VOLUME 1 NUMBER 2 FALL 2003

# INTERFACES

DEPARTMENT OF CHEMICAL ENGINEERING AND APPLIED CHEMISTRY



# TABLE OF CONTENTS

- 1 Message from the Chair
- 2 Undergraduate News
- **5** Graduate News
- **6** Faculty News
- 10 Alumni News
- 11 Family News
- 12 Upcoming Events
- IBC Thanks to our Alumni and Friends

"Education is not the filling of a pail, but the lighting of a fire"

William Butler Yeats

Chemical Engineering and Applied Chemistry University of Toronto

200 College Street
Toronto ON Canada M5S 3E5
T 416 978 3063
F 416 978 8605
E chair@chem-eng.utoronto.ca

# Message from the Chair



Annual Spring Cleaning Day, June 2003

Welcome to the second issue of INTERFACES, and thanks to all of you who told us you liked the first one. INTERFACES is about the community of the Department: students, alumni, faculty, staff, partners in industry and government, and friends. The photo of the annual Spring Cleaning Day shows our community spirit in action.

This issue celebrates the remarkably gifted and disciplined student athletes who compete on Varsity teams and do well in the demanding academic program of Chemical Engineering. It also celebrates the many awards and successes of other students, alumni, and faculty. Professor Michael Sefton has been named a University Professor, the highest academic honour conferred by the University of Toronto. We have much to be proud of.

I am pleased to introduce "Leaders of Tomorrow", a new initiative for undergraduate students in the Department. The objective is to enhance the leadership, team, and people skills of our students through talks given by prominent leaders, seminars, workshops, awards, and special undertakings such as this summer's Common Room Redevelopment Project. A small team of Summer Leadership Program students developed an outstanding design for a functional and attractive home-away-from-home for undergrads. They presented their proposal to the Board of Advisors and received enthusiastic support and good advice. Leaders of Tomorrow is a work in progress that would benefit from alumni participation. Let us know if you would like to become involved.

We are in the process of updating our strategic plan. We have a vision: "We will be among the top ten chemical engineering departments in the world, educating leaders of tomorrow". We have articulated our mission, our values, and our operating principles and are refining our objectives and targets.

To achieve our vision, we need the strength of all the members of our community. To win resources for our cause, we must campaign to fund undergraduate scholarships, special professorships, special programs like Leaders of Tomorrow and the Distinguished Lecturer Series, and the renewal of facilities such as undergraduate labs, the student services suite, our premier lecture theatre, and the student common rooms. Please call, write, or e-mail us today.

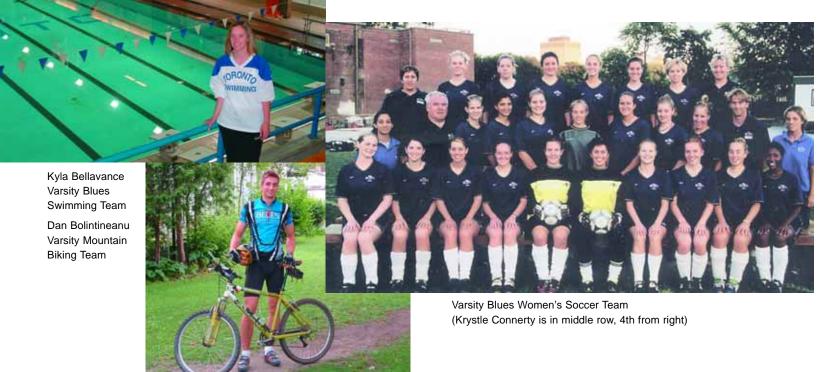
Our cause is worthy. Please join us.

All the best,

## **Doug Reeve**

Frank Dottori Professor of Pulp and Paper Engineering Professor and Chair, Department of Chemical Engineering and Applied Chemistry

**Undergraduate News** 



The Chemical Engineering community has long supported the ideal of the well-rounded professional. The Department's pursuit of academic excellence is complemented by a tradition of encouraging the diverse interests of its students. INTERFACES celebrates our Varsity athletes, gifted undergraduates who have succeeded academically while competing at the highest level of university athletics.

**Undergraduate News** 

Kyla Bellavance (Chem 0T4) has begun her fourth season as a member of the Varsity Blues Swimming Team. Ontario University Athletics (OUA) champions for the third year in a row, the U of T Women's Swim Team has a continuing history of excellence. Kyla has had the opportunity to compete against other elite student athletes at schools such as Yale University and the University of Nevada, Las Vegas. This year, she received the "bronze T" award for completing three consecutive years as a varsity swimmer. She was also awarded the Guinness Scholarship for leadership and academic excellence for the second year in a row, proving her ability to juggle the competing demands of a career in sports and her academic pursuits.

One of the most common misconceptions about pursuing a degree in engineering is that the academic demands leave students no time for anything else. For **Dan Bolintineanu** (Chem 0T5), this was certainly not the case. During his

second year in Chemical Engineering, Dan was a member of the Varsity Mountain Biking Team. Although the racing season coincided with midterms, he found that his academic performance improved considerably compared to the previous year. The intense physical exercise proved to be rejuvenating, providing relief from the stress of academic tasks.

Time management was no longer an issue, as there was hardly any time left to be managed; sleep came easily, and not always during lectures. Strange though it may sound, Dan found that being on a Varsity team made his life easier and his studies more enjoyable.

Before coming to the University of Toronto, **Krystle Connerty** (Chem 0T5) never thought that she would have the time to play Varsity soccer while pursuing her studies in Chemical Engineering. At the end of her second year, she decided to try out for the team, and she immediately found that playing soccer took up the few free hours she had. While juggling course work and soccer practice was stressful, it was a small price to pay to be able to play the game she loves. The U of T team placed second in the OUA North Division and defeated the Waterloo Warriors, making it to the OUA quarterfinals. They lost to the Western Mustangs, who were ranked number one in Canada at the time. This year promises to be an even better season for Varsity Blues women's soccer.

**David Freeman** (Chem 0T5) is a Varsity athlete who has also excelled at competitive road and mountain biking. David competed with the Track and Field Team (600m and 400m relay) in 2003, the Mountain Biking Team in 2001 and 2002, and the Victoria College Dragon Boat Team in 2003; he will run for the Cross Country Team in 2004. David has also been ranked as high as 10th in Ontario Cup Mountain Biking standings. He finished 8th at the Canadian National Championships in 1999, and competed in the Sydney Olympic Games qualifier in 2000.



David Freeman Varsity Mountain Biking Team

For the past two years, **Alyssa Hall** (Chem 0T4) has been a member of the Varsity Figure Skating Team. In 2001-2002 and 2002-2003, the team placed fifth in synchronized skating, the most important event, won first place in the junior similar pairs, and achieved third place overall in the OUA finals. Figure skating has taught Alyssa to be a team player, to work hard, to be disciplined, and to perform well under pressure.

Andrew Johnston (Chem 0T5) will lead the U of T spirit squad, the Blue Crew, in the coming school year. His task is to boost U of T spirit throughout the campus and, specifically, at Varsity Blues games. In addition to attending Blues games, the Blue Crew will hold a spirit rally during frosh week, organize trips to Blues road games, make random appearances (à la LGMB), and host pub nights and surprise events. Students interested in participating can contact Andrew at torontobluecrew@yahoo.com. He also asks that alumni send him old U of T cheers or songs. The Blue Crew hopes to see more students and alumni at Varsity Blues games this year.

2





Formula SAE Racing Team car with Nadia Boin at the wheel

After a strong finish in Michigan this May, a group of eight students from the University of Toronto Formula SAE Racing Team set off for the UK to compete in the prestigious Formula Student Competition. On July 7, 2003, they made history by becoming the first Canadian team ever to win. In addition to achieving first place overall, the students received the SAE Overall Performance Award, as well as first-place awards for acceleration and endurance. Chemical Engineering students Jennifer Aiello and Nadia Boin (both Chem 0T5) are members of the team. Congratulations to our high performance team.

#### www.fsae.utoronto.ca

In spring 2003, **Katie Higgins** participated in a program run by the International Student Exchange Office, which allowed her to complete her second year of Chemical Engineering at the University of Queensland in Brisbane, Australia. The exchange broadened Katie's horizons: "The program emphasized how universal engineering is. I was studying half a world away, but, in some ways, I felt as if I had never left the University of Toronto. Australian undergrads enthusiastically carry on the engineering tradition of late-night studying followed by pizza in the common room".

Katie's best memories of Australia are not her travels: "It isn't seeing my first kangaroo, Steve Irwin live, or sea turtles and sharks while diving that are my fondest memories. Rather, it is those moments I spent with the University Dive Club, the Rugby Girls, and the chemies which made my time in Oz so special".

The American Killam Trust has founded a Fellowships Program which will permit exceptional students from select universities in Canada and the United States to attend university in the other country during their third undergraduate year. This year, ten scholarships, each worth \$10,000 U.S., were awarded in Canada. **Kim Tsoi**, the recipient for the University of Toronto, will attend MIT. She is looking forward to studying at such a distinguished university and acting as an ambassador for the high calibre education offered at U of T. She is honoured to be among the first Canadians to enjoy this opportunity.

The 3T5 Second Mile Engineer Award, presented each year to a graduating student, takes its name from the Sermon on the Mount: "And whosoever shall compel thee to go a mile, go with him twain" (Matthew 5:41). Established by the class of 3T5, this prestigious award recognizes outstanding academic accomplishment and contributions in the sphere of extracurricular activities and community service. This year's recipient was **Mark Angelo** (Chem 0T3), who served in both the local and university communities while consistently maintaining honours standing. Chemical Engineering degree in hand, Mark will move to Boston this September to work as a management consultant for the global business strategy firm, Monitor Group.

**Alison McGuigan** is in the third year of a Ph.D. program jointly sponsored by Chemical Engineering and the Institute of Biomaterials and Biomedical Engineering. She is the first recipient of the Adel S. Sedra Distinguished Graduate Award, which provides up to \$25,000 annually to a graduate student who demonstrates outstanding academic achievement and extracurricular leadership.

Alison, who works under the supervision of Professor Michael Sefton, is participating in research to develop a vascularized tissue-engineered construct. It is hoped that the project will be relevant as a clinical device and provide a useful model system for multiple cell type interactions.

A don at Victoria University and an enthusiastic member of the Chemical Engineering Graduate Students Association (CEGSA), Alison participates in a wide range of sports but also has a flair for the dramatic. She was a member of the UC Follies and the Hart House singers and appeared in the satirical review "The Bob".

Fernando Morgan, a Ph.D. candidate working with Professor Grant Allen, was awarded first place for his presentation in the Ph.D. category at the 5th Ontario-Quebec Biotechnology Meeting sponsored by the Canadian Society for Chemical Engineering (CSChE), Biotechnology Division. The two-day meeting, which was held at the University of Waterloo from June 12-13, was attended by over sixty students working in different areas of biotechnology in chemical engineering departments at universities in Ontario and Quebec. Nalina Nadarajah, a Ph.D. student working under the supervision of Professors Allen and Roberta Fulthorpe, won an honourable mention in the same category.



Alison McGuigan with University President Bob Birgeneau and former Provost Adel Sedra

The first department-wide **Graduate Student Technology Tour** was held in February 2003. Department Chair Doug Reeve accompanied twenty-one graduate students, representing a broad spectrum of research groups and interests, on a two-day trip to Kingston, Ontario. They visited Dupont Canada Inc. for a full day and then spent half days at Queen's University and Royal Military College (RMC).

At Dupont, tour participants learned about Dupont Canada's research and business development strategies through presentations and a full tour of its R&D laboratories. The students were also given the opportunity to describe their own work and discuss career prospects. Their presentations were singled out on the basis of strong content and delivery. At Queen's and RMC, the participants were able to network with other chemical engineering graduate students, exchange ideas on current research, and tour the laboratories.

The inaugural Technology Tour was a huge success. All of the participants agreed that it was a valuable learning experience which enhanced their professional development and provided an opportunity to socialize with colleagues. The lessons learned in the planning and implementation of the tour will be applied to future annual tours.



Graduate Student Technology Tour, Kingston, Ontario

Faculty News

Professor **Levente L. Diosady**, head of the Department's Food Engineering group, is deeply troubled by the fact that approximately two billion people, one third of the world's population, suffer from health effects due to the lack of three key micronutrients. When the dietary intake of iodine, iron, or Vitamin A is insufficient, a number of serious, often fatal, diseases can develop, including iodine deficiency disease (IDD), anemia, and blindness. Many poor populations suffer deficiencies of these micronutrients, even though the required quantities are small and their actual costs amount to pennies per year.

The ideal long-term method of eliminating micronutrient deficiency diseases would be to provide a well balanced diet, but it would require several generations to educate populations and to modify social and agricultural practices. The alternative strategy of dietary supplementation by tablets or capsules, while effective and technically feasible, requires active continued health care intervention and education. For micronutrients requiring daily or regular intake, fortification of staple foods is the best technique.

At the suggestion of Venkatesh Mannar, President of the Micronutrient Initiative (MI), Professor Diosady launched a program for the development of stable double-fortified (iron and iodine) salt. The MI is a national organization funded by the Canadian International Development Agency (CIDA), the World Bank, UNICEF, and the Rockefeller Foundation. Professor Diosady's research team investigated the iodine stability of iodated salt under tropical conditions of high temperature and humidity and found that, typically,

the added iodine is lost within three to six months. It became clear that the iodine must be protected from interaction with iron, either in the form of impurities or as an added fortificant.

To protect the iodine, the team attempted to microencapsulate KI in a water resistant, digestible matrix. The iodine was stable in this system for up to a year at high temperature and humidity, and had good bioavailability. Typical local meals prepared with double-fortified salt were acceptable in Ghana and Bangladesh.

In a study involving 5000 subjects, the prevalence of iodine deficiency decreased by fifty percent. The number of children with anemia decreased by a third when they were given both iron supplementation and double-fortified salt. Acceptability studies in Morocco and Ivory Coast carried out with ETH Zurich, along with household studies in Kenya and Nigeria, indicate that the fortified salt behaves like normal household salt, while providing protection against IDD and iron deficiency. The team is now preparing for large-scale tests with commercial involvement in Kenya, Nigeria, and eventually India.

Professor Diosady is proud that Canada, through CIDA and the Micronutrient Initiative, has assumed a critical role in bettering the world through improved nutrition. For his outstanding research achievements, Professor Diosady has been honoured with the Engineering Medal in Research and Development by Professional Engineers Ontario, who will recognize him at their Awards Gala in November.



An international team, planning the large-scale testing of double-fortified salt, visiting a Bangladesh village

Professor **Mark Kortschot's** term as Associate Chair and Coordinator of Graduate Studies ended on June 30, 2003. As Graduate Coordinator, admitting about thirty-five applicants annually, he maintained an enrolment of approximately 150 doctoral-stream students. He has been especially successful in attracting strong students from all over the world to the Department. Professor Kortschot will now devote his time to teaching and research on the relationship between the microstructure and the properties of materials.

Professor **Grant Allen** is the new Associate Chair and Coordinator of Graduate Studies, effective July 1, 2003. He relinquishes the directorship of the Pulp and Paper Centre, which he has held since 2001. As Director, he facilitated partnerships between the University of Toronto and the pulp and paper industry to provide excellence in education, research, and information transfer, attracting financial support for research activities from thirty-five companies in seven countries.

Deputy Director of the Pulp and Paper Centre since 2001 and Associate Director since 1990, Professor **Honghi Tran** has been promoted to Director. Since joining the Department in 1987, he has directed large research programs on chemical recovery processes and on fouling and corrosion in combustion systems. Professor Tran has been a technical consultant to many kraft pulp mills, working on problems related to kraft recovery boilers, lime kilns and borate autocausticizing technology. In recognition of his contributions, he has been named Fellow of the Technical Association of the Pulp and Paper Industry (TAPPI). Professor Tran's strong connection with the industry will be a great asset to the Pulp and Paper Centre.

He is shown celebrating the final retirement of highly renowned Professor David Goring. Also present are Cindy Tam, secretary to the Centre, and Mrs. Goring.

On June 30, Professor **William Cluett** completed his term as Vice Dean (Undergraduate) and Chair, First Year, in the Faculty of Applied Science and Engineering, which has an enrolment of 4000 undergraduates. Dean Cluett has guided the Faculty into new initiatives to enhance engineering education so that it can meet the challenges of the 21st century, spearheading the introduction of the new First Year course entitled Engineering Strategies and Practice (ESP). Professor Cluett will now return to his research activities in process identification, control, and design.

The Faculty of Applied Science and Engineering again turned to Chemical Engineering when they appointed Professor **Gregory Evans** the new Chair of First Year Studies. His responsibilities will embrace undergraduate recruitment and admissions, the First Year experience, and the oversight and promotion of Science Outreach, the Da Vinci Engineering Enrichment Program, and the Leonardo da Vinci competition.

For the last three years, Professor Evans has served as the Chair of the Faculty's Committee on Admissions and has also coordinated admissions for Chemical Engineering. The coming years will be an exciting time for the Faculty, starting with the arrival of 1300 double cohort students this fall. A record 170 of them are in Chemical Engineering.



Celebrating David Goring's ultimate retirement, Cindy Tam, Liz Goring and Honghi Tran

Faculty News

Professor **Michael Sefton** has been made a University Professor, the highest distinction conferred by the University of Toronto. He began his formal research career in the Department while still a high school student and became a full professor in 1985. In addition to developing an international reputation in biomaterials research, he has been generous with his time, holding numerous administrative posts. In 1999, he became Director of the Institute of Biomaterials and Biomedical Engineering.

His group began by studying the micro-encapsulation of living cells in a semi-permeable membrane using water insoluble biocompatible polymers. They were the first to achieve this result without killing the cells. The encapsulated cells are expected to have an impact in a variety of medical applications, including diabetes, Parkinson's disease, and gene therapy.

Professor **David Kuhn** is the recipient of the Faculty Teaching Award of the Faculty of Applied Science and Engineering for 2003. He has taught courses in fluid mechanics, heat transfer, mass transfer, process calculations, computer fundamentals, vector calculus, algebra, and communications. He looks forward to teaching Computer Fundamentals and Calculus and Numerical Methods in the coming year. These courses will provide the opportunity to link computer and mathematics problems to chemical engineering applications. Professor Kuhn's profound knowledge, ability to convey concepts in a clear and organized way, and excellence as a teacher were praised by the students who recommended him for the award.



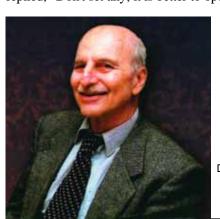
Michael Sefton

A casual observer would never realize that Professor Emeritus **Diran Basmadjian** officially retired from the Department almost ten years ago. He remains active as a researcher and has written four books since then. The most recent, *Principles and Applications of Mass Transfer*, embodies his philosophy that "rigour must be leavened". An expert in mathematical modelling, Professor Basmadjian cautions against the rigid application of abstract principles which do not take into account the imprecise nature of real-world engineering problems, impressing upon students that "the ability to approximate gives a sense of proportion".

Professor Basmadjian also works as a consultant. Currently, he is involved in a project to develop chemical techniques for reducing secondhand smoke. The research will offer relief to those who live with smokers. Professor Basmadjian admits to a personal interest in the project: three years ago, when he had hip replacement surgery, he was amused by the succinct description on his chart: "seventy-one-year-old cigar smoker".

But the work that is dearest to his heart is sharing his excitement about the natural world with JK, SK, and Grade One students at Cottingham Public School. Three times a week, Professor Basmadjian performs simple scientific experiments, showing the children how to make pop with dry ice and orange flavouring and how to make ice cream the old-fashioned way. There is a twinkle in his eye as he describes how he "sneaks knowledge in among the fun stuff".

Professor Basmadjian continues to be involved in the fourthyear Plant Design course. He complains that today's students have an "umbilical cord to the computer" and urges them to rely on their own intellectual resources instead. He has always encouraged fledgling graduate students to "ask the questions that haven't been answered yet", and has advised more advanced students "to walk away from their supervisors". When asked what life's boundary conditions are, Professor Basmadjian replied, "Don't set any; it is better to operate in infinite space".



Diran Basmadjian

On June 1, 2003, Chemical Engineering Research **Consultants Limited** (CERCL) celebrated its 40th anniversary with a dinner and annual meeting at the Hockley Valley Resort and Conference Centre in Orangeville. CERCL was founded in 1963 on the initiative of Professor W. F. Graydon to help younger members of the Department become involved in professional practice. Today, the twenty-nine professors in the Department are the members of CERCL, which holds a Certificate of Authorization from Professional Engineers Ontario (PEO) and maintains the liability insurance policy needed for consulting work. At the meeting, the current president, Professor Joe Paradi, recalled the company's forty years of accomplishments, underscoring its potential to serve the engineering community in the future. CERCL's new website, www.cercl.com, was unveiled by its designer, Professor Mark Kortschot. The many members and retired members in attendance, along with their spouses, admired an inscribed glass vase to be given to Professor Graydon, who could not be present, in recognition of his leadership.



CERCL celebrated its 40th anniversary with a dinner and annual meeting at the Hockley Valley Resort and Conference Centre in Orangeville. From L to R: Richard Hummel, Sam Sandler, Irv Spinner, Bill Burgess, Bob Jervis, Jim Smith, Ron Missen, David Barham and Don Mackay

8

Alumni News Family News

Professor **Yew-Min Tzeng**, who completed his Ph.D. in 1987 under the supervision of Professors Diosady and Rubin, has just been appointed Vice President of Chaoyang University of Technology, Taiwan. His principal task will be to direct the College of Science and Engineering, the College of Design, and the newly organized College of Information Science. Using the techniques he acquired in his doctoral work on the application of membrane filtration technology to the production of high quality rapeseed protein isolates, Professor Tzeng has moved into new spheres. His current research projects focus on biopesticides, bioprocess engineering, and bioactive compounds from fungi, bacteria, plants, and Chinese herbs.

**Kecheng Li,** a Ph.D. student in the Pulp & Paper Centre under the supervision of Professor Reeve, completed his degree in January 2003. His thesis research concerned the surface lignin of kraft wood pulp fibres. While at the Centre, Kecheng chaired the 9th Annual Graduate Student Research Conference and was also involved in the organization of student technology tours.

Kecheng, who is married to Janet Zhang and has a daughter Ellen in grade three, became an Assistant Professor in the Department of Chemical Engineering at the University of New Brunswick in December 2002. His research interests are in papermaking technology and surface science related to papermaking and paper properties.

After graduation, **Katherine Martineau** (Chem 0T2) worked at the Tallinn Technical University (TTU) in Estonia for Baltimere Invest, a company partly owned by Professor Trass, under whose supervision her father received his M.A.Sc. in 1976. She conducted research on protein extraction from de-oiled rapeseed meal.

In preparation for her work in Estonia, Katherine spent a month consulting with Professors Trass and Diosady and collaborated with Maris Eigi, an M.A.Sc. student from Estonia. The experiments they performed at U of T were lab-scale, using 4L batches.

At the TTU, Katherine helped run the 100L batch pilot plant and analyzed the protein content from streams throughout the process. The process was modified in an attempt to obtain a white, odorless, tasteless protein product, and experiments continue with the goal of improving the yield and quality.

#### Letters to the editor

Congratulations for reaching out "to engage the wider Chemical Engineering Department community. . . ." As you welcomed me to INTERFACES in your Message from the Chair, allow me to welcome you to a member of that community: Richard M. Clarke (Chem 5T4). I continued my education at Yale University, obtaining an M.E. in Chemical Engineering in 1956. Without question, the foundation of my career was solidly established during those many hours of study at the Wallberg Building.

Currently, I am the Chief Executive Officer of a company called "nash\_elmo", which was the Nash Engineering Company before it merged with a division of the Siemens Corporation. With your awareness of the pulp and paper industry, I am sure the vacuum pump systems produced by Nash throughout the 1900's are no stranger to you.

I read INTERFACES front to back. Let me wish you and your faculty great success in reaching all the goals of your strategic plan. Also, may INTERFACES cause that all-inclusive community you described to come together even more solidly than they've done in the past in support of your efforts.

Richard M. Clarke (CHEM 5T4)

Thank you for remembering to send me a copy of INTERFACES. I read it cover to cover with rapt interest. It is a first-rate news magazine.

I am convinced beyond any doubt that your vision and the strategies set out for the Department will redound to meeting your target of becoming "among the top ten chemical engineering departments in the world" sooner than later. The emphasis on information engineering places the Department in the forefront of the technology ladder, and the inauguration of the Board of Advisors is as innovative as it is perspicacious and impactful. I am proud to be an alumnus.

I expect to retire from the public service of the government of Nigeria this year, after a five-year term as Director-General and CEO of the National Agency for Science and Engineering Infrastructure. I should come to Toronto soon afterwards to take a long desired rest before embarking on my retirement project.

**Tim Obiaga,** M.A.Sc. 1967, Ph.D. 1972 Abuja, Nigeria







Gretchen Elizabeth Helen Lerman

Christopher Kong

David Balke (9T1 Eng Sci-Chem option, 9T4 M.A.Sc., and currently a Ph.D. student with Professor Diosady) and his wife Heidi became the proud parents of a baby boy on Sunday, August 10th. Matthew Thomas Balke weighed 7 lb 13 oz at birth. Congratulations David and Heidi and Grandpa Professor Steve Balke.

David, Steve and Matthew Balke

Claire Kennedy (Chem 8T9) and husband Elliott Lerman welcomed Gretchen Elizabeth Helen Lerman into the world on March 19th, weighing 5 lb 6 oz. Claire, a successful tax lawyer, joined the Department's newly formed Board of Advisors in October 2002. Congratulations Claire and Elliott.

In January of this year, shortly after the first issue of INTERFACES went to print, **Solomon Kong** (M.A.Sc. student with Professor Saville) and his wife Inness Wei welcomed a baby boy, Christopher, weighing 6 lb 5 oz. Congratulations Solomon and Inness.

11

Ning Yan (Ph.D. 1997), Assistant Professor, Faculty of Forestry, cross-appointed to Chemical Engineering, and Ramin Farnood (Ph.D. 1995), Assistant Professor in the Department, are the proud parents of a beautiful baby girl. Ayleen was born on July 8th, weighing 2.9 kg. Chemical Engineering would like to think that it played a significant role in her arrival. Ning and Ramin met while graduate students in the Department, and their romance flourished along with their research.

On Saturday, April 5th, wedding bells rang for Administrative Graduate Assistant **Joan Chen** and her husband Gunther Rathgeb. Two days earlier, Toronto had been hit by one of the worst ice storms in its history. While it may have been cold outside, Joan and Gunther basked in the warmth of their love. Congratulations to them both.

Martha Miller (Chem 9T7, currently a Ph.D. student with Professor Allen) and Jeff Adams (Chem 9T5, currently a Ph.D. student with Professor Papangelakis) are another couple who found romance in the Department. They recently became engaged and will be tying the knot in March 2004.

**Mike Vieira** and **Angie Kosmatos**, both Chem 0T1 graduates, are also tying the knot early next year.

Other births that the Department would like to announce:

**Anandhi Narayanan** had a baby boy in October 2002.

**Rajesh Dhoum** (Chem 9T3, M.A.Sc. 1996) had a baby girl in the fall of 2002.

**Sonia Qureshi** had a baby boy in July 2002.

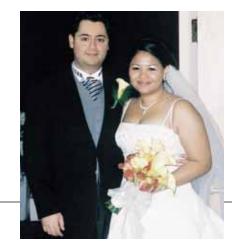
Sabina Sreba, now Boyle, (Chem 9T7) had a baby boy.

**Andrea Leitao,** now Smith, (Chem 9T7) had a baby girl.

**Sophie Wang** (Chem 9T4) and Joe Aquinaldo (Chem 9T4) had a baby boy in December 2002.

**Bassel Annab** (Chem 9T4) and Tracey Talbot (Chem 9T5) had their second baby, a girl, in August 2002.

To contribute any "News" or "Announcements", please contact Sonia DeBuglio 416 978 8770 debuglio@chem-eng.utoronto.ca



Joan Chen and her husband Gunther Rathgeb

10

# **Upcoming Events**

Mark your calendars. Whether you want to expand your mind, reunite with old classmates, or honour some of our most successful alumni, we hope to see you at one or more of these events.

From September to April, the Department hosts a Distinguished Lecturer Series which presents a broad spectrum of international cutting-edge research. For more information, please visit our website at: www.chem-eng.utoronto.ca

On October 23rd, 2003, the Engineering Alumni Association will host the Annual Alumni Awards Night. This year, three Chem-Eng graduates will be honoured:

Paul Godfrey (Chem 6T2), President and CEO of the Toronto Blue Jays Baseball Club and member of our Board of Advisors, will receive the highest honour, the Engineering Medal.

David Colcleugh (Chem 5T9, M.A.Sc. 1960 and Ph.D. 1962), former President and CEO of DuPont Canada and Chair of our Board of Advisors, will be inducted into the Engineering Hall of Distinction.

William Dimma (Chem 4T8) of Brascan Corporation, author of Excellence in the Boardroom: Best Practices in Corporate Directorship, will also be inducted into the Engineering Hall of Distinction.

On Friday, November 14th, 2003 the annual Professional **Engineers Ontario Awards Gala** will celebrate best practices among engineers in the province. Again this year, alumni of the Department of Chemical Engineering and Applied Chemistry will be honoured:

Levente Diosady (Chem 6T6, M.A.Sc. 1968 and Ph.D. 1972), Professor in the Department, is the recipient of the Engineering Medal in the Research and Development category.

Larry Seeley (Chem 6T6, M.A.Sc. 1968 and Ph.D. 1972), President and CEO of SGS Lakefield Research Ltd., is the recipient of the Engineering Medal in the Entrepreneurship category.

On Friday, March 26th, 2004, the Department will host the **19th Annual Chemical Engineering Dinner.** We welcome alumni from all years. This year, the class of Chem 5T4 will be honoured in celebration of the fiftieth anniversary of their graduation. We anticipate an enthusiastic turnout. Please join us.

The **50th Reunion** of the Chemical Engineering Class of 1954 will be held on Friday, June 4, 2004 at the Granite Club, 2350 Bayview Ave., Toronto, ON, lunch/reception 12:00 p.m. to 5:00 p.m.

Classmates and spouses are invited.

Contact Richard Clarke nash elmo Industries 9 Trefoil Drive Trumbull, CT, 06611 USA Dick.Clarke@nash-elmo.com

If anyone has contact information for Class of 1954 alumni Donald Buchanan and George Irwin, please forward it to Richard Clarke.

For more information about any of these events, please contact Sonia De Buglio at: 416 978 8770

A tank holding heavy water stands in a lagoon containing the same volume of ordinary water. An operator notices that 5L of heavy water has leaked out of the tank and mixed into the water in the lagoon. To correct the situation, the operator pumps 5L out of the lagoon back into the tank. Because the lagoon water is no longer pure, the operator reports that the loss of heavy water from the tank is more than the amount of ordinary water removed from the lagoon. Where did the extra water go?

Please visit our website www.chem-eng.utoronto.ca for the solution.

May 2002 - May 2003

**Accenture Charitable Foundation** 

**Kodak Canada Inc** 

**Dow Chemical Canada Inc** 

Dirk T. Bach

Brian S. J. Bartley

Suneel Bhargava

Ron A. Brenneman

Peter D. Campbell

Richard M. Clarke

**Ted Cross** 

Sonia De Buglio

Harshida Devani

A. C. Elliott

Arlene S. Fillatre

**Gerard C. Frost** 

John F. Goudey

John R. W. Grieve Gerald G. Hatch

Robert M. Hayashi

Larry Heap-Yan She

Andrew M. Janikowski

**Sidney Joseph** 

Ignatius O. Kabiawu

Gordon Kai Leung Wu

Paul O. Kemppainen

Claire M. C. Kennedy **Thomas J. Keresztes** 

Mark T. Kortschot

Elias Kyriaccu

**Margaret Laughton** in memory of her late husband,

Bert A. Laughton, Chem 5T0

Volume 1, Number 2

Fall 2003

Editor: Doug Reeve

Managing Editor: Sonia De Buglio

Contributing Editors: Charles Chaffey,

Debby Repka, Kathy Weishar Editorial Advisors: Márta Ecsedi.

Cindy Yelle

Layout and Design: Osmo Mononen

**Printing Services:** General Printers

Principal Photographers: Steve Frost, Lisa Sakulensky

Circulation: 5,000

This publication is copyrighted. Limited portions may be reprinted or reproduced without the prior written consent of the copyright owner only if appropriately attributed. Otherwise, its reproduction in whole or in substantial part by any means without the prior written consent of the copyright owner is forbidden.

We invite inquiries, comments and suggestions from readers.

### Please contact:

**Professor Douglas Reeve** Frank Dottori Professor of Pulp and Paper Engineering

Professor and Chair, Dept. of Chemical Engineering and Applied Chemistry

Toronto, ON Canada M5S 3E5 Telephone: 416 978 3069 Fax: 416 978 8065

200 College Street

Email: chair@chem-eng.utoronto.ca

Robert B. Lennox

Thanks to our Alumni and Friends

James E. Lightfoot

J. Dale Lyons

Sivatma Maharaj

**Connie Marcelli** 

**Edward S. Martin** 

**Antonio Masella** 

Wladyslaw Metanomski

Ronald W. Missen

Joseph C. Paradi

Rodney G. Paterson

John B. Patterson

Leonides R. San Pedro

David M. Peters

Frederick E. Punnett

**Douglas W. Reeve** 

**David Reid** 

**Raivo Remmel** 

Donald A. Riddle

Robert J. Rosati

Liz Sahsuvaroqlu

**Phillip J. Simmons** 

**William Troost** 

Yu-Chih Tseng

Farid UI Haque Zohreh Vakili

John C. Walker

Robert Wilson

Elizabeth A. Zurowski

for all gifts. We sincerely hope that all donors have been correctly acknowledged in these listings. Please note that we have not included the names of donors who requested anonymity, nor have we included bequests. If however, your name has been omitted inadvertently, we wish to offer our apologies. We hope that you will contact us at: 416 978 8770 so that we can correct this oversight.

The Department of Chemical Engineering and Applied Chemistry is grateful