

MARK CHRISTIAN FELIPE R. REDILLAS, PhD

PUBLICATIONS & SCHOLARLY OUTPUT

1. Jae Sung Shim, Hye In Jeong, Seung Woon Bang, Se Eun Jung, Goeun Kim, Youn Shic Kim, **Mark Christina Felipe R. Redillas**, Se-Jun Oh, Jun Jung Seo, Ju-Kon Kim. Drought-Induced Branched-Chain Amino Acid Aminotransferase enhances drought tolerance in rice. *Plant Physiology*. 2023 Feb 12;191(2):1435-1447. doi: 10.1093/plphys/kiac560.
2. Yokimiko D. Torrejos, Marla C. Maniquiz-Redillas, Aristotle T. Ubando, Aaron Don M. Africa, Alvin B. Culaba, Ju-Kon Kim, **Mark Christian Felipe R. Redillas**. "Use of Fuzzy Logic in RNA-seq Data for Transcript Mining," 2022 IEEE 14th International Conference on Humanoid, Nanotechnology, Information Technology, Communication and Control, Environment, and Management (HNICEM), Boracay Island, Philippines, 2022, pp. 1-5, doi: 10.1109/HNICEM57413.2022.10109397.
3. Fredelino A. Galleto, Jr., Melvin K. Cabatuan, Aaron Don M. Africa, Marla C. Maniquiz-Redillas, Jay M. Navaluna, John Christian Q. Herrera, Aristotle T. Ubando, Alvin B. Culaba and **Mark Christian Felipe R. Redillas**. Bioretention Systems Optimization and Design Characterization Model Using Fuzzy Rough Set Theory. MDPI Water. 2022
4. J. M. Navaluna, J. C. Q. Herrera, M. C. Maniquiz-Redillas, A.D.M. Africa, A. T. Ubando, **M.C.F.R. Redillas**, A. B. Culaba "An Optimization Algorithm Using Fuzzy Logic and Weibull Distribution for Bioretention Systems," 2021 IEEE 13th International Conference on Humanoid, Nanotechnology, Information Technology, Communication and Control, Environment, and Management (HNICEM), 2021, pp. 1-5, doi: 10.1109/HNICEM54116.2021.9731904.
5. Y.C. David, J.B. Ylagan, H.A. Gonzales, J.M.P. Chan, J.M.S. Mondragon, M.A.A. Tavera and **M.C.F.R. Redillas**. Volatile organic compound profiling of *Capsicum annum* var. longum grown under different concentrations of nitrogen. *Hellenic Plant Protection Journal*. 2021, 14: 77-88. DOI 10.2478/hppj-2021-0008
6. J.S. Shim, S.H. Park, D.L. Lee, Y.S. Kim, S.C. Park, **M.C.F.R Redillas**, J.S. Seo and J.K. Kim. The Rice GLYCINE-RICH PROTEIN 3 Confers Drought Tolerance by Regulating mRNA Stability of ROS Scavenging-Related Genes. *Rice*. 2021, 14:31
7. **Mark C.F.R. Redillas**, Seung Woon Bang, Dong-Keun Lee, Young Shic Kim, Haring Jung, Pil Joong Chung, Joo-Won Suh, Ju-Kon Kim. Allantoin accumulation through overexpression of *ureide permease 1* improves rice growth under limited nitrogen conditions. *Plant Biotechnology Journal*. 2018. **ISSN**. doi: 10.1111/pbi.13054
8. Harin Jung, Pil Joong Chung, Su-Hyun Park, **Mark C.F.R. Redillas**, Youn Shic Kim, Joo Woon Suh and Ju-Kon Kim. Overexpression of OsERF48 causes regulation of OsCML16, a calmodulin-like protein gene that enhances root growth and drought tolerance. *Plant Biotechnology Journal*. 2017. DOI: 10.1111/pbi.12716. **ISSN**: 1467-7652; WILEY
9. **Mark C.F.R. Redillas**, Jin S Jeong, Youn S Kim, Harin Jung, Seung W Bang, Yang D Choi, Sun-Hwa Ha, Christophe Reuzeau, Ju-Kon Kim. The overexpression of *OsNAC9* alters the root architecture of rice plants enhancing drought resistance and grain yield under field conditions. *Plant Biotechnology Journal*. 2012 **10**(7): 792-805. **ISSN**: 1467-7644
10. **Mark C.F.R. Redillas**, Su-Hyun Park, Jang Wook Lee, Youn Shic Kim, Jin Seo Jeong, Harin Jung, Seung Woon Bang, Tae-Ryong Hahn, Ju-Kon Kim. Accumulation of trehalose increases soluble sugar contents in rice plants conferring tolerance to drought and salt stress. *Plant Biotechnology Reports*. 2012. **6**(1): 89-96. **ISSN**: 1863-5466; Springer

11. **Mark C.F.R. Redillas**, Jin Seo Jeong, Reto J. Strasser, Youn Shic Kim, Ju-kon Kim. JIP Analysis on rice (*Oryza sativa* cv Nipponbare) grown under limited nitrogen conditions. *Journal of Korean Society for Applied Biological Chemistry*. 2011 **54**(5): 827-832. **ISSN**: 1738-2203; Springer
12. **Mark C.F.R. Redillas**, Reto J. Strasser, Jin Seo Jeong, Youn Shic Kim, Ju-kon Kim. The use of JIP test to evaluate drought-tolerance of transgenic rice overexpressing *OsNAC10*. *Plant Biotechnology Reports*. 2011 **5**: 169-175. **ISSN**: 1863-5466; Springer
13. Dong-Keun Lee, **Mark C.F.R. Redillas**, Harin Jung, Youn Shic Kim and Ju-Kon Kim. A nitrogen molecular sensing system, comprised of the ALLANTOINASE and UREIDE PERMEASE 1 genes, can be used to monitor N status in rice. *Frontiers in Plant Science*. **ISSN**: 1664-462X; Frontiers Media
14. Grace Nisola, **Mark C.F.R. Redillas**, Eulsaeng Cho, Midoek Han, Namjong Yoo, Wookjin Chung. Comparison of reactive porous media for sulfur-oxidizing denitrification of high nitrate strength wastewater. *Biochemical Engineering Journal*. 2011 (58-59): 79-86. **ISSN**: 1369-703x; Elsevier
15. Jin Seo Jeong, Youn Shic Kim, **Mark C.F.R. Redillas**, Geupil Jang, Harin Jung, Seung Woon Bang, Yand Do Choi, Sun Hwa Ha, Christophe Reuzeau, Ju-Kon Kim. OsNAC5 overexpression enlarges root diameter in rice plants leading to enhanced drought tolerance and increased grain yield in the field. 2013 *Plant biotechnology journal* **11** (1): 101-114. **ISSN**: 1467-7644; WILEY
16. Su-Hyun Park, Jin Seo Jeong, **Mark C.F.R. Redillas**, Harin Jung, Seung Woon Bang, Youn Shic Kim, Ju-Kon Kim. Transgenic overexpression of UIP1, an interactor of the 3' untranslated region of the Rubisco small subunit mRNA, increases rice tolerance to drought. *Plant Biotechnology Reports*. 2013 **7**(1): 83-90. **ISSN**: 1863-5466; Springer
17. Su-Hyun Park, Seung Woon Bang, Jin Seo Jeong, Harin Jung, **Mark C.F.R. Redillas**, Hyung Il Kim, Kang Hyun Lee, Youn Shic Kim, Ju-Kon Kim. Analysis of the APX, PGD1 and R1G1B constitutive gene promoters in various organs over three homozygous generations of transgenic rice plants. *Planta*. 2012. **235**(6): 1397-1408. **ISSN**: 0032-0935; Springer Science+Business Media
18. Su-Hyun Park, Jin Seo Jeong, Eun Hyang Han, **Mark C.F.R. Redillas**, Seung Woon Bang, Harin Jung, Youn Shic Kim, Ju-Kon Kim. Characterization of the root-predominant gene promoter *HPX1* in transgenic rice plants. *Plant Biotechnology Reports*. 2013 (7) 339-344. **ISSN**: 1863-5466; Springer
19. Grace M. Nisola, Eulsaeng Cho, Jennica D. Orata, **Mark C.F.R. Redillas**, Danvir C. Farnazo, Enkhdul Tuuguu, Wookjin Chung. NH₃ gas absorption and bio-oxidation in a single bioscrubber system. *Process Biochemistry*. 2009 161-167. **ISSN**: 1359-5113; Elsevier