February 28th, 2020

Sirs
Grants Committee
IAPT Research Grants Program
International Association of Plant Taxonomy

Dear Sirs,

I am writing this letter in support of Katherin Arango's application for the IAPT Research Grants Program. Currently, Katherin is in transition between her undergraduate studies and graduate school; she obtained her undergraduate degree few month ago from the Universidad del Valle in Cali, Colombia, and already started to prepare her applications to graduate school. During the last portion of her undergraduate studies, Katherin focused her research on the flowering plant family Gesneriaceae, so she contacted me to help her formulating and completing her research project. I met Katherin while she was being an undergraduate assistant at the Herbarium of the Universidad del Valle, where she contributed digitizing collections and organizing the herbarium. Her work at the herbarium and the courses she took on Plant Taxonomy and Systematics allowed her to discover her fascination for the flowering plant family Gesneriaceae, so she decided to focus on the genus *Kohleria* for her thesis project.

Katherin's thesis project addressed the taxonomy of *Kohleria* and studied hybridization within the genus preliminarily. For her thesis, Katherin had to carry out field work and extensive herbarium work to gather the morphological information that was used to generate an updated description of the genus and a key to identify all its species and varieties. Her discipline and meticulous work allowed her to study more than 600 herbarium collections and measure more than 100 characters in 228 specimens to build a very complete morphological matrix of the genus. Moreover, Katherin studied a particular location in Colombia, where four species of *Kohleria* exist in sympatry and seem to hybridize. In this locality, Katherin collected and measured more than 100 individuals belonging to all four species and potential hybrids; she obtained a complete dataset for floral characters, and by applying morphometric methods, she was able to elucidate the presence of intermediate morphologies in those hypothetical hybrids and identify their potential parental.

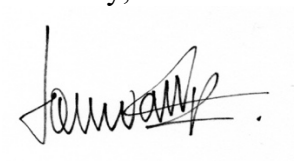
For her graduate studies, Katherin wants to continue working on hybridization within Gesneriaceae; therefore, the next step is to obtain molecular data to test her preliminary findings. To achieve this, she contacted Dr. Eric Roalson, at Washington State University, who has extensive experience in phylogenetics of the family Gesneriaceae and Next Generation Sequencing (NGS) methods; currently, he is supervising a more extensive study of the genus *Kohleria* that involves the complete phylogeny and the phylogeography of its most widely distributed species, *Kohleria spicata*. Support from the IAPT Research Grants Program will allow Katherin to visit Dr. Roalson lab, who has agreed to host her, get trained in laboratory techniques, generate the molecular data needed for her research and discuss the process to apply

to grad school there. This visit will greatly benefit Katherin early career because she will be able to learn the molecular techniques she cannot learn here in Colombia, since we lack the laboratory and the resources to carry out NGS. Further, her visit to Dr. Roalson lab will generate important data to continue exploring and understanding hybridization in *Kohleria* and in Gesneriaceae.

Katherin is at the ideal stage of her life to continue with her passion in botany and her experience at Dr. Roalson lab will greatly benefit her future studies and contribute to the knowledge and understanding of the evolution of Gesneriaceae and ultimately of plants in the neotropics. I am confident this Katherin will get the most out of her work at Dr. Roalson lab given her discipline, attention to details and analytic mind. I have no doubt that Katherin will accomplish her goals and will be able to stablish and continue a productive collaboration with Dr. Roalson and his lab.

Please contact me if you need further information pertaining to her application for IAPT Research Grants Program.

Sincerely,



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