

46 Rue d'Ulm, 75005 Paris (France)

EDUCATION

Ph.D. Biotechnology	04/2017 – 11/2021.
Polytechnic University of Valencia (Valencia, Spain)	
Mentor: Prof. Santiago F. Elena	
Honors: <i>cum laude</i>	
> Short-term visit	01/2021 – 04/2021
Institut de Biologie de l'École Normale Supérieure (Paris, France).	
Mentor: Prof. Marie-Anne Félix	
M.S. Plant Molecular and Cellular Biotechnology	09/2015 – 01/2017
Polytechnic University of Valencia (Valencia, Spain)	
Mentor: Prof. Santiago F. Elena	
B.S. Biology	09/2011 – 07/2015
University of Vigo (Vigo, Spain)	
> Erasmus + 09/2014 – 01/2015. University of Coimbra (Coimbra, Portugal)	
<u>Additional education</u>	
> YIP PhD course. EMBO (online)	2021
> Program certificate in Data Analysis for Life Science. HarvardX (online)	2020

EXPERIENCE

Postdoctoral researcher	11/2021 - ongoing
Institut de Biologie de l'Ecole Normale Supérieure (Paris, France)	
Predoctoral researcher	04/2017 - 09/2021
Institute for Integrative Systems Biology (Paterna, Spain)	09/2018 – 09/2021
Institute for Plant Molecular and Cell Biology (Valencia, Spain)	04/2017 - 09/2018
Research Internship	05/2016 - 12/2016
ADM Biopolis (Valencia, Spain)	
Department research assistant	01/2015 - 07/2015
University of Vigo (Vigo, Spain)	

Volunteer Research Assistant

06/2013 - 07/2013

University of Vigo (Vigo, Spain)

Additional experience

> **Scientific Committee** 2nd PhD Meeting in Plant Science

2021

FUNDING AND AWARDS

2021

- **EMBO Postdoctoral Fellowship.** “Microbiome impact on *Caenorhabditis elegans* viral infection and evolution of Orsay virus” (140.000€).
- **Project** “Dynamics of viral infection in simulated microgravity conditions”. Co-lead authors: Santiago F. Elena and Rubén González. Co-funded by European Space Agency and Spanish Research Council (180.682€).

2020

- **EMBO Short-Term Fellowship.** “Implementation of *Caenorhabditis elegans* as a model host system in virology research” (4450€).
- FISABIO-Valencia University Chair for financing research stays in Europe (4.000€).
- Best Student paper published in GBE 2019 Awards. Honourable mention (500€).
- AAAS/Science Program for Excellence in Science. Full membership in AAAS for one year.

2017

- **Grant** for Research Personnel Training (FPI) (BES-2016-077078). MINECO-FEDER (92.750€).

2015

- **Grant** for Department collaboration (BOE-A-2015-700). MINECO-FEDER (2.000€).

2014

- Xunta de Galicia’s ERASMUS+ Complement (1.100€).
- European Commission’s ERASMUS+ Fellowship (1.700€).

PUBLICATIONS

- **The interplay between the host microbiome and pathogenic viral infections**
mBio. 12: e02496-21.
González R, Elena SF. (2021)
- **Defects in plant immunity modulate the rates and patterns of RNA virus evolution**
bioRxiv
Navarro R, Ambrós S, Butković A, Carrasco JL, González R, Martínez F, Wu B, Elena SF#. (2021)
- **A genome-wide association study identifies *Arabidopsis thaliana* genes that contribute to differences in the outcome of infection with two Turnip mosaic potyvirus strains that differ in their evolutionary history and degree of host specialization**
Virus Evolution, veab063.
Butković A, González R, Rivarez MPS, Elena SF#. (2020)
- **Plant virus evolution under strong drought conditions results in a transition from parasitism to mutualism.** Proceedings of the National Academy of Sciences of the United States of America. 118, e2020990118. <https://doi.org/10.1073/pnas.2020990118>
González R, Butković A, Escaray F, Martínez-Latorre J, Melero I, Pérez-Parets E, Gómez-Cadenas A, Carrasco P, Elena SF#. (2021)
- **Revisiting *Orthotospovirus* phylogeny using full-genome data and testing the contribution of selection, recombination and segments reassortment in the origin of new species.** Archives of Virology. 166, 491–499. <https://doi.org/10.1007/s00705-020-04902-1>
Butkovic A, González R, Elena S.F#. (2021)
- **Natural variation in *Arabidopsis thaliana* rosette area unveils new genes involved in plant development.** Scientific Reports, 10,17600. <https://doi.org/10.1038/s41598-020-74723-4>
González R, Butković A, Rivarez MPS, Elena SF. (2020)
- **Adaptation of turnip mosaic potyvirus to a specific niche reduces its genetic and environmental robustness** Virus Evolution, 6: veaa041 <https://doi.org/10.1093/ve/veaa041>
Butkovic A, González R, Cobo I, Elena SF#. (2020)
- **Role of host genetic diversity for susceptibility-to-infection in the evolution of virulence of a plant virus.** Virus Evolution, 5: vez024. <https://doi.org/10.1093/ve/vez024>
González R, Butković A, Elena SF#. (2019)

- **Mutagenesis scanning uncovers evolutionary constraints on tobacco etch potyvirus membrane-associated 6K2 protein.** Genome Biology and Evolution, 11: 1207–1222. <https://doi.org/10.1093/gbe/evz069>
González R*, Wu B*, Li X*, Martínez F#, Elena SF#. (2019)
- **The scale-of-choice effect and how estimates of assortative mating in the wild can be biased due to heterogeneous samples** Evolution, 69: 1845–1857. <https://doi.org/10.1111/evo.12691>
Rolán-Alvarez# E, Carvajal-Rodríguez A, de Coo A, Cortés B, Estévez D, Ferreira M, González R, Briscoe AD. (2015)
- **From foes to friends: viral infections expand the limits of host phenotypic plasticity.** Advances in Virus Research, 106: 85-121. <https://doi.org/10.1016/bs.aivir.2020.01.003>
González R*#, Butković A*, Elena SF#. (2020)

* co-authorship

corresponding

CONTRIBUTED PRESENTATIONS

ORAL

Worm-Virus meeting (Virtual)

Setting up *C. elegans* as a host model system for experimental virus evolution, experimental epidemiology and systems virology (2020) Elena SF , González R.

Wellcome Genome Campus 3rd meeting on Evolutionary Systems Biology (Hixton, UK)

Mapping *Arabidopsis thaliana* genes involved in plant response to a turnip mosaic potyvirus (TuMV) infection. (2020) Butković A, González R, Elena SF.

Experimental Evolution Workshop (Biar, Spain)

Evolving towards mutualism: an experimental study on the virus-host interactions changes induced by the environment. (2019) González R, Butković A, Martínez-Latorre J, Melero I, Pérez-Parets E, de la Iglesia F, Elena SF.

Conférences Jacques-Monod (Roscoff, France)

Environmental stress shapes the evolution of a potyvirus towards a mutualistic relationship with its host. (2019) González R, Butković A, Martínez-Latorre J, Melero I, de la Iglesia F, Elena SF.

XXIes Journées Francophones de Virologie (Lyon, France)

Evolution of virulence of an emerging RNA virus in homogeneous vs heterogeneous plant populations. (2019) González R., de la Iglesia F, Butković A, Elena SF.

International Plant Virus Epidemiology Symposium (Seul, South Korea)

Variability in resistance genes conditions the evolution of emerging plant RNA viruses. (2019) Elena SF, Martínez F, Butković A, Carrasco JL, de la Iglesia F, González R., Navarro R.

XIII Reunión de Biología Vegetal (Puerto Varas, Chile)

Host variability in resistance genes conditions the evolution of emerging plant RNA virus. (2018) Elena SF, Martínez F, Butković A, Carrasco JL, de la Iglesia F, González R., Navarro R.

24th European Meeting of PhD Students in Evolutionary Biology (Bubión, España)

Evolution of RNA viruses in hosts with variable susceptibility. (2018) González R., Elena SF.

VI Spanish Worm Meeting (Valencia, Spain)

Evaluation of *Caenorhabditis elegans* as experimental host for a thrip-transmitted plant RNA virus. (2017) González R., Martorell P, Ramón D, Elena SF, Ambrós S.

POSTER PRESENTATION

Wellcome Genome Campus Virus Genomics and Evolution virtual conference (Hixton, UK)

Plant aging increases susceptibility to Turnip mosaic potyvirus infection and influences virus evolution. (2021)

González R., Melero I, de la Iglesia F, Elena SF.

Wellcome Genome Campus 3rd meeting on Evolutionary Systems Biology (Hixton, UK)

Virus evolution in the pathosystem turnip mosaic potyvirus – *Arabidopsis thaliana* under drought conditions selects for viruses who enhance the host tolerance to water deficiency. (2020) González R., Butković A, Martínez-Latorre J, Melero I, Pérez-Parets E, de la Iglesia F, Elena SF.

Wellcome Genome Campus 3rd meeting on Evolutionary Systems Biology (Hixton, UK)

Genome-wide association studies (GWAS) to identify genes involved in differential response of *Arabidopsis thaliana* to infection with generalist and specialist strains of a potyvirus. (2020) Butković A, González R., Rivarez MPS, de la Iglesia F, Elena SF.

10th Workshop in Virus Evolution (State College Pennsylvania, USA)

Evolving in drought conditions: consequences in the interaction between a potyvirus and *Arabidopsis thaliana*. (2019) González R., Butković A, Martínez J, Melero I, Elena SF.

Iberian Congress of Entomology (Lisbon, Portugal)

Variación de las comunidades de insectos en el río Fragoso (Ourense, NO España) en relación con el impacto de las minicentrales: 2001-2015 (2016) Álvarez-Troncoso R, Fernández F, González R, Miguez C, Garrido J.

ATTENDEE

Wellcome Genome Campus Single Cell Biology (Virtual conference) 2020

MEMBERSHIPS

SEV	Spanish Society for Virology	since May 2018
SMBE	Society for Molecular Biology and Evolution	since July 2019
ESEB	European Society for Evolutionary Biology	since November 2019
AAAS	American Association for the Advancement of Science	since January 2020