

Part A. PERSONAL INFORMATION		CV date	11/04/2021
First and Family name	M ^a José Alonso Fernández		
Social Security, Passport, ID number	09724164V	Age	62
Researcher numbers	Researcher ID	35073488900	
	Orcid code	0000-0001-7187-9567	

A.1. Current position

Name of University/Institution	Universidad de Santiago de Compostela		
Department	CIMUS Research Institute		
Address and Country	Avda. de Barcelona s/n		
Phone number	881815454	E-mail	Maríaj.alonso@usc.es
Current position	Full Professor	From	01/03/1988
Espec. cód. UNESCO	3209		
Palabras clave	Nanomedicine, Drug Delivery, Nanovaccines, Nanocarriers		

A.2. Education

PhD	University	Year
Master in Pharmacy	Santiago de Compostela	1981
PhD in Pharmacy	Santiago de Compostela	1985

A.3. JCR articles, h Index, thesis supervised

Number of articles published: **300, plus 2 Books**

N^o Doctoral Thesis supervised: **41**

Number of Cites: 19.181 cites, 31.385 (Google scholar)

H Index: **75** (ISIweb); **94** (Google scholar)

Periods of six years of research: 6 (last one 2012-2017)

Part B. CV SUMMARY (max. 3500 characters, including spaces)

María José Alonso is full professor of Biopharmaceutics and Pharmaceutical Technology at the University of Santiago de Compostela (USC), since 1998. From 2006-2010, she was the Vice-rector of Research and Innovation of the USC. She has worked as a visiting scientist at University of Paris XI, (1986-87), at University of Angers, France (1989) and at MIT, US, during 1991-1992 and in 2012.

Her lab has 3-decades experience in the formulation of macromolecules, i.e. peptides, proteins, antigens, monoclonal antibodies and polynucleotides using polymer-based delivery systems, and has pioneered numerous discoveries in the field of Pharmaceutical Nanotechnology and nanomedicine.

María J. Alonso has coordinated several research consortia financed by the **WHO, the Gates Foundation and the European Commission**. She is the most cited author in Spain in the area of Pharmacy and Pharmacology and has been among the TOP TEN in Pharmacology (Times Higher Education international ranking, 2010). Recently, she become part of the "Power List" of the most influential researchers in the field of Biopharmaceutics (The Medicine Maker, 2020)

She has also been very active transferring her knowledge to industry. She is the **inventor of 22 patent families**, most of them licensed to industry and she has been part of 3 start-up ventures.

She has served to the Controlled Release Society (CRS) for 15 years and she has been **President of the CRS** (2017-19). She is also Editor-in-Chief of the Drug Delivery and Translational Research, an official journal of the CRS, and she is part of the editorial board of 12 journals.

She has received 36 awards, among them the "**Research and Education Excellence Medal**" granted by the Spanish Government, the "Jaime I Award", the General Council of Pharmacy Medal, and other awards granted by scientific organizations (see below). She is a fellow of the American Institute for Medical and Biological Engineering (AIMBE) and a Fellow of the Controlled Release Society, a member of two academies in Galicia, the **Royal Academy of Pharmacy of Spain (RANF)**, a member of the **Royal Academy of Medicine of Belgium** and also a member of the **US National Academy of Medicine (NAM)**.

Part C. RELEVANT MERITS

C.1. Publications (last 10 years)

Zhigao N., Samaridou E., Jaumain E., Coëne J., Ullio G., Shrestha N., Garcia J., Durán-Lobato M., Tovar S., Santander-Ortega M.J., Victoria Lozano M.V., Arroyo-Jiménez M.M., Ramos-Membrive R., Peñuelas I., Mabondzo A., Préat V., Teixidó M., Giralt E., Alonso M.J., PEG-PGA Enveloped Octaarginine-Peptide Nanocomplexes: An Oral Peptide Delivery Strategy, **J. Control. Rel.** 276(C), 125-139 (2018)

Crecente-Campo J., Alonso M.J., Engineering, on-demand manufacturing, and scaling-up of polymeric nanocapsules, **Bioeng. Transl. Med.**, 2018; 1-13 (2018)

Crecente-Campo J., Lorenzo-Abalde S., Mora A., Marzoa J., Csaba N., Blanco J., González-Fernández A., Alonso M.J., Bilayer polymeric nanocapsules: A formulation approach for a thermostable and adjuvanted E. coli antigen vaccine, **J. Control. Rel.**, 286, 20-32 (2018)

Crecente-Campo J., Virgilio T., Morone D., Cristina Calviño-Sampedro C., Fernandez-Mariño D., Olivera A., Varela-Calviño R., Gonzalez S.F., Alonso M.J., Design of polymeric nanocapsules to improve their lympho-targeting capacity, **Nanomedicine**, 14, 3013-3033 (2019)

Cadete A., Olivera A., Besev M., Dhal P.K., Gonçalves L., Almeida A.J., Bastiat G., Benoit J.P., de la Fuente M., Garcia-Fuentes M., Alonso M.J., Torres D., Self-assembled hyaluronan nanocapsules for the intracellular delivery of anticancer drugs, **Scientific Reports**, 9, Article number: 11565 (2019)

M. Ledo A., Sasso M.E., Bronte V., Marigo I., Boyde B.J., Garcia-Fuentes M., Alonso M.J., Co-delivery of RNAi and chemokine by polyarginine nanocapsules enables the modulation of myeloid-derived suppressor cells, **J. Control. Rel.**, 295, 60–73 (2019)

Teijeiro-Valiño C, Novoa-Carballal R., Borrajo E., Vidal A., Alonso-Nocelo M., de la Fuente Freire M., Lopez-Casase P.P., Hidalgo M., Csaba N., Alonso M.J., A multifunctional drug nanocarrier for efficient anticancer therapy, **J. Control. Rel.**, 294, 154–164 (2019)

Molina-Crespo A., Ana Cadete, David Sarrio, Gamez Chiachio M., Martinez L., Chao K., Olivera A., Gonella A., Diaz A., Palacios J., Dhal P.K., Besev M., Rodriguez-Serrano M., García-Bermejo M.L., Triviño J.C., Cano A., Garcia-Fuentes M., Herzberg O., Torres D., Alonso M.J., Moreno-Bueno G., Intracellular delivery of an antibody targeting Gasdermin-B reduces HER2 breast cancer aggressiveness, **Clin Cancer Res**; 25(15), 4846-4858 (2019)

Durán-Lobato M., Zhigao N., Alonso M.J., Oral delivery of biologics for precision medicine, **Adv. Mater.** 1901935 (2019)

Samaridou E., Walgrave H., Salta E., Moreira Álvarez D., Castro-López V., Loza M., Alonso M.J., Nose-to-brain delivery of enveloped RNA - cell permeating peptide nanocomplexes for the treatment of neurodegenerative diseases, **Biomaterials**, 230, 119657 (2020)

C.2. Research projects and grants

“A Pilot Plant for the Production of Polymer based Nanopharmaceuticals in Compliance with GMP” (NANOPILOTS), Financed by the EUROPEAN COMMISSION–H2020-NMP-PILOTS-2014 (2015-2019), 273.500€ (Partner, PI)

“Application of nanotechnology for the development of vaccines for autoimmunity”, financed by the Spanish Ministry of Economy and Competitiveness (2015-2018), 190.000€ (Coordinator, PI)

“Brain-Specific, Modular and Active RNA Therapeutics” B-SMART, financed by the EUROPEAN COMMISSION– H2020-NMBP-2016-2017 (2016-2021), 551.375€ (Partner, PI)

“Development of customized treatments for glaucoma. Emphasis on child and elderly populations” (GLAUKUS) financed by the Spanish Ministry of Economy and Competitiveness (2016-2019), RETOS Program-Industry collaboration, 140.140€ (Partner, PI)

“Innovative solutions for the treatment of dry eye combined with eye pain” (SEKEYE) financed by the Spanish Ministry of Economy and Competitiveness (2016-2019), RETOS Program- Industry collaboration, 209.160€, (Partner; PI)

“Nano-Immunotherapy: Intracellular Targeting of Cancer Cells and Tams”, Spanish Ministry of Economy and Competitiveness, EuroNanoMedIII – ERA NET (PCIN-2017-129/ AEI) (2017-2020), 150.000€ (Coordinator, PI)

“Integrated Nano-Immunotherapies Targeted to Intracellular Proteins Relevant in Cancer”, Spanish Ministry of Economy and Competitiveness (SAF2017-86634-R), (2018-2020), 150.000€ (Partner, PI)

“Meniscal functionalised scaffold to prevent knee Osteoarthritis onset after meniscectomy” (MEFISTO), EUROPEAN COMMISSION- H2020-NMBP-TR-IND-2018-2020- Grant N. 814444 (2019-2022), 482.197€ (Partner, PI)

“Preclinical development of innovative mRNA/MVA vaccines against SARS-CoV2” (COVARNA), Instituto Salud Carlos III (2020), 100.000€ (Partner, PI)

“2[^]2-INTRATARGET: Nanocarriers to deliver antibodies towards intracellular targets in cancer cells”, Instituto Salud Carlos III, EuroNanoMedIII – ERA NET (AC20/00028) (2020-2023), 250.000€ (Coordinator, PI)

C.3. Contracts with Industry

“CEYEC Project”, financed by Faes Farma and Ministry of Science and Innovation, Spain (2010-2012) (135.978€)

“Cooperation Agreement on Post-Doctoral Project”, financed by NovoNordisk (2011-2012) (62.035€)

“COLIVAC-Innterconecta Project, Financed by Nanogap S.A. and CZ Veterinaria (2013-15) (150.000€)

“Collaborative research agreement in the field of potential application of nanotechnologies in specific drug delivery”, Financed by Novartis Consumer Health, S.A. (2016-2017) (2017-2019) (361.130€)

“Advisory service to Cantabria Labs for the implementation of product design and development” (2018) (15.000€)

“Develop nanoparticles for delivery of nucleic acid cargo via the nose-to-brain route”, Financed by ELI LILLY and Company (2020-2021) (180.000€)

C.4. Patents

Alonso M.J., Torres D., García Fuentes M., Rivera G.R., Oyarzún F., Gonzalo T., Lollo G., Nanocápsules with a polymeric cover (P201130015), Licenced to Cantabria Labs, Libera Bio

Avilés P., Guillén M.J., Calvo P., Alonso M.J., Torres D., García Fuentes M., Gonzalo T., Lollo G., Nanocapsules for use in pharmaceutical compositions (EP11382003.9), Licenced to Pharmamar

Alonso M.J, Sanchez A., Vicente S., Saccharidic nanocompositions for vaccine delivery (ES201131074).

González Aramundiz J.V., Csaba N., Alonso M.J., Nanocapsules of protamine (EP2932965A1), Licenced to Smart Vitamins

Goldberg M.N., Alonso M.J., Chen K.J., Targeted buccal delivery of agents (US 61/767589), Licenced to Privo Technologies

Lenherr, G., Csaba N., Thwala. L., Zhigao N., Alonso M.J., Nanocapsular formulation of active pharmaceutical ingredients (PCT/EP2015/063164), Licenced to Sanofi

Alonso M.J., Zhigao N., Santander M.J., Nanoparticles with protected interiors and methods of use thereof (P201631221), In extension.

Alonso M.J., Teijeiro Osorio D., Teijeiro Valiño C., Cadete A., Polysialic Acid Drug Delivery Systems and Methods (P201731277), Licenced to Libera Bio and Smart Vitamins

Alonso M.J., Teijeiro Osorio D., Intracellular delivery of antiKRAS antibodies (EP19172120), Licenced to Libera Bio

C.5. Career awards granted by highly recognized institutions (selected)

“Novoa Santos” Award (2011)

“King Jaime I” Award on New Technologies (2011). This is the most prestigious award given in Spain to Spanish researchers, in recognition of an outstanding career.

“Medal of the General Council of Pharmacy” (2012)

“Women in Sciences” Award granted by the Xunta de Galicia (2013)

“Maurice Marie Janot Award” granted by the European Pharmaceutical Society (APGI). This is the most prestigious award in Pharmaceutical Technology in Europe (2013)

“CRS Founders Award”, granted by the Controlled Release Society, Inc. (CRS, Inc)

“CRS Outstanding Service Award”, granted by the Controlled Release Society, Inc. (CRS, Inc)

“CRS Women in Sciences Award”, granted by the Controlled Release Society, Inc. (CRS, Inc)

“AIM-HI Women’s Venture Competition”, NCI, US, 2020

“Castelao Medal” Award, the most important recognition granted by the Xunta de Galicia (2018)

“Award of Excellence in Research and Education” granted by the Ministry of Sciences and Innovation (2020)

C.6. Participation as a president/ governor or scientific board member scientific societies

1995-97: Founder and president of the Board of Directors of the “Spanish Portuguese Chapter of the Controlled Release Society”, Spain

1995-98: "Governor of the Controlled Release Society Inc.", USA

1998-00: Member of the "Board of Pharmaceutical Sciences" (1998-00), "(FIP) International Pharmaceutical Federation", USA

1997-00: Member of the "Scientific Advisory Board", "(APGI) Association de Pharmacie Galénique Industrielle", France

1997-00: Secretary of the Board of Directors of the “Spanish Portuguese Chapter of the Controlled Release Society”, Spain

2003-07: “Individual member representative”, (EUFEPS) European Federation for Pharmaceutical Sciences, Sweden

2012-2015: Member of the Advisory Board of the “Controlled Release Society (CRS, Inc).”

2013- : Director-at-Large- of the Controlled Release Society (CRS, Inc.)

2016-17: Secretary of the Controlled Release Society (CRS, Inc.)

2018-2019: President of the Controlled Release Society (CRS, Inc.)

2019- : Editor-in-chief of the Drug Delivery and Translational Research journal