M E M O R A N D U M

TO: APCOM members

FROM: Joanne Chory, Wolfgang Busch, Julie Law, Joe Noel, Joe Ecker, Lena Mueller and Todd Michael

RE: Request for Adjunct Associate Professor Re-appointment for Ari Novy, PhD

DATE: June 18, 2024

Dear Members of APCOM,

We are writing to request a renewal of **Dr. Ari Novy's** appointment of Adjunct Associate Professor. Ari is currently the CEO and President of the San Diego Botanical Garden (SDBG) in Encinitas, and was previously the Executive Director at the United States Botanic Garden in Washington DC. Ari's past and present academic affiliations include Research Collaborator in the Department of Botany at the Smithsonian National Museum of Natural History and Visiting Scholar in the Department of Anthropology at UCSD. Ari is the Board President of Botanic Garden Conservation International-US and has served on task forces and advisory panels for diverse groups including the White House Council on Environmental Quality, Cornell Alliance for Science, American Public Gardens Association, Rock Creek National Park, and European and Mediterranean Plant Protection Organization. In addition, Ari actively translates science into best management practices and public education, which includes serving as a science advisor for mass media and entertainment producers such as Disney Animation Studios, Marvel, TNT, Netflix's The Magic School Bus, and most recently a new Canadian series 'CSI-Plants.' Ari is recognized as one of the world leaders in public botanic and agricultural education with both a broad publication record and an active invited speaker schedule; see attached CV.

Ari's interaction with the Salk started with involvement and support of the Harnessing Plants Initiative (HPI) and has grown to several other areas that afforded Salk researchers access to new scientific avenues and community interactions. After co-organizing the Carbon Drawdown 2020 conference with Wolfgang Busch and Joe Noel, Ari hosted a series of science talks at SDBG where the Plant Biology (PBIO) PIs shared their scientific journey with the greater HPI and PBIO research staff. Hosting these talks as well as access to SDBG has created a dynamic environment between the two organizations that provides an opportunity for Salk plant researchers to ground their scientific questions in current environmental, social, and plant breeding perspectives. Ari is a plant biology visionary and has ambitious plans to transform SDBG from a regional botanical garden into an internationally recognized botanical research organization; he has included Wolfgang Busch and Todd Michael in the planning of a new research facility at SDBG, which will offer Salk scientists a valuable opportunity to ground their studies in practical applications. Ari imagines a vibrant plant biology research community in San Diego akin to the internationally recognized biomedical community on the Mesa that has attracted some of the top pharma companies and start-ups. Finally, Ari has established deep relationships with local San Diego tribes that honor, respect, and give voice to profound plant knowledge; the opportunity for Salk researchers to participate in these conversations and community is critical for equitable plant research.

Ari was originally appointed during the COVID-19 pandemic, which limited his access to the Salk campus. However, he gave two zoom talks to the PBIO community: 'The 21st Century Botanic Garden' 11/1/21 and 'How to be a part time plant explorer' 5/3/22, as well as an in person talk 'HPI+SDBG collaborations' on 1/20/23. Ari is scheduled to give an in person talk 'Plants are (almost) everything' on 7/30/24, where he will explore the implications of plants making up 80% of the biomass on Earth. Now that the pandemic is over and campus access has broadened, Ari is committed and excited to spend more time engaging Salk Plant Biology PIs in addition to faculty interested in medicinal plants.

Taken together, Ari is an important collaborator for the Salk's Plant Biology Program and HPI. A re-appointment as Adjunct Associate Professor will not only enable us to grow this important collaboration but will increase Salk's expertise and standing in a scientific area that is crucial for the success of plant biology. Moreover, the biological resources available at the SDBG, as well as its education and outreach capacity, will be highly beneficial to Salk's Plant Biology Program and HPI. Thus, we respectfully request the renewal for Ari's position.

Sincerely,

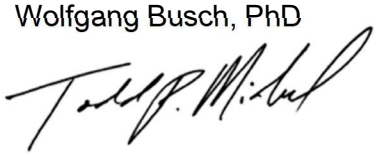
Joanne Chory, PhD

Julie Law, PhD

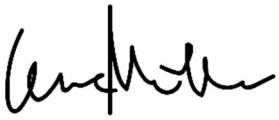
Joseph R. Ecker, PhD

Wolfgang Busch, PhD

Joseph P. Noel, PhD



Todd Michael, PhD



Lena Mueller, PhD

Salk Adjunct Service/Contributions Form

Name: Ari Novy, PhD **Appointment Start Date:** 07/01/2024
Sponsors: Joanne Chory, Wolfgang Bu

To be eligible for appointment and reappointment in the Adjunct series, appointees are expected to be engaged in **at least two** Institute-related activities outlined below. If you are being considered for your first Adjunct Professor appointment, provide information about your plans to engage in the Salk community and select any of the activities you would be interested in below. If you are being considered for reappointment, select your ongoing activities and give a brief summary of your engagement in each activity during the past appointment period. Also provide a summary of your plans to engage in the Salk activities during the next appointment period.

Salk Activities (list the course/seminar titles, committees, and student names if known)
** Please note research collaborations with a Salk Faculty sponsor(s) do not qualify as Institute-related activities expected for an Adjunct position*

☐ Giving Seminars, such as those hosted by Sponsors or by the Institute
☐Teaching in Salk-organized courses
☐ Serving on UCSD Student Review committees and/or Thesis Committees in Salk Labs
☐ Reviewing Postdoctoral and other Internal Grants
☐Participating in Salk's outreach and educational efforts to recruit underrepresented minority student applicants

▬Consulting on Salk scientific initiatives or multi-PI grants
☐Serving on Faculty Review Committees
☐Promoting award and nomination opportunities for Salk Faculty
▬ Organizing or participating on Salk Meetings or Conferences
▬ Other

Salk Service Summary & Plans: Describe your plans to engage in the activities marked above during the next appointment period (i.e.: Salk Course or Seminar Titles, names of Student or Faculty review committee, description of contributions to grants, etc. if unable to fit above). If you are being considered for reappointment, also describe your engagement in the Salk activities during the last appointment period. You may attach a supplemental letter with these activities as needed.

Please see attached letter.

SAN DIEGO BOTANIC GARDEN

www.sdbg.org
230 Quail Gardens Drive, Encinitas, CA 92024
TEL (760) 436-3036

June 4, 2024

RE: Salk Service Summary and Plan

Dear Salk Adjunct Appointment Committee:

I am deeply honored to have served as an Adjunct Associate Professor at the Salk Institute for Biological Studies since 2021. I would be thrilled to continue in this role.

During the last several years I have enjoyed working closely with several Salk PIs and programs to help advance research and outreach efforts that are of interest to both of our institutions. These efforts have resulted in joint funding received from a variety of funding sources, meaningful research output in medicinal and conservation areas, training and hiring of promising young professionals, and innovative outreach and public engagement.

In 2020, I served as a co-organizer for the jointly hosted Salk Institute-San Diego Botanic Garden Plant Carbon Drawdown Symposium. Working closely with the Salk hosts Drs. Wolfgang Busch and Joseph Noel, as well as with other Harnessing Plant Initiative (HPI) Leaders Drs. Joanne Chory and Todd Michael, we jointly delivered the wonderful Carbon Drawdown Symposium which included a science-focused day at the Salk along with a more public and policy maker focused 2nd day at the San Diego Botanic Garden (SDBG).

After our success with the symposium, we started to think about additional ways SDBG and the Salk might work together. To that end, we began holding more frequent planning meetings to determine the best course forward. Working together with several Salk labs, SDBG (I was the PI) applied for a pilot grant from the Conrad Prebys Foundation to establish a medicinal plant research consortium with Salk as a key partner and funding awardee of the proposal. We were deeply honored when the grant was awarded. It's two-year period just completed in March. Through this grant work, SDBG and Salk have received funds to conduct genomic and metabolomic research on critically important medicinal plant species. The research collaboration has deeply involved Drs. Todd Michael's and Pam Maher's labs to further examine compounds of interests such as sterubins (anti-neurodegenerative disease) found in the genus *Eriodictyon* and artemisinin (anti-malarial) found in the genus *Artemisia*. Through this work, we have also established an MOU with Salk for transferring plant samples from the Garden's extensive living plant collections to Salk researchers. This MOU has pioneered ways to share resources while engaging and respecting indigenous and other often excluded partners/knowledge holders. Most excitedly, through execution of this grant together, we have established a medicinal plants research consortium with robust engagement of all the major nonprofit research institutions in San Diego, 4 indigenous tribes, and several pharmaceutical companies/incubators.

During the same time period, SDBG obtained funding from the US Bureau of Land Management to track rare plants in the wild in order to help develop better management plans. As a part of this work, SDBG has included Salk as a key partner (with funds transferring from this grant to Salk) to sequence the genomes of crucially endangered rare plants including *Baccharis vanessae* (Encinitas baccharis) in the Michael lab.

Additionally, working closely with Dr. Michael, SDBG has received funds from the US Department of Agriculture (USDA) to support a cranberry genomic research technician working between SDBG and the Salk lab, and with deep collaboration of the USDA cranberry research station in New Jersey. This work is ongoing and will be extended for at least another year.

Finally, SDBG has received a multi-institution National Science Foundation (NSF) grant to train post-baccalaureates in plant conservation while advancing various plant conservation goals. Current research within this program includes examining the genetic basis of drought tolerance in desert beans and medicinal chemistry of plants. Drs. Todd Michael and Lillian Padgitt-Cobb at Salk serve as mentors for this program and will continue to do so for the next two years of the grant. One of the post-baccalaureate scholars who came to the Garden through this program, Alison Synder, will join the Salk team later this summer as a lab technician.

The above projects represent funded on-going work managed jointly between SDBG and the Salk. These projects have enriched both institutions with funding, new talent, new collaborative research potential, and inclusion of new partners (including the indigenous community) in developing new projects. The resulting success has been beyond my wildest expectations and I couldn't be more excited about continuing to move forward. I have recently submitted a joint application for *Ephedra* research and outreach to NSF with the Micheal lab. I remain committed to working closely with my Salk colleagues to continue all active research programs and developing more resources for collaborative work ahead.

If reappointed, I would continue to work with my Salk partners to innovate tools and methodologies that bring cutting edge -omics and chemical tools present within the Salk faculty to joint projects involving plant conservation and medicinal plants. SDBG maintains over 5,000 plant species in our living collections, including over 1,000 medicinal plants. The opportunity for collaborative work between SDBG and the Salk at the intersection of environmental stewardship and human health is virtually limitless. I am particularly buoyed by our successful work to establish the medicinal plants consortium. We are about to receive a $500k grant from the US Environmental Protection Agency (EPA) to continue to serve and engage tribal communities in California and New Mexico in conservation and medicinal plant work. Within the next 6 months, we plan to apply for a multi-million grant to scale our collaborative medicinal plants work to the next level, with the Salk as our keystone partner. We are also fundraising to build a new Science and Conservation building at SBDG and have had conversations with Drs. Busch and Michael about the possibility of developing facilities at SDBG that could be utilized by Salk research groups.

In summary, over the last several years I have enjoyed a highly productive and growing collaboration with multiple research groups within Salk. Our two institutions have proven highly complementary and achieved synergies are already resulting in novel research collaborations that are being both noticed and funded by a variety of funding agencies and the research community. I very much hope to be reappointed as an Adjunct Association Professor so that I can continue to steward SDBG's highly productive collaboration with the Salk, which is resulting in wonderful benefits to both institutions and to the communities we jointly serve.

SD BG

www.sdbg.org
230 Quail Gardens Drive, Encinitas, CA 92024
TEL (760) 436-3036

Thank you for this opportunity. Please don't hesitate to let me know if you need additional information.

All the best,

Ari Novy, PhD

President and CEO
San Diego Botanic Garden

www.sdbg.org
230 Quail Gardens Drive, Encinitas, CA 92024
TEL (760) 436-3036

Ari E. Novy, Ph.D.

701 Nardo Rd., Encinitas, CA, USA

E-mail: anovy@sdbgarden.org or arinovy@gmail.com; Tel: +1 (760) 579-8028

Summary

Internationally recognized leader in botanic garden management, biodiversity conservation, plant sciences, science communication and education.

Professional Experience

2018- **President and CEO**, San Diego Botanic Garden, Encinitas, CA

Responsible for directing all activities at San Diego Botanic Garden including plant collections, horticulture, facilities, education, outreach, science, strategic planning, visitor services and advancement. Currently completing modernization of all operations, including $9 million of campus improvements.

Major Accomplishments: completed modernization of all operations, including $9 million of campus improvements; doubled budget and staff size; created science and conservation department focusing on plant conservation and medicinal plans.

2017-18 **Chief Scientist**, Leichtag Foundation, Encinitas, CA

Responsible for establishing and executing a strategic scientific R&D and outreach and business development roadmap for the Leichtag Foundation, whose mission includes building community self-sufficiency through plants and agriculture. Served as a senior manager for the Foundation, which had an approximately $15 million budget, including grant-making, on-site operations, non-profit incubation, and strategic investing.

2014-17 **Executive Director**, United States Botanic Garden, Washington, DC

Responsible for directing all U.S. Botanic Garden activities, including public programs, horticultural operations, facilities maintenance and upgrades, capital improvements, plant collections management, strategic planning, finance, budget, personnel, Congressional relations and public information services. Directly responsible for 70 federal employees, over 100 contractors, and approximately $14 million budget per year. Member of Executive Leadership Team of the U.S. Architect of the Capitol with responsibilities for approximately 2,400 employees and $600 million budget per year.

Major Accomplishments: Restarted international botanical exploration programs after 150 year hiatus; completed restoration of the historic Bartholdi Park; initiated complete façade and roof restoration of the historic USBG Conservatory head house.

2013-14 **Deputy Executive Director**, United States Botanic Garden

Responsible for planning and implementing all U.S. Botanic Garden activities, including public programs, horticultural operations, facilities maintenance and upgrades, plant collections management, finance, budgeting, personnel and public informational services. Directly responsible for 64 employees and approx.. $11 million annual budget.

2012-13 **Public Programs Manager**, United States Botanic Garden
Responsible for leading, planning, developing and carrying out programs that fulfill the U.S. Botanic Garden's scientific, horticultural, educational, environmental, and curatorial missions. Directly responsible for 10 employees and approximately $2.5 million budget per year.

2007-12 **Teaching Assistant**, Rutgers University
Award winning primary instructor for undergraduate and graduate courses on invasive plant biology, horticulture and landscape plant materials. Supporting instructor for courses on population genetics, landscape design, evolution, plant systematics, and dendrology.

2006-12 **Plant Biology/Ecology Consultant and Advisor**,
Clients: Malick and Scherer, P.C., White House Station, NJ
County of Bergen, NJ
Phytomedics Inc., Robbinsville, NJ
Agricultural Non State Actors Forum (ANSAF), Tanzania
Topics addressed for clients: Agricultural development, agricultural biotechnology policy, plant resources for pharmaceutical development, and natural lands management.

2010 **Graduate Fellow**, US EPA, Office of Policy, Economics & Innovation, Washington, DC
Conducted statistical research on prevalence of environmental chemical biomarkers in human populations. Conducted research for the planning of a new sustainability focused garden on the U.S. Capitol grounds for the U.S. Botanic Garden, U.S. Architect of the Capitol.

2009 **Program Director**, Landscape Architecture Study Abroad, Rutgers University
Designed and taught a course on Italian gardens, horticulture and landscapes in Italy for a diverse group of Rutgers University undergraduate students.

2008 **Visiting Researcher**, Risø National Laboratory, Roskilde, Denmark
Researched gene flow in white clover via bee pollinators to determine minimum field spacing for coexistence of genetically modified and non-genetically modified white clover agriculture.

2005-06 **Environmental Specialist**, Malick and Scherer, P.C., White House Station, NJ
Conducted environmental inventories and impact statements pursuant to New Jersey and New York State law for infrastructure development projects.

2004-05 **Gardener**, New York University, Villa La Pietra, Florence, Italy
Maintained historic formal Renaissance gardens, vegetable gardens and a 3,000 tree olive and fruit tree plantation.

2002 **Freelance Researcher**, Daet, Camarines Norte, Philippines
Researched sustainable agricultural practices in the southern region of Luzon Island, Philippines and their relationship to child labor issues.

2000-01 **Residence Assistant**, New York Univ., Office of Student Life, Florence, Italy
Supported the Office of Student Life at the NYU study abroad center in Italy. Responsible for facilitating student transition to living abroad, student support services and non-academic student activities.

Research Affiliations

Adjunct Associate Professor (2021-present), The Salk Institute for Biological Studies, San Diego

Visiting Scholar (2018-20), University of California-San Diego, Dept. of Anthropology

Research Collaborator (2013-19), Smithsonian Institution, National Museum of Natural History, Dept. of Botany

Graduate Fellow (2006-12), Rutgers U., Dept. of Plant Biology

Education

Rutgers University, New Brunswick, NJ
Ph.D., Plant Biology

New York University, New York, NY
B.A., Major: Italian, Minors: Mathematics & Classics, cum laude

Certifications

Certified Ecologist, Ecological Society of America

Peer Reviewed Publications, Proceedings and Book Chapters

Molina, J.,…**A. Novy**, et al. 2024. Rafflesia speciosa (Rafflesiaceae) reveal clues about its cryptic biology and cues for cultivation. Journal of Plant Interactions, 19:1.

A. Novy, et al. 2023. *Botanic gardens contribute to food security through education, conservation, and research* in 'Botanical Gardens and their role in Plant conservation', eds. T.Pullaiah and D. Galbraith. Vol 1. Routledge Press.

Gurnoe, T., J. Bugarchich, C.K. Khoury and **A. Novy**. 2023. *Plant conservation efforts at the San Diego Botanic Garden* in 'Botanical Gardens and their role in Plant conservation', eds. T.Pullaiah and D. Galbraith. Vol 3. Routledge Press.

Molina, J.,…**A. Novy**, et al. 2023. The seed transcriptome of *Rafflesia* reveals horizontal gene transfer and convergent evolution: implications for conserving the world's largest flower. Plants, People, Planet: 1-19

Molina, J.,…**A. Novy**, et al. 2022. Living with a giant, flowering parasite: metabolic differences between Tetrastigma loheri Gagnep. (Vitaceae) shoots uninfected and infected with Rafflesia (Rafflesiaceae) and potential applications for propagation. Planta 225:4.

Krishnan, S., S.L. Greene, C.K. Khoury, J. Kuehny, A.J. Miller, T. Moreau and **A. Novy**. 2020. People pollinating partnerships: harnessing collaborations between botanic gardens and agricultural research organizations on crop diversity. Acta Horticulturae 1298: 37-42

Novy, A. and T. Moreau. 2019. Crop Science Special Issue: Connecting Agriculture, Public Gardens and Science. Crop Science 59:2300–2301.

Khoury, C.K. Y. Kisel,…and **A. Novy**. 2019. Science-graphic art partnerships to increase research impact. Communications Biology 2:295.

Krishnan, S., T. Moreau, J. Kuehny, **A. Novy**, S.L. Greene, and C.K. Khoury. 2019. Resetting the table for people and plants: Botanic gardens and research organizations collaborate to address food and agricultural plant blindness. Plants People Planet 1:157–163.

Kramer, A.T., B. Crane,...**A. Novy**, *et. al.* 2019. Sourcing native plants to support ecosystem function in different planting contexts. Restoration Ecology 23:470-476.

Tomaszewski, M., M. Dein, **A. Novy**, *et al.* 2019. Quantitation and seasonal Variation of Key Odorants in Propolis. Journal of Agriculture and Food Chemistry 67:1495-1503.

Moreau, T., and **A. Novy**. 2018. "Public Education and Outreach Opportunities for Crop Wild Relatives in North America". In: Greene SL, Williams KA, Khoury CK, Kantar MB, and Marek LF, eds., North American Crop Wild Relatives: Conservation and use. Springer.

Molina, J., W. McLaughlin, K. Wallick…and **A. Novy**. 2017. *Ex situ* propagation of Philippine *Rafflesia* in the United States: Challenges and Prospects. Sibbaldia 15:77-96.

Novy, A., H. Shimizu and P. Raven. 2017. The earth is a garden and we're all its gardeners. (W.J. Kress and J.K. Stine, Eds.) in Living in the Anthropocene: Humanity in the Age of Humans, pp. 95-98. Smithsonian Institution Scholarly Press, Washington.

Krishnan, S. and **A. Novy**. 2016. The Role of Botanic Gardens in the Twenty-First Century. CAB Reviews 11(23).

Novy, A. 2016. Botanic Garden Profile: The United States Botanic Garden in Washington, D.C. Sibbaldia 14:15-35.

Lea-Cox, J.D., J.P. Zazanis, C. Miller, **A. Novy** and M. Shore. 2016. Monitoring Stormwater Runoff and Green Roof Performance with Sensor Networks. Proceedings of Cities Alive: 14th Annual Green Roof and Wall Conference, Washington D.C., November 1-4, 2016.

Culley, T., C. Heubner and **A. Novy**. 2016. Regional and Local Genetic Variation in Japanese Stiltgrass (*Microstegium vimineum*). Invasive Plant Science and Management 9: 96-111.

Miller, A., **A. Novy**, et al. 2015. Expanding the role of botanical gardens in the future of food. Nature Plants 1: 15078.

Mims, R., **A. Novy**, and J. Willmott. 2014. Limiting pest problems through sustainable landscape and garden design and maintenance at the U.S. Botanic Garden. Outlooks on Pest Management 25: 320-324.

Novy, A. and L. Nagarajan. 2014. Producer Choice. (K. Ludlow, S. Smyth and J. Falk-Zepeda, Eds.) in Socio-Economic Considerations in Biotechnology Regulation, pp. 229-246. Springer, New York.

Capik, J.M., M. Muehlbauer, **A. Novy**, J.A. Honig, and T.J. Molnar. 2013. Eastern filbert blight-resistant hazelnuts from Russia, Ukraine, and Poland. HortScience 48: 466-473.

Novy, A., S.L. Flory and J.M. Hartman. 2013. Rapid evolution of phenology in an invasive grass. Journal of Evolutionary Biology 26: 443–450.

Løjtnant, C.L., B. Boelt, S.K. Clausen, C. Damgaard, P. Kryger, **A. Novy**, M. Philipp, C.H. Ingvordsen, R.B. Jørgensen. 2012. Modelling gene flow between fields of white clover with honeybees as pollen vectors. Environmental Modeling and Assessment 17: 421-430.

Novy, A., T. Schuler, I. Bartomeus, J. Katz, and M. Robson. 2012. Honey bee colony winter losses and treatments against *Varroa destructor* in New Jersey, USA, 2010-11. Science of Bee Culture 4: 6-8.

Novy, A., S.L. Flory, J.A. Honig, S. Bonos, and J.M. Hartman. 2012. Characterization of polymorphic microsatellites for the invasive grass *Microstegium vimineum* (Poaceae). American Journal of Botany 99: e56-e58.

Novy, A., S. Ledermann, C. Pray, and L. Nagarajan. 2011. Balancing agricultural development resources: Are GM and organic agriculture in opposition in Africa? AgBioForum 14: 142-157.

Novy, A. and K.C. Jones. 2011. Characterization of polymorphic microsatellite loci for *Tripterygium* (Celastraceae), a monospecific genus of medicinal importance. American Journal of Botany 98: e280-e281.

Novy, A., S. Eisenman and J. Grabosky. 2011. A Passion for Forestry and Metasequoia: A Tribute to John E. Kuser. Japanese Journal of Historic Botany 19:69-74.

Novy, A. International GM Grain Standards in an Era of Disagreement. 2010. Rutgers Journal of Bioethics 1(2): 7-12.

Novy, A., P.E. Smouse, J.M. Hartman, L. Struwe, J. Honig, C. Miller and S. Bonos. 2010. Population genetics of *Spartina alterniflora* (smooth cordgrass) in the New York metropolitan area and implications for marsh restoration. Wetlands 30: 603–608.

Reports, White Papers, and Published Abstracts

Novy, A. and S. Callan. 2021. Impact statements: critical tools for botanic garden evaluation. Roots 18 (2): 14-16.

Novy, A. and P. Raven. 2018. Modern agriculture is complicated: botanic gardens can help. Roots 15(2):6-8.

U.S. General Services Administration (GSA). 2017. Site Commissioning White Paper. Available on the web: https://gsa.gov/portal/getMediaData?mediaId=166330. Habitat Working Group contributor.

U.S. Botanic Garden. 2016. Agriculture and the Future of Food: The Role of Botanic Gardens. Available on the web: https://www.usbg.gov/agriculture-and-future-food-role-botanic-gardens. Primary author. Introduction by **A. Novy** and E. Bergfeld.

BGCI (Comp.). 2016. North American Botanic Garden Strategy for Plant Conservation, 2016-2020. Botanic Gardens Conservation International, U.S. Illinois, USA. Contributor.

European and Mediterranean Plant Protection Organization (EPPO). Pest risk analysis for *Microstegium vimineum*. 2015. EPPO, Paris. Available on the web: https://gd.eppo.int/taxon/MCGVI/documents.
Authors: G. Brundu, A. Ergün, L. Flory, **A. Novy**, and J. van Valkenburg.

White House Council on Environmental Quality. 2014. Supporting the Health of Honey Bees and Other Pollinators. Available on the web: https://sftool.gov/Content/attachments/supporting_the_health_of_honey_bees_and_other_pollinators.pdf Co-author.

U.S. Botanic Garden, ACSESS and contributors. 2014. U.S. Botanic Garden Agriculture Education: Visioning for the Future. A report to the U.S. Botanic Garden. Contributor.

Ledermann, S.T. and **A. Novy**. *GMOs and Bt Cotton in Tanzania: The Smallholder Perspective*. Agricultural Non-State Actors Forum, Dar es Salaam, Tanzania. Jan., 2012.

Novy, A. *Preliminary Soil Sampling Plan and Analysis Costs for Square 575 of the U.S. Capitol Grounds*. U.S. Botanic Garden, U.S. Architect of the Capitol. August, 2010.

Novy, A. *Historic Site Analysis of Square 575 of the U.S. Capitol Grounds*. U.S. Botanic Garden, U.S. Architect of the Capitol. May, 2010.

Novy, A., J.M. Hartman, J. Honig, P.E. Smouse, L. Struwe, C. Miller and S. Bonos. *Patterns of Genetic Variation of Spartina alterniflora in Marshes of the New York Metropolitan Area and Significance for Marsh Restoration*. U.S. Army Corps of Engineers. Nov., 2008.

Novy, A.E. et al. 2008. Can population genetics studies of *Spartina alterniflora* (smooth cordgrass) affect marsh restoration horticultural practices? HortScience 43: 594.

Eisenman, S.W., **Novy, A.E.** et al. 2008. Assessing the genetic diversity of an ex situ germplasm collection of dawn redwoods (*Metasequoia glyptostroboides* Hu & Cheng). HortScience 43: 591.

Selected Professional and Scientific Presentations

2024 **Center for Plant Conservation Annual Meeting,** San Diego, CA
Planning for the North American Plant Conservation Strategy Update, Workshop Organizer

2024 **EDEN Foundation Launch Event,** Hiroshima, Japan
The EDEN Botanic Garden Incubator Program in Afghanistan, invited speaker

2024 **SDBG Medicinal Plants Research Symposium,** Encinitas, CA
Conference Organizer

2024 **Carmel by the Sea Garden Club,** Carmel, CA
Gardening for the Future, invited keynote

2023 **Wednesday Club of San Diego,** San Diego, CA
Enhancing the Future through Botanical Research, invited keynote

2023 **Heronswood and Bellevue Botanic Garden Symposium,** Bellevue, WA
The Earth Is a Garden: We're All in This Together, invited keynote

2023 **American Public Gardens Association Annual Meeting**, Ft. Worth, TX
Global Strategy for Plant Conservation, Pannel Organizer and Speaker

2022 **7th Global Botanic Garden Congress**, Melbourne, Australia
Thinking like fungi and networking like trees, Workshop Organizer and Speaker

2022 **7th Global Botanic Garden Congress**, Melbourne, Australia
Dealing with disasters, Organizer and Speaker

2022 **Garden Club of America Zone XII Meeting, Berkeley, CA**
The earth is a garden: We're all in this together, invited speaker

2022 **American Public Gardens Association Annual Meeting**, Portland, OR
Humanitarian Disaster Response, session organizer and speaker

2021 **University of Minnesota Plant Science Symposium,** Minneapolis, MN
Sharing Plant Sciences with the Public: Tales from Botanic Gardens, invited speaker

2021 **Bellevue Botanic Garden,** Bellevue, WA
The 21st Century Botanic Garden, invited speaker

2020 **Plant Carbon Drawdown 2020,** San Diego, CA
Conference organizer and speaker

2019 **Celebrating Crop Diversity: Connecting Agriculture, Public Gardens, and Science**, Des Moines, Iowa, Conference organizer and speaker

2019 **Garden Club of America National Affairs and Legislation Conference,** Washington, DC, invited speaker

2019 **American Public Gardens Association Annual Meeting**, Washington, DC
Communicating Science in a Fake News World, speaker

2019 **American Public Gardens Association Annual Meeting**, Washington, DC
Connecting through Controversy: 5 Perspectives on Food Systems Outreach, speaker

2018 **Botanic Gardens Conservation International World Congress on Botanic Garden Education**, Warsaw, Poland
Measuring Impact (Invited Plenary Panelist)

2018 **Botanic Gardens Conservation International World Congress on Botanic Garden Education**, Warsaw, Poland
The Earth Is Our Garden: We're All in This Together

2018 **American Public Gardens Association Annual Meeting**, Anaheim, CA
Leveraging Connections with Agricultural Researchers to Excite the Public about Food, Farming and Conservation (Session Organizer)

2018 **American Public Gardens Association Annual Meeting**, Anaheim, CA
Food Evolution (Session Organizer)

2017 **International Society of Arboriculture Annual Meeting**, Washington, DC
Basking in the Shade: The Importance of Trees in the City (Keynote Speaker)

2017 **Garden Club of America Annual Meeting**, Baltimore, MD
Making a New Case for Plants in the Urban Landscape (Invited Speaker)

2017 **6th Global Botanic Garden Congress**, Geneva, Switzerland
Leveraging botanic gardens to improve food security: Current and future trends in crop wild relatives (Symposium Organizer and Speaker)

2017 **American Public Gardens Association Annual Meeting**, Hamilton, Canada
GMOs 101: An Introduction to History, Science, Impact, and Educational Strategies Relating to Plant Biotechnology (Session Organizer)

2017 **American Public Gardens Association Annual Meeting**, Hamilton, Canada
Beautiful Gardens Begin with Healthy Soil: Soil Quality Assessment and Care as Management Tools (Invited Speaker)

2017 **Connections beyond Our Garden Lecture**, Morris Arboretum, University of Pennsylvania, Philadelphia, PA
The Critical Role of Plants in the Urban Landscape (Invited Speaker)

2016 **Elisabeth C. Miller Lecture**, University of Washington, Seattle, WA
A Fresh Approach to the Urban Landscape (Keynote Speaker)

2016 **Stressors and Drivers of Food Security: Evidence from Scientific Collections**, Scientific Collections International, Washington DC
Feeding a Hungry Planet: The Importance of Collections and Outreach at Botanic Gardens (Invited Speaker)

2016 **Crossroads in the Concrete Jungle: Experiences and Explorations of Urban Plants and People**, Rutgers University, New Brunswick, NJ
A Fresh Approach to Education in the Urban Landscape (Invited Speaker)

2016 **American Public Gardens Association Annual Meeting**, Miami, FL
Growing Together: Collaborating to Expand Agricultural Research, Outreach & Exhibits at Public Gardens (Session Organizer)

2016 **American Public Gardens Association Annual Meeting**, Miami, FL
Reaching Out to the Public Using Food and Agriculture-Based Collections (Session Organizer)

2016 **American Public Gardens Association Annual Meeting**, Miami, FL
Sage Advice: Changing Perspectives of Emerging & Emerged Public Garden Professionals (Invited Speaker)

2016 **Food Tank Summit**, Washington, DC
Beyond Calories: The Need for Nutrient Dense Diets (Invited Panelist)

2015 **Santa Barbara Botanical Garden Lecture Series**, Santa Barbara, CA
Botanical Gardens and Agriculture (Invited Speaker)

2015 **University of Maryland Plant Science Seminar Series,** College Park, MD
Unmasking the Invisible Process of Food Production: Engaging with the Public on Food and Agriculture at Botanic Gardens (Invited Speaker)

2015 **Beneficial Biodiversity Symposium**, Toronto Botanical Garden, Toronto, Canada
Making a New Case for Plants in the Urban Landscape (Keynote Speaker)

2015 **Toronto Botanical Garden Lecture Series**, Toronto, Canada
The Power of Pollinators (Invited Speaker)

2015 **The Tuscan Villa Estate: Healthy Living in a Sustainable Landscape**, New York University in Florence, Italy
Inspiration from Villa La Pietra for Modern Sustainable Living (Invited Speaker)

2015 **American Public Gardens Association Annual Meeting**, Minneapolis, MN
Feeding the Movement (Session Organizer and Speaker)

2015 **Protecting our Pollinators: Green Matters**, Washington, DC
The Importance of Pollinators (Keynote Speaker)

2014 **University of Florida Agronomy Department Seminar**, Gainesville, FL
Unmasking the Invisible Process of Food Production: Engaging with the Public on Food and Agriculture at Botanical Gardens (Invited Speaker)

2014 **Ecological Society of America Annual Meeting**, Sacramento, CA
Green Cities: Ecology and Design in Urban Landscapes (Symposium Co-Organizer)

2014 **Ecological Society of America Annual Meeting**, Sacramento, CA
Evolutionary and demographic processes in the invasive grass *Microstegium vimineum* (Japanese stiltgrass)

2014 **Cornell University Plant Breeding & Genetics Seminar**, Ithaca, NY
Unmasking the Invisible Process of Food Production: Engaging with the Public on Plant Breeding and Genetics at Botanical Gardens (Invited Speaker)

2013 **Botany 2013**, New Orleans, LA
Using food and agriculture to start the conversation about plant science (Invited Speaker)

2013 **Botany 2013**, New Orleans, LA
Genetic Variation and Patterns of Spread within Populations of Invasive Japanese Stiltgrass, *Microstegium vimineum* (Poaceae)

2012 **Ecological Society of America Annual Meeting**, Portland, Oregon
Evidence for rapid adaptive evolution of phenology in the invasive grass *Microstegium vimineum*

2012 **International Consortium of Applied Bioeconomy Researchers,** Ravello, Italy
Lawns and Chestnut Trees: Game Changers in U.S. Plant Biotechnology Regulation?

2012 **Interdisciplinary Ph.D. Workshop in Sustainable Development,** Columbia University, New York, NY
Balancing agricultural development resources: Are GM and organic agriculture in opposition in Africa?

2012 **ST Global 12th Annual Conference on Science & Technology in Society**, Washington, D.C.
Exploring agricultural development technologies: A case study of GM and organic agriculture in Africa

2011 **5th International Conference on Coexistence of Genetically Modified Crops (GMCC-11),** Vancouver, Canada
Balancing agricultural development resources: Are GM and organic agriculture in opposition in Africa? (Invited Speaker)

2011 **Horticulture Senior Seminar,** Temple University, Ambler, PA (Invited Speaker)
Evolution of the invasive grass *Microstegium vimineum* in North America

2011 **Botany 2011,** St. Louis, MO
Rapid evolution of phenology during invasion of the grass *Microstegium vimineum* in North America.

2011 **International Consortium of Applied Bioeconomy Researchers,** Rome, Italy
Balancing agricultural development resources: Are GM and organic agriculture in opposition in Africa?

2010 **Student Conference on Conservation Science (SCCS-NY),** New York, NY
Importance of plant propagule genotype in marsh restoration

2010 **3rd International *Metasequoia* Symposium**, Osaka, Japan
The Legacy of John Kuser's *Metasequoia glyptostroboides* research and continuation of his work at Rutgers University (Invited Speaker)

2009 **Society of Wetland Scientists National Meeting,** Madison, WI
Recommendations regarding 'local' germplasm of *Spartina alterniflora* Loisel. (smooth cordgrass) for marsh restoration in the New York Metropolitan Area.

2009 **Molecular Marker Analysis of Plant Population Structure and Processes**, Copenhagen, Denmark.
Population structure of *Spartina alterniflora* (smooth cordgrass) in the New York Metropolitan Area and implications for marsh restoration.

Professional Organizations

American Association for the Advancement of Science
American Public Gardens Association
American Society of Agronomy
Botanical Society of America
Crop Science Society of America
Ecological Society of America
Society of Ecological Restoration
Soil Science Society of America

Service

2023- **Co-Chair**, EDEN Foundation, Hiroshima Japan

2023-24 **Scientific Organizing Committee Member**, 8th Global Botanic Garden Congress, *People and Plants for a Sustainable Future*, Singapore

2022- **Board Member,** American Public Gardens Association

2022- **International Science Advisor,** Green Legacy Hiroshima, Japan

2021- **Advisory Board Member**, William L. Brown Center for the Study of Useful Plants at Missouri Botanical Garden

2018- **Commissioner and Chair**, Environmental Commission, City of Encinitas, CA

2017- **Board Member and Chair,** Botanic Garden Conservation International-U.S.

2014- **Field Botany and Conservation Horticulture Scholarship Committee Member**, Garden Club of America, New York, NY

2008- **Peer Reviewer**, ***Journals:*** Agriculture & Food Security; American Journal of Botany; Bartonia; Crop Science (Assoc. Editor); Current Agricultural Science and

Technology; Ecology and Evolution; Nature Plants; PeerJ; Perspectives in Plant Ecology, Evolution and Systematics; Plants, People, Planet; PLoS ONE; Journal of Biogeography; Journal of Ecology; Systematic Botany; Urban Forestry & Urban Greening; ***Grants:*** Institute of Museum and Library Services; Foundation for Food and Agriculture Research; ***Institutions:*** American Alliance of Museums

2017-23 **Advisory Board Member,** Cornell University Alliance for Science

2020-23 **Chair,** International Advisory Committee of the Afghanistan Fellowship Legacy Project (AFLP) Botanical Garden Network (BGN)

2017-21 **Board Member,** Friends of the United States Botanic Garden.

2016-19 **Board Member**, Live It Learn It, Washington, DC

2016-19 **Founding Co-Chair**, Food and Agriculture Community, American Public Gardens Association

2017-18 **Host Committee Member and Speakers Committee Vice-Chair,** American Public Gardens Association 2018 Annual Meeting

2016-17 **International Advisory Committee Member**, Botanic Garden Conservation International, London, UK

2016-17 **Scientific Organizing Committee Member**, 6th Global Botanic Garden Congress, *Botanic gardens in society: visions for the future*, Geneva, Switzerland

2014-17 **Buildings and Grounds Committee Member**, Hillwood Estate, Museum, and Gardens, Washington, DC

2016 **Longwood Gardens Fellowship in Public Horticulture Curriculum and Experience Development Committee Member**, Kennett Square, PA

2015-16 **Host Committee Member and Volunteer Committee Co-Chair**, American Alliance of Museums 2016 Annual Meeting

2015-16 **Reviewer**, North American Botanic Garden Strategy for Plant Conservation (2016-2020), Botanic Garden Conservation International-U.S.

2015 **Reviewer**, Houston Botanical Garden Master Plan

2014-15 **Green Ribbon Panel Member**, Rock Creek National Park

2014-15 **Expert Working Group Member for Pest Risk Analysis (PRA) of *Microstegium vimineum***, European and Mediterranean Plant Protection Organization

2014 **Task Force Member and Co-Author for *Pollinator Health in Designed Landscapes***, White House Council on Environmental Quality

2008-12 **Mentor**, Undergraduate Research Program, Rutgers Univ., Departments of Biotechnology and Genetics

2008-12 **Judge**, Northern New Jersey Regional Science Fair

2009-11 **Ocean Week Assembly Speaker**, Eisenhower Middle School, Bridgewater, NJ

2007-11 **Reviewer**, Recovery Plan for the Federally Endangered Plant Swamp Pink (*Helonias bullata*), U.S. Fish and Wildlife Service

2008-09 **Executive Council Representative**, Rutgers Chapter of the American Association of University Professors/American Federation of Teachers

Awards

2024 **Garden Club of America Honorary Member Award**
2022 **Certificate of Appreciation,** Institute of Internatinoal Education Afghanistan Crisis Response
2020 **Encinitas Environmental Award,** to San Diego Botanic Garden
2019 **USA Today Top 10 Botanic Garden**, to San Diego Botanic Garden
2016 **American Public Gardens Association Program Excellence Awards**, to USBG and Lady Bird Johnson Wildflower Center for *Landscape for Life*
2016 **Helen Hayes (Theater) Award**, Two nomination for Outstanding Costume Design and Outstanding Theater for Young Audience for the USBG/Kennedy Center co-production of *Flowers Stink* (Producer)
2010-12 **Robert White-Stevens Fellowship on the Role of Science in Alleviating World Hunger**, Rutgers University
2010-12 **Pre-Doctoral Leadership Development Inst. Fellowship**, Rutgers University
2011 **Genetics Section Student Travel Award,** Botanical Society of America
2011 **Graduate Student Teaching Award**, Rutgers University
2011 **Dissertation Teaching Award**, Rutgers University
2010-11 **Adella L. Wotherspoon Scholarship**, Garden Club of New Jersey
2009-10 **Eagleton Fellowship in Politics and Government**, Rutgers University
2009 **International Travel Award**, Society for the Study of Evolution
2009 **Graduate Student Policy Award**, Ecological Society of America
2008 **National Science Foundation Graduate Research Fellowship**, Hon. Mention
2006-08 **Alberts Excellence Fellowship**, Rutgers University
2007 **C.T. Kissel Environmental Studies Scholarship**, Garden Club of America
1996-2000 **University Trustee Scholarship**, New York University

Research and Fieldwork Locations (Botanical and other plants sciences)

China (Anhui, Janxi, Jiangsu, Hubei, Hunan, Shanghai, and Zhejiang provinces)
Denmark (Pollination studies of white clover fields on Zealand Island)
Philippines (Sustainable agriculture studies in Camarines Norte Province, Luzon Island)
United States of America (Fieldwork, research and plant collection in 25+ states)

Plant Science Consultant for Mass Media

Television: Netflix's *The Magic School Bus* (science advisor), TNT's *The Last Ship*
Print Media: Susan Stockdale's *Fantastic Flowers* (Children's Book), DC/Warner Bros.' *Poison Ivy's Guide to Plants*
Film: Disney Animation Studio's *Strange World* (story and cultural consultant), Marvel Cinematic Universe
Science Expert for the U.S. National Academies' *Science and Entertainment Exchange*

Media Outlet Exposure (Live and taped)

National Geographic, Voice of America, BBC, NBC, NPR, PBS, C-SPAN, Ireland Radio One, LA Times, Washington Post, San Diego Union-Tribune, Toronto Starr, Huffington Post, Nature News, CSA News, dozens of local newspapers, television stations, and other media outlets

Biographical Press Articles

Name Drop, *San Diego Union Tribune*
Overseeing How the Garden Grows, *Washington Post*
Leadership of the Garden Variety, *Rutgers Magazine*
Ten Questions with Ari Novy, *Food Tank*