

CURRICULUM VITAE

PERSONAL DETAILS

Name: Agostina Giacobino

Workplace Entomology and Plant Pathology. College of Agriculture. Auburn University.

Date and Place of Birth: 03/02/1985 - Rafaela, Province of Santa Fe, Argentina (Nationality: Argentinean)

Current Position Postdoctoral Fellow at Auburn University (Alabama, USA).
Researcher. National Scientific and Technical Research Council (CONICET), Argentina.

Topic: "Integrated strategies for management and control of pathogens associated with *Apis mellifera* as an advance towards the economic and environmental sustainability of honey production".

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PROFESSIONAL BACKGROUND

2024-pres. Postdoctoral research fellow position. Bee Lab at Auburn University. Research Topic: "Integrated strategies for management and control of *Varroa destructor* populations in *Apis mellifera* colonies". Supervisor: Dr. Geoffrey Williams.

2023-pres. Associate Researcher. National Scientific and Technical Research Council (CONICET), Argentina.

2019–2023. Assistant Researcher. National Scientific and Technical Research Council (CONICET), Argentina. **Main research projects:** 1) *Varroa destructor* dynamics: Monitoring Varroa mites presence in commercial apiaries from Santa Fe province and its association with beekeeping practices. 2) Field assessment of Varroa Sensitive Hygiene behavior (VSH) in Varroa tolerant selected colonies of *Apis mellifera* during autumn and spring. 3) Evaluation of organic acaricides efficacy under field conditions in commercial colonies from temperate climate.

2016–2018 Postdoctoral research fellow position. National Scientific and Technical Research Council (CONICET), Argentina. "Effect of nutritional management in hives of *Apis mellifera* on infestation levels with *Varroa destructor*". Supervisor: Dr. Marcelo Signorini.

2012-2016 Doctorate Student scholarship National Scientific and Technical Research Council (CONICET), Argentina. "Study of risk factors associated with the presence and dissemination of Varroosis in Santa Fe province". Supervisor: Dr. Marcelo Signorini.

TEACHING BACKGROUND

University

2017–pres. Lecturer in: Univeristy, Society and Knologment (2017-2019), Research methodology (2017–pres.) and Data processing and analysis workshop (2020-pres.) National University of Rafaela.

ACADEMIC BACKGROUND

University studies

2015 PhD in Biological Sciences. “Study of risk factors associated with the presence and dissemination of Varroosis in Santa Fe province”. Faculty of Exact and Natural Sciences, University of Córdoba, Argentina. Supervisor: Dr. Marcelo Signorini.

2010 Bachelor degree in Biological Sciences - “Effect of temperature on the survival, fecundity and fertility of *Diatraea saccharalis* (F.) (Lepidoptera: Crambidae)” Faculty of Exact and Natural Sciences, University of Córdoba, Argentina. Supervisor: Dr. Julio Edelstein.

PEER-REVIEWED PUBLICATIONS

- Pietronave, H., Russo, R. M., **Giacobino, A.**, Palacio, M. A., Liendo, M. C., Lanzavecchia, S. B., Merke, J., Scannapieco, A.C (2025). Evaluation of a Varroa-resistant *Apis mellifera* selected stock under a commercial beekeeping system in Northern Argentina. *J. Apic. Res.*, 1–12. <https://doi.org/10.1080/00218839.2024.2440199>
- Ceccotti, M., Miotti, C., Molineri, A., Signorini, M., **Giacobino, A.** (2024). *Varroa destructor* control strategies in *Apis mellifera* colonies: a meta-analysis and systematic revision on natural compounds efficacy. *J. Apic. Res.*, 1–14. <https://doi.org/10.1080/00218839.2024.2365488>.
- Requier, F., Leyton, M.S., Morales, C.L., Garibaldi, L.A., **Giacobino, A.** et al. (2024). First large-scale study reveals important losses of managed honey bee and stingless bee colonies in Latin America. *Sci Rep* **14**, 10079. <https://doi.org/10.1038/s41598-024-59513-6>
- Palacio, M.A., Guzman-Novoa, E., Scannapieco A.C., **Giacobino, A.**, Mondet F. (2024). Current status of honeybee genetic and breeding programs: progress and perspectives. *Front. Insect Sci.* 4. <https://doi.org/10.3389/finsc.2024.1365665>.
- **Giacobino, A.**, Miotti, C., Molineri, A., Orellano, E., Signorini, M., Pacini A. (2023). *Varroa destructor* re-invasion dynamics during autumn and winter in *Apis mellifera* colonies from a temperate climate. *J. Invertebr. Pathol.* 197, 10789.
- **Giacobino, A.**, Pacini A., Molineri A., Bulacio-Cagnolo N., Merke J., Orellano E., Gaggiotti M., Signorini, M. (2022). Impact of nutritional and sanitary management on *Apis mellifera* colony dynamics and pathogen loads. *Span. J.Agric. Res.*, 20(4), e0305. <https://doi.org/10.5424/sjar/2022204-19634>
- Ceccotti, M. Miotti, C., Pacini, A., Signorini, M., **Giacobino, A.** (2022). *Varroa destructor* and *Nosema* sp seasonal dynamics in *Apis mellifera* colonies from temperate climate in Argentina. *Rev vet* 33 (1), 87-93.
- Visintini, M., Pacini, A., Merke, J., Scannapieco, A., Molineri, A., Orellano, E., Bedascarasburre, B., Miotti, C., Cecotti, M., Bulacio Cagnolo, N., Signorini, M., **Giacobino, A.** (2021). Field

evaluation of Varroa-resistance traits in surviving *Apis mellifera* colonies in Argentina. *Parasitol. Res.* 120, 4013-4021. <https://doi.org/10.1007/s00436-021-07337-y>

- Pacini, A., Molineri, A., Antúnez, K., Bulacio Cagnolo, N., Merke, J., Orellano, E., Bertozzi, E., Zago, L., Aignasse, A., Pietronave, H., Rodríguez, G., Palacio, M.A., Signorini, M., **Giacobino, A.** (2021). Environmental conditions and beekeeping practices associated with *Nosema ceranae* presence in Argentina. *Apidologie* 52, 400-417. <https://doi.org/10.1007/s13592-020-00831-9>
- Häußermann, C.K; **Giacobino, A.**, Munz, R., Ziegelmann, B., Palacio, M.A., Rosenkranz, P. (2019). Reproductive parameters of female *Varroa destructor* and the impact of mating in worker brood of *Apis mellifera*. *Apidologie* 57, 342-355. <https://doi.org/10.1007/s13592-019-00713-9>
- **Giacobino, A.**, Pacini, A., Molineri, A., Rodriguez, G., Crisanti, P., Bulacio Cagnolo, N., Merke, J., Orellano, E., Bertozzi, E., Pietronave H., Signorini M. (2018). Potential associations between the mite *Varroa destructor* and other stressors in honeybee colonies (*Apis mellifera* L.) in temperate and subtropical climate from Argentina. *Prev.Vet.Med.* 159: 143–152.
- Molineri, A., **Giacobino, A.**, Pacini, A., Bulacio Cagnolo, N., Merke, J., Orellano, E., Bertozzi, E., Zago, L., Aignasse, A., Pietronave, H., Rodríguez, G., Crisanti, P., Palacio, M.A., Signorini, M. (2018). Environment and *Varroa destructor* management as determinant of colony losses in apiaries under temperate and subtropical climate. *J. Apic. Res.* <https://doi.org/10.1080/00218839.2018.1475697>.
- Requier, F., Antúnez, K., Morales, C.L., Aldea Sánchez, P., Castilhos, D., Garrido, P. M., **Giacobino, A.**, Reynaldi, F.J., Rosso Londoño, J.M., Santos, E., Garibaldi, L. (2018). Trends in beekeeping and honey bee colony losses in Latin America. *J. Apic. Res.* <https://doi.org/10.1080/00218839.2018.1494919>.
- **Giacobino, A.**, Pacini, A., Molineri, A., Bulacio Cagnolo, N., Merke, J., Orellano, E., Bertozzi, E., Masciángelo G., Pietronave H., Signorini M. (2017). Environment or beekeeping management: What explains better the prevalence of honey bee colonies with high levels of *Varroa destructor*?. *Res Vet Sci.* 112: 1-6.
- Molineri A., **Giacobino A.**, Pacini A., Bulacio-Cagnolo N., Fondevila N., Ferrufino C., Merke J., Orellano E., Bertozzi E., Masciángelo G., Pietronave H., Signorini M. (2017) Risk factors for the presence of Deformed wing virus and Acute bee paralysis virus under temperate and subtropical climate in Argentinian bee colonies. *Prev.Vet.Med.* 49 (2): 166-173.
- Molineri, A., Pacini A., **Giacobino A.**, Bulacio-Cagnolo N., Aignasse A., Zago L., Fondevila N., Ferrufino C., Merke J., Orellano E., Bertozzi E., Pietronave H., Signorini M. (2017). Honey bee (*Apis mellifera*) viruses prevalence in temperate and subtropical regions from Argentina". *Rev. Argent. Microbiol.* 49 (2): 166-173.
- Pacini A., Mira A., Molineri A., **Giacobino A.**, Bulacio Cagnolo N., Aignasse A., Zago L., Izaguirre M., Merke J., Orellano E., Bertozzi E., Pietronave H., Russo, R., Scannapieco A., Lanzavecchia S.,

Schnittger L., Signorini M. (2016). Distribution and prevalence of *Nosema apis* and *N. ceranae* in temperate and subtropical eco-regions of Argentina. *J. Invertebr. Pathol.* 141: 34-37.

- Pacini A., **Giacobino A.**, Molineri A., Bulacio Cagnolo N., Aignasse A., Zago L., Mira A., Izaguirre M., Schnittger L., Merke J., Orellano E., Bertozzi E., Pietronave H., Signorini M. (2016). Risk factors associated with the abundance of *Nosema* spp. in apiaries located in temperate and subtropical conditions when honey harvest ended. *J. Apic. Res.* 55 (4): 342-350.
- **Giacobino A.**, Molineri A., Bulacio Cagnolo N., Merke J., Orellano E., Bertozzi E., Masciangelo G., Pietronave H., Pacini A., Salto C., Signorini M. (2016). Queen replacement: the key to prevent winter colony losses in Argentina. *J. Apic. Res.* 55(4): 335-341.
- **Giacobino A.**, Molineri A., Bulacio Cagnolo N., Merke J., Orellano E., Bertozzi E., Masciangelo G., Pietronave H., Pacini A., Salto C., Signorini M. (2016). Key management practices to prevent high infestation levels of *Varroa destructor* in honey bee colonies at the beginning of the honey yield season. *Prev.Vet.Med.*131: 95-102. <http://dx.doi.org/10.1016/j.prevetmed.2016.07.013>
- **Giacobino A.**, Molineri, A., Pacini, A., Fondevila, N., Pietronave, H., Rodríguez, G., Palacio, A., Bulacio Cagnolo N., Orellano E., Salto, C., Signorini, M., Merke J. (2016) *Varroa destructor* and Viruses association in honey bee colonies under different climatic conditions. *Environ. Microbiol. Rep.*8:407–412. doi:10.1111/1758-2229.12410.
- **Giacobino, A.**, Rivero R., Molineri, A., Bulacio-Cagnolo, N., Merke, J., Orellano, E., Salto, C., Signorini, M. (2016) Fumagillin control of *Nosema ceranae* (Microsporidia: Nosematidae) infection in Honey Bee (Hymenoptera: Apidae) Colonies in Argentina. *Veterinaria Italiana*, 52 (2): 145-151. doi: 10.12834/VetIt.120.337.6
- **Giacobino, A.**, Molineri, A., Bulacio-Cagnolo, N., Merke, J., Orellano, E., Bertozzi, E., Masciangelo, G., Pietronave, H., Pacini, A., Salto, C., Signorini, M. (2015). Risk factors associated with failures of Varroa treatments in honey bee colonies without broodless period. *Apidologie*, 46 (5): 573-582. DOI: [10.1007/s13592-015-0347-0](https://doi.org/10.1007/s13592-015-0347-0).
- **Giacobino, A.**, Bulacio-Cagnolo, N., Merke, J., Orellano, E., Bertozzi, E., Masciangelo, G., Pietronave, H., Salto, C., Signorini, M. (2014). Risk factors associated with the presence of *Varroa destructor* in honey bee colonies from east-central Argentina. *Prev.Vet.Med.* <http://dx.doi.org/10.1016/j.prevetmed.2014.04.002>.

CONFERENCE PRESENTATIONS (last 4 years)

- **Giacobino, A.**, Steinhauer, N., Williams, G. (2026). Integrated Pest Management for *Varroa*: reported practices from the US Beekeeping Survey. American Bee Research Conference, Mobile, AL, USA. (8-10 January 2026).
- Shannon, B., DeMoras, B., **Giacobino, A.**, Williams, G. (2026). Evaluation of Newly Registered Products for *Varroa* Control. American Bee Research Conference, Mobile, AL, USA. (8-10 January 2026).

- Easton, S., Bruckner, S., **Giacobino, A.**, Rinkevich, F., Williams, G. (2026). Impact of Pol-line *Apis mellifera* colonies on *Varroa destructor* population growth. American Bee Research Conference, Mobile, AL, USA. (8-10 January 2026).
- Steinhauer, N., Wilson, M., **Giacobino, A.**, Bruckner, B., Aurell, D., vanEngelsdorp, D., Sagili, R., Williams, G. (2025). Managed honey bee loss in the US: a comparative assessment of survey efforts and trends. ESA annual meeting, Portland, OR, USA. 9-12 November 2025.
- Bruckner, S., **Giacobino, A.**, Steinhauer, N., Wilson, M., Aurell, D., Williams, G. (2025). Where do beekeepers get their information from? Results from the U.S. beekeeping survey (poster). 21st COLOSS conference, Copenhagen, Denmark. 23 September, 2025
- Ceccotti, M., Pacini, A., Orellano, E., Ochoa, E., Bulacio Cagnolo, N., Cariola, D., **Giacobino, A.** (2025). Dynamics of *Varroa destructor* (Mesostigmata: Varroidae) in *Apis mellifera* (Hymenoptera: Apidae) colonies under different acaricide treatments. XII Congreso Argentino de Entomología, San Miguel de Tucumán, Argentina. 2–5 September 2025.
- Ochoa, E., Repetti, M., Pacini, A., Demonte, L., Gaggiotti, M., Orellano, E., Bertozzi, E., Pietronave, H., Merke, J., **Giacobino, A.** (2025). Evaluation of pesticide residues in honey and pollen from hives located in different productive environments in Santa Fe province. Latin American Pesticide Residue Workshop, Buenos Aires, Argentina. 4-8 May 2025.
- **Giacobino, A.**, Tokach, R., Aurell, D., Williams, G. Efficacy of VarroSan® in combination with short-course miticide treatments to manage *Varroa destructor* in *Apis mellifera* colonies during summer season. American Bee Research Conference, Reno, NV, USA. (9-11 January 2025).
- Ceccotti, M., Pacini, A., Orellano, E., Ochoa, E., Bulacio Cagnolo, N., Cariola, D., **Giacobino, A.** "Organic control of *Varroa destructor* populations and its impact on the survival of *Apis mellifera*." XVI Latin American Congress of Beekeeping, Dominican Republic: FILAPI. (13-16 November 2024).
- **Giacobino, A.**; Miotti, C.; Pacini, A.; Orellano, E.; Molineri, A.; Signorini, M.L. "The impact of brood availability on the colonization of *Apis mellifera* colonies during the reinfestation stage with *Varroa destructor*." XV Latin American Congress of Beekeeping, Peru: FILAPI. (16-19 November 2022).
- **Giacobino, A.**; Pacini, A.; Orellano, E.; Ceccotti, M.; Bertozzi, E.; Pietronave, H.; Merke, J.; Bulacio-Cagnolo, N.; Signorini, M.L. "Application of information from an epidemiological surveillance system: Early warning for the control of *Varroa destructor* in apiaries of Santa Fe Province, Argentina." XV Latin American Congress of Beekeeping, Peru: FILAPI. (16-19 November 2022).
- Gaggiotti, M.; Chiappini, M.C.; López, V.; Wanzenried Zamora, R.; Orellano, E.; **Giacobino, A.** "'Clover' honeys produced in a dairy system based on alfalfa pasture." XV Latin American Congress of Beekeeping, Peru: FILAPI. (16-19 November 2022).
- Pacilio, L.; Asoli, C.; Gaggiotti, M.; Merke, J.; Orellano, E.; Pacini, A.; Molineri, A.I.; Castignani, H.; **Giacobino, A.** "Traveling Honey World: A scientific communication experience in beekeeping." XV Latin American Congress of Beekeeping, Peru: FILAPI. (16-19 November 2022).

- Sigrist, M., Brusa, L; Schlotthauer, J., Molineri, A., Merke J., Pacini, A., Adorni, M.B., Repetti, M.R, Minetti, A., **Giacobino, A.**, Gaggiotti, M. "Evaluation of the presence of toxicologically relevant elements in packaged honeys available for commercialization." VII International Congress on Food Science and Technology Córdoba, Argentina. (4–6 October 2022).
- Gaggiotti, M., Sigrist, M., Molineri, A., Merke J., Pacini, A., Adorni, M.B, Repetti, M.R, **Giacobino, A.** Levels of hydroxymethylfurfural (HMF) in honeys of different geographic origin marketed in the city of Rafaela, Santa Fe. VII International Congress on Food Science and Technology Córdoba, Argentina. (4–6 October 2022).
- Miotti, C, Molineri, A, Pacini, A, Orellano, E, Signorini, M, **Giacobino, A.** Fitting the Beta distribution for the intra-apiary dynamics study of the infestation rate with *Varroa Destructor* in honey bee colonies. The USE R Conference (Online, 5-9 July 2021).
- **Giacobino, A**, Pacini, A, Orellano, E, Cainelli, A, Bertozzi, E, Pietronave, H, Cupido, E, Perez-Raymonda, L, Dukart, J, Bulacio Cagnolo, N, Merke, J, Molineri, A, Signorini, M. Apiarios Centinela: Un proyecto de construcción colectiva Congreso argentino de Apicultura, Azul, Argentina. (5-8 de July 2021).
- Pacini A. **Giacobino A.**, Molineri A., Bulacio Cagnolo N., Merke J., Orellano E., Rodriguez G, Signorini M. Influencia de la suplementación y el tratamiento acaricida sobre la carga de esporos *Nosema* spp. Congreso argentino de Apicultura, Azul, Argentina. (5-8 de July 2021).
- Pacini A. **Giacobino A.**, Molineri A., Bulacio Cagnolo N., Merke J., Orellano E., Rodriguez G, Signorini M. *Nosema* spp. y su posible asociación con *Varroa destructor*. Congreso argentino de Apicultura, Azul, Argentina. (5-8 de July 2021).
- **Giacobino, Agostina**; Miotti, Camila; Molineri, Ana; Pacini, Adriana; Orellano, Emanuel; Merke, Julieta; Bulacio Cagnolo, Natalia; Bertozzi, Ezequiel; Pietronave, Hernán; Signorini, Marcelo L. "Sistema de vigilancia epidemiológica: relevamiento sistemático de los niveles de Varroa en apiarios de la provincia de Santa Fe, Argentina.". XIV Congreso latinoamericano de Apicultura, Chile: FILAPI. 2020.
- Pacini, Adriana; Molineri, Ana; Bulacio Cagnolo, Natalia V.; Merke, Julieta; Orellano, Emanuel; Bertozzi, Ezequiel; Pietronave, Hernán; Rodríguez, Graciela; Signorini, Marcelo; **Giacobino, Agostina**. "Variación anual de la infección por *Nosema ceranae* en colonias ubicadas en diferentes ecoregiones de Argentina.". XIV Congreso latinoamericano de Apicultura, Chile: FILAPI. 2020.

International conferences and workshops: 25

National conferences: 18

RESEARCH PROJECTS (last 4 years)

Santa Fe province. 2025 Call for Applied/Targeted Research. IO-2025367 "Evaluation of the Performance of *Apis mellifera* Colonies Selected for Resistance to *Varroa destructor* and Analysis of Their Gut Microbiota in Different Regions of Santa Fe Province". **Co-Director**.

UNRaf- 7th Call for Research Projects 2026–2027 “Evaluation of the Acaricidal Efficacy of Oxalic Acid in *Apis mellifera* Colonies Resistant to *Varroa destructor* and Its Impact on the Gut Microbiota”. **Co-Director**.

UNRaf- 6th Call for Research Projects 2024–2025 “Sustainable management and control strategies for *Varroa destructor* populations in the survival and productivity of *Apis mellifera* colonies in temperate climates: an integrated and multidimensional approach.” **Director**.

PUE 2024-2025. “Development and evaluation of tools to enhance the competitiveness and sustainability of the intensification process in the dairy production chain”. **Researcher**. National Scientific and Technical Research Council (CONICET), Argentina.

PICT- 2022-2024 (Institucional leap): “Study of the impact of antiparasitics, antibiotics, and agrochemicals used in the management of intensive dairy production systems on food safety, animal health, public health, and the environment”. **Researcher**. National Agency for the Promotion of Science and Technology, Argentina.

PICT- 2022-2024 “Environmental factors affecting the performance of reproductive castes of *Apis mellifera*”. **Collaborator**. National Agency for the Promotion of Science and Technology, Argentina.

PIP 2021-2023 “Study of the selection process, maintenance and transfer of *Apis mellifera* colonies tolerant to *Varroa destructor* in a productive context of temperate climate”. **Co-director**. National Scientific and Technical Research Council (CONICET), Argentina.

PICT- 2021-2023 (Research team formation): “Multidisciplinary approach to the study of the interaction between *Apis mellifera* and *Varroa destructor* for the evaluation and selection of resistant honey bee colonies”. **Researcher**. National Agency for the Promotion of Science and Technology, Argentina.

PICT- 2019-2021 (Research team formation): “Agrochemicals residues in *Apis mellifera* L. colonies: implications for sustainable honey production” **Collaborator**. National Agency for the Promotion of Science and Technology, Argentina.

PICT 2018-2020 “Evaluation and selection of *Apis mellifera* colonies tolerant towards *Varroa destructor* under temperate climate from Argentina”. Responsible **researcher**. National Agency for the Promotion of Science and Technology, Argentina.

2013–2019 PNAPI 1112041. Multidisciplinary strategies to mitigate the effect of the new environmental and productive context on the bee hive. **Collaborator**. National Institute for Agricultural Technology (INTA), Argentina.

EVALUATION COMMITTEES

Since 2018 I have been a reviewer for the following scientific journals: Journal of Insect Science, Journal of Advanced Research, Parasitology Research, Preventive Veterinary Medicine, Scientific Reports, Research in Veterinary Science, Insects (MPDI) and Spanish Journal of Agricultural Research. I have also acted as reviewer for grant proposals submitted to the National Agency for the Promotion of Science and Technology, Argentina.