



Kathleen Racher, Ph. D.
Principal, K. Racher Consulting

After many years as an academic researcher both in Canada and Europe, Kathy came to live in Yellowknife to pursue a career in the areas of environmental science and management. During her 14 years as an NWT resident, she has held a number of senior positions within the federal government as well as with the regulatory boards created under the Mackenzie Valley Resources Management Act. In all of her roles, Kathy strives to combine her scientific expertise with her strong communication skills and knowledge of the North to provide the regulatory Boards with recommendations for the management of major developments that balance environmental protection with the economic goals of local people. Her work as Technical Director with the Land and Water Boards in particular has resulted in several policy and guidance documents, providing greater clarity and consistency to the NWT regulatory system.

Kathy graduated with a Ph. D. in chemistry/biochemistry in 1996 and then continued her scientific training with four years of post-doctoral research at universities in France, Germany and Canada. In an effort to supplement her scientific skills, Kathy also undertook a two year course in life coaching which has given her enhanced skills in communicating with individuals and in facilitating productive group discussions. Her combined training has made her especially good at explaining complicated scientific information to lay people who want to be more involved in regulatory decision making. For every project she participates in, Kathy strives to combine her skills as a communicator with the expert knowledge she has gained through her many years of experience working within the Northern legislative and regulatory environment.

EDUCATION AND CERTIFICATIONS

Professional Life Coaching Certificate

2006

Integral Coaching Canada, Ottawa, ON

Doctor of Philosophy (Biochemistry)

1996

Simon Fraser University, Burnaby, BC

Bachelor of Science, Honours Chemistry

1989

Simon Fraser University, Burnaby, BC

PROFESSIONAL EXPERIENCE

2013 – Present	Principal/Owner, K.Racher Consulting, Yellowknife, NT
2008 – Present	Technical Director, Wekeezhii Land and Water Board, Yellowknife, NT
2004 – 2007	Manager, Water Resources Division, Aboriginal Affairs and Northern Development, Yellowknife, NT
2001 – 2004	Manager, Taiga Environmental Lab, Aboriginal Affairs and Northern Development, Yellowknife, NT
1997 – 2000	Post-doctoral Researcher, University of Guelph, Guelph ON
1996 – 1997	Post-doctoral Researcher, University of Paris, Paris, France
1995 – 1996	Company Officer, De Novo Enzyme Corporation, Burnaby, BC

AWARDS

2007	Excellence in Science and Technology Award, Aboriginal Affairs and Northern Development
1996-1997	Chatabriand Post-doctoral Scholarship, Ambassade de France au Canada, Ottawa, ON
1989 – 1994	Medical Research Council of Canada Studentship
1988	Undergraduate Summer Student Award, Natural Research and Engineering Research Council of Canada
1985-1986	Simon Fraser University's President's Entrance Scholarship

PUBLICATIONS

Racher, K.I., Hutchinson, N., Hart, D., Fraser, B., Clark, B., Fequet, R., Ewaschuk, P., and Cliffe-Phillips, M. (2010) Linking Environmental Assessment to Environmental Regulation Through Adaptive Management, Integrated Environmental Assessment Management 7, 301-302.

- Jumpertz, T., Chervaux, C., **Racher, K.I.**, Zouhair, M., Blight, M.A., Holland, I.B., Schmitt, L. (2010) Mutations Affecting the Extreme C Terminus of Escherichia coli Haemolysin A Reduce Haemolytic Activity by Altering the Folding of the Toxin. *Microbiology* 156:2495-2505.
- Pimenta, A.L., **Racher, K.I.**, Jamieson, L., Blight, M.A., Holland, I.B. (2005) Mutations in HlyD, Part of the Type 1 Translocator for Hemolysin Secretion, Affect the Folding of the Secreted Toxin. *J. Bacteriology* 187(21):7471-7480.
- Culham, D.E., Hillar, A., Henderson, J., Ly, A., Vernikovska, Y.I., **Racher, K. I.**, Wood, J. M. (2003) Creation of a Fully Functional Cysteine-less Variant of Osmosensory Proton-Osmoprotectant Symporter ProP from *Escherichia coli*: An Application to Assess the Transporter's Membrane Orientation. *Biochemistry* 42: 11815-23.
- Racher, K. I.**, Wood, J. M. (2001) Requirements for Osmosensing and Osmotic Activation of Transporter ProP from *Escherichia coli*. *Biochemistry* 40: 7324-33.
- White, G. F., **Racher, K. I.**, Lipski, A., Hallett, F. R., Wood, J.M. (2000) Physical Properties of Liposomes and Proteoliposomes Prepared from *Escherichia coli* Polar Lipids. *Biochimica et Biophysica Acta* 1468:175-86.
- Culham, D. E., Tripet, B., **Racher, K. I.**, Voegelé, R. T., Hodges, R. S., Wood, J. M. (2000) Role of the Carboxyl Terminal α -Helical Coiled-Coil Domain in Osmosensing by Transporter ProP of *Escherichia coli*. *Journal of Molecular Recognition* 13:309-22.
- Borgford, T. J., **Racher, K. I.**, Braun, C. A. J., (1999) Sucrose Detection by Enzyme-Linked Immunosorbant Assay. U. S. Patent Number 5,972,631.
- Racher, K. I.**, Voegelé, R. T., Marshall, E. V., Culham, D. E., Wood, J. M., Jung, H., Bacon, M., Cairns, M. T., Ferguson, S. M., Liang, W. -J., Henderson, P. J. F., White, G., and Hallett, F. R. (1999) Purification and Reconstitution of an Osmosensor : Transporter ProP of *Escherichia coli* Senses and Responds to Osmotic Shifts. *Biochemistry* 38 : 1676-1684.
- Li, M. X., Chandra, M., Pearlstone, J. R., **Racher, K. I.**, Trigo-Gonzalez, G., Borgford, T., Kay, C.M., and Smillie, L.B. (1994) Properties of Isolated N and C Domains of Chicken Troponin-C. *Biochemistry* 33: 917-925.
- Trigo-Gonzalez, G., Awang, G., **Racher, K.I.**, Neden, K., and Borgford, T. (1993) Helix Variants of Troponin-C with Tailored Calcium Affinities. *Biochemistry* 32: 9826-9831.
- Trigo-Gonzalez, G., **Racher, K.I.**, Burtnick, L. and Borgford, T. (1992) A Comparative Spectroscopic study of Tryptophan Probes Engineered into High and Low Affinity Domains of Recombinant Chicken Troponin-C. *Biochemistry* 31: 7009-7015.
- Racher, K.I.**, Kalmar, G., Borgford, T. (1991) Expression and Characterization of a Recombinant Yeast Isoleucyl-tRNA synthetase. *J. Biol. Chem.* 266 (26): 17158-64.