Fecha del CVA	22/01/2026

Parte A. DATOS PERSONALES

Nombre	Armando		
Apellidos	Arias Esteban		
Sexo	Hombre	Fecha de Nacimiento	10/11/1976
DNI/NIE/Pasaporte			
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Dirección Email	aaesteban2@gmail.com		
Open Researcher and Contributor ID (ORCID)	0000-0002-4138-4608		

RESUMEN NARRATIVO DEL CURRÍCULUM

a) CV summary highlights. I am an expert virologist in the fields of viral replication and antiviral research. I have had the privilege to work in the labs of world-leading virologists, i.e. Ian Goodfellow (Cambridge, UK), Esteban Domingo (CBMSO, Spain) and Craig Cameron (PennState, USA), before establishing my independent research line in 2015. I gained early recognition for structure and functional studies on viral RNA polymerases, and the identification of replication fidelity determinants. Based on high error rates during viral replication, I also investigated the antiviral properties of mutagens against viruses (lethal mutagenesis), using drugs that were mutagenic for the virus but safe for the host. My current area of interest focuses on the identification of host factors interacting with orthoflavivirus polymerases, their role to the virus life cycle, and the development of antiviral strategies based on disrupting such interactions. As a result of my studies, I have published 47 JCR manuscripts (h-index of 29).

b) Extended CV summary 1998-2010. I completed PhD studies followed by a postdoctoral position (I3P-Doctores CSIC) in the lab of Prof Domingo. My research mainly focused on the molecular characterisation of FMDV polymerase (picornavirus), and the identification of the determinants modulating viral replication and fidelity in this enzyme (Ferrer-Orta et al 2004 JBC, *Arias & *Ferrer-Orta et al 2006 EMBO, Ferrer-Orta et al 2007 PNAS, Arias et al 2008 JVI). I gained insight in the relationship between structure and function during collaborations with Nuria Verdaguer (IBMB Barcelona) and Craig Cameron (PennState, USA). I co-supervised Rubén Agudo PhD Thesis (Extraordinary Award). He is now leading independent research at San Pablo CEU.

2010-2014. I joined the lab of Prof Goodfellow (Imperial College and Cambridge) under a Marie Curie fellowship (FP7 IEF program). I established reverse genetics and mouse models for norovirus infection. We obtained a proof-of-concept for lethal mutagenesis in vivo , using a mutagenic nucleoside that eliminated persistent infection in mice (Arias et al 2014 eLife; >130 citations). In addition, we identified several determinants of fidelity in norovirus polymerase (Arias et al 2016 mSphere). I co-supervised 3 MSc students.

2015. During the Ebola crisis in Sierra Leone, Prof Goodfellow and I set up a lab for on-site sequencing. I led the project for the first 3 months when most samples were processed. These studies permitted us to recreate the transmission chains during the epidemic (Arias et al 2016 Virus Evol; Dudas et al 2017 Nature, >90 and >270 citations each).

2015-2019. I joined DTU (Denmark) where I started independent research (Bassi et al 2018, AAC; Sempere & Arias, Viruses 2019). I obtained funding from Danish government (DFF, FTP Program; 350K EUR), and supervised 2 postdocs and 1 MSc student.

2020-present. I was awarded a Beatriz Galindo Senior Fellowship (MICIU) to return to Spain (UCLM). Recently, I have secured a tenure position as Profesor Titular de Universidad, also at UCLM. I have published 7 manuscripts, including the characterisation of an anticancer drug with virucidal properties, and the identification of host UBA1 as a critical factor to orthoflaviviral replication (Rodrigo et al 2022, 2025). As a PI, I have been awarded with five competitive grants since 2020, three from the MICIU and two from Junta de Castilla-La Mancha. I have supervised several researchers in my group, leading to one PhD Thesis completed (I. Rodrigo).

1. ACTIVIDAD INVESTIGADORA, DE TRANSFERENCIA E INTERCAMBIO DEL CONOCIMIENTO

1.1. PROYECTOS Y CONTRATOS DE INVESTIGACIÓN Y TRANSFERENCIA E INTERCAMBIO DEL CONOCIMIENTO

1.1.1. Proyectos

1 **Proyecto**. Diseccionando el papel antiviral de la proteína mitocondrial prohibitina 2 (PHB2) y las respuestas desplegadas por los flavivirus para contrarrestar su acción. Arias A. (Universidad de Castilla-La Mancha). 2025-2028. 105.559,15 €. Investigador principal.

2 **Proyecto**. PID2022-137974OB-I00, Flavivirus and autophagy: dissecting novel NS5 polymerase-host factor interactions, and their role to virus replication (NS5phagy). Ministerio Ciencia, Innovación y Universidades. Proyectos I+D+I, Plan Nacional 2019. Armando Arias. (Universidad de Castilla-La Mancha). 2023-2026. 225.000 €. Investigador principal.

3 **Proyecto**. CNS2022-135258, Deciphering the biological role of a cellular helicase (DDX21) during flavivirus infection in different hosts (FLAVIDEAD21). Ministerio de Ciencia e Innovación. Arias A. (Universidad de Castilla-La Mancha). 2023-2025. 193.929,5 €. Investigador principal.

4 **Proyecto**. SBPLY/21/180501/000076, Desentrañando el rol funcional de las proteínas celulares que interaccionan con la polimerasa viral durante la infección por flavivirus. Consejería de Educación, Cultura y Deportes de la Junta de Castilla-La Mancha. Mas A (PI 1); Arias A (PI 2). (Universidad de Castilla-La Mancha). 2022-2025. 119.850 €. Investigador principal.

5 **Proyecto**. BEAGAL18/00074, Contract as Beatriz Galindo Senior fellow. Ministerio de Ciencia y Universidades. (Universidad de Castilla-La Mancha). 2020-2024.

6 **Proyecto**. PID2019-106068GB-I00, Unravelling the biological role of flavivirus-polymerase cellular partners, and repositioning of host-targeting drugs in the control of infection (REPOVIR). Ministerio Ciencia, Innovación y Universidades. Proyectos I+D+I, Plan Nacional 2019. Mas A (PI 1); Arias A (PI 2). (Universidad de Castilla-La Mancha). 2020-2023. 169.400 €. Investigador principal.

7 **Proyecto**. 2021-COB-10555, High Performance Anti Viral Protection of Personal Protective Equipment using Nanoparticles (HAPPEN). CRUE-Santander. Chris Binns. (Universidad de Castilla-La Mancha). 2020-2021. 125.000 €.

8 **Proyecto**. Large thematic project. Brain Inflammation mediated by Adhesion RecepTors (BrainART). Grant number 2017-409. Lundbeck Fonden. Mette Rosenkilde. (University of Copenhagen). 2018-2021.

9 **Proyecto**. 6111-00104B, Lethal mutagenesis in the control of chronic disease caused by RNA virus. Independent Research Fund Denmark (DFF). Arias A. (Danmarks Tekniske Universitet). 2016-2019. 348.000 €. Investigador principal.

10 **Proyecto**. 097997/Z/11/A, Characterization of Ebola virus diversity during the EVD outbreak in Sierra Leone. Wellcome Trust. Ian Goodfellow. (Cambridge). 2015-2017. Miembro de equipo.

1.1.2. Contratos

1 **Contrato**. Distinguished Researcher (Investigador Distinguido) Universidad de Castilla-La Mancha. 2024-01/03/2025.

2 **Contrato**. Assistant Professor Koebenhavns Universitet. 2019-01/03/2019.

3 **Contrato**. Senior researcher (Independent research) Danmarks Tekniske Universitet. 2015-01/01/2019.

1.2. RESULTADOS Y DIFUSIÓN DE LA ACTIVIDAD INVESTIGADORA Y DE TRANSFERENCIA E INTERCAMBIO DE CONOCIMIENTO

1.2.1. Actividad investigadora

AC: Autor de correspondencia; (nº x / nº y): posición firma solicitante / total autores. Si aplica, indique el número de citaciones

1 **Sexenio CNEAI. Investigación.** Convocatoria 2022. Agencia Nacional de Evaluación de la Calidad y Acreditación. (Conc 2022). Periodo: 2001, 2002, 2003, 2004, 2005, 2006:/::/:2001, 2002, 2003, 2004, 2005, 2006.

2 **Sexenio CNEAI. Investigación.** Convocatoria 2022. Agencia Nacional de Evaluación de la Calidad y Acreditación. (Conc 2022). Periodo: 2007, 2008, 2009, 2010, 2011, 2012:/::/:2007, 2008, 2009, 2010, 2011, 2012.

3 **Sexenio CNEAI. Investigación.** Convocatoria 2022. Agencia Nacional de Evaluación de la Calidad y Acreditación. (Conc 2022). Periodo: 2013, 2014, 2015, 2016, 2017, 2018:/::/:2013, 2014, 2015, 2016, 2017, 2018.

4 **Artículo científico**. Rodrigo I; Albentosa-González L; Romero de Ávila MJ; Bassi MR; Sempere RN; Clemente-Casares P; (7/7) Arias A (AC). 2025. Ubiquitin-like modifier-activating enzyme 1 interacts with Zika virus NS5 and promotes viral replication in the infected cell. Journal of General Virology. Microbiology Society. 106, pp.002063. JCR (4.3 (2024)).
https://doi.org/10.1099/jgv.0.002063

5 **Artículo científico**. Prieto-Vega S; Berzal-Herranz A; Garrido JJ; (4/7) Arias A; Grande-Pérez A; Fernández-Escamilla AM; Montoya M. 2025. West Nile virus unmasked: from gene variability to future challenges. Frontiers in Cellular and Infection Microbiology. Frontiers. 15, pp.1690827. JCR (4.8).
https://doi.org/10.3389/fcimb.2025.1690827

6 **Artículo científico**. Rodrigo I; Ballesta C; Blanco Nunes E; Pérez P; García-Arriaza Ja; (6/6) Arias A (AC). 2022. Eeyarestatin I, an inhibitor of the valosin-containing protein, exhibits potent virucidal activity against the flaviviruses. Antiviral Research. Elsevier. 207, pp.105416. WOS (8). JCR (7.6).
https://doi.org/10.1016/j.antiviral.2022.105416

7 **Artículo científico**. López-Martín R; Rodrigo I; Ballesta C; et al; Binns C. 2022. Effectiveness of Silver Nanoparticles Deposited in Facemask Material for Neutralising Viruses. Nanomaterials. MDPI. JCR (5.4).

8 **Artículo científico**. Albentosa-González L; Sabariegos R; (3/5) Arias A; Clemente-Casares P; Mas A. 2021. Akt Interacts with Usutu Virus Polymerase, and Its Activity Modulates Viral Replication. Pathogens. MDPI. 10, pp.244. WOS (10). JCR (4.58).
https://doi.org/10.3390/pathogens10020244

9 **Artículo científico**. Albentosa-González L; Jiménez de Oya N; (3/8) Arias A; Clemente-Casares P; Martín-Acebes MA; Saiz JC; Sabariegos R; Mas A. 2021. Akt Kinase Intervenes in Flavivirus Replication by Interacting with Viral Protein NS5.Viruses-Basel. 13, pp.896. WOS (16). JCR (5.82).

10 **Artículo científico**. Hamza KH; Dunér E; Ulmert I; (4/6) Arias A; Sorobetea D; Lahl K. 2021. Minor alterations in the intestinal microbiota composition upon Rotavirus infection do not affect susceptibility to DSS colitis. SCIENTIFIC REPORTS. Nature Publishing Group. 11, pp.13485. WOS (3). JCR (5.00).
https://doi.org/10.1038/s41598-021-92796-7

11 **Artículo científico**. Sáez-Álvarez Y; Jiménez de Oya N; Del Aguila C; Saiz JC; (5/7) Arias A; Agudo R; Martin-Acebes MA. 2021. Novel non-nucleoside inhibitors of Zika virus polymerase identified through the screening of an open library of anti-kynetoplastid compounds.ANTIMICROBIAL AGENTS AND CHEMOTHERAPY. American Society for Microbiology. 65, pp.e00894-21. WOS (9). JCR (5.94).
https://doi.org/10.1128/aac.00894-21.

12 **Artículo científico**. Sáez-Álvarez Y; (2/4) Arias A; del Águila C; Agudo R. 2019. Development of a fluorescence-based method for the rapid determination of Zika virus polymerase activity and the screening of antiviral drugs. SCIENTIFIC REPORTS. Nature Publishing Group. 9, pp.5397. WOS (37). JCR (4.00).
https://doi.org/10.1038/s41598-019-41998-1

13 **Artículo científico**. Sempere RN; (2/2) Arias A (AC). 2019. Establishment of a Cell Culture Model of Persistent Flaviviral Infection: Usutu Virus Shows Sustained Replication during Passages and Resistance to Extinction by Antiviral Nucleosides. Viruses-Basel. MDPI. 11-6. WOS (14). JCR (3,82).
https://doi.org/10.3390/v11060560

14 **Artículo científico**. Bassi MR; Sempere RN; Meyn P; Polacek C; (5/5) Arias A (AC). 2018. Extinction of Zika virus and Usutu virus by lethal mutagenesis reveals different patterns of sensitivity to three mutagenic drugs.ANTIMICROBIAL AGENTS AND CHEMOTHERAPY. American Society for Microbiology. 62-9, pp.e00380-18. WOS (30). JCR (4,72).
https://doi.org/10.1128/AAC.00380-18

15 **Artículo científico**. Dudas G; Carvalho LM; Bedford T; et al; Rambaut A; (9/96) Arias A. 2017. Virus genomes reveal factors that spread and sustained the Ebola epidemic.NATURE. Nature Publishing Group. 544, pp.309-315. WOS (279). JCR (41.6).
https://doi.org/10.1038/nature22040

16 **Artículo de divulgación**. Arias A. 2018. Cristina Escarmís: una pionera en el desarrollo de la ciencia en España. Encuentros en la Biología. Universidad de Málaga. Vol. X, pp.27-29. (*) CORRESPONDING AUTHOR.

17 **Capítulo de libro**. (1/1) Arias A (AC). 2019. Antinorovirus Drugs: Current and Future Perspectives.Norovirus (Ed. Nada Melhem).Springer. pp.101-155. ISBN 978-3-030-27208-1.
https://doi.org/10.1007/978-3-030-27209-8_5

18 **Congreso.** Rodrigo I; Romero de Ávila MJ; García Navarro B; Arellano MJ; Albentosa-González L; Clemente-Casares P; Emmott E; Arias A. Mitophagy-related prohibitin 2 is an orthoflavivirus restriction factor targeted to degradation during infection. Viruses 2026 – New Horizons in Virology. Viruses - MDPI. 2026. España.

19 **Congreso.** Rodrigo I; Albentosa-González L; Mas A; Clemente-Casares P; Arias A. Mitophagy-related prohibitin-2 is a restriction factor for flavivirus replication.. XVII Congreso de la Sociedad Española de Virología. SOCIEDAD ESPAÑOLA DE VIROLOGIA. 2024. España.

20 **Congreso.** Rodrigo I; Ballesta C; Blanco Nunes E; Arias A. Eeyarestatin I, an inhibitor of the valosin-containing protein, exhibits potent virucidal activity against the flaviviruses. XVI Congreso de la Sociedad Española de Virología. SOCIEDAD ESPAÑOLA DE VIROLOGIA. 2022. España.

1.2.2. Transferencia e intercambio de conocimiento y actividad de carácter profesional

1 **Patente de invención**. Antiviral composition comprising eeyarestatin I Reg 12/05/2020 Conc 17/11/2021.

Explicación narrativa de la aportación

https://patents.google.com/patent/WO2021228714A1/en

2 **Patente de invención**. Method for the detection of minority genomes in virus quasispecies using DNA microchips Reg 2001 Conc 2003.

Explicación narrativa de la aportación

http://hdl.handle.net/10261/5021

Actividad de carácter profesional

1 **Profesor Titular de Universidad:** Universidad de Castilla-La Mancha (UCLM). 2025-actual. Tiempo completo.
2 **Investigador distinguido:** Universidad de Castilla-La Mancha. 01/02/2024. (1 año - 2 meses).
3 **Beatriz Galindo Senior Fellow:** Universidad de Castilla-La Mancha. 01/02/2020. (4 años).
4 **Assistant Professor:** Koebenhavns Universitet. 01/09/2019. (2 meses).
5 **Principal investigator:** Danmarks Tekniske Universitet. 01/09/2015. (4 años).

1.3. ESTANCIAS EN UNIVERSIDADES Y CENTROS DE INVESTIGACIÓN

1.3.1. Estancias

1 **Estancia:** University of Liverpool. (Reino Unido). 22/05/2022-30/06/2022.

3. LIDERAZGO

3.1. DIRECCIÓN DE EQUIPOS DOCENTES Y DE INVESTIGACIÓN

1 **Medicina Molecular (MOLMED):** Universidad de Castilla-La Mancha. 08/06/2022.

3.2. DIRECCIÓN DE TESIS DOCTORALES Y TRABAJOS FIN DE MASTER

1 **Tesis Doctoral:** Identificación de factores celulares implicados en la infección por orthoflavivirus: PHB2 y UBA1 como posibles dianas para el diseño de abordajes terapéuticos. Universidad de Castilla-La Mancha. 2024.

2 **Trabajo fin de máster:** Generation of Zika virus polymerase constructs for the study of interactions with host proteins. Universidad de Castilla-La Mancha. 2021.

3.5. OTROS MÉRITOS

1) Indicators of scientific excellence (Web of Science Thomson)

· Total number of JCR papers: 47
· H-index: 29
· Number of manuscripts cited >100 times: 11
· Number of first-decile manuscripts (D1): 13
· Number of first-quartile manuscripts (Q1): 34
· Number of first, joint-first, and last (corresponding) author papers: 19
· Number of citations: 2992
· Book chapters and other non-peer reviewed papers: 8

2) Supervision of students and mentoring postdocs

· Four postdoc researchers: María José Romero de Ávila (2024-2025), Imanol Rodrigo (2024-present), Maria Bassi (2017-18) and Raquel N. Sempere (2016)
· Two PhD students: Imanol Rodrigo (2020-2024), Rubén Agudo (2004-2009).
· Five MSc students supervised
· One visiting PhD student from Brazil, and one ERASMUS from Italy

3) Awards and professional recognition

- 2023 **I3 Certificate**
- 2022-2025 **Grant Coordinator** on Biomedicine research projects for **Comunidad de Madrid**
- 2023 Reviewer of PhD fellowship programme for Comunidad de Madrid
- 2012-2023 Referee on grants: Wellcome Trust, Human Frontiers, BSAC, C de Madrid
- 2010-2012 Marie Curie Intra European Fellowship (European Commission)
- 2007 ‘PhD in Biology Extraordinary Award’ by Universidad Autonoma de Madrid (Spain).
- 2006 ‘Best PhD Thesis Award’ by CBMSO (Madrid, Spain).
- Ad hoc referee: 22 international journals