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Special Issue in Honor of Dennis R. Salahub for His 60th Birthday

Dr. Dennis Salahub is presently the Vice-President (Research and International) of the University of Calgary. His mandate of VP (Research), initiated in 2002 when he joined the University of Calgary, was expanded year later to international relations. His decision to take that additional portfolio was not a surprise for those who knew Dennis. His professional life reveals how much he believes in international research collaboration and training and in relationships between people all around the world. This particular conviction has helped him gather many diverse people from many countries into his large group of collaborators.

Dr. Salahub's appointment to the University of Calgary was a return to his home province after a long detour through other horizons. Dennis Salahub was born in Castor, Alberta in 1946. He was a scholar in Edmonton, where he received his undergraduate education and his B.Sc. in 1967. He then moved to the province of Quebec and the Université de Montréal, where he completed his doctorate under the direction of Professor Camille Sandorfy. Knowing about Dennis's further scientific interests in molecular excited states, hydrogen bonds, and biomolecules, it is clear how much he could learn from this great scientist.

After earning his Ph.D. in 1970, Dennis spent several years in postdoctoral studies at Sussex, Waterloo, Johns Hopkins, and finally, General Electric, Schenectady, NY, where he collaborated on pioneering studies with the X_α Scattered Wave method. As Dennis himself[1] will nicely remind us, these were the first successes in chemistry that would later lead to those of the "legitimate" Density Functional Theory.

In 1976, he began his academic career at the Université de Montréal in the Department of Chemistry. He occupied this position until 1999, holding a McConnell Chair from 1990. There, he set up a research program in quantum chemistry, naturally oriented toward DFT. Over the years, his group has improved Density Functional methods and software that extends the range of applications. In the early 1990s, the *deMon* program was developed

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in Montreal. New, improved functionals were then elaborated and implemented into the code. From then until now, the DFT-*deMon* has been complemented with other techniques (magnetic properties, reaction fields, molecular mechanics, Born−Oppenheimer molecular dynamics, etc.). Applications were aimed at describing metal clusters, catalysts and their reactivity, and biomolecular processes. Dennis's group is now currently interested in turning to the description of properties and reactivity in complex environments: transition-metal catalysis, on the one hand, and enzymatic catalysis, on the other.

Dennis's vision and leadership have been major forces in bringing together students and researchers from diverse countries who have shared their culture, knowledge, and expertises and built numerous international collaborations. We, the three guest editors of this issue, as well as the authors of the dedicated articles have met and work within Dennis's research group, forming a community that Dennis calls "the deMon family".

In 1999, Dr. Salahub decided to serve science at another frontline as the Director General of the Steacie Institute for Molecular Sciences at the National Research Council of Canada in Ottawa. He then promoted research projects at NRC in nano-, bio-, and optical sciences and technologies, loyal to his belief that "the fundamental things apply".[2]

His return to Alberta as VP (Research) at the University of Calgary started a new period in his career, a new step toward more involvement in "all forms of research in everything from science, engineering, and social sciences to humanities, the arts, medicine, and business".[3] Increasing research funds, creating new multidisciplinary institutes, supporting innovation, promoting collaborative research projects, and international training initiatives are accomplishments in his mandate, which will conclude at the end of June 2007.

During his career, Dr. Salahub has published more than 250 research articles and four books. His scientific recognition is manifested by 300 national and international invited lectures. He expressed his involvement in the scientific community by serving as the program leader of the Centres of Excellence in Molecular and Interfacial Dynamics (CEMAID) from 1991 to 1994 and as a founding member of the Centre de Recherche en Calcul Appliqué (CERCA) in 1991. He has served on NSERC's Grant Selection Committee and twice on the Reallocation Steering Committee for Chemistry (1997, 2001, Chair). His initiatives have helped to install high-performance computing in Quebec and in Canada.

Dr. Salahub has been the recipient of a CNC-IUPAC Award, the Noranda Award of the Canadian Society for Chemistry, and a Killam Research Fellowship. In 1998, he was named a Fellow of the Royal Society of Canada, and in 2006, he was elected a Fellow of the American Association for the Advancement of Science (AAAS).

Dennis will soon return to intense scientific research. We wish him very fruitful and exciting research, interdisciplinary and involving international collaboration; we know he will excel in the way he has already excelled.

We express our thanks to all who have contributed to this project and, more particularly, to the participating authors. We are delighted to dedicate this special issue to Dr. Dennis R. Salahub in celebration of his 60 years. It has been a privilege to have known and worked with Dennis, and we hope that you will enjoy this tribute to a true scientist and a good friend.

References

(1) Salahub, D. R. *Theor. Chem. Acc*. **2000**, *103*, 311.

(2) Steacie Institute motto by D.R.S., a quote from Casablanca by Michael Curtiz (1942), with Humphrey Bogart and Ingrid Bergman.

(3) From an interview of Dr. Salahub by OnCampus, Calgary.

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Guest Editors

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