#### INA VANDEBROEK, Ph.D.

The New York Botanical Garden (NYBG) Institute of Economic Botany 2900 Southern Boulevard Bronx, NY 10458 NYBG Science Profile: <u>http://goo.gl/JBq0yz</u> E-mail: <u>ivandebroek@nybg.org</u>; Phone: +1 (718) 817-8941

#### EMPLOYMENT

2014 – Present: **Matthew Calbraith Perry Assistant Curator of Economic Botany** and **Caribbean Program Director**, Institute of Economic Botany, The New York Botanical Garden, New York

I direct the **Caribbean and Latino Ethnomedicine Program**, a research and training program that aims at comparing useful plant diversity in Caribbean countries (Dominican Republic and Jamaica), and self-medication practices with medicinal plants among Caribbean and Latino communities in New York City (Jamaicans, Dominicans, Puerto Ricans, Mexicans). Research results in New York City are applied to develop curricular materials for medical education, and to train the next generation of healthcare providers in improved cultural sensitivity during the clinical encounter.

2010 – 2014: **Ethnomedical Research Specialist**, Institute of Economic Botany, The New York Botanical Garden, New York

Projects directed: Improving Healthcare for Underserved Immigrant Latino Communities in New York City (The Aetna Foundation, The Cigna Foundation), Cultural Competency Training for Health Care Professionals in Latino Ethnomedical Systems in New York City (The United Hospital Fund); Dominican Ethnomedicine and Culturally Effective Health Care in New York City (The Jacob and Valeria Langeloth Foundation) and Dominican Traditional Medicine for Urban Community Health (National Instituted of Health/NCCAM).

2005 – 2010: **Postdoctoral Research Associate**, Institute of Economic Botany, The New York Botanical Garden, New York

Projects directed: *Dominican Ethnomedicine and Culturally Effective Health Care in New York City* (The Jacob and Valeria Langeloth Foundation) and *Dominican Traditional Medicine for Urban Community Health* (NIH/NCCAM).

The Dominican Urban Ethnomedicine Project at the IEB was an interdisciplinary project funded by the National Institutes of Health/National Center for Complementary and Alternative Medicine (NIH/NCCAM) (PI: Dr. Michael J. Balick; Grant # R21 AT001889) to document the plants used for common health conditions by Dominican immigrants in New York City. The main research question was: "What happens with medicinal plant knowledge and use when people migrate from the Dominican Republic to New York City and they are faced with new living conditions in a different natural environment?" The results showed that, contrary to what was expected, medicinal plant knowledge was not lost, but actively transformed in this community and the importance of foods as medicines increased after migration.

2000 – 2002: Postdoctoral Research Associate, Ghent University, Belgium

Lead researcher on a project funded by the Belgian government: *Medicinal Plant Explorations in the Andes and Amazon Regions of Bolivia:* Floristics and ethnobotanical research was conducted in a traditional farming community in the Andes and in several

indigenous communities in the Amazon in Bolivia. The results demonstrated that knowledge held by traditional healers about medicinal plants can also be high in an environment such as the Andes that is significantly affected by human activity and is less diverse as compared to the tropical rainforest. In the Amazon, knowledge about medicinal plants was inversely related to the use of pharmaceutical products and to distance from Western primary healthcare services.

1997 – 1998: **Research Associate**, Neuropharmacology Department, UCB Pharma, Belgium

Neuropharmacology research into animals models of depression and epilepsy

1991 – 1995: **Graduate student**, Faculty of Medicine and Health Sciences, Ghent University, Belgium

Research into the neuropharmacological background of stereotyped animal behavior induced by captivity in a rodent species (the bank vole: *Myodes glareolus*)

#### **OTHER APPOINTMENTS**

- 2015: Associate Editor, *Economic Botany*
- 2014: Member of the International Scientific Committee of the 6<sup>th</sup> International Congress of Ethnobotany held in Córdoba, Spain (17-21 November, 2014)
- 2012-pres: Adjunct Member of the City University of New York Biology Doctoral Faculty Plant Sciences Subprogram
- 2012-pres: Editorial Board Member, *Ethnobiology and Conservation* (<u>http://www.ethnobioconservation.com/index.php/ebc/pages/view/edito</u> <u>rialboard</u>)
- 2011-2012: Scientific Committee Member, 13<sup>th</sup> International Congress of the International Society for Ethnopharmacology, Graz, Austria (2-6 September, 2012)
- 2010-pres: Lecturer, School of Forestry & Environmental Studies, Yale University
- 2010-2013: Council Member-at-Large, Society for Economic Botany
- 2010-2013: Secretary and Treasurer, Economic Botany Section, Botanical Society of America
- 2009-2013: Advisory Committee Member for The New York Botanical Garden's 2013 Exhibition on Wild Medicine
- 2009-pres: Deputy Editor, *Journal of Ethnobiology and Ethnomedicine* (<u>http://www.ethnobiomed.com/</u>)
- 2009: Member of the International Scientific Committee of the 5<sup>th</sup> International Congress of Ethnobotany (ICEB 2009), "Traditions and transformations in Ethnobotany", San Carlos de Bariloche, Argentina [http://www.iceb2009.com.ar/en/about us]
- 2008-pres: Research Associate, William L. Brown Center for Plant Genetic Resources, Missouri Botanical Garden
- 2008-2010: Treasurer, International Society of Ethnobiology

- 2008-2009: Adjunct Faculty, Center for Environmental Research and Conservation, Columbia University, New York City
- 2005-2009: Associate Editor, *Journal of Ethnobiology and Ethnomedicine*
- 1999-2001: Visiting Professor, MSc. Program in Environmental Sciences, Universidad Mayor de San Simón, Cochabamba, Bolivia

Taught the module *Etnobotánica* (10 course hours) and *Etnobotánica e Etnofarmacología* (30 course hours and practical exercises) Participated as a Dissertation Committee Member

#### **CONSULTANCIES**

- 2015: Botanical advisor, Leon Levy Native Plant Preserve, Eleuthera (Bahamas), to review the Preserve's current programs and to provide recommendations as to how the Preserve should move forward with a science program
- 2014: Expert evaluator assisting the Romanian European Economic Area (EEA) Research program with evaluation of joint plant research projects undertaken by scientists from Romania and EFTA States (Norway, Iceland and Liechtenstein)
- 2013: Expert evaluator assisting the European Commission with evaluation of proposals for the 7<sup>th</sup> Framework: EU-Latin America Partnering Initiative on sustainable biodiversity in agriculture
- 2013: Review and annotation of an Ethnoecology Handbook for CIFOR for training and research in the Neotropics (intended for undergraduate students in ecology, forestry, social sciences, agroforestry and ethnoecology)
- 2010: Development of Ethnobotanical Trails for Ecotourism in the Parque de la Biodiversidad, Monte Plata, Dominican Republic under the auspices of the Ministry of the Environment and Natural Resources of the Dominican Republic (Jaime David Fernández Mirabal)
- 2003: Project formulation mission for the Belgian University Development Cooperation to the Universidad Mayor de San Andrés, La Paz, Bolivia, to develop a proposal related to institutional capacity building in ethnobotany research and training (using Project Cycle Management Methodology)
- 2000: Mission for the Belgian University Development Cooperation to start up of a capacity-building and applied ethnobotany research project at the Universidad Central de Las Villas, Santa Clara, Cuba, on plants used in traditional agriculture for thedevelopment of biological herbi- and pesticides

## **EDUCATION**

| 1998: | Ph.D. in Medical Sciences, Ghent University, Belgium   |
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| 1996: | Qualified Teacher's Degree for Higher Secondary Education in Biology,<br>Ghent University, Belgium |
| 1991: | BSc. in Biology, Direction Morphology and Systematics, Ghent University, Belgium                   |

## CERTIFICATES

- 1998: Certificate of International Training in Plant Systematics of Neotropical Families, Herbarium of Utrecht University, The Netherlands (7-week intensive program, 240 hours of Course Theory and Practice, including recognition of 100+ plant families of Tropical America and training in species identification)
- 1997: Doctoral Training Program Certificate, Ghent University, Belgium

# PEER-REVIEWED RESEARCH PUBLICATIONS

- 1. Sander, Logan & I. Vandebroek (In Press) Small-scale farmers as stewards of useful plant diversity: A case study in Portland parish, Jamaica. *Economic Botany*.
- 2. **Vandebroek, Ina** & Michael J. Balick (2014) Lime for chest congestion, bitter orange for diabetes: Foods as medicines in the Dominican community in New York City. *Economic Botany* 68: 177-189.
- 3. Hanazaki, Natalia, Dannieli Firme Herbst, Mel Simionato Marques & **Ina Vandebroek** (2013) Evidence of the shifting baseline syndrome in ethnobotanical research. *Journal of Ethnobiology and Ethnomedicine* 9: 75. Available at <u>http://www.ethnobiomed.com/content/9/1/75</u>
- Van Andel, Tinde, Sylvia Mitchell, Gabriele Volpato, Ina Vandebroek, Jorik Swier, Sofie Ruysschaert, Carlos Ariel Rentería Jiménez & Niels Raas (2012). In search of the perfect aphrodisiac: Parallel use of bitter tonics in West Africa and the Caribbean. *Journal of Ethnopharmacology* 143: 840-850. Doi: http://dx.doi.org/10.1016/j.jep.2012.08.008
- 5. Henderson, Flor, **Ina Vandebroek**, Michael J. Balick & Edward J. Kennelly (2012) Ethnobotanical research skills for students of underrepresented minorities in STEM disciplines. *Ethnobotany Research & Applications* 10: 389-402. Available at <u>http://bit.ly/Henderson-Vandebroek-Balick-Kennelly</u>
- Mathez-Stiefel, Sarah-Lan, Ina Vandebroek & Stephan Rist (2012) Can Andean medicine coexist with biomedical healthcare? A comparison of two rural communities in Peru and Bolivia. *Journal of Ethnobiology and Ethnomedicine* 8: 26, <u>http://www.ethnobiomed.com/content/pdf/1746-4269-8-26.pdf</u>
- 7. Vandebroek, Ina & Michael J. Balick (2012) Globalization and loss of plant knowledge: Challenging the paradigm. PloS ONE 7: 5, <u>http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.00376</u> <u>43</u>
- 8. Mathez-Stiefel, Sarah-Lan & **Ina Vandebroek** (2012) Distribution and Transmission of Medicinal Plant Knowledge in the Andean Highlands: A Case Study from Peru

and Bolivia. *Evidence-Based Complementary and Alternative Medicine* 2012, <u>http://www.hindawi.com/journals/ecam/2012/959285/</u>

- 9. Ceuterick, Melissa, **Ina Vandebroek** & Andrea Pieroni (2011) Resilience of Andean urban ethnobotanies. A comparison of medicinal plant use among Bolivian and Peruvian migrants in the United Kingdom and in their countries of origin. *Journal of Ethnopharmacology* 136: 27-54.
- 10. Thomas, Evert, David Douterlungne, **Ina Vandebroek**, Frieke Heens, Paul Goetghebeur & Patrick Van Damme (2011) Human impact on wild firewood species in the rural Andes community of Apillapampa, Bolivia. *Environmental Monitoring and Assessment* 178: 333–347.
- 11. **Vandebroek, Ina** (2010) The dual intracultural and intercultural relationship between medicinal plant knowledge and consensus. *Economic Botany* 64: 303-317.
- 12. **Vandebroek, Ina**, Michael J. Balick, Andreana Ososki, Fredi Kronenberg, Jolene Yukes, Christine Wade, Francisco Jiménez, Brígido Peguero & Daisy Castillo (2010) The importance of *botellas* and other plant mixtures in Dominican traditional medicine. *Journal of Ethnopharmacology* 128: 20-41.
- 13. Thomas, Evert, **Ina Vandebroek** & Patrick Van Damme (2009) Valuation of forests and plant species in Indigenous Territory and National Park Isiboro-Sécure, Bolivia. *Economic Botany* 63: 229-241.
- 14. Thomas, Evert, **Ina Vandebroek**, Patrick Van Damme, Lucio Semo & Zacaria Noza (2009) *Susto* etiology and treatment according to Bolivian Trinitario people: a "masters of the animal species" phenomenon. *Medical Anthropology Quarterly* 23: 298-319.
- 15. Thomas, Evert, **Ina Vandebroek**, Patrick Van Damme, Paul Goetghebeur, David Douterlungne, Sabino Sanca & Susana Arrazola (2009) The relation between accessibility, diversity and indigenous valuation of vegetation in the Bolivian Andes. *Journal of Arid Environments* 73: 854-861.
- 16. Thomas, Evert, **Ina Vandebroek**, Sabino Sanca & Patrick Van Damme (2009) Cultural significance of medicinal plant families and species among Quechua farmers in Apillapampa, Bolivia. *Journal of Ethnopharmacology* 122: 60–67.
- 17. Keller, Amy, **Ina Vandebroek**, Youping Liu, Michael J. Balick, Fredi Kronenberg, Edward J. Kennelly & Anne-Marie B. Brillantes (2009). *Costus spicatus* tea failed to improve diabetic progression in C57BLKS/J db/db mice, a model of type 2 diabetes mellitus. *Journal of Ethnopharmacology* 121: 248-254.
- 18. Thomas, Evert, Ina Vandebroek, Patrick Van Damme, Paul Goetghebeur, Sabino Sanca & Susana Arrazola (2008) The Relationship between Plant Use and Plant Diversity in the Bolivian Andes, with Special Reference to Medicinal Plant Use. *Human Ecology* 36: 861-861-879.
- 19. Ceuterick, Melissa, **Ina Vandebroek**, Bren Torry & Andrea Pieroni (2008) Crosscultural adaptation in urban ethnobotany: The Colombian folk pharmacopoeia in London. *Journal of Ethnopharmacology* 120: 342-359.
- 20. **Vandebroek, Ina**, Evert Thomas, Sabino Sanca, Patrick Van Damme, Luc Van Puyvelde & Norbert De Kimpe (2008) Comparison of health conditions treated with traditional and biomedical healthcare in a Quechua community in rural Bolivia. *Journal of Ethnobiology and Ethnomedicine* 4:1 http://www.ethnobiomed.com/content/pdf/1746-4269-4-1.pdf
- 21. Thomas, Evert, **Ina Vandebroek** & Patrick Van Damme (2007) What works in the field? A comparison of different interviewing methods in ethnobotany with special reference to the use of photographs. *Economic Botany* 61: 376-384.

- 22. Bussmann, Rainer W., Douglas Sharon, **Ina Vandebroek**, Ana Jones & Zachary Revene (2007) Health for sale: The medicinal plant markets in Trujillo and Chiclayo, Northern Peru. *Journal of Ethnobiology and Ethnomedicine* 3:37. <u>http://www.ethnobiomed.com/content/pdf/1746-4269-3-37.pdf</u>
- 23. Delanoy, Marleen, Xavier Scheldeman, **Ina Vandebroek**, Patrick Van Damme & Stephan Beck (2007) Small-scale Cultivation of *Passiflora edulis* f. *flavicarpa* and *Passiflora ligularis* in the *Yungas* of La Paz, Bolivia. *Belgian Journal of Botany* 140: 150-160.
- 24. **Vandebroek, Ina**, Jan-Bart Calewaert, Stijn De Jonckheere, Sabino Sanca, Lucio Semo, Patrick Van Damme, Luc Van Puyvelde & Norbert De Kimpe (2004) Use of medicinal plants and pharmaceuticals by indigenous communities in the Bolivian Andes and Amazon. *Bulletin of the World Health Organization* 82: 243-250. http://www.who.int/bulletin/volumes/82/4/243arabic.pdf
- 25. **Vandebroek, Ina**, Patrick Van Damme, Luc Van Puyvelde, Susana Arrazola & Norbert De Kimpe (2004) A comparison of traditional healers' medicinal plant knowledge in the Bolivian Andes and Amazon. *Social Science & Medicine* 59: 837-849.
- 26. De Cupere, Françoise, **Ina Vandebroek**, Mayra Puentes, Sinesio Torres & Patrick Van Damme (2001) Evaluation of vegetal extracts as biological herbi- and pesticides for their use in Cuban agriculture. *Mededelingen / Universiteit Gent, Faculteit Landbouwkundige en Toegepaste Biologische Wetenschappen (*Currently *Communications in Agricultural and Applied Biological Sciences*) 66/2a: 455 – 462.
- 27. **Vandebroek, Ina**, Katie Bouche, Katharina d'Herde, Jacques Caemaert, Frank Roels & Frank O. Ödberg (1999) A stereotaxic atlas of the forebrain of the bank vole (*Clethrionomys glareolus*). *Brain Research Bulletin* 48 (6): 555-567.
- 28. **Vandebroek, Ina**, Veerle Berckmoes & Frank O. Ödberg (1998) Dissociation between MK-801- and captivity-induced stereotypies in bank voles. *Psychopharmacology* 137: 205-214.
- 29. **Vandebroek, Ina** & Frank O. Ödberg (1997) Effect of apomorphine on the conflictinduced jumping stereotypy in bank voles. *Pharmacology Biochemistry and Behavior* 57 (4): 863-868.
- 30. **Vandebroek, Ina**, Jacques Caemaert & Frank O. Ödberg (1996) A combined stereotaxic adaptor and anaesthesia apparatus for microdialysis studies in small rodents. *Journal of Neuroscience Methods* 68: 81-86.
- 31. De Ley, Paul & **Ina Vandebroek** (1992) *Stegelletina laticollaris* n.sp., a second new species of the genus from Senegal (Nematoda : Cephalobidae). *Belgian Journal of Zoology* 122: 139-146.

## **EDITORIALS**

- Vandebroek, Ina, Victoria Reyes-García, Ulysses Paulino de Albuquerque, Rainer Bussmann & Andrea Pieroni (2011) Local knowledge: Who cares? *Journal of Ethnobiology* and *Ethnomedicine* 7: 35 <u>http://www.ethnobiomed.com/content/pdf/1746-4269-7-35.pdf</u>
- Pieroni, Andrea, Lisa Leimar Price & Ina Vandebroek (2005) Welcome to Journal of Ethnobiology and Ethnomedicine (Editorial). *Journal of Ethnobiology and Ethnomedicine* 1:1. <u>http://www.ethnobiomed.com/content/pdf/1746-4269-1-1.pdf</u>

## REVIEWS

- 1. Van Andel, Tinde, Hugo J. de Boer, Joanne Barnes & **Ina Vandebroek** (2014) Medicinal plants used for menstrual disorders in Latin America, the Caribbean, sub-Saharan Africa, South and Southeast Asia and their uterine properties: A review. *Journal of Ethnopharmacology* 155: 992-1000.
- 2. **Vandebroek, Ina** (2013) Intercultural health and ethnobotany: How to improve healthcare for underserved and minority communities? *Journal of Ethnopharmacology* 148: 746-754.
- 3. Medeiros, Patricia, Gustavo Soldati, Nelson Alencar, **Ina Vandebroek**, Andrea Pieroni, Natalia Hanazaki & Ulysses Paulino De Albuquerque (2012) The use of medicinal plants by migrant people: Adaptation, maintenance and replacement. *Evidence-Based Complementary and Alternative Medicine* 2012, http://www.hindawi.com/journals/ecam/2012/807452/

#### BOOKS

- 1. **Vandebroek, Ina** & David Picking (In Press) Popular medicinal plants in Portland and Kingston, Jamaica. Kingston: Pear Tree Press.
- 2. Pieroni, Andrea & **Ina Vandebroek** (2007) *Traveling Cultures and Plants. The Ethnobiology and Ethnopharmacy of Human Migrations*. Volume 7. Studies in Environmental Anthropology and Ethnobiology. New York: Berghahn Books.
- 3. Thomas, Evert & **Ina Vandebroek** (2006) Guía de plantas medicinales de los Yuracarés y Trinitarios del Territorio Indígena Parque Nacional Isiboro-Sécure, Bolivia [*Guide to the medicinal plants from the Yuracarés and Trinitarios of the Indigenous Territory National Park Isiboro-Sécure, Bolivia*]. Imprenta Sirena, Santa Cruz, Bolivia, 522 pp., ISBN 978-90-5989-139-5 [*in Spanish*].
- 4. **Vandebroek, Ina**, Evert Thomas & Ametrac (2003) Las plantas medicinales para la atención primaria de la salud. El conocimiento de ocho medicos tradicionales de Apillapampa, Bolivia [*Medicinal plants for primary healthcare. The knowledge of eight traditional healers from Apillapampa, Bolivia*]. Indústrias Gráficas Serrano, Cochabamba, Bolivia, 317 pp., ISBN 90-5989-009-4 [*in Spanish*].

#### **BOOK CHAPTERS**

- 1. **Vandebroek, Ina** (2016) Ethical aspects of working with local communities and their biological resources. In: *Pharmacognosy: Fundamentals, Applications and Strategy* (Eds. Badal, Simone. & Rupika Delgoda). Elsevier: In Press.
- 2. **Vandebroek, Ina** (2016) Cultural comparisons in ethnobiological research. In: *Introduction to Ethnobiology* (Eds. U.P. Albuquerque and R.R. Nóbrega Alves). Switzerland: Springer International Publishing, pp. 265-271.
- 3. Soares Ferreira Junior, Washington, Flavia Rosa Santoro, **Ina Vandebroek** & Ulysses Paulino Albuquerque (2016) Urbanization, modernization and nature knowledge. In: *Introduction to Ethnobiology* (Eds. U.P. Albuquerque and R.R. Nóbrega Alves). Switzerland: Springer International Publishing, pp. 251-256.
- 4. **Vandebroek, Ina** & Dan Moerman (2015) The anthropology of ethnopharmacology. In: Ethnopharmacology (Eds. M. heinrich and A.K. Jaeger). Hoboken, NJ: Wiley-Blackwell, pp. 17-28.

- Pieroni, Andrea & Ina Vandebroek (2007) Introduction. In: *Traveling Cultures and Plants. The Ethnobiology and Ethnopharmacy of Human Migrations* (Eds. A. Pieroni and I. Vandebroek). Volume 7. Studies in Environmental Anthropology and Ethnobiology. New York: Berghahn Books, pp. 1-13.
- 6. Vandebroek, Ina, Michael J. Balick, Jolene Yukes, Levenia Durán, Fredi Kronenberg, Christine Wade, Andreana Ososki, Linda Cushman, Rafael Lantigua, Miriam Mejía & Lionel Robineau (2007) Use of medicinal plants by Dominican immigrants in New York City for treatment of common health problems a comparative analysis with literature data from the Dominican Republic. In: *Traveling Cultures and Plants. The Ethnobiology and Ethnopharmacy of Human Migrations* (Eds. A. Pieroni and I. Vandebroek). Volume 7. Studies in Environmental Anthropology and Ethnobiology. New York: Berghahn Books, pp. 39-63.
- Ceuterick, Melissa, Ina Vandebroek & Andrea Pieroni (2007) The use of homeremedies for health-care and well-being by Spanish-speaking Latino immigrants in London: A reflection on acculturation. In: *Traveling Cultures and Plants. The Ethnobiology and Ethnopharmacy of Human Migrations* (Eds. A. Pieroni and I. Vandebroek). Volume 7. Studies in Environmental Anthropology and Ethnobiology. New York: Berghahn Books, pp. 145-165.
- 8. **Vandebroek, Ina** & Sabino Sanca (2006) Food medicines in the Bolivian Andes (Apillapampa, Cochabamba Department). In: *Eating and Healing: Traditional food as medicine* (Eds. Pieroni, A., and Price, L.). Binghamton, New York: The Haworth Press, pp. 273-295.
- Vandebroek, Ina (2006) Capsella bursa-pastoris (L.) Medik. [Internet] Record from Protabase. Schmelzer, G.H. & Gurib-Fakim, A. (Editors). PROTA (Plant Resources of Tropical Africa / Ressources végétales de l'Afrique tropicale), Wageningen, Netherlands. <u>http://database.prota.org/search.htm</u>

## **POLICY DOCUMENTS**

1. A Global Program on Conservation of Useful Plants and Traditional Knowledge: A Call to Action (St. Louis, MO, 1-2 May 2013). Co-signed by 15 scientists from 10 different countries, see <u>http://www.plants2020.net/news/1037/</u> (also available in French and Spanish).

## **NEW MEDIA**

- Ethnobotany and Conservation in the Dominican Republic (in Spanish, with English captions; published 12 February 2013): <u>http://youtu.be/F3sC4F8F II</u>
- Healthcare Workshops with Indigenous Communities in Bolivia (Part I; published 19 February 2013): <u>http://youtu.be/d1tr96vnPwo</u>
- Healthcare Workshops with Indigenous Communities in Bolivia (Part II; published 19 February 2013): <u>http://youtu.be/mbIacEL OK4</u>

## TEACHING

- 2016: Ethnobotany, Organization for Tropical Studies (OTS), undergraduate course in the Program *Tropical Diseases, Environmental Change and Human Health*, Las Cruces Biological Field Station, Costa Rica
- 2015: Ethnobotany, Yale School of Forestry & Environmental Studies, New Haven
- 2014: Ethnobotany, Lehman College, City University of New York

- 2013-pres: Biennial Ethnobotany Course, School of Forestry & Environmental Studies, Yale University
- 2012: Short Module on Migrants' Diet and Health, Master Program in Food Culture and Communications: Human Ecology and Sustainability, University of Gastronomic Sciences, Pollenzo, Italy
- 2008-2009: Ethnobotany Course, Center for Environmental Research and Education (CERC), Columbia University, NYC
- 2008-pres: Cultural Competence Training Activities at major medical institutions in New York City
- 2000-2003: Guest Lecturer, United Nations University Biodiversity Training Course, Ghent University, Belgium
- 1999: Guest Lecturer Economic Botany and Systematics, Faculty of Agriculture and Applied Biological Sciences, Ghent University, Belgium

## FELLOWSHIPS, GRANTS & FUNDING

- 2015: Principal Investigator on a World of Difference grant from the Cigna Foundation (renewal, until 2016): **Improving healthcare for New York's immigrant Latino and Caribbean communities**
- 2014: Principal Investigator on a World of Difference grant from the Cigna Foundation (until 2015): Improving healthcare for New York's immigrant Latino and Caribbean communities
- 2013: Principal Investigator on a grant from the Committee for Research and Exploration of the National Geographic Society (until 2015): **Comparative Exploration of Plants and Local Knowledge in Portland Parish, Jamaica**
- 2012: Co-Principal Investigator and Project Director on a grant from The Aetna foundation, with Dr. Michael J. Balick (Co-PI) (until 2013): Latino Ethnomedicine and Integrated Health Care
- 2010: Co-Principal Investigator and Project Director on a grant from The Aetna foundation, with Dr. Michael J. Balick (Co-PI) (until 2011): **Improving Healthcare for Underserved Immigrant Latino Communities in New York City**
- 2009: Project Director on a grant from the United Hospital Fund, with Michael J. Balick (PI) (until 2011): Cultural Competency Training for Health Care Professionals in Latino Ethnomedicine Systems in New York City
- 2008: Lead Researcher on a South Initiatives grant for extension activities in the Bolivian Amazon from the University Development Cooperation, Belgium, with Prof. Dr. Patrick Van Damme (PI) (until 2010): **Improving Community Health Care through Strengthening Traditional Knowledge: A Collaboration between Traditional Healers and Biomedical Physicians in the Tropics of Cochabamba, Bolivia**
- 2007: Project Director on a grant from the Jacob and Valeria Langeloth Foundation, with Dr. Michael J. Balick (PI) (until 2011): **Dominican Ethnomedicine and Culturally Effective Health Care in New York City**
- 2005: Lead Researcher on a South Initiatives grant for extension activities in the Bolivian Amazon from the University Development Cooperation, Belgium, with Prof. Dr.

Patrick Van Damme (PI) (until 2006): **Vulgarizing Traditional Knowledge about Medicinal Plants that are Used in Local Health Care in Yuracaré-Trinitario Communities in the Bolivian Amazon** 

- 2003: Lead Researcher on a South Initiatives grant for extension activities in the Bolivian Andes from the University Development Cooperation, Belgium, with Prof. Dr. Patrick Van Damme (PI) (until 2004): **Vulgarizing Traditional Knowledge about Medicinal Plants that are Used in Local Health Care in a Quechua community in the Bolivian Andes**
- 2000: Grant Writer and Visiting Expert for the Own Initiatives from the University Development Cooperation, Belgium, for capacity-building at the Universidad Central de las Villas, Santa Clara, Cuba, Prof. Dr. Patrick Van Damme (PI) (until 2004): **Towards a Sustainable Cuban Agriculture: Ethnobotany Research as a Basis to Develop Biological Herbicides and Pesticides**
- 2000: Post-doctoral Research Fellowship from the Institute for the Promotion of Innovation through Science and Technology, Belgian Government (until 2002)
- 1991: Doctoral Research Fellowship from the Institute for the Promotion of Innovation through Science and Technology, Belgian government (until 1995)

#### FIELD EXPERIENCE

- 2016: Jamaica: 8 weeks; Costa Rica: 2 weeks
- 2015: Jamaica: 14 weeks
- 2014: Haiti: 1 week; Jamaica 18 weeks
- 2013: Colombia: 3 weeks
- 2012: Jamaica: 2 weeks
- 2010: Bolivia: 2<sup>1</sup>/<sub>2</sub> weeks; Dominican Republic: 3<sup>1</sup>/<sub>2</sub> weeks; Jamaica: 1 week
- 2009: Bolivia: 7 weeks
- 2008: Peru and Bolivia: 2 weeks; Dominican Republic: 2 weeks
- 2006: Bolivia: 4 weeks; Dominican Republic: 16 weeks
- 2005: Bolivia: 3 weeks; Dominican Republic: 1 week
- 2004: Bolivia: 24 weeks
- 2003: Bolivia: 8 weeks
- 2002: Bolivia: 20 weeks
- 2001: Bolivia: 36 weeks
- 2000: Bolivia: 16 weeks
- 1999: Bolivia: 4 weeks; Cuba: 4 weeks

## LANGUAGE SKILLS

- Dutch Mother Tongue
- English Fluent in speaking, reading and writing
- Spanish Fluent in speaking, reading and writing
- Certificates: Spanish level 1-4, Ghent University, Belgium (1996-1999)
- French Satisfactory speaking, reading and writing

1997 – 1998: worked for one year in the French-speaking part of Belgium

- German Basic knowledge of speaking and reading
- Patois Satisfactory speaking of Jamaican Patois

## MEDIA COVERAGE

- 2016: Smithsonian Magazine: "<u>Will Medicine Survive the Anthropocene?</u>"
- 2015: New York Times: "<u>Wary of Mainstream Medicine, Immigrants Seek Remedies</u> <u>From Home</u>" (published 13 November, 2015) TV interview with News 12 Bronx: "<u>Botanicas give residents natural path to</u> healing"
- 2014: Interview with Feet in 2 Worlds: "Brokenhearted? Have a Heart Condition? A Botanica May Offer a Cure"
  NPR's Latino USA: "Plant-based remedies, an invisible healthcare system"
  The Bronx Journal: "Urban Healing: Ethnobotany in the Bronx"
  WFUV News: "Research on non-traditional medicine gets new funding"
  Wall Street Journal: "Rooting for Health (and Luck!). An Ethnobotanist Helps Ralph Gardner Jr. Get to the Root of Things"
  NBC New York (4 New York) with Pei-Sze Cheng: NY Botanical Garden's Ethno-Botany Project
  Medical Daily: "Urban ethnobotany research earns Cigna grant, in efforts to treat diabetes, infertility and asthma"
  Medpage Today: "Insulin and insulina: Bridging the gap"
  TV interview with Enrique Teuteló, host of the show "En Tu Comunidad", a news program from the Spanish language television network Univision that serves the New York City metropolitan area (in Spanish)

WFUV: "<u>Use of Herbal Remedies in NYC Immigrant Communities Sparks Interest in</u> <u>Medical Research</u>"

2013: Quoted in the Nature news story "<u>Amazon plant discovery could yield green cash</u> <u>crop</u>"

Quoted in The Science and Development article "<u>Call to mainstream ethnobotany</u> <u>into development</u>"

2011: Radio broadcast on the show "<u>We Dig Plants: Ethnobotany</u>" (Heritage Radio Network)

Featured scientist in V-Me Noticias, a 24-hour digital broadcast service that is available in over 75% of all U.S. Latino homes. Video title "Plantas para fines medicos" (broadcasted on July 27, 2011).

Featured scientist in video: "<u>In The Caribbean Garden with Ethnobotanist Ina</u> <u>Vandebroek</u>" shot at the Enid A. Haupt Conservatory at The New York Botanical Garden

- 2009: Featured scientist in "<u>The Secret Life of Scientists</u>", a new Nova ScienceNow weboly series for PBS (6 November 2009)
  Blog in Plant Talk: "<u>Garden Scientist Leads Healthcare Workshops in Bolivia</u> (<u>Promotes Dialogue between Traditional and Western Medicine Practitioners</u>)" (6 August 2009)
  Blog in Plant Talk: "<u>The Art in Ethnobotany (Garden Scientist Participates in Venice Art Biennale</u>)" (23 June 2009)
- 2005: "With no insurance and cultural mistrust, Latinos seek healthcare in botánicas". Press in: Voices That Must Be Heard (Edition 196, 24 November 2005)
- 2003: "Documentemos el conocimiento de las etnias antes de que se pierda..." Interview in El Deber, Santa Cruz de la Sierra, Bolivia (Extra Sunday Edition, 14 December 2003)

## SCIENTIFIC PRESENTATIONS AND CONFERENCES

- Invited panelist and workshop speaker at the 43rd Annual Northeast Regional Conference of the Latino Medical Student Association, *Fortaleciendo raíces: Uniting efforts in the changing face of healthcare*, Dartmouth-Hitchcock Medical Center, New Hamsphire, 20 February 2016.
- Invited Participant in the "World of Difference" Forum *Spreading the Health: Sharing unique experiences; finding shared solutions*. Organized by the Cigna Foundation, Chicago, 15-16 July 2015.
- Oral Presentation at the 2015 joint meeting of the Society for Economic Botany and the Indigenous Plant Use Forum: "Comparative Caribbean ethnobotany of medicinal plants shared between the Dominican Republic and Jamaica", Clanwilliam, South Africa, 28 June – 2 July 2015.
- Symposium Organizer and Opening Presentation "Urban Ethnobotany" at the 6th International Congress of Ethnobotany, Córdoba, Spain, 17 – 21 November 2014.
- Invited lecture at The University of the West Indies, Mona Campus, Faculty of Science and Technology: "Medical Ethnobotany in the Americas and the Caribbean", Kingston, Jamaica, 13 August 2014.
- Invited Speaker at the symposium *Advanced Topics in Ethnobiology*, Universidade Federal Rural of Pernambuco, Recife, Brazil, 3 – 5 December 2013.
- Invited Short Course at the IX Brazilian Symposium of Ethnobiology and Ethnoecology on "Urban Ethnobotany", Florianopolis, Santa Catarina, Brazil, 26 29 November 2012.
- Invited Lecture at the IX Brazilian Symposium of Ethnobiology and Ethnoecology on "Ethnobotany and Migrations", Florianopolis, Santa Catarina, Brazil, 26 – 29 November 2012.
- Invited Keynote Lecture at the 13th International Congress of the Society for Ethnopharmacology, *Intercultural Studies*, Graz. Austria, 2 6 September 2012.
- Invited Workshop Organizer at the 18th Annual Conference of the International Society of Tropical Foresters – Yale Chapter, *Strategies for Landscape-scale Restoration in the Tropics*. Workshop on "Ethnobotanical Field Methods for Community-Based Research", New Haven, CT, 26 – 28 January 2012.
- Invited Participant in the Open Science Network in Ethnobiology meetings to develop opportunities for curriculum development, enhancement, and assessment in the area of Ethnobiology, the Johns Hopkins Mt. Washington Conference Center, Baltimore, MD, 18 – 20 November 2011.
- Oral presentation at the 52st Annual Meeting of the Society for Economic Botany, *Healing the planet. Medicinal plants and the legacy of Richard E. Schultes*, Saint Louis, MO, 10 13 July 2011.
- Invited Speaker at the SciCafe of the American Museum of Natural History, NYC: "Know your roots. The cultural origins of medicinal plants", 4 March 2011.
- Invited Speaker at the Conferencia Regional sobre Pueblos Originarios, Cultura, Medio Ambiente y Salud, *Prevencióon de enfermedades, reducción de inequidades y desarrollo de competencia cultural*, San Salvador de Jujuy, Argentina, 20 – 22 October 2010.
- Invited Workshop Organizer at the 11th Congress of the International Society for Ethnopharmacology (ISE 2010). Workshop on "Use of Ethnobotanical Results in Outreach and Education: From Community Workshops to Curriculum Development and Cultural Sensitivity Training", Albacete, Spain, 20 – 25 September 2010.

- Invited Speaker for the dinner lecture for the Economic Botany Section of the Botanical Society of America Botany 2010 Congress, Providence, Rhode Island, 31 July – 4 August 2010.
- Oral presentation at the 51<sup>st</sup> Annual Meeting of the Society for Economic Botany, Xalapa, Mexico: "Agrobiodiversity in an urban environment: The importance of foods as medicines", 6 – 10 June 2010.
- Session Chair and Presenter at the 12<sup>th</sup> International Society of Ethnobiology Congress, Tofino Botanical Gardens, Tofino, Canada, 9 – 14 May 2010.
- Invited Plenary Speaker and Pre-congress Workshop Organizer at the I Congreso Boliviano de Botánica, Universidad Mayor de San Simón, Cochabamba, Bolivia 29 – 30 October 2009.
- Panel Chair and Presenter at the 5<sup>th</sup> International Congress on Ethnobotany (ICEB)-Session Cognitive Ethnobotany, San Carlos de Bariloche, Argentina, 21 – 24 September 2009.
- Session Leader, Immigrants and Plants, Ethnobotany Networks in Europe, Ghent, 14 15 March 2009.
- Invited Speaker at the XX Symposium of Brazilian Medicinal Plants and X International Congress of Ethnopharmacology, Sao Paulo, Brazil: "Going urban: studying the dynamics of medicinal plant knowledge and use by immigrants from the Dominican Republic in New York City", 16 – 19 September 2008.
- Oral Presentation at the Faculty of Medicine, Universidad Mayor de San Simón: "El uso cultural de plantas medicinales por las comunidades indígenas en Bolivia. Hacía la integración de la medicina tradicional con la biomedicine para la atención primaria de la salud", 4 July 2008.
- Oral Presentation at the Society for Economic Botany 48<sup>th</sup> Annual Meeting: "A transnational comparison of medicinal plant knowledge of Dominicans living in New York City and the Dominican Republic", Chicago, IL, 3 9 June 2007.
- Invited Speaker at the Fourth Region II Healthy People 2010 Summit on *Experiences, Accomplishments, and Understanding the Role of Culture in Eliminating Health Disparities,* "Dominican Ethnomedicine in New York City", NJ, 6 December 2006.
- Invited Speaker at the Immigration and Alternative Healing Systems Symposium: "Knowledge and use of medicinal plants by Dominicans in New York City", City University of New York Graduate Center, NY, 3 November 2005.
- Invited Speaker at the BWTS-workshop (Bilateral Scientific and Technological Cooperation between Ghent University, Belgium, and South Africa): "Ethnobotany research and its potential for drug development: a case study from Bolivia", Ghent University, Belgium, 22 October 2004.
- Oral Presentation at the 9<sup>th</sup> International Congress of the International Society of Ethnobiology, the Society for Economic Botany and the International Society of Ethnopharmacology: "Comparison of ailments treated by a primary health care service and traditional healers in the Bolivian Andes", University of Kent, Canterbury, UK, 13 17 June 2004.
- Invited Speaker at the Symposium Plants in Health and Culture: "Historical Perspectives on the Medicinal Plants in the Bolivian Andes and Amazon", Leiden University, The Netherlands, 16 – 17 February 2004.
- Oral Presentation at the 3<sup>rd</sup> International Congress of Ethnobotany: "The European Ethnobotany Research Network (EERN): objectives, activities and themes of debate", Naples, Italy, 22 30 September 2001.

- Oral Presentation at the 3<sup>rd</sup> International Congress of Ethnobotany: "Qualitative and quantitative aspects of medicinal plant use: the example of Quechua healers in the Bolivian Andes (Apillapampa, Department of Cochabamba)", Naples, Italy, 22 30 September 2001.
- Oral Presentation at the Building Bridges with Traditional Knowledge II Conference: "Qualitative and quantitative analysis of traditional medicinal plant use by Quechua healers in the Bolivian Andes (Apillapampa, Department of Cochabamba)", Hawaii, 28 May – 2 June 2001.
- Poster Presentation at the Symposium on Biodiversity: "Medical ethnobotany of Quechuafarmers in the Bolivian Andes: diversity, (ethno)classification and use of medicinal plants", Louvain-la-Neuve, Belgium, 13 – 14 December 2000.
- Oral Presentation at the Seminars on Ethnobotany of UKC: "EERN, the European Ethnobotany Research Network", Kent University, Canterbury, UK, 13 15 December 1999.

#### **SUPERVISION OF JUNIOR RESEARCHERS**

- Marie Zahn: "The dynamics of Jamaican medicinal plant knowledge following migration to New York City", Columbia University, Environmental Biology Major, 2014.
- Fernanda Savicki de Almeida: "Study of human management systems of medicinal herbs, especially *Mikania* spp. by peasants affected by the agrarian reform in the State of Santa Catarina, Brazil", Universidade Federal de Santa Catarina, Florianópolis, Brazil, PhD in Agronomy, 2014.
- Carolina Kffuri: "Ethnobotany of antimalarial plants used by indigenous communities in the Brazilian Amazon", Universidade Estadual Paulista, Brazil, PhD in Horticulture, 2014.
- Jeanette Rodriguez: "Latino Ethnomedicine in New York City and the role of the botánica", Columbia University, New York City, BSc in Biology, 2013.
- Evert Thomas: "Applied ethnobotanical research into the sustainable use of non-timber forest products (NTFPs) by indigenous communities in Bolivia, Cochabamba department" (in English), Ghent University (Belgium), PhD in Applied Biological Sciences, 2008.
- Liseth Muriel Russo: "Ethnomedicine of high altitude communities in the department of La Paz" (in Spanish), Universidad Mayor de San Simon (Bolivia), MSc Environmental Sciences, 2003.
- Kris Duchateau: "Traditional knowledge and intellectual property rights" (in Dutch), Ghent University (Belgium), Graduate in the Complementary Studies in Development Cooperation, 2002.
- Verbanck Elias: "The concept of 'nature' in the Trinitario culture" (in Dutch), Wageningen University for Life Sciences (The Netherlands), Engineer in Agricultural Sciences, 2002.
- Rebecca Balsacq: "Medical ethnobotany study in the Bolivian Amazon" (in French), University of Gembloux (Belgium), Engineer in Agricultural Sciences, 2002.
- Stijn De Jonckheere: "Medicinal plant knowledge and use in the Bolivian Amazon" (in Dutch), Ghent University (Belgium), Bio-engineer in Environmental Technology, 2002.
- Isabel De Buysscher: "Medicinal plant species of the Yuracaré-Trinitario from the Bolivian Amazon" (in Dutch), Ghent University (Belgium), Bio-engineer in Environmental Technology, 2002.

- Bart De Ridder: "Project formulation for domestication of medicinal plants in an Andean community in Bolivia" (in Dutch), Ghent University (Belgium), Graduate in the Complementary Studies in Development Cooperation, 2001.
- Pieter Logghe: "Medicinal plant preparations in an Andean community, Bolivia" (in Dutch), Ghent University (Belgium), Graduate in the Complementary Studies in Development Cooperation, 2001.
- Heidi Mussche: "Intellectual property rights in ethnobotany research" (in Dutch), Ghent University (Belgium), Graduate in the Complementary Studies in Development Cooperation, 2001.
- Jan-Bart Calewaert: "Medicinal plant knowledge and use in a community in the Bolivian Andes" (in Dutch), Ghent University (Belgium), Bio-engineer in Environmental Technology, 2001.
- Evert Thomas: "Medicinal plant knowledge of traditional healers in the Bolivian Andes" (in Dutch), Ghent University (Belgium), Bio-engineer in Environmental Technology, 2001.
- Carola Ureña: "Diversity, classification and use of medicinal plants in an Andean community" (in Spanish), Universidad Mayor de San Simón (Bolivia), MSc Environmental Sciences, 2000.
- Marcos Espinoza: "Medicinal properties of *sangre de drago, Croton* spp., in Bolivia" (in Spanish), Universidad Mayor de San Simón (Bolivia), MSc Environmental Sciences, 1999.
- Carlos de la Barra: "*Plantago* spp. as medicinal plants in Bolivia" (in Spanish), Universidad Mayor de San Simón (Bolivia), MSc Environmental Sciences, 1999.
- Susana Arrazola: "Medicinal plants of the Interandean Valleys in Bolivia" (in Spanish), Universidad Mayor de San Simón (Cochabamba, Bolivia), MSc Environmental Sciences, 1999.
- Veerle Berckmoes: "Behavioural pharmacology of stereotyped behaviour in a rodent species" (in Dutch), Ghent University (Belgium), BSc Biology, 1995.

## MEMBER OF THE DISSERTATION COMMITTEE

- Lisa Offringa: "Medicinal Plants of Northern Thailand for the Treatment of Cognitive Impairment in the Elderly", City University of New York, 2013.
- Jillian De Gezelle: "Q'eqchi' Maya Reproductive Ethnomedicine, Estrogenic Plant Use, and Women's Healing Traditions in Belize", City University of New York, 2013.
- Amy Keller: "Antidiabetic Activity of *Momordica charantia* and *Costus speciosus*: Plants Used in Dominican Traditional Medicine", City University of New York, 2011.
- Amadou Malé Kouyate: "Ethnobotanical aspects and study of the morphological, biochemical and phenological variability of *Detarium microcarpum* Guill. & Perr. (Mali)" (in French), Ghent University (Belgium), PhD in the Applied Biological Sciences, 2005.
- Nicolas De Cocker: "Characterisation of agriculture and cattle raising activities in Oxampampa, Peru – Reported poisoning with *Pteridium aquilinum*, bracken fern (adelaarsvaren) and dangers for human health" (in Dutch), Ghent University (Belgium), Graduate in the Complementary Studies in Development Cooperation, 2004.
- Veerle Van Den Eynden: "Edible non-crop plants in Ecuador" (in English), Ghent University (Belgium), PhD in the Applied Biological Sciences, 2004.

- Trees Cousyn: "Local flora of an Andean community in Bolivia" (in Dutch), Ghent University (Belgium), BSc in Biology, 2004.
- Melissa Ceuterick: "Nahua ethnobotany, Mexico" (in Dutch), Ghent University (Belgium), Graduate in the Complementary Studies in Development Cooperation, 2004.
- Frieke Heens: "Use of woody plant species for fuel in an Andean community in Bolivia" (in Dutch), Ghent University (Belgium), Graduate in the Complementary Studies in Development Cooperation, 2004.
- Stijn Van De Velde: "Trade related intellectual property rights" (in Dutch), Ghent University (Belgium), Graduate in the Complementary Studies in Development Cooperation, 2001.
- Heidi Goes: "Use of plants for traditional healing in Togo, Africa" (in Dutch), Ghent University (Belgium), Graduate in the Complementary Studies in Development Cooperation, 2001.
- Pedro Cárdenas: "Exploitation of *Parastrephia lepidophylla* (Wedd.) Cabrera and its effect on the *altiplano* ecosystem" (in Spanish), Universidad Mayor de San Simón (Cochabamba, Bolivia), MSc Environmental Sciences, 2000.

## SOFTWARE PROFICIENCY

MS Office (Word, Excel, Powerpoint, Access) Collections Management Software: KE EMu Qualitative Anthropology Software: Atlas-ti Statistical software: Sigmastat (Jandel Scientific), SPSS, NTSysPc (cluster analysis)

#### **REVIEWER FOR**

Alternative Therapies in Health and Medicine; Anthropology Today; BMC Complementary and Alternative Medicine; Boletim Do Museu Paraense Emílio Goeldi; Bulletin of the World Health Organization; Current Anthropology; Ecology of Food and Nutrition; Economic Botany; Environment, Development and Sustainability; Ethnicity and health; Ethnobotany Research and Applications; Evidence-Based Complementary and Alternative Medicine; Focus on Alternative and Complementary Therapies; Food, Culture, and Society; Human Organization; Journal of Ethnobiology; Journal of Ethnobiology and Ethnomedicine; Journal of Ethnopharmacology; Journal of Medicinal Plants Research; Medical Anthropology Quarterly; Plant Genetic Resources Newsletter; PLOS ONE; Social Science & Medicine.

#### **MEMBERSHIP IN PROFESSIONAL SOCIETIES**

Society for Economic Botany (SEB)