***TWAS-2022***

***CURRICULUM VITAE* (*CV*)**

Name: Pablo Bolaños-Villegas

Birthday: March the 15th 1979

Institution: University of Costa Rica

Position: professor and researcher

E-mails: pablo.bolanosvillegas@ucr.ac.cr, pollux79@gmail.com

Websites:

*https://www.researchgate.net/profile/Pablo\_Bolanos-Villegas2?ev=hdr\_xprf*

*https://publons.com/researcher/671864/pablo-bolanos-villegas*

***Studies:***

1. Ph.D. in Biotechnology, National Chung Hsing University, Taiwan, 2014.
2. M.Sc. in Horticulture, National Pingtung University of Science and Technology, Taiwan, 2007.
3. B.Sc. in Plant Science, University of Costa Rica, 2005.
4. Training in Mandarin Chinese, National Taiwan University, Mandarin Training Center, Taiwan, 1997-1999.

***Interests:*** plant reproduction, plant breeding, cell biology, science diplomacy, science policy.

***Scientific Memberships:*** American Society of Plant Biologists (ASPB), International Society for Horticultural Science (ISHS), Latin American alumnus of The Young Affiliates Network (TYAN) of TWAS.

***Collaboration with TWAS:*** member of the Gender Advisory Committee of TWAS.

***Research achievements:***

1. Together with professor Fure-Chyi Chen (National Pingtung University of Technology) we showed that pollen fertility in Phalaenopsis orchids is dependent on the presence of chromosome defects, and that the formation of normal tetrads at telophase II is an excellent predictor of fertility (see publications). This line of research has a strong commercial impact in Taiwan.
2. Together with professors Hong Ma (Penn State) and Yingxiang Wang (Fudan University, Shanghai) we showed that the during meiosis, the lettuce *FANCM* gene controls the clustering of crossovers, not only their number (see publication). In humans, defects in this gene causes Fanconi anemia.

**Assistance at workshops on diplomacy:**

1. Central American Course on Scientific Diplomacy, April 26-29, 2022, organized by UNESCO, the International Network for Government Science Advice (INGSA), and the Central American Integration System (SICA).
2. Online course on European Scientific Diplomacy, October 2020 (online), organized by the S4D4C initiative of the European Union.
3. Workshop on the Sustainable Development Goals (SGDs) of the UN, organized by the Global Young Academy and TYAN, Panama City, October 2019.

***Work as associate journal editor***

1. Annals of the Brazilian Academy of Sciences (https://www.scielo.br/j/aabc/i/2021.v93suppl1/) (eISSN 1678-2690). Official journal of the Brazilian Academy of Sciences.
2. *Frontiers in Genetics* (https://www.frontiersin.org/journals/genetics/about#about-facts) (eISSN 1664-8021). Peer-reviewed research on genes and genomes relating to all the domains of life, from humans to plants to livestock and other model organisms.
3. *Frontiers in Ecology and Evolution* (https://www.frontiersin.org/journals/ecology-and-evolution/about#about-facts) (eISSN 2296-701X). Peer-reviewed research across fundamental and applied sciences, to provide ecological and evolutionary insights into our natural and anthropogenic world, and how it should best be managed.

***Work as journal reviewer***

1. *Plant Cell* (http://www.plantcell.org). (eISSN 1531-298X). Journal on cellular biology, molecular biology, biochemistry, genetics, development, and evolution.
2. *PLOS Genetics* (http://journals.plos.org/plosgenetics/). (eISSN: 1553-7404). Journal on genetics and genomics published by PLOS (Public Library of Science).
3. *PLOS ONE* (http://journals.plos.org/plosone/). (eISSN: 1932-6203). Multidisciplinary Open Access journal published by PLOS (Public Library of Science).
4. *Scientia Horticulturae* (http://www.journals.elsevier.com/scientia-horticulturae) (ISSN: 0304-4238). International horticulture journal edited by Elsevier/Science Direct.
5. *Plant Growth Regulation* (http://www.springer.com/life+sciences/plant+sciences/ journal/10725) (ISSN: 0167-6903, print version, eISSN: 1573-5087). International journal on plant growth and development edited by Springer.
6. *Bio-protocol* (https://bio-protocol.org/Default.aspx) (ISSN: 2331-8325). An online peer- reviewed protocol journal. Edited in partnership with *Science*.

***Participation in symposia and meetings:***

1. Bolaños-Villegas, P. 2021. Understanding loss of floral biodiversity. TYAN International Thematic Workshop: science and sustainability, solutions for the Caribbean and Central America, online meeting, San Jose, Costa Rica, role: organizer. December 2.
2. Bolaños-Villegas, P. 2021. The role of meiotic gene *FANCM* in crossover distribution in plants. TWAS 29th General Meeting & 15th General Conference, hybrid meeting, Jeddah, Saudi Arabia. November 1-5.
3. Bolaños-Villegas, P. 2021. The Fanconi anemia ortholog *FANCM* regulates meiotic crossover distribution in plants. Annual Conference of the Society for Experimental Biology (UK), online meeting. June 29 -July 8.
4. Scott-Moraga, K., Chaves-Rojas, M., and Bolaños-Villegas, P. 2021. Mutation breeding in the cat and dwarf date palms. The 2nd International Symposium on Tropical and Subtropical Ornamentals, hybrid meeting, Bogor Agricultural University, Indonesia. July 27-28.
5. Víquez-Zamora, C., Vindas, M., and Bolaños-Villegas, P. 2020. Efficiency of somatic DNA damage repair in maize from American commercial inbred lines and Central American purple landraces. Plant Biology World Summit, American Society of Plant Biologists, 27-31/7, Washington D.C., USA. https://plantbiology2020.ipostersessions.com/default.aspx?s=15-C7-86-47-61-AF-15-74-41-8B-22-67-D9-49-C5-4D.
6. Bolaños-Villegas, P. 2019. Upregulation of DNA repair genes in Costa Rican purple maize landrace Pujagua. Oral presentation during the 22nd TWAS (The World Academy of Sciences of UNESCO) Latin America and the Caribbean, Young Scientist Conference. 27-29/11, Rio de Janeiro, Brazil. http://www.abc.org.br/wp-content/uploads/2019/08/PROGRAMA-31-10.pdf
7. Bolaños-Villegas, P., and Víquez-Zamora, C. 2019. Effects of ionizing radiation in maize lines from Mexico and Central America. 2019 Meeting of the American Society of Plant Biologists, 3-7/8, San José, California, USA.
8. Bolaños-Villegas, P. 2018. Analysis of tolerance to DNA in maize as a tool to achieve zero hunger. 14th TWAS General Conference and 28th General Meeting (TWAS/UNESCO), November 24-28, Trieste, Italy. https://f1000research.com/posters/7-1954
9. Mora, J., Albertazzi, S., and Bolaños-Villegas, P. 2018. Meiotic chromosome analysis in tropical orchid genus *Sobralia*. Orchidées 2018: What Future for Orchids, Annual Meeting of the European Orchid Council, March 24, Paris.
10. Mora, J., Scott, L., Castro, S., and Bolaños-Villegas, P. 2017. Regulation of embryo development in tropical fruit Carica papaya. 1st Meeting of the Young Affiliate Members of TWAS (TWAS/TYAN), August 22-24, Rio de Janeiro, Brazil.
11. Castro, S., and Bolaños-Villegas, P. 2017. Analysis of UV tolerance and somatic homologous DNA repair in Mesoamerican homozygous maize lines. 2017 Cold Spring Harbor Asia Conference, May 22-26, Suzhou, China. https://f1000research.com/posters/6-1422.
12. De, K., Bolaños-Villegas, P., Yang, X., Mitra, S., Homan, G., Jauh, G.Y., and Makaroff, C. 2016. The opposing actions of Arabidopsis CTF7 and WAPL1/2: differences in mitotic and meiotic cells. 2016 Meeting of the American Society of Plant Biologists, July 9-13, Austin, USA. https://f1000research.com/posters/5-1810

***Experience as Grant Reviewer***

1. Reviewer for the National Council of Universities (Costa Rica) and the Max Planck Society (Germany), August 31, 2022.
2. Faculty of Medicine Balamand University, Lebanon, February 2020.
3. Joint TWAS-DFG (German Research Foundation) Program for Cooperation Visits in Sub-Saharan Africa, April 2018.