

SUMMARISED CURRICULUM VITAE

Gustavo Ariel SLAFER.

Ing. Agr. (Univ. Nac. La Plata); M. Sc. (Univ. Buenos Aires)

Ph. D. (Univ. Melbourne, Australia)



I.- Current Position

- **Research Professor of ICREA** (Catalonian Institution for Research and Advanced Studies, since 2004).

With permission of ICREA, I am also currently

- **Associate Professor**, University of Lleida, Spain (since 2008).
- **Senior Researcher, PI of the Crop Physiology Group and Head of the Agronomy and Environmental Sciences Area** of AGROTECNIO-CERCA Center for Food and Agriculture Research (<https://agrotecnio.org/about/#steeringCommite> - as accessed on Dec26)
- **Honorary Professor** of both (i) School of Biosciences, University of Nottingham, United Kingdom (since 2005), and (ii) School of Agronomy, University of Buenos Aires, Argentina (since 2018).
- **Editor/Associate Editor** (with different denominations but always responsible for desk-rejections or for the review process of mss submitted, and making the final decision on acceptance/rejection) of Food Energy Security (UK), Scientific Reports (UK), Frontiers in Plant Science (Switzerland), and The Crop Journal (Crop Science Society of China and Elsevier, The Netherlands). In addition, I have been Gest Editor of few special issues in international journals. I was also one of the Technical Editors of Crop Science (Crop Science Society of America) for 6 years.
- **Member of the Editorial Board** of Field Crops Research (Netherlands), European Journal of Agronomy (EU), and International Journal of Molecular Sciences (Switzerland).
- **Member of the Scientific Advisory Council** of the GADEA for Science Foundation.

CV SUMMARY

I am Research Professor of ICREA and Associate Professor of the University of Lleida (Catalonia-Spain). I am also currently (i) Honorary Professor of both the School of Biosciences, Univ. Nottingham (UK, since 2005), and the Faculty of Agronomy, Univ. Buenos Aires (Argentina, since 2018), (ii) Editor/Associate Editor (responsible for desk-rejections or for the review process, making the final decision on acceptance/rejection) of Food Energy Security (UK), Scientific Reports (UK), Frontiers in Plant Science (Switzerland), and The Crop Journal (China); (iii) Member of the Editorial Board of Field Crops Research (Netherlands), European Journal of Agronomy (EU) and International Journal of Molecular Sciences (Switzerland), and (iv) Member of the Scientific Advisory Council of the GADEA for Science Foundation. My research focuses on studying the mechanisms underlying the responses of grain crops to environmental and genetic factors. The aim is to identify alternatives to traditional farming and breeding practises to enhance the efficiency of resource use, as an avenue to increase simultaneously both crop productivity and agricultural sustainability. I published more than 230 papers in JCR-indexed journals, the vast majority (more than 90%) in Q1 journals. Using the most restrictive database (Web of Science “Core Collection”) at Dec 2025 I had an h-index of 73 (webofscience.com/wos/author/record/384796). In Google Scholar my H-index reaches 100 (scholar.google.com/citations?user=DVuZR_cAAAAJ&hl=en). I also published more than 40 chapters in scientific books of international publishers (e.g. Elsevier, CABI, Springer, Academic Press, Taylor & Francis, etc.); and edited 7 scientific books published by CABI (UK), The Haworth Press (USA), Springer Verlag (USA) and Marcel Dekker (USA). I am “Fellow” of the Crop Science Society of America (only 0.3% of the members can be Fellows) and was awarded prizes in recognition of contributions to knowledge. I have been Principal Investigator (of either the whole project or the group of the UdL in multinational research consortia) of Catalonian, Spanish, European and Global (IWYP) competitive grants. I had also signed research contracts with the Industry. I was also the main supervisor of the PhD theses of 19 students who already defended their theses (and are successfully doing research or working for the industry across many different countries) and I am currently supervising three more students. I have been frequently invited to deliver talks in International conferences and in Prestigious Centres of Research in USA, Australia, Argentina, France, Mexico, The Netherlands, Canada, Hungary, Brazil, UK, Chile, Finland, Uruguay, Ireland,

II.- Research Grants

I was/am Principal Investigator (of either the whole project or the group of the UdL in multinational research consortia) of the following national and international competitive grants that were active over the last 6 years (i.e., ending in 2021 or later)

The list below does not include previous grants neither grants in which I was researcher but not PI. Funds indicated are those of the group, not to the overall project (in case of coordinated projects).

- FSOV, *Fonds de Soutien à l'obtention Végétale* [French funding supporting the development of valuable genetic materials]. Plasticité des composantes de rendement des céréales à pailles (PlastiX). March 2019 - February 2022 (FSOV 2018 R), 80,845€ (GA Slafer also responsible for the whole consortium for the “Ecophysiological determinism of plastic response”)
- Plan Nacional (Spain) de I+D, Ministerio de Economía y Competitividad de España, 2019-2021. Plasticidad fenotípica del rendimiento y calidad de trigo en respuesta a ‘golpes de calor’ en fases reproductivas de genotipos contrastantes (RTI2018-096213-B-I00), € 153,670.
- PRIMA (Partnership for Research and Innovation in the Mediterranean Area; a partnership between 19 Participating States and the EU Horizon 2020). 15 Sept 2019-14 Sept 2022. Utilization of local genetic diversity to understand and exploit barley adaptation to harsh environments and for pre-breeding –GENDIBAR (2018-SECTION2-8), € 85,000.
- AGROTECNIO Joint Research Projects. Analysing the physiological effects, and developing simple protocols for high throughput automatic determination, of seedling and spike densities to provide support to selection in breeding programs. 01 Sept 2021 – 31 Ago 2023. 20000€
- Plan Nacional (España) de I+D, Ministerio de Ciencia e Innovación de España – Agencia Estatal de Investigación, Dic 2022-Ago2025. Fertilidad de espigas en trigo: rol de genes promisorios, variabilidad en material elite, plasticidad y compensaciones. Código PID2021-127415OB-I00, € 157300 (Director/Investigador Principal).
- Plan Nacional (España) de I+D, Ministerio de Ciencia e Innovación de España – Agencia Estatal de Investigación, Proyectos de Transición Ecológica y Digital, Sept 2022-Nov 2024. Proyecto Coordinado “Adapting wheat to climate change: mitigating the penalties of heat waves on wheat yield and quality (HeWaWheat)” [2980980 €]. Sub-proyecto 1 UdL: Genetic adaptation of wheat yield to heat waves: physiological bases of variability in plasticity of floret development, grain set and grain growth. Código TED2021-130466B-C21, € 161000 (Co-Director/Co-Investigador Principal y Coordinador 2 del Proyecto
- Generalitat de Catalunya, Departament d'Agricultura, Ramaderia, Pesca i Alimentació. Convocatoria Competitiva 2023 de Grups Operatius de l'Associació Europea per a la Innovació en matèria de productivitat i sostenibilitat agrícoles (AEI-Agri). Millora de la resiliència de l'ordi i de la malta als cops de calor i el brotat precollita (RESORMA). €248,830.coordinado).
- Plan Nacional (España) de I+D, Ministerio de Ciencia e Innovación de España – Agencia Estatal de Investigación, Sep 2025-Ago 2028. Fundamentos eco-fisiológicos que determinan la respuesta del rendimiento y la calidad a recursos y señales ambientales claves en trigo y cebada. Código PID2024-162737NB-I00, € 186,250

III.-Lecturing

1.- Undergraduate

Until 2003 I have lectured regular annual courses of Crop Production for the Agronomy degree in the University of Buenos Aires

In addition I was Responsible for the intensification courses: “Maize and Wheat Yield Physiology” and “Physiological Bases of Wheat and Barley Development”

At the University of Lleida I have been in charge of the module of crop development in the course “Biotechnological Applications for Improving Crop Productivity” in the Degree of Biotechnology”

2.- Postgraduate

Until 2003 I have lectured the following courses for the MSc or PhD degrees of the Univ of Buenos Aires (i) "Physiological bases of crop improvement", "Crop development and environmental controls", "Wheat Physiology", "Genetic and environmental controls of yield potential and actual yield", "Writing and publication of scientific papers"

After 2004, at the University of Lleida I have lectured "Writing and publication of scientific papers", and "Crop physiology"

In 2021-2023 I delivered the course "Design and Writing of Competitive Research Projects" Organised by FONTAGRO

I delivered several courses at different universities by invitation

IV.- Supervision of PhD students and postdoctoral researchers

I was the main supervisor of the PhD theses of (i) 6 students of the Univ. de Buenos Aires (and Co-supervisor of another 4); and of (ii) 12 students of the University of Lleida.

In addition, I have been a number of times supervisor of MSc theses both in Argentina and Spain.

The PhD students I was main supervisor (and their current positions) are

Dr. Miralles is presently Associate Professor at the University of Buenos Aires and Research Scientist at CONICET (the Argentine Council for Scientific Research).

Dr. Calderini is presently Professor at the Austral University of Chile, Valdivia, Chile.

Dr. Abeledo is presently Adjunct Professor at the University of Buenos Aires and Research Scientist at CONICET (the Argentine Council for Scientific Research).

Dr. Whitechurch is presently Research Scientist at CONICET (the Argentine Council for Scientific Research).

Dr. González is presently Research Scientist at CONICET (the Argentine Council for Scientific Research) and Researcher at INTA-Pergamino, Argentina.

Dr. Kantolic is presently Adjunct Professor, developing research and teaching activities, at the University of Buenos Aires, Argentina

Dr. Acreche is presently researcher at INTA-Salta and CONICET, Argentina.

Dr. Pedro is presently at BASF, Spain.

Dr. Cossani was postdoc at CIMMYT (International Center based in Mexico) firstly and is now a postdoc at SARDI (South Australia Research and Development Institute, Australia).

Dr. Ferrante was postdoctoral researcher at the University of Queensland, and now is postdoc at the University of Adelaide (both in Australia). [Dr. Ferrante obtained the award "Premio Extraordinario de Doctorado"]

Dr. Antonio has been postdoctoral scholar firstly at Iowa State University (USA) and now at Pennsylvania State University (USA).

Dr. Cartelle is an independent consultant at Tarragona (Spain).

Dr. Marti is researcher at CBC-Europe, a branch of CBC Group (International Company, with Headquarters in Japan).

Dr. Prieto is Responsible for Research Projects of AGIDEA at Pergamino, Argentina (AGIDEA is a company offering agricultural research services in Argentina and the USA).

Dr. Ochagavía was firstly a Juan de la Cierva postdoctoral researcher in the EEAD, CSIC (Spain), and then assistant Breeder in Limagrain. [Dr. Ochagavía obtained the award "Premio Extraordinario de Doctorado"]

Dr. Priyanka A Basavaraddi was firstly Research Associate at the University of Agricultural Science, Bangalore-India, was then a Postdoctoral Fellow both in INRAE Clermont-Ferrand and the UdL, and is currently breeder at Limagrain-France.

Dr. JinWook Kim was firstly a Postdoctoral Fellow at the University of Guelph, Ontario-Canada and the University of Missouri (USA), and is now Postdoctoral Fellow at Cornell University (USA).

Dr. Jorge Parrado is Researcher in Desarrollos Agroquímicos S.A., DASA (a private Spanish company designing fertilisers and biostimulants for agrioculture)

Dr. Breno Bicego has just graduated in late Dec 2025.

I was also the main supervisor of the following postdoctoral researchers

Dr. L. Gabriela Abeledo. Juan de la Cierva contract for 2008-2010.

Dr. Monica Elía. Contracted by a Project for 2012-2015.

Dr. Addy L. García. Contracted by a Project for 2018-2019.

Dr. Priyanka A Basavaraddi. ‘Margarita Salas’ Contract for 2022-2024 to work both in INRAE Clermont-Ferrand and the UdL.

Dr. Constanza Carrera. ‘Maria Zambrano’ contract for 2022-2024

Dr. Rocio Ploschuk. Juan de la Cierva contract for 2023-2024

V.- Invited Talks

I have been invited to deliver talks in International Conferences and in Prestigious Centers of Research in USA, Australia, Mexico, The Netherlands, Canada, Hungary, Brazil, UK, Chile, Finland, Kazakhstan, and China (as well as in Spain –when I was working at Argentina- and in Argentina -after I moved to Spain). Invited talks (NOT including seminars delivered in occasions of visiting overseas centers) over the last 6 years include:

- Overview of “sink side” dynamics, important processes and traits using a Wiring Diagram. Workshop: Delivering High Impact Traits and Novel Genetic Variation, within the IWYP (International Wheat Yield Partnership) Conference 2021. Online Format, 21 September 2021.
- Avances en ecofisiología de cereales de invierno. Atributos fisiológicos de potencial valor en la futura mejora de trigo. IX Congreso Nacional de Trigo de Argentina y III Encuentro del Mercosur. Online Format, 29 September 2021.
- Traits determining sink strength for improving wheat yield. Resource allocation to juvenile spikes, efficiency in its use and floret development. Iberian Plant Biology 2023. Braga, Portugal, 12 July 2023
- Wheat yield physiology as affected by N-fertilization. 2nd Workshop Argentina – UK Partnership Wheat. School of Agronomy-Univ Buenos Aires, Argentina, 27 November 2023.
- Wheat yield as affected by high temperature. Interference with mechanisms determining wheat yield. Rank Symposium on Net Zero Agriculture. Lake District, UK 15-18 April 2024.
- Further improving spike fertility traits in wheat to keep increasing yield potential. International Conference on Plant Biology and Biotechnology (ICPBB 2024). Almaty, Kazakhstan, 3-6 June 2024.
- Barley yield physiology. Effects of *PPD-H1* alleles beyond phenology and differences between 6- and 2-row barleys. Australian Barley Technical Symposium. Adelaide, Australia, 12-15 August 2024.
- Wheat yield: understanding key physiological traits to improve yield potential and resilience to stress. Adelaide Crop Physiology Workshop organised by the International Wheat Initiative Expert Working Group and the CSIRO-Australia. Adelaide, Australia, 19-21 August 2024.
- The relevance of sink strength in determining wheat yield. Workshop on Physiological Insights Informing Breeding and Agronomy. Satellite Event to the International Wheat Congress. Perth, Australia, 22 September 2024.
- Estimating genetic gains in yield interactions with environmental conditions. Symposium on How to Best Measure Gains in Crop Yield Potential. Crop Science Society of America, ASA, CSSA, SSSA International Annual Meeting. San Antonio, Texas, USA, 10-13 November 2024.
- Crop-physiological traits determining mechanistically wheat yield. proWeizen-Conference. Julius Kühn-Institut in Quedlinburg, Germany, 1-3 April 2025.
- Crop-physiological traits that determine yield. Corteva Laureate Webinar. Corteva Global, virtual event. Corteva-USA, 3 December 2025.

VI.- Publications

Overall view of productivity and impact:

I published more than 230 papers in JCR-indexed journals, the vast majority (more than 90%) in Q1 journals. Using the most restrictive database (Web of Science “Core Collection”) at Dec 2025 I had an **h-index of 73** (webofscience.com/wos/author/record/384796). In Google Scholar my h-index reaches 100 (scholar.google.com/citations?user=DVuZR_cAAAAJ&hl=en). I also published more than 40 chapters in scientific books of international publishers (e.g. Elsevier, CABI, Springer, Academic Press, Taylor & Francis, etc.); and edited 7 scientific books published by CABI (UK), The Haworth Press (USA), Springer Verlag (USA) and Marcel Dekker (USA).

Most recent publications (from 2021 onwards):

Since 2021, I published 42 papers in JCR-journals (41 in Q1 journals and 1 in a Q2 journal). The most relevant 15 out of the 42 papers published in this period include:

1. Parrado, J.D., Slafer, G.A., Savin, R., 2025. Photoperiod-H1 effects on barley floret development and fertility under contrasting photoperiods and PHYC backgrounds. Journal of Experimental Botany, 76, 1691–1703.
2. Ploschuk, R.A., Savin, R., **Slafer, G.A.**, 2025. Dual stress, equivalent harm? Hypothesizing on the type of interactions between waterlogging and high temperature. Frontiers in Plant Science, 15, 1472665.
3. Carrera, C.S., Savin, R., **Slafer, G.A.**, 2024. Critical period for yield determination across contrasting grain crops. Trends in Plant Science, 29, 329-342.
This is a Highly Cited Paper (top 1% of the academic field of Plant & Animal Science)
4. Tamagno, S., Carrera, C.S., Marchese, S.I., Savin, R., **Slafer, G.A.**, 2024. Sterility of basal spikelets in wheat. Predetermined fate or a matter of resources? Journal of Experimental Botany, 75, 7160–7173.
5. Kim, J., **Slafer, G.A.**, Savin, R., 2024. Quantifying pre- and post-anthesis heat waves on grain number and grain weight of contrasting wheat cultivars. Field Crops Research, 307, 109264.
6. **Slafer, G.A.**, Savin, R., Sadras, V.O., 2023. Wheat yield is not causally related to the duration of the growing season. European Journal of Agronomy, 148, 126885.
7. **Slafer, G.A.**, Foulkes, M.J., Reynolds, M., Murchie, E.H., Carmo-Silva, E., Flavell, R.B., Gwyn, J., Sawkins, M., Griffiths, S., 2023. A ‘Wiring Diagram’ for sink-strength traits impacting wheat yield potential. Journal of Experimental Botany, 74, 40–71.
This is a Highly Cited Paper (top 1% of the academic field of Plant & Animal Science)
8. Sanchez-Bragado, R., Molero, G., Araus, J.L., **Slafer, G.A.** 2023. Awned versus awnless wheat spikes: does it matter? Trends in Plant Science, 28, 330-343.
9. Parrado, J.D., Savin, R., **Slafer, G.A.**, 2023. Photoperiod sensitivity of *Ppd-H1* and *ppd-H1* isogenic lines of a spring barley cultivar. Exploring extreme photoperiods. Journal of Experimental Botany, 74, 6608–6618.
10. Reynolds, M.P.*, **Slafer, G.A.***, Foulkes, J.M., Griffiths, S., Murchie, E.H., Carmo-Silva, E., Asseng, S., Chapman, S.C., Sawkins, M., Gwyn, J., Flavell, R.B. 2022. A wiring-diagram to integrate physiological traits of wheat yield potential. Nature Food, 3, 318-324 [*Co-lead and Co-corresponding authors].
11. **Slafer, G.A.**, García, G.A., Serrago, R.A., Miralles, D.J. 2022. Physiological drivers of responses of grains per m² to environmental and genetic factors in wheat. Field Crops Research, 285, 108593.
12. Savin, R., Cossani, C.M., Dahan, R., Ayad, J.Y., Albrizio, R., Todorovic, M., Karrou, M., **Slafer, G.A.** 2022. Intensifying cereal management in dryland mediterranean agriculture: rainfed wheat and barley responses to nitrogen fertilisation. European Journal of Agronomy, 137, 126518.
13. Reynolds, M., Atkin, O.K., Bennett, M., Cooper, M., Dodd, I.C., Foulkes, M.J., Froberg, C., Hammer, G., Henderson, I.R., Huang, B., Korzun, V., McCouch, S.R., Messina, C.D., Pogson, B.J., **Slafer, G.A.***, Taylor, N.L., Wittich, P.E. 2021. Addressing research bottlenecks to crop productivity. Trends in Plant Science, 26: 607-630. [*Order of authors was alphabetic (beyond the senior author coordinating the whole review). O.K. Atkin, M. Bennett, B. Huang, S.R. McCouch, C.D. Messina, **G.A. Slafer**, and P.E. Wittich led particular aspects of the review and for that reason they appear as co-corresponding authors].
This is a Highly Cited Paper (top 1% of the academic field of Plant & Animal Science)
14. Kim, J., Slafer, G.A. & Savin, R. 2021. Are portable polyethylene tents reliable for imposing heat treatments in field-grown wheat? Field Crops Research, 271: 108206.
15. Ochagavia, H., Prieto, P., Savin, R. & **Slafer, G.A.** 2021. Developmental patterns and rates of organogenesis across modern and well-adapted wheat cultivars. European Journal of Agronomy, 126: 126280.

VI.- Awards (from 2021 onwards)

- MensaLleida 2023 award to scientific and technological knowledge, in recognition to the achievements over the career and contributions of the studies in crop physiology. MENSA Association. Lleida, Spain.
- Narcís Monturiol Medal 2024 of the Government of Catalonia to honour outstanding contribution to the development of science and technology in Catalonia. Barcelona, Spain.

- RAICES 2025: Award of the Government of Argentina to Scientists with a significant track record of collaboration with the Research System of the country. Argentine Consulate at Barcelona.