Enabling multiple learning-algorithms and arbitrary routing, advanced learning algorithms are implemented. Analog neuron circuit simulations were accurate with 5um matched transistors. Advanced learning algorithms improved density

## SENIOR BRONZE MEDALIST

### BENJAMIN LEIS

**Project Title:** Potentiel de la production de méthane suite à la codigestion du matériel bovin hydrolysé et dup

Gold Medal - Earth & Environmental Sciences

Renewable Energy Award

AECL Award for Excellence in Science

The Manning Innovation Achievement Award

Bronze Medal - Automotive

University of British Columbia Science Entrance Award

Senior Gold Medalist

The University of Western Ontario Scholarship Gold Medalist

Division: Earth & Environmental Sciences

City: Saskatoon, SK School: École-canadienne-française

**Abstract:** La Saskatchewan cherche à la fois à diversifier ses méthodes de production d'énergie et à recycler ses déchets. Mon projet a pour but de tester dans quelle mesure l'ajout de matériel bovin à risque spécifié hydrolysé à la digestion anaérobie du purin de porc affecte le rendement de biogaz et de concentration de méthane.

## INTERMEDIATE BRONZE MEDALIST

### KEN DOLSON AND JUSTIN HOGAN

**Project Title:** Consommation de carburant

Bronze Medal - Automotive

The University of Western Ontario Scholarship Bronze Medalists

Division: Physical & Mathematical Sciences

City: Chelmsford, ON School: Collège Notre-Dame

**Abstract:** With a force sensor hooked up to a computer, it was possible to measure the resistance of a vacuum's wind on a model car. Once done, we are able to explain how it is possible to economise fuel by using the aerodynamics of an automobile.

## INTERMEDIATE BRONZE MEDALIST

### GARY HOOD

**Project Title:** Biodiesel on Ice

Bronze Medal - Automotive

Honourable Mention - Physical & Mathematical

The University of Western Ontario Scholarship Bronze Medalist

Division: Physical & Mathematical Sciences

City: Sydney, NS School: Riverview High School

**Abstract:** This project sought a method of winterizing biodiesel, a minimally polluting fuel manufactured from organic oils. The method had to be effective and practical for small-scale producers. Test results highlight solvents for the improvement of the cold weather properties of biodiesel and improve the case for use in cool climates.

## INTERMEDIATE BRONZE MEDALIST

### JOHNATHAN KREST

**Project Title:** Fuel Cells

Bronze Medal - Automotive

The University of Western Ontario Scholarship Bronze Medalist

Division: Engineering

City: Stony Plain, AB School: St. Matthew Lutheran School

**Abstract:** This experiment determines if PEM fuel cells are more efficient and environmentally friendly than carbon electrode electrolysis apparatus when it comes to creating hydrogen gas from water. Traditionally PEM fuel cells are used to create electricity from hydrogen and oxygen, but in this experiment the process is reversed. Electricity and water are used with a PEM fuel cell to create hydrogen.

## JUNIOR BRONZE MEDALIST

### HANNAH PRINCE AND ERYN STEWART

**Project Title:** Pay Attention!

Bronze Medal - Automotive

The University of Western Ontario Scholarship Bronze Medalists

Division: Health Sciences

City: Hamilton, ON School: Sacred Heart E.S.

**Abstract:** This experiment determined whether cell phone use would affect reaction time while driving. Data was compiled and by measuring a person's reaction time with and without a cell phone. Results showed that reaction time while using a cell phone was slower, directly affecting a driver's ability.

## JUNIOR BRONZE MEDALIST

### NIRUSAN JAYARANJAN

**Project Title:** Safe Streets: Preventing Drunk Drivers

Bronze Medal - Engineering

Bronze Medal - Automotive

The University of Western Ontario Scholarship Bronze Medalist

Division: Engineering

City: Winnipeg, MB School: Bruce Middle School

**Abstract:** In Canada over 222,260 people are injured every year in alcohol related crashes. I wanted to see if I could create a device that can immobilize a vehicle if the driver is under the influence of alcohol using a breathalyzer and Parallax BASIC stamp. I was able to create a system which would prevent drunk drivers from operating a motor vehicle.

## JUNIOR BRONZE MEDALIST

### KIMMIE GULEVICH

**Project Title:** Veggie Power

Bronze Medal - Earth & Environmental Sciences

Bronze Medal - Automotive

The University of Western Ontario Scholarship Bronze Medalist

Division: Earth & Environmental Sciences

City: Fort St. John, BC School: Dr. Kearney Jr. Secondary

**Abstract:** This project is about making biodiesel out of old and new vegetable oil. The purpose was to make a good quality diesel out of mainly household, easy-to-get materials. By being able to make a good quality biodiesel it proved that there was an environmentally safe method of running our cars.



## HONOURABLE MENTION

### GARY KUREK

**Project Title:** A.W.A.P.S. - Automobile Wildlife Accident Prevention System

Honourable Mention – Automotive Junior

Division: Engineering

City: Fort Kent, AB School: H E Bourgoin Middle School

**Abstract:** A.W.A.P.S is a system that tries to help prevent automobile wildlife road collisions. A.W.A.P.S uses infrared motion sensors, solar energy, and L.E.D lights to do so. A.W.A.P.S is self contained, reliable, beneficial to many, and leaves a very small environmental footprint. The system contains devices such as data collectors, a peltier temperature conditioner, and cell phone technology to help prevent automobile wildlife road collisions.

## HONOURABLE MENTION

### ROOPA SUPPIAH

**Project Title:** Sun Shines on Wind Power

AECL Award for Excellence in Science Intermediate

Honourable Mention - Earth & Environmental Science Intermediate

Honourable Mention – Automotive Intermediate

Division: Earth & Environmental Sciences

City: Deep River, ON School: Mackenzie H.S.

**Abstract:** My project studied a method of increasing energy production from a vertical axis windmill by incorporating solar panels onto the blade surface. Windmill blade design and speed of rotation affected wind and solar energy production. Blade rotation was found to increase the combined power production from this novel design.

## CANADA SCIENCE FAIR 2005

# GOLD MEDALISTS

### SENIOR GOLD MEDAL

#### JONATHAN HOLLA

**Project Title:** Trajectoire à D.A.V./FLC-01: Conceptual Design of a high speed VTOL demonstrator aircraft  
**Gold Medal – Automotive Senior**  
**Division:** Engineering & Computing Sciences  
**City/Region:** United Counties.

**Abstract:** This project involves the conceptual design of a high speed VTOL demonstrator aircraft. Using mathematics and various specialized computer design programs, I developed and tested a one man, environmentally friendly, 500 mph VTOL that would cost much less than standard aircraft. The design has numerous military and commercial applications.

### INTERMEDIATE GOLD MEDAL

#### BRITTANY FAYE

**Project Title:** Slip, Sliding, No Way  
**Gold Medal – Automotive Intermediate**  
**Division:** Engineering & Computing Sciences  
**City/Region:** Parkland.

**Abstract:** Ice on any road, is a public nuisance and is very hazardous. It affects the traction you have with your vehicle while driving, resulting in you, the driver, having no control over your vehicle. This project tested to see if an environmentally friendly solution could be used to de-ice roads instead of the corrosive Sodium Chloride that is presently used.

### JUNIOR GOLD MEDAL

#### KATHERINE BROWN

**Project Title:** Silent Witness  
**Gold Medal – Automotive Junior**  
**Division:** Engineering & Computing Sciences  
**City/Region:** Bluewater

**Abstract:** The Silent Witness used force, rotary motion and switch-voltage system sensors, an accelerometer, interface, and computer software to record what occurred during simulated collisions, using remote controlled vehicles. Extensive testing and analysis determined that the tri-axis accelerometer gave reliable, complete information about rolls, pitches, yaws and impacts.

# SILVER MEDALISTS

### SENIOR SILVER MEDALIST

#### RUSSELL KRAMER

**Project Title:** Robotic Vision Gait Coordination  
**Silver Medal – Automotive Senior**  
**Division:** Engineering & Computing Sciences  
**City/Region:** Vancouver Island

**Abstract:** A human has the ability to identify obstacles in their path and coordinate their legs to climb over them. It is easy to take it for granted, but it requires much judgment and planning to accomplish. The coordination technology grants walking robots this exceptionally useful ability for the first time.



## SENIOR SILVER MEDALIST

### ASHA SUPPIAH

**Project Title:** Pressure's Up On Fuel Cells!

Silver Medal – Automotive Senior

Division: Earth & Environmental Sciences

City/Region: Renfrew County

**Abstract:** A unique cell design, incorporating electrolysis and fuel cell operations, was developed to demonstrate enhancements in fuel-cell technology. This cell design potentially offers a novel method of charging the electrodes to enhance their performance and extend their lifetime. These advancements can help Canada meet its commitment to the Kyoto Protocol.

## INTERMEDIATE SILVER MEDALIST

### MIHAIL BUSE

**Project Title:** Ergonomics Today

Silver Medal – Automotive Intermediate

Division: Earth & Environmental Sciences

City/Region: Waterloo-Wellington

**Abstract:** This project researches the effects of repetitive movements and work environment demands on the human body. Using advanced statistical methods, the goal of the experiment is to minimize muscle contraction and to quantify the amount of impact each variable has on the upper body.

## INTERMEDIATE SILVER MEDALIST

### BENJAMIN LEIS

**Project Title:** La production d'énergie à partir de la biomasse: une option intelligente?

Silver Medal – Automotive Intermediate

Division: Earth & Environmental Sciences

City/Region: Fransaskoise

**Abstract:** Trouver des énergies alternatives respectant l'environnement est une obligation écologique. La digestion anaérobie est la transformation chimique des matières organiques en biogaz combustible mais le procédé est peu rentable. En ajoutant des déchets organiques inutiles au purin, j'ai démontré une augmentation statistiquement significative du volume total de biogaz et de la concentration de méthane avec certains mélanges. Ceci améliorerait le rapport coût-production.

## JUNIOR SILVER MEDALIST

### ANJALI PANDEY

**Project Title:** The Backseat Driver

Silver Medal – Automotive Junior

Division: Life Sciences

City/Region: Northern Manitoba

**Abstract:** I used a computer program to determine how backseat driving affects the attention levels of middle aged drivers in high and low density traffic. After asking 12 participants to run the charted course in a neutral state and then while being backseat driven, I concluded that their overall performance deteriorated.

## JUNIOR SILVER MEDALIST

### SARAH MCCUSKEE

**Project Title:** Where Under the Sun Are You?

Silver Medal – Automotive Junior

Division: Life Sciences

City: Regina

**Abstract:** It is suspected that solar wind and the ionosphere affect GPS positional accuracy. Data were collected on the ionosphere using radio propagation, on solar wind using websites, and on a GPS receiver. It was found that solar wind significantly affects GPS accuracy. Further work is recommended to ensure public safety.

## BRONZE MEDALISTS

## SENIOR BRONZE MEDALIST

### YAW AMOAKO -TUFFOUR

**Project Title:** Longitudinal Suspension System: An Innovation In Automobile Safety

Bronze Medal – Automotive Senior

Division: Engineering and Computing Sciences

City/Region: Strait

**Abstract:** This project deals with the reduction of force on occupants during automobile collisions. The innovation consists of a suspension system that acts along the vehicle's longitudinal axis. This design extends the durations of collisions so as to minimize the magnitude of force transferred.

## SENIOR BRONZE MEDALIST

### ARTIE SHOSTAK/MOHAMED ISMAIL

**Project Title:** Object Avoiding & Heat Seeking Robot

Bronze Medal Automotive Senior

Division: Engineering and Computing Sciences

City/Region: Niagara

**Abstract:** The project involved the integration of several components to produce a stand-alone, heat-seeking and object avoiding robot. The determined objective of the robot was to establish the most convenient path towards a flame, usually a candle or lighter, with the intention of extinguishing it, while avoiding other objects its course.

## SENIOR BRONZE MEDALIST

### JASPREET RAYAT/EVGENY TERNOVSKY

**Project Title:** Dynamic Noise Cancellation Using Wave Superpositioning

Bronze Medal Automotive Senior

Division: Engineering and Computing Sciences

City: Toronto

**Abstract:** A set of noise-reducing headphones was constructed using the fundamental principle of wave-superpositioning. The final design included dynamic amplitude compensation and was based upon the manipulation of an integrated circuit. The desired effect was achieved to a reasonable degree, with potential improvements lying in circuit optimization and variable frequency cancellation.





## INTERMEDIATE BRONZE MEDALIST

### ARTHUR YIP

**Project Title:** Heating the Hydrogen Fuel Cell  
Bronze Medal Automotive Intermediate  
Division: Engineering and Computing Sciences  
City: Vancouver

**Abstract:** By constructing a simple model of a hydrogen fuel cell with two platinum electrodes and sulphuric acid solution electrolyte, I investigated the effects of temperature on the reverse electrolysis effect, by heating (and also cooling) my model fuel cell. Unexpectedly, my results show increasing voltage outputs at lower temperatures.

## INTERMEDIATE BRONZE MEDALIST

### JOSEPH QUERQUES

**Project Title:** Metals and Their Weldability  
Bronze Medal Automotive Intermediate  
Division: Physical & Mathematical Sciences  
City/Region: Bay Area

**Abstract:** The weldability of dissimilar metals using GTAW was evaluated using 1xxx series carbon steel, ETP copper, 304L stainless steel, and 5xxx series aluminum. Liquid penetrant testing, tensile testing, ductility testing, metallography, and hardness testing were performed to find weldment imperfections. All metals except aluminum were successfully welded.

## INTERMEDIATE BRONZE MEDALIST

### BRADEN AFFLECK/TYLER KANE

**Project Title:** Road Ice Detector II  
Bronze Medal Automotive Intermediate

Division: Engineering and Computing Sciences  
City/Region: Qu'Appelle Valley

**Abstract:** The road ice detector is able to detect ice by applying the brake on the bike wheel and testing if the wheel skids. If the wheel does skid, it turns on a red warning light and if it does not skid, it keeps or turns the red light off.

## JUNIOR BRONZE MEDALIST

### JEREMY WITMER

**Project Title:** Oh Deer!  
Bronze Medal Automotive Junior  
Division: Engineering & Computing Sciences  
City: Fraser Valley

**Abstract:** My goal was to create a device that would effectively keep animal/vehicle collisions from occurring. These collisions result in millions of dollars in insurance claims, personal injury and highway clean-up. My device would warn both animals and the drivers that the other was nearby.

## JUNIOR BRONZE MEDALIST

### TRAVIS PAYNE

**Project Title:** None for the road: The effects of small amounts of alcohol on driving skills  
Bronze Medal Automotive Junior  
Division: Health Sciences  
City/Region: New Brunswick

**Abstract:** Drunk drivers are one of Canada's biggest killers. The law states 0.08% BAC is the legal limit for driving. I was interested in how small amounts of alcohol affect driving skills. I conducted an experiment by testing volunteer's memory, reaction time, finger dexterity and logical reasoning at various BAC levels below the legal limit

## JUNIOR BRONZE MEDALIST

### TARO YAMASHITA/SAHIL BHAYANA

**Project Title:** The ePoC

Bronze Medal Automotive Junior

Division: Engineering & Computing Sciences

City: Windsor

**Abstract:** Imagine a vehicle which does not consume fossil fuels, produces no harmful emission and runs without making a sound - that is ePoC. Driven by an innovative in-wheel system of electromagnetic impulsion units, ePoC really is the future of transportation.

## INTERMEDIATE BRONZE MEDALIST

### BRADEN AFFLECK/TYLER KANE

**Project Title:** Road Ice Detector II

Bronze Medal Automotive Intermediate

Division: Engineering and Computing Sciences

City/Region: Qu'Appelle Valley

**Abstract:** The road ice detector is able to detect ice by applying the brake on the bike wheel and testing if the wheel skids. If the wheel does skid, it turns on a red warning light and if it does not skid, it keeps or turns the red light off.

## JUNIOR BRONZE MEDALIST

### JEREMY WITMER

**Project Title:** Oh Deer!

Bronze Medal Automotive Junior

Division: Engineering & Computing Sciences

City: Fraser Valley

**Abstract:** My goal was to create a device that would effectively keep animal/vehicle collisions from occurring. These collisions result in millions of dollars in insurance claims, personal injury and highway clean-up. My device would warn both animals and the drivers that the other was nearby.

## JUNIOR BRONZE MEDALIST

### TRAVIS PAYNE

**Project Title:** None for the road: The effects of small amounts of alcohol on driving skills

Bronze Medal Automotive Junior

Division: Health Sciences

City/Region: New Brunswick

**Abstract:** Drunk drivers are one of Canada's biggest killers. The law states 0.08% BAC is the legal limit for driving. I was interested in how small amounts of alcohol affect driving skills. I conducted an experiment by testing volunteer's memory, reaction time, finger dexterity and logical reasoning at various BAC levels below the legal limit

## JUNIOR BRONZE MEDALIST

### TARO YAMASHITA/SAHIL BHAYANA

**Project Title:** The ePoC

Bronze Medal Automotive Junior

Division: Engineering & Computing Sciences

City: Windsor

**Abstract:** Imagine a vehicle which does not consume fossil fuels, produces no harmful emission and runs without making a sound - that is ePoC. Driven by an innovative in-wheel system of electromagnetic impulsion units, ePoC really is the future of transportation.



# Special Thanks

CIRPD is primarily a volunteer based organization and we would like to thank the many volunteers who have contributed to the success of CIRPD projects in 2006/07. We would like to give a special thanks to Cathy Rambarran, Ken Hemphill, Ruth Johnston, Bill Dyer, Lori King, Jane Petruniak, Peter Drzymala, Allon Reddoch, Roz Kennedy, Anita Gill, Catherine Fast, Henry Harder, Otto Kamensek, Merv Gilbert, Bill Meechan, Gerry Smith, John Beckett, Doug Kube, Stan Jung, Scott Murtha, Horace Armoogum, Jack Richman, Tammy Hughes, Ken Craig, Margaret Tebbutt and Mark Loddors. It is only through the in-kind and financial contribution of our over 100 Collaborative members and their organizations that we have been able to be successful with these endeavors.

I would like to provide a special thanks to our staff – past and current. I would like to thank Valerie Levitt who was our conference and event manager for the past couple of years – Valerie has embarked on new adventures and we wish her well. Carys Jones who threatened to leave us in order to complete her nursing degree however still manages to provide us with some administrative support between her courses (although sometimes she arrives in the latest nursing fashion). Mehmet Ali Vural is our IT manager and is an outstanding web designer and Michelle Coutts our very own Aussie Office Manager. I would also like to thank Sheila Kerr who excels in translating research into understandable information.

# Sponsors

## Best Practices Leadership Summit Sponsors

This project was financially assisted  
by the Labour-Management Partnerships Program  
Le Programme de partenariat syndical-patronal a  
contribué financièrement à la réalisation de ce projet  
Canada



## Web-Portal



## Business Health - Employee Health

This project was financially assisted  
by the Labour-Management Partnerships Program  
Le Programme de partenariat syndical-patronal a  
contribué financièrement à la réalisation de ce projet  
**Canada**

THE  
**Great-West Life**  
ASSURANCE  COMPANY  
STRONGER COMMUNITIES TOGETHER™

  
**CIHR IRSC**  
Canadian Institutes of Health Research / Instituts de recherche en santé du Canada

HEALTHCARE BENEFIT TRUST  
**HB T**  
BENEFIT FROM EXPERIENCE

 **PACIFIC BLUE CROSS™**

**BC Life**

**MARSH**  
The world's #1 risk specialist  
**MERCER**



**WORK SAFE BC**  
WORKING TO MAKE A DIFFERENCE

**YUKON WORKERS' COMPENSATION HEALTH AND SAFETY BOARD**  
**COMMISSION DE LA SANTÉ ET DE LA SÉCURITÉ AU TRAVAIL DU YUKON**



 **Manulife Financial**

**BENEFITS**  
CANADA

## Research Grants and Awards

  
**CIHR IRSC**  
Canadian Institutes of Health Research / Instituts de recherche en santé du Canada



 **THE WOODBRIDGE GROUP**

 **Insurance Corporation of British Columbia**



## Community Education Series



Dunbar Community  
Centre



## World Congress on Neck Pain



AMERICAN COLLEGE OF  
OCCUPATIONAL AND  
ENVIRONMENTAL MEDICINE



BRIGHAM AND  
WOMEN'S HOSPITAL  
A Teaching Affiliate of Harvard Medical School



CMCC



HARVARD  
MEDICAL SCHOOL



UNIVERSITY OF SOUTHERN DENMARK



National  
University of Health Sciences



MEHARRY  
MEDICAL COLLEGE



ST. MICHAEL'S HOSPITAL  
A teaching hospital affiliated with the University of Toronto



FACULTY OF MEDICINE  
University of Toronto

UNIVERSITY OF TORONTO KNOWLEDGE TRANSLATION PROGRAM  
AT THE LI KA SHING KNOWLEDGE INSTITUTE OF ST. MICHAEL'S HOSPITAL



ABILITY  
MAGAZINE



THE WOODBRIDGE GROUP®





CANADIAN INSTITUTE FOR THE RELIEF OF PAIN AND DISABILITY

[www.cirpd.org](http://www.cirpd.org)

204 – 916 West Broadway Avenue, Vancouver, BC V5Z 1K7 Canada  
E-mail: [office@cirpd.org](mailto:office@cirpd.org) ♦ Website: [www.cirpd.org](http://www.cirpd.org) ♦ Tel: 604 684-4148 ♦ North American: 800 872-3105 ♦ Fax: 604 684-6247

**Canadian Institute for the Relief  
of Pain and Disability**

**Financial Statements  
June 30, 2007**



ASCENT  
www.ascentteam.com

## The Ascent Partnership, Chartered Accountants

a partnership of incorporated professionals

### AUDITORS' REPORT

TO THE MEMBERS,  
CANADIAN INSTITUTE FOR THE RELIEF OF PAIN AND DISABILITY

We have audited the balance sheet of the Canadian Institute for the Relief of Pain and Disability as at June 30, 2007 and the statements of operations, net assets and cash flows for the year then ended. These financial statements are the responsibility of the Institute's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amount and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In common with many charitable organizations, the Institute derives a part of its income from donations, the completeness of which is not susceptible of satisfactory review verification. Accordingly, our examination of income from donations was limited to amounts recorded in the records of the Institute and we were unable to determine whether any adjustments might be necessary to donations income, expenses, net assets, and assets.

In our opinion, except for the effect of adjustments, if any, which we might have determined to be necessary had we been able to satisfy ourselves concerning the completeness of donations, as referred to in the previous paragraph, these financial statements present fairly, in all material respects, the financial position of the Institute as at June 30, 2007 and the results of its operations and changes in net assets for the year then ended in accordance with Canadian generally accepted accounting principles.

The comparative figures were reviewed, but not audited, by another firm of Chartered Accountants.

### CHARTERED ACCOUNTANTS

Burnaby, British Columbia  
October 18, 2007

**Canadian Institute for the Relief of Pain and Disability**  
Notes to Financial Statements (Continued)

For the Year-Ended June 30, 2007

---

**9. Comparative Figures**

The comparative figures were reviewed, but not audited, by another firm of Chartered Accountants. Certain figures were also reclassified to conform with the presentation adopted in the current year.

The comparative figures were also restated to correct the treatment of cash flows related to the 2007 symposium and the upcoming 2008 symposium (note 8). The comparative figures originally reported the cash flows as income and expense amounts for the 2006 fiscal year. However, because these events were scheduled to occur during the 2007 fiscal year (\$80,979 in expenses and related income) and the 2008 fiscal year (\$16,984 in expenses and related income), these cash flows should have been deferred and recognized as income and expense amounts in the years of event occurrence. The comparative figures have accordingly been restated as follows:

	Originally Reported	Restated
<b>Balance Sheet</b>		
Prepaid expenses	\$ 3,765	\$ 101,728
Deferred income	\$ 525,469	\$ 623,432
<b>Statement of Operations</b>		
Fundraising and grants income	\$ 267,719	\$ 169,756
Expenses	\$ 315,363	\$ 217,400

Because income is recognized to match the related expenses, there is no change to the net operations of the Institute for the 2006 fiscal year

# Canadian Institute for the Relief of Pain and Disability

## Balance Sheet

June 30, 2007

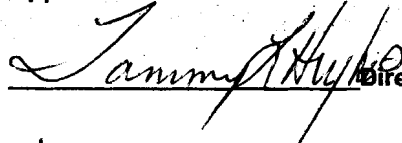
	2007	2006 (note 9)
<b>Assets</b>		
<b>Current assets</b>		
Cash and term deposits	\$ 202,203	\$ 472,232
Accounts receivable	40,775	26,548
Sales taxes recoverable	4,434	4,752
Prepaid expenses (note 8)	155,691	101,728
	403,103	605,260
Property, plant and equipment, net (note 4)	20,137	11,338
	\$ 423,240	\$ 616,598

## Liabilities and Net Assets

<b>Current liabilities</b>		
Accounts payable and accrued liabilities	\$ 9,702	\$ 9,642
Accrued interest payable (note 6)	11,206	10,571
Wage related payables	5,225	6,400
Deferred income (note 5)	434,759	623,432
	460,892	650,045
<b>Net assets</b>		
Unrestricted	(57,789)	(44,785)
Invested in property, plant and equipment	20,137	11,338
	(37,652)	(33,447)
	\$ 423,240	\$ 616,598

See accompanying notes to financial statements.

Approved on behalf of the Board of Directors:

  
Director

  
Director

# Canadian Institute for the Relief of Pain and Disability

## Statement of Operations

For the Year-Ended June 30, 2007

	2007	2006 (note 9)
<b>Income (note 7)</b>		
Fundraising and grants	\$ 247,597	\$ 169,756
Other income	167,561	1,294
	<b>415,158</b>	<b>171,050</b>
<b>Expenses</b>		
Amortization	5,323	2,889
Bank charges and interest (note 6)	1,733	1,394
Consulting	54,726	34,226
Delivery	998	873
Dues and membership	1,696	1,514
Gifts and honoraria	3,959	1,500
Insurance	3,876	917
Meals and entertainment	2,596	2,369
Office supplies and services	35,514	22,354
Professional fees	9,757	2,793
Rent	19,117	9,073
Symposia	114,957	-
Telecommunications	6,776	6,119
Travel	24,727	6,609
Wages and salaries	133,608	124,770
	<b>419,363</b>	<b>217,400</b>
<b>Deficiency of income over expenses</b>	<b>\$ (4,205)</b>	<b>\$ (46,350)</b>

See accompanying notes to financial statements.

**Canadian Institute for the Relief of Pain and Disability**  
**Statement of Net Assets**

For the Year-Ended June 30, 2007

	Unrestricted	Invested in Property, Plant and Equipment	2007 Total
Net assets, beginning of year	\$ (44,785)	\$ 11,338	\$ (33,447)
Excess (deficiency) of income over expenses	1,118	(5,323)	(4,205)
Additions to property, plant and equipment	(14,122)	14,122	-
Net assets, end of year	\$ (57,789)	\$ 20,137	\$ (37,652)

	Unrestricted	Invested in Property, Plant and Equipment	2006 (note 9) Total
Net assets, beginning of year	\$ 6,232	\$ 6,671	\$ 12,903
Deficiency of income over expenses	(43,461)	(2,889)	(46,350)
Additions to property, plant and equipment	(7,556)	7,556	-
Net assets, end of year	\$ (44,785)	\$ 11,338	\$ (33,447)

See accompanying notes to financial statements.



**Canadian Institute for the Relief of Pain and Disability**  
Statement of Cash Flows

For the Year-Ended June 30, 2007

	2007	2006 (note 9)
<b>Cash Provided By (Used For)</b>		
<b>Operating activities</b>		
Deficiency of income over expenses	\$ (4,205)	\$ (46,350)
Items not involving cash		
Amortization	5,323	2,889
Changes in non-cash operating capital		
Accounts receivable	(14,227)	(18,642)
Sales taxes recoverable	318	-
Prepaid expenses	(53,963)	(99,660)
Accounts payable and accrued liabilities	60	6,446
Accrued interest payable	635	1,162
Wage related payables	(1,175)	6,400
Deferred income	(188,673)	461,813
	<b>(255,907)</b>	<b>314,058</b>
<b>Investing activities</b>		
Additions to property, plant and equipment	(14,122)	(7,556)
<b>Increase (decrease) in cash and term deposits</b>	<b>(270,029)</b>	<b>306,502</b>
<b>Cash and term deposits, beginning of year</b>	<b>472,232</b>	<b>165,730</b>
<b>Cash and term deposits, end of year</b>	<b>\$ 202,203</b>	<b>\$ 472,232</b>

See accompanying notes to financial statements.

# Canadian Institute for the Relief of Pain and Disability

## Notes to Financial Statements

For the Year-Ended June 30, 2007

---

### 1. Operations

The Canadian Institute for the Relief of Pain and Disability (the "Institute") was incorporated under Part II of the Canada Corporations Act and is a registered charitable organization for income tax purposes. The Institute is committed to the prevention and reduction of pain, pain-related suffering, and disability through the creation and dissemination of evidence-informed best practices.

As a registered not-for-profit organization, the Institute is dependent on various government, foundation, and corporate entities for grants and donations to subsidize operations. The Board of Directors is confident that support from these entities will continue throughout the next fiscal year.

### 2. Significant Accounting Policies

#### a) Basis of Accounting

Net assets includes the following funds:

- i) Unrestricted operations - reflects the activities associated with day-to-day operations. Funds may be used for any purpose as directed by the Board of Directors, including the allocation of funds for the purchase of property, plant, and equipment.
- ii) Invested in property, plant, and equipment - reflects the Institute's investment in property, plant and equipment. These assets are purchased using funds either specifically received for such purchases or allocated by the Board of Directors from operations.
- iii) Restricted amounts - reflects the amounts received with restrictions on use by external parties or amounts restricted internally by the Board of Directors for specific purposes. These restricted amounts are not generally available for other purposes unless specifically approved by the source provider or the Board of Directors.

#### b) Revenue Recognition

The Institute follows the deferral method of accounting for contributions. Restricted contributions are recognized as income in the year in which the related expenses are incurred. Unrestricted contributions are recognized as income when received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured.

The Institute benefits from donated supplies and donated services in the form of volunteer time at various functions. Donated supplies are accrued at their fair market value only when a realizable value of the related benefit can be reasonably estimated. Donated services are not recorded in the financial records of the Institute.

Expenses are recorded in the period in which they become an obligation of the Institute.

(Continued)

**Canadian Institute for the Relief of Pain and Disability**  
Notes to Financial Statements (Continued)

For the Year-Ended June 30, 2007

---

**2. Significant Accounting Policies (Continued)**

**c) Property, Plant and Equipment**

Property, plant and equipment are recorded at historical cost and are amortized at the following rates:

Computer equipment	30% declining balance
Furniture and equipment	20% declining balance

**d) Financial Instruments**

**i) Fair Value of Financial Instruments**

The carrying amounts of current receivables and current payables approximate their fair values because of the short-term maturities of these instruments.

**ii) Credit Risk**

The Institute does not have a significant credit exposure to any individual debtor or counter party.

**e) Use of Estimates**

These financial statements are prepared by management on the accrual basis of accounting in accordance with Canadian generally accepted accounting principles. In preparing these financial statements, management makes estimates and assumptions that affect amounts reported and the disclosure of any contingent assets and liabilities. These financial statements have, in management's opinion, been properly prepared within reasonable limits of materiality. Actual results could differ from these estimates.

**f) Income and Capital Taxes**

As the Institute is a charitable organization registered under the Income Tax Act, it is exempt from income and capital taxes and is able to issue donation receipts for income tax purposes.

**3. Endowment Fund**

The Vancouver Foundation permanently holds and administers an Endowment Fund of \$45,000 on behalf of the Institute; this endowment is not recorded as an asset of the Institute. Interest earned of \$1,803 (2006 - \$1,683) on the accumulated capital is recorded as endowment fund income and is available for use by the Institute for general operating purposes.

**Canadian Institute for the Relief of Pain and Disability**  
Notes to Financial Statements (Continued)

For the Year-Ended June 30, 2007

**4. Property, Plant and Equipment**

	Cost	Accumulated amortization	2007 Net book value
Computer equipment	\$ 37,433	\$ 18,871	\$ 18,562
Furniture and equipment	26,076	24,501	1,575
	<b>\$ 63,509</b>	<b>\$ 43,372</b>	<b>\$ 20,137</b>

	Cost	Accumulated amortization	2006 (note 9) Net book value
Computer equipment	\$ 23,311	\$ 13,941	\$ 9,370
Production equipment	26,076	24,108	1,968
	<b>\$ 49,387</b>	<b>\$ 38,049</b>	<b>\$ 11,338</b>

**5. Deferred Income**

Deferred income represents unspent resources for education and research purposes. These resources will be used in subsequent periods. Direct access funds must be used on direct access programs, while other project grant funds are restricted by the terms and conditions established by grantors related to project deliverables.

	2007	2006 (note 9)
<b>Direct access</b>		
Balance, beginning of year	\$ 25,000	\$ 25,000
Plus: received during the year	-	50,000
Less: recognized as income during the year	(25,000)	(50,000)
Balance, end of year	-	25,000
<b>Grants</b>		
Balance, beginning of year	598,432	136,619
Plus: received during the year	219,134	581,569
Less: recognized as income during the year	(382,807)	(119,756)
Balance, end of year	434,759	598,432
	<b>\$ 434,759</b>	<b>\$ 623,432</b>

## Canadian Institute for the Relief of Pain and Disability

### Notes to Financial Statements (Continued)

For the Year-Ended June 30, 2007

#### 6. Related Party Transaction

The accrued interest payable is owed to the executive director of the Institute. The principal amount giving rise to the accrued interest was repaid in full as of June 30, 2006. Annual interest is accrued on this unpaid interest balance at a rate of six percent. During the year, interest of \$634 (2006 - \$1,162) was accrued on the balance owing.

These transactions are measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

#### 7. Income

	2007	2006 (note 9)
<b>Fundraising and grants</b>		
Direct access	\$ 25,000	\$ 50,000
Grants	222,597	119,756
	<b>247,597</b>	<b>169,756</b>
<b>Other income</b>		
Consulting	16,674	-
Interest income	6,314	1,936
Memberships	373	989
Miscellaneous	5,266	(1,631)
Symposia	138,934	-
	<b>167,561</b>	<b>1,294</b>
	<b>\$ 415,158</b>	<b>\$ 171,050</b>

#### 8. Commitments

The Institute is committed to a premises lease which requires the payment of rent and pro-rata share of common area property taxes and operating expenses. Based on current rates, monthly payments will continue at \$1,133 per month until lease expiry in August 2008.

The Institute has committed to the administration and operation of a symposium related to Neck Pain in January 2008 in Los Angeles, California. Costs of staging the event are budgeted at \$388,762; of this budget \$150,144 was expended during the 2006 and 2007 fiscal years and is included as part of prepaid expenses on the balance sheet. As of the audit report date, management is confident that this operating budget will be met.