

**Barbara A. Ambrose, Ph.D.**  
The New York Botanical Garden  
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Bronx, NY 10458 USA  
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<https://orcid.org/0000-0002-9617-0148>

### **Education**

Ph.D. in Biology, University of California, San Diego, La Jolla, CA, June 2000. PhD Supervisor: Dr. R.J. Schmidt

B.Sc. in Biology, University of the Virgin Islands, St. Thomas, U.S.V.I. 1994.

### **Professional positions**

Curator, Plant Genomics. 2022 – present. NYBG, Bronx, NY.

Director of Laboratory Research. 2017 – present. NYBG, Bronx, NY.

Associate Curator, Plant Genomics. 2014 - present. NYBG, Bronx, NY.

Assistant Curator, Plant Genomics. 2008 - 2014. NYBG, Bronx, NY.

Adjunct Professor, 2008 – present. CUNY, New York, NY.

Lecturer, 2003 -2008. IMBS, Massey University, New Zealand.

Postdoctoral Fellow, 2002 - 2003. UNAM, México.

NSF International Postdoctoral Fellow, 2000 - 2002. UNAM, México.

### **Publications**

D.B. Marchant, G. Chen, S. Cai, F. Chen, P. Schafran, J. Jenkins, S. Shu, C. Plott, J. Webber, J. Lovell, G. He, L. Sandor, M. Williams, S. Rajasekar, A. Healey, K. Barry, Y. Zhang, E. Sessa, R. Dhakal, P.G. Wolf, A. Harkess, F.-W. Li, C. Rössner, A. Becker, L. Gramzow, D. Xue, Y. Wu, T. Tong, Y. Wang, F. Dai, S. Hua, H. Wang, S. Xu, F. Xu, H. Duan, G. Theißen, M. McKain, Z. Li, M.T.W. McKibben, M.S. Barker, R.J. Schmitz, D.W. Stevenson, C. Zumajo-Cardona, B.A. Ambrose, J. H. Leebens-Mack, J. Grimwood, J. Schmutz, P.S. Soltis, D.E. Soltis, Z.-H. Chen. Ancient yet dynamic: The evolution of a fern genome. 2022. *Nature Plants*. <https://doi.org/10.1038/s41477-022-01226-7>

C. Zumajo-Cardona and B.A. Ambrose (2022) Fleshy or dry: Transcriptome analyses reveal the genetic mechanisms underlying bract development in *Ephedra*. *EvoDevo* 13:10. <https://doi.org/10.1186/s13227-022-00195-4>

Elissa S. Sorojsrisom, Benjamin C. Haller, Barbara Ambrose, Deren Eaton (2022) Selection on the Gametophyte: Modeling alteration of generation in plants. *Appl. Plant Sci.* 10e11472. <https://doi.org/10.1002/aps3.11472>

C. Rodríguez-Pelayo, B.A. Ambrose, A. Vasco Gutiérrez, J. F. Alzate, and N. Pabón-Mora (2022) Tracking ancestral flowering integrators: Evolution of *PEBP* genes and comparative expression analyses in lycophytes and ferns. *International Journal of Plant Sciences* 183: 251-267. <https://doi.org/10.1086/719575>

\*May2022 *IJPS* cover <https://www.journals.uchicago.edu/doi/abs/10.1086/720479>

Riccardo de Lutio, John Y. Park, Kimberly A. Watson, Stefano D'Aronco, Jan D. Wegner, Jan J. Wieringa, Melissa Tulig, Richard L. Pyle, Timothy J. Gallaher, Gillian Brown, Gordon Guymer, Andrew Franks, Dhahara Ranatunga, Yumiko Baba, Serge J. Belongie, Fabián A. Michelangeli, Barbara A. Ambrose and Damon P. Little (2022) The Herbarium 2021 Half-Earth Challenge Dataset and Machine Learning Competition. *Frontiers in Plant Science* 12:787127. doi: 10.3389/fpls.2021.787127

C. Rodríguez-Pelayo, B.A. Ambrose, A. Vasco Gutiérrez, J.F. Alzate, N. Pabón-Mora. (2022) Evolution and expression of *LEAFY* genes in ferns and lycophytes. *EvoDevo* 13:2. <https://doi.org/10.1186/s13227-021-00188-9>

E. Mendelson, C. Zumajo-Cardona, and B.A. Ambrose (2022) What is a leaf? *Frontiers for Young Minds: Understanding biodiversity*. 10:659623. doi: 10.3389/frym.2022.659623

C. Zumajo-Cardona, D. P. Little, D. Stevenson, and B.A. Ambrose (2021) Expression analyses in *Ginkgo biloba* support the hypothesis that the seed evolved by sterilization of sporangia. *Scientific Reports* 11: 21995.

D. Paolo, G. Orozco-Arroyo, L. Rotasperti, S. Masiero, L. Colombo, S. de Folter, B.A. Ambrose, E. Caporali, I. Ezquer, and C. Mizzotti (2021) Genetic interaction of *SEEDSTICK*, *GORDITA* and *AUXIN RESPONSE FACTOR 2* genes during seed development. *Genes* 12(8): 1189. doi:10.3390/genes12081189

R. de Lutio, D. Little, B. Ambrose, and S. Belongie (2021) The Herbarium 2021 half-earth challenge dataset. arXiv:2105.13808v1 <https://arxiv.org/pdf/2105.13808.pdf>

C. Zumajo-Cardona and B. A. Ambrose (2021) Deciphering the evolution of the ovule genetic network through expression analyses in *Gnetum gnemon*. *Annals of Botany* 128: 217-230. doi: [10.1093/aob/mcab059](https://doi.org/10.1093/aob/mcab059)

B.A. Ambrose, T.L. Smalls, and C. Zumajo-Cardona (2021) All type II classic MADS-box genes in the lycophyte *Selaginella moellendorffii* are broadly yet discretely expressed in vegetative and reproductive tissues. *Evolution & Development* 23: 215-230.

<https://doi.org/10.1111/ede.12375>

C. Zumajo-Cardona, N. Pabón-Mora, and B.A. Ambrose (2021) The evolution of *euAPETALA2* genes in vascular plants: from plesiomorphic roles in sporangia to acquired functions in ovules and fruits. *Molecular Biology and Evolution* 38: 2319-2336.  
doi:10.1093/molbev/msab027

H. Suárez-Baron, J.F. Alzate, F. González, S. Pelaz, B.A. Ambrose, and N. Pabón-Mora (2021) Gene expression underlying floral epidermal specialization in *Aristolochia fimbriata* (Aristolochiaceae). *Annals of Botany* 127: 749-764. doi: [10.1093/aob/mcab033](https://doi.org/10.1093/aob/mcab033)

B.A. Berger, B.A. Ambrose, J. Tong, and D.G. Howarth. (2021) Flower development in *Fedia graciliflora* and *Valerianella locusta* (Valerianaceae). *Flora* 275: 151754.  
doi: [10.1016/j.flora.2020.151754](https://doi.org/10.1016/j.flora.2020.151754)

B. Hernández- Hernández, R. Tapia-Lopez, B.A. Ambrose, and A. Vasco (2021) R2R3-MYB gene evolution in plants, incorporating ferns into the story. *International Journal of Plant Sciences* 182: 1-8 <https://doi.org/10.1086/710579>

A. Vasco and B. A. Ambrose (2020) Simple and divided leaves in ferns, exploring the genetic basis for leaf morphology differences in the genus *Elaphoglossum* (Dryopteridaceae). *Int. J. Mol. Sci.* 21: 5180. doi:10.3390/ijms21155180

R. Cruz, G. Melo-de-Pinna, A. Vasco, J. Prado, and B. A. Ambrose (2020) Class I KNOX is related to determinacy during leaf development of the fern *Mickelia scandens* (Dryopteridaceae)" *Int. J. Mol. Sci.* 21: 4295. <https://doi.org/10.3390/ijms21124295>

N. Pabón-Mora, Y. Madrigal, J. Alzate, B. Ambrose, C. Ferrándiz, S. Wanke, C. Neinhuis, and F. Gonzalez (2020) Class II TCP gene evolution in perianth-bearing Piperales and their contribution to the bilateral calyx in *Aristolochia*. *New Phytologist* 228: 752-769. <https://doi.org/10.1111/nph.16719>

D.P. Little, M. Tulig, K.C. Tan, Y. Liu, S. Belongie, C. Kaeser-Chen, F.A. Michelangeli, K. Panesar, R.V. Guha, and B.A. Ambrose (2020) A competition for automatic species identification from herbarium specimens. *Applications in Plant Sciences* 8 (6): e11365.  
doi:10.1002/aps3.11365

C. Zumajo-Cardona and B.A. Ambrose (2020) Phylogenetic analyses of key developmental genes provide insight into the complex evolution of seeds. *Molecular Phylogenetics and Evolution* 147: 106778. <https://doi.org/10.1016/j.ymev.2020.106778>.

E. Mendelson, C. Zumajo-Cardona, and B.A. Ambrose (2020) What is a fruit? *Frontiers for Young Minds: Understanding biodiversity.* 8: 27. doi: [10.3389/frym.2020.00027](https://doi.org/10.3389/frym.2020.00027).

C. Zumajo-Cardona, A. Vasco, and B.A. Ambrose (2019) The evolution of the *KANADI* gene family and leaf development in lycophytes and ferns. *Plants* 8: 313. doi:10.3390/plants8090313

K.C. Tan, Y. Liu, B. Ambrose, M. Tulig, and S. Belongie (2019) The Herbarium Challenge Dataset. arXiv:1906.05372v1

Juan F. Alzate R., H. Suárez-Baron, B. Ambrose, F. Gonzalez, N. Pabón-Mora (2019) Genetic mechanisms underlying perianth epidermal elaboration of *Aristolochia ringens* Vahl (Aristolochiaceae). *Flora* 253: 56-66.

P. Pérez-Mesa, H. Suárez-Baron, B. Ambrose, F. Gonzalez, N. Pabón-Mora (2019) Floral MADS-box protein interactions in the early diverging angiosperm *Aristolochia fimbriata* Cham. (Aristolochiaceae: Piperales). *Evolution & Development* 21: 96-110.

C. Zumajo-Cardona, N. Pabón-Mora, B. A. Ambrose (2018) Duplication and diversification of *REPLUMLESS* – a case study in the Papaveraceae. *Frontiers in Plant Science* 9: 1833. doi: 10.3389/fpls.2018.01833

C. Zumajo-Cardona, B.A. Ambrose, N. Pabón-Mora (2017) Evolution of the SPATULA/ALCATRAZ gene lineage and expression analyses in the basal eudicot, *Bocconia frutescens* L. (Papaveraceae). *EvoDevo* 8:5 DOI 10.1186/s13227-017-0068-8

H. Suarez Barón, Pablo Perez-Mesa, B.A. Ambrose, F. Gonzalez.and N. Pabón-Mora (2017) Deep into the *Aristolochia* flower: Expression of C, D and E-class genes in *Aristolochia fimbriata* (Aristolochiaceae). *Journal of Experimental Zoology ( Molecular and Developmental Evolution)* 328B: 55-71. doi: 10.1002/jez.b.22686

A. Vasco, T.L. Smalls, S.W. Graham, E.D. Cooper, G.K.-S. Wong, D.W. Stevenson, R.C. Moran, B.A. Ambrose (2016) Challenging the paradigms of leaf evolution – Class III HD-Zip expression in ferns and lycophytes. *New Phytologist* 212: 745-758.

B.A. Ambrose and A. Vasco (2016) Bringing the multicellular fern meristem into focus. *New Phytologist* 210: 790-793. DOI: 10.1111/nph.13825

N. Pabón-Mora, H. Suarez Barón B.A. Ambrose and F. Gonzalez (2015) Flower development and perianth identity candidate genes in the basal angiosperm *Aristolochia fimbriata* (Piperales: Aristolochiaceae). *Frontiers in Plant Science* 6:1095. doi: 10.3389/fpls.2015.01095.

A. Vasco, J. Loríga, G. Rouhan, B.A. Ambrose, R.C. Moran (2015) Divided leaves in the genus *Elaphoglossum* (Dryopteridaceae): A phylogeny of *Elaphoglossum* section *Squamipedia*. *Systematic Botany* 40: 46-55.

N. Pabon-Mora, Gane Ka-Shu Wong, B.A. Ambrose (2014) Evolution of fruit development genes in flowering plants. *Frontiers in Plant Science* doi: 10.3389/fpls.2014.00300

U.C. Samarakoon, K.A. Funnell, D.J. Woolley, B.A. Ambrose and E.R. Morgan (2014) The Architectural Complexity of Crown Bud Clusters in Gentian (Gentianaceae); Anatomy, Ontogeny and Origin. *Journal of the American Society of Horticultural Science*. 139: 13-21.

A. Vasco, R.C. Moran and B.A. Ambrose (2013) The evolution, morphology and development of fern leaves. *Frontiers in Plant Science* 4: 345. doi:10.3389/fpls.2013.00345

U.C. Samarakoon, K.A. Funnell, D.J. Woolley, B.A. Ambrose and E.R. Morgan (2013) Anatomical investigations determining the origin of crown buds on the transition zones of gentians. *New Zealand Journal of Botany* 51: 264-274. DOI: 10.1080/0028825X.2013.825634

L. Gramzow, E. Barker, C. Schulz, B. Ambrose, N. Ashton, G. Theissen, A. Litt (2012) Selaginella genome analysis – entering the ‘homoplasy heaven’ of the MADS world. *Frontiers in Plant Science* 3: 214. doi: 10.3389/fpls.2012.00214.

N. Pabon-Mora, B.A. Ambrose, and A. Litt (2012) Poppy *APETALA1/FRUITFULL* orthologs control flowering time, branching, perianth identity and fruit development. *Plant Physiology* 158: 1685-1704.

J. Banks, T. Nishiyama, M. Hasebe, J.L. Bowman, M. Gribskov, C. dePamphilis, V.A. Albert, N. Aono, T. Aoyama, B.A. Ambrose, N.W. Ashton, M.J. Axtell, E. Barker, M.S. Barker, J.L. Bennetzen, N.D. Bonawitz, C. Chapple, C. Cheng, L. Gustavo, G. Correa, M. Dacre, J. DeBarry, I. Dreyer, M. Elias, E.M. Engstrom, M. Estelle, L. Feng, C. Finet, S.K. Floyd, W.B. Frommer, T. Fujita, L. Gramzow, M. Gutensohn, J. Harholt, M. Hattori, A. Heyl, T. Hirai, Y. Hiwatashi, M. Ishikawa, M. Iwata, K.G. Karol, B. Koehler, U. Kolukisaoglu, M. Kubo, T. Kurata, S. Lalonde, K. Li, Y. Li, A. Litt, E. Lyons, G. Manning, T. Maruyama, T.P. Michael, K. Mikami, S. Miyazaki, S. Morinaga, T. Murata, B. Mueller-Roeber, D.R. Nelson, M. Obara, Y. Oguri, R.G. Olmstead, N. Onodera, B.L. Petersen, B. Pils, M. Prigge, S.A. Rensing, D.M. Riaño-Pachón, A.W. Roberts, Y. Sato, H.V. Scheller, B. Schulz, C. Schulz, E.V. Shakhov, N. Shibagaki, N. Shinohara, D.E. Shippen, I. Sørensen, R. Sotooka, N. Sugimoto, M. Sugita, N. Sumikawa, M. Tanurdzic, G. Theissen, P. Ulvskov, S. Wakazuki, J.-K. Weng, W.W.G.T. Willats, D. Wipf, P.G. Wolf, L. Yang, A.D. Zimmer, Q. Zhu, T. Mitros, U. Hellsten, D. Loqué, R. Otilar, A. Salamov, J. Schmutz, H. Shapiro, E. Lindquist, S. Lucas, D. Rokhsar, I.V. Grigoriev (2011) The Selaginella Genome Identifies Genetic Changes Associated with the Evolution of Vascular Plants. *Science* 332: 961-963.

E.R. Álvarez-Buylla\*, B.A. Ambrose\*, E. Flores-Sandoval\*, M. Englund, A. Garay-Arroyo, B. García-Ponce, E. de la Torre-Bárcena, S. Espinosa-Matías, E. Martínez, A.

Piñeyro-Nelson, P. Engström and E.M. Meyerowitz (2010) B-function expression in the flower center underlies the homeotic phenotype of *Lacandonia schismatica* (Triuridaceae). *Plant Cell* 22: 3543-3559. \*These authors contributed equally.

K. Prasad and B.A. Ambrose (2010) Shaping up the fruit: control of fruit size by an Arabidopsis B-sister MADS-box gene. *Plant Signaling & Behavior* 5: 899-902.

C. Eaton, M. Cox, B. Ambrose, M. Becker, U. Hesse, C. Schardl, and B. Scott (2010) Disruption of Signaling in a Fungal-Grass Symbiosis Leads to Pathogenesis. *Plant Physiology* 153: 1780-1794.

K. Prasad, X. Zhang, E. Tobón and B.A. Ambrose. (2010) The Arabidopsis B-sister MADS-box protein, GORDITA, represses fruit growth and contributes to integument development. *The Plant Journal* 62: 203-214.

B.A. Ambrose (2010) MADS-Box Genes in Plant Evolution and Development. *International Journal of Plant Developmental Biology* 4: 30-37.

R.C. Day, R.P. Herridge, B.A. Ambrose and R.C. Macknight. (2008) Transcriptome analysis of proliferating arabidopsis endosperm reveals biological implications for the control of syncytial division, cytokinin signaling and gene expression regulation. *Plant Physiology* 148: 1964-1984.

K. May, M. Bryant, X. Zhang, B.A. Ambrose and B. Scott. (2008) Patterns of expression of a lolitrem biosynthetic gene in the *Epichloë festucae* – perennial ryegrass symbiosis. *Molecular Plant-Microbe Interactions*. 21: 189-197.

B.A. Ambrose, S. Espinosa-Matías, S. Vázquez-Santana, F. Vergara-Silva, E. Martínez, J. Márquez-Guzmán and E. Alvarez-Buylla. (2006) Comparative developmental series of the Mexican triurids support an euanthial interpretation for the unusual reproductive axes of *Lacandonia schismatica* (Triuridaceae). *Am. J. Bot.* 93: 15-35.

C.J. Whipple, P. Ciceri, C.M. Padilla, B.A. Ambrose, S.L. Bandong and R.J. Schmidt. (2004) Conservation of B-class floral homeotic gene function between maize and *Arabidopsis*. *Development* 131: 6083-6091.

B.A. Ambrose and K. Prasad. MADS about Plant Development. (2004) NZ Bioscience (August) 8-13.

K. Bomblies, R-L. Wang, B.A. Ambrose, R.J. Schmidt, R.B. Meeley, J. Doebley. (2003) Duplicate *FLORICAULA/LEAFY* homologs *zfl1* and *zfl2* control inflorescence architecture and flower patterning in maize. *Development* 130: 2385-2395.

F. Vergara-Silva, S. Espinosa-Matías, B.A. Ambrose, S. Vázquez-Santana, A. Matínez-Mena, J. Márquez-Guzmán, E. Martínez, E.M. Meyerowitz, E. Alvarez-

Buylla. (2003) Inside-out flowers characteristic of *Lacandonia schismatica* (Lacandoniaceae: Triuridales) evolved at least before the divergence from its sister taxon, *Triuris brevistylis*. *Intl. J. Plant Sci.* 164: 345-357.

B.A. Ambrose, D.R. Lerner, P. Ciceri, C.M. Padilla, M.F. Yanofsky, and R.J. Schmidt (2000) Molecular and genetic analyses of the *Silky1* gene reveal conservation in floral organ specification between eudicots and monocots. *Molecular Cell* 5: 569-579.

R.J. Schmidt and B.A. Ambrose (1998) The blooming of grass flower development. *Curr. Op. In Pl. Bio.* 1: 60-67.

M. Mena, B.A. Ambrose, R.B. Meeley, S.P Briggs, M.F. Yanofsky, and R.J. Schmidt (1996) Diversification of C-function activity in maize flower development. *Science* 274:1537-1540.

### **Books**

Barbara A. Ambrose and Michael D. Purugganan, Editors. 2013. 'The Evolution of Plant Form' Annual Plant Reviews 45. Wiley-Blackwell, London.

Barbara A. Ambrose. 2013. *The Morphology and Development of Lycophytes* in 'The Evolution of Plant Form' B.A. Ambrose and M.D. Purugganan (Eds.) Annual Plant Reviews 45. Wiley-Blackwell, London.

Barbara A. Ambrose and Cristina Ferrandiz. 2013. *Development and the Evolution of Form* in 'The Evolution of Plant Form' B.A. Ambrose and M.D. Purugganan (Eds.) Annual Plant Reviews 45. Wiley-Blackwell, London.

### **Other Publications**

B.A. Ambrose. 2021. "Vision of Repetition" Building Patterns in Plants. Kusama Cosmic Nature. Ed by J.L. Groarke and M. Yoshitake. Rizzoli Electa.

B.A. Ambrose, K.G. Karol, L.M. Kelly and F.A. Michelangeli. 2012. Foreword: A Festschrift on the occasion of Dennis Wm. Stevenson's 70<sup>th</sup> birthday. *Botanical Review* 78 (4): 307-309.

SEM photographs. 2001. Luna Córnea: 21/22.

SEM photographs. 2002. Ciências: 65.

### **Peer Review and Recognition**

- 2020. APPS article highlighted in *Botany One* from *Annals of Botany*. Machine learning can clear herbarium backlogs & potentially discover new species by Erin

- Zimmerman. <https://www.botany.one/2020/07/machine-learning-can-help-clear-herbarium-backlogs-potentially-discover-new-species/>
- 2007 Grady L. Webster Structural Botany Publication Award for *Am. J. Bot* (2006) 93: 15-35 publication.
  - Faculty of 1000 factor 3.0 recognition for article in *Am. J. Bot* (2006) 93: 15-35.
  - Photograph selected for **Cover** of *Am. J. Bot* (2006) 93: 15-35.
  - Faculty of 1000 factor 6.0 recognition for article in *Development* (2004) 131: 6083-91.
  - Faculty of 1000 factor 3.0 recognition for article in *Development* (2003) 130:2385-95.
  - MORPH recognition of paper *Development* (2003) 130: 2385-2395.
  - MORPH recognition of paper *Intl. J. Plant Sci.* (2003) 164: 345-357.
  - Article *Molecular Cell* (2000) 5: 569-579 highlighted in *Cell* (2000) 101: 5-8.
  - Photograph selected for **Cover** of *Molecular Cell* (2000) 5: 569-579.
  - Photograph selected for **Cover** of *Science* (1996) 274:1537-1540.

### Oral Presentations

(A complete list available upon request)

- Danforth Plant Science Center, St. Louis MO. (Invited talk: The transition to reproduction – tracking ancestral regulators in lycophytes and ferns.) March 8, 2023.
- University of Massachusetts, Amherst (Invited talk: Building beauty: Evolution and development of vascular plants.) April 7, 2022.
- New York Botanical Garden (Promotion talk: Building beauty: Patterns in plant diversity.) December 23, 2021.
- University of Iowa. (Invited talk: Sporangia and building plant body plans). December 4, 2021.
- Indian Institute of Science Education and Research, Thiruvananthapuram, India. (Invited talk: Evolution as problem solving: What lycophytes and ferns can teach us). February 10, 2021.
- University of Connecticut. (Invited talk: Leaf evolution and development: From flowers to leaves and back again). October 15, 2020.
- Columbia University. (Invited talk: Plant Evo-Devo: From flowers to leaves and back again). September 29, 2020.
- 7th Fine-Grained Visual Categorization (FGVC7) workshop in conjunction with the Institute of Electrical and Electronics Engineers (IEEE) conference on Computer Vision and Pattern Recognition (CVPR). (Invited Speaker: *Wait. You do what at a botanical garden?*) Via Zoom due to Covid19 restrictions on June 19, 2020. <https://sites.google.com/view/fgvc7/program>  
<http://www.wikicfp.com/cfp/servlet/event.showcfp?eventid=100360&copyownerid=162025>



- CUNY Graduate Center City of Science: Plants, Biodiversity, and the survival of the Planet. (Invited talk: Patterns and Processes of Plant Diversity). May 2, 2019. CUNY GC. 365 5<sup>th</sup> Ave, NY, NY.
- Cooper Hewitt. Garden of Secrets; Nature exhibit (Invited talk: Plant Evolution and Diversity). May 18, 2019. Cooper Hewitt. 2 E. 91<sup>st</sup> St. NY, NY.
- Evolution 2018 Conference. (Invited oral presentation: The evolution of a morphological novelty – leaves). Montpellier, France. August 18 -22.
- Invisible Worlds – Science Colloquium. (Invited talk: Plant development and diversity). American Museum of Natural History. New York, NY. October 15, 2018.
- XVII National Congress on Plant Biochemistry and Molecular Biology. X Joint Mexico - U. S. Symposium (Invited Plenary Talk: The evolution and development of the land plant body plan; a tale told by lycophytes and ferns. November 15, 2017. Puerto Vallarta, Mexico.
- NYU Plant Genome Workshop (Invited talk: Evolution and development in lycophytes and ferns) May 13, 2017. New York, NY.
- Botany 2016 (Invited talk: Equisetum morphology: an evo-devo perspective ) August 1, 2016. Savannah, GA.
- Plant and Animal Genome XXIV (Invited talk: Evo-devo of leaves: A story told by lycophytes and ferns) January 9, 2016. San Diego, CA.
- Botany 2015 (Evolution and development in lycophytes and ferns). July 25-29, 2015. Edmonton, Canada.
- Next Generation Pteridology 2015 (Evolution and development in lycophytes and ferns). June 1-5, 2015. Washington, D.C.
- Cullman Symposium. (Discovery: Understanding the genetic mechanisms underlying plant biodiversity). June 1, 2015. NYBG Bronx, NY.

### **Research Fellowships and Funding**

- Maxwell/Hanrahan Foundation. Field Research Fund. \$45,000. Awarded (B. Ambrose and L.M. Kelly) January 01, 2023- December 31, 2025.
- NYC council SCI network. STEM internships at Cultural Institutions. \$50,000. July 1, 2022-June 30, 2023.
- The Eppley Foundation for Research, Inc. The evolution and development of the seed. Awarded. \$29,990. June 01, 2022 - May 31, 2023.
- NYBG Plant Genomics Program. Farvue Foundation. \$50,000. Farvue Foundation. Awarded January 2022 - December 2022.
- Maxwell/Hanrahan Foundation. Field Research Fund. \$10,000. Awarded (B. Ambrose and L.M. Kelly) January 01, 2022- December 31, 2022.
- NYC council SCI network. STEM internships at Cultural Institutions. \$50,000. July 1, 2021-June 30, 2022.
- NSF-EAGER: Artificial Intelligence (AI) to accelerate plant species discovery. Awarded. \$299,754. May 15, 2021 – April 20, 2023. (D. Little, B. Ambrose, F. Michelangeli, K. Watson) DEB 2054684.

- NYBG Plant Genomics Program. Farvue Foundation. \$50,000. Farvue Foundation. Awarded January 2021 - December 2021.
- The Eppley Foundation for Research, Inc. Plant stem cells: From marginal meristems to reproductive meristems. Awarded. \$30,000. January 01, 2021 - December 31, 2021.
- Maxwell/Hanrahan Foundation. Field Research Fund. \$10,000. Awarded (B. Ambrose and L.M. Kelly) January 01, 2021- December 31, 2021.
- NYBG Plant Genomics Program. Farvue Foundation. \$50,000. Awarded January 2021 – December 2021.
- Marie Skłodowska Curie Research and Innovation Staff Exchange (MSCA-Rise-2020). Collaborators from Italy, Spain, Germany, Netherlands, Mexico, Colombia, United States of America (B.Ambrose), Brazil, and Australia. Evolution of genetic network required for fruit and fruit-like structures development of land plants (EVOfruland). 662,400 Euros. Awarded September 2020. 09/01/2021-08/31/2025.
- The Eppley Foundation for Research, Inc. Why don't ferns make flowers? Awarded. \$26,450. January 01, 2020 - December 31, 2020.
- Eugene M. Lang Foundation. Pathways Program of Science Interns. Awarded (B. Ambrose and L.M. Kelly). \$10,000. January 01, 2020 - December 31, 2020.
- NYBG Plant Genomics Program. Farvue Foundation. \$50,000. Farvue Foundation. Awarded January 2020 - December 2020.
- NSF-MRI Acquisition. Advancing plant and fungal research at NYBG with a modern Scanning Electron Microscope. \$162,275 (\$69,547 cost share). Awarded June 2018. 09/01/2018-08/31/2021. (B. Ambrose, D. Little, F. Michelangeli). DBI 1828479.
- NSF-Plant Genome. Living Fossils: Applying advances in single molecule sequencing to decode large and complex genomes of ancient plant lineages. Awarded \$3,936,179 (NYBG \$367,223) to D. Little, B. Ambrose, D. Stevenson and NY Plant Genomics Consortium. 09/01/2018-08/31/2022. IOS 1758800.
- NYBG Plant Genomics Program. Farvue Foundation. \$50,000. Farvue Foundation. Awarded January 2019 – December 2019.
- The Eppley Foundation for Research, Inc. The origin of the fruit. Awarded. \$28,800. July 2018-2019.
- Dovetail Genomics. Sequencing and assembling the genome of the lycophyte, *Selaginella apoda*. Awarded December 2017.
- Eppley Foundation for Research, Inc. The evolution of fruit morphology. Awarded. December 2015-2016.
- Ambrose Monell Foundation. “How Evolution Happens:” Exploring Unknown Branches on the Tree of Life. \$100,000. Awarded July 2016-June2017. of Life.
- Ambrose Monell Foundation. “How Evolution Happens - A new model organism.” \$100,000. Awarded July 2015.
- National Science Foundation EDEN host lab for Colombian student Cecilia Zumajo. Awarded for summer 2015.

- The Eppley Foundation for Research, Inc. Laying the Foundation for Fern Genomics: Investigations in *Marsilea* Biology. Awarded 2014-2015.
- FP7-PEOPLE-2013-IRSES- Marie Curie Action – International Research Staff Exchange Scheme (IRSES). ‘FRUIT LOOK – The physiology and genetics of fruit formation: from genes to networks’. Collaborators from Italy, Spain, Sweden, and USA (B. Ambrose). Awarded. 203,700 Euros. 01/01/2014-12/31/2017.
- National Science Foundation. ‘The role of gene duplication in the floral symmetry pathway in Dipsacales.’2012-2014. Senior Personnel with PI Dr. Dianella Howarth.
- Eppley Foundation for Research, Inc. ‘Transforming *Selaginella apoda* into a major model system. Awarded 2013-2014.
- National Science Foundation EDEN host lab for Columbia University thesis student Adam Geber. Awarded for summer 2012.
- National Science Foundation microMORPH host lab-interdisciplinary training for postdoctoral fellow Dr. Cynthia Skema from the lab of Dr. Jennifer Tate, Massey University, New Zealand. Submitted March 9, 2012. Awarded.
- National Science Foundation. REU (Research Experiences for Undergraduates) supplement to NSF grant on *Elaphoglossum*. Awarded January 2011.
- National Science Foundation. “Taxonomic Revision, Phylogenetic analysis and Leaf Evolution in *Elaphoglossum* sect. *Squamipedia* (Dryopteridaceae)”. November 2010-October 2013. Co-PI with Dr. Robbin Moran.
- Generalitat Valencia. Training Grant to work with Dr. Cristina Ferrándiz at NYBG. Awarded November 2009.
- Massey University postdoctoral fellowship, Co-PI with Dr. Jennifer Tate for postdoctoral position at Massey University, “Evolution of sexual dimorphism in *Plagianthus* (Malvaceae)” New Zealand, Awarded 2009-2011.
- National Science Foundation (NSF) MORPH Training Grant to New York Botanical Garden (NYBG) and New York University (NYU). 2007.
- Generalitat Valencia. Training Grant to work with Dr. Cristina Ferrándiz at the Institute of Molecular and Cellular Biology of Plants. Valencia, Spain. 2007.
- Massey University Research Fund (MURF) 2006, Floral Organ Boundaries.
- University Technical Assistance Award (UTAA) 2006.
- Massey University Research Fund (MURF) 2005 MADS-box expression analyses.
- University Technical Assistance Award (UTAA) 2005.
- Centre for Functional Genomics funding. October 2003-August 2008.
- National Science Foundation (NSF) International Postdoctoral Fellowship. UNAM. June 2000 – June 2002.
- ARCS Fellowship. University of California, San Diego, September 1996-June 1999.
- National Institute of Health MARC Fellowship. University of the Virgin Islands, St. Thomas, U.S.V.I., 1992 – 1994.

### Science Outreach Activities

- Interviewed by artist Ishita Jain on our use of plants. Our laboratory research will be featured in her graphic art thesis. October 24, 2019.
- Gave plant diversity seminar for CSHL course Frontiers of Plant Science at NYBG. June 20, 2019.
- Judge for 2019 National High School Design Competition. Design Solutions Inspire by Nature- Cooper Hewitt Design Triennial. June 9, 2019. Cooper Hewitt. 2 E. 91<sup>st</sup> St. NY, NY.
- Presentation and Panel Discussion for CUNY Graduate Center City of Science: Plants, Biodiversity, and the survival of the Planet. “Patterns and Processes of Plant Diversity.” May 2, 2019. CUNY GC. 365 5<sup>th</sup> Ave, NY, NY.
- Presentation and Panel Discussion for Garden of Secrets; Nature - Cooper Hewitt Design Triennial. Barbara A. Ambrose “Plant Evolution and Diversity”. May 18, 2019. Cooper Hewitt. 2 E. 91<sup>st</sup> St. NY, NY.
- St. Barnabas High School. Bronx, NY. Invited panel speaker for International Day of Women and Girls in Science. February 11, 2019.
- Judge for 2019 National High School Design Competition. Design Solutions Inspire by Nature- Cooper Hewitt Design Triennial. June 9, 2019. Cooper Hewitt. 2 E. 91<sup>st</sup> St. NY, NY.
- Gave plant diversity seminar for CSHL course Frontiers of Plant Science at NYBG. June 20, 2019.
- Editor-in-Chief, *Botanical Review*, April 2017-present.
- Presentation at NYBG *Entwined* Symposium. March 3, 2017.
- Member Kaplan Lecture Committee for Botanical Society of America, January 2017 – 2018.
- NY1 interview. <https://www.ny1.com/nyc/all-boroughs/news/2017/11/22/new-york-botanical-garden-s-fruitful-research-center>
- Member of Grady Webster Award Committee for Botanical Society of America, January 2017 – present.
- Media enquiry, Constance Casey – Landscape Architecture magazine – “species” Feb. 4, 2016
- Co-organized symposium for Next Generation Pteridology 2015. ‘Evolution and development in ferns and lycophytes: Case studies and perspectives.’ 1-5 June 2015.
- Using exceptions to understand the rules? Recent advances in understanding developmental evolution and the diversity of monocots. Symposium at Monocots V, July 2013. Organizers Paula Rudall, Chelsea Specht, Barbara Ambrose
- Associate Editor, *Botanical Review*. March 2012-March 2017.
- Reviewer for National Science Foundation (NSF), French National Research Agency (ANR) and U.S.-Israel Binational Agricultural Research and Development Fund (BARD) grant proposals
- Reviewer for manuscripts from *Plant Cell*, *Plant Physiology*, *Molecular Biology and Evolution*, *Frontiers in Plant Science*, *American Journal of Botany*, and *Plant Journal*, *Annals of Botany*, and *Journal of Experimental Botany*
- Review Editor for *Frontiers in Plant Genetics and Genomics*

**NYBG Outreach Activities**  
(complete list available on request)

- *From Cosmic Nature to Emerging Frontiers of Laboratory Research*. Presentation to NYBG science committee board members. May 13, 2021.
- Kusama Cosmic Nature Exhibit. Generated SEM and histology photos for display in ECAG April 2021-October 2021.
- Kusama Cosmic Nature Exhibit. Wrote essay for Kusama Exhibition catalog. “Vision of Repetition”: Building Patterns in Plants by B.A. Ambrose.
- *The Herbarium meets Artificial Intelligence: New Frontiers in Species Discovery*. Multiple presentations to NYBG science committee board members via zoom. October 15, 2020; November 20, 2020; December 11, 2020; March 4, 2021.
- Lab tour for new board member Holly Lowen. November 13, 2019.
- Lab tour for TeaLeaves. September 20, 2019.
- Lab tour for Doug Daly and John Mitchell donor. September 13, 2019.
- Goal leader for Science; NYBG Strategic Planning. September 2019-March 2020.
- Participated in American Alliance of Museums (AAM) site visit. Developed and wrote lab portion of AAM re-accreditation document. July 29, 2019.
- Lab tour for Costa Brazil. July 18, 2019.
- Lab tour for Isaacson Miller. July 16, 2019.
- Lab tour for NPR SciFri producer Lauren Young. July 12, 2019.
- Developed and gave Mini-lab program for NYBG’s ECAG summer campers (8-10 yr olds). July 11, 2019.
- Lab tour for NYBG-Fordham STEP program July 8, 2019.
- Lab tour for chairman of the NYBG board, Barclay Collins III, June 25, 2019.
- Attended luncheon for Perennial Society, NYBG. June 25, 2019.
- Member of search committee for Dean of Science, NYBG June 2019-June 2020.
- Lab tour for NYBG summer intern enrichment activity. June 19, 2019.
- Science consultant to “Chorus in the Forest” composer Angelica Negron. Forest tour and plant diversity. May 8, 2019.
- Organized Laboratory Open House for NYBG staff. April 24, 2019.
- Organized Lab Tours for Earth Day weekend. April 20 -22, 2019.
- Lab tour for Sahara Moon Cahpotin Exec. Dir. U.S. Botanical Garden. April 17, 2019.
- Lab tour for The Climate Group. April 10, 2019.
- Britton Gallery talk. Evolution and the Tree of Life: Problem Solving through time. April 5, 2019 with D.W. Stevenson
- SEM and lab tour for Florence Davis, Starr Foundation. April 4, 2019
- Britton Gallery talk. Evolution and the Tree of Life: Problem Solving through time. Oct. 12, 2018. With D.W. Stevenson and L. Kelly.
- Earth Day Conservatory tours. April 20, 2018.

- Britton Gallery Talk “Evolution and the Tree of Life: Problem-solving through time.” With Dennis Stevenson and Larry Kelly. October 13, 2017.
- Filmed a segment with NY1 about laboratory research at NYBG.  
<http://www.ny1.com/nyc/all-boroughs/news/2017/11/22/new-york-botanical-garden-s-fruitful-research-center>
- NYBG Plant Explorer’s. Hands on lab demo. August 8, 2017. NYBG.
- Girls who code lab tour and hands on demo. July 21, 2017.
- NYBG Plant Explorer’s. Hands on lab demo. July 11, 2017. NYBG.
- Taught class *Patterns in Nature*. April 5, 2017. NYBG adult education.
- Britton Gallery talk. How Evolution works, conservatory tour. October 14, 2016.
- STEM talk to Bronx high school students for NYBG Green School. July 26, 2016.
- STEM talk to Bronx 6<sup>th</sup> grade students for NYBG Green School. July 20, 2016.
- NPR media visit with Karen Michel. July 19, 2016.
- NYBG Science Day Open house. Conservatory tours, May 20, 2016.
- Lab tour for The Taft School. May 4, 2016.
- NYTimes interview about flowering time. *Blossoming on Cue*. March 24, 2016.  
[http://www.nytimes.com/interactive/2016/03/25/science/spring-science.html?\\_r=1](http://www.nytimes.com/interactive/2016/03/25/science/spring-science.html?_r=1)
- Britton Gallery talk. *Molecular Research at the Garden: Understanding how plants grow, develop, function and evolve*. Feb. 5, 2016.
- Gave presentation on lab science summer intern program to NYBG Education committee at ECAG discovery center. Oct. 29, 2015.
- Participated in documentary for Lewis Cullman “Look who’s minding our planet”. Aug. 3-4. <https://www.nybg.org/blogs/science-talk/2017/02/look-whos-minding-our-planet/>
- Gave conservatory tours for NYBG Science Open House. May 29, 2015
- NPR Science Friday podcast. *What is the sun?* May 7, 2015.  
<http://www.sciencefriday.com/educational-resources/what-does-the-sun-do-solar-experts-respond/>
- Yahoo Foodie Science interview *Why is there an onion inside this onion* April 21, 2015. <https://www.yahoo.com/style/why-is-there-an-onion-inside-this-onion-116936416506.html>
- Lab tour STEM camp schoolgirls from Yonkers, NY (Sister-to-sister) July 9, 2014.
- Blog ‘Why study plants?’
- Hosted Fruitlook grant meeting at NYBG. June 11-12, 2014.
- Lab tour for Science open house. June 1, 2014.
- Britton Rotunda talk and conservatory tour. April 11, 2014.
- Organizer of NYBG seminar series, Sept. 2009 – August 2011.
- Intern Enrichment Activity. “Graduate school and careers in botany.” August 3, 2011.
- Intern Enrichment Activity. “Plant evolution, the explosion and diversity of land plants”. August 1, 2011.
- Garden News article “Meadow Spikemoss: A New Model Species to Understand the Plant Kingdom”, 2011.

- Intern Enrichment Activity-Luncheon, “Introduction to Taxonomic Diversity in Mosses, Lichens and Ferns”. July 6, 2011
- Gallery Talk. Talk ”DNA study of Plants” Britton Rotunda, NYBG. April 8, 2011.
- Garden News article “Fern Leaf Diversity” October 2010.
- Article for Town & Country June 2011 issue. Science article featuring my research.
- Article for Garden News. April 23, 2010. Science article featuring my research.

### **Field Experience**

Hawaii; collections of transgenic maize for reverse genetics experiment, 1999.  
Chiapas, Mexico; collections of *L. schismatica* and *T. brevistylis*, 2000-2002. Saül,  
French Guiana; collections of *S. albescens*, 2000.

### **Teaching Experience**

- CUNY graduate seminar, Plant Evolutionary Developmental Biology October 9, 2020.
- CUNY Graduate Center, Comparative Morphology of Vascular Plants, 2018. Co-taught with Dr. Dennis Stevenson, NYBG.
- CUNY Graduate Center, Comparative Morphology of Vascular Plants, 2015. Co-taught with Dr. Dennis Stevenson, NYBG.
- CUNY Graduate Center, Comparative Morphology of Vascular Plants, 2013. Co-taught with Dr. Dennis Stevenson, NYBG.
- CUNY Graduate Center, Plant Development, 2012. Co-taught with Dr. Amy Litt, NYBG.
- CUNY Graduate Center, Comparative Morphology of Vascular Plants, 2011. Co-taught with Dr. Dennis Stevenson, NYBG.
- CUNY Graduate Center, Plant Development, 2010. Co-taught with Dr. Amy Litt, NYBG.
- Invited course contributor at NYU, “Evolution and development.” Course: Evolution, April 8, 2009.
- Lecturer, Massey University, October 2003-August 2008  
Course title: Biology of Plants (crop evolution and domestication section)
- Lecturer, Massey University, October 2003- August 2008  
Course title: Plant development
- Lecturer, Massey University, October 2003- August 2008  
Course title: Developmental Genetics module of Genetic Analysis
- Lecturer, Massey University, October 2003- August 2008  
Course title: Plant Structure and Development (one module of graduate course)
- Lecturer, Massey University, October 2003- August 2008  
Course title: Advanced Genetics (one module of graduate course)
- Teaching Assistant, University of California, San Diego, 1997

- Course title: Metabolic Biochemistry  
Course director: Paul Price
- Teaching Assistant, University of California, San Diego, 1997  
Course title: Introduction to Plant Biology  
Course directors: R.J. Schmidt and Nigel Crawford
  - Teaching Assistant, University of California, San Diego, 1996  
Course title: Biochemical Techniques  
Course director: Patricia Laurenson
  - University of the Virgin Islands, St. Thomas, U.S.V.I., 1994  
Course title: General Chemistry Laboratory
  - University of the Virgin Islands, St. Thomas, U.S.V.I., 1994  
Course title: General Biology Laboratory

### **Intern and Academic Mentoring**

- Mentor for EU-Marie Curie visiting scientist Dr. Sebastiano Nigris. Padua Botanical Garden. September 2021-March 2022
- Mentor for visiting PhD student from CRAG Barcelona., Unai Cereijo. February-July 2022.
- Mentor for EU-Marie Curie visiting PhD student, Veronica Beretta, University of Milan. March – June 2022.
- Mentor for EU-Marie Curie visiting PhD student, Anna Sole, IBMCP Valencia, Spain. March – June 2022.
- Mentor for EU-Marie Curie visiting PhD student, Chiara Astori, University of Milan. March – June 2022.
- Mentor for high school intern Lindsey Paulsen, Bergen Tech High school. Sept 2021-June2022.
- Mentor for high school intern Eva Uddin, Bronx High school of Science. Sept 2021-present.
- Mentor for high school intern Rzan Albari, Hostos Lincoln High school. Sept 2021-June2022.
- Mentor for high school intern Justin Cepeda, Hostos Lincoln High school. Sept 2021-June2022.
- Mentor for high school intern Cyndy Ashkat, Hostos Lincoln High school. Sept 2021-June2022.
- Mentor for high school intern Ariel Neri, Hostos Lincoln High school. Sept 2021-June2022.
- Mentor for summer Intern. Undergraduate. Danielle Sonnenleiter. Cornell University. June-August 2019.
- Mentor for visiting MSc. student. Carolina Rodriguez. U. de Antioquia. June – August 2019.
- Mentor for high school summer intern, Teddy Verheggen, Taft High School, June – August 2018.
- Mentor for undergraduate summer intern, Catherine Labarca, Virginia Commonwealth University June – August 2018.



- Mentor for postgraduate summer intern, Sarah Elkayam, Adlephi Univeristy Msc. student, June – August 2018.
- Mentor for high school student, Carly Zelner, June – August 2017.
- Mentor for Columbia University undergraduate, Scottie Lin Sheaffer. January 2017- June 2017.
- Hosted Dr. Cristina Ferrandiz and Paco Madueño from UPV, Valencia Spain on IRSES Marie Curie Fruitlook project. October – November 2016.
- Hosted visiting scientist Dr. Natalia Pabon-Mora from Universidad de Antioquia, Colombia. June – July 2016.
- Mentor for high school summer intern Eliza Price from the Taft School. June – Aug 2016.
- Hosted PhD student Andrea Aguilar Jaramillo from CRAG, Barcelona, Spain on TEMPRANILLO project. June – August 2016.
- Hosted Dr. Soraya Pelaz from CRAG Barcelona, Spain for project on Tempranillo genes. Sept 2015- June 2016.
- Mentor for Cristina Puricelli from Brera Botanical Garden on EU IRSES exchange program. June – August 2016.
- Mentor for PhD student Rafael Cruz from Universidade de São Paulo, Brazil on the Molecular genetics of leaf development in the fern genus *Mickelia*. February 2016 - February 2017.
- Mentor for high school summer intern Natasha Batten from the Taft School. June – Aug 2015.
- Hosted and trained BSc. Student Cecilia Zumajo from Antioquia University, Colombia in the lab. June – Sept 2015.
- Hosted Dr. Natalia Pabon-Mora from Antioquia University, Colombia in the lab. June – Sept 2015.
- Hosted and trained MSc. Student Harold Suarez from Antiquia Univeristy, Colombia in the lab. July – Sept 2015.
- Hosted. Dr. Chiara Mizzotti from the University of Milan in the lab as part of the IRSES Marie Curie Fruitlook project. Jul-August 2015.
- Hosted Dr. Cristina Ferrandiz from U. Politecnica Valencia, Spain in the lab as part of the IRSES Marie Curie Fruitlook project. Oct-Nov 2015.
- Hosted Dr. Francisco Madueno from U. Politecnica Valencia, Spain in the lab as part of the IRSES Marie Curie Fruitlook project. Oct-Nov 2015.
- Sept 2015- Jan 2016. Hosting Dr. Soraya Pelaz from CRAG Barcelona, Spain
- Natasha Batten – summer intern, (The Taft School, CT), July-August 2014.
- Lauren Henderson – summer intern, (SUNY, Purchase), May – August 2013.
- Dr. Cynthia Skema (postdoctoral fellow from Massey University, funded by Marsden Fund and NSF-EDEN). Worked on collaborative dioecy project, September-October 2012.
- Chiara Mizzotti (Ph.D student from University of Milan), worked on collaborative fruit project, April-July 2011.
- Anna Kudla (Mount Holyoke) NSF-REU summer student, May – Aug. 2011.
- Alison Mello (PhD student of Ken Birnbaum, NYU) trained *in situ* hybridizations. May 2011.

- Trained 2 Phd students (Claudia and Zelda) from the lab of Gregory Lampard, Pace University in making crosses in *Arabidopsis thaliana*. March 2011.
- Alejandra Vasco –NSF postdoctoral fellow. November 2010 – December 2013.
- Anna Kudla - summer intern (Mount Holyoke), May – Aug. 2010.
- Vanya Petrova – CUNY Ph.D. student – lab rotation, Feb-May 2009.
- Anthony DeVivo - summer intern, May-Aug. 2009.
- Helena Schmitz- P.G.Dip. student. November 2006-February 2007.
- Xiuwen Zhang – postdoctoral fellow. July 2006-February 2008.
- Wendy Topless, summer intern. December 2005-February 2006.
- Ryohei Kaji- MSc. student. February 2005-February 2008.
- Kalika Prasad- postdoctoral fellow. May 2004-September 2005.
- Arti Reddy-MSc. student. February 2004-2007.
- Robyn Johnston-PhD candidate. Committee member, July 2004-2007.
- Jean-Marc Celton-PhD candidate. Committee member, September 2004-2007.

#### **Academic Committees**

- PhD committee member. Chiara Astori. University of Milan. Milan, Italy. November 2022 – present.
- PhD co-mentor. Elissa Sorojsrisom. Columbia University. New York, NY. August 2020-present.
- PhD committee member. Heather Philips. Cornell University, Ithaca NY. January 2020-present.
- PhD committee member. Aleca Borsuk. Yale University. New Haven, CT. January 2020-present.
- BSc. thesis Honors mentor. Ellie Mendelson. Brandeis University. Waltham, MA. 2019-2020.
- PhD committee member. Veronica Sondervan. New York University. New York, NY. September 2019-present.
- BSc. thesis mentor and research advisor. Dominique Groffmann. Columbia University, New York, NY. 2018-2020.
- MSc. thesis mentor. Asif Ali. New York University. New York, NY. 2018-2020.
- MSc. Committee member. Carolina Rodriguez. Universidad de Antioquia. Medellin, Colombia. May 2018 – present.
- PhD advisor. Cecilia Zumajo Cardona. NYBG-CUNY. New York, New York. August 2016-present.
- PhD committee member. Harold Suárez Baron. Universidad de Antioquia, Medellin, Colombia. August 2016-present.
- BSc. thesis mentor and research advisor. Adam Geber. Columbia University. New York, New York. (funded by NSF-EDEN), May 2012-May 2013.
- PhD committee member for Natalia Pabon-Mora. September 2008 – 2012. CUNY.
- Honours thesis examiner for Helen Sheehan. U of Auckland . Jan 2008.
- Honours thesis examiner for Lulu Zhang. U of Auckland . Jan 2008.
- PhD examiner for Hilbert Grievink. April 2007.
- PhD thesis examiner for Joanne Simons. April 2007.

- Honour's thesis examiner for Charlotte Smith. November 2006. Massey University.
- PhD examiner for Chris Kirk. November 2006.
- PhD thesis examiner for Vernon Trainor. July 2006. Massey University.
- Master's thesis examiner for Alexa Jury. February 2006. Massey University.
- Master's thesis examiner for Hongping Jin. February 2006. Massey University.
- PhD examiner for Toni Waugh. October 2005.
- PhD thesis examiner for Balance Chen. July 2005. Massey University.
- PhD examiner for Nadi Pathirana. April 2005.
- PhD examiner for Roger Watkins. April 2005.
- PhD examiner for Suzanne Lambie. March 2004.

#### **Administrative Committees**

- NYBG Press Advisory Committee. August 2017- present.
- Chair of Botany sub-committee in IMBS, Massey University. August 2005- August 2008.
- Manawatu Microscopy and Imaging Centre (MMIC) on Steering Committee, August 2005- August 2008.
- Selection committee member for Plant Physiology Chair position at Massey University, October 2005.
- Selection committee member for Lecturer/Senior Lecturer position at Massey University, Albany. April 2005.
- Staff-Student Committee. April 2005- August 2008.
- IMBS Course Committee. February 2005- August 2008.
- Web Committee. January 2005- August 2008.