Argentina

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Please describe any new experimental resources and/or software tools available to Arabidopsis researchers that have been initiated or funded in your country in 2020 or early 2021

Funding was mostly directed to COVID-19 projects and tools were focused on providing regional solutions for pandemic related issues. If those tools will be available or provide solutions for Arabidopsis researchers, we will know soon.

Please provide a paragraph describing the general impact of the COVID19 pandemic on the scientific community in your country

Research activities in the whole country were stalled by COVID19. With very few exceptions, most research centers, universities and institutes remained in lockdown until the end of the year, meaning scientists couldn't access their workplaces for months. On top of that, schools were closed for the school year, adding an extra burden to families, especially to women scientists. This will affect the scientific community in general for years to come.

Planned events for 2021 and 2022

- XXXIII Argentinian meeting of Plant Physiology (Reunión Argentina de Fisiología Vegetal), September 13-17, 2021, Santa Fe, Argentina. https://rafv2020.wixsite.com/santa-fe

- XXXVIII Jornadas Argentinas de Botánica (Argentinian Botany Meeting), September 6-8 2021, Entre Ríos, Argentina. Virtual. https://botanicaargentina.org.ar/xxxviii-jornadas-argentinas-de-botanica-entre-rios-2021/

- XLIX Congreso Argentino de Genética / XVIII Congreso Latinoamericano de Genética (Argentinian / Latin American Genetics joint conference), October 5-8, 2021, Valdivia, Chile. https://alagenet.org/alag2021/

- 2° Reunión Argentina de Biología de Semillas (Seed Biology Argentinian Network meeting), October 2021, Salta, Argentina. https://redargentinasemillas.weebly.com/reuniones.html

- LVII Reunión Anual de la SAIB (Argentinian Society for Research in Biochemistry and Molecular Biology, 57th annual meeting), November 1-4, 2021. http://www.saib.org.ar/sites/default/files/SAIB-Circular_1_2021.pdf

- The ARG Plant Women network offers weekly virtual seminars and monthly professional development workshops (in Spanish). https://argplantwomen.weebly.com/.

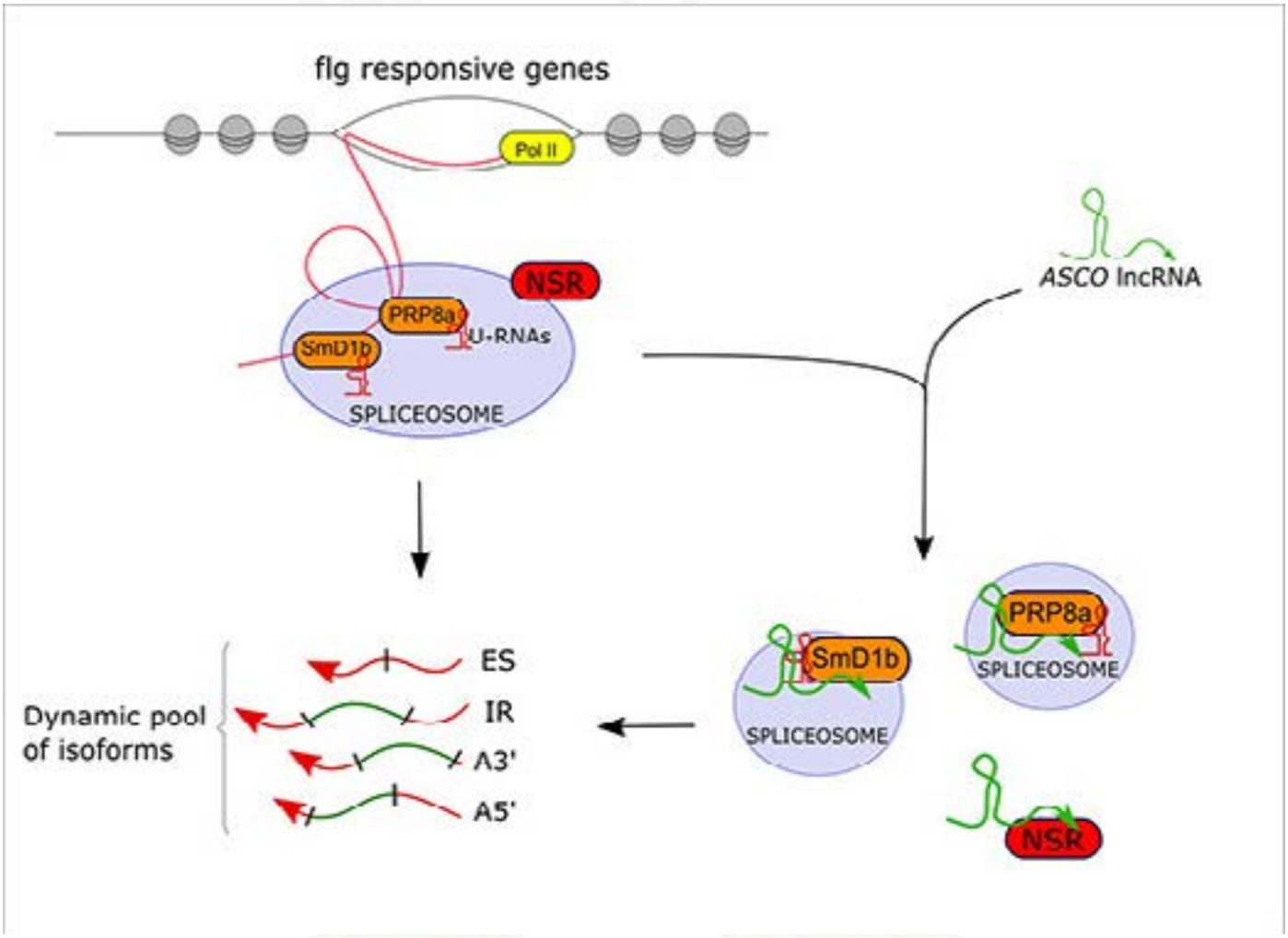
Selected Publications

- "Single-stranded oligodeoxynucleotides induce plant defence in *Arabidopsis thaliana*" Laila Toum, Gabriela Conti, Francesca Coppola Guerriero, Valeria P Conforte, Franco A Garolla, Sebastián Asurmendi, Adrián A Vojnov, Gustavo E Gudesblat. 2020. Annals of Botany, 126 413–422, https://doi.org/10.1093/aob/mcaa061

Publication from a recently established group showing the potential use of effectors as defense inducers (with applications in agriculture) using Arabidopsis as study model.

- "The Arabidopsis lncRNA ASCO modulates the transcriptome through interaction with splicing factors" Richard Rigo, Jérémie Bazin, Natali Romero-Barrios, Michaël Moison, Leandro Lucero, Aurélie Christ, Moussa Benhamed, Thomas Blein, Stéphanie Huguet, Céline Charon, Martin Crespi, Federico Ariel. 2020. EMBO Reports, 21:e48977 https://doi.org/10.15252/embr.201948977

An international collaborative project led by an awarded early career researcher.



The Arabidopsis lncRNA ASCO is bound by multiple splicing factors, including spliceosome core components. ASCO deregulation modulates alternative splicing of specific genes, thus shaping the global transcriptome and plant response to flagellin.

- The Arabidopsis lncRNA ASCO is recognized by multiple splicing factors.
- ASCO deregulation affects the alternative splicing of a specific subset of genes.
- ASCO deregulation alters the Arabidopsis response to flagellin.

- "Pathogenicity and toxicity of Fusarium tucumaniae and Fusarium crassistipitatum to soybean and *Arabidopsis thaliana*" Romina G. Rosati, Rocío S. Ramos, María M. Scandiani, Alicia G. Luque, Claudia P. Spampinato. 2021. Plant Pathology, 70: 407-416 (first published September 2020) https://bsppjournals.onlinelibrary.wiley.com/doi/full/10.1111/ppa.13286

A publication of an all-women team describing the use of Arabidopsis as a tool to study pathogens of regional importance for agricultural production.

- "*Arabidopsis thaliana* SURFEIT1-like genes link mitochondrial function to early plant development and hormonal growth responses" Diana E. Gras, Natanael Mansilla, Carina Rodríguez, Elina Welchen, Daniel H. Gonzalez. 2020. The Plant Journal, 103: 690-704. https://onlinelibrary.wiley.com/doi/full/10.1111/tpj.14762

A very elegant study of a senior researcher and his group.

Major Funding Sources

- Agencia Nacional de Promoción de la Investigación, el Desarrollo Tecnológico y la Innovación (Agencia I+D+i), Ministerio de Ciencia, Tecnología e Innovación.
There is a yearly call for proposals, unfortunately it was not opened during 2020 (the last call was on November 2019, results were announced in mid-February; the new call is open now until mid-March) http://www.agencia.mincyt.gob.ar/frontend/agencia/convocatorias

- Consejo Nacional de Ciencia y Tecnología (CONICET). There was a proposal call for pluriannual grants during 2020 (last time opened was 2017). https://convocatorias.conicet.gov.ar/proyectos-pip/

- Some universities (such as Universidad de Buenos Aires, Universidad Nacional de Quilmes, Universidad Nacional del Litoral, etc) and provincial science agencies (Santa Fe, Córdoba, Buenos Aires, Chubut) open calls for proposals.

- Other sources are foundations such as Fundación Bunge y Born. I'm not sure though how much they provide support to the Arabidopsis community as calls from these sources are open to all disciplines.

- Argentinian scientists have access to some international funding sources such as the ICGEB grant calls (https://www.icgeb.org/activities/grants/).