

The Student Research Group

University of Manitoba, Faculty of Dentistry



FACULTY OF
DENTISTRY
SCHOOL OF
DENTAL HYGIENE

Traditions of Excellence, Horizons of Change

Join. Explore. Discover.

Annual Report 2007 -2008

www.umanitoba.ca/dentistry/research/studentResearchGroup



UNIVERSITY
OF MANITOBA

Student Research Group Annual Report 2007-2008

University of Manitoba, Faculty of Dentistry

August 22, 2008

Contents

- SRG Overview:
 - Evolution..... 1
 - Who We Are 2
 - Destinations 3
 - Statistics..... 3

- Scientific Conferences, Meetings and Fellowships..... 4

- Other events
 - Art In Science 12
 - Summer Seminar Program (pictures instructors) 13

- Student Awards and Recognition 14

- International SRG News 15

- Future Goals 16

- How to Join / Contact Information 16

Writer: Alex Serebnitski
Writer & Editor: Dr. Tammy Bonstein
Production: Grant Warren

Evolution:

The Evolution of the Canadian Association for Dental Research National Student Research Group

The Canadian Association for Dental Research National Student Research Group (CADR-NSRG) was established as an approach to promote student research at the 10 dental schools in Canada. This national organization supports the formation of active local student research groups (SRGs) at each Canadian dental school.

These local groups organize students who are interested and involved in research, advocate for curricula that support student research, and provide targeted opportunities for these students. Emphasis is placed on student recognition, mentorship, providing information regarding future academic/research careers, and obtaining financial support for student research efforts. The CADR NSRG was formed September 28, 2007.

Initial support from the University of Manitoba Faculty of Dentistry enabled student representatives (one student from each dental school in Canada) to form the group. Dr. Anthony Iacopino, the Dean at the University of Manitoba and Dr. Richard Ellen, from the University of Toronto, saw the need and potential for a Canadian student research group. The first president of the CADR NSRG is currently Alexander Serebnitski from the University of Manitoba.



The following student representatives from nine dental schools were present at the first CADR NSRG Meeting, September 28, 2007: Azza Gramoun, Rob Joseph, Alex Serebnitski, Amer Hussain, Jasminka Korcak, Ariane Lebus, Manuela Mandu Hrit, Leeann Donnelly and Nekky Jamal. The following faculty representatives were present at the meeting: Dr. Anthony Iacopino, Dr. Richard Ellen and Dr. Tammy Bonstein.

The Evolution of the Student Research Group at the Faculty of Dentistry at the University of Manitoba

Shortly following the September 9 meeting, Dean Iacopino appointed Alex Serebnitski to be the student representative of our school and Dr. Tammy Bonstein to be the faculty advisor for the SRG. Courtney Humphreys, Kris Coulter, Ashley Dykun and Ben Yakiwchuk volunteered to organize, establish and lead the group. Dr. Bonstein (Faculty Advisor) and student group members work closely, and in consultation with, Dr. J. Elliott Scott, Associate Dean (Research) at the University of Manitoba's Faculty of Dentistry. The achievements of the SRG's first year are summarized in this Annual Report.

Who We Are:

SRG Summer Research Students and Their Mentors:

Class of 2008 (Graduated class)

- Tijana Stijacic; Dr. Bob Schroth
- Jared Rykiss; Dr. Billy Wiltshire
- Brett Sorensen; Dr. Tammy Bonstein

Class of 2010 (3rd year):

- Sherif Elsaraj; Dr. Raj Bhullar
- Alex Witzke; Dr. Archie McNicol
- Igal Margolin*; Dr. Charles Lekic
- Atul Pruthi; Dr. Algernon C. Karim
- Angela Kehler; Dr. Tammy Bonstein
- Tracy Kolson*; Dr. Dieter Schonwetter
- Geoffrey Shaffer*; Dr. Dieter Schonwetter
- Stephanie Gavard*; Dr. Doug Brothwell
- Evan Ayers*; Dr. Doug Brothwell

Class of 2009 (4th year)

- Kris Coulter; Dr. Tammy Bonstein
- Ashley Dykun; Dr. Doug Brothwell
- Amanda Huminicki; Dr. Cecilia Dong & Dr. Lin-P'ing Choo-Smith
- Courtney Humphreys; Dr. Doug Brothwell
- Alex Serebnitski; Dr. Bob Schroth
- Zach Stein*; Dr. Billy Wiltshire
- Ben Yakiwchuk; Dr. Dieter Schonwetter

Class of 2011 (2nd year):

- Nathan Jeal*; Dr. Bob Schroth
- Nirvani Umadat*; Dr. Tammy Bonstein
- Jordan Pang*; Dr. Bob Schroth
- Robert Ward*; Dr. Billy Wiltshire
- Mark Dolyniuk*; Dr. J. Elliott Scott
- Stephen Michaluk*; Dr. Tammy Bonstein
- Adam Agpalza*; Dr. Archie McNicol
- Kevin Vong*; Dr. Tammy Bonstein
- Kunit Nagra*; Dr. Charles Lekic
- Tiffany Cheung*; Dr. Tammy Bonstein
- Elena Ferrer*; Dr. Noriko Blight and Dr. Vanessa Swain
- Carol Lee*; Dr. Tana Gilmartin & Dr. Tammy Bonstein

Faculty Members Available as Mentors 2007-2008

Dr. Abhijit Banerjee
Dr. Raj Bhullar
Dr. Catalena Birek
Dr. Tammy Bonstein
Dr. George Bowden
Dr. Doug Brothwell
Dr. Prashen Chelikani
Dr. Lin-P'ing Choo-Smith
Dr. Cecilia Dong
Dr. Ed Ghiabi
Dr. James Gilchrist
Dr. Tana Gilmartin
Dr. Algernon C. Karim
Dr. Gilbert Kirouac
Dr. Charles Lekic
Prof. Laura MacDonald
Dr. Nita Mazurat
Dr. Randy Mazurat
Dr. Archie McNicol
Dr. Getulio Nogueira
Dr. Igor J. Pesun
Dr. Renato Roperto
Dr. Dieter Schonwetter
Dr. Bob Schroth
Dr. J. Elliott Scott
Dr. Tony Shaw
Dr. Vanessa Swain
Dr. Noriko Blight
Dr. Billy Wiltshire
Prof. Mickey Emmons Wener
Dr. Colin Dawes
Dr. John Perry
Ms. Anne Thornton-Trump
Mrs. Carol Yakiwchuk

*Students that began project in summer of 2008.

Destinations:

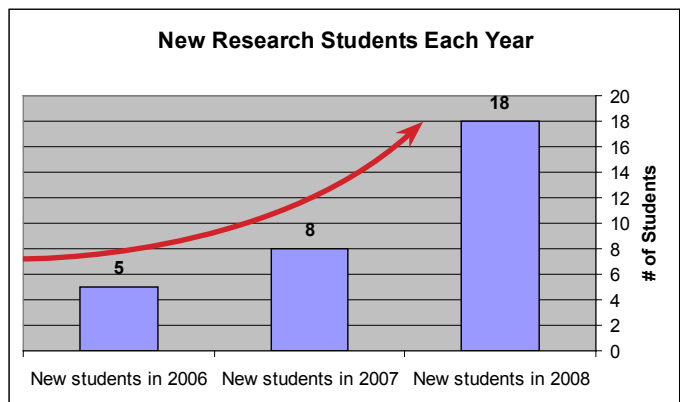
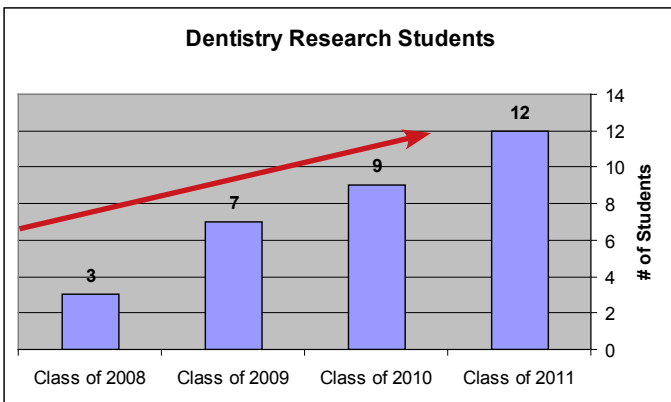
Where Did We Travel In 2007-2008

The SRG members represented the Faculty of Dentistry in conferences, meetings and fellowship programs in North America.



Statistics:

The Faculty of Dentistry witnessed substantial growth in student research in 2007 – 2008 as the University of Manitoba launched Canada’s first Student Research Group, as indicated by the charts below:



**NSERC Student Poster Competition
Winnipeg, MB • October 2007**

SRG Presenters:

Brett Sorensen:

A Preliminary In vitro Model Assessing Tooth Whitening Agent Effectiveness

Supervisor: Dr. T. Bonstein

Kris Coulter:

Evaluation of Varied Repair Methods Applied to 3 Types of CAD/CAM Blocks

Supervisors: Dr. J.E. Scott and Dr. T. Bonstein

Wisam Helewa (Oral Biology - now entering Dent I):

Surfactant Proteins and Surface Tension Characteristics of Exhaled Human Breath

Supervisor: Dr. J.E. Scott

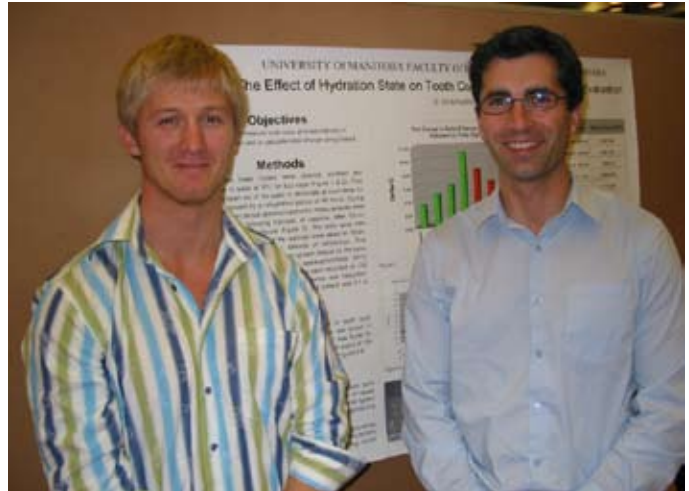
**The Hinman Symposium
Memphis, TN • October 2007**

SRG Presenter:

Brett Sorensen:

A Preliminary In vitro Model Assessing Tooth Whitening Agent Effectiveness

Supervisor: Dr. T. Bonstein



**Faculty of Dentistry Research Day
Winnipeg, MB • February 2008**

This was the Faculty of Dentistry's first research day. Four students gave oral presentations of their research as part of the day that included various types of research in our faculty. Next year we are looking forward for more exciting student research to be presented. Please support fellow students and recognize their efforts and time spent during the summer.

Research Day Student Presenters:

Tijana Stijacic:

First Dental Visit by Age One – Are Manitoba Dentists Aware of This Recommendation?

Supervisor: Dr. R. Schroth

Kris Coulter:

Evaluation of Varied Repair Methods Applied to 3 Types of CAD/CAM Blocks

Supervisors: Dr. Scott and Dr. Bonstein

Amanda Huminicki: Does Calculus Confound PRS and OCT Detection of Early Caries?

Supervisors: Dr. C. Dong, Dr. Cleghorn and Dr. L.P. Choo-Smith

Courtney Humphreys:

Dental Caries Experience: School-Aged Children in a Northern Aboriginal Community

Supervisor: Dr. D. Brothwell

44th Annual Dental Students' Conference on Research
Gaithersburg, MD & Washington D.C • March 2008

This conference was organized by the American Dental Association (ADA) and was a great opportunity to meet and interact with 46 students from all the North American schools and learn about research and career options in dentistry. It included a tour to various facilities such as: The Paffenbarger Research Center, The National Institute of Standards, The National Institute of Health (NIH) and The National Institute of Dental and Craniofacial Research (NIDCR).



Where is Alex? Find Him!

"It was great to represent our faculty with all the dental schools across the U.S and Canada. It was amazing to learn about the different schools and to meet a person from almost every dental school in North America. I also discovered that there are many opportunities for research and more training after dental school."

-Alex Serebnitski

**American Association of Dental Research Meeting
Dallas, TX • April 2008**



Downtown Dallas, Texas



SRG Presenters:

Kris Coulter:
Evaluation of Varied Repair Methods Applied to 3 Types of CAD/CAM Blocks
Supervisors: Dr. J.E. Scott and Dr. T. Bonstein

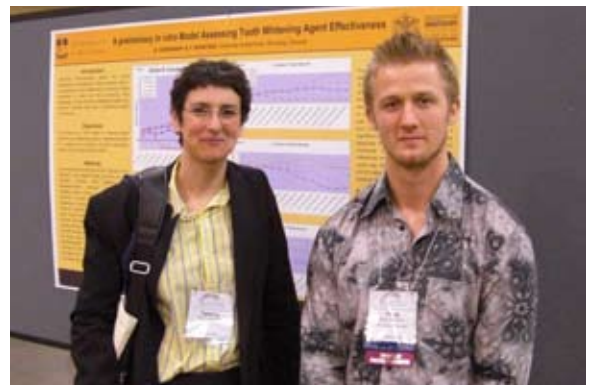
"My research experience has been tremendously rewarding from both an academic and personal perspective. The opportunity to collaborate with members of the dental community and to share my ideas/discoveries through poster presentations, oral presentations and international conferences has been a highlight of my dental education."

— Kris Coulter



Courtney Humphreys:
Dental Caries Experience: School-Aged Children in a Northern Aboriginal Community
Supervisor: Dr. D. Brothwell

Brett Sorensen:
A Preliminary In vitro Model Assessing Tooth Whitening Agent Effectiveness
Supervisor: Dr. T. Bonstein

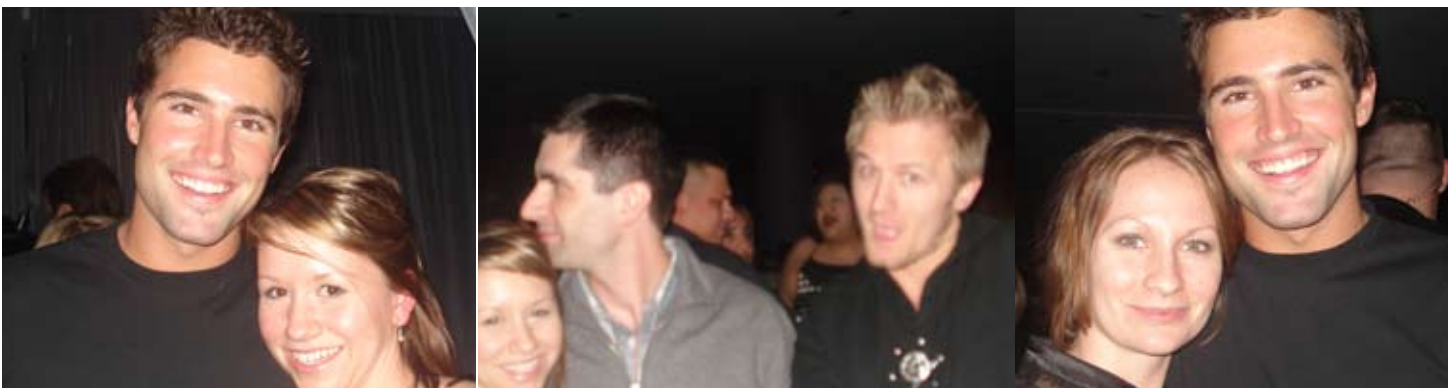




Mexican beer, steak, nachos and Drs. Brothwell and Bonstein, what a great combination. From left to right: Kris, Ashley, Brett, Dr. Bonstein, Dr. Brothwell, Nate (University of Alabama), Alex and Courtney.



The annual American Association for Dental Research conference in Dallas was filled with many great activities. From poster presentations, interesting talks, shopping, golfing, an NHL hockey game and partying with celebrities like Brody Jenner and Joe Thornton. It was nice get a little bit of sun and enjoy great company from the faculty.



Partying with celebrities at a local club on the 30th floor!

**Midwest Student Research Conference
Minneapolis, MN • April 2008**

"I attended the Midwest Dental Conference in Minneapolis, MN. This was a small conference that enabled to get to know dental students from many different US schools. Students had an opportunity to present their research and to attend the presentations of other students. This conference had several formal and informal get-togethers to allow the students time to meet. As well, students were given a tour of the state of the art undergraduate and graduate clinics".

-Ashley Dykun

SRG Presenters:

Ashley Dykun:

The Correlation of Brief Screenings and Comprehensive Treatment Plans in Pediatric Dental Patients
Supervisor: Dr. D. Brothwell

Amanda Huminicki:

Does Calculus Confound PRS and OCT Detection of Early Caries?
Supervisors: Dr. C. Dong, Dr. Cleghorn and Dr. L.P. Choo-Smith

Brett Sorensen:

A Preliminary In vitro Model Assessing Tooth Whitening Agent Effectiveness
Supervisor: Dr. T. Bonstein

**CDA/Dentsply Student Clinician Program
Toronto, ON • April 2008**

SRG Presenters:

Ashley Dykun:

The Correlation of Brief Screenings and Comprehensive Treatment Plans in Pediatric Dental Patients
Supervisor: Dr. D. Brothwell

"I had the opportunity to attend several research conferences this year. I was chosen to represent our faculty at the 2008 CDA/Dentsply Student Clinician program in conjunction with the CDA spring meeting and ODA general meeting in Toronto, ON. Each dental school in Canada was represented by one dental student who presented their research to senior CDA members. This was a great opportunity to meet students from other Canadian dental schools as well as prominent members of the CDA and dental industry. The event was capped off with a formal dinner followed by awards presentations. Spending time traveling to different dental conferences was a great way to meet new people and network. It was also great to be able to get away with some good friends and get to know other students from our school better. It also allowed me to see different dental clinics and learn about different dental school. It was a great opportunity to see the strengths of our programs and to see what we can work towards in the future."

-Ashley Dykun

**Canadian Student Health Research Forum
Winnipeg, MB • June 2008**

SRG Presenters:

Sherif Elsaraj:

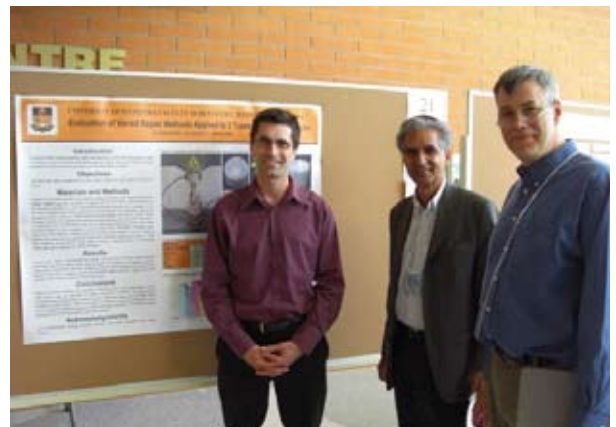
Ras-p21 Activation by Nicotine in Periodontal Ligament Fibroblasts
Supervisors: Dr. A.K. Madan and Dr. R.P. Bhullar

Kris Coulter:

Winner of the Dental Research Award
Evaluation of Varied Repair Methods Applied to 3 Types of CAD/CAM Blocks
Supervisors: Dr. J.E. Scott and Dr. T. Bonstein

Amanda Huminicki:

Does Calculus Confound PRS and OCT Detection of Early Caries?
Supervisors: Dr. C. Dong, Dr. Cleghorn and Dr. L.P. Choo-Smith



**IADR Meeting
Toronto, ON • July 2008**

The annual meeting of the International Association for Dental Research in Toronto was a great success with over 5,000 people attending.



"The IADR conference was a great opportunity to connect with other researchers from around the world and learn about the exciting research they are conducting. It was also a good experience to present my research to such a dynamic group of people."

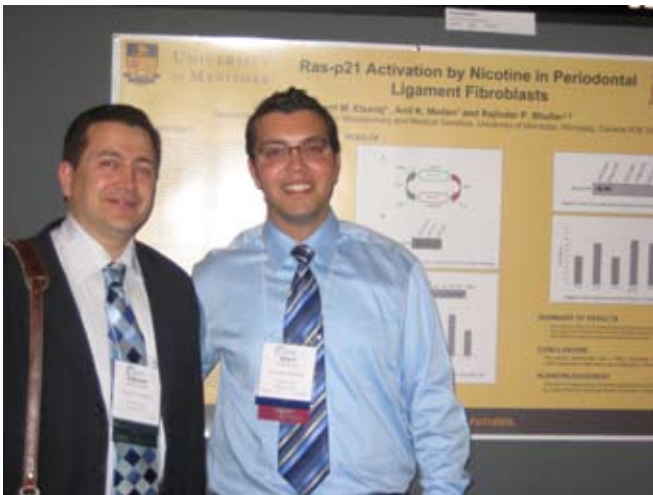
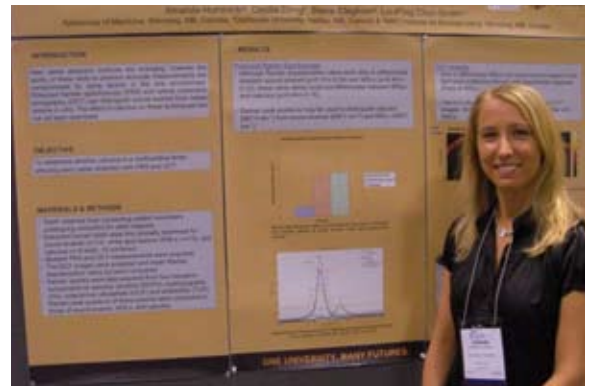
- Amanda Huminicki

SRG Presenters:

Amanda Huminicki: Does Calculus Confound PRS and OCT Detection of Early Caries?

Supervisors: Dr. C. Dong, Dr. Cleghorn and Dr. L.P. Choo-Smith

Amanda's presentation was named winner of the Junior Category of Student Research Awards.



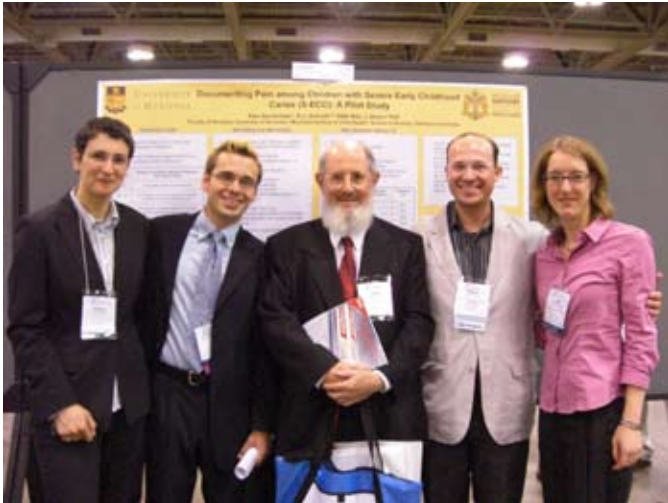
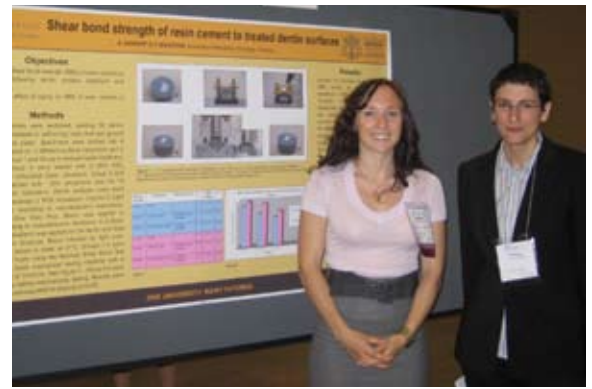
Sherif Elsaraj:
Ras-p21 Activation by Nicotine in Periodontal Ligament Fibroblasts
Supervisors: Dr. R.P. Bhullar

"A very well organized conference. I found it very informative, innovative and inspirational. The standard of the presentations was excellent and there was a good variety of topics covered. It really sparked a desire to do much more with the research resources that we have at U of M. I feel very fortunate to present my research project from our school at the IADR conference this year"
-Sherif Elsaraj

SRG Presenters:
(con't)

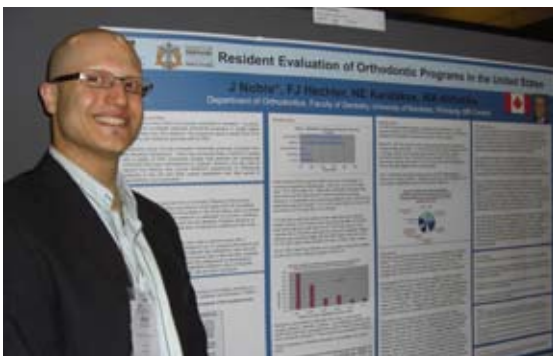
Angela Kehler:
Shear bond strength of resin cement to treated dentin surfaces
Supervisor: Dr. T. Bonstein

"This was my first experience at a dental research conference. It was a great opportunity to meet other students also interested in research and to share ideas and experiences."
- Angela Kehler



Alex Serebnitski:
Documenting Pain among Children with Severe Early Childhood Caries (S-ECC): A Pilot Study
Supervisors: Dr. R. Schroth and Dr. Breaux
(Dalhousie University)

"It was a great experience to present my research for the first time. I even got to meet a person who wrote many of the articles close to my area of research that I had to read for my literature review."
- Alex Serebnitski



Grad Ortho Presenters:

Dr. James Noble, Dr. Frank Hechter, Dr. Nicholas Karaikos and Dr. William Wiltshire:
Resident Evaluation of Orthodontic Education in the United States.

Dr. Luis Piedade, Dr. Milos Letic,
Dr. William Wiltshire, Dr. Tammy Bonstein:
Evaluation of Static and Dynamic Friction of Different Self-Ligating Brackets.

"It is great to be in a field where you enjoy and love what you do. Having the opportunity to represent this academic institution and contribute to the future of the profession is both an honour and truly exciting."
- Dr. Luis Piedade



The International Association for Dental Research in Toronto had great poster presentations, symposia, lectures and lots of free food, drinks, parties and receptions which we all enjoyed.



Nothing more relaxing than a cold one with glowing ice cubes after a long day of the conference.

Biodontics Summer Fellowship Program

University of Connecticut School of Dental Medicine • June 30-July 25, 2008

By Leslie Dalton

The Biodontics program is all about looking at dentistry from a different point of view. The idea that a dentist has to limit themselves to within the four walls of their practice has no place in this program. Biodontics steps outside of the traditional dental curricula. It introduces students to the newest technological developments in dentistry, how they were developed, by whom, and where this technology leading us as a profession.

It has taught me to expand my own definition of "dentist" to include: innovator, entrepreneur, and effective manager.

The skills and knowledge that I have accumulated from this program includes:

- How to use Hard & Soft tissue Lasers, CAD/CAM, intraoral cameras, voice recognition software
- What the caries "vaccine" is, how it will work, and how it will be developed and marketed by Oragenics
- What HTR polymers are and how they are used in socket/bone grafting
- The importance of effective use of space in relation to office design
- How to prepare and file a patent
- How to effectively manage, hire, and fire your staff
- How to effectively prepare a business plan
- and much more....

The program let me explore the different directions that I can take my career as a practicing dentist.

For more information check out: www.biodontics.org



The program let me explore the different directions that I can take my career as a practicing dentist.

-Leslie Dalton

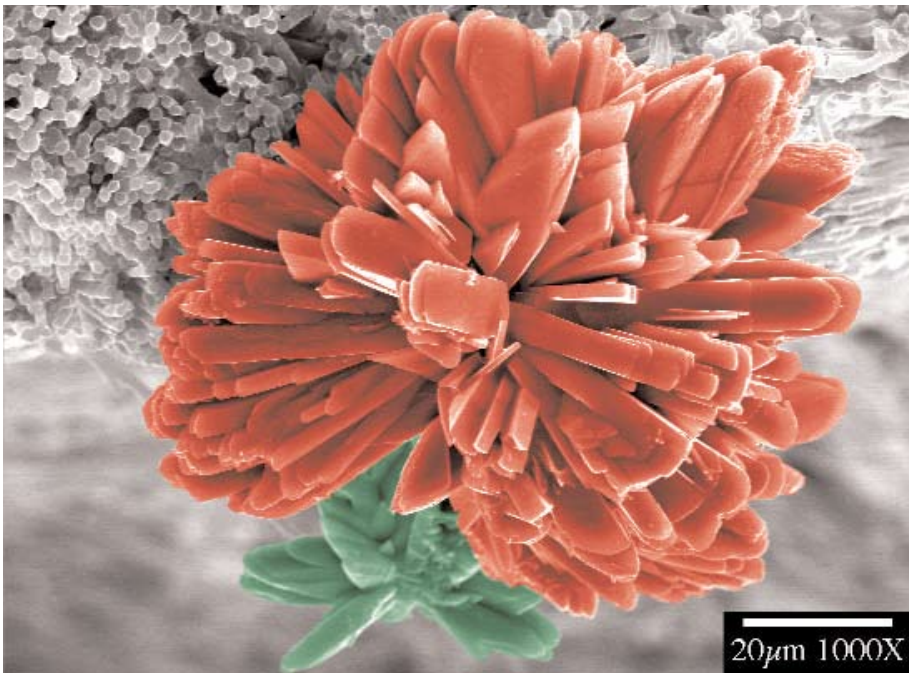
Other Events:

Art In Science:

Winnipeg, MB • February 2008

The Art in Science Exhibition was initiated and organized by Dr. Tammy Bonstein. The event took place on February 25, 2008 at the Bannatyne Campus. Accompanied by a wine and cheese reception with live music, close to 50 artistic images from research studies were displayed. Dr. George Bowden gave a special presentation on the topic "Art in Science". Funds raised from the event went towards supporting student research at the University of Manitoba, Faculty of Dentistry.

Students are encouraged to submit their research images to the Art in Science Exhibition. Contact Dr. Tammy Bonstein at t_bonstein@umanitoba.ca for more information.



"The Flower" By: Dr. Tammy Bonstein, 2008



Summer Seminar Program:

Summer Research Workshops:

The SRG summer seminar program provided students who participate in oral healthcare research with the opportunity to acquire and develop essential skills they will need in order to conduct research studies.

The program was designed to compliment student mentors' guidance. Moreover the program brought the student together so students learned about the variety of research offered at out faculty.

These topics were presented to the students: ethics, statistics, basic philosophy in doing research, literature search, reworks and other citation programs, use of animals in research, scientific graphing, scientific writing and ways to disseminate your research findings?



The following faculty members volunteered their time and participated in the "Summer Seminar Program"



Mr. Michael Tennenhouse
M.L.S.



Ms. Anne Thornton-Trump
M.L.S.



Dr. Dieter Schonwetter



Dr. Catalena Birek



Dr. George Bowden



Dr. J. Elliott Scott



Dr. Gilbert Kirouac



Dr. Doug Brothwell



Dr. Bob Schroth



Dr. Tammy Bonstein
(Program Coordinator)

Student Awards and Recognition:



First Place, Junior Category CADR IMHA Student Research Awards – IADR Conference in Toronto July 2008
Amanda Huminicki with supervisors Dr. Dong and Dr. Choo-Smith.



Dental research award at the Canadian Student Health Research Forum – Winnipeg - June 2008
Kris Coulter Accepting the award from Dean Iacopino



"This year has been both challenging and rewarding on a personal and the group level. I was proud to represent our faculty and to have my first experience to present my own research. I got to meet a lot of students, faculty and researchers from across the world. If there is one reward to research which is traveling and presenting your research I would gladly do it all the time"

-Alex Serebnitski
NSRG and SRG U of M President,

Alex Serebnitski presenting on behalf of the National Student Research Group at the CADR Annual General Meeting in Toronto in July.



Manuela Mandu Hrit - NSRG Vice President, McGill University & Alex Serebnitski - NSRG President, University of Manitoba at another successful board meeting.

Future Goals:

Goals of the SRG:

- Create a strong research culture at the U of M
- Promote student research
- Support current student research
- Create new outlets and opportunities for research
- Mentorship for students
- Guidance from start to finish
- Recognition of student research and contributions to the SRG
- Facilitate better collaboration with graduate students and faculty members
- Create funding and traveling opportunities
- Provide awards and recognition

The Future

- Annual Report / Newsletter
- Journal Club: Forum for discussion and review of scientific articles and abstracts with faculty members and students that offers the opportunity to:
 - Review current issues and disputes
 - Promote good relationships between students and faculty
- Workshops and hands-on seminars
- Lunch and learns
- Guest lecturers
- Social events and fundraising events

How To Join:

If you would like to become a part of the local SRG or the U of M representative in the National Student Research Group please contact Alex Serebnitski at alexdent09@gmail.com for more information.

For more information about the Canadian Association for Dental Reserach visit their web site:
www.cadr-acrd.ca/students-csrg.htm

