

Flor Y. Garcia Becerra

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EDUCATION

PhD Candidate

Availability: Summer 2010

Graduate Collaborative Program in Environmental Engineering
Department of Chemical Engineering and Applied Chemistry, University of Toronto

Master of Biotechnology, 2005, University of Toronto at Mississauga, Canada

Bachelor of Chemical Engineering (Minor in Biotechnology), 2001, Universidad Iberoamericana Santa Fe, Mexico

DOCTORAL RESEARCH

Production of biological value-added products from waste activated sludge (WAS), *University of Toronto*

- Developed an effective production scheme (chemical extraction, ultrafiltration, formulation) to produce WAS-based detergents and wood adhesives, comparable to commercial products biopolymers
- Hired, supervised and trained four summer students to successfully assist in laboratory work and data collection
- Coached, trained four 4th-year theses students and reviewed their experimental and written work

WATER/WASTEWATER EXPERIENCE

Chapter President, U of T Student Chapter of the Water Environment Association of Ontario (WEAO)

May 2007—May 2009

- Member of the WEAO Asset Management Committee (current)
- Restructured and project managed the steering committee (7-person team)
- Increased annual budget from \$500 to \$1150 by applying to various university grants
- Increased general membership by 150% and increased participation in steering committee by 100%

World Water Corp (Mexico scoping study team lead), Water for People (WFP)

Dec 2006—Jun 2007

- Presented the Scoping Study report and provided detailed recommendations to the International Programs Committee and the WFP Board of Directors
- Assessed the sustainability and compatibility of the water and sanitation projects for Mexican marginalized populations with WFP's capacity-building model
- Collaborated with a New Mexico hydrologist to conduct the Scoping Study

ADDITIONAL EXPERIENCE

Teaching Assistant for Engineering Practices and Strategies Course, Faculty of Applied Science and Engineering, University of Toronto, Canada Jan 2006—Dec 2008

- Coached first year engineering student teams and facilitated the management of their projects and teamwork challenges
- Evaluated individual and team Conceptual and Final Design Specifications Documents

Business Manager, Chemical Eng. Graduate Student Association, University of Toronto, Canada Sept 2005—Sept 2007

- Managed the Business Operations team (4-person team)
- Streamlined supply chain activities and implemented a documentation system
- Increased sales income from \$400/year to \$2000/year

Regulatory Affairs Intern, Chemistry, Manufacturing and Control Department, CanReg Inc. (pharmaceutical regulatory affairs consulting company), Canada Jan 2004—Sept 2004

- Coordinated information in multidisciplinary teams to comply with specifications for submissions and amendments for Health Canada, FDA, and EMEA

Chemist, Protein Purification Department, PROBIOMED (biopharmaceutical company), Mexico Jun 2002—May 2003

- Conducted downstream operations for intracellular and extracellular proteins
- Developed/implemented the documentation system for operation and maintenance of ultrafiltration units, as a member of the ISO 9000 Launching Documentation Committee

PUBLICATIONS

Chapter 9 “Surfactants from Waste Biomass” in *Surfactants from Renewable Resources*, Edited by Kjellin M. and Johansson I., Wiley, by Garcia Becerra F.Y., Allen D.G., and Acosta E.J., 2010

Additional publications include two articles in peer-reviewed journals: Bioresource Technology and Journal of Detergents and Surfactants, and two articles in engineering magazines. Details are available upon request

PRESENTATIONS

“Extraction of Value Added Products from Waste Activated Sludge” presented poster at the *82nd Annual Water Environment Federation Technical Exhibition and Conference (WEFTEC)*, by Garcia Becerra F.Y., Acosta E.J, Allen D.G., Orlando, FL. October 2009

Total of 10 academic and 4 non-academic presentations. Details are available upon request.

ACADEMIC ACHIEVEMENTS AND AWARDS

- 2009: The Delta Kappa Gamma Society International World Fellowship;
- 2008: Frances Bradfield Graduate Fellowship in Environmental Engineering, University of Toronto; Adel S. Sedra Distinguished Graduate Award Finalist, University of Toronto Alumni Association
- 2007: Water Environment Association of Ontario (WEAO) Scholarship

ACADEMIC ACHIEVEMENTS AND AWARDS (Continued)

- 2003—2009: Scholarship from CONACyT (Mexican National Advisory Board for Science and Technology) for PhD studies and Master's studies

TRAINING PROGRAMS AND CERTIFICATIONS

- Toronto Leadership Forum, University of Toronto, 2007
- Certificates: MaRS Entrepreneurship 101, The MaRS Centre, Toronto, 2008; Prospective Professors-in-Training Program from the Faculty of Applied Science and Engineering, University of Toronto, 2008; Teaching Fundamentals from TATP (Teaching Assistant's Training Program), University of Toronto, 2005

PROFESSIONAL AFFILIATIONS

American Institute of Chemical Engineers (AIChE); Water Environment Federation (Member Association: Water Environment Association of Ontario); Canadian Society for Chemical Engineering (CSCHE).

SPECIAL SKILLS

- Experience in simulating/modeling software (Polymath, Matlab, Control Station, Aspen Plus), Visio, Microsoft Office, Adobe Acrobat, Adobe Photoshop, and Corel
- Fluent in English and Spanish

INTERESTS AND HOBBIES

Amateur photography, Ballroom and Latin dance, Canine training

REFERENCES

Available upon request