



## Curriculum Vitae

Personal information **Dolores Serrano**

Work experience

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1. Employer: Trinity College Dublin
  - Start date: 092013
  - End date: 092015
  - Position: Postdoctoral Research Fellow
  - Activities: Development of innovative medicines
  - Country: Ireland

Education and training

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1. Subject: Universidad Complutense de Madrid
  - Start date: 102015
  - End date:
  - Qualification: Assoc. Prof.
  - Organisation: Research and development of novel medicines
  - Country: Spain
2. Subject: Universidad Complutense de Madrid
  - Start date: 072009
  - End date: 072013
  - Qualification: PhD
  - Organisation: Oral, topical and parenteral formulations of amphotericin B for the treatment of fungal and parasitic infections
  - Country: Spain

Additional information

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Publications

TOPIC: Nanomedicines y neglected diseases

1. Ruiz HK, Serrano DR, Calvo L, Cabañas A (2022). Current Treatments for COVID\_19: Application of Supercritical Fluids in the Manufacturing of Oral and Pulmonary Formulations. *Pharmaceutics*. 4;14(11):2380. (IF: 6.525, Q1).
2. Serrano DR, Kara A, Yuste I, Luciano FC, Ongoren B, Anaya BJ, Molina G, Diez L, Ramirez IO, Ramirez BI, Sánchez\_Guirales SA, Fernandez\_García R, Bautista L, Ruiz HK, Lalatsa A (2023). 3D printing technologies in personalized medicine, nanomedicines, and biopharmaceuticals. *Pharmaceutics* 15(2): 313. (IF: 6.525, Q1).
3. Fernandez\_García R, Walsh D, O'Connell P, Slowing K, Raposo R, Ballesteros MP, Jiménez\_Cebrián A, Chamorro\_Sancho JC, Bolás\_Fernández F, Healy AM, Serrano DR (2023). Can amphotericin B and itraconazole be co-delivered orally? Tailoring oral fixed\_dose combination coated granules for systemic mycoses. *Eur J Pharm and Biopharm* 183:74\_91. (IF: 5.589, Q1).
4. Rolon M, Hanna E, Vega C, Coronel C, Dea\_Ayuela MA, Serrano DR, Lalatsa A (2022). Solid Nanomedicines of Nifurtimox and Benznidazole for the Oral Treatment of Chagas Disease. *Pharmaceutics*. 29;14(9):1822 (IF: 6.525, Q1).
5. Bezerra A, de Jesus A, Laurenti M, Lalatsa A, Serrano DR, Passero LF (2021). Nanoemulsified butenafin for enhanced performance against experimental cutaneous leishmaniasis. *Journal of Immunology research*, 8828750. (IF:3.327, Q3).
6. Fernández\_García R, Muñoz\_García JC, Wallace M, Fabian L, González\_Burgos E, Gómez\_Serranillos MP, Raposo R, Bolás\_Fernández F, Ballesteros MP, Healy AM, Khimyak YZ, Serrano DR (2022). Self\_assembling, supramolecular chemistry and pharmacology of amphotericin B: Poly\_aggregates, oligomers and monomers. *J Control Release*. 341:716\_732 (IF: 9.776, D1).
7. Torrado JJ, Serrano DR, Capilla J (2020). Antifungal and Antiparasitic Drug Delivery \_ Special Issue. *Pharmaceutics* 12(4): 1\_4. (IF:4.421, Q1).
8. Lalatsa A, Statts L, Adriana de Jesus J, Adewusi O, Auxiliadora Dea\_Ayuela M, Bolas\_Fernandez F, Dalastra Laurenti M, Felipe Domingues Passero L, Serrano DR (2020). Topical buparvaquone nano\_enabled hydrogels for cutaneous leishmaniasis. *Int J Pharm*. 588:119734. (IF: 4.845, Q1).
9. Bilbao\_Ramos P, Serrano DR, Ruiz Saldaña HK, Torrado JJ, Bolás\_Fernández F, Dea\_Ayuela MA (2020). Evaluating the Potential of Ursolic Acid as Bioproduct for Cutaneous and Visceral Leishmaniasis. *Molecules* 25 (6), 1394 (IF: 3.267, Q2).
10. Fernández\_García R, Statts L, de Jesus JA, Dea\_Ayuela MA, Bautista L, Simão R, Bolás\_Fernández F, Ballesteros MP, Laurenti MD, Passero LFD, Lalatsa A, Serrano DR (2020). Ultradeformable Lipid Vesicles Localize Amphotericin B in the Dermis for the Treatment of Infectious Skin Diseases. *ACS Infect Dis*.6(10):2647\_2660 (IF: 4.614, Q1).
11. Fernández\_García R, Lalatsa A, Statts L, Bolás\_Fernández F, Ballesteros MP, Serrano DR (2020). Transferosomes as nanocarriers for drugs across the skin: Quality by design from lab to industrial scale. *Review. Int J Pharm*. 573:118817, 1\_15. (IF: 4.845, Q1).
12. Dea\_Ayuela MA, Segarra S, Serrano DR, Bolás\_Fernández F (2020). Nucleotides and AHCC Enhance Th1 Responses In Vitro in Leishmania\_ Stimulated/Infected Murine Cells *Molecules* 25 (17), 3918 (IF: 3.267, Q2).
13. Serrano DR, Fernandez\_García R, Mele M, Healy AM, Lalatsa A (2019). Designing Fast\_Dissolving Orodispersible Films of Amphotericin B for Oropharyngeal Candidiasis. *Pharmaceutics*, 11(8):1\_16. (IF:4.421, Q1).
14. Bezerra\_Souza A, Fernandez\_García R, Rodrigues GF, Bolas\_Fernandez F, Dalastra Laurenti M, Passero LF, Lalatsa A, Serrano DR (2019). Repurposing Butenafin as An Oral Nanomedicine for Visceral Leishmaniasis. *Pharmaceutics*, 11(7):1\_14 (IF:4.421, Q1).
15. Pérez\_Cantero A, Serrano DR, Navarro\_Rodríguez P, Schätzlein AG, Uchegbu IF, Torrado JJ, Capilla J (2019). Increased efficacy of oral fixed\_dose combination of amphotericin B and AHCC® natural adjuvant against aspergillosis. *Pharmaceutics* 11 (9), 456 (IF:4.421, Q1).
16. Lamy B, Tewes F, Serrano DR, Lamarche I, Gobin P, Couet W, Healy AM, Marchand S (2018), New aerosol formulation to control ciprofloxacin pulmonary concentration. *Journal of the Controlled Release*, 271:118\_126 (IF:7.786, D1).
17. Smith L, Serrano DR, Mauger M, Bolas\_Fernandez F, Dea\_Ayuela MA, Lalatsa A (2018). Orally Bioavailable and Effective Buparvaquone Lipid\_Based Nanomedicines for Visceral Leishmaniasis. *Mol Pharm* 15(7):2570\_2583 (IF:4.556, Q1).
18. Dea\_Ayuela MA, Serrano DR (2018). New Drugs and Therapeutic/Diagnostic Targets for Fungal and Parasitic Diseases \_ Part I. *Editor. Curr Top Med Chem*. 18(15):1274. (IF 3.442, T1, Q2).
19. Dea\_Ayuela MA, Serrano DR (2018). New Drugs and Therapeutic/Diagnostic Targets for Fungal and Parasitic Diseases \_ Part II. *Editor. Curr Top Med Chem*. 18(15):1357. (IF 3.442, T1, Q2).
20. Dea\_Ayuela MA, Galiana\_Roselló C, Lalatsa A, Serrano DR (2018). Applying loop\_mediated isothermal amplification (LAMP) in the diagnosis of malaria, leishmaniasis and trypanosomiasis as point\_of\_care tests (POCTs). *Current Topics in Medicinal*

Chemistry 18 (16), 1358\_1374 (IF 3.442, T1, Q2). 21. Nam L, Coll C, Erthal LCS, De la Torre C, Serrano DR, Martínez\_Mañez R, Santos\_Martínez MJ, Ruiz\_Hernandez E (2018). Drug delivery nanosystems for the localized treatment of glioblastoma multiforme. *Materials* 11 (5), 779 (IF 3.057, Q2). 22. Rolón M, Serrano DR, Lalatsa A, de Pablo E, Torrado JJ, Ballesteros MP, Healy AM, Vega C, Coronel C, Bolás\_Fernández F, Dea\_Ayuela MA (2017). Engineering Oral and Parenteral Amorphous Amphotericin B Formulations against Experimental *Trypanosoma cruzi* Infections. *Mol Pharm*. 14(4):1095\_1106 (IF:4.556, Q1). 23. Fernández\_García R, de Pablo E, Ballesteros MP, Serrano DR (2017). Unmet clinical needs in the treatment of systemic fungal infections: The role of amphotericin B and drug targeting. *Review. Int J Pharm*. 525(1):139\_148. (IF: 3.649, Q1). 24. De Pablo, E, Fernández\_García R, Ballesteros MP, Torrado JJ, Serrano DR (2017). Nebulised antibiotherapy: conventional versus nanotechnology based approaches, is targeting at a nano scale a difficult subject? *Annals of Translational Medicine*. 5(22):1\_16. 25. Mugheirbi NA, O'Connell P, Serrano DR, Healy AM, Taylor LS, Tajber L. (2017). Comparative Study on the Performance of Inert and Functionalized Spheres Coated with Solid Dispersions Made of Two Structurally Related Antifungal Drugs. *Mol Pharm*. 14(11):3718\_3728. (IF:4.440, Q1, 32/257, Pharmacology & Pharmacy). 26. Serrano DR, Lalatsa A, Dea\_Ayuela MA (2017). Engineering Synergistically Active and Bioavailable Cost\_effective Medicines for Neglected Tropical Diseases; The Role of Excipients. *Curr Top Med Chem*. 28730958 (IF: 2.864, Q2, 23/60 Medicinal Chemistry). 27. Ishida K, Castro RA, Torrado JJ, Serrano DR, Borba\_Santos LP, Quintella LP, de Souza W, Rozental S, Lopes\_Bezerra LM (2017). Efficacy of a poly\_aggregated formulation of amphotericin B in treating systemic sporotrichosis caused by *Sporothrix brasiliensis*. *Med Mycol*. 56(3):288\_296 (IF: 2.377, D1, 8/136 Veterinary Sciences). 28. Serrano DR, Lalatsa A (2017). Oral amphotericin B: The journey from bench to market. *Journal of Drug Delivery Science and Technology*, 42, 75\_83 (IF:1.194, Q4, 216/257, Pharmacology & Pharmacy). 29. Fisusi FA, Siew A, Chooi KW, Okubanjo O, Garrett N, Lalatsa K, Serrano D, Summers I, Moger J, Stapleton P, Satchi\_Fainaro R, Schätzlein AG, Uchegbu IF (2016). Lomustine Nanoparticles Enable Both Bone Marrow Sparing and High Brain Drug Levels \_ A Strategy for Brain Cancer Treatments. *Pharm Res*. 33(5):1289\_303 (IF: 3.002, Q2, 87/257 Pharmacology & Pharmacy). 30. Serrano DR, Lalatsa A, Dea MA, Bilbao P, Garret NL, Moger J, Guarro J, Capilla J, Ballesteros MP, Schätzlein AG, Bolas F, Torrado JJ, Uchegbu IF (2015). Oral Particle Translocation to Lung, Liver and Spleen Confers Oral Amphotericin B Activity in Visceral Leishmaniasis and Aspergillosis. *Mol Pharm*. 2;12(2):420\_31. (IF 4.342, Q1, 38/255 Pharmacology & Pharmacy). 31. Hernandez L, Bolas F, Montoya A, Checa R, Dado D, Galvez R, Serrano DR, Torrado JJ, Otranto D, Latrofa MS, Miro G (2015). Unresponsiveness of experimental canine leishmaniasis to a new amphotericin B formulation. *Advances in Pharmacology*, Vol 2015, 1\_13. 32. Corral MJ, Serrano DR, Moreno I, Torrado JJ, Domínguez M, Alunda JM (2014). Efficacy of low doses of amphotericin B plus allicin against experimental visceral leishmaniasis. *J Antimicrob Chemother*. 69(12):3268\_74. (IF 5.439, D1, 17/256 Pharmacology & Pharmacy). 33. Ruiz HK, Serrano DR, Dea\_Ayuela MA, Bilbao\_Ramos PE, Bolás\_Fernández F, Torrado JJ, Molero G (2014). New amphotericin B\_ gamma cyclodextrin formulation for topical use with synergistic activity against diverse fungal species and *Leishmania* spp. *Int J Pharm*. 473(1\_2):148\_57. (IF 3.785, Q1, 45/256 Pharmacology & Pharmacy). 34. Serrano DR, Ballesteros MP, Schätzlein AG, Torrado JJ, Uchegbu IF (2013). Amphotericin B Formulations – The Possibility of Generic Competition. *Pharmaceutical Nanotechnology* 1(4): 250\_8. 35. Serrano DR, Hernandez L, Flerie L, Gonzalez I, Montoya A, Ballesteros MP, Dea MA, Miro G, Bolas F, Torrado JJ (2013). Hemolytic and pharmacokinetic studies of liposomal and particulate amphotericin B formulations. *Int J Pharm*. 447:38– 46. (IF 3.785, Q1, 45/256 Pharmacology & Pharmacy). 36. Torrado JJ, Serrano DR, Uchegbu IF (2013). The Oral Delivery of Amphotericin B. *Ther Deliv*. 4(1), 9\_12. 37. Serrano DR, Ruiz\_Saldaña HK, Molero G, Ballesteros MP, Torrado JJ (2012). A novel formulation of solubilised amphotericin B designed for ophthalmic use. *Int J Pharm*. 1;437(1\_2):80\_2. (IF 3.458, Q1, 61/261 Pharmacology & Pharmacy). TOPIC: 3D printing of medicines 38. Osouli\_Bostanabad K, Puliga S, Serrano DR, Bucchi A, Halbert G, Lalatsa A (2022). Microfluidic Manufacture of Lipid\_Based Nanomedicines. *Pharmaceutics*. 2022 Sep 14;14(9):1940. (IF: 6.525, Q1). 39. Malebari AM, Kara A, Khayyat AN, Mohammad KA, Serrano DR (2022). Development of Advanced 3D Printed Solid Dosage Pediatric Formulations for HIV Treatment. *Pharmaceutics (Basel)*. 31;15(4):435. (IF: 5.215, Q1). 40. Yuste I, Luciano FC, González\_Burgos E, Lalatsa A, Serrano DR (2021). Mimicking bone microenvironment: 2D and 3D in vitro models of human osteoblasts. *Pharmacol Res*.169:105626. (IF: 7.658, Q1, D1). 41. Sánchez\_Guirales SA, Jurado N, Kara A, Lalatsa A, Serrano DR (2021). Understanding Direct Powder Extrusion for Fabrication of 3D Printed Personalised Medicines: A Case Study for Nifedipine Minitablets. *Pharmaceutics*. 2021 Sep 29;13(10):1583. (IF: 6.321, Q1). 42. Kara A, Vassiliadou A, Ongoren B, Keeble W, Hing R, Lalatsa A, Serrano DR (2021). Engineering 3D Printed Microfluidic Chips for the Fabrication of Nanomedicines. *Pharmaceutics*. 13(12):2134 (IF: 6.321, Q1). 43. Ayyoubi S, Cerda JR, Fernandez\_García R, Knief P, Lalatsa A, Healy AM, Lalatsa A, Serrano DR (2021). 3D printed spherical mini\_tablets: Geometry versus composition effects in controlling dissolution from personalised solid dosage forms. *Int J Pharm*, 597:120336 (1\_15) (IF:5.875, Q1). 44. Fernández\_García R, Prada M, Bolas\_Fernandez F, Ballesteros MP, Serrano DR (2020). Oral Fixed\_Dose Combination Pharmaceutical Products: Industrial Manufacturing Versus Personalized 3D Printing. *Expert review. Pharm Res*, 37 (132). (IF:3.896, T1, Q2). 45. Cerda JR, Arifi A, Ayyoubi S, Knief P, Ballesteros MP, Keeble W, Barbu E, Healy AM, Lalatsa A, Serrano DR (2020). Personalised 3D Printed Medicines: Optimising Material Properties for Successful Passive Diffusion Loading of Filaments for Fused Deposition Modelling of Solid Dosage Forms. *Pharmaceutics*, 12(4):1\_24 (IF:4.421, Q1). 46. Serrano DR, Terres MC, Lalatsa A (2018). Applications of 3D printing in cancer. *Review. Journal of 3D printing in medicine*, 2(3):1\_16. 47. Konta AA, García\_Piña M, Serrano DR (2017). Personalised 3D Printed Medicines: Which Techniques and Polymers Are More Successful? *Bioengineering (Basel)*: 4(4). TOPIC: Pharmaceutical development and innovative medicines 48. González\_González O, Ramirez IO, Ramirez BI, O'Connell P, Ballesteros MP, Torrado JJ, Serrano DR (2022). Drug Stability: ICH versus Accelerated Predictive Stability Studies. *Pharmaceutics*. 28;14(11):2324. (IF: 6.525, Q1). 49. Rodríguez MJ, Serrano DR, Torrado JJ (2022). Effect of Primary Packaging Material on the Stability Characteristics of Diazepam and Midazolam Parenteral Formulations. *Pharmaceutics* 14 (10): 2061. (IF: 6.525, Q1). 50. Rodríguez\_Torrado M, Kara A, Torrado S, Romero A, Juberías A, Torrado JJ, Serrano DR (2022). In Vitro and In Vivo Characteristics of Olive Oil as Excipient for Topical Administration. *Pharmaceutics*. 26;14(12):2615 (IF: 6.525, Q1). 51. Esteban\_Cartelle B, Vicente\_Oliveros N, Pérez\_Menéndez\_Conde C, Serrano DR, Martín\_Dávila P, Fortún\_Abete J, León\_Gil LA, Alvarez\_Díaz A (2022). Antibiotic stability in portable elastomeric infusion devices: A systematic review. *Am J Health Syst Pharm*. 5;79(16):1355\_1368. (IF: 2.980, Q3). 52. Torrado\_Salmeron C, Laguna A, Guillén A, Saro MG, Matji A, Torrado JJ, Serrano DR (2022). Tailoring Rational Manufacturing of Extemporaneous Compounding Oral Dosage Formulations with a Low Dose of Minoxidil. *Pharmaceutics*. 17;14(3):658 (IF: 6.525, Q1). 53. Nambiar AG, Singh M, Mali AR, Serrano DR, Kumar R, Healy AM, Agrawal AK, Kumar D (2022). Continuous Manufacturing and Molecular Modeling of Pharmaceutical Amorphous Solid Dispersions. *AAPS PharmSciTech*. 2022 Sep 2;23(7):249. (IF:4.026, Q2). 54. Romero A, Ramos E, López\_Muñoz F, De Los Ríos C, Egea J, Gil\_Martín E, Pita R, Torrado JJ, Serrano DR, Juberías A (2021). Toxicology of Blister Agents: Is Melatonin a Potential Therapeutic Option? *Diseases*. 10;9(2):27. 55. Matji A, Vargas E, Carvajal L, Terleira AI, Portoles A, García\_Arieta A, Torrado JJ, Serrano DR (2020). Effect of enantiomerism on the bioequivalence of a new ibuprofen 600 - mg tablet formulation obtained by roller compaction. *Chirality* 32 (2), 185\_190 (IF: 2.171, Q3). 56. Matji A, Donato N, Gagol A, Morales E, Carvajal L, Serrano DR, Worku ZA, Healy AM, Torrado JJ (2019). Predicting the critical quality attributes of ibuprofen tablets via modelling of process parameters for roller compaction and tableting. *Int J Pharm* 565, 209\_218 (IF:4.845, Q1). 57. Serrano DR, Gordo MJ, Matji A, González S, Lalatsa A, Torrado JJ (2019). Tuning the transdermal delivery of hydroquinone upon formulation with novel permeation enhancers. *Pharmaceutics* 11 (4), 167 (IF:4.421, Q1). 58. Walsh D, Serrano DR, Worku ZA, Madi AM, O'Connell P, Twamley B, Healy AM (2018). Engineering of pharmaceutical cocrystals in an excipient matrix: Spray drying versus hot melt extrusion. *International Journal of Pharmaceutics* 551 (1\_2), 241\_256 (IF: 4.845, Q1). 59. Serrano DR, Walsh D, O'Connell P, Mugheirbi N, Worku ZA, Bolas\_Fernandez F, Galina C, Dea MA, Healy AM (2018). Optimising the in vitro and in vivo performance of oral cocrystal formulations via spray coating. *Eur J Pharm Biopharm*, 124:13\_27 (IF: 4.159, Q1, 43/257 Pharmacology & Pharmacy). 60. Walsh D, Serrano DR, Worku ZA, Norris BA, Healy AM (2017). Production of Cocrystals in an Excipient Matrix by Spray Drying. *Int J Pharm*. 536(1):467\_477. (IF:3.649, Q1, 56/527, Pharmacology and Pharmacy). 61. Matji A, Carvajal L, Conde F, Peña MA, Donato N, Serrano DR, Torrado JJ (2017). Effect of the characteristics of raw material ibuprofen on roller compaction and dissolution. *Journal of Drug Delivery Science and Technology*, 42: 237\_244 (IF:1.194, Q4, 216/257, Pharmacology & Pharmacy). 62. Píneros I, Slowing K, Serrano DR, de Pablo E, Ballesteros MP (2017). Analgesic and anti\_inflammatory controlled\_released injectable microemulsion: Pseudo\_ternary phase diagrams, in vitro, ex vivo and in vivo evaluation. *Eur J Pharm Sci*. 1;101:220\_227. (IF: 3.616, Q2, 68/261 Pharmacology & Pharmacy). 63. Serrano DR, Mugheirbi NA, O'Connell P,

Leddy N, Healy AM, Tajber L (2016). Impact of Substrate Properties on the Formation of Spherulitic Films: A Case Study of Salbutamol Sulfate. *Cryst. Growth Des.*,16 (7), 3853–3858 (IF: 4055, Q1, 4/26 Crystallography, 51/257 Material Science). 64.

Serrano DR, Persoons T, D'Arcy DM, Galiana C, Dea Ayuela MA, Healy AM (2016). Modelling and shadowgraph imaging of cocrystal dissolution and assessment of in vitro antimicrobial activity for sulfadimidine/4\_aminosalicylic acid cocrystals. *Eur J Pharm Sci.* 30;89:125\_36 (IF: 3.756, Q1, 54/257 Pharmacology & Pharmacy). 65. Serrano DR, O'Connell P, Paluch KJ, Walsh D, Healy AM (2016). Cocrystal habit engineering to improve drug dissolution and alter derived powder properties. *J Pharm Pharmacol.* 68(5): 665\_77(IF: 2.405, Q3, 130/257 Pharmacology & Pharmacy). 66. Serrano DR, Gallagher, KH, Healy AM (2015). Emerging Nanonisation Technologies: Tailoring Crystalline Versus Amorphous Nanomaterials. *Curr Top Med Chem.* 15(22):2327\_40. (IF 2.900, Q2, 21/59 in Chemistry Medicinal). 67. Garret NL, Godfrey, L, Lalatsa A, Serrano DR, Uchegbu IF, Schatzlein A, Moger, J (2015). Detecting polymeric nanoparticles with chereant anti' Stokes Raman scattering microscopy in tissues exhibiting fixative' induced autofluorescence. *Proceedings SPIE*, 9329. 68. Grossjohann C, Serrano DR, Paluch KJ, O'Connell P, Vella\_Zarb L, Manesiotis P, McCabe T, Tajber L, Corrigan OI, Healy AM (2015). Polymorphism in sulfadimidine/4\_aminosalicylic Acid cocrystals: solid\_state characterization and physicochemical properties. *J Pharm Sci.*104(4):1385\_98.(IF 3.007, Q2, 77/256 Pharmacology & Pharmacy). 69. Serrano DR, Lalatsa A (2013). Peptide pills for brain diseases? Reality and future perspectives. *Ther Deliv.* 4(4):479:501. 70. Serrano DR, Torrado S, Torrado\_Santiago S, Gisbert JP (2012). The influence of CYP2C19 genetic polymorphism on the pharmacokinetics/pharmacodynamics of proton pump inhibitor\_containing *Helicobacter pylori* treatments. *Curr Drug Metab.* 13(9):1303\_12. (IF 4.405, Q1, 36/261 Pharmacology & Pharmacy). Book Chapters 1. Aytug Kara, Jose R. Cerda, Iván Yuste, Francis C. Luciano, Brayan J. Anaya, and Dolores R. Serrano (2022). Chapter 3. 3D printing technologies for personalised drug delivery. In: *Emerging Drug Delivery and Biomedical Engineering Technologies: Transforming Therapy*. Ed. Dimitrios Lamprou. Editorial: CRC Press. ISBN: 9781032122717. 2. Serrano DR, Cerda JR, Fernández\_García R, Perez LF, Ballesteros MP, Lalatsa A (2019). Chapter 9: Market Demands in 3D Printing Pharmaceuticals Products: Polypills, Microneedles and Hydrogels. In: *3D Printing Technology in Nanomedicine*. Ed. Ahmad, Gopinath & Dutta. Editorial: Elsevier. Pag 165\_183. ISBN: 9780128158906. 3. Serrano DR, Romera G, Vicente N, Ruiz R, López E, González E (2017). Capítulo 1. Características del paciente polimedcado. Puntos claves del tratamiento farmacológico y no farmacológico. En: *Enfermería y paciente polimedcado*. Editorial Díaz de Santos. ISBN:978\_9052\_085\_7\_4. Hamzeh N, Magaña C, Serrano DR (2017). Capítulo 2: Evaluación integral del paciente polimedcado. Herramientas para la despolimedcación y adecuación farmacoterapéutica. En: *Enfermería y paciente polimedcado*. Editorial Díaz de Santos. ISBN:978\_9052\_085\_7\_5. Serrano DR, Lalatsa A, Dea MA (2015). Capítulo 5: Farmacología de las enfermedades infecciosas y parasitarias. In: *Enfermería en prescripción, uso y manejo de fármacos* (p. 153\_177). Ed. Pous MP and Serrano DR. Editorial Díaz de Santos. ISBN:978\_84\_9969\_902\_8. 6. Serrano DR (2015). Capítulo 7: Farmacología del dolor y de la inflamación. In: *Enfermería en prescripción, uso y manejo de fármacos* (p. 153\_177). Ed. Pous MP and Serrano DR. Editorial Díaz de Santos. ISBN:978\_84\_9969\_902\_8. 7. Serrano DR, Ruiz R (2015). Capítulo 9: Uso de medicamentos en situación especiales. In: *Enfermería en prescripción, uso y manejo de fármacos* (p. 153\_177). Ed. Pous MP and Serrano DR. Editorial Díaz de Santos. ISBN:978\_84\_9969\_902\_8. 8. Serrano DR, Lalatsa A (2013). Part 2. Chapter 2: Active targeting. En: *Fundamentals of Pharmaceutical Nanoscience* (p. 337\_374). Ed. Uchegbu IF, Schatzlein A, Cheng WP, Lalatsa A. Springer Sciences + Business Media New York. ISBN: 978\_1\_4614\_9163\_7.

## Projects

Competitive projects Title: Engineering of Hydrogels and 3D Printed Personalised implants to target prosthetic joint and heart valve infections (PID2021\_1263100A\_100). Funding body Spanish Scientific and Innovation Ministry (116.000 €) Participants: Universidad Complutense de Madrid Period: 01/09/2022 – 31/08/2025 (36 months) PI: Dolores R. Serrano Title: Pharmadditive – Developing personalised medicines adapted to your needs: Spin Off company creation Funding body Universidad Complutense de Madrid – 15.000€ Participants: Universidad Complutense de Madrid & Pharmadditive Period: 06/12/2022 – 06/12/2023 (12 months) PI: Dolores R. Serrano Title: Assessment of the employability of PhD students at the Complutense University of Madrid (Project 33). Funding body Convocatoria de proyectos del observatorio del estudiante (POE\_UCM)\_ 6.995€ Participants Universidad Complutense de Madrid Period: 01/05/2022 – 31/12/2022 (7 months) IP: Elena González/Ana Isabel Fraguas Title: Consumption of Cannabis and mental health of Students at the University:UNI\_MAD Accion plan in the university community Funding body: Spanish Health Ministry (PR39/22) – 43.423€ Participants: Universidad Complutense de Madrid, Universidad Autónoma de Madrid, Universidad de Alcalá de Henares, Universidad Rey Juan Carlos Period: 15/11/2022 – 15/11/2023 (12 months) PI: Elena González Title: Development of Master in Pharmaceutical Technology and Drug development: Entrepreneurship and promotion of future iberoamerican leaders (16/2022) Funding body: XVIII Cooperation Sustainability Projects from Universidad Complutense de Madrid 14.130€ Participants Universidad Complutense de Madrid and Universidad UTESA \_ UASD in Dominican Republic Period: 01/03/2022 – 31/12/2022 (10 months) PI: Dolores R. Serrano Title: Unlocking the key to promote gender equality in STEM disciplines (48\_13\_ID22) Funding body: Spanish Ministry of Equality (8.625 €) Participants Universidad Complutense de Madrid Period: 01/09/2022 – 01/09/2023 (12 months) IP: Ana Isabel Fraguas Title: Breaking the glass ceiling in STEM disciplines: analysis and implementation of novel policies to promote women empowerment (3/6ACT/22) Funding body: Spanish Ministry of Equality (16.654.48 €) Participants Universidad Complutense de Madrid Period: 01/09/2022 – 01/09/2023 (12 months) PI: Elena González Title: Mental health disorders and intake of psychoactive substances in college students (Project 25). Funding body: Convocatoria de proyectos del observatorio del estudiante (POE\_UCM)\_ 6.944€ Participants: Universidad Complutense de Madrid Period: 01/10/2021 – 31/07/2022 (10 months) PI: Dolores R. Serrano/Elena González Title: Breaking the gender inequality gap in R & D: Entrepreneurship of women in STEM disciplines (18/15ACT/21) Funding body: Spanish Equality Ministry (18.033,34 €) Participants: Universidad Complutense de Madrid and Business International Women Period: 01/01/2022 – 31/12/2022 (12 months) PI: Dolores R. Serrano Title: Bridging the gap of 3D printed personalised therapies in the Caribe (4/2021) Funding body: XVII Cooperation Sustainability Projects from Universidad Complutense de Madrid (13.939€) Participants: Universidad Complutense de Madrid y Universidad UTESA de República Dominicana Period: 01/05/2021 – 31/12/2021 (7 months) PI: Dolores R. Serrano Title: Combating fungal prosthetic joint infections by tailoring release of antifungals loaded in microparticulate hydrogels and 3D printed implants Funding body: ESCMID Research Grant 2021 (19.715€) Participants: Universidad Complutense de Madrid Period:01/03/2021 – 01/07/2022 (15 months) PI: Dolores R. Serrano Title:: Insitutional equipment funding – HPLC UV lamp acquisition (AEC44/20\_23141) Funding body: Universidad Complutense de Madrid (1.062,44€) Participants: Universidad Complutense de Madrid Period: 01/01/2020 – 31/12/2020 (12 months) PI: Dolores R. Serrano Title: Research assitant fellowship (PEJ\_2019\_AI/IND13859) Funding body: EU social funding (34.065€) Participants: Universidad Complutense de Madrid Period: 01/02/2020 – 31/01/2022 (24 months) PI: Dolores R. Serrano Title: Development of novel methods to manufacture medicines using supercritical fluids based on CO2. (RTI2018\_097230\_B\_I00) Funding body: Spanish Science and Innovation Ministry (98.010€) Participants: Universidad Complutense de Madrid Period: 01/01/2019 \_ 31/12/2021 (36 months) PI: Albertina Cabañas Poveda Title: Insitutional equipment funding syringe pump (AEC13/19\_22380) Funding body: Universidad Complutense de Madrid (399€) Participants: Universidad Complutense de Madrid Period: 01/01/2019 – 31/12/2019 (12 months) PI: Dolores R. Serrano Title: Gravimetric techniques comparison with NIR chemometric analysis in the hospital pharmacy for cytotoxic drugs Funding body: SEFH (Sociedad Española de farmacia hospitalaria (9.795€) Participants: Universidad Complutense de Madrid and Hospital Ramón y Cajal Period: 01\_09\_2018 – 30/11/2019 (15 months) PI: Ana Herranz Alonso Title: Insitutional equipment funding – Stability chambers for accelerated studies (AEC16/18\_21636) Funding body: Universidad Complutense de Madrid (1.000€) Participants Universidad Complutense de Madrid Period: 01/01/2018 – 31/12/2018 (12 months) PI: Dolores R. Serrano Title: Insitutional equipment funding – Centrifuge for microtubes (AEC9/17\_20783) Funding body: Universidad Complutense de Madrid (950€) Participants: Universidad Complutense de Madrid Period: 01\_01/2017 – 31/12/2017 (12 months) PI: Dolores R. Serrano Title:: Quality by design of novel fixed\_dose combination products for the treatment of leishmaniasis and systemic mycoses (PR26/16\_20355) Funding body: Santander Bank (6.000€) Participants: Universidad Complutense de Madrid Period: 01\_12/2016 – 01/12/2017 (12 months) PI: Francisco Bolás Fernández Title:: Closing the global health innovation gap with nano\_enabled medicines for leishmaniasis. International

cooperation projects for mobility (ENF03/2017). Funding body: Unión Iberoamericana de Universidades (8.500€) Participants: UCM, Universitat de Barcelona, Universidade de São Paulo, Universidade Estadual Paulista, University of Portsmouth, Universidad CEU, Universitat Autònoma de Barcelona Period: 01/09/2017 – 31/08/2018 (12 months) PI: Francisco Bolás Fernández Title: Assessment of the biological activity of novel formulations of nifurtimox and amphotericin B (14\_INV\_022) Funding body: Paraguay Ministry\_ Conacyt (796.850.000 Gs paraguayos, equivalente a 120.000€) Participants: Fundación Moisés Bertoni, Portsmouth University, Universidad CEU, Trinity College Dublin Period: 2015\_01\_15 – 2017\_01\_15 (24 months) PI: Miriam Rolón B.3. Industrial projects Title: Evaluation of the immunological properties of novel nucleotides Funding body: Bioiberica (13.640€) Period: 15/03/2022 – 15/09/2023 (18 months) PI: Dolores Serrano Title: Evaluation of antibiotic stability in elastomeric infusers for portable therapies Funding body: Fundación investigación Biomedica Hospital Ramón y Cajal (9.950€) Period: 15/01/2022 – 15/01/2025 (36 months) PI: Dolores Serrano/ Elena González Title: Advanced characterization of topical dosage forms Funding body: Industrial Farmacéutica Cantabria (11.000€) Period: 23\_11\_2021 –/22\_11\_2024 (36 months) PI Dolores R. Serrano Title: Assessment of the drying capacity of natural extract by spray drying and lyophilisation Funding body: Algaenergy (1.000€) Period: 21/07/2021 – 21/07/2022 (12 months) PI: Dolores Serrano Title: Stability studies of extemporaneous compounding formulations Funding body: Fundación investigación Biomédica Hospital Gregorio Marañón (2.500€) Period: 25/02/2021 – 25/12/2022 (22 months) PI: Dolores Serrano/ Elena González Title: Melves – Development of novel pharmaceutical dosage forms with melatonin for the treatment of vesicant war agents. Funding body: Defense Ministry \_ SYP41804 CONTRAMEDIDAS MÉDICAS\_MELVES (230.000€) Expediente: 10032/20/0085/00 (2020/SP03390102/00000359). Period: 10/12/2020 – 10/12/2022 (25 months) PI: Alejandro Romero Martínez Title: Manufacturing of cocrystals Funding body: CIRCE (Center for Intelligent Research in Crystal Engineering) (7.000€) Period: 01/12/2020 – 30/11/2021 (12 months) PI: Dolores Serrano/ Juan Torrado Title: Industrial Extraction of Cannabis Funding body: Good Earth S.L. (2.250 €) Period: 26/02/2020 – 26/02/2021 (12 months) PI: Lourdes Calvo/ Dolores Serrano Title: Trilostan 2 mg/ml oral solution/suspension Funding body: VETPHARMA ANIMAL HEALTH, S.L. (30.000€) Period: 30/09/2019 – 30/09/2022 (36 months) PI: Juan J. Torrado/Susana Torrado Title: Cosmetic evaluation of wild oil compared to other natural vegetable oils Funding body: MONVA, S.L. (2.000€) Period: 10/07/2019 – 10/07/2022 (36 months) PI: Juan J. Torrado /Susana Torrado Title: Evaluation of the microrbiological and physicochemistry evaluation of extemporaneous compounding formulaitions of sodium chromoglycate Funding body: Spanish Association of Mastocytosis (2500€) Period: 19/12/2019\_19/12/2022 (36 months) PI: Dolores R. Serrano Title: Analysis of physicochemical parameters of topical formulations Funding body: Industrial Farmacéutica Cantabria (24.000€) Period: 17\_07\_2018 –/17\_07\_2021 (36 months) PI: Dolores R. Serrano Title: Encapsulation of poorly water soluble drugs in lipid carriers to enhance their oral absorption Funding body: HC Clover S.L.(4.400€) Period: 21\_05\_2018 / 14\_06\_2021 (36 months) PI: Dolores R. Serrano Title: Stability studies of hospital formulations Funding body: HOSPITAL UNIVERSITARIO FUNDACIÓN ALCORCÓN (7.500 €) Period: 22/06/2017\_29/06/2020 (36 months) PI: Susana Torrado Durán Title: Evaluation of the antileishmanial evaluation of natural immunomodulators based on nucleotides Funding body: Bioibérica S.A. (8.140 €) Period: 11/07/2016\_11/12/2016 (5 months) PI: Francisco Bolás Title: Stability of Sodium cromoglycate formulations Funding body: Spanish Association of Mastocytosis (1,600€) Period: 19/10/2017\_19/04/2018 (6 months) PI: Dolores R. Serrano Title: Preparation of amphotericin B encapsulated in albumin microspheres Funding body: University of Portsmouth (2,500€) Period: 24/03/2017 – 15/06/2017 (3 months) PI: Dolores R. Serrano Title: Dissolution profile of drugs Funding body: Alkemi Pharma (500€/tets) Period: 11/07/2016 – 10/07/2019 (36 months) PI: Juan José Torrado Durán Title: Ketoconazol cream evaluation Funding body: Kern Pharma. Proyecto OTRI 2016 (7.000€) Period: 2016\_02\_10 / 2016\_04\_10 (2 months) PI: Dolores R. Serrano/Juan J. Torrado

#### Memberships

American Association of Pharmaceutical Scientists Sociedad Española de Farmacia Industrial y Galénica European Society of Clinical Microbiology and Infectious Diseases

#### Other Relevant Information