

Ángela Martín-Serrano Ortiz

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EXPERIENCE

- Jan. 2019-Currently **Postdoctoral Researcher**
University of Alcalá de Henares. Madrid, Spain.
Design, synthesis, purification and characterization of dendrimer materials for biomedical applications and evaluation of their biocompatibility.
- Jun. 2013-Apr. 2018 **Junior Researcher**
Research Laboratory IBIMA. Málaga, Spain.
Synthesis, purification and characterization (NMR, MS) of drug derivatives and structure-activity relationship studies using immunoassays (ELISA, RIA). | Characterization of drug-protein conjugates using SDS-PAGE, Western-Blot and proteomics. | Communication of results to supervisors, collaborators and in national or international conferences. | Mentoring of technicians.
- Aug. 2017-Oct. 2017 **Junior Researcher**
Royal Institute of Technology (KTH). Stockholm, Sweden.
Synthesis, orthogonal functionalization and purification of dendrons as probes for biomolecules labeling. | Site-selective labeling of antibodies. | Fluorescence and UV-Vis spectroscopy as well as MALDI-TOF characterization of dendritic probes and labeled antibodies. | Publication of the results as first author.
- Jan. 2013-May 2013 **Research Assistant**
Nanotechnology Laboratory. University of Castilla-La Mancha. Almadén, Ciudad Real, Spain.
Synthesis of polymeric hydrogels and their characterization using Atomic Force Microscopy (AFM). | Preparation of a seminar about nanotechnology directed to engineering students.
- Jul. 2012-Sept. 2012 **Research Assistant**
NanoMyP® (Nanomaterials and Polymers S.L.). Granada, Spain.
Synthesis and characterization of polymeric and hybrid micro and nano-particles with different surface chemistry.
- Jul. 2011-Aug. 2011 **Chemist**
Repsol. Puertollano, Spain.
Parafin quality control. | Comparison of two methods for determining the octane rating of gasoline. | Analysis of waste water and industrial effluent.
- Sept. 2010-Jun. 2011 **Research Assistant**
Chemistry Faculty, Analytical Chemistry Department. University of Castilla-La Mancha (UCLM). Ciudad Real, Spain.
Development of a flow injection analysis chemiluminiscence-based method for the detection of antibiotics in milk.

EDUCATION

- 2014-2018 **PhD in Chemistry, Chemical Technologies, Materials and Nanotechnology.** *Cum Laude* *University of Malaga.* Malaga, Spain.
- 2011-2012 **Master in Biological Analysis and Laboratory Diagnosis.** *University of Granada.* Granada, Spain.
- 2006-2011 **Degree in Chemistry.** *University of Castilla-La Mancha.* Ciudad Real, Spain.

VOLUNTEER EXPERIENCE

Hospital volunteer. *Children's Oncology Volunteers Association (AVOI).* Málaga, Spain | **Kitchen volunteer.** *One World Summer Festival.* Cannington, Somerset, United Kingdom | **Organization assistant.** *Drug Hypersensitivity Meeting (DHM).* Málaga, Spain.

LANGUAGES

| | <i>Oral expression</i> | <i>Oral interaction</i> | <i>Listening comprehension</i> | <i>Reading comprehension</i> | <i>Writing</i> |
|----------------|------------------------|-------------------------|--------------------------------|------------------------------|----------------|
| Spanish | Native | Native | Native | Native | Native |
| English | C1 | C1 | C1 | C1 | C1 |

ACCOMPLISHMENTS

Scientific production: 12 publications (5 as first author) | 28 communications (13 as first author) in national and international conferences | 4 conference abstract prizes| 1 international patent.

Honors and awards: 2019- JIQ-RSEQ Bursary for Scientific Events Organization | 2019- FEBS Bursary to attend to the 44th FEBS Congress | 2019- GEDHFQ-RSEQ Registration Grant for the XXXVII Biennial Meeting of the RSEQ | 2018- European Young Chemists' Network Best Oral Presentation Award during XV Young Researchers Symposium RSEQ | 2018- Young Chemists Researchers Travel Scholarship to attend to XV Young Researchers Symposium RSEQ | 2018- EAACI Anual Meeting Poster Discussion Session Abstract Prize | 2017- EAACI Anual Meeting Oral Abstract Session Abstract Prize | 2017- Member of the team awarded with I Unicaja Award to Innovation in Biomedicine and Health | 2017- FEBS Summer Fellowship | 2012- Santander CRUE-CEPYME Scholarship | 2010- Collaboration Internship supported by the Spanish Ministry of Science and Education.

SCIENTIFIC PRODUCTION

PATENTS:

NUEVOS COMPUESTOS TIPO PIRAZOLONA PARA EL DIAGNÓSTICO DE ALERGIAS A ANTIBIÓTICOS BETALACTÁMICOS

Montañez, M.I.; Mayorga, C.; **Martín-Serrano, A.**; Doña, I.; Torres M.J.; Pérez-Inestrosa, E.

Priority Number: P201731240

Priority Date: 2017-10-23

Patent Number: PCT/ES2018/070688

Publication Date: 2018-10-22

International Application Number: WO2019077190

Publication Date: 2019-04-25

Owner: Servicio Andaluz de Salud and University of Malaga

BOOK CHAPTERS:

Book: Dendrimers: A Themed Issue in Honor of Professor Donald A. Tomalia on the Occasion of His 80th Birthday. DOI: 10.3390/books978-3-03897-379-9. ISBN 978-3-03897-378-2 (Pbk); ISBN 978-3-03897-379-9 (PDF)

Chapter: Molina, N. [‡], **Martín-Serrano, A.** [‡], Fernandez, T., Tesfaye, A., Najera, F., Torres, M., Mayorga, C., Vida, Y. ^{*}, Montañez, M. ^{*} & Perez-Inestrosa, E. ^{*} *Dendrimeric Antigens for Drug Allergy Diagnosis: A New Approach for Basophil Activation Tests*. Reprinted from: *Molecules* 2018, 23, 997, doi:10.3390/molecules23050997. [†]Equal contribution.

PUBLICATIONS:

- **Martín-Serrano, A.**; Mayorga, C.; Barrionuevo, E.; Pérez, N.; Romano, A.; Moreno, E.; Ariza, A.; Pérez-Inestrosa, E.; Torres, M.J.; Montañez, M.I. *Design of an antigenic determinant of cefaclor: Chemical structure–IgE recognition relationship*. *Journal of Allergy and Clinical Immunology* **2019**, *In press*. DOI: 10.1016/j.jaci.2019.11.036. IF: 14.11 // D1 (JCR 2018)
- **Martín-Serrano, A.**; Gómez, R.; Ortega, P.; de la Mata, F.J. *Nanosystems as vehicles for the delivery of antimicrobial peptides (AMPs)*. *Pharmaceutics* **2019**, *11*(9), 448. DOI: 10.3390/pharmaceutics11090448. IF: 4.77 // D1 (JCR 2018)
- Colombé, C.; Le Guével, X.; **Martin-Serrano, A.**; Henry, M.; Porret, E.; Comby-Zerbino, C.; Antoine, R.; Atallah, I.; Busser, B.; Coll, J. L.; Righini, C. A.; Sancey, L. *Gold nanoclusters as a contrast agent for image-guided surgery of head and neck tumors*. *Nanomedicine: Nanotechnology, Biology and Medicine* **2019**, *20*, 102011. DOI: 10.1016/j.nano.2019.04.014. IF: 5.57 // Q1 (JCR 2018)
- Barbero, N.; Fernández-Santamaría, R.; Mayorga, C.; **Martin-Serrano, A.**; Salas, M.; Bogas, G.; Najera, F.; Pérez-Sala, D.; Pérez-Inestrosa, E.; Fernandez, T.D.; Montañez, M.I.; Torres, M.J. *Identification of an Antigenic Determinant of Clavulanic Acid Responsible for IgE-mediated Reactions*. *Allergy* **2019**. DOI: 10.1111/all.13761. IF: 6.77 // Q1 (JCR 2018)
- **Martín-Serrano Ortiz, A.**, Stenström, P., Mesa-Antunez, P., Andrén, O.C.J., Torres, M.J., Montañez, M.I. ^{*}, Michael Malkoch. ^{*} *Design of multivalent fluorescent dendritic probes for site-specific labeling of biomolecules*. *Journal of Polymer Science Part A: Polymer Chemistry* **2018**, *56*(15) 1609-1616. DOI:10.1002/pola.29055. IF: 2.59 // Q2 (JCR 2018)
- Molina, N. [‡], **Martín-Serrano, A.** [‡], Fernandez, T., Tesfaye, A., Najera, F., Torres, M., Mayorga, C., Vida, Y. ^{*}, Montañez, M. ^{*} & Perez-Inestrosa, E. ^{*} *Dendrimeric Antigens for Drug Allergy Diagnosis: A*

New Approach for Basophil Activation Tests. Molecules **2018**, 23(5), 997. DOI: 10.3390/molecules23050997. *Equal contribution. IF: 3.06 // Q2 (JCR 2018)

- Porret, E., Sancey, L., **Martín-Serrano, A.**, Montañez, M. I., Seeman, R., Yahia-Ammar, A., Okuno, H., Gomez, F., Ariza, A., Hildebrandt, N., Fleury, J.-B., Coll, J.-L. & Le Guével, X. *Hydrophobicity of Gold Nanoclusters Influences Their Interactions with Biological Barriers.* Chemistry of Materials **2017**, 29(17), 7497-7506. DOI: 10.1021/acs.chemmater.7b02497. IF: 9.89 // D1 (JCR 2017)
- Montañez, M. I., Mayorga, C., Bogas, G., Barrionuevo, E., Fernandez-Santamaria, R., **Martín-Serrano, A.**, Laguna, J. J., Torres, M. J., Fernandez, T. D. & Doña, I. *Epidemiology, Mechanisms, and Diagnosis of Drug-Induced Anaphylaxis.* Frontiers in Immunology **2017**, 8, 614. DOI: 10.3389/fimmu.2017.00614. IF: 5.51 // Q1 (JCR 2017)
- **Martín-Serrano, A.**, Barbero, N., Agundez, J. A., Vida, Y., Perez-Inestrosa, E. & Montanez, M. I. *New Advances in the Study of IgE Drug Recognition.* Current Pharmaceutical Design **2016**, 22(45), 6759-6772. DOI: 10.2174/13816128226661609211 42231. IF: 2.61 // Q2 (JCR 2016)
- Ariza, A., Mayorga, C., Salas, M., Doña, I., **Martín-Serrano, A.**, Pérez-Inestrosa, E., Pérez-Sala, D., Guzmán, A. E., Montañez, M. I. & Torres, M. J. *The influence of the carrier molecule on amoxicillin recognition by specific IgE in patients with immediate hypersensitivity reactions to betalactams.* Scientific Reports **2016**, 6, 35113. DOI: 10.1038/srep35113. IF: 4.25 // Q1 (JCR 2016)
- Fernández, T. D., Ariza, A., Palomares, F., Montañez, M. I., Salas, M., **Martín-Serrano, A.**, Fernández, R., Ruiz, A., Blanca, M., Mayorga, C. & Torres, M. J. *Hypersensitivity to fluoroquinolones: The expression of basophil activation markers depends on the clinical entity and the culprit fluoroquinolone.* Medicine **2016**, 95(23), e3679. DOI: 10.1097/MD.0000000000003679. IF: 1.80 // Q2 (JCR 2016)
- Ariza, A., Mayorga, C., Fernández, T.D., Barbero, N., **Martín-Serrano, A.**, Pérez-Sala, D., Sánchez-Gómez, F.J., Blanca, M., Torres, M.J. & Montañez, M.I. *Hypersensitivity Reactions to β -Lactams: Relevance of Hapten-Protein Conjugates.* Journal of Investigational Allergology and Clinical Immunology **2015**, 25(1):12-25. IF: 2.13 // Q3 (JCR 2015)

COMMUNICATIONS TO CONFERENCES:

-**Martín-Serrano, A.**; Peña, C.; Sánchez-Nieves, J.; Gómez, R.; de la Mata, F.J. Novel Functionalized Carbosilane Dendrimers for Applications as Non-viral Transfection Tools. 44th FEBS Congress. 2019 July 6th-11th. Krakow, Poland. Published in *FEBS Open Bio* **2019**, 9(S1). Abstract P-20-008.

-**Martín-Serrano, A.**; Peña, C.; Lozano, T.; Sánchez-Nieves, J.; Gómez, R.; de la Mata, F.J. Surface Modified Carbosilane Dendrimers to Improve their Biocompatibility and Applications in Biomedicine. VI Young Researchers Symposium-Spanish Society of Medicinal Chemistry (SEQT). 2019 June 21th. Tres Cantos, Madrid, Spain.

- Montañez, M.I.; **Martín-Serrano, A.**; Barbero, N.; González-Morena, J.M.; Sánchez-Gómez, F.J.; Pérez-Sala, D.; Sánchez, M.I.; Ariza, A.; Pérez-Inestrosa, E.; Fernández, T.D.; Mayorga, C.; Torres, M.J. Biotin labeled clavulanic acid to deepen analysis of serum proteins target of haptenation: implication in betalactam allergy studies. Meeting of the European-Academy-of-Allergy-and-Clinical-Immunology (EAACI). 2019 June 1st-5th. Lisbon, Portugal. Published in *Allergy* **2019**, 74(S106). Abstract 1409.

-**Martín-Serrano, A.**; Peña, C.; Sánchez-Nieves, J.; Gómez, R.; de la Mata, F.J. Cationic Carbosilane Dendrimers Functionalized for Applications as Nanocarriers for Biomolecules. XXXVII Biennial Meeting of the Spanish Royal Society of Chemistry (RSEQ). 2019 May 26th-29th. San Sebastián, Spain.

-**Martín-Serrano, A.**; Ariza, A.; Stenström, P.; Mesa, P.; Malkoch, M.; Torres, M.J.; Montañez, M.I. Chemical approaches for improving *in vitro* diagnosis sensitivity in allergy to β -lactam antibiotics. 6th- European Chemical Biology Symposium ECBS/LS-EuCheMS. 2019 April 3th- 5th. Madrid, Spain.

-Fernández-Santamaría, R.; Rodríguez-Nogales, A.; Pérez, N.; Salas, M.; Ariza, A.; Malagón, P.; **Martín-Serrano, A.**; Fernández, T.D.; Mayorga, C.; Torres, M.J.; Montañez, M.I. Recognition of synthetic antigenic determinants of clavulanic acid by dendritic cells in patients with immediate allergic reactions to this drug. American Academy of Allergy, Asthma & Immunology (AAAAI) annual meeting. 2019 February 22nd-25th. San Francisco (California), U.S.A. **Published in Journal of Allergy and Clinical Immunology 2019, 143(2) AB19. Abstract 58.**

- Rodríguez-Nogales, A.; Fernández-Santamaría, R.; Palomares, M.F.; Ariza, A.; Rodríguez, M.J.; González, M.; ; **Martín-Serrano, A.**; Molina, A.; Mayorga, C.; Torres, M.J.; Fernández, T.D. Different maturation pattern between myeloid dendritic cells and monocyte-derived dendritic cells in patients with immediate allergy reactions to betalactams. American Academy of Allergy, Asthma & Immunology (AAAAI) annual meeting. 2019 February 22nd-25th. San Francisco (California), U.S.A. **Published in Journal of Allergy and Clinical Immunology 2019, 143(2) AB29. Abstract 88.**

-**Martín-Serrano, A.**; Stenström, P.; Mesa, P.; Malkoch, M.; Montañez, M.I. Synthesis and characterization of fluorescent dendrimer probes for site-specific labeling of biomolecules. XV Young Researchers Symposium of the Spanish Royal Society of Chemistry (RSEQ). 2018 November 5th-8th. Toledo, Spain. European Young Chemists' Network (EYCN) Best Oral Presentation Award.

-**Martín-Serrano, A.**; Mayorga, C.; Barrionuevo, E.; Pérez-Inestrosa, E.; Torres, M.J.; Montañez, M.I. Cefaclor Antigenic Determinants: Synthetic Design and Immunological Evaluation. XXXI Meeting of the Spanish Society of Allergology and Clinical Immunology (SEAIC). 2018 October 24th-27th. Valencia, Spain. **Published in Journal of Investigational Allergology and Clinical Immunology 2018, 28(Suppl2), 103.**

-**Martín-Serrano, A.**; Mayorga, C.; Barrionuevo, E.; Pérez-Inestrosa, E.; Torres M.J.; Montañez, M.I. New Potential Synthetic Antigenic Determinants for α -Amino-Cephalosporins: design, synthesis and immunological evaluation. Meeting of the European-Academy-of-Allergy-and-Clinical-Immunology (EAACI). 2018 May 26th-30th. Munich, Germany. **Published in Allergy 2018, 73(S105). Abstract 0590. Poster Discussion Session. Abstract Prize.**

-Barrionuevo, E.; Pérez, N.; Gomez, F.; Salas, M.; Guerrero, M.A.; Ruiz, D.; **Martín-Serrano, A.**; Torres, M.J. Descriptive Analysis of Diagnostic Methods In Betalactam Hypersensitivity in our Allergy Unit. Meeting of the European-Academy-of-Allergy-and-Clinical-Immunology (EAACI). 2018 May 26th-30th. Munich, Germany. **Published in Allergy 2018, 73(S105). Abstract 1150.**

-**Martín-Serrano, A.**; Barbero, N.; González-Morena, J.M.; Sánchez-Gómez, F.J.; Fernández, T.D.; Rodríguez-Nogales, A.; Pérez-Inestrosa, E.; Pérez-Sala, D.; Mayorga, C.; Ariza, A.; Torres, M.J.; Montañez, M.I. Study Of Protein Targets For Hapteneation By Biotinylated Clavulanic Acid: Usefulness In Studies On Allergy Todwars Betalactams. Drug Hypersensitivity Meeting (DHM). 2018 April 19th-21st. Amsterdam, The Netherlands. **Published in Clinical and Translational Allergy 2018, 8(Suppl3):P88.**

-**Martín-Serrano, A.**; Mayorga, C.; Barrionuevo, E.; Rodríguez-Nogales, A.; Pérez-Inestrosa, E.; Torres, M.J.; Montañez, M.I. Study of Specific IgE Recognition of New Potential Synthetic Antigenic Determinants for α -Amino-Cephalosporins. American Academy of Allergy, Asthma & Immunology (AAAAI) annual meeting. 2017 March 2nd-5th. Orlando (Florida), U.S.A. **Published in Journal of Allergy and Clinical Immunology 2018, 141(2) AB34. Abstract 110.**

-Barrionuevo, E.; Pérez, N.; Gomez, F.; Salas, M.; Guerrero, M.A.; Ruiz, D.; **Martín-Serrano, A.**; Torres, M.J. Descriptive Analysis of Diagnostic Methods In Betalactam Hypersensitivity in our Allergy Unit. American Academy of Allergy, Asthma & Immunology (AAAAI) annual meeting. 2017 March 2nd-5th. Orlando (Florida), U.S.A. Published in *Journal of Allergy and Clinical Immunology* 2018, 141(2) AB42. Abstract 135.

-**Martín-Serrano, A.**; Stenström, P.; Mesa, P.; Malkoch, M.; Montañez, M.I. Synthesis and Characterization of Fluorescent Dendrimer Structures with Potential Biological Applications. VI Dendrimers Meeting (EDEN 6). 2018 February 22nd-23rd. Seville, Spain.

-**Martín-Serrano, A.**; Barbero, N.; González-Morena, J.; Sánchez-Gómez, F.; Fernández, T.; Sánchez, M.; Pérez-Inestrosa, E.; Pérez-Sala, D.; Cristobalina, M.; Ariza, A.; Torres, M.J.; Montañez, M.I. Biotinylated Clavulanic Acid as a Tool for Identifying Serum Proteins Target of Hapteneation by Clavulanic Acid in the Context of Allergy Studies. Meeting of the European-Academy-of-Allergy-and-Clinical-Immunology (EAACI). 2017 June 17th-21st. Helsinki, Finland. Published in *Allergy* 2017, 72(S103). Abstract 0009. Oral Abstract Session. Abstract Prize.

-Fernandez, T.D.; Montañez, M.I.; Barbero, N.; **Martín-Serrano, A.**; Salas, M.; Bogas, G.; Ariza, A.; Fernández, R.; Guerrero, M.A.; Mayorga, C.; Perez-Inestrosa, E.; Torres, M.J. Basophil Activation Using Synthetic Antigenic Determinants for Diagnosing Immediate Hypersensitivity to Clavulanic Acid. Meeting of the European-Academy-of-Allergy-and-Clinical-Immunology (EAACI). 2017 June 17th-21st. Helsinki, Finland. . Published in *Allergy* 2017, 72(S103). Abstract 0142. Oral Abstract Session. Abstract Prize.

-**Martín-Serrano, A.**; Barbero, N.; Ariza, A.; Fernández, T.D.; Pérez-Inestrosa, E.; Salas, M.; Mayorga, C.; Pérez-Sala, D.; Torres, M.J.; Montañez, M.I. Study of Protein Hapteneation by Biotinylated Clavulanic Acid: Usefulness in Studies on Allergy Towards Betalactams. American Academy of Allergy, Asthma & Immunology (AAAAI) annual meeting. 2017 March 3rd- 6th. Atlanta (Georgia), U.S.A. Published in *Journal of Allergy and Clinical Immunology* 2017, 139(2) AB46. Abstract 147.

-Montañez M.I.; Barbero, N.; Fernandez, T.D.; **Martín-Serrano, A.**; Bogas, G.; Ariza, A.; Mayorga, C.; Pérez-Inestrosa, E.; Torres, M.J. Value of synthetic antigenic determinants of clavulanic acid in basophil activation test for evaluating immediate reactions to clavulanic acid. American Academy of Allergy, Asthma & Immunology (AAAAI) annual meeting. 2017 March 3rd- 6th. Atlanta (Georgia), U.S.A. Published in *Journal of Allergy and Clinical Immunology* 2017, 139(2) AB46. Abstract 148.

-Fernández, T.D.; Salas, M.; Fernández, R.; Montañez, M.I.; **Martín-Serrano, A.**; Barbero, N.; Perez-Inestrosa, E.; Mayorga, C.; Torres, M.J. Basophil Activation Test in Clavulanic Acid Selective Patients. Decrease of IgE Recognition over Time. American Academy of Allergy, Asthma & Immunology (AAAAI) annual meeting. 2017 March 3rd- 6th. Atlanta (Georgia), U.S.A. Published in *Journal of Allergy and Clinical Immunology* 2017, 139(2) AB33. Abstract 109.

-Ariza, A.; Fernández, T.D.; Mayorga, C.; Salas, M.; Barbero, N.; Montañez, M.I.; **Martín-Serrano, A.**; Fernández, R.; Galindo, L.; Blanca, M.; Torres, M.J. The Administration of the Combination Amoxicillin-Clavulanic Acid can Induce Simultaneous Sensitization to Both Drugs. Report of two clinical cases. Meeting of the European-Academy-of-Allergy-and-Clinical-Immunology (EAACI). 2016 June 11st-15th. Vienna, Austria. Published in *Allergy* 2016, 71(S102). Abstract 762.

-Montañez M.I.; Mayorga C.; Nájera F.; Ariza A.; Fernández T.D.; Salas, M.; **Martín-Serrano, A.**; Blanca, M.; Pérez-Inestrosa, E. Dendrimeric Antigens for Studying the Influence of Penicillin Determinants Orientation on IgE Recognition. 7th Drug Hypersensitivity Meeting (DHM, EAACI). 2016 April 21st-23rd. Málaga, Spain. Published in *Clinical and Translational Allergy* 2016, 6 (Suppl 3):P185.

-Ariza, A.; Mayorga, C.; Montañez, M.I.; Salas, M.; Doña, I.; **Martín-Serrano, A.**; Pérez-Inestrosa, E.; Pérez-Sala, D.; Blanca, M.; Guzmán, A.E.; Torres, M.J. Different Patterns of Recognition of Structures Derived from Amoxicillin by IgE Antibodies from Patients with Immediate Hypersensitivity Reactions to Betalactams. 7th Drug Hypersensitivity Meeting (DHM, EAACI). 2016 April 21st-23rd. Málaga, Spain. Published in *Clinical and Translational Allergy* 2016, 6 (Suppl 3):P188.

-Ariza, A.; Fernández, T.D.; Mayorga, C.; Salas, M.; Barbero, N.; Montañez, M.I.; **Martín-Serrano, A.**; Fernández, R.; Galindo, L.; Blanca, M.; Torres, M.J. Patients Taking Amoxicillin-Clavulanic Can Become Simultaneously Sensitized to Both Drugs. American Academy of Allergy, Asthma & Immunology (AAAAI) annual meeting. 2016 March 4rd- 7th. Los Angeles (California). Published in *Journal of Allergy and Clinical Immunology* 2016, 137(2) AB43. Abstract 137.

-Lusuardi, A.; **Martín-Serrano, A.**; Cuberes, M.T. Visualization, characterization and modification of nanoscale elastic domains on poly(acrylic)acid hydrogels using atomic and ultrasonic force microscopy. 16th European Conference on Applications of Surface and Interface Analysis (ECASIA). 2015 September 28th-October 1st. Granada, Spain.

-**Martín-Serrano, A.**; Ariza, A.; Mayorga, C.; Fernández, T.D.; Montañez, M.I.; Torres, M.J. Synthesis and Characterization of Potential Antigenic Determinants of α -Aminocephalosporins. VII Organic Chemistry Mediterranean Meeting (REQOMED). 2015 June 10th-12th. Málaga, Spain.

-Montañez; M.I.; Mayorga, C.; Najera, F.; Ariza, A.; Fernández, T.D.; Salas, M.; **Martín-Serrano, A.**; Blanca, M.; Pérez-Inestrosa, E.; Torres, M.J. Study of penicillin epitopes conformation/disposition in carrier dendrimer molecules vs slgE molecular recognition relationships. Meeting of the European-Academy-of-Allergy-and-Clinical-Immunology (EAACI). 2015 June 6th-10th. Barcelona, Spain. Published in *Allergy* 2015, 70(S101). Abstract 38.

-Murillo, J.A.; Alañón, A.; **Martín-Serrano, A.** Rapid and simple determination of difloxacin in milk by terbium-sensitized chemiluminescence. 14th Jornadas de Análisis Instrumental. 2014 October 1st-3rd. Barcelona (Spain).

PARTICIPATION IN RESEARCH PROJECTS

-ISCIII of MINECO; grants cofunded by European Regional Development Fund (ERDF):

PI12/02529: "Identificación y caracterización inmunológica de conjugados betalactámicos con proteínas y nanoestructuras para su aplicación al diagnóstico *in vitro* de reacciones alérgicas IgE". Duration: 3 years. Principal investigator: María José Torres Jaén.

PI15/00559: "Estudio del papel del sistema immune innato e identificación de biomarcadores en respuestas anafilácticas y de tolerancia inducida a alérgenos alimentarios de origen vegetal". Duration: 3 years. Principal investigator: Cristobalina Mayorga Mayorga.

PI15/01206: "Estudio de biomarcadores y factores de riesgo relacionados con el desarrollo de una respuesta alérgica diferencial frente a amoxicilina o clavulánico". Duration: 3 years. Principal investigator: María José Torres Jaén.

CP15/00103: "Desarrollo de conjugados de antibióticos con nanoestructuras o proteínas y aplicación al diagnóstico *in vitro* de alergia a antibióticos". Duration: 3 years. Principal investigator: María Isabel Montañez Vega.

-Andalusian Regional Ministry Health:

PI-0179-2014: "Desarrollo de un microarray con aductos fármaco-proteína/nanoestructura para el diagnóstico de alergia a antibióticos". Duration: 2 years. Principal investigator: Maria Isabel Montañez Vega

PI-0241-2016: "Desarrollo de métodos *in vitro* para el diagnóstico de alergia al ácido clavulánico: identificación de los determinantes antigenicos implicados en la respuesta inmunológica". Duration: 2 years. Principal investigator: Tahia Diana Fernández Duarte.

PI-0250/2016: "Desarrollo de nuevos nanobiosensores para el diagnóstico de reacciones adversas a medicamentos". Duration: 2 years. Principal investigator: Ezequiel Pérez-Inestrosa Villatoro.

- I Unicaja Award to innovation in biomedicine and health by Unicaja-FIMABIS:

PUNI-017-2016. "Desarrollo de un microarray con conjugados betalactámico-proteína y betalactámico-nanoestructura para el diagnóstico de alergia a antibióticos". Duration: 1 year. Principal investigator: María Isabel Montañez Vega.