

Manuel Delgado-Vélez

Education

B.S., Biology, Magna Cum Laude, 2003. Inter American University of Puerto Rico, Arecibo Campus, Arecibo Puerto Rico.

Majors: Biomedical Sciences and Microbiology.

Biotechnology Certified. 2006. University of Puerto Rico, Arecibo Campus.

Seminar: Use of biotechnological monoclonal antibodies as treatment in rheumatoid arthritis.

Ph.D., Biology (Neuroimmunology/Immunology), Intercampus Program, University of Puerto Rico, Rio Piedras Campus/University of Puerto Rico, School of Medicine, Medical Sciences Campus, San Juan, Puerto Rico. June 2014.

Postdoctoral Training, HIV vaccine, University of Puerto Rico, Molecular Sciences Research Center, July 2014-July 2016

Professional Certification in Development of Quality Methods and Systems, College of Chemists of Puerto Rico, December 2017.

Research Experience

Project Manager, University of Puerto Rico, Molecular Sciences Research Center. (July 2016 – present). As a project manager, I have been in charge of the implementation of the quality control aspects as well as the strategies to increase the titers of the HIV vaccine that we are developing. I have also supervised the startup of the Clinical Bioreagent Center, a center dedicated to the analysis and characterization of HIV vaccine candidates. As part of our efforts we have been able to substantially increase the levels of expression of the HIV vaccine candidate under development. This experience not only involves the development, establishment and implementation of biochemical and biophysical techniques for the characterization of vaccine candidates, but also includes establishing the necessary methods to allow macroscale manufacturing.

Postdoctoral Fellow, University of Puerto Rico, Molecular Sciences Research Center. (June 2014 – July 2016). This project is focused on the optimization of cell lines to enhance the production of immunogens as HIV vaccine candidates. These candidates were biophysical, biochemical and analytically characterized through SDS-PAGE, MALDI ToF/ToF, Bioanalyzer (purity determination), dynamic light scattering, and isoelectric focusing capillary electrophoresis. Also, this experience involves supervision of three (3) scientists.

Doctoral Student, University of Puerto Rico, Rio Piedras, College of Natural Sciences. (August 2007 - 2013). This project is focused on the chronic and persistent inflammation suffered by HIV-infected patients. Responsibilities include: cell culture of primary macrophages from whole blood, confocal imaging, quantitative real-time polymerase chain reaction, flow

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cytometry (apoptosis, calcium mobilization), electrophysiology (extracellular recordings), cell viability assays, hemocytometry, cell counter, aseptic techniques and competitive assays. Also, mice care and handling, surgery, drug administration, and blood collection were required. Lastly, nerve stimulation to perform electromyography was employed. Supervised a total of 32 undergraduate students performing research.

Laboratory Technician II, University of Puerto Rico, Rio Piedras, College of Natural Sciences. (December 2006 - August 2007). This project was focused on the study of the effects of opiate drugs such as morphine and methadone on the phagocytosis process mediated by human monocyte-derived macrophages. Also, the relationship between opiate and infectious diseases was addressed. Responsibilities included: cell culture of monocytes, Giemsa stain, cell counting using hemocytometer, opsonization of erythrocytes using anti-sheep red blood cells antibodies, statistical analyses, dilutions, opiate assays, centrifugation and slide warmers.

Summer Program for Talented Students in Science and Medicine, Dr. García Rinaldi Foundation, Mayaguez Medical Center Dr. Ramón Emeterio Betances Hospital, Mayaguez Puerto Rico. (June 2003 - August 2003). This program was oriented to enhance medical knowledge in students who wanted to pursue a medical career. This program required at least 40 voluntary hours weekly in the medical environment. The program included providing assistance in surgical procedures, sterility processes, and patient assistance. There were also case discussions to explain therapy or future medical procedures. The students had to complete cardiology presentations as part of the internship.

Biological Science Lab Technician, NASA, (National Aeronautic Space Administration) - Cape Canaveral, Advanced Life Support. (June 2002 - August 2002). This research focused on the development of a competitive exclusion treatment to inhibit the proliferation of *Salmonella* spp. on alfalfa sprouts. The study required knowledge and skills in medical microbiology, food microbiology and molecular biology. Responsibilities included: collection of data related to the growth of alfalfa sprouts and *Salmonella* proliferation in foods, media preparation, bacteria removal by means of sonicator (Branson, Model 1510), use of BIOLOG plates to measure community level physiological profiles, dilution preparations, streak plate techniques to isolate microorganism, measurement of optical densities, use of Stomacher to homogenize samples, use of Spectrophotometer Spectronic 20 model Genesys, measurement of relative humidity utilizing HOBO RH/Temp, measurement of light by means of light meter (Quantum/Radiometer/Photometer, Model 4-250), centrifuge (Eppendorf centrifuge, Model 5804), preparation of frozen stocks, acridine orange stain technique to enumerate bacterial DNA (to determine bacterial quantities in a given sample), use of electronic colony counter, scientific literature search and collection of scientific papers.

Research Assistant, North Carolina State University, El Tallonal Natural Reserve, Arecibo, Puerto Rico. (December 2001 - December 2002). This study focused on the translocation effects of the Puerto Rican boa, *Epicrates inornatus*: the behavior, movement patterns, and interactions with other resident species within the forest. Characterized and compared the habitat used by the relocated snakes and the native inhabitants. Responsibilities included: preparation of temperature curves to determine the internal temperature of snakes, scanner system to monitor snakes

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position, use of Global Position System (GPS) to take coordinates and identification of substrate area utilized by the snakes.

Biological Science Lab Technician, USDA-ARS-NAA-ERRC-PSTRU, United States Department of Agriculture- Agricultural Research Service-North Atlantic Area- Eastern Regional Research Center-Plant Science & Technology Research Unit, Wyndmoor, Pennsylvania. (June 2001 - August 2001). Studies focused on the development of a competitive exclusion treatment to inhibit the growth of foodborne pathogens on alfalfa sprouts. Responsibilities included: collection of data related to the growth of alfalfa sprouts, media preparation, removing bacterium by sonication, bacterial identification using BIOLOG system, calculation of microbial diversity using Shannon-Weaver index, dilutions preparation, streak plate and spread plate techniques, scientific literature search.

Undergraduate Research Student, Inter American University of Puerto Rico, Arecibo, Puerto Rico; Center for Environmental Education, Conservation, and Research (CECIA) (February 2001 - May 2003). Studies focused on the study of natural bacterial flora associated with the Puerto Rican boa (*Epicrates inornatus*) and the Puerto Rican Racer (*Alsophis portoricensis*). Responsibilities included: media preparation, sampling, isolation and identification of bacterial flora using biochemical tests, use of the rapid identification methods such as MicroScan™, Enterotube II™, API 50 CH™, API Coryne™, API Staph™, RapID CB Plus™, utilizing streak and spread plate techniques, dilution preparation, autoclaving biohazard waste and scientific literature research.

Research Assistant on NSF projects, Inter American University of Puerto Rico, Arecibo, Puerto Rico, Science and Technology Department. (August 1997 - August 2001). Studies focused on fermentation optimization using Computerized Bioreactors, microbiological identification through fatty acid determination using Gas Chromatography (GC), and *Mycobacterium* spp. identification by High-Performance Liquid Chromatography (HPLC).

Cartographer for the Speleological Association of Puerto Rico in the Rio Encantado Underground Cave System, Florida, Puerto Rico. (January 1990 - 1998). Tasks focused on the internal geological formations to develop an internal cave map. Speleologist subsequently used the internal map as part of their research.

Work Experience

Project Manager, University of Puerto Rico, Rio Piedras, Molecular Sciences Research Center, Clinical Bioreagent Center. (July 2016-present). This project is focused on the optimization of cell lines to enhance the production of immunogens as HIV vaccine candidates. To this end, a collaboration was established with three biotech companies in Puerto Rico and the Clinical Bioreagent Center (CBC) was established in the Molecular Sciences and Research Center to characterize vaccine candidates and therapeutic biologics. The CBC is a facility focused on the biophysical, biochemical and analytical characterization of HIV vaccine candidates and therapeutic molecules. This experience involves supervision of three (3) scientists.

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Professor, Inter American University of Puerto Rico, Fajardo, Puerto Rico (Summer 2009 - 2011). Conducted workshops for science teachers using low cost (everyday) materials to develop easily accessible experiments for the teaching of scientific concepts. Primary responsibilities involve the development of low-cost laboratory experiences using low-cost materials, assessment instruments development, confection and administration of pre and post-tests and education congress presentations.

Biological Operator I, Abbott Biotechnology Limited (ABL), Barceloneta, Puerto Rico (March 2006 - August 2006). The biotechnological process requires the execution of CIP, SIP, UF/DF, viral filtration and formulation processes. Primary responsibilities involved manufacturing/quality systems, such as process validation, cleaning validations, spectrophotometers, conductivity meters, pH meters, filter pressure tests and integrity tests. Also, analytical troubleshooting skills were required to support manufacturing operations, technical writing, and presentation skills. Also, antibody purification using column chromatography (Q- Sepharose and Phenyl- Sepharose) followed by aseptic bulk fill procedures were part of the job.

QC Microbial Environmental Control (MEC) Laboratory Technician II, Abbott Biotechnology Limited (ABL), Barceloneta, Puerto Rico (September 2004 - March 2006). This job required knowledge of the biotechnological manufacturing process and facilities environmental monitoring to ensure product integrity. Responsibilities included: bacterial identification using MicroSeq, Gram Stain, spread plate, pour plate, and streak plate, endotoxin determination (chromogenic and turbidimetric) by means of Microplate Reader, Total Organic Carbon (TOC), pH, conductivity, use of biological indicators to qualify autoclaves and bioreactors, sterile and nonsterile gowning certification of personnel, bioburden filtration test methods, QuantiCult Plus certification, media sterility and growth promotion including anaerobic microorganism by means of GASPAK, contamination check of bulk, clean room validation that required use of nonviable particle counters (CLIMET), detection of viable particles using a Reuter Centrifugal Air Sampler (RCS), surface microbial detection using Replicate Organism Detection and Counting (RODAC) plates and swab samples, autoclaves, microbalance, top loading balance, analytical balance, microbial growth detection in gases using Sterilizable Microbial Atrium (SMA), Draeger tubes to detect the purity of different gases, rotameter to regulate gas flux, electronic cell counters, and dilutions preparation. Revised and updated standard operating procedures and performed special projects on analytical, microbial and instrument problem solving. The job also required the use of Good Manufacturing Practices (GMPs), Good Laboratory Practices (GLPs) and Standard Operating Procedures (SOPs).

Professor, Inter American University of Puerto Rico, Arecibo, Puerto Rico, Nonuniversity Technical Certificate Program. (February 2004 - May 2004). Taught Fundamentals of Industrial Microbiology and Internship courses. The Industrial Microbiology course required the design and preparation of experiments and handouts to perform laboratory tasks. The Internship course required finding either a clinical laboratory or an industrial laboratory for the students to complete 90 hours of work. Once completed, the supervisor and professor generated an evaluation. Supervised 32 undergraduate students during their practice in different clinical labs. Certified as Biology and Chemistry professor by the Department of Education Commonwealth of Puerto Rico.

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Online Editor and Publisher of Biology Courses, Inter American University of Puerto Rico, Arecibo, Puerto Rico, Science and Technology Department, Biology Electronic Classroom (D-4). (August 1998 - 2001). Worked on the conceptual development of online courses such as: General Microbiology, General Microbiology Laboratory Manual, General Biology (I and II), Laboratory Manual for both courses, Industrial Microbiology, Industrial Microbiology Laboratory Manual, Biochemistry, Biochemistry Laboratory Manual, Botanical Image Gallery, Gas Chromatography Manual and a web page for special student projects. The project was sponsored by the Minority Science Improvement Program (MSIP).

Biology Tutor for the Minority Science Improvement Program (MSIP), Science and Technology Department, Arecibo, Puerto Rico. (August 1997 - 2000). Assisted students with the use of electronic resources such as online courses, animations, and presentations.

External Evaluator Assistant, University of Puerto Rico, Arecibo, Puerto Rico. (August 1999 - December 1999). Worked on a federal proposal project titled Collaborative for the Excellence in Teacher Preparation (C.E.T.P.), in which several entities such as the UPR system and College Board worked together for the benefit of the student. This project focused on the restructuring of the educational curriculum program in UPR Natural Sciences Department. This effort benefitted education majors specializing in mathematics, biology, chemistry and physics. Responsibilities were: administrate pre-test and post-test to physical science, chemical science, and biological science students to compare their academic improvement, collection of student reactions before and after the tests, present online reports to the National Science Foundation (NSF) and enter student data into an online database located in the Resource Center for Sciences and Engineer, UPR, Rio Piedras.

Other Experiences

- Radio Interview on WCMN Radio Station. Program titled: Science, Technology and Environment in charge of Dr. José Arbelo-García, February 2002. This program was about research developed by university scientists and students in Puerto Rico, Arecibo Puerto Rico.
- Student Representative on the Commission of Higher Education of the Middle States Association. As part of the steering committee, I represented student thoughts, vision and feelings. I worked actively on a Self-Study Report, particularly on student chapters. Inter American University of Puerto Rico, Arecibo, Puerto Rico.

Software Knowledge

Application Programs: Microsoft Office (Word, Power Point and Excel), Adobe Photoshop 6.0, Adobe Photo Deluxe, IdBact (version 1.1), Adobe Acrobat 5.0, Print Shop 6.0, Netscape Composer, Corel Draw 9, Cool 3D, Probabilistic Identification of Bacteria (PIB) version 1.10, ChemWindow version 2.1, Sample Manager 2002, Lotus Notes, Citrix, Laboratory Information Management System (LIMS), PI-processBook version 2.35, GraphPad Prism 4, Imaris 6.4, LabChart, and Zotero.

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Awards, Certificates and Recognitions

- Inter American University of Puerto Rico, Honor Student 1997- 2003, honor certificates in recognition of academic achievement.
- Inter American University of Puerto Rico. Who's Who Among Students in American Universities and Colleges 1999-2000 in recognition of outstanding merit and accomplishment as a student at Inter American University of Puerto Rico, Arecibo Campus.
- Inter American University of Puerto Rico, Vice-presidency of Academic Affair and Systemic Planification, February 1999. Certificate of participation in the XXI Congress of Scientific Investigation.
- Inter American University of Puerto Rico, Student organization Tigre Honor, September 1999. Certificate for academic achievement.
- Inter American University of Puerto Rico, Center for Environmental Education, Conservation, and Research (CECIA), 2000-2002 certificates in recognition for voluntary work and appreciation of distinguished labor and commitment to good environmental management.
- Inter American University of Puerto Rico, Society for Biology Inter American (ABIA), 2001-2003. Certificates for outstanding achievement as a biology student.
- Inter American University of Puerto Rico, Center for Environmental Education, Conservation, and Research (CECIA), April 2001, certificate of participation at Fifth Congress of Scholars Student and for distinguished labor and commitment to good environmental resources management.
- United States Department of Agriculture (USDA), August 2001. Performance certificate for outstanding research accomplishments during an intensive summer research internship at the Eastern Regional Research Center, Agricultural Research Service/United States Department of Agriculture (ARS/USDA).
- Recipient of a scholarship from SACNAS to attend the 2001 SACNAS National Conference in Phoenix, Arizona.
- Recipient of a scholarship from SACNAS to attend the 2002 SACNAS National Conference in Anaheim, California.
- Society for Advancement of Chicanos and Native Americans in Science (SACNAS), September 2002 Anaheim, California; certificate in recognition for participation in the Poster Sessions in the research area of Biological Sciences.
- United States Department of Agriculture (USDA) and National Aeronautic Space Administration (NASA), August 2002. Certificate of Appreciation for outstanding research

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accomplishments during an intensive summer USDA/NASA Collaborative Research Internship at the NASA John F. Kennedy Space Center, Florida.

- Inter American University of Puerto Rico, 6th Congress of Student Scholars of the Center for Environmental Education (CECIA), April 19, 2002. Arecibo, Puerto Rico. During the Congress, we received the following awards: Best Poster, Most Original Idea, Science Impact, First Prize Award, Best Oral Presentation, Most Original Protocol and Best Format.
- Inter American University of Puerto Rico, Who's Who Among Students in American Universities and Colleges 2002-2003, certificate in recognition of outstanding merit and accomplishment as a student at Inter American University.
- Inter American University of Puerto Rico, The National Dean's List 2002-2003. Nominated by the Dean of Academic Affairs.
- Inter American University of Puerto Rico, Science and Technology Department Medal conferred to the best student of the Science and Technology Department. May 11, 2003.
- Inter American University of Puerto Rico, Cooperation Medal conferred by the Dean of Student Affairs. May 11, 2003.
- Inter American University of Puerto Rico, Alumni Association Poly Inter Medal conferred by Inter American Alumni Association. May 11, 2003.
- Foundation Dr. García Rinaldi, Summer Program Internship. Certificate for Cooperation and Readiness. August 2, 2003.
- University of Puerto Rico, Arecibo Campus, Science and Technology Department, May 2, 2005. Certificate for the conference: Microbiology laboratories and industrial biotechnology.
- Abbott Biotechnology Limited, Microbial Environmental Control Laboratory, March 23, 2006. Special award for distinguished contributions during Abbott Biotechnology Limited startup.
- Abbott Biotechnology Limited, Quality Assurance Department, March 31, 2006. Recognition for outstanding work during ABL validations and qualification activities that supported the initiation of Humira Process Validation Runs.
- Puerto Rico –Louis Stokes Alliance for Minority Participation (PR-LSAMP) Bridge to the doctorate fellowship. \$30,000 per year during two years (August, 2007-July, 2009).
- University of Puerto Rico, Rio Piedras. Who's Who Among Students in American Universities and Colleges 2008-2009, in recognition of outstanding merit and accomplishment as a doctoral student at University of Puerto Rico.
- Research Initiative for Scientific Enhancement (RISE) Fellowship. (August 2009-2014).
- The National Institute of Neurological Disorders and Stroke and the Universities of Puerto Rico. Haxhiu N.E.U.R.O.N, Award, Finalist. 8th Biennial Conference of the Specialized Neuroscience Research Programs (July 21-23, 2010).

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- University of Puerto Rico, Alliance for Graduate Education and the Professoriate, Mentorship Program Fellowship (August 2010-2011).
- Puerto Rico Department of Education, Mathematics and Science Partnerships (MSP), Congress for Mathematics and Science Teachers-MSP. Certificate, Río Grande, PR, October 24, 2010.
- Inter American University of Puerto Rico, Arecibo, Distinguished Alumni, March 2012.
- Golden Key International Honour Society, University of Puerto Rico, May 6, 2013.

Workshops

- Identification of Microorganisms Using Comparative DNA Sequencing, Accugenix[®], Dorado, Puerto Rico. September 7, 2005.
- Two Leading Technologies in Microbial Identifications Genotypic & Proteotypic, Accugenix[®], San Juan, Puerto Rico, September 28, 2010.
- Flow Cytometry, University of Pennsylvania, Wistar Institute, April 4-8, 2011.
- LabChart Software Training Course Levels I, II, and III, ADInstruments, Boston, November 21-22, 2013.

Invited Presentations

- Delgado-Vélez, M and López,-Morales, W. *Educational experimental strategies to achieve the understanding of concepts in science*. Oral presentation at Math and Science Partnership Project II, Inter American University of Puerto Rico, Fajardo Campus, 2009.
- Delgado-Vélez, M and López-Morales, W. *Experiments using biotechnological approaches for the conceptual understanding of molecular genetics and its applications*. Oral presentation at Math and Science Partnership Project II, Inter American University of Puerto Rico, Fajardo Campus, 2008.
- Delgado-Vélez, M. *Protein purification in biotechnological processes*. Oral presentation at the Inter American University of Puerto Rico, Arecibo Campus, Science and Technology Department, September 8, 2006, 2008.
- Delgado-Vélez, M. *Endotoxin detection in water through Limulus Amebocyte Lysate (LAL)*. Laboratory workshop for Industrial Microbiology students at the Inter American University of Puerto Rico, Arecibo Campus, Science and Technology Department, March 30, 2006.
- Delgado-Vélez, M. *Clean room validation in industrial biotechnology environment*. Oral presentation at the University of Puerto Rico, Arecibo Campus, Department of Biology, February 22, 2006.
- Delgado-Vélez, M. *Clean Rooms Environmental Monitoring*. Laboratory workshop for Industrial Microbiology students at the Inter American University of Puerto Rico, Arecibo Campus, Science and Technology Department, February 16, 2006.

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- Delgado-Vélez, M. *Microbiology laboratories and industrial biotechnology*. Oral presentation at the Inter American University of Puerto Rico, Arecibo Campus, Science and Technology Department, February 7, 2006.
- Delgado-Vélez, M. *Practical applications of mouse in biomedical research*. Oral presentation at the Inter American University of Puerto Rico, Arecibo Campus, Science and Technology Department, February 11, 2014.
- Delgado-Vélez M. *Utilization of transgenic mouse models in biomedical research*. Oral presentation at the Inter American University of Puerto Rico, Arecibo Campus, Science and Technology Department, February 15, 2016.
- Delgado-Vélez M. *HIV Vaccine, Are We There Yet?* Oral presentation during the 16th Annual Puerto Rico HIV Treaters Medical Association Convention, October 25-28, 2018.
- Delgado-Vélez M. *The genomic medicine: A new door for treatment of HIV patients*. Oral presentation during the 16th Annual Puerto Rico HIV Treaters Medical Association Convention, October 25-28, 2018.
- Delgado-Vélez M. *The role of microbiome in HIV transmission and pathogenesis*. Oral presentation during the 17th Annual Puerto Rico HIV Treaters Medical Association Convention, October 25-26, 2019.
- Delgado-Vélez M. *Stem cells and genome, are they editing for HIV cure*. Oral presentation during the 17th Annual Puerto Rico HIV Treaters Medical Association Convention, October 25-26, 2019.

Poster Presentations

Medina, C. I., M. **Delgado-Vélez**, M.S. Capetillo, Y.M. Rivera and E.Q. Medina. Microflora Associated to the Endangered Puerto Rican Boa and Puerto Rican Runner. Poster presentation at the Society for Advancement of Chicanos and Native American in Science (SACNAS), 2001, International Meeting at Phoenix, Arizona.

Medina, C. I., M. **Delgado-Velez**, M.S. Capetillo, W. Sanchez. Microflora Asociada a la Boa de Puerto Rico (*Epicrates inornatus*) y la Corredora de Puerto Rico (*Alsophis portoricensis*). Oral Presentation at the 5th Congress of the Center for Environmental Education, Conservation (CECIA). Inter American University of Puerto Rico, Barranquitas, Puerto Rico. 2001.

Delgado, M., Suarez, M., Quiles Y., Cardona V., and Puente A. Comparison of the External Bacterial Flora between Newborns and Adults of the Puerto Rican boa (*Epicrates inornatus*). Poster presentation at the Symposium of the Caribbean Flora and Fauna. University of Puerto Rico, Humacao, Puerto Rico. April 26, 2002.

Delgado, M., Suarez, M., Quiles, Y., Cardona, V., Delgado, J., and Puente, A. Comparison of the External Bacterial Flora between Newborns and Adults of the Puerto Rican boa

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- (*Epicrates inornatus*). Poster presentation at the Society for Advancement of Chicanos and Native American in Science (SACNAS), 2002, International Meeting at Anaheim, California.
- Delgado, M.,** M.S. Capetillo, Y. Quiles and V. Cardona. Comparison of External Bacterial Flora between Newborns and Adults of the Puerto Rican boa (*Epicrates inornatus*). The 22nd Puerto Rico Interdisciplinary Scientific Meeting (PRISM). University of Puerto Rico, Arecibo, 2002.
- Delgado, M.,** Suarez, M., Cardona, V. and Puente-Rolón A. R. Comparison of the External Bacterial Flora between Newborns and Adults of the Puerto Rican boa (*Epicrates inornatus*). Poster presentation at 2003 Joint Meeting of Ichthyologist and Herpetologist, Manaus, Amazonas, Brazil June 2003.
- Delgado-Vélez, M.,** Lugo-Chinchilla, A., Morales, I., Robles, Y., Bruno, N and Renaud, L. F. 2008. Chronic exposure of human macrophages *in vitro* to morphine and methadone induces a putative tolerant/dependent state. The Joint Annual Meeting, Washington DC, 2008.
- Delgado-Vélez, M.,** Carrasquillo, O., Emmanuelli, L., Madera, B., Gomez, C. and Lasalde-Dominicci, José. Alcohol promotes kinetic alterations on acetylcholine receptors in a model of slow-channel congenital myasthenic syndrome. 29th Puerto Rico Interdisciplinary Scientific Meeting, San Juan, Puerto Rico, March 2009.
- Delgado-Vélez, M.,** Rodríguez-Cruz, E.N., Capó-Vélez, C., Rodríguez-Rosa, Viera-Vera, J., Serrano-Vélez, J., Rivera, B., Castro, E., Vázquez, A., Pena de Ortíz, S., Giray, T. Flap structure-specific endonuclease 1 (*fen-1*) gene expression in the honey bee brain as a result of avoidance shock conditioning. 2nd Annual Meeting of the Puerto Rico Chapter of the Molecular & Cellular Cognition Society, May 2009.
- Delgado-Vélez, M.,** Carrasquillo, O., Emmanuelli, L., Grajales, G., Madera, B., Gomez, C. and Lasalde-Dominicci, José. Alcohol promotes kinetic alterations on acetylcholine receptors in a model of slow-channel congenital myasthenic syndrome. Society for Neuroscience, Chicago, October 2009.
- Grajales, G., Baez, C.A., **Delgado, M.,** Ramirez, R., Gomez, C., Lasalde-Dominicci, J. Lipid-protein interaction studies in the α C418W slow channel congenital myasthenic syndrome. Society for Neuroscience, Chicago, October 2009.
- Delgado-Vélez, M.,** Rodriguez-Cruz, E.N., Capó-Vélez, C., Rodriguez-Rosa, C., Viera-Vera, J.L., Serrano-Vélez, B., Rivera, B., Castro, E., Vazquez, A., Peña de Ortiz, S., Giray, T. DNA recombination and repair-related mechanisms and aversive learning and memory in honey bees. 8th Annual Puerto Rico Neuroscience Conference, Ponce School of Medicine, December 5, 2009.
- Grajales-Reyes, G., Haipeng, Z., Baez-Pagan, C., Quesada, O., Grajales-Reyes, J., **Delgado-**

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- Vélez, M.**, Ramirez, R., Gomez, C., Lasalde-Dominicci. In vivo lipid-protein characterization of the α C418W Slow Channel Congenital Myasthenic Syndrome. 8th Annual Puerto Rico Neuroscience Conference, Ponce School of Medicine, December 5, 2009.
- Ortiz, D., C, Ortiz, D., P, Rivera, E, **Delgado, V., M.**, Ramírez, R., Gomez, C., Lasalde-Dominicci, J. Alcohol exacerbates the neuromuscular degeneration in δ S262T a transgenic mouse expressing the Slow-Channel Congenital Myasthenic Syndrome. 30th Puerto Rico Interdisciplinary Scientific Meeting (PRISM), University of Puerto Rico, Mayagüez, March 2010.
- Capó-Vélez, C.C., Montes-Santiago, E., **Delgado-Vélez, M.**, Lasalde-Dominicci, J.A. Up-regulation of α 7-nicotinic acetylcholine receptors by HIV-1 gp120 implications in the pathogenesis of HIV-associated dementia. 8th Conference of the Specialized Neuroscience Research Programs, Caribe Hilton, San Juan, Puerto Rico, July 21-23, 2010.
- Santiago-Pérez, L.I., **Delgado-Vélez, M.**, Baez-Pagan, C., Ballester, L.Y., Meléndez, L., Wojna, V., Serrano, M., García, V., Gerena-López, Y., Delgado, F.Y., Capó-Vélez, C., Silva, W., Lasalde-Dminicci, J.A. HIV-gp120 signaling via α 7 nicotinic acetylcholine receptor: implications in the pathogenesis of HIV infection. 8th Conference of the Specialized Neuroscience Research Programs, Caribe Hilton, San Juan, Puerto Rico, July 21-23, 2010.
- Grajales-Reyes, G.E., Baez-Pagán, C., Grajales- Reyes, J.G., Zhu, H., **Delgado-Vélez, M.**, Quesada, O., Gomez, C., Ramirez, R., Lasalde-Dominicci, J. Uncovering the molecular basis for collateral effects of statins in the NMJ of α C418W mice. 8th Conference of the Specialized Neuroscience Research Programs, Caribe Hilton, San Juan, Puerto Rico, July 21-23, 2010.
- Capó-Vélez, C., Santiago-Montes, E., **Delgado-Vélez, M.**, Melendez, R.I., Lasalde-Dominicci, J.A., The alpha7 acetylcholine receptor is up-regulated in a transgenic mouse model that expresses the HIV-1 coat protein gp120: potential implications in the pathogenesis of HIV-1 associated dementia. 10th International Symposium on NeuroVirology, Milan, Italy, October 12-16, 2010.
- Delgado-Vélez, M.**, Báez-Pagan, C., Santiago-Perez, L.I., Ballester, L.Y., Quesada, O., Vazquez, E., Serrano, M., García, V., Gerena-Lopez, Y., Wojna, V., Delgado, F.Y., Capó-Vélez, C., Santana, O. Lasalde-Dominicci, J. HIV-1 gp120 up-regulates α 7 nicotinic acetylcholine receptor in monocyte-derived macrophages. 10th International Symposium on NeuroVirology, Milan, Italy, October 12-16, 2010.
- Delgado-Vélez, M.**, Báez-Pagán, C., Santiago-Pérez, L.I., Ballester, L.Y., Quesada, O., Vazquez. E., Serrano, M., García, V., Gerena-López, Y., Wojna, V., Delgado, F.Y., Ramirez, N.L., Capó-Vélez, C., Santana, O., Melendez, L., Silva, W., Lasalde-Dominicci, J.A. HIV-1 gp120 increase α 7 nicotinic acetylcholine receptor in monocytes-

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derived macrophages: a new perspective in HIV infection. 19th Annual Puerto Rico Neuroscience Conference, Inter American University, PR, December 4, 2010.

Delgado-Vélez, M., Báez-Pagán, C., Quesada, O., Vazquez, E., Santiago-Pérez, L.I., Wojna, V., Gerena-López, Y., Melendez, L., Silva, W., Lasalde-Dominicci, J.A. HIV-1 envelope gp120 induced upregulation and signaling through the $\alpha 7$ nicotinic acetylcholine receptor in macrophages. 43rd UIPAC World Chemistry Congress, Puerto Rico Convention Center, PR, July 30, 2011.

Delgado-Vélez, M., Báez-Pagán, C., Quesada, O., Vazquez, E., Santiago-Pérez, L.I., Wojna, V., Gerena-López, Y., Melendez, L., Silva, W., and Lasalde-Dominicci, J.A. The anti-inflammatory $\alpha 7$ nicotinic acetylcholine receptor is upregulated in immune cells from HIV-infected subjects: potential implications for the treatment of HIV-related chronic inflammation. Society of NeuroImmune Pharmacology (SNIP) 18th Scientific Conference, Honolulu, Hawaii, April 25-28, 2012.

Delgado-Vélez, M., Báez-Pagán, C., Santiago-Pérez, L.I., Ballester, L.Y., Quesada, O., Gerena-Lopez, Y., Wojna, V., Lasalde-Dominicci, J., HIV-1 alpha7 acetylcholine receptor is upregulated in HIV+ subjects. RCMi International Symposium on Health Disparities, San Juan, PR, December 9-13, 2012.

Delgado-Vélez, M., Báez-Pagán, C.A., Gerena, Y., Quesada, O., Santiago-Pérez, L., Wojna, V., Melendez, L., Silva, W., Lasalde-Dominicci, J., Disruption of the cholinergic anti-inflammatory response in immune cells by HIV-1 gp120. 9th RISE Area Conference, Carolina, Puerto Rico, March 22, 2013.

Delgado-Vélez, M., Báez-Pagán, C., Santiago-Perez, L.I., Ballester, L.Y., Quesada, O., Gerena-Lopez, Y., Wojna, V., Lasalde-Dominicci, J., Disruption of the cholinergic anti-inflammatory response in the HIV context. Society for NeuroImmune Pharmacology 19th Scientific Conference, Conrad Hotel, San Juan, PR, April 3-6, 2013.

Delgado-Vélez, M., Báez-Pagán, C.A., Gerena, Y., Quesada, O., Santiago-Pérez, L., Wojna, V., Melendez, L., Silva, W., Lasalde-Dominicci, J. HIV-1 gp120 confers a pro-inflammatory phenotype to macrophages changing the role of the alpha7 acetylcholine receptor. Experimental Biology, Boston, MA, April 20-24, 2013.

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