

Monica Cartelle Gestal, I.L.M., B.S., M.S., Ph.D.

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1. PROFESSIONAL HISTORY

1.1 Education

Present Rank: Assistant Professor Microbiology and Immunology Department – Tenure Track. Join appointment as honorary member: Gratis Associate Professor Department of Pediatrics. Louisiana State University, Health Science Center, Shreveport.

Graduate Faculty Status: Ph.D.

Education

Degree	Field of Study	Year	Institution
ILM Award	Project management and Leadership	2012	University of Nottingham
PhD (cum laude)	Microbiology	2006	University of A Coruna
MS	Microbiology and Research	2002	University of A Coruna
Thesis Degree (cum Laudem)	Clinical Microbiology and Epidemiology	2001	University of A Coruna
BS	Biology – Major in microbiology	1999	University of A Coruna

1.2 Academic and Professional Positions

BACKGROUND

My scientific career began at the University of A Coruña, where I earned a Master of Science and PhD studying mechanisms of antibiotic resistance. I remained there as a postdoctoral researcher before moving to the University of Nottingham as a Marie Curie Fellow. I then transitioned to my first independent role in Ecuador, leading a research program and managing a diagnostic lab at the National Reference Laboratory of Antibiotic Resistance and Zurita & Zurita Laboratories. Resource limitations in Ecuador led me to the United States, where I pursued additional postdoctoral training to

develop expertise in murine models of infectious diseases. The path was far from easy. As a first-generation Hispanic woman, I faced challenges, including periods working as a teleoperator to support myself, while navigating the scientific community as an underrepresented minority. These experiences shaped my resilience and strengthened my commitment to mentoring others facing similar barriers.

Today, I bring together clinical and basic science perspectives in microbiology and immunology. My research explores how bacterial pathogens manipulate immune responses to persist and transmit. This cross-disciplinary focus is rooted in years of hands-on experience in clinical microbiology, structural biology, and immunology. Now, as an independent investigator in the U.S., I am excited to lead research that bridges scientific rigor with social responsibility and to inspire the next generation of scientists from all backgrounds.

2020-Present	<i>Assistant Professor Tenure track.</i> Department of Microbiology and Immunology. Since October 2020 joint faculty position: Gratis Associate Professor Department of Pediatrics School of Medicine Louisiana State University. LSU Health Center, Shreveport, LA, USA.
2015- 2019	<i>Postdoctoral Research Associate.</i> Harvill Lab, Department of Infectious Diseases. College of Veterinary Medicine. University of Georgia, Athens, USA.
2014-2015	<i>Director of research and Principal Investigator.</i> Biomedical Research Unit, Zurita & Zurita Laboratories, Quito, Ecuador.
2013-2014	<i>Principal Investigator (Prometeo Fellowship)</i> Ministry of Higher Education, Ecuador.
2010-2013	<i>Marie Curie Intra-European Fellowship.</i> Center for Biomolecular Sciences. University of Nottingham, UK.
2008-2010	<i>Postdoctoral Fellowship,</i> Barrie de la Maza. Center for Biomolecular Sciences. University of Nottingham, UK.
2007-2008	<i>Postdoctoral Researcher.</i> Genetic Department of the Galician Oncology Centre, A Coruña. Spain.
2003-2006	<i>PhD Fellowship</i> Spanish Society of Infectious Diseases and Clinical Microbiology (SEIMC). Department of Microbiology and Department of Research. Complejo Hospitalario Universitario A Coruna, A Coruna, Spain.
2001-2002	<i>Master student.</i> Department of Microbiology. Complejo Hospitalario Universitario A Coruna, A Coruna, Spain.
2000-2001	<i>Thesis degree, Assistant fellowship.</i> Department of Microbiology. Complejo Hospitalario Universitario A Coruna, A Coruna, Spain.

1.3 Honors and Awards:

1.3.1. HONORS →

2025-2027	<u>Mentor</u> ASM Future Leaders Mentorship Program (FLMF) - American Society for Microbiology
2025-current	Nominated and <u>Elected Editor</u> Infection and Immunity - American Society for Microbiology

2025-current	Nominated and <u>Elected Editor</u> Spectrum - American Society for Microbiology
2025	<u>Nominated</u> ASM Early career basic science award
2024	Prize Fundacion Barrie de la Maza and Galician Academy of Medicine
2024	Selected and Published an Infection and Immunity's (IAI) <u>Minireview</u> New voices in Microbiology: Early-Career Investigator. https://journals.asm.org/topic/sss-taxonomy/special-series-iai-eci
2023	<u>Nominating Committee</u> American Society for Microbiology
2023-current	<u>Community Leader</u> HMB-COMS. Nominated and elected community leader of the host-microbe biology section of the Council on Microbial Sciences.
2022-current	Elected <u>Executive member of the Board of Directors of the International <i>Bordetella</i> Society</u>
2022-current	<u>Mentor</u> in the "Programa de mentoring científico". Online mentoring program of the Madrid Institute for Advanced Studies, Spain
2021-current	<u>Councilor of the Council on Microbial Sciences (COMS)</u> https://asm.org/Council-on-Microbial-Sciences/Council-member-Landing
2021-current	<u>ASM South Central Branch Councilor</u> , USA
2021-current	<u>Founder and Director</u> of the LSUHSC-S and Fundación Barrie de la Maza – Postdoctoral Fellowship Program
2021-current	<u>Founder and Director</u> of the LSUHSC-S and Fundación Barrie de la Maza – PhD Fellowship Program
2020-current	<u>Board of Directors</u> "Asociación de Becarios Barrie de la Maza"
2020-current	<u>Co-Founder and Scientific Director</u> of the International <i>Bordetella</i> Lab Meeting (monthly online seminars since 22.September.2020)
2020-current	<u>Founder and Director</u> of the LSUHSC-S and Fundación Barrie de la Maza – Undergraduate Summer Fellowship
2020	<u>Invited to do a video</u> for the Fundacion Barrie de la Maza as alumni
2020	<u>Invited to do a video</u> for the University of A Coruna as alumni
2020	<u>Ambassador</u> "Fundación Becarios Barrie de la Maza"
2019	Nominated and awarded " <u>Executivas de Galicia</u> "
2017	Interviewed by <u>Georgia Health News</u>
2014-2020	<u>Co-Founder member of Marie Curie Alumni Association (MCAA) grants and awards working group.</u>

1.3.2. AWARDS →

2025:	<u>IBI Scientific Winner Women's Day</u> given following nomination by mentees.
2024:	<u>Pin from the Gold Humanism Honor Society</u> upon nomination from a Medical Student working in my lab as part of the research track.

- 2024: Travel award International *Bordetella* Society – International *Bordetella* Lab Meeting to help with the expenses of the travel for the conference. Funded by R13- NIH
- 2023: Awarded the Community Science Grant of the ASM to help organize a microbiology-themed activity in the local community as part of the MicroAgar context.
- 2022: Awarded the Peggy Cotter Award for early career to assist to the American Society for Microbiology Conference, Microbe 2022. June 9-13 Washington D.C., USA.
- 2019: Awarded Catalysis Award from the American Lung Association. Career type of award to perform my own independent research and promote my next step to Faculty position.
- 2019: Inspirational Mentor. Mentor who inspired 2019 UGA graduate students. Given upon nomination by mentees.
- 2019: Awarded UGA Post-Doctoral Award. With a large number of Postdoctoral students I have been awarded a recognition as the best Postdoctoral researcher in the whole UGA in 2019 (<https://research.uga.edu/research-awards/2019/03/21/monica-cartelle-gestal/>)
- 2019: Awarded UGA Foreign Travel Assistance Program in 2019. To assist the XII *Bordetella* International Symposium
- 2019: Travel Award 12th International Symposium in *Bordetella* in 2019. To assist the XII *Bordetella* International Symposium
- 2018: Award for Excellence in Postdoctoral Research, First Place Job Talk Presentation: “Immunomodulation of Adaptive Immunity to *Bordetella* spp. infections.” Department of Infectious Diseases, 15th Annual Retreat & Research day. 19.October.2018. UGA, Athens, USA
- 2018: ASM travel Award: To assist to the conference, Microbe 2018 ASM conference in Atlanta, USA.
- 2018: ASM Press release room: My work presented at the Microbe 2018 ASM, was requested for the press release room “Improving protection by manipulating bacterial immuno-modulators”. Microbe, 7-11 June 2018. Atlanta, USA.
- 2018: Best poster Award: “Pathogen-induced airway infections modulate host glycosylation in mice”. InterPEG 2018, San Diego California, 10-11 March 2018, USA.
- 2016: Award for Excellence and Professional Research for Oral Presentation. Department of Infectious Diseases, 13th Annual Retreat & Research day. 29.April.2016. UGA, Athens, USA
- 2010-13 Marie Curie Intra-European FP7 Postdoctoral research fellow, microbiology, Nottingham University, UK (18% rate of success that year).
- 2008-10 Barrie de la Maza Foundation Postdoctoral fellowship, microbiology, Nottingham University, UK.
- 2004-06 PhD Fellowship from the Spanish Society of Infectious Diseases and Clinical Microbiology. Complejo Hospitalario Universitario A Coruna, A Coruna, Spain.
- 2006 Travel Grant From the Spanish Society of Infectious Diseases and Clinical Microbiology (SEIMC) for the “XII Conference of the Spanish Society for Infection Diseases and Clinical Microbiology Valencia 2006”. Valencia, Spain.
- 2004: Award for the paper with highest impact factor published in the “Complejo Hospitalario Universitario A Coruna,” (2004). High level of resistance for ceftazidime conferred by a novel CTX-M enzyme derived from CTX-M-1 through a single Asp-240-Gly substitution. Antimicrobial Agents Chemotherapy 48: 2308-2313.

- 2002 Travel exchange grant from the Spanish Society of Infectious Diseases and Clinical Microbiology (SEIMC) to be trained for 3 months in another laboratory. Hospital Bellvitge, Barcelona, Spain.2006
- 2002: Award for the paper with highest impact factor published in the “Complejo Hospitalario Universitario A Coruna”, (2002). Identification and broad dissemination of the CTX-M-14 β -lactamase in different *Escherichia coli* strains in the Northwest area of Spain. Journal of Clinical Microbiology 40: 4030-4036.
- 2002: Travel Award Spanish Society of Clinical Microbiology and Infectious Diseases (SEIMC). To travel grant to participate in the XI Spanish Society for Infection Diseases and Clinical Microbiology. 16-19.Mayo.2004. Bilbao, Spain
- 2001: Poster prize: “Comparison between phenotypic and genotypic resistance against antiretroviral drugs” VI Conference of the Spanish society of Chemotherapy. Murcia 24-26 May. 2001

1.4 Leadership positions:

2023-current	Faculty Senate – LSU Health Science Center at Shreveport
2023-current	Women in Science Committee member – LSU Health Science Center at Shreveport
2023-2025	Community Leader Host Microbe Biology – Council on Microbial Sciences – American Society for Microbiology
2023-2024	Nominations committee – American Society for Microbiology
2022-current	Executive committee , Board of Directors. International <i>Bordetella</i> Society
2022-current	Founder and Director of the Fundacion Barrie de la Maza – LSU Health Science Shreveport PhD Program
2021-2025	Councilor for the COMS -ASM from ASM South Central Branch
2021-current	Councilor ASM South Central Branch
2021-current	Board of Directors of “Alumni Fundación Barrie de la Maza”
2021-current	Ambassador of “Alumni Fundación Barrie de la Maza”
2021-2025	Faculty Search Committee – Microbiology and Immunology department, LSU Health Science Center at Shreveport
2021-2022	Administrative Council Meeting . LSU Health Science Center at Shreveport.
2020-Current	Founder and Director of the Fundacion Barrie de la Maza – LSU Health Science Shreveport Summer Undergraduate Program

2020-Current	Founder and Scientific Director of the International <i>Bordetella</i> Lab Meeting – IBLM – Monthly online seminar about <i>Bordetella</i> research
2018-current	Referente Galega (https://executivasdegalicia.org/portfolio/monica-cartelle-gestal/)
2018-current	Member in the “One Health Division” at UGA
2018-2020	Policy Committee Member on the ASM-Southeastern Branch
2013-2020	Founder member of Grants and Awards Marie Curie Ex-Alumni Association

1.5 Professional Memberships:

Present memberships

2025 American Heart Association
 2023 Sigma Xi (Appointed member)
 2023 American Association for the Advancement of Science (AAAS)
 2022 International *Bordetella* Society (IBS)
 2022 Españoles científicos en USA (ECUSA)
 2020 International Society of Eosinophils (ISE)
 2020 Society of Mucosal Immunology (SMI)
 2020 American Association of Immunologists (AAI)
 2019 South Central Branch of American Society for Microbiology (ASM- SCB)
 2017 Southeastern Branch of American Society for Microbiology (ASM-SEB)
 2015 American Society for Microbiology (ASM)
 2010 Marie Curie Alumni Association (MCAA)
 2008 Alumni Fundación Barrie de la Maza (REBEBA)
 2000 Spanish Society of Infectious Diseases and Clinical Microbiology (SEIMC)

2. RESEARCH ACTIVITIES

My lab works under the hypothesis that well adapted respiratory pathogens have been selected through evolution by their ability to suppress or manipulate eosinophil effector functions to promote persistence and transmission. Utilizing *Bordetella* spp. as a model our laboratory has unravel a new role for eosinophils as drivers of protective adaptive immunity. This discovery has been made utilizing a mutant strain of *Bordetella bronchiseptica* lacking the sigma factor, *btrS*. Without this master regulator of immunosuppressive pathways, infection with this mutant strain clears very rapidly and provides life-lasting sterilizing immunity against reinfection. This implies that during infection with the wildtype bacteria, eosinophil functions are suppressed. Indeed, our data shows that during infection with the wildtype, bacteria hijack epithelial cell-eosinophil axis to facilitate establishment of infection and promote persistence. Utilizing spatial microscopy, machine learning, and multidisciplinary omics approaches, we

build a team of researchers with high knowledge of pharmacy, biochemistry, immunology, cell signaling and bacteriology, to overall understand the bacterial mechanisms that suppress eosinophil effector functions as well as the role of eosinophils during transmission, persistence, and subsequent pathology associated with this disease.

2.1 Grants

2.1.1. Funded Grants Current

Funding institution: Bactivac

Title: Center for applied immunology and pathological processes

Dates: 10/01/2025 – 09/30/2026

Role: co-PI “Acellular Pertussis Vaccines Block Nasal Colonization and Bacterial Shedding.”

Amount: £55,971.44

Funding institution: NIGMS- CoBRe - P20-GM134974

Title: Center for applied immunology and pathological processes

Dates: 03/01/2021 – 28/02/2026

Role: Project Leader 3 – “Eosinophils contribute to T cell memory responses and protective immunity in *Bordetella* spp.”

Amount: \$1,226,400

2.1.2 Funded Grants Inactive

Funding institution: NIH-NIAID – R13 – R13AI183722

Title: 14th *Bordetella* International Symposium

Dates: 01/01/2024 – 06/31/2025

Role: co-PI

Amount: \$6,500

Funding institution: Louisiana Board of Regents – Research Competitiveness Subprogram – CRS

Title: *Bordetella bronchiseptica* blocks eosinophil recruitment to increase persistence in the respiratory tract

Dates: 01/01/2023 – 12/31/2024

Role: PI

Amount: \$48,625

Funding institution: LSU Health Science Center at Shreveport – Center of Excellence for Arthritis and Rheumatology Research Award C.E.A.R.

Title: Eosinophils modulate adaptive immune responses during bacterial respiratory infections

Dates: 01/01/2021-31/12/2022

Role: PI

Amount: \$50,000

Funding institution: Swanson Feline Association

Title: Novel and more efficient vaccine against Feline Bordetellosis

Dates: 01/01/2019-01/01/2022

Role: co-PI

Amount: \$50,000

Funding institution: Catalyst Award – American Lung Association

Title: Disrupting bacterial immunomodulatory pathways to increase protective immunity

Dates: 07/01/2019-06/30/2021

Role: PI

Amount: \$50,000

Funding institution: Pilot Translational and Clinical Studies Program, CTSA

Title: Developing a Novel Vaccine against Whooping-Cough

Dates: 01/01/2018-06/30/2018

Role: co-PI

Amount: \$50,000

Funding institution: Ministry of Public Health of Ecuador

Title: Development National of a laboratory for the study of antibiotic resistance and research

Dates: 07/01/2014-06/30/2018

Role: PI

Amount: \$100,000

Funding institution: European Union – Intra-European Marie Curie Fellowship FP7

Title: Role of the RsmA and Two component systems genes found in the plasmid pMBA19a, and effects in *Sinorhizobium meliloti*

Dates: 07/01/2010-08/31/2012

Role: PI

Amount: 172,741 €

Funding institution: Post-doctoral Fellowship. Fundación Barrie de la Maza

Title: Role of the transcriptional regulator RsmA in *Sinorhizobium meliloti*

Dates: 09/01/2008-07/31/2010

Role: PI

Amount: 32,400 €

Funding institution: Ph.D. Fellowship. Sociedad Espanola de Enfermedades Infecciosas y Microbiologia Clinica – SEIMC

Title: Molecular epidemiology of extended spectrum β -lactamases (ESBL) isolates during 2001 at Juan Canalejo's Hospital. Structure-function studies in CTX-M group I β -lactamases

Dates: 01/01/2004-12/31/2006

Role: PhD student

Amount: 45,000 €

Funding institution: Exchange award. Sociedad Espanola de Enfermedades Infecciosas y Microbiologia Clinica – SEIMC

Title: Development of molecular techniques for the typing and characterization of a hospital outbreak of *Klebsiella pneumoniae* with decreased sensitivity to third generation cephalosporin in the neonatal ward, as a model

Dates: 10/01/2012-12/31/2002

Role: PhD student

Amount: 900 €

Funding institution: Foundation Juan Canalejo – Pharmazan

Title: Multicenter national study of urinary pathogens isolated in primary care. Antibiotic usage

Dates: 07/01/2001-12/31/2001

Role: Student

Amount: 1,000 €

Funding institution: Foundation Juan Canalejo – Student Fellowship

Title: Mechanisms of Resistance in Urinary Pathogens and Antibiotic usage

Dates: 02/01/2000-06/30/2001

Role: Student

Amount: 6,000 €

Funding institution: Ministry of Education Spain

Title: BSc Scholarship

Dates: 01/01/1992-01/01/2000

Role: Undergraduate Student

Amount: 1,400 €

2.2 Patents

Patents

- **Cartelle Gestal, Monica** “Anti-IL-1RA as treatment for long-term bacterial infection” LSU Health Science Center at Shreveport. Submitted patent (PCT) 30. September. 2023 (100% author) - 2932719-000237-WO1; LSUHSC-S-2022-010-03.
- Harvill E., **Cartelle M.** “*Bordetella* sigma regulator”. UGA Innovation and Gateway. U.S. Application Serial No: 62/564,934. Date of filled 28.September.2017. Full patent (PCT) 30. September. 2018 (50% author). Application number: 16647740 . Patent number: 11229690
- Fernández JL, Goyanes V, **Cartelle M**, Muriel L, Bou G, Gosálvez J. “Method for determining DNA fragmentation in microorganisms”. Micromax kit. Halotech DNA SL, Madrid, Spain. Patent number: 9212391. Patent application number 20100129803. Filed 8. November.2007/Date of the patent 23.July.2013. (3% author). Application number: 12513560. Patent number: 8492086.

Provisional patents

- Provisional patent: “*Bordetella* spp, phage related proteins as potential antigenic vaccine candidates” (100% author)

2.3. Publications (*h-index 25 / 2732 citations*)**2.4.1. Book Chapters, Monographs, and Reviews**

- I. Bou G and **Cartelle M.** Caso 312, 2004 Casos de Microbiología clínica VI:68-70. Francisco Soria-Melguizo. SEIMC. <http://www.f-soria.es/casos-de-micro.html>
- II. Holban AM, **Cartelle Gestal M.** Series Foreword in Academic Press Elsevier (2016-2017):
 - a. “Novel Approaches of Nanotechnology in Food”.
 - b. “Nutraceuticals”.
 - c. “Encapsulations”.
 - d. “Emulsions”.
 - e. “Multifunctional Systems for Combined Delivery, Biosensing and Diagnostics”.
 - f. “Water purification”.
 - g. “Nanobiosensors”.
 - h. “Food packaging”.

2.4.2. Peer-Reviewed Journal Articles.**Published manuscripts**

#Corresponding author

¹Trainees**Original research**

1. Katelyn M. Parrish, Tyler L. Williams, Nicholas First, Sarah Johnson, Jana Kamanova, and **Monica C. Gestal**#. “*Bordetella* Spp. Utilize the Type III Secretion System to Promote IL-1Ra Expression for Persistent Infection”. **PMID:** 41116045. *Commun Biol.* 2025 Oct 20;8(1):1484. <http://doi.10.1038/s42003-025-08884-1>
2. Katelyn M. Parrish, Tyler L. Williams, and **Monica C. Gestal**#. “Isolation and characterization of effector functions of murine bone marrow-derived eosinophils following bacterial challenge”. **PMID:** 41076633. *STAR Protoc.* 2025 Oct 10;6(4):104104.
3. Gregory T Walker, Araceli Perez-Lopez, Steven Silva, Michael H Lee, Elisabet Bjånes, Nicholas Dillon, Stephanie L Brandt, Romana R Gerner, Karine Melchior, Grant J Norton, Felix A Argueta, Frenchesca Dela Pena, Lauren Park, Victor A Sosa-Hernandez, Rodrigo Cervantes-Diaz, Sandra Romero-Ramirez, **Monica Cartelle Gestal**, Jose L Maravillas-Montero, Sean-Paul Nuccio, Victor Nizet, Manuela Raffatellu. “CCL28 modulates neutrophil responses during infection with mucosal

- pathogens". *eLife* 2024 Aug 28;13:e78206. doi: 10.7554/eLife.78206. PMID: 39193987. <http://doi:10.7554/eLife.78206>.
4. Nicholas J. First¹, Katelyn M. Parrish¹, Amparo Martínez¹, África González-Fernández, Sushma Bharrham, Matthew Woolard, James B. McLachlan, Rona Scott, Jian Wang, and **Monica C. Gestal**#. "*Bordetella* spp. block eosinophil recruitment to suppress the generation of early strong mucosal protection." *Cell Reports*. 2023 Oct 25;42(11):113294. PMID: 37883230. <http://doi:10.1016/j.celrep.2023.113294>.
 5. José E. Villacís¹, Hugo G. Castelán-Sánchez¹, Jorge Rojas-Vargas, Ulises E. Rodríguez-Cruz, Viviana Albán, Jorge A. Reyes, Pablo M. Meza-Rodríguez, Sonia Dávila-Ramos, Fernando Villavicencio, Margarita Galarza and **Monica C. Gestal**#. "Emergence of *Raoultella ornithinolytica* in human infections from different hospitals in Ecuador with OXA-48-producing resistance". *Frontiers in Microbiology* 14:1216008. PMID: 37692398. <http://doi:10.3389/fmicb.2023.1216008>
 6. Keila Belhart¹, Federico Sisti, **Mónica C. Gestal**#, Fernández Julieta# "*Bordetella bronchiseptica* diguanylate cyclase BdcB inhibits the type three secretion system and impacts the immune response". *Scientific Reports*. PMID: 37130958. <http://doi.org/10.1038/s41598-023-34106-x>
 7. Antonio Guerrero Espejo, Sofia Tomas Dolls, **Monica C. Gestal**. "21 years of Wiskott-Aldrich syndrome in Spain: incidence, mortality, and gender bias" *Revista Clinica Espanola*. 25, March, 2023. PMID: 36972730. <https://doi.org/10.1016/j.rceng.2023.03.004>.
 8. Nicholas First¹, Jose Pedreira-Lopez¹, Manuel RFS Silvestre¹, Katelyn M. Parrish Parrish¹, Xiao-Hong Lu, **Monica C. Gestal**#. "*Bordetella* spp. Utilize the Type 3 Secretion System to Manipulate the VIP/VPAC2 Signaling and Promote Colonization and Persistence of the three classical *Bordetella* in the Lower Respiratory Tract". *Frontiers in Cellular and Infection Microbiology* 13, 1111502. PMID: 37065208 <http://doi.10.3389/fcimb.2023.1111502>
 9. Claudia Soria-Segarra¹, Carmen Soria-Segarra¹, Michelle Andrade-Soriano, **Monica C. Gestal**, Jose Gutierrez-Fernandez "COLISTIN AGAR- 3 mg/mL in Carbapenemase-Producing Enterobacterales for colistin resistance surveillance" (2022) *Journal of Clinical Laboratory Analysis*. 2022;00:e24639 (1-6). PMID: 35944176. <https://doi.org/10.1002/jcla.24639>
 10. **Monica C. Gestal**#, Laura K. Howard¹, Kalyan K. Dewan¹, Eric T Harvill. "Bbvac: A Live Vaccine Candidate That Provides Long-Lasting Anamnestic and Th 17 Mediated Immunity Against the Three Classical *Bordetella* spp." (2022). January/February 2022 Volume 7 Issue 1 e00892-21 *mSphere*. PMID: 35196124. <http://doi:10.1128/msphere.00892-21>
 11. Illiassou H Soumana¹, Bodo Linz, Kalyan K Dewan¹, Demba Sarr, **Monica C. Gestal**, Laura K Howard¹, Amanda D Caulfield¹, Balázs Rada, Eric T Harvill. "Modeling Immune Evasion and Vaccine Limitations by Targeted Nasopharyngeal *Bordetella pertussis* Inoculation in Mice". (2021) *Emerging Infectious Diseases*, 2021 (8) 2107 (1-10). PMID: 34286682 <https://doi.org/10.3201/eid2708.203566>.
 12. **Monica C. Gestal**#, Uriel Blas-Machado, Hannah M. Johnson¹, Lily N. Rubin¹, Kalyan K. Dewan¹, Claire Bryant, Michael Tiemeyer and Eric T. Harvill. "Disrupting *Bordetella* Immunosuppression Reveals a Role for Eosinophils in Coordinating the Adaptive Immune Response in the Respiratory Tract". (2020) *Microorganisms* 2020, 8(11), 1808 (1-15). PMID: 33212993 <https://doi.org/10.3390/microorganisms8111808>.
 13. Estefania Marino-Brito¹, Fernando Villavicencio¹, Carolina Satan¹, Jose E Villacis¹, **Monica C. Gestal**#. "Fosfomycin, Applying Known Methods and Remedies to A New Era". *Diseases* (2020) 8(3), 31 (1-8). PMID: 32784746 <https://doi.org/10.3390/diseases8030031>.
 14. José E. Villacís¹, Jorge A. Reyes¹, Hugo G. Castelán-Sánchez¹, Sonia Dávila-Ramos¹, Miguel Angel Lazo¹, Ahmad Wali, Luis A. Boderó, Yadira Toapanta, Cristina Naranjo, Lorena Montero, Josefina Campos, Marcelo G. Galas, and **Mónica C. Gestal**#. "OXA-48 Carbapenemase in *Klebsiella pneumoniae* Sequence Type 307 in Ecuador". (2020) *Microorganisms* 2020, 8(3), 435 (2-10); PMID: 32204571 <https://doi.org/10.3390/microorganisms8030435>.

15. **Monica C. Gestal**[#], Katie Howard¹, Kalyan Dewan¹, Hannah M. Johnson¹, Mariette Barbier, Illiasou Hamidou¹, Israel Rivera¹, Bodo Linz, Clare Bryant, and Eric T. Harvill. "Enhancement of immune response against *Bordetella* spp. by disrupting immunomodulation". (2019) Scientific Reports 9, 20261 (2019) (1-14) **PMID:** 31889098 <https://doi.org/10.1038/s41598-019-56652-z>.
16. Keila Belhart¹, Maria de la Paz Gutierrez¹, Federico Zacca¹, Nicolas Ambrosio¹, **Monica Cartelle Gestal**, Dawn Taylor¹, Kurt Dahlstrom, Eric T. Harvill, George O'toole, Federico Sisti, and Julieta Fernandez. "*Bordetella bronchiseptica* Diguanylate Cyclase BdcA Regulates Motility and is Involved in Transmission Between Hosts." (2019) Journal of Bacteriology. JB00011-19. **PMID:** 31209073 <https://doi.org/10.1128/JB.00011-19>
17. Kalyan K. Dewan¹, Dawn L. Taylor-Mulneix¹, Laura L. Campos¹, Amanda L. Skarlupka¹, Shannon M. Wagner¹, Valerie E. Ryman¹, **Monica C. Gestal**, Longhuan Ma¹, Uriel Blas-Machado, Brian T. Faddis, Eric T. Harvill. "A Model for Chronic, Transmissible Otitis Media in Mice". (2019) PLoS Pathogens. 15 (4), e1007696 (1-20). **PMID:** 30970038 <https://doi.org/10.1371/journal.ppat.1007916>.
18. Kalyan Dewan¹; Amanda Skarlupka¹; Israel Rivera¹; **Gestal, Monica**; Dawn Taylor-Mulneix¹; Shannon Wagner¹; Valerie Ryman¹; Coralís Rodríguez¹; Illiasou Hamidou Soumana¹; Bruce Levin; Eric T. Harvill. "Development of macrolide resistance in *Bordetella bronchiseptica* associated with the loss of virulence". (2018) Journal of Antimicrobial Chemotherapy. 2018 Aug 10. 73(10) pages 2797-2805. **PMID:** 30107601 <https://doi.org/10.1093/jac/dky264>.
19. **Monica C. Gestal**[#], Israel Rivera¹, Laura K. Howard¹, Kalyan K. Dewan¹, Illiasou Hamidou Soumana¹, Margaret Dedloff¹, Tracy L. Nicholson, Bodo Linz and Eric T. Harvill "Blood or serum exposure induce global transcriptional changes, altered antigenic profile, and increased cytotoxicity by Classical *Bordetellae*". (2018) Frontiers in Microbiology 07 September 2018, 9:1969 (1-10). **PMID:** 30245672 <https://doi.org/10.3389/fmicb.2018.01969>.
20. Claudia Soria¹, Glenda Larrea¹, **Monica Cartelle Gestal**. "High Prevalence of CTX-M-1-Like Enzymes in Urinary Isolates of *Escherichia coli* in Guayaquil, Ecuador." (2018) Microbial Drug Resistance. 2018 Jan 3. 24(4) pages: 393-402 . **PMID:** 29298110 <https://doi.org/10.1089/mdr.2017.0325>.
21. **Monica Cartelle Gestal**[#], Jeannete Zurita, Gabriela Gualpa¹, Cecilia Gonzalez¹, Arianne Paz y Mino¹ "Early detection and control of an *Acinetobacter baumannii* multi-resistant outbreak in a hospital in Quito, Ecuador". (2016) The Journal of Infection in Developing Countries. 2016 Dec 30;10(12):1294-1298. **PMID:** 28036308. <https://doi.org/10.3855/jidc.7544>.
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23. Claudia Soria¹, Nelson Nieto¹, José E. Villacís¹, Sara Lainez¹, **Monica Cartelle Gestal**. "Brote por *Serratia marcescens* en una Unidad de Cuidados Intensivos Neonatales". (2016) Revista Chilena de Infectología. 2016 Dec;33(6):703-705. **PMID:** 28146199. <http://dx.doi.org/10.4067/S0716-10182016000600016>.
24. Juan José Romero¹, Paul Herrera, **Mónica Cartelle**, Pedro Barba¹, Jeannete Zurita. "Panniculitis caused by *Mycobacterium monacense* mimicking erythema induratum: a case in Ecuador". (2016) New Microbes and New Infection. 2016 Jan 22;10:112-5. **PMID:** 26933504. <https://doi.org/10.1016/j.nmni.2016.01.006>.

25. **Monica Cartelle Gestal**[#], Alina M. Holban, Santiago Escalante, Maria Cevallos. (2015) "Neglected diseases, 20 years of study in Ecuador". (2015) *PLoS One*. 2015 Sep 22;10(9):e0138311 (1-12). **PMID**: 26394405. <https://doi.org/10.1371/journal.pone.0138311>.
26. Jeannete Zurita, Henry Parra¹, **Mónica Cartelle Gestal**, Joseph McDermott¹, Pedro Barba¹. "First case of NDM-1 producing *Providencia rettgeri* in Ecuador". (2015) *Journal of Global Antimicrobial Resistance* 3 (4), 302-303. **PMID**: 27842879. <https://doi.org/10.1016/j.jgar.2015.07.003>.
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33. Ana Fernández¹, Emilia Gil, **Monica Cartelle Gestal**, Astrid Pérez¹, Alejandro Beceiro¹, Susana Mallo¹, Maria del Mar Tomás¹, Jose Francisco Pérez-Llarena¹, Rosa Villanueva and German Bou. "Interspecies spread of CTX-M-32 extended-spectrum β -lactamase and the role of the insertion sequence IS1 in down-regulating blaCTX-M gene expression". (2007) *Journal of antimicrobial chemotherapy*. 2007. 59:841-847 **PMID**: 17332005. <https://doi.org/10.1093/jac/dkm030>.
34. **Monica Cartelle Gestal**, Delia Canle¹, Jose Francisco Llarena¹, Francisca Molina, Rosa Villanueva, German Bou. "Characterization of the first CTX-M-10-producing isolate of *Salmonella enterica* serotype Virchow". (2006) *Clinical microbiology and infection*. 2006. 12:285-287 **PMID**: 16451417. <https://doi.org/10.1111/j.1469-0691.2005.01300.x>

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38. David Velasco¹, Maria del Mar Tomás¹, **Monica Cartelle Gestal**, Alejandro Beceiro¹, Astrid Pérez¹, Francisca Molina, Rita Moure, Rosa Villanueva and German Bou. "Evaluation of different methods for detecting methicillin (oxacillin) resistance in *Staphylococcus aureus*". (2005) Journal of antimicrobial chemotherapy. 2005. 55:379-82 **PMID**: 15722394. <https://doi.org/10.1093/jac/dki017>.
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43. German Bou, **Monica Cartelle Gestal**, Maria del Mar Tomás¹, Delia Canle¹, Francisca Molina, Rita Moure, Jose Maria Eirós and Antonio Guerrero. "Identification and broad dissemination of the CTX-M-14 β -lactamase in different *Escherichia coli* strains in the Northwest area of Spain". (2002) Journal of clinical microbiology. 2002. 40: 4030-4036 **PMID**: 12409370. <https://doi.org/10.1128/JCM.40.11.4030-4036.2002>.

Reviews

44. Kevin Munoz Navarrete, Kathryn Edwards, Kingston Mills, Jana Kamanova, Maria Eugenia Rodriguez, Andrew Gorringer, Andrew Preston, Beate Kampmann, **Monica Gestal**, Eric Harvill, Purnima Dubey, Dimitri Diavatopoulos, Seema Mattoo, Karen Scanlon, Camille Loch, and Peter Sebo. "Highlights of the 14th International *Bordetella* Symposium". *mSphere*. PMID: 40377335. <http://10.1128/msphere.00189-25>
45. Katelyn M. Parrish¹ and **Monica C. Gestal**[#]. "Eosinophils as drivers of bacterial immunomodulation and persistence". (2024) *Infection and Immunity*. PMID: 39007622. <http://10.1128/iai.00175-24>
46. **Monica C. Gestal**, A. Elizabeth Oates, Denise M. Akob, and Alison K. Criss. "Perspectives on the future of host-microbe biology from the Council on Microbial Sciences of the American Society for Microbiology". *mSphere*. 2024 Jun 26:e0025624. PMID: 38920371. <http://doi:10.1128/msphere.00256-24>.
47. Alina M. Holban, Gregoire Courtney¹, and **Monica C Gestal**[#]. "Conquering the host: *Bordetella* spp. and *Pseudomonas aeruginosa* molecular regulators in lung infection". (2022). *Frontiers in Microbiology*. 26 September. Pages 1-18. PMID: Waiting. <https://doi.org/10.3389/fmicb.2022.983149>
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49. Edna Ondari¹, Esther Calvino-Sanles¹, Nicholas J. First¹, **MC Gestal**[#]. "Eosinophils and Bacteria, the Beginning of a Story". (2021) *International Journal of Molecular Sciences*. 22(15), 8004. Pages: 1-18. PMID: 34360770 <https://doi.org/10.3390/ijms22158004>.
50. Tyler L. Williams¹, Balazs Rada, Eshaan Tandon¹, **Monica C. Gestal**[#]. "NETs and EETs, a Whole Web of Mess". (2020) *Microorganisms*. 8(12), 1925. Pages: 1-21 PMID: 33291570 <https://doi.org/10.3390/microorganisms8121925>.
51. Michael E. Chirgwin¹, Margaret R. Dedloff¹, Alina Maria Holban, and **Monica C. Gestal**[#]. "Novel Therapeutic Strategies Applied to *Pseudomonas aeruginosa* Infections in Cystic Fibrosis". (2019) *Materials*. 12 (24), 4093. Pages: 1-13. PMID: 31817881 <https://doi.org/10.3390/ma12244093>.
52. **Monica C. Gestal**[#], Hanna M. Johnson¹, Eric T. Harvill. "Immunomodulation as a Novel Strategy for Prevention and Treatment of *Bordetella* spp. Infections". (2019) *Frontiers in Immunology*. 10, 2869. Pages: 1-15 PMID: 31921136 <https://doi.org/10.3389/fimmu.2019.02869>.
53. Margaret R. Dedloff¹, Callie Effler¹, Alina M. Holban and **Monica C. Gestal**[#]. "Use of Biopolymers in Mucosally-Administered Vaccinations for Respiratory Disease". (2019) *Materials*. 12 (15), 2445. Pages: 1-12 PMID: 31370286 <https://doi.org/10.3390/ma12152445>.
54. **Monica Cartelle Gestal**, Margaret Dedloff¹ and Eva Torres Sangiao. "Computational Health Engineering Applied To Model Infectious Diseases And Antimicrobial Resistance Spread". (2019) *Applied Sciences*. 9 (12), 2486. Pages: 1-19 <https://doi.org/10.3390/app9122486>.
55. Eva Torres-Sangiao, Alina Maria Holban, **Monica Cartelle Gestal**[#]. "Applications of Nanodiamonds in the Detection and Therapy of Infectious Diseases". (2019) *Materials*. 12(10), 1639. Pages: 1-10 PMID: 31137476 <https://doi.org/10.3390/ma12101639>.
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57. Mara Madalina Mihai, **Monica Cartelle Gestal**, Alexandru Grumezescu, Alina Maria Holban. "Nanocoatings for wound repair - modulation of microbial colonization and biofilm formation". (2018). International Journal of Molecular Sciences. Apr 12;19(4). **PMID**: 29649179 pii: E1179. Pages: 1-20 <https://doi.org/10.3390/ijms19041179>.
58. Eva Torres-Sangiao, Alina M. Holban AM, **Monica C. Gestal**[#]. Advanced Nanobiomaterials: Vaccines, Diagnosis and Treatment of Infectious Diseases". (2016). Molecules. Jul 1;21(7). Pages: 1-22. **PMID**: 27376260. <https://doi.org/10.3390/molecules21070867>.
59. Madalina E. Grigore¹, Elena R. Biscu¹, Alina M. Holban, **Monica C. Gestal**[#], Grumezescu AM. "Methods of Synthesis, Properties and Biomedical Applications of CuO Nanoparticles". (2016). Pharmaceutics. Nov 30;9(4). pii: E75. **PMID**: 27916867. <https://doi.org/10.3390/ph9040075>.
60. Alina Maria Holban, **Monica Cartelle Gestal**[#], Alexandru Mihai Grumezescu. "Control of biofilm-associated infections by signaling molecules and nanoparticles". (2016). International Journal of Pharmaceutics. Mar 2. pii: S0378-5173(16)30149-1. **PMID**: 26945736. <https://doi.org/10.1016/j.ijpharm.2016.02.044>.
61. Andreea Lorena Mateescu¹, Tatiana Vassu Dimov¹, Alexandru Mihai Grumezescu, **Monica Cartelle Gestal**, Mariana Carmen Chifiriuc. "Nanostructured bioactive polymers used in food-packaging". (2015). Current pharmaceutical biotechnology. 16 (2), 121-127. **PMID**: 25483716. <http://10.2174/1389201015666141202110919>
62. **Monica Cartelle Gestal**[#], Alina M. Holban. "Advances in nanotechnology as an alternative against superbugs". (2014). JSM Chem. 2(2): 1011. Pages: 1-5.
63. **Monica Cartelle Gestal M**[#] and Santiago Escalante. "New initiative in Ecuador, the creation of a National reference lab for Antibiotic Resistance". (2014). Journal of Develop Drugs. 3:122. Pages: 1-4. <http://dx.doi.org/10.4172/2329-6631.1000122>.
64. Alina Maria Holban, **Monica Cartelle Gestal** and Alexandru Mihai Grumezescu. "New Molecular Strategies for Reducing Implantable Medical Devices Associated Infections". (2014). Current Medicinal Chemistry. Vol 21, 38. Pages: 3375-3382. **PMID**: 24606502. <http://10.2174/0929867321666140304103810>
65. Alina Maria Holban, Alexandru Mihai Grumezescu, Laurențiu Mogoantă, **Monica Cartelle Gestal**, George Dan Mogoșanu. "Novel drug delivery magnetite nano-systems used in antimicrobial therapy". (2014). Current Organic Chemistry. 18. Pages: 185-191. <http://10.2174/13852728113176660142>

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Manuscripts Submitted or in revision (# corresponding author)

1. Stephanie M. Provenzano, Katelyn M. Parrish, Nicholas J. First, Jose Pedreira-Lopez, Suryanarayana Polaka, Akshat Agrawal, Mohammad Alfrad Nobel Bhuiyan, Nurit P. Azouz, Gopi Kolluru, and Monica C. Gestal. "Eosinophils Promote Systemic Dissemination and Cardiac Pathology during Bordetella Infection in Hypereosinophilic Hosts" Submitted to mBio.

2. Michael Gollan, **Monica C Gestal**, Katelyn M Parrish, Eric T Harvill, Andrew Preston, Iain MacArthur. "A Novel Adhesin of *B. pertussis* is Key to Colonisation of Epithelial Cells". In preparation - Emerging microbes & infection. <https://doi.org/10.1101/2024.09.23.613229>

Publication in lay journals

1. Katherin Samanta Narváez Inca¹, José Luis Rodríguez Martínez¹, **Mónica Cartelle Gestal#**. (2014). "Síndrome de Guillain-Barré en niño de 5 años se exacerba tras proceso neumónico". Ciencia e Investigación Médico Estudiantil Latinoamericana Vol. 19 Núm. 2 Ciencia e Investigación Médico Estudiantil Latinoamericana (CIMEL) - Casos Clínicos
2. **Cartelle M.#**, Alulema A¹. and Chico P. (2014) "Our Bacterias: From the farm to the table. Implications of the antibiotic usage in the farming in the antibiotic resistance and public health". Revista Cubana de alimentación y nutrición. Vol24, n1: 1-16
3. **Mónica Cartelle Gestal#**, Jeannete Zurita. (2015) "La nanotecnología en la producción y conservación de alimentos". Revista Cubana de Alimentación y Nutrición. Vol 25 Issue 1:184-207
4. **Cartelle Gestal M#**, Villacis J.E.¹ (2014) Superbugs, Ecuador and the future" Revista Facultad de Ciencias Médicas de la Universidad de Guayaquil. Vol 17, April, June 2014; 56-61
5. **Cartelle M.#** "Vencer la Resistencia a antibioticos" Investigación y ciencia. May 2013

2.4 Invited Speaker at Seminars Series and Conferences National and International

2025:

1. Host Microbe Biology Meet up, Shaping Microbe 2026 - ASM Microbe 2025 – Los Angeles, 19-23.June.2025. **USA**.
2. "New Voices Infection And Immunity" – ASM Microbe 2025 – Los Angeles, 19-23.June.2025. **USA**.
3. Host Microbe Biology COMS, accomplishments since 2023 – COMS meeting ASM Microbe 2025 - Los Angeles, 19-23.June.2025. **USA**.
4. "Uncovering the role of eosinophils during *Bordetella* spp. respiratory infections". University of Illinois at Urbana-Champaign, 10.April.2024. **USA**.
5. "Uncovering the role of eosinophils during *Bordetella* spp. respiratory infections". University of Virginia, 28.January.2024. **USA**.

2024:

6. "*Bordetella* spp. target epithelial cell-eosinophil axis to promote establishment of infection and long-term persistence" 4th COBRE Colloquium 17th September.2024, Shreveport. **USA**.
7. "The hidden role of eosinophils during *Bordetella bronchiseptica* infection" Invited Seminar, Vigo. 24-3.July.2024. **Spain**.
8. Roundtable invited speaker – Future of Science. 14th International *Bordetella* Symposium, Prague. 24-28.June.2024. **Check Republic**.
9. "The hidden role of eosinophils during *Bordetella bronchiseptica* infection" 14th International *Bordetella* Symposium, Prague. 24-28.June.2024. **Check Republic**.

10. "Meet and Greet – Host Microbe Biology breaking Silos" ASM Microbe 2023. Atlanta 13-19.June 2024. **USA.**
11. "Lounge and Learn Host Microbe Biology: Recommendations and priorities for the host-microbe biology field" ASM Microbe 2023. Atlanta 13-19.June 2024. **USA.**
12. "The hidden role of eosinophils during *Bordetella bronchiseptica* infection" Biology of Acute Respiratory Infection, GRC. Galveston, 24.February.2024 – 1.March.2024. **USA.**

2023:

13. "Microbiology surveillance of infectious diseases" Universidad de Barcelona (Online). 13.December.2023. **Spain**
14. "Basic research applied to vaccine and therapeutic development" IGACIENCIA. Online seminar to high school students in Galicia. 24.November.2023. Online to **Spain.**
15. "The hidden role of eosinophils during *Bordetella bronchiseptica* infections". University of Maryland School of Medicine. 8.November 2023. **USA.**
16. "*Bordetella* spp. and eosinophils. Lessons learnt. 3rd COBRE Colloquium. 23rd October 2023, Shreveport. **USA.**
17. "The hidden role of eosinophils during *Bordetella bronchiseptica* infections" FASEB – The microbial pathogenesis conference: Mechanisms of infectious disease. Southbridge 15-11.July 2023. **USA.**
18. "*Bordetella bronchiseptica* and eosinophils, lessons learned" ASM Microbe 2023. Houston 15-19.June 2023. **USA.**
19. "My dream comes true. My path to become a researcher". Invited speaker online for the Society for Women in Chemistry – SWIC. Washington State University. 23.May.2023. **Online.**
20. "The hidden role of eosinophils during *Bordetella* spp. infections" 9.March.2023. U.S.-Japan cooperative Medical Sciences Program – International Conference on Emerging Infectious Diseases in the Pacific Rim – NIAID-NIH – Session: Acute respiratory infections -Online. **Online.**
21. "The secret life of eosinophils". 8.February.2023. School of Medicine, Tulane University, LA. **USA.**
22. "*Bordetella bronchiseptica* utilizes *bteA*, a T3SS effector, to promote IL1RA" Fortnight Host-pathogen interaction conference. 9.January.2023. Shreveport, LA. **USA.**

2022:

23. "The secret life of eosinophils". 2nd COBRE Colloquium. 7th December.2022. Shreveport, **USA.**
24. "Microbiology surveillance of infectious diseases" Universidad de Barcelona (Online). 1.December.2022. **Spain**
25. "*Bordetella* spp. block eosinophil recruitment to suppress lung iBALt formation". 29.October.2022. ASM South Central Branch meeting 2022, Shreveport. **USA.**
26. "*Bordetella* spp. blocks eosinophil recruitment to suppress iBALt formation" 27.October.2022. Department of Pathology. LSU Health, Shreveport. **USA.**
27. "Bacterial molecular mechanisms for host immune suppression" 12.September.2022. Online Seminar series University of A Coruna, Spain. **Online.**
<https://www.youtube.com/channel/UCQgipmkOGSjBykocXCenHag>
28. "The secret life of eosinophils" 22.August.2022. Online seminar series. International *Bordetella* Lab Meeting (IBLM). **Online.**
29. "*Bordetella* spp. and eosinophils: the untold story". 2.May.2022 Invited speaker to the Seminar series of the Infectious Diseases Department at University of Georgia, **USA.**

2021:

30. "*Bordetella* spp. and eosinophils". 1st COBRE Colloquium. 9. December.2024. Online. Shreveport. **USA**
31. "Taking an example: *Bordetella pertussis*". 23.August.2021 ASM- SEIMC - Webinar: Infection Medicine: new-old approaches and perspectives. **Online.**
32. "Bacterial Manipulation of innate responses" 25.March.2021. Biochemistry Department at LSU Health Science Center, Shreveport – Invited by Dr. De Benedetti. **Online.**
33. "Bacterial manipulation of the host responses to increase persistence" 10.February.2021. Teams meeting – Cincinnati Children's Hospital – Invited by Dr. Marc Rothenberg. **Online.**

2020:

34. "Challenges as a new Assistant Professor in the COVID era" 25.June.2020. Zoom meeting – University of Georgia – Invited by Dr. Eric Harvill. **Online.**
35. "Eosinophils, the forgotten immune cells. New perspectives in health and disease" *Bordetella* Research Day. 6.August.2020. Zoom meeting - University of Maryland – Invited by Dr. Nicholas Carbonetti. **Online.**
36. "Challenges as a new Assistant Professor in the COVID era". 25.June.2020. Zoom meeting - University of Georgia – Invited by Dr. Eric Harvill. **Online.**
37. "Eosinophils Are Required for Generation of Protective Immunity in The Respiratory Tract". 28.May.2020. Zoom meeting - University of Maryland – Invited by Dr. Nicholas Carbonetti. **Online.**

2019:

38. "New insights into host-pathogen interaction: targeting immunomodulation for prevention and therapy" 14.July.2019. LSU Health, Shreveport, LA, **USA.**
39. "Mediating Immunomodulation Suppresses Immunity To Infection". Seminar Series Maine, University. 11.June.2019, **USA.**
40. "Immunomodulation Suppresses Innate And Adaptive Immunity To *Bordetella* Infection". 12th International Symposium on Bordetella, 9-12.April.2019. Brussels, **Belgium.**
41. "Transcription Factor-Mediated Immunomodulation Suppresses Innate And Adaptive Immunity To *Bordetella* Infection". Seminar Series Baylor School of Medicine. TCMC Seminar, 22.January.2019. Houston, **USA.**

2018:

42. "Immunomodulation suppresses adaptive immunity to *Bordetella* infection". ASM Southeastern Branch Meeting "Microbial Dynamics and Infection, 30 November-2 December. 2018. Atlanta, **USA**
43. "Immunomodulation of Adaptive Immunity to *Bordetella* spp. Infection". Infectious Diseases Retreat Day, 19.October.2018. Athens, **USA.**
44. "Improving protection by manipulating bacterial immuno-modulators". Seminar Series Department of Infectious Diseases College of Veterinary Medicine. Cambridge University, 25.June.2018. Cambridge, **UK.**
45. "Bacterial sigma factor manipulates host innate response". *Bordetella* science day at UGA, 7.June.2018. Athens, **USA.**
46. "Improving protection by manipulating bacterial immuno-modulators". ASM Microbe 2018 - Rapid Fire Talk, 4.June.2018. Atlanta, **USA.**

47. "Improving protection by manipulating bacterial immuno-modulators". *Bordetella* Research Day, Oral presentation, 9.April.2018, Baltimore, **USA**.
48. "Pathogen-induced airway infections modulate host glycosylation in mice". InterPEG 2018, 10-11 March 2018. San Diego California, **USA**.

2017:

49. "Disrupting immuno-modulators to induce better immune response". Georgia *Bordetella* Symposium (Selected oral presentation), 30.October.2017. Athens, GA, **USA**
50. "Disrupting immuno-modulators to induce better immune response". UGA-CVI Seminar Series Invited Speaker, 11.October.2017. Athens, **USA**

2016:

51. "Studying of *Bordetella*-Host-pathogen interaction by using the mice model". CDC invited guest speaker, 1.November.2016. Atlanta, **USA**
52. "Genetic determinants of intracellular survival and growth of *Bordetella*". College of Veterinary medicine. University of Cambridge, 4.October.2016. Cambridge, **UK**.
53. "Competition Between Resident Microbiota and Invading Pathogens". Retreat day-Vet Med, 29.April.2016. Athens, **USA**

2015:

54. "Study of healthy carriers of ESBL-producing enterobacteriaceae: alarming rates of resistance in Ecuador". Antibiotic resistance and antibiotics alternatives: Looking towards the future, 3-5.November.2015. London, **UK**.
55. "Resistance to carbapenems in Ecuador". XXII Latinamerican Congress of Clinical Biochemistry and Laboratory Medicine (COLABIOCLI 2015), 24-26.September.2015. Quito, **Ecuador**
56. "Detección, acción y solución de brotes hospitalarios" Semana Científica INSPI. Symposium of Infectious Diseases associated with Public Health, 8.September.2015. Guayaquil, **Ecuador**
57. "Study of the evolution of antibiotic resistance in Ecuador during the last five years". 2nd Annual Microbiology & Infectious Diseases Asia Congress, 23-24.June.2015. **Singapore**
58. "Quorum sensing as a tool to detect and treat infections". Plenary Session speaker. XXVII Panamerican conference of Infectology, 15-19.May.2015. Quito, **Ecuador**.
59. "Use of molecular techniques for the microbiology diagnosis". XXVII Panamerican conference of Infectology, 15-19.May.2015, Quito, **Ecuador**.
60. "Antibiotic stewardship and outbreak control". I meeting of the Network of vigilance of antibiotic resistance, 8-10.April.2015. Quito, **Ecuador**.
61. "Antimicrobial resistance. Actual situation in Ecuador". Ministry of Public Health of Ecuador. MSP – Invited Speaker at the Ministry of Public Health – Direction of Intelligence of health, 18.March.2015. Quito, **Ecuador**.

2014:

62. "Tyrosine - silica biostructures for improved drug delivery against *Staphylococcus aureus*". 3rd International Conference on Clinical Microbiology & Microbial Genomics, 24-26.September.2014. Valencia, **Spain**.

63. "Study of the evolution during 20 years of the tropical and zoonotic diseases in Ecuador". 3rd International Conference on Clinical Microbiology & Microbial Genomics. 24-26.September.2014. Valencia, **Spain**.
64. "The creation of a National reference Laboratory. Control of Infectious Diseases". Ministry of Public health of Ecuador. Invited for a presentation to the sub-secretary of the Minister, 25.July.2014. Quito, **Ecuador**.
65. "Resistance vs. virulence". II Latin-American Network of Molecular Epidemiology and Evolutionary, Genetics of Infectious Diseases, 21-23.July.2014. Quito, **Ecuador**.
66. "Quorum Sensing, The New Tool to Detect and Control Pathogens". Microbial & Infectious diseases Asia Congress ,10, 11.June.2014. **Singapore**.

2013:

67. "Effects of the nutrition in the intestinal flora". "XIV International conference in Medicine, Nutrition, and health promotion", 21-25.October.2013. Riobamba, **Ecuador**.

2012:

68. "Plasmids in Evolution" (2012) "Evolutionary discussion group" Queen Medical Centre, 16.March.2012. Nottingham, **UK**.

2004:

69. "CTX-M: Structural, enzymatic and epidemiological aspects" (2004) Hospital Juan Canalejo A Coruna, Research Core Seminar Series, **Spain**.

2.5 Chair of Conferences and Seminars

1. **Convener/Chair** ASM Microbe 2025 "microbial pathogenesis unraveled: A holistic view through 'omics". 19-23 June.2024. Los Angeles, CA, USA.
2. **Chair** 14th International *Bordetella* Symposium. "*Immunology and vaccines session 1*" - 24-28 June 2024. Prague, Czech Republic. Also, online – Hybrid format
3. **Planning and scientific committee** 14th International *Bordetella* Symposium. 24-28 June 2024. Prague, Czech Republic. Also, online – Hybrid format
4. **Facilitator** of the breakout room 2 for the HMB Retreat of the COMS – ASM. 30 May to 1 June. 2023. Online.
5. **Planning committee** of the online 2023 HMB-COMS ASM retreat. 30 May to 1 June. 2023. Online.
6. **Chair** of the "*Session 4 Immunology*" at the American Society for Microbiology – South Central Branch conference 2022, Shreveport
7. **Chair** of the "*Session 9 Bacterial Pathogenesis*" at the American Society for Microbiology – South Central Branch conference 2022, Shreveport
8. **Chair** of the "*Session 13 Bacterial Pathogenesis*" at the American Society for Microbiology – South Central Branch conference 2022, Shreveport
9. **Organizer, planning and scientific committee** of American Society for Microbiology – South Central Branch conference 2022, Shreveport.

10. **Founder and organizer** of the “*Allergies, Inflammation and Eosinophils Study Group – AIE*”. Series of seminars with the pediatrics department to enhance collaboration and brainstorming. 2022 – 2023.
11. **Chair.** 13th International *Bordetella* Symposium. 26-30.June.2022 Vancouver, Canada. Also, online – Hybrid format.
12. **Scientific committee.** 13th International *Bordetella* Symposium. 26-30.June.2022 Vancouver, Canada. Also, online – Hybrid format.
13. **Founder, organizer, Scientific Director, and co-host.** International *Bordetella* Lab Meeting (IBLM). Online monthly seminar series focused on *Bordetella* research. (starting 28.September.2020 to present)
14. **Director and Chair of the Microbiology and Immunology Seminar Series.** Spring 2021
15. **Chair** “*Host-Pathogen session*” at the *Bordetella* Research Day. 6.August.2020. Online due to COVID-19, University of Maryland, Baltimore, USA
16. **Chair** of the **afternoon session** in the “2nd Annual Microbiology & Infectious Diseases Asia Congress”, 23rd – 24th June 2015. Singapore
17. **Member of the advisory board** in the “4th Annual Microbiology & Infectious Diseases Asia Congress, 10th – 11th October 2017, Singapore. Singapore.
18. **Member of the advisory board** in the “3rd Annual Microbiology & Infectious Diseases Asia Congress”, 11th – 12th October 2016, Singapore. Singapore.
19. **Scientific committee** in the “2nd Annual Microbiology & Infectious Diseases Asia Congress, 23rd – 24th June 2015, Singapore”. Singapore.
20. **Organizer poster session** in the “XIV International conference in Medicine, Nutrition, and health promotion”. 21-25 October 2013. Riobamba. Ecuador

2.6 Abstracts and Presentations at Scientific Meetings National and International

2025:

1. Stephanie Provenzano, Katelyn Parrish Gopi Kolluru, **Monica C. Gestal**. “Complications in respiratory infections in patients with Hypereosinophilia” Latino Medical Student Association Southwest Regional Conference, Aurora, CO. February 2025, USA.
2. Pedreira-Lopez J, Zhang X, Wang J, Scott R, Bharrhan S, Woolard M, **Gestal MC**. “Immunological crosstalk in the lung: *Bordetella bronchiseptica* suppress the recruitment of T cells via a BtrS-dependent inhibition of eosinophil effector functions.” LSUHSC CCDS Malcolm Feist Cardiovascular Research Symposium. February 2025; Shreveport, LA, USA. (Poster Presentation).

2024:

3. Nicholas First, Elham Abdollahi, Katelyn Parrish, Matthew Woolard, James McLachlan, **Monica C. Gestal**. “Eosinophils Augment the Mucosal Immune Response to *Bordetella* spp. infection and

vaccination". Annual Biomedical Research Conference for Medical Minoritized Scientists (ABRCMS). 13-16. November.2024, Pittsburg, PA. **USA** (Poster Presentation – Graduate Symposium program, Students Networking event)

4. Pedreira-Lopez J, Zhang X, Wang J, Scott R, Bharrhan S, Woolard M, **Gestal MC**. "*Bordetella bronchiseptica* blocks T cell recruitment and TCR recombination, via a BtrS suppression of eosinophil effector functions". Annual American Society for Microbiology (ASM) South-Central Branch and Tennessee-Kentucky Branch Jointed Meeting. November 2024; Memphis, TN, **USA**. (Poster Presentation).
5. First NJ, Parrish KM, Abdollahi E, Pedreira-Lopez J, **Gestal MC**. "The hidden role of eosinophils during *Bordetella* spp. infections". Annual American Society for Microbiology (ASM) South-Central Branch and Tennessee-Kentucky Branch Jointed Meeting. November 2024; Memphis, TN, **USA**. (In Depth Talk).
6. Katelyn M. Parrish, Nicholas First, Sarah M. Johnson, and **Monica C. Gestal**. "*Bordetella bronchiseptica* utilizes the Type III secretion system to promote IL1Ra expression for long-term infection persistence" Gordon Conference – Biology of acute respiratory infection. 25.February.2024 – 1.March, **USA** (Poster Presentation)
7. Stephanie Provenzano, Nicholas First, Katelyn Parrish, Gopi Kolluru, Nurit Azouz ,**Monica Cartelle Gestal** "Systemic Complications of Respiratory Infections in Hypereosinophilic Patients". Medical Student Interim Research Program 17.October.2024, LSU Health Science Center at Shreveport, LA. **USA** (Poster Presentation)
8. Nicholas First, Elham Abdollahi, Nicholas Ambrosis, Joel Goldberg, Daniela Hozbor, and **Monica C. Gestal**. "Eosinophils Contribute to Lasting Vaccine-Induced Immunity to *Bordetella* Infections" 24-28 June 2024, XIV *Bordetella* international Symposium. Prague, **Czech Republic**. (Poster Presentation)
9. Katelyn M. Parrish, Nicholas First, Sarah M. Johnson, and **Monica C. Gestal**. "*Bordetella bronchiseptica* utilizes the Type III secretion system to promote IL1Ra expression for long-term infection persistence" Gordon Conference – Biology of acute respiratory infection. 25.February.2024 – 1.March, **USA** (Poster Presentation)
10. Nicholas First, Katelyn M. Parrish, Amparo Martinez, Africa Gonzalez-Fernandez, Sushma Bharrham, Matthew Woolard, James McLachlan, Rona Scott, Jian Wang, and **Monica C. Gestal**. "Elucidating the role of eosinophils in pulmonary mucosal immunity" Graduate Research Conference 3.May.2023, **USA**. (Poster Presentation)
11. Katelyn M. Parrish, Nicholas First, Sarah M. Johnson, and **Monica C. Gestal**. "*Bordetella bronchiseptica* utilizes the Type III secretion system to promote IL1Ra expression for long-term infection persistence" Malcom-Feist Conference. Shreveport, January .2024 – 1.March, **USA** (Poster Presentation)

2023:

12. Katelyn M. Parrish, Nicholas First, Sarah M. Johnson, and **Monica C. Gestal**. "*Bordetella bronchiseptica* utilizes the Type III secretion system to promote IL1Ra expression for long-term infection persistence" 21.July.2023 Graduate Research Day, LSU Health Science Center at Shreveport, **USA**.
13. Nicholas First, Katelyn M. Parrish, Amparo Martinez, Africa Gonzalez-Fernandez, Sushma Bharrham, Rona Scott, Matthew Woolard, and **Monica C. Gestal**. "*Bordetella bronchiseptica* blocks eosinophil recruitment to suppress lung iBALT formation" 21.July.2023 Graduate Research Day, LSU Health Science Center at Shreveport, **USA**.

14. Nicholas First, Katelyn M. Parrish, James McLachlan, and **Monica C. Gestal**. "*Bordetella bronchiseptica* blocks eosinophil recruitment to suppress lung iBALT formation" ASM Microbe 2023. 15-19 June2023. Houston, **USA**
15. Katelyn M. Parrish, Nicholas First, Sarah M. Johnson, and **Monica C. Gestal**. "*Bordetella bronchiseptica* utilizes the Type III secretion system to promote IL1Ra expression for long-term infection persistence" ASM Microbe 2023. 15-19 June2023. Houston, **USA**. (Poster presentation and Oral presentation)
16. Nicholas First, Katelyn M. Parrish, Amparo Martinez, Africa Gonzalez-Fernandez, Sushma Bharrham, Rona Scott, Matthew Woolard, and **Monica C. Gestal**. "*Bordetella bronchiseptica* blocks eosinophil recruitment to suppress lung iBALT formation" ASM Microbe 2023. 15-19 June2023. Houston, **USA** (Poster presentation)

2022:

17. Gabrielle Miller, Eshaan Tandon, Eshaan Tandon, Tyler Williams, and **Monica C. Gestal**. "*Bordetella bronchiseptica* Blocks Eosinophil Trap Formation via a *btrS*-associated Mechanism, to Prevent Clearance of Infection." High School student. ASM - South Central Branch meeting. Shreveport, LA, **USA** 27-29. October.2022. (Oral presentation)
18. Tyler L. Williams, Katelyn Parrish, Connor Roan, Nicholas J. First, Sarah Johnson, and **Monica C Gestal**. "*Bordetella spp.* utilize T3SS to promote secretion of IL1RA leading to long-term persistent infections." PhD student. ASM - South Central Branch meeting. Shreveport, LA, **USA**. 27-29. October.2022. (Oral presentation)
19. Nicholas First, **Monica C. Gestal**. "*Bordetella spp.* block eosinophil recruitment to suppress lung iBALT formation" ASM - South Central Branch meeting. Shreveport, LA, **USA**. 27-29. October.2022. (Oral presentation)
20. Nicholas First, Amparo Martine, Connor Roan, Sushma Bharrhan, Jian Wang, Rona Scotts, Matthew Woolard, Africa Gonzalez, and **Monica Gestal**. "Eosinophils and Inflammation the untold story" 13th *Bordetella* International Symposium, **Vancouver, Canada**. 26-30.June.2022 (Poster presentation)
21. Nicholas First, Connor Roan, Tyler Williams, and **Monica Gestal**. "*Bordetella spp.* blocks eosinophils trap formation to suppress eosinophil bactericidal activity" 13th *Bordetella* International Symposium, **Vancouver, Canada**. 26-30.June.2022 (Poster presentation)
22. Nicholas First, Connor Roan, Manuel Rico, Xiao-Hong Lu, **Monica Gestal**. "Disruption of the VIP/VPAC2 Axis Limits Colonization and Enhances Clearance of *Bordetella spp.* from the Lower Respiratory Tract ". ASM Microbe 2022. Washington, **USA**. 9-13.June.2022. (Poster presentation)
23. Nicholas First, Connor Roan, Manuel Rico, Xiao-Hong Lu, **Monica Gestal**. "Disruption of the VIP/VPAC2 Axis Limits Colonization and Enhances Clearance of *Bordetella spp.* from the Lower Respiratory Tract ". Graduate Research Day LSU Health Science Shreveport. **USA**. 9.May.2022. (Poster presentation)
24. Nicholas First, Connor Roan, Manuel Rico, Xiao-Hong Lu, **Monica Gestal**. "Disruption of the VIP/VPAC2 Axis Limits Colonization and Enhances Clearance of *Bordetella spp.* from the Lower Respiratory Tract". XIII International *Bordetella* Symposium. **Vancouver, Canada / Online**. 26-30.June.2022 (Oral presentation)

2021:

25. Nicholas First, Connor Roan, Manuel Rico; Xiao-Hong Lu, **Gestal, Monica**. "Disruption of the VIP/VPAC2 Axis Limits Colonization and Enhances Clearance of *Bordetella spp.* from the Lower Respiratory Tract ". 3 Minutes Thesis Competition. International *Bordetella* Lab Meeting, IBLM. **USA**. 12.December.2021. (Oral presentation)– FIRST PRIZE
26. Belhart K, **Gestal MC**, Sisti F, Fernandez J. "*Bordetella bronchiseptica* diguanylate cyclase *bdcB* inhibits type three secretion system and impacts on immune response". XVI Congreso Anual de la Asociación Civil de Microbiología General-SAMIGE. **Argentina**. 1-5. November.2021. (Poster presentation)
27. O’Nuanain A., First N., Ondari E., Ambrosis N., Belhart K., **Gestal MC**. "The *Bordetella bronchiseptica* sigma factor *btrS* blocks eosinophil trap formation by inducing different cellular death". Summer Undergraduate Research Program LSUHS, **USA**. 21.July.2021. (Poster presentation)
28. Ondari E., Williams T., Gatti S., Tandon E., Lu XH., **Gestal MC**. "The *Bordetella bronchiseptica* sigma factor *btrS*, modulates eosinophil mediated bacterial persistence via the IL1RA/IL1 β axis". Graduate Research Day LSUHS, **USA**. 10.May.2021 (Poster presentation)

2020:

29. **Monica C. Gestal***, Hannah M Johnson, Margaret R. Dedloff, Kalyan K Dewan, Eric T Harvill. "Eosinophils Are Required for The Clearance of Respiratory Infections Caused By *Bordetella bronchiseptica*". ASM Microbe 2020. **Online** Conference 22.June.2020-17.August.2020 (Poster presentation)
30. Lily Rubin, **Monica C. Gestal** and Eric T. Harvill. "Determining key immune components in the clearance of *Bordetella spp.*" UGA CURO symposium 2-24.April.2020. Athens, GA, **USA** (Poster presentation).
31. **Monica C. Gestal**, Hannah M Johnson, Margaret R. Dedloff, Kalyan K Dewan, Eric T Harvill. "Eosinophils Are Required For The Clearance Of Respiratory Infections Caused By *Bordetella bronchiseptica*". ASM Microbe 2020. 18-22.June.2020, Chicago, USA (Poster presentation) → [ONLINE DUE TO COVID-19](#).
32. Priya Radhakrishnan, **Monica C. Gestal**, Balazs Rada, Eric T. Harvill. "*btrS* modulates neutrophil responses to *Bordetella spp.* infection" 105th Southeastern Branch meeting of the American Society for Microbiology (ASM-SEB). 21-23.February.2020. Alabama, **USA** (Poster presentation)

2019:

33. Rachel Sanchez, **Monica C. Gestal**, Eric T. Harvill. "Eosinophils are required for the generation of protective adaptive immunity in *Bordetella bronchiseptica* infections". National Veterinary Scholars Symposium, 2.August.2019, Athens, **USA** (3 minutes thesis) (Oral presentation)
34. Rachel Sanchez, **Monica C. Gestal**, Eric T. Harvill. "Eosinophils are required for the generation of protective adaptive immunity in *Bordetella bronchiseptica* infections". National Veterinary Scholars Symposium, 25-27.July.2019, Boston, **USA** (Poster presentation)
35. Callie Effler, Kalyan Dewan, Israel Rivera, Randy Kim, Jonny Hancock, **Monica Cartelle Gestal**, Eric Harvill. "Virulence-related characteristics of *Bordetella pertussis* mutants deficient in intracellular survival" REU Symposium 19. July. 2019, Athens, **USA**. (Poster presentation)
36. Katie Howard, **Monica C Gestal**, Kalyan Dewan, and Eric Harvill. "Novel and Universal Vaccine Against *Bordetella* Species". ASM Southeastern Branch Meeting "12th International Symposium on Bordetella. 9-12.April.2019. Brussels, **Belgium** (Poster presentation)

37. Israel Rivera, Bodo Linz, Kalyan Dewan, Longhuan Ma, Illiassou S. Hamidou, **Monica C. Gestal**, Eric T. Harvill. "Evolutionary conservation of genes for intracellular persistence in mammalian phagocytic cells among human and animal pathogenic *Bordetella*." 12th International Symposium on *Bordetella*. 9-12.April.2019. Brussels, **Belgium** (Poster presentation)
38. Illiassou Soumana Hamidou, Kalyan Dewan, Bodo Linz, Monica C. Gestal, Demba Sarr, Eric Harvill. "Addressing the limitations of the current mouse models of *B. pertussis* infection." 12th International Symposium on *Bordetella*. 9-12.April.2019. Brussels, **Belgium** (Poster presentation)
39. **Monica C. Gestal**, Ingrid McCall, Fernando Baquero, Bruce Levin, Eric Harvill. "Combined Effects of Immune Response And Antibiotics In The Selection of Antibiotic Resistance" 2nd Annual Texas Medical Center Antimicrobial Resistance and Stewardship Conference. 22-25.January.2019. Houston, **USA** (Poster presentation)

2018:

40. **Monica C Gestal**, Katie Howard, Kalyan Dewan, and Eric Harvill. "Novel and Universal Vaccine Against *Bordetella* Species" ASM Southeastern Branch Meeting "Microbial Dynamics and Infection". 30.November-2.December. 2018. Atlanta, **USA** (Poster presentation)
41. Kevin E Mora, **Monica Cartelle Gestal**, Margaret R. Dedloff, Simone Kurz, Uriel Blas-Machado, Michael Tiemeyer, Eric T Harvill. "Peanuts, Parasites, and Bacteria, Oh My!". 3 minutes Thesis. 2018 GVSP Research Day, 27.July.2018. Athens, **USA** (Poster presentation)
42. Kevin E Mora, **Monica Cartelle Gestal**, Margaret R. Dedloff, Simone Kurz, Uriel Blas-Machado, Michael Tiemeyer, Eric T Harvill. "Eosinophil-mediated clearance is blocked by a *Bordetella* blood-responsive regulon". National Veterinary Scholars Symposium, 2-4.August.2018, Texas, **USA** (Poster presentation)
43. Kevin E Mora, **Monica Cartelle Gestal**, Margaret R. Dedloff, Simone Kurz, Uriel Blas-Machado, Michael Tiemeyer, Eric T Harvill. "Eosinophil-mediated clearance is blocked by a *Bordetella* blood-responsive regulon". Science of Vet Med Symposium, 11. October.2018, Athens, **USA** (Poster presentation)
44. Keila Belhart, **Monica Cartelle**, Dawn Taylor, Eric T. Harvill, Federico Sisti, Julieta Fernández. "The diguanylate cyclase BdcB is involved in *Bordetella bronchiseptica* intracellular survival". Nucleotide Second Messenger Signaling in Bacteria International Symposium. 30.September-3.October.2018. Berlin, **Germany** (Poster presentation)
45. Margaret Dedloff, **Monica Cartelle Gestal**, Hira Hassan, Mariette Barbier, Clare Bryant, Olivier Restif, Eric T. Harvill. "The World's Smallest Escape Artists". REU conference 2018. 20.July.2018. **USA** (Poster and Oral presentation)
46. Israel Rivera, Bodo Linz, Kalyan Dewan, Longhuan Ma, Hamidou Illiasou, **Monica Gestal**, and Eric Harvill. "Transcriptional profiling revealed pathogenicity island activated during *Bordetella bronchiseptica* survival in macrophages". ASM Microbe 2018. 7-11.June.2018. Atlanta, **USA** (Poster presentation)
47. **Monica C. Gestal**, Laura K. Howard, Soumana Illiassou Hamidou, Eric Harvill. "Improving Protection By Manipulating Bacterial Immuno-modulators". ASM Microbe 2018. 7-11.June.2018. Atlanta, **USA** (Poster presentation)
48. Katie Howard, Coralís Rodríguez, Israel Rivera, Tracy Nicholson, Amalia Alias, Sara Hester, Laura Weyrich, Eric Harvill, **Monica C Gestal** "*Bordetella* manipulates host response by altering gene

expression in response to blood". CURO conference 2018. 9.April.2018. Athens, **USA** (Poster presentation)

49. Keila Belhart, Maria de la Paz Gutierrez, Federico Zacc, Nicolas Ambrosis, **Monica Cartelle**, Dawn Taylor, Eric T. Harvill, George A. O'Toole, Federico Sisti, Julieta Fernández. "*Bordetella bronchiseptica* diguanilate cyclase BdcA regulates motility and is involved in transmission between hosts". Sensing and Signaling: From Single Molecules to Host-Microbe Interactions. 14-19. January.2018. Ventura, California, **USA** (Poster presentation)
50. Simone Kurz*, **Monica C. Gestal***, Eric T. Harvill and Michael Tiemeyer. "Pathogen-induced airway infections alter host glycosylation in mice". * Both authors contributed equally. InterPEG Conference. 10-11.March.2018. California, **USA** (Poster and also selected for ORAL presentation).

2017:

51. **Monica C Gestal**, Katie Howard, and Eric Harvill. "A *Bordetella* sigma factor mediates the response to the host and is associated with pathogenesis". 6th SM Conference on Cell-Cell Communication in Bacteria. 16-19.October 2017. Athens, GA, **USA** (Poster presentation)
52. Katie Howard, Coralís Rodríguez, Israel Rivera, Tracy Nicholson, Amalia Alias, Sara Hester, Laura Weyrich, Eric Harvill, **Monica C Gestal** "*Bordetella* manipulates host response by altering gene expression in response to blood". 6th SM Conference on Cell-Cell Communication in Bacteria. 16-19.October 2017. Athens, GA, **USA** (Poster presentation)
53. Troy M. King Jr., Katie Howard, **Monica Cartelle Gestal**, Longhuan Ma, and Eric T. Harvill "Investigation of *Bordetella bronchiseptica* genes associated with virulence in blood serum". 5th annual mid Atlantic prep/IMSD research symposium (MAPRS). 25-26.May.2017. Baltimore, **USA** (Poster presentation)
- 13 **Monica C Gestal**, Kalyan Dewan, Eric Harvill. "Study of the virulence induced by T3SS and T6SS in *Bordetella bronchiseptica*". GSPS. 17.April.2017. Athens, **USA** (Poster presentation)
- 14 Hira Hassan, **Monica Cartelle-Gestal**, Eric Harvill. "Role of a sigma factor in the intracellular survival of *Bordetella bronchiseptica*" REU Symposium. 20.July.2017. Athens, USA (Poster presentation)
- 15 **Monica Cartelle Gestal**, Coralís Rodríguez, Katie Howard, Eric Harvill. "Understanding sigma factors to study potential vaccine candidates". 11th Georgia Glycoscience Symposium. 25.April.2017. Athens, **USA** (Poster presentation)
- 16 Troy King, **Monica Cartelle Gestal**, Katie Howard, Longhuan Ma, Laura Cuff, Eric Harvill. "Investigation of *Bordetella bronchiseptica* genes associated with virulence in blood serum". Vet Med Retreat Day. 14.April.2017. Athens, **USA** (Poster presentation)
- 17 Troy M. King Jr., Katie Howard, **Monica Cartelle Gestal**, Longhuan Ma, and Eric T. Harvill "Investigation of *Bordetella bronchiseptica* genes associated with virulence in blood serum". 27th Annual Molecular Parasitology & Vector Biology Symposium, 27.April.2017. Athens, **USA** (Poster presentation)
- 18 Katie Howard, **Monica Cartelle Gestal**, Eric Harvill. "Genetic determinants of intracellular survival and growth of *Bordetella pertussis*". CURO conference. 3.April.2017. Athens, **USA** (Oral presentation)
- 19 **M. Cartelle Gestal**, X. Zhang, E. Harvill. "Role of sRNA in the development and progression of *Bordetella bronchiseptica* pathogenesis". ASM Microbe. 1-5.June 2017. New Orleans, **USA** (Poster presentation)

2016:

- 20 Katie Howard, Zachary Reneer, Mackenzie Blue Harvill, **Monica Cartelle Gestal** and Eric Harvill. "Role of the sRNA *bprL* in the ability of intracellular survival of *Bordetella bronchiseptica*". Vet Med Symposium 13. October 2016. Athens, **USA** (Oral presentation)
 - 21 Hira Hassan, **Monica Cartelle Gestal**, Eric Harvill. "Role of the *bsr* gene in the intracellular survival of *Bordetella bronchiseptica*" REU conference 2017. 22.July.2017. UGA, **USA** (Oral and Poster presentation)
 - 22 Mackenzie Blue Harvill, Laura Howard, Zachary Reneer, **Monica Cartelle Gestal**, Eric Harvill. "Blood and serum increase the expression of virulence factors in *Bordetella bronchiseptica*". Vet Med Symposium 13. October 2016. Athens, **USA** (Poster presentation)
 - 23 Zurita J., M. Solis, J. Romero, D. Ortega-Paredes, P. Barba, C. González and **M. Cartelle-Gestal**. 2016. Characterization and Clinical Impact of Bacteremia Caused by ESBL-Producing *E. coli* in a Third Level Hospital in Ecuador. Abstract presented at the 26th European Congress of Clinical Microbiology and Infectious Disease (ECSMID). 9-12.April.2016. Amsterdam, **The Netherlands** (Poster presentation)
 - 24 **Monica C Gestal**, Kalyan Dewan, Eric Harvill. "Study of the virulence induced by T3SS and T6SS in *Bordetella bronchiseptica*". ASM Microbe 2016. 16-20.Junio-2016. Boston, **USA** (Poster presentation)
- 2014:
- 25 Ariane Paz y Miño, Gabriela Gualpa, **Mónica Cartelle Gestal**, Cecibel González y Jeannete Zurita. "Identificación, caracterización y control de un brote hospitalario causado por *Acinetobacter baumannii*". COLIBIOCLI. 24-26.September.2014. Quito, **Ecuador** (Poster presentation)
 - 26 Cecibel Gonzalez, Carolina Alulema, **Mónica Cartelle Gestal**, Jeannete Zurita. "Estudio de la prevalencia de parásitos en el Distrito Metropolitano de Quito, durante los últimos 5 años". COLIBIOCLI. 24-26.September.2014. Quito, **Ecuador** (Poster presentation)
 - 27 Reyes J., Villacis E., Vasques R, Villavicencio F., Ushinha L., Escalante S, **Cartelle M.** "Perfiles de Resistencia bacteriana en el Ecuador 2014". XXVII Panamerican conference of Infectology. 15-19.May.2014. Quito, **Ecuador** (Poster presentation)
 - 28 Maria Jose Alulema and **Monica Cartelle Gestal**. "Retrospective study of the situation of dengue in Ecuador for the last 20 years". 3rd International Conference on Clinical Microbiology & Microbial Genomics". 24-26.September.2014. Valencia, **Spain** (Poster presentation part of a context of young researchers).
 - 29 Ariel Avalos, Maria Jose Alulema and **Monica Cartelle Gestal** "A look back at the situation of Ecuador. Is *Salmonella* spp. still a big problem?". 3rd International Conference on Clinical Microbiology & Microbial Genomics". 24-26.September.2014. Valencia, **Spain** (Poster presentation part of a context of young researchers → AWARDED).
 - 30 Ariel Avalos and **Monica Cartelle Gestal** "Evaluation of the deparasitation and education campaigns of Ecuador against taeniasis and cysticercosis". 3rd International Conference on Clinical Microbiology & Microbial Genomics". 24-26.September.2014. Valencia, **Spain** (Poster presentation part of a context of young researchers).
 - 31 Maria Jose Alulema and **Monica Cartelle Gestal** "Retrospective study of the chagas and malaria situation in Ecuador for the last 20 years". 3rd International Conference on Clinical Microbiology & Microbial Genomics". 24-26.September.2014. Valencia, **Spain** (Poster presentation part of a context of young researchers).

- 32 Maria Jose Alulema, Ariel Avalos and **Monica Cartelle Gestal** "Situation the Ecuador with the sexual transmission diseases". 3rd International Conference on Clinical Microbiology & Microbial Genomics" 24-26.September.2014. Valencia, **Spain** (Poster presentation part of a context of young researchers).
- 33 E. Toapanta Ortiz, **M. Cartelle Gestal**, R. Velez. "Ichthyosis, the XXI century pandemic of Ecuador". Accepted for publication in an electronic supplement of the European Journal of Human Genetics, European Conference of Human Genetics. 31 May–3 June.2014. Milan, **Italy** (Poster presentation)
- 34 M. J. Alulema Garcés, **M. Cartelle Gestal**, M. D. Sanchez, F. A. Tama. "First case report of Seckel in Ecuador". Poster accepted and publication in an electronic supplement of the European Conference of Human Genetics European Conference of Human Genetics 2014, May 31–June 3, Milan, **Italy** (Poster presentation)
- 35 **Monica Cartelle Gestal**, Andrea E. Toapanta, Rosa Velez. "Ichthyosis, Case report. A growing problem in Ecuador". Welcome Trust. Genomic Disorders 2014. 5-7.March.2014. Cambridge, **UK** (Poster presentation)
- 36 **Monica Cartelle Gestal**, M.J. Alulema, M. D. Sanchez and F. A. Tama. "Seckel, a case report from Ecuador". Welcome Trust. Genomic Disorders 2014. 5-7.March.2014. Cambridge, **UK** (poster presentation)

2013:

- 37 Inca M., Chango C and **Gestal M.C.** "Epidemiological study of Dengue in Ecuador during the last 14 years". XIV International conference of advances in Medicine, Nutrition and Health promotion. 21-25.October 2013, Riobamba, **Ecuador** (Poster presentation)
- 38 Calles D., Ruiz G and **Gestal M.C.** "Study of risk factors associated with diabetes mellitus II in Riobamba, Ecuador". XIV International conference of advances in Medicine, Nutrition and Health promotion. 21-25.October.2013. Riobamba, **Ecuador** (Poster presentation)
- 39 Alulema MJ, Suarez R and **Gestal M.C.** "Study of High blood pressure (case controls) in and indigene village in Riobamba, Ecuador". XIV International conference of advances in Medicine, Nutrition and Health promotion. 21-25.October.2013. Riobamba, **Ecuador** (Poster presentation)
- 40 Toapanta A, Velez R and **Gestal M.C.** "Case report of two twins with ichthyosis with unknown etiology". XIV International conference of advances in Medicine, Nutrition and Health promotion. 21-25.October.2013. Riobamba, **Ecuador** (Poster presentation)
- 41 Mina K, **Gestal M.C.** "Epidemiology of the keratosis pilaris in the province of Chimborazo, Ecuador". XIV International conference of advances in Medicine, Nutrition and Health promotion. 21-25.October.2013. Riobamba, **Ecuador** (Poster presentation)

2011:

- 42 **Gestal M.C.**, Heeb S. and Camara M. "SCIENCE – Passion, Mission, Responsibilities" 26-27.September.2011. Warsaw, **Poland** (Poster and Oral presentation)

2007:

- 43 Solla M, Torres E, **Cartelle Gestal M**, Alvarez-Rocha L, Llinares P, Villanueva R and Bou. "Multiresistant microorganisms in UCI: Risk factors and molecular characterization of *Pseudomonas aeruginosa*". XII

Reunion of Spanish Society of Infectious Diseases and Clinical Microbiology. *Enferm Infecc Microbiol Clin*: 93. 9-11.May.2007. A Coruna, **Spain** (Poster and Oral presentation)

2006:

- 44 Mallo S, **Cartelle Gestal M**, Pérez-Llarena FJ, Villanueva R and Bou G. "Studies of the Amino Acids from the Class C β -lactamase, FOX-4 involved in the hydrolysis of cefoxitin (FX) and ceftazidime". The 46th Interscience Conference on Antimicrobial Agents and Chemotherapy. *Antimicrob Agents Chemother* 46:62. 27-30.September.2006. San Francisco, **USA** (Poster presentation)
- 45 **Cartelle Gestal M**, Mallo S, Villanueva and Bou G. "Structure-Function studies of CTX-M Group β -lactases". The 46th Interscience Conference on Antimicrobial Agents and Chemotherapy. *Antimicrob Agents Chemother* 46:61. 27-30.September.2006. San Francisco, **USA** (Poster presentation)
- 46 Fernández A, **Cartelle Gestal M**, Gil E, Torres E, Villanueva R and Bou G. "Possible in vivo transmission of the CTX-M-32 gene between different *Enterobacteriaceae* spp". XII Conference of the Spanish Society for Infection Diseases and Clinical Microbiology. *Enferm Infecc Microbiol Clin*: 206. 10-13.May.2006. Valencia, **Spain** (Poster and Oral presentation)
- 47 **Cartelle Gestal M**, Pérez-Llarena FJ, Mallo S, Villanueva R and Bou G. "Biochemical studies on β -lactamases from the CTX-M group IX". XII Conference of the Spanish Society for Infection Diseases and Clinical Microbiology. *Enferm Infecc Microbiol Clin*: 207. 10-13.May.2006. Valencia, **Spain** (Poster and Oral presentation)
- 48 Mallo S, **Cartelle Gestal M**, Pérez-Llarena FJ, Villanueva R and Bou G. "Study of the amino acids involved in the hydrolysis of cefoxitin (FX) and ceftazidime (TZ) in the class C β -lactamase FOX-4". XII Conference of the Spanish Society for Infection Diseases and Clinical Microbiology. *Enferm Infecc Microbiol Clin* 201. 10-13.May.2006. Valencia, **Spain** (Poster and Oral presentation)

2005:

- 49 Canle D, **Cartelle Gestal M**, Lactasa C, Lasa I, Villanueva R and Bou G. "Cloning nucleotide sequencing and Functional analysis of the AcrAb-TolC Efflux pump of *Enterobacter cloacae*". 45th Interscience Conference on Antimicrobial Agents and Chemotherapy. *Antimicrob Agents Chemother* 45:72. 16-19.December.2005. Washington, **USA** (Poster presentation)
- 50 **Cartelle Gestal M**; Villanueva R; and Bou G. "Structure-function studies at position Arg-276 of CTX-M beta-lactamases". 45th Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC). *Antimicrob Agents Chemother* 45:58. 16-19.December.2005. Washington, **USA** (Poster presentation)

2004:

- 51 **Cartelle Gestal M**, Canle D, Pérez S, Domínguez L, Villanueva R and Bou G. "Structural-functional studies in CTX-M β -lactamases". 44th Interscience Conference on Antimicrobial Agents and Chemotherapy. *Antimicrob Agents Chemother* 44:74-75. 30.October-2.November.2004. Washington, **USA** (Poster presentation)
- 52 **Cartelle Gestal M**, Tomás M, Canle D, Torres E, Molina F, Villanueva R and Bou G. "Molecular epidemiology study of ESBLs in *Escherichia coli* from north western Spain". 44th Interscience Conference on Antimicrobial Agents and Chemotherapy. *Antimicrob Agents Chemother* 44:106. 30.October-2.November.2004. Washington, **USA** (Poster presentation)

- 53 **Cartelle Gestal M**, Tomás M, Molina F, Moure R, Villanueva R and Bou G. "Study of risk factors for infection or colonization by a *Klebsiella pneumoniae* strain with reduced susceptibility to third generation cephalosporins (RSKp) in a nosocomial outbreak". 44th Interscience Conference on Antimicrobial Agents and Chemotherapy. *Antimicrob Agents Chemother* 365-366. 30.October-2.November.2004. Washington, **USA** (Poster presentation)
- 54 Tomás M, **Cartelle Gestal M**, Beceiro A, Gil E, Villanueva R and Bou G. "Genetic characterization of the outer membrane proteins (OMPs) of *Acinetobacter* spp". 44th Interscience Conference on Antimicrobial Agents and Chemotherapy. *Antimicrob Agents Chemother*. 30.October-2.November.2004. Washington, **USA** (Poster presentation)
- 55 Domínguez L, **Cartelle Gestal M**, Canle D, Tomás M, Villanueva R and Bou G. "Studies on the structure-function of the group CTX-M-9 β -lactamases". XI Spanish Society for Infection Diseases and Clinical Microbiology. *Enferm Infecc Microbiol Clin* 2004:109. 16-19.Mayo.2004. Bilbao, **Spain** (Poster and Oral presentation)
- 56 **Cartelle Gestal M**, Canle D, Tomás M, Villanueva R and Bou G. "Studies on the structure-function of the group CTX-M-1 β -lactamases". XI Spanish Society for Infection Diseases and Clinical Microbiology. *Enferm Infecc Microbiol Clin* 2004:110. 16-19. Mayo.2004. Bilbao, **Spain** (Poster and Oral presentation)

2003:

- 57 **Cartelle Gestal M**, Tomás M, Moure R, Molina F, Villanueva R and Bou G. "A novel cefotaximase derived from CTX-M-1 that hydrolyses ceftazidime by a single amino acid replacement Asp-240-Gly". 43rd Interscience Conference on Antimicrobial Agents and Chemotherapy. *Antimicrob Agents Chemother* 43:80-81. 14-17.September.2003. Chicago, **USA** (Poster presentation)
- 58 **Cartelle Gestal M**, Tomás M, Beceiro A, Moraleja X, Canle D, Moure R, Villanueva R, Bou G. "Estudio de los mecanismos asociados a un bajo nivel de resistencia a los antibióticos carbapenemes en una cepa clínica de *Serratia marcescens*". VII Conference of the Spanish Society of Chemotherapy. 29-31.May.2003. Zaragoza, **Spain** (Poster presentation)
- 59 Tomás M, Beceiro A, **Cartelle Gestal M**, Gil E, Molina F, Moure R, Llinares P, Villanueva R, Bou G. "Estudio de los factores de riesgo para la infección y/o colonización por una cepa de *Acinetobacter baumannii* con un mecanismo multifactorial de resistencia a carbapenemes en un brote nosocomial". VII Conference of the Spanish Society of Chemotherapy. 29-31.May.2003. Zaragoza, **Spain** (Poster presentation).

2002:

- 60 Tomás M, Beceiro A, **Cartelle Gestal M**, Gil E, Molina F, Moure R, Llinares P, Villanueva R and Bou G. "Risk factors associated with infection or colonization by an epidemic multiresistant *Acinetobacter baumannii* clinical strain". 42nd Interscience Conference on Antimicrobial Agents and Chemotherapy. 27-30.September.2002. San Diego, **USA** (Poster presentation)
- 61 **Cartelle Gestal M**, Beceiro A, Gil E, Domínguez MA, Molina F, Eirós JM and Bou G. "Validation of use of different PCR-Based DNA Fingerprinting (REP-PCR, ERIC-PCR, RAPD) for typing strains of *Klebsiella pneumoniae* and application of the techniques to the investigation of a hospital outbreak". 42nd Interscience Conference on Antimicrobial Agents and Chemotherapy. *Antimicrobial Agents Chemotherapy* 42:143. 27-30.September.2002. San Diego, **USA** (Poster presentation)

- 62 Bou G, **Cartelle Gestal M**, Tomás M, Beceiro A, Velasco D, Gil E, Canle D, Eirós JM and Guerrero A. "Identification and broad dissemination of the CTX-M-14 Beta-lactamase in the North West area of Spain". 42nd Interscience Conference on Antimicrobial Agents and Chemotherapy. *Antimicrobial Agents Chemotherapy* 42:116-117. 27-30.September.2002. San Diego, **USA** (Poster presentation)
- 63 Gil E, **Cartelle Gestal M**, Tomás M, Moure R, Martínez-Beltrán J, Llinares P, Eirós JM and Bou G. "Molecular characterization of a nosocomial outbreak caused by a carbapenem resistant *Acinetobacter baumannii* strain with a reduction in the expression of 28-30 KDa outer membrane proteins (OMPs)". 42nd Interscience Conference on Antimicrobial Agents and Chemotherapy. *Antimicrobial Agents Chemotherapy* 43:341. 27-30.September.2002. San Diego, **USA** (Poster presentation)
- 64 Bou G, **Cartelle Gestal M**, Beceiro A, Gil E and Eirós JM. "The replacement of phenylalanine (F) 154 by tyrosine (Y) on the amino acid sequence of the beta-lactamase OXA-24 abrogates its carbapenemase activity". 42nd Interscience Conference on Antimicrobial Agents and Chemotherapy. *Antimicrobial Agents Chemotherapy* 42:79. 27-30.September.2002. San Diego, **USA** (Poster presentation)
- 65 Cañizares A, Abalde M, Velasco D, **Cartelle M**, Tomás S, Guerrero A, et al. "Resistencia primaria en las Comunidades Valenciana y Gallega. "¿Existen diferencias regionales en la resistencia primaria del VIH? Comparación entre dos comunidades españolas". SEV 2002, **Spain** (Poster presentation)

2001:

- 66 Guerrero A, Cañizares A, **Cartelle Gestal M**, Velasco D, Gimeno C, García de Lomas J. "Resistance rate of HIV in naive patients during the last 4 years in Spain". 41st Interscience Conference on Antimicrobial Agents and Chemotherapy. *Antimicrobial Agents Chemotherapy* 41:334. 16-19.December.2001. Chicago, **USA** (Poster presentation)
- 67 **Cartelle Gestal M**, Velasco D, Beceiro A, Molina F, Moure R and Guerrero A. "Clinical significance of the isolation by LCR of organisms frequently linked to contamination". IX Meeting of Spanish Society for Infect Diseases and Clinical Microbiology. *Enfermedades Infecciosas y Microbiología Clínica* 2001: 22. 19-20.April.2001. Madrid, **Spain** (Poster and Oral presentation)
- 68 Gil E, Durán T, García P, Velasco D, Canle D, Zúñiga C, Molina F, **Cartelle Gestal M** and Guerrero A. "Incidence of fungal meningitis in the Northeast of Spain". IX Meeting of Spanish Society for Infect Diseases and Clinical Microbiology. *Enfermedades Infecciosas y Microbiología Clínica*: 30. 19-20.April.2001. Madrid, **Spain** (Poster and Oral presentation)

2000:

- 69 **Cartelle Gestal M**, Rodriguez P, Zuniga C, Moure R and Guerrero A. "Epidemiologia microbiana: Tasas de infecciones de determinados virus hospitalarios y de sensibilidad de patogenos bacterianos causantes de bacteriemias e infecciones multi-resistentes". Symposium Complejo Hospitalario Universitario A Coruna. 2000. A Coruna, **Spain**.

2.7 Mentoring

I have met amazing mentors, those who change you forever. Mentors, who always have time for you, who listen, and who are teaching and guiding you every step of the way. Virtually holding your hands and protecting you from the shadows. Those mentors are the people that I look up to, they are my inspiration for my mentoring philosophy, and I strive to be like them.

I believe that the great joy of being a mentor is seeing students grow into the best they can be. A love of science and the desire to share this love heavily influences my teaching philosophy. At the core are the following 7 foundations creating a learning environment whereas 1) all feel comfortable to express themselves, 2) have the ability to excel, 3) are individuals and therefore need personalized attention and goals, 4) are diverse and as such we celebrate what each brings to the community, 5) I help the student find their passions providing the space for them to grow, 6) I communicate clear and achievable goals, but 7) nevertheless strive for happiness by creating a nurturing and supporting environment that extends beyond the work space. In my opinion, which is based on past experiences and my training as project manager, defining clear expectations, by the mentor and mentees, is key to a productive, fruitful, and rewarding relationship. I always discuss a backup plan in case career plans change. I always combine an easy project, which has a high chance of success and ensures positive experiences, with a more challenging project that allows students to grow as scientists and individuals. Progress is being evaluated by weekly one-on-one meetings in addition to lab meetings. Also, I have an open-door policy to provide immediate support.

So far, I have been mentoring a total of more than 45 students including K-12, undergraduate, graduate, and postgraduate students of all ethnic, gender, and religious backgrounds. As measure of success, 66 and 30 of them were coauthors on poster presentations and manuscripts, respectively. 24 of them received recognitions for their work, most often students of underrepresented minorities.

We as mentors and educators have the honor and responsibility to shape the next generation of teachers and scientists. To be continuously successful, we need to respond to criticism and adjust our approaches while evolving our mentoring style. Flexibility and understanding are the keys to success.

2.7.1 Gestal Lab present and past Personnel

Year	Name	Position	Current position
2024- Present	Jose Predeira Lopez	PhD student	1 st Year PhD student at the Gestal Lab.
2022- Present	Katelyn Parrish	PhD student	4 rd Year PhD student at the Gestal Lab.
2020 - present	Nicholas First	PhD candidate	5 th Year PhD student at the Gestal Lab.
2023 - present	Madelyn Aucoin	MD student	Current member Gestal Lab
2023 - present	Kathryn Ruckstuhl	MD student	Current member Gestal Lab
2023 - present	Kathryn Ruckstuhl	MD student	Current member Gestal Lab
2024 - present	Louis Hardoiun	MD student	Current member Gestal Lab

2022 - present	Stephanie Provenzano	MD student	Current member Gestal Lab
2025 - present	Manuel Caamano Mayo	Fundacion Barrie and LUSH Health Science Center Summer undergraduate student	Current member Gestal Lab
Past members			
2024 - 2025	Rishi Sultana	SMART - High school student	Caddo Magnet High School.
2023 - 2024	Joel Goldberg	Master Student	
2023 - 2024	Elham Abdollahi	Postdoctoral researcher	Senior Research associate at Nebraska University
2024	Yago Somoza	Fundacion Barrie and LUSH Health Science Center Summer undergraduate student	Biotechnology Lugo University.
2024	Gabriella Miller	PHIIRE Summer undergraduate student	Forensic Science Arizona State University
2024	Ignacio Lemir	Mentored thru the IMDEA Mentoring Program (Spain)	Postdoctoral student at IMDEA
2023-2024	Hannah Fry	SMART - High school student	Undergraduate at Louisiana Technical College.
2023-2024	Rikki Wiggins	Biostart - High school student	College
2023	Laura Lopez Candales	LSUHSC-S and Fundación Barrie de la Maza – Undergraduate Summer Fellowship	High school teacher – Peleterio School Spain
2023	Lidia Amodio	Mentored thru the IMDEA Mentoring Program (Spain)	PhD student at IMDEA
2022-2023	Gabriella Miller	SMART – High School Student	Undergraduate – Forensic Science Arizona State University
2022-2023	Nhi Dao	SMART – High School Student	Undergraduate at the University of Texas Dallas
2022	Diana Elena Ciurduc	Mentored thru the IMDEA Mentoring Program (Spain)	Patent officer.
2022	Arayajada Perkins	Biostart – High School Student	Nursing school - LSU
2022	Emily Cox	Summer Undergraduate	Undergraduate LA Tech

2022	Jose Predeira Lopez	LSUHSC-S and Fundación Barrie de la Maza – Undergraduate Summer Fellowship	PhD student Gestal lab.
2020 - 2022	Courtney Gregoire	MD student	Residency.
2021 - 2022	Connor Roan	Graduate student	Team lead at Labcorp at Highland Clinic, Shreveport.
2021 - 2022	Sarah Johnson	High School Student – SMART program	Undergraduate “Rice University”. She continues to participate on our research program during the summers. Clinical Research Coordinator Assistant Scientific researcher at Texas Children’s hospital.
2021	Brooklyn Butler	Middle school student - Youree Drive Spartans	High School, Capitan Shreve, Shreveport.
2021	Nicolas Ambrosis, PhD	Exchange Postdoctoral researcher	Researcher CONICET, Argentina
2021	Keila Belhart	Exchange PhD student	Postdoctoral researcher at CONICET, Argentina
2021	Esther Calvino-Sanles	LSUHSC-S and Fundación Barrie de la Maza – Undergraduate Summer Fellowship	PhD Student Portugal. Instituto de Medicina Molecular - MSCA ITN ISOBIOTICS
2021	Manuel Rico Fernandez San Silvestre	LSUHSC-S and Fundación Barrie de la Maza – Undergraduate Summer Fellowship	Medical school – University Santiago de Compostela, Spain. Head of Research Partnership – Harvard Innovation Labs. Science Communicator – Fundacion Degen. Research Intern – Health Research Institute Santiago de Compostela
2021	Aine O’Nuanain	Summer undergraduate Program LSU Health Shreveport	LSU Baton Rouge specializing in environmental biology. Student Research Assistant.
2021	Edna Ondari, PhD	Postdoctoral Researcher	Global assessor at the Royal Society of Tropical Medicine and Hygiene

			Postdoctoral researcher at the University of Dundee, Scotland, United Kingdom
2020-2021	Tyler Lynne Williams	Research Associate	Medical laboratory scientist in a WK hospital in Shreveport
2020-2021	Eshaan Tandon	High School Student – SMART	Currently studying “Biology” in Tulane University as pre-Med. He continues to come every summer, and he is an active member that even in the distance still works on our projects.
2020-2021	Sarah Elizabeth Gatti	High School Student – SMART	Biomedical engineering at Vanderbilt University. Medtronic Engineering Intern
2020-2021	Patrick Simon	High School Student – SMART	Biology at Arkansas University

Since 2022 I have been a **mentor for the **IMDEA** mentoring program.*

2.7.2 Gestal Lab presentations and accomplishments

Students' seminars and oral presentations

- 1) “*Bordetella bronchiseptica* suppress eosinophil effector functions to halt recruitment of a novel $\gamma\delta$ T cell subpopulation to promote persistent infection in the lung.” Pedreira-Lopez J, Zhang X, Wang J, Scott R, Bharrhan S, Woolard M, Gestal MC. Annual American Society for Microbiology (ASM) Microbe Meeting. June 2025; Los Angeles, CA, USA. (In Depth Talk).
- 2) “*Bordetella* spp. efflux pumps and host lipids cross signaling”. Yago Somoza. Undergraduate student. Fall Seminar Series, Department of Microbiology and Immunology. LSU Health, Shreveport. 2024
- 3) “The dietary habits of immune cells: An overview of membrane manipulation during infection”. Katelyn M. Parrish. Spring seminar series. 19.April.2023
- 4) “*Bordetella* spp. block eosinophil recruitment to suppress lung iBALT formation”. Nicholas J. First, PhD student. Fortnight Host-pathogen interaction conference. 6.February.2023
- 5) “Close encounters between *Bordetella* and lung epithelial cells”. Laura Lopez. Undergraduate student. Fall Seminar Series, Department of Microbiology and Immunology. LSU Health, Shreveport. 2023
- 6) “*Bordetella* spp. utilize T3SS to promote secretion of IL1RA leading to long-term persistent infections.” Katelyn Parrish. IBLM. 15 minutes presentation - December 19, 2022 - **WINNER**
- 7) “Eosinophils mediate iBALT during *Bordetella* spp. infection”. Nicholas First, PhD Student. IBLM. 15 minutes presentation - December 19, 2022 - **WINNER**
- 8) “Eosinophils mediate iBALT during *Bordetella* spp. infection”. Nicholas First, PhD Student. Journal Club – Discussions in Bacteriology. October 20, 2022

- 9) "*Bordetella bronchiseptica* Blocks Eosinophil Trap Formation via a *btrS*-associated Mechanism, to Prevent Clearance of Infection." Gabrielle Miller. High School student. ASM – South Central Branch meeting. 15 minutes presentation - 27-29. October.2022.
- 10) "*Bordetella* spp. utilize T3SS to promote secretion of IL1RA leading to long-term persistent infections." Tyler L. Williams, Katelyn Parrish. PhD student. ASM – South Central Branch meeting. 15 minutes presentation - 27-29. October.2022.
- 11) "The host VIP/VPAC2 Signaling Promotes Colonization and Persistence of the three classical *Bordetella* in the Lower Respiratory Tract" Jose Pedreira. Undergraduate student. Fall Seminar Series, Department of Microbiology and Immunology. LSU Health, Shreveport. 24. August.2022
- 12) "Eosinophils mediate iBALT during *Bordetella* spp. infection" Emily Cox. Undergraduate student. Poster presentation - Summer undergraduate Program 2022. 27.July.2022
- 13) "Disruption of the VIP/VPAC2 Axis Limits Colonization and Enhances Clearance of *Bordetella* spp. from the Lower Respiratory Tract" Nicholas First. Poster presentation - ASM Microbe 2022, Washington DC, USA.9-13.June.2022
- 14) "Disruption of the VIP/VPAC2 Axis Limits Colonization and Enhances Clearance of *Bordetella* spp. from the Lower Respiratory Tract" Nicholas First, PhD student. 13th *Bordetella* International Symposium, Vancouver, Canada. Poster presentation - 26-30.June.2022
- 15) "Eosinophils promote the formation of BALT following infection with BBmut" Nicholas First. Fortnight Host Pathogen Interaction, Seminar series. 8.February.2022
- 16) "Beyond hemostasis: The role of platelets during infection" Microbiology and immunology Connor Roan, Graduate Student. Seminar series. 12.January.2022
- 17) "Vasoactive intestinal peptide and its receptor 2 mediate host-pathogen interactions during *Bordetella* spp. infections" 3 Minutes thesis competition – Nicholas First. International *Bordetella* Lab Meeting (IBLM). 20.December.2021 – **FIRST PRIZE**
- 18) "*Bordetella bronchiseptica* blocks eosinophil effector functions to disrupt adaptive immunity" Research update – Discussions in Bacteriology. Nicholas First. 28.October.2021.
- 19) "Gut Derived IgA+ Plasma Cells: Recently Discovered Players in Neuroinflammation and Multiple Sclerosis" Microbiology and Immunology Seminar Series. Nicholas First. 13.October.2021
- 20) "Phage or not Phage, *Bordetella* virulence untangled" Microbiology and Immunology Seminar Series. Esther Calvino-Sanles. Fall Seminar Series, Department of Microbiology and Immunology. LSU Health, Shreveport 2022
- 21) "New murine models to better understand *Bordetella* pathogenesis" Microbiology and Immunology Seminar Series. Manuel Rico Fernandez San Silvestre. Fall Seminar Series, Department of Microbiology and Immunology. LSU Health, Shreveport 2022
- 22) "Dengue Virus Manipulation of Mosquito Metabolism". Microbiology and Immunology Seminar Series. Nicholas First. January 7, 2021
- 23) "*Bordetella* Adenylate Cyclase Toxin Inhibits Monocyte-to Macrophage Transition and Dedifferentiates Human Alveolar Macrophages into Monocyte-like Cells" Journal Club – Discussions in Bacteriology. Nicholas First. April 29, 2021

Students' accomplishments:

- 1) Jose Pedreira-Lopez (2025-2027) – **Trainee** in the ASM Future Leaders Mentorship Program (**FLMF**) - American Society for Microbiology
- 2) Nicholas First (2025) – **Best talk** at the Graduate Research Day LUSHS-S
- 3) Stephanie Provenzano (2025) – **Best Work in Basic Science** presented at the Latino Association Southwest Regional Conference

- 4) Rishi Sultana (2025) – **300 Top Regeneron Scholar**.
- 5) Rishi Sultana (2025) – **Second price** Science Fair Regional Science Fare. “Eosinophils as drivers of endometriosis and adenomyosis”.
- 6) Jose Pedreira-Lopez (2025) – Awarded the **ASM Richard and Mary Filkenstein Travel Award**
- 7) Nicholas First (2024) – **Graduate Student of the Month** – LSU Health Science Center at Shreveport.
- 8) Elham Abdollahi (2024) – **Best postdoctoral poster award (First Prize)** – ASM South central branch and Kentucky Tennessee join meeting.
- 9) Stephanie Provenzano (2024) – **Third Prize** overall poster presentation at the Medica Student Research Program Conference
- 10) Joel Goldberg (2024) – Awarded the **ASM Future Leaders Mentoring Fellowship**
- 11) Hannah Fry (February 2024) → **Third price** Science Fair Regional Science Fare. “Eosinophils can act as antigen presenting cells during *Bordetella* spp. infection”.
- 12) Manuel Rico Fernandez San Silvestre (2024) → Selected as one of the 10 most talented young people in Spain by **Celera**.
- 13) Katelyn Parrish (2023-2025) – Awarded the CCDS – **T32** Predoctoral Fellowship
- 14) Nicholas First (2023-2025) – Awarded an **Ike Muslow** Predoctoral Fellowship
- 15) Katelyn Parrish (2023) – **Co-President** Graduate Student Council
- 16) Katelyn Parrish (2023) – Awarded the **ASM Future Leaders Mentoring Fellowship**
- 17) Katelyn Parrish (2023) – **BioLegend Travel award** to assist the ASM Microbe 2023
- 18) Katelyn Parrish (2023) – **ASM Travel award** to present her poster selected for a talk at the ASM Microbe 2023
- 19) Gabrielle Miller (January 2023) → **First price** Regional Science Fair “*Bordetella bronchiseptica* Blocks Eosinophil Trap Formation via a *btrS*-associated Mechanism, to Prevent Clearance of Infection”
- 20) Gabrielle Miller (January 2023) → **Second price** Science Fair – Caddo Magnet High School.- “*Bordetella bronchiseptica* Blocks Eosinophil Trap Formation via a *btrS*-associated Mechanism, to Prevent Clearance of Infection”
- 21) Nicholas First (2022) – **Social chair** Graduate Student Council
- 22) Nicholas First (August 2022) → His microscope photography was selected as the winner to be the **cover** of the Fall Graduate Research Day at LSU Health Shreveport, 2022.
- 23) Sarah Johnson (Science Fair JSHS, 2022) → Science fair – Caddo Magnet High School - “Mechanisms of Immunomodulation in *Bordetella bronchiseptica*”
- 24) Sarah Johnson (CMHS Science Fair, 2022) → Science fair “Mechanisms of Immunomodulation in *Bordetella bronchiseptica*”
- 25) Brooklyn Butler (Science Fair 2022)→ Project entitled, “Germs in the classroom”. Selected to present in the Science Fair Shreveport 2022. **Second place** in the “Cellular & Molecular Biology” category at the Regionals Louisiana Region 1 Science & Engineering Fair 2022.
- 26) Ariana Gestal Gurr (2021) – **First prize Agar Art - ASM**
- 27) Eshaan Tandon (June 2021) → **JHSH Momentum grant** to promote his STEM enrichment in our lab.
- 28) Eshaan Tandon (March 2021) → High School Science Fair “*Bordetella bronchiseptica* Mediates Eosinophil Trap Formation by a *btrS*-mediated Mechanism”
- 29) Courtney Gregoire – **Intramural fellowship** to cover the MD tuition due to the accomplishments obtained and volunteering hours dedicated to work in the Gestal Lab.
- 30) Keila Belhart (2020) – “**WOOD-WHELAN Fellowships**” Travel award to visit for 4 months the Gestal Lab

2.7.3 Dissertation Committee since Faculty position

Name	Laboratory	End year
Finalized dissertation		
Bailey Mosher	Andrew Yurochko lab – LSU Health Science Shreveport	Graduated PhD 2021
Alba Mir	Juanjo Gonzalez – Val D’Hebron Spain	Graduated PhD 2021
Connor Roan	Monica Cartelle Gestal Lab – LSU Health Science Shreveport	Left program after year 1 (2022)
Jarred Tiller	Andrew Yurochko lab – LSU Health Science Shreveport	Left program after year 1 (2020)
Teresa Gil	Jose Luis Martinez Menendez – Universidad Complutense, Madrid	Graduated PhD 2023
Danielle Schaal	Rona Scott lab – LSU Health Science Shreveport	Graduated PhD 2024
Temitayo Bambose	Matthew Woolard Lab– LSU Health Science Shreveport	Graduated PhD 2024
Claudia Soria Segarra	PhD student in University of Granada, Spain. I am member of the committee meeting	Graduated PhD 2024
Joel Goldberg	Monica Cartelle Gestal Lab – LSU Health Science Shreveport	Graduated Master 2024
Ongoing dissertation		
Nicholas First	Monica Cartelle Gestal Lab – LSU Health Science Shreveport	Expected 2025
David Rickets	Ciaran Skerry – University of Maryland	Expected 2025
Lauren Henderson	Jeremy Kamil Lab– LSU Health Science Shreveport	Expected 2026
Cierra Word	Rohit Jangra Lab – LSU Health Science Shreveport	Expected 2027
Katelyn Parrish	Monica Cartelle Gestal Lab – LSU Health Science Shreveport	Expected 2028
Victoria Fillon	Andrew Yurochko lab – LSU Health Science Shreveport	Expected 2028
Madeline Meldrum	Jeremy Kamil lab – LSU Health Science Shreveport	Expected 2029
Zacharia Martin	Jangra Yurochko lab – LSU Health Science Shreveport	Expected 2029
Jose Pedreira Lopez	Monica Cartelle Gestal Lab – LSU Health Science Shreveport	Expected 2030
Cora Reagan Palmer	Matthew Woolard Lab – LSU Health Science Shreveport	Expected 2030
Javier Nion Fieira	Matthew Woolard Lab – LSU Health Science Shreveport	Expected 2030
Romaisa Aslam	Andrew Yurochko Lab – LSU Health Science Shreveport	Expected 2030

2.7.4 Master and PhD Students prior to Faculty position

Name	Program I have been involved in	Defense
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Claudia Soria Segarra	MSc Thesis “Determinación de beta lactamasas de espectro extendido tipo CTX-M en aislamientos urinarios de <i>Escherichia coli</i> obtenidos entre 2008 y 2013 en la ciudad de Guayaquil”. Administración Nacional de Laboratorios e Institutos de Salud Dr. Carlos G. Malbrán. PI: Monica Cartelle Gestal. Ecuador	Graduated Master Thesis 2016
Eva Torres Sanjiao	Community-acquired methicillin resistant <i>Staphylococcus aureus</i> : Effects of subinhibitory concentrations of antibiotics on the proteome profile of USA300”. PI: Carlos Garcia-Riestra. Universidade Santiago de Compostela, Spain	Graduated PhD 2015

2.3.5 Students prior Faculty position

Undergraduate research: Since starting my career I have mentored over 30 undergraduate students with whom I have 340 poster communications at National and International conferences. These students have served as co-authors on two publications in lay-journals, in peer-reviewed journals, and more in preparation. **Prices:** One of my undergraduate students from Ecuador was awarded First Prize in the Young Researcher Forum with research presented from my Laboratory (Gestal Lab). One of my undergraduate students at USA has been awarded the McNair Fellowship and Goldwater Scholarship, as well as she was highly recognized by her University by obtaining the Levinus Clarkson Award. Four of my undergraduate students at UGA have been awarded the CURO fellowship. And I have been recognized by the Career Center at UGA as a **mentor who has greatly contributed to the career development of UGA graduates in the 2019 class.**

Other: At UGA I have also supervised 6 Ph.D. rotation students between 2016-2019.

Students’ accomplishments prior to faculty position:

2014: Best Poster award and first prize in the young researcher’s forum for my undergrad student’s research: to **Gestal Lab** “A look back at the situation of Ecuador. Is *Salmonella* spp. still a big problem?”. “3rd International Conference on Clinical Microbiology & Microbial Genomics”. September 24-26, 2014, Valencia, Spain.

2013: Best Poster award: **Gestal Lab** “case report: Ichthyosis in two twins in Banos” XIV International seminar of actualization in medicine, nutrition and health promotion.

3. TEACHING ACTIVITIES

3.1 Teaching Philosophy

I believe that teaching students is a key challenge for the future of science and innovative research. I thoroughly enjoy interacting with undergraduate and graduate students, helping them develop their independent and critical thinking skills. I think the purpose of teaching is not only to help students connect with the material but also to assist them in forging their own paths in science.

I have had the unique experience of traveling around the world, mentoring and teaching students in Spain, the United Kingdom, Ecuador, and now the United States. My mentoring abilities have been shaped by the constructive feedback I have received from students, supervisors, and mentors. This feedback has enhanced my appreciation for my role as a facilitator and motivator, driving me to expand the means by which I facilitate active learning sessions to support all types of learners.

3.2 Teaching Experience

3.2.1. Since faculty position (>2020)

Course director:

- PhD fellowship program LSUHSC-Fundación Barrie de la Maza (Since 2023)
- Summer undergraduate research program LSUHSC-Fundación Barrie de la Maza (Since 2021)
- Since 2022 Spring alternate between Director and co-Director of Micro297 Immunology for Graduate Students Micro297
- 2021 Spring Microbiology and Immunology Seminar Series
- 2024 Spring Microbiology and Immunology Seminar Series

Graduate and Faculty courses: (MID – medical courses)

- 2024 Spring – MID Fundamental (**1 hour**)
- 2024 Spring – MID Systems course (**1 hour**)
- 2025 Spring – Micro297 Immunology for Graduate Students Micro297 – **co-Director (12 hours)**.
- 2025 Spring - Micro291 Advance Bacteriology (**2 hours**).
- 2025 Spring - Micro289 Pathogenesis of infectious diseases (**4 hours**).
- 2024 Spring – MID Fundamental (**7 hour**)
- 2024 Spring – MID Systems course (**5 hour**)
- 2024 Spring – Micro297 Immunology for Graduate Students Micro297 - **Director (15 hours)**.
- 2024 Spring - Micro291 Advance Bacteriology (**2 hours**).
- 2024 Spring - Micro289 Pathogenesis of infectious diseases (**3 hours**).
- 2023 Spring – MID Fundamental (**3 hour**)
- 2023 Spring – MID Systems course (**5 hour**)
- 2023 Spring – Micro297 Immunology for Graduate Students Micro297 – **co-Director (15 hours)**.
- 2023 Spring - Micro291 Advance Bacteriology (**5 hours**).
- 2023 Spring - Micro289 Pathogenesis of infectious diseases (**3 hours**).
- 2022 Spring – MID Fundamental (**1 hour**)
- 2022 Spring – MID Systems course (**4 hour**)
- 2022 Spring – Module 1 Course 1 (**1 hour**)

- 2022 Spring – Micro297 Immunology for Graduate Students Micro297 - **Director (15 hours)**.
- 2022 Spring - Micro291 Advance Bacteriology (**2 hours**).
- 2022 Spring – Micro289 Pathogenesis of infectious diseases (**3 hours**).
- 2021 Spring – Small group discussions – Medical students (**14 hour**)
- 2021 Spring – MID Systems course (**1 hour**)
- 2021 Spring – Module 1 Course 1 (**1 hour**)
- 2021 Fall - Discussions in Bacteriology/Bacteriology Research Conference Spring (**13 hours**)
- 2021 Spring - Micro297 Immunology for Graduate Students - **Co-Director (14 hours)**
- 2021 Spring - Spring Microbiology and Immunology Seminar Series - **Director (23 hours)**
- 2020 Spring – Small group discussions – Medical students (**14 hour**)
- 2020 Spring – Module 1 Course 4 (**1 hour**)
- 2020 Spring - Micro297 Immunology for Graduate Students (**1 hour**)
- 2020 Spring - Micro291 Advance Bacteriology (**2 hour**)
- 2020 Spring - Micro289 Pathogenesis of infectious diseases (**3 hour**).

Invited lectures:

Date	Title	Title / hours	Audience	Host
10.March.2025	Secretion systems and immunosuppression	Secretion systems	PhD students	School of Medicine of Maryland
13.December.2024	Master's in public health - Microbiology	Microbiological surveillance of infectious diseases	Master students	University of Barcelona
13.December.2023	Master's in public health - Microbiology	Microbiological surveillance of infectious diseases	Master students	University of Barcelona
1.December.2022	Master's in public health - Microbiology	Microbiological surveillance of infectious diseases	Master students	University of Barcelona
25.September.2020	BIOS490	Bacterial strategies to overcome the host immune response (1 h)	Senior Biology Students	LSUS
21.October.2020	PUCE - ECUADOR	Molecular tools in the fight for COVID (1h)	Microbiology Undergraduate Students	Catholic University of Ecuador
25.November.2020	PUCE - ECUADOR	Use of transcriptomics to discover bacterial immunomodulators	Microbiology Undergraduate Students	Catholic University of Ecuador

3.2.2. Prior to faculty position (<2020)

- Private students Middle and High School (2000-2008)

- Medical School and Microbiology Degree (2013-2015)
 - Immunology – 50 series of 2 hours lectures - 2013-2014
 - Genetics – 60 series of 2 hours lectures - 2013-2014
 - Epidemiology -17 series of 2 hours lecture -2014-2015
- Lectures for MD, Professors (2014-2015)
 - Introduction to research – 5 days of 8 hours lecture - 2014
 - How to write papers for peer-review journals – 5 days of 8 hours lecture - 2014
 - Project management – 5 days of 8 hours lecture – 2014
 - How to write and submit an abstract for an international conference – 5 day of 8 hours lecture - 2014
 - Rational usage of antibiotics – 2 days of 8 hours lecture and series of online session of 1 hour for 4 weeks. – 2015 and 2015
 - Mechanisms of antibiotic resistance – one week 6 hours lecture every day – 2014 and 2015

3.2 Short courses and invited lectures for students and trainees

- | | |
|------|--|
| 2018 | “How to design a new vaccine. Translational research” (1 hour) UGA Invited in Dr. Sanchez class (Undergrad) |
| 2017 | “How to design a new vaccine” (1 hour) UGA Invited in Dr. Sanchez class (Undergrad) |
| 2014 | “Antibiotic resistance”. (4 hours) Hospital Eugenio Espejo. Quito, Ecuador (MD) |
| 2014 | “Continuous training for professionals from provinces of Ecuador”. (10 hours) Instituto Nacional de Salud Publica (INSPI), Quito, Ecuador (MD and Health professionals) |
| 2014 | “Project management y dirección integrada de proyectos”. (48 hours) Facultad de ciencias de la salud. Universidad Politecnica del Chimborazo (ESPOCH). Riobamba, Ecuador. (MD, Lecturers, and Professors) |
| 2014 | “Antibiotic stewardship”. (10 hours) Hospital de niños de Guayaquil Dr. Roberto Gilbert E. Guayaquil, Ecuador. (MD and Health Professionals) |
| 2013 | Research in Microbiology (8 hours) . Ambato University. (Undergrad) |
| 2013 | How to publish scientific papers (120 hours) . Association of Professors of Health Sciences. Universidad Politecnica del Chimborazo (ESPOCH). Riobamba, Ecuador. (MD, Lecturers, and Professors) |
| 2013 | How to publish scientific papers (120 hours) . Medicine School. Universidad Politecnica del Chimborazo (ESPOCH). Riobamba, Ecuador. (Lecturers, and Professors) |
| 2013 | Proteomics: Purification and modeling (8 hours) . Pharmacy School). Universidad Politecnica del Chimborazo (ESPOCH). Riobamba, Ecuador. (Undergrad) |

4. SERVICE ACTIVITIES

4.1 Personal Statement

I am a first-generation Hispanic woman from a poor family, and I vividly remember that my mum had to work three different jobs to provide me the education that she could not have herself. Even to date, I am the only family member with a graduate degree in my family of more than 40. Despite the hardships that we experienced, she remained positive and hopeful of a bright future ahead of us. She taught me that I will achieve my dreams if I work hard and keep trying. With that in mind, I romanticized science and thought that by working hard opportunities will arise, just like Marie Curie. However, I remember how I was told by some of my mentors, “it is a shame that you are a woman” or “I was expecting a postdoc and then I saw you with your make-up and high heels”. I also remember that I was told I had “too much enthusiasm” or “in the moment you give birth you will lose your brain”. Essentially, I was judged by my mentors based on my gender, language, and race rather than my accomplishments and training. Even though the worst offenses occurred outside of the US, I continued to experience forms of exclusions not only from mentors and supervisors but also from peers: because I am a woman and a mother of Hispanic origin with an accent and an outgoing personality. Although upsetting, they fortunately had no negative effects on my career because of support from my mentors and the recognition of my work from the scientific community. From my own experience and supported by publicly available data, being a mother is an extra burden for female scientists, because taking care of family and performing at the same level as my male scientific peers requires enormous extra effort. Effort that is currently not being credited in science, for example during grant review, promotion, or tenure decisions. The Covid pandemic exacerbated these inequities.

In my current position in the highly diverse and inequitable state of Louisiana, I will strive to alleviate the systemic inequities and to influence, shape, and teach a new generation of diverse professionals. These experiences have profoundly shaped me, I see inequity comes in many forms, but the effect is the same, forcing those who are underrepresented to work that much harder, and be that much more determined, to achieve their goals. That is why I am dedicated to supporting those who need it. In my current position in the highly diverse and inequitable state of Louisiana, I will strive to alleviate the systemic inequities and to influence, shape, and teach a new generation of diverse professionals. I love to feel that I am part of scientific progress and as such I have always been passionate about participating in events organized by my host institution and in the local area. As a researcher and scientist, I feel it is my duty to not only conduct my research with professionalism and integrity but to also share my knowledge with a wider audience so that our position as scientists is understood and secure in the future to develop with our wider communities.

4.2. Service on Grants, Publications, and Professional society

4.2.1. Ad Hoc Grant and Conference Reviews

Society service

2025: **Reviewer abstracts CVI** – Microbe 2025. 19-23.June 2025. Los Angeles, USA.

2024: **Reviewer abstracts** - Evaluator Annual Biomedical Research Conference for Minority Students (ABRCMS). Pittsburg 13-16 November 2024. USA.

- 2024: Director and coordinator of the **ASM Volunteering opportunities Webinar** “SCB-ASM”, August 26, 2024. Online. USA.
- 2024: **Reviewer abstracts** “14th International *Bordetella* Symposium”, June 24-28, 2024. Prague, Czech Republic.
- 2023: **Reviewer abstracts**– Evaluator Annual Biomedical Research Conference for Minority Students (ABRCMS). Phoenix, AZ 15-18 November 2023. USA.
- 2023: **Questionnaire SCB** – Know who is in your branch. Questionnaire to gather information of the community I am representing as councilor. October 2024 Online. USA.
- 2023: **Nominating Committee ASM** – Member of the Nominating Committee American Society for Microbiology. USA.
- 2023: **Judge MicroAgar Art**– Evaluator Agar Art Competition September 2023. USA.
- 2023: **Community leader COMS ASM** – Nominated and elected as community leader of the host-microbe biology section of the Council on Microbial Sciences. USA.
- 2023: **Reviewer abstracts**– ASM Microbe 2023. Houston 15-19 June.2023. USA.
- 2022: **Reviewer abstracts**– Evaluator Annual Biomedical Research Conference for Minority Students (ABRCMS). Anaheim, California. November 9-12. USA.
- 2022: **Board of Directors**. Elected Executive member of the Board of Directors of the International *Bordetella* Society. USA.
- 2022: **Judge** “ASM-TMC MicroWorld”, September 2022. USA.
- 2022: **Reviewer abstracts** “13th International *Bordetella* Symposium”, June 26-30, 2022. Vancouver Canada.
- 2022: **Reviewer abstracts** – ASM “Microbe 2022”, Washington DC, 9-13.June-2022. USA.
- 2021: **Council SCB**. Elected Council to represent the South-Central Branch of the ASM in the COMS. USA.
- 2020: **Board of Directors**. Elected Board of directors Fundacion Barrie de la Maza Alumni. Spain.
- 2020: **Reviewer** and Evaluator Annual Biomedical Research Conference for Minority Students (ABRCMS). Online 2020.
- 2019: **Reviewer** and Evaluator Microbe 2019. San Francisco, CA, on June 20-24, 2019. USA.
- 2019: **Reviewer** and Evaluator Annual Biomedical Research Conference for Minority Students (ABRCMS). Anaheim, California on November 13 – 16. USA.
- 2019: **Budgeting and reimbursement** of the “XII *Bordetella* International Symposium”. 9-12.April.2019. Brussels.
- 2018: **Reviewer** and Evaluator Annual Biomedical Research Conference for Minority Students (ABRCMS). Indianapolis, November 14-17, 2018. USA.

University service – scientific activities

- 2023: **Reviewer Intramural Predoctoral Awards**. LSU Health Science Center, Shreveport. USA.
- 2023: **Poster Judge** – Highschooler students “Jumpstart program”, Shreveport 28. July-2023. USA.
- 2022: **Poster Judge** – Predoctoral students at the “Graduate Research Day”, Shreveport 9. May-2022. USA.
- 2022: **Poster Judge** – Postdoctoral students at the “Center for the Conference of Cardiovascular Diseases”, Shreveport 7, February-2022. USA.
- 2021: **Poster Judge** – Predoctoral students at the “Graduate Research Day”, Shreveport 10. May-2021. USA.
- 2020: **Reviewer Ike Muslow Predoctoral Awards**. LSU Health Science Center, Shreveport. USA.

Ad Hoc Grant Reviewer

- 2025: **Reviewer** Swiss National Science Foundation
- 2024: **Reviewer** and Evaluator for the Ministry of Education and Research and the Executive Agency for Higher Education, Research, Development and Innovation Funding. PD-TE projects. Romania.
- 2023: **Reviewer** and Evaluator for the Ministry of Education and Research and the Executive Agency for Higher Education, Research, Development and Innovation Funding. PD-TE projects. Romania.
- 2022: **Reviewer** and Evaluator for the Ministry of Education and Research and the Executive Agency for Higher Education, Research, Development and Innovation Funding. PD-TE projects. Romania.
- 2022: **Reviewer PhD fellowship** "Graduate Women in Science" April.2022
- 2021: **Reviewer** for the Predoctoral and Postdoctoral fellowships of the American Heart Association. USA.
- 2021: **Reviewer** and Evaluator for the Ministry of Education and Research and the Executive Agency for Higher Education, Research, Development and Innovation Funding. PD-TE projects. Romania.
- 2020: **Reviewer** and Evaluator for the Ministry of Education and Research and the Executive Agency for Higher Education, Research, Development and Innovation Funding. "Exploratory Research Projects". Romania.
- 2020: **Reviewer** and Evaluator for the Research Institute of the University of Bucharest (ICUB). Postdoctoral Fellowships. Romania.
- 2020: **Reviewer** and Evaluator for the Ministry of Education and Research and the Executive Agency for Higher Education, Research, Development and Innovation Funding. PD-TE projects. Romania.
- 2019: **Reviewer** and Evaluator Postdoctoral Grants University of Bucharest. Romania.
- 2016: **Reviewer** and Evaluator Ralph Powe Awards (USA)
- 2016: **Reviewer** and Evaluator for "3rd National Plan for Research, Development and Innovation for the period 2015-2020 (PNCDI III)". Romania
- 2016: **Consultant** of the "Manual de realización y lectura interpretativa de antibiogramas" Ministry of Public Health. Quito. Ecuador.
- 2015: **Consultant** of the "Manual de realización y lectura interpretativa de antibiogramas" Ministry of Public Health. Quito. Ecuador.
- 2015: **Organizer** member of the new "Malla curricular" of the School of Microbiology. "Pontificia Universidad Catolica de Ecuador", Quito. Ecuador.
- 2015: **Reviewer** "Proyecto Banco de ideas" from the Government of Education of Ecuador. Ecuador.
- 2015: **Reviewer** "Grant applications, Prometeo, SENSCT". Ecuador.
- 2015: **Reviewer** "Programs and / or scientific projects in research and development of technology" Ministry of Education, science, technology and innovation. Ecuador.
- 2015: **Consultant** Ministry of Public Health, Ecuador. Control campaigns and Antibiotic resistance. Control hospital outbreaks. Ecuador.
- 2014: **Consultant** Ministry of Public Health, Ecuador. Control campaigns and Antibiotic resistance. Control hospital outbreaks. Ecuador.
- 2013: **Consultant** Ministry of Public Health, Ecuador. Control campaigns and Antibiotic resistance. Control hospital outbreaks. Ecuador.
- 2013: **President of the Bioethical committee** of genetic advisory for the Universidad Politecnica del Chimborazo (ESPOCH). Chimborazo, Riobamba. Ecuador.

2013: **Judge** of poster presentations. XIV International conference of advances in Medicine, Nutrition and Health promotion. 21-25.October.2013. Riobamba, Ecuador.

2012: **Judge** of oral presentations, Mol Research Day. 26.June.2012. Nottingham University.

2012: **Judge** of posters presentations in the CBS Researchers Day. 3.July.2012. Nottingham University

2003-6: **Working with Infectious diseases** department, Microbiology Department and Epidemiology Department in the “Complejo Hospitalario Universitario A Coruna” in control of nosocomial outbreaks, A Coruna, Galicia. Spain

4.2.2. Service on Publications

Ad Hoc Scientific Reviewer

2024- Present	<i>Science, AAAS press</i>
2024- Present	<i>Cell press</i>
2023- Present	<i>Leukocyte</i>
2023- Present	<i>Journal of Immunology</i>
2023- Present	<i>Current Research in Microbiology</i>
2023- Present	<i>ASM press (American Society for Microbiology)</i>
2022- Present	<i>Nature Publishing group</i>
2022- Present	<i>Oxford Academic</i>
2020- Present	<i>Current Microbiology journal</i>
2020- Present	<i>Frontiers journal</i>
2020- Present	<i>BMJ journals</i>
2019- Present	<i>Scientific Reports – Nature publishing group</i>
2018- Present	<i>Journal of Antimicrobial Chemotherapy</i>
2018- Present	<i>Elsevier journals</i>
2018- Present	<i>American Society of Microbiology ASM-journals</i>
2016- Present	<i>MDPI journals</i>
2015- Present	<i>PLOS journals</i>

Editorial board

2024 – current:	<i>Editorial board Infection and Immunity ASM</i>
2024 – current:	<i>Editorial board mSphere ASM</i>
2024 – current:	<i>Guest Editor Frontiers in Microbiology. Special issue: “Bacterial immunosuppressive mechanisms”</i>
2024 – current:	<i>Guest Editor Frontiers in Microbiology. Special issue: “Advancing the Understanding and Management of Immune Skin Conditions Through Multiomic Approaches”</i>
2020 – 2022:	<i>Guest Editor Frontiers in Microbiology. Special issue “Current Trends in Exploiting Molecular Signaling in Bacteria-Host Crosstalk”</i>

- 2020 – 2022: *Guest Editor Microorganisms. Special issue “Current Trends in Exploiting Molecular Signaling in Bacteria and Host Immunomodulation”*
- 2019 – Present: *Guest Editor Microorganisms. Special issue “Infectious Diseases, New Approaches to Old Problems”*
- 2019 – 2021: *Guest Editor Diseases. Special issue “Using state-of-the art proteomics to understand infectious diseases. Novel clinical diagnostics, biomarkers and drug targets”*
- 2019 – Present: *Editor Board member of “Biomedical Engineering International”*
- 2019 – Present: *Guest Editor Material. Special issue “Novel Fabricated Bioactive Materials: Surface Modification and Biomedical Applications”*
- 2018 – Present: *Academic editor of “PLOS ONE”*
- 2014 – Present: *Editorial Board of “Letters in Applied Nanobioscience”*
- 2013 – Present: *Associate Book editor of “De Gruyter open S.A.”*

4.2.3. University Service

- 2023: Graduate studies senator - Faculty senate committee at LSU Health Shreveport.
- 2023: Member of the Women in Medicine and Science at LSU Health Shreveport.
- 2023: Recruitment committee of Microbiology and Immunology Department at LSU Health Shreveport.
- 2022: In charge of the website of the Department of Microbiology and Immunology. LSU Health Shreveport.
- 2022: LCME committee. School of Medicine. Junior Faculty Member Committee. LSU Health Shreveport.
- 2022: Recruitment committee of Microbiology and Immunology Department at LSU Health Shreveport.
- 2022: Recruitment committee of Multidisciplinary PhD Graduate Studies at LSU Health Shreveport, Spring.
- 2022: Founder of the Seminar series – Fortnight Allergies, Immunology and Eosinophils study group. LSU Health Shreveport, Spring. (Basic research and clinicians)
- 2021: Recruitment committee of Microbiology and Immunology Department at LSU Health Shreveport.
- 2021: Member of the Administrative Council LSU Health Shreveport.
- 2021: Recruitment committee of Graduate Studies at LSU Health Shreveport.
- 2021: Recruitment committee of Multidisciplinary PhD Graduate Studies at LSU Health Shreveport, Fall.
- 2021: Recruitment committee of Multidisciplinary PhD Graduate Studies at LSU Health Shreveport, Spring.
- 2020: Member of the Biosafety committee LUS Health, Shreveport.
- 2020: Promote the Microbiology and Immunology PhD and MD/PhD program (LSUHSC-S) with contacts in several Universities of Spain, Romania, Ecuador.
- 2014: Define the curriculum of the “Microbiology Degree in the Pontifical Catholic University of Ecuador”.

4.2.4. Community Service

Current positions

- 2022 – current:** Mentor and Scientific advisor for young reviewers for “Frontiers for Young Minds”
- 2022 - current:** Mentor Spanish students – online program – IMDEA mentoring program.
- 2022 - current:** Mentor of high school students of Caddo Parish, Minority Biostart Program.

2020 - current: Mentor of High School Students of Caddo and Bossier through the SMART – BRF program.

2020 - current: Organizer and Founder of the LSUHSC-S and Fundación Barrie de la Maza – Summer Undergraduate Fellowship program. This program will bring Spanish students to LSUHSC-S for 9 weeks to learn basic science techniques as well as provide them an opportunity of international exchange.

2020- current: Ambassador “Fundación Becarios Barrie de la Maza”

Outreach activities

2024: “Spanish immersion” – 22.August.2024 – Southfield School, Shreveport

2024: “International Fair” – 12.April.2024 – Loyola College Prep School, Shreveport

2024: “MicroAgar at Southfield” – 25.January.2024 - Southfield School, Shreveport

2024: Antimicrobial Resistance COMS Retreat – March and April.02024 - Online

2024: Molecular Biology and Physiology COMS Retreat – April.2024 - Online

2024: Leading two tables on IDEAS – Stem K-5 outreach day. Shreveport 17.February.2024

2023: “Microbiology and science. A career path” – 18.September.2023 – Loyola College Prep School, Shreveport

2023: “MicroAgar Art – Microbes in Space” – 11.September.2023 – Southfield School, Shreveport

2023: Host Microbe Biology COMS Retreat– May.2023 – Online

2023: “The microbe printing of my hands” – 12.May.2023 – Eden Gardens Magnet School, Shreveport

2023: Career day Eden Gardens Magnet School – What is like to be a scientist – follow up with “the microbe printing of my hands” – 22.March.2023

2023: Leading two tables on IDEAS – Stem K-5 outreach day. Shreveport 26.March.2023

2022: Seminars for children of Pre-K and elementary school about handwashing. I went to see the children, talked to them about washing hands and using plates we did experiments that showed them how important is handwashing.

2022: Invited speaker, Inspiration for High School Students. Walton High School - Science National Honor Society. Atlanta 2022

2022: Leading two tables on IDEAS – Stem K-5 outreach day. Shreveport 26.March.2022

2021: Mentor for a Middle School student to help her with her Science Fair Project – “The microbes of the class”.

2021: Organizer and Founder of the LSUHSC-S and Fundación Barrie de la Maza – PhD program.

2021: Organizer and Founder of the LSUHSC-S and Fundación Barrie de la Maza – Postdoctoral Program

2020: Volunteer in the diagnostic laboratory for COVID-19 – EVT lab, at LSU Health, Shreveport (Over 300 hours), USA. This initiative was developed to help our Shreveport community, but it is now a reference center for Louisiana COVID diagnostic.

2017-2020: Seminars for children of Pre-K and elementary school about handwashing. I went to see the children, talked to them about washing hands and using plates we did experiments that showed them how important is handwashing.

2017-2020: Volunteer in the Media Center in “David C. Barrow Elementary School” Athens, GA, USA. I was helping the elementary school media center, guiding the kids to find their books, helping to organize events and offering all support I could.

2012: Organizer, found sponsors, and promoter of the “First science outreach day in A Coruna”. Sponsored by “Fundación Barrie de la Maza” Volunteers obtained from my professional network. 13th April 2012, A Coruna, Galicia → Documented in TV news, newspapers and blogs. Spain. This event was done to bring kids and teenagers closer to science. We performed experiments, organize talks and offered interview in order to give the young students a better perspective of what a real scientist is like.

2010-2012: Participated on Science outreach day in Nottingham University

Publication news media

PRINT MEDIA:

1. BRF’s Bobbie Cates Hicks Science and Medicine Academic Research Training (SMART) program 2022-2023 class begins yearlong research studies. BPT – Bossier Press-Tribune. <https://bossierpress.com/brfs-bobbie-cates-hicks-science-and-medicine-academic-research-training-smartprogram-2022-2023-class-begins-yearlong-research-studies/>
2. LSU Health Shreveport awarded over \$10.5 million for a NIH COBRE research grant focused on better understanding the immune system and how diseases upset effective functioning. BPT – Bossier Press-Tribune. <https://bossierpress.com/lsu-health-shreveport-awarded-over-10-5-million-for-a-nih-cobre-research-grant-focused-on-better-understanding-the-immune-system-and-how-diseases-upset-effective-functioning/>
3. Select Caddo students take part in SMART research program. KTBS3. https://www.ktbs.com/news/health/select-caddo-students-take-part-in-smart-research-program/article_2e0c488a-1233-11ed-b033-4b93a2a681e2.html
4. BRF’s SMART program class begins yearlong research studies. BIZ – journal for northwest Louisiana. <https://bizmagsb.com/2022/08/02/brfs-smart-program-class-begins-yearlong-research-studies/>
5. Meet the researchers of the American Lung Association. <https://www.lung.org/research/about-our-research/meet-the-researchers/monic-cartelle-gestal>.
6. YouTube University of A Coruna. <https://www.youtube.com/watch?v=hHAI1jJwb8>
7. Interview in the newspaper “La Fundación Barrié instaure becas de verano en el extranjero para universitarios” La voz de Galicia 25.11.2020 <https://www.lavozdeg Galicia.es/noticia/educacion/2020/11/25/fundacion-barrie-instaure-becas-verano-extranjero-universitarios/00031606289949723418677.htm>
8. Interview in the newspaper “En Luisiana los estudiantes de doctorado cobran 29.000\$” La voz de Galicia 17.Junio.2020 https://www.lavozdeg Galicia.es/noticia/coruna/2020/06/17/luisiana-estudiantes-cobran-29000-dolares-ano-doctorado/0003_202006H17C4995.htm
9. Interview in the newspaper “Los de 40 toman el mando” La Voz de Galicia. 2.February.2020 https://www.lavozdeg Galicia.es/noticia/coruna/coruna/2020/02/02/coruna-los-40-mando/0003_202002H2C2991.htm
10. Interview in the newspaper “Una científica gallega desarrolla una vacuna mas efectiva contra la Tosferina” La Voz de Galicia. 7.April.2019

- https://www.lavozdeg Galicia.es/noticia/sociedad/2019/04/07/cientifica-gallega-desarrolla-vacuna-efectiva-contr-a-tosferina/0003_201904G7P27991.htm
11. Interview in the newspaper "International scientist finds her niche in Georgia — fighting a worldwide scourge". Georgia Health News. 9.November.2017
<http://www.georgiahealthnews.com/2017/11/international-scientist-finds-niche-georgia-fighting-worldwide-scurge/>
 12. "Ecuador el país de las oportunidades". 43ºN 8ºW Revista Nº 18. July 2015
 13. "Science in Ecuador". N 43 Asociación de Becarios de la Fundación Barrie de la Maza". July 2014
 14. Interview in the newspaper "Faro de Vigo" page 8. "Profesores gallegos fichan por universidades de Latinoamérica con sueldos de hasta 4.300 euros" 9. December.2013
<https://www.farodevigo.es/galicia/2013/12/09/profesores-gallegos-fichan-universidades-latinoamerica-17319268.html>
 15. Interview in the newspaper "La Opinion". "La experiencia de una investigadora" 31.August.2013
<https://www.laopinioncoruna.es/coruna/2013/08/31/experiencia-investigadora-24854538.html>
 16. Interview in the newspaper "La opinión". "Ecuador ficha a una bióloga coruñesa" 27.August.2013
<https://www.laopinioncoruna.es/sociedad/2013/12/09/vine-ecuador-intentarlo-tres-anos-24820747.html>
 17. Interview in the newspaper "El Faro de Vigo". "La educación es lo que sacara a España de la crisis" Sunday 3.June.2012 <https://www.farodevigo.es/sociedad/2012/06/03/educacion-sacara-espana-crisis-17652887.html>
 18. Interview in the newspaper Faro de Vigo. 9.December.2013 "Si amas la ciencia tendras tu oportunity" <https://www.farodevigo.es/galicia/2013/12/09/monica-cartelle-amas-ciencia-tendras-17319287.html>
 19. Cartelle M. "Diálogos 01: La ciencia en España" N 43 Asociación de Becarios de la Fundación Barrie de la Maza. 2011. "Diálogos 01" p 42-47
 20. Interview in the newspaper "La Opinion La Coruña". "Situation of science in Spain" Sunday 24-Oct-2010:4 <https://www.laopinioncoruna.es/coruna/2010/10/24/monica-cartelle-gestal-apoyar-progreso-25185257.html>
 21. Cartelle M. "Mi experiencia como investigadora en España y en el Reino Unido" N 43 Asociación de Becarios de la Fundación Barrie de la Maza. 2010. p 53-55

RADIO AND TV:

1. Television – Television de Galicia "Bos Dias" (Regional TV). 10.January.2022. Topic: COVID new variant Omicron, IHU and antiviral treatment. <http://www.crtvg.es/tvg/a-carta/bos-dias-10-00-5473082>
2. Television – Television de Galicia "Quen anda ahi" (Regional TV) 5.March.2021. Topic: COVID one year later. <https://www.crtvg.es/tvg/a-carta/programa-242-completo-4855783>
3. Television – Television de Galicia "Quen anda ahi" (Regional TV) 24.September.2020. Topic: Dealing with COVID, how vaccines are coming along? <http://www.crtvg.es/tvg/a-carta/programa-129-4581884>
4. Television – Television de Galicia "Quen anda ahi" (Regional TV) 25.June.2020. Topic: Dealing with COVID, how efficient are current treatments? http://www.crtvg.es/tvg/a-carta/programa-109-4460393?fbclid=IwAR34pMm8wSIM0R39BeBgWMmMGGpJmRB5RieW_0LjPpyDAOMNqgiKFog54xs

5. Television – Television de Galicia “Quen anda ahí” (Regional TV) 18.June.2020. Topic: Dealing with COVID, what are the expectations for a new vaccine? <http://www.crtvg.es/tvg/a-carta/programa-104-4452329>
6. Television - Television de Galicia: “A Revista”. (Regional TV) 1.May.2020. Topic: Approaches taken by LSU Health Shreveport to combat COVID-19. <http://www.crtvg.es/tvg/a-carta/a-revista-4397045?t=6334>
7. Television - Television de Galicia: “Fun polo aire”. (Regional TV) 22.April.2020. Topic: Approaches taken by LSU Health Shreveport to combat COVID-19. <http://www.crtvg.es/tvg/a-carta/programa-348-4384937> // <http://www.crtvg.es/tvg/a-carta/programa-348-4384937?t=4410>
8. Television - Television de Galicia: “Bos días”. (Regional TV) 7.April.2020. Topic: Approaches taken by LSU Health Shreveport to combat COVID-19. http://www.crtvg.es/informativos/monica-cartelle-non-sabemos-que-vai-pasar-condo-volvamos-a-rua-o-ideal-seria-unha-vacina-4366521?fbclid=IwAR28_7jsNJwR8aAw5r2NgsbwrXR6bjwCAOamHh8jBCjtE54HOF5rVF4PSPE
9. Television - Antena 3: “Espejo Publico”. (National Spanish TV) 6.April.2020. Topic: Approaches taken by LSU Health Shreveport to combat COVID-19. <https://www.antena3.com/programas/espejo-publico/>
10. Radio Chasqui -Radio Quito: “Bacterias Actuaciencia”. (Local Radio) March. 2013. Topic: State of the science in Ecuador. <http://bacteriasactuaciencia.blogspot.com/2015/01/monica-cartelle-gestal-microbiologa-y.html>
11. Radio – RTVG: “Efervescencia”. Topic: Celebration of the First Outreach Science day in A Coruña. I came up with the idea, got the funding, got the volunteers, organize the experiments, organize the event, have a table with experiments, and contacted visitors. (Regional Radio) 13.April.2012 <http://www.crtvg.es/rg/podcast/efervescencia-efervescencia-do-dia-14-04-2012-297665#.T5Gq7mkKvys.facebook>
12. Televisión - Television de Galicia: “A Carta”. Topic: First Science Outreach Day in A Coruña. (Regional TV) 13.April.2012 <http://www.crtvg.es/tvg/a-carta/a-revista-295298>

INTERNET

- <https://www.youtube.com/watch?v=hHAII1jJwb8>
- https://www.youtube.com/watch?v=KJqzWG_5150
- https://www.ktbs.com/news/health/select-caddo-students-take-part-in-smart-research-program/article_2e0c488a-1233-11ed-b033-4b93a2a681e2.html
- https://www.lavozdeg Galicia.es/noticia/sociedad/2019/04/07/cientifica-gallega-desarrolla-vacuna-efectiva-contratosferina/0003_201904G7P27991.htm
- <https://www.lung.org/media/press-releases/research-call-for-applications>
- https://www.ktbs.com/news/education/southwood-high-school-interns-spending-semester-at-lsu-health-shreveport/article_3b950e0a-5df6-11ee-9f53-a73942ad728f.html
- <https://www.brfla.org/bobbie-cates-hicks-science-and-medicine-academic-research-training-smart-program-celebrates-25-years/>
- <http://crecerenlibertadgalicia.blogspot.com.es/>
- <http://www.crtvg.es/tvg/a-carta/a-revista-295298> (min 13.20)

- <http://www.colegiomontegrande.es/educacion-primaria/404/dia-de-la-ciencia#leer>
- <http://www.crtvg.es/rg/podcast/efervesciencia-efervesciencia-do-dia-14-04-2012-297665#.T5Gq7mkKvys.facebook>
- <http://becariosbarrie.org/exito-del-programa-cientificos-por-un-dia>
- Palabrario Fundación Barrie « Que es el quorum sensing »

5. Other relevant information

5.1 Continuous training / Education

- 1998. “Normas ISO 9000, 9001 and 14000 and consulter”. Spain (120 hour)
- 2000 “Biostatistics”. Complejo Hospitalario Universitario (CHU) Juan Canalejo. A Coruña. 2000 “SPSS program to analyze data”. CHU Complejo Hospitalario Universitario Juan Canalejo. A Coruña. Spain (40 hour)
- 2000 “Technique of sequencing of HIV”. PEBiosystems. Madrid. Spain (40 hour)
- 2000 “Sequencing”. Visible genetics. (Level 1) Hospital A Paz. Madrid. Spain. (Level 2) Hospital de Covadonga de Oviedo. Spain
- 2001 “Seminar of molecular Microbiology HIV”. PEBiosystems. Santiago de Compostela. Spain (40 hour)
- 2001 “New techniques for the diagnosis in the laboratory and their application in epidemiology”. FEGAS. Santiago de Compostela. Spain (8 hour)
- 2006 “English medium level” Euroschool of English. Cambridge. A Coruña. Spain (60 hour)
- 2010 “HPLC Training course”. Centre of Biomolecular Sciences. University of Nottingham. UK (40 hour)
- 2010-11 “English”. Course for Marie Curie Research. University of Nottingham. UK (60 hour)
- 2010-12 “Italian”. University of Nottingham. UK (60 hour)
- 2011 “Intellectual property rights”. Munich, European Patents Agency. Germany (40 hour)
- 2011-2012 “Apple women’s development program”. Marie Curie Researchers. University of Nottingham. UK (60 hour)
- 2011-12 “Italian”. University of Nottingham. UK (60 hours)
- 2016 “A beginners guide to writing in English”. Online course of University of Reading. UK (25 hour)
- 2016 ASM online course: “ASM grant writing institute on-line”. Online course. USA (30 hours)
- 2016 ASM workshop: “Effective and High Impact Scientific Writing”. Boston, Massachusetts. USA (25 hour)
- 2016 UGA Training: “Designing and Delivering Effective Presentations”. Athens, Georgia. USA (8 hour)
- 2016 UGA Training: “UGAmart for beginners”. Athens, Georgia. USA (4 hour)
- 2016 UGA Training: “Proposal process & budget development” Part 1 and 2. Athens, Georgia. USA (12 hour)
- 2016 UGA Training: “Budget development; preparation and submission”. Athens, Georgia. USA (12 hour)

- 2016 UGA Training: "Promotion and Tenure Track". Athens, Georgia. USA (4 hour)
- 2016 UGA Training: "QuantStudio 5 qRT-PCR". Harvill's Lab, UGA, Athens, Georgia. USA (6 hour)
- 2016 UGA Training: "Nikon Confocal Microscopy". UGA, Athens, Georgia. USA (4 hour)
- 2016 UGA Training: "FLOW Cytometer" UGA, Athens, Georgia. USA (4 hour)
- 2017 UGA Training: Re-writing your resume". Athens, Georgia. USA (1 hour)
- 2017 UGA Training: AKTA protein purification system. CVI, UGA, Athens, Georgia. USA (1 hour)
- 2018 UGA Training: How to write a cv and cover letter. UGA, Athens, Georgia. USA (2 hours)
- 2018 UGA Training: Mentors versus Sponsors. UGA, Athens, Georgia. USA (4 hours)
- 2018 GaTech – CTSa training: "Team Science Workshop". Atlanta, Georgia. USA (8 hours)
- 2020 – LSUH-S Faculty training: "More effective methods for teaching" (24-25.January.2020 / 12 hours)
- 2020 – LSUH-S Faculty Training: "Faculty development series (1hour/monthly)" (25.Feb.2020)
- 2020 – LSU Faculty training: "Professional Writing Seminar" (3.March.2020 / 7 hours)
- 2020 – LSU Faculty Training: "Using Social Media for Science (20.March.2020 / 1 hour)
- 2020 - Connect2Science Webinar Series: "Western Blot tips and tricks: How to improve your western blots" (22.May.2020 / 1 hour)
- 2020 - Connect2Science Webinar Series: "5 steps to easier panel building for intracellular flow cytometry" (15.May.2020 / 1 hour)
- 2020 - Connect2Science Webinar Series: "Innovations in cellular imaging - from 2D cell culture imaging to 3D cell model high content real-time analysis" (13.May.2020 / 1 hour)
- 2020 - Cell Press: "How to Prepare Your Manuscripts for Publication in Top Journals" (12.May.2020 / 1 hour)
- 2020 - Connect2Science Webinar Series: "Luminex-based immunoassays for RNA and protein detection to support infectious diseases research and vaccine development" (11.May.2020 / hours)
- 2020 - Inflammazoom: International Webinar series on Inflammasome" - Zoom meeting organized by University of Cambridge - UK -Monthly meeting from September 2020 – to present
- 2020 - LSUH-S Faculty Training: "Faculty development series (1hour/monthly)" (25.Feb.2020)
- 2020 - LSU Faculty training: "Professional Writing Seminar" (3.March.2020 / 7 hours)
- 2020 - LSU Training: "Using Social Media for Science" (20.March.2020 / 1 hour)
- 2020- SMI "Eosinophilic esophagitis" Marc Rothenberg (14.July.2020 / 1 hour)
- 2020 - LSUHSC-S Continue Faculty Training: "Promotion and Tenure" (13.July.2020 / 1 hour // 27.July.2020 / 1 hour)
- 2020 – M2M program Special presentation – Dr Bruce Levin (27.July.2020 / 1 hour)
- ASM Microbe – online (summer of science / 10 hours)
- 2020 - Connect2Science Webinar Series: "Western Blot tips and tricks: How to improve your western blots" (22.May.2020 / 1 hour)
- 2020 - Connect2Science Webinar Series: "5 steps to easier panel building for intracellular flow cytometry" (15.May.2020 / 1 hour)
- 2020 - Connect2Science Webinar Series: "Innovations in cellular imaging - from 2D cell culture imaging to 3D cell model high content real-time analysis" (13.May.2020 / 1 hour)
- 2020 - Cell Press: "How to Prepare Your Manuscripts for Publication in Top Journals" (12.May.2020 / 1 hour)
- 2020 - LSUH-S Faculty training: "More effective methods for teaching" (24-25.January.2020 / 12 hours)
- 2020 - LSUH-S Faculty Training: "Faculty development series (1hour/monthly)" (25.Feb.2020)
- 2020 - LSUHSC-S Continue Faculty Training: "Promotion and Tenure" (13.July.2020 / 1 hour // 27.July.2020 / 1 hour)

- 2020 - LSUHSC-S Continue Faculty Training: "Navigating Tenure and promotion" (1.October.2020 / 1 hour)
- 2020 - Fluidigm: "Intro Mass Cytometry and highly multiplexed immunohistochemistry" (24.September.2020 / 2 hours)
- 2020 - LSUHSC-S Continue Faculty Training: "Mentoring and building research teams" (5.November.2020 / 1 hour)
- 2020 - UAB School of Nursing faculty or the CCTS Training Academy: "Specific aims" (30.September.2020 / 21.October.2020 / 11.November.2020 // 12 hours)
- 2020 – to present: International *Bordetella* Lab Meeting – Online (1 hour monthly since September 2020)
- 2020 – 2021 – New faculty training - LSU Health Science Shreveport (1hour / monthly – Total 12 hours)
- 2021 – LabRoots webinar – RNAscope and its applications for animal research (7.December.2021 // 1hour)
- 2021 – Grant Writing course – LSU Health Science Shreveport (1hour / monthly – Total 7 hours)
- 2021 – New faculty training - LSU Health Science Shreveport (1hour / monthly – Total 12 hours)
- 2022 – Grant Writing course – LSU Health Science Shreveport (1hour / monthly – Total 7 hours)

5.2 Languages

	Speaking	Reading	Writing
Spanish	Mother tongue	Mother tongue	Mother tongue
Galego	Mother tongue	Mother tongue	Mother tongue
English	High	High	High
Portuguese	High	High	Fluent
Italian	Medium	Medium	Medium