

Curriculum Vitae

Jorge Alegre-Cebollada, PhD

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[RESEARCHERID PROFILE](#)

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CURRENT POSITION

National Institute for Cardiovascular Research, CNIC-Carlos III (Madrid, Spain) from 2014
Associate Professor – Group Leader (from 2019); Assistant Professor - Group Leader (2014-2019)

Complutense University of Madrid, Department of Biochemistry and Molecular Biology (Madrid, Spain) from 2020
Honorary Professor

EDUCATION

Complutense University, Department of Biochemistry and Molecular Biology (Madrid, Spain) 2008
Ph. D. Biochemistry (Summa Cum Laude)
Emphasis in lipid-protein interactions by spectroscopy, calorimetry and molecular biology
Dissertation Title: Mechanism of membrane pore formation by the actinoporin Sticholysin II
Supervisors: **Prof. Álvaro Martínez del Pozo** and **Prof. José G. Gabilanes**

Complutense University, Department of Biochemistry and Molecular Biology (Madrid, Spain) 2003
M. Sc. Biochemistry (GPA: 3.86/4.00)
Thesis Title: Production of a strain of *L. lactis* expressing the ribotoxin α -sarcin
Supervisor: **Prof. Álvaro Martínez del Pozo**

Complutense University, School of Chemistry (Madrid, Spain) 2001
B. Sc. Chemistry (GPA: 3.67/4.00)

RESEARCH POSITIONS

Columbia University, Department of Biological Sciences (New York, US) 2013-2014
Associate Research Scientist
Topic: Single-molecule force-spectroscopy by Atomic Force Microscopy and Magnetic Tweezers
Adviser: **Prof. Julio M. Fernández**

Columbia University, Department of Biological Sciences (New York, US) 2008-2013
Postdoctoral Research Scientist
Topic: Single-molecule force-spectroscopy by Atomic Force Microscopy
Adviser: **Prof. Julio M. Fernández**

Free University of Brussels, Department of Structure and Function of Biological Membranes (Belgium) 2005
Visiting scholar (3 months)
Topic: ATR infrared spectroscopy applied to sticholysin II bound to lipids
Supervisor: **Prof. Erik Goormaghtigh**

RESEARCH INTERESTS

- Emergent mechanical properties of proteins in cardiac muscle
- Interplay between redox biochemistry and protein mechanics
- Intramolecular covalent bonds in proteins: mechanical stability, reactivity, biological role, biosynthesis
- Protein biomaterials

GRANTS AWARDED AS PRINCIPAL INVESTIGATOR

- 1. Ministry of Science and Innovation (Spain)** 2023-2025
Proyectos de Líneas Estratégicas
Coordinated proposal – 9 PIs
Title: Mecanometabolismo de la insuficiencia cardiaca asociada a la edad – CardioAging
Reference: PLEC2022-009235
- 2. Ministry of Science and Innovation (Spain)** 2023-2025
Redes de Excelencia
Title: “Spanish Network of Excellence in Mechanobiology”
Coordinated proposal (15 PIs)
Reference: RED2022-134242-T
- 3. Ministry of Science and Innovation (Spain)** 2021-2024
Proyectos de I+D+i - PGC Tipo B
Title: Defining the crosstalk between heart pathophysiology and protein mechanics
Reference: PID2020-120426GB-I00
- 4. European Research Council** 2021-2026
ERC-Consolidator
Title: “Uncovering Protein Mechanics in Physiology and Disease (ProtMechanics-Live)”
Reference: 101002927
- 5. Myokardia (California, US)** 2020-2021
MyoSeeds Program
Title: “Titin Allelic Discrimination to Uncover Pathophysiology Mechanisms in DCM”
- 6. Ministry of Science, Innovation and Universities (Spain)** 2019-2020
Europa Investigación
Title: “Towards the ERC-consolidator: Novel animal and cell models to probe protein nanomechanics in health and disease”
Reference: EIN2019-102966
- 7. Regional Government of Madrid (Spain)** 2019-2023
Programas de Actividades de I+D
Title: “New technologies for the study of biological nanomachines”
Coordinated proposal – Tec4Bio (6 PIs)
Reference: P2018/NMT-4443
- 8. Ministry of Economy and Competitiveness (Spain)** 2018-2021
Programa Estatal de Fomento de la Investigación Científica y Técnica de Excelencia
Title: “Emergent mechanical properties of proteins in the myocardium and in biomaterials with biotechnological applications”

Reference: BIO2017-83640-P

- 9. Ministry of Economy and Competitiveness (Spain)** 2019-2020
Redes de Excelencia
 Title: “Network of excellence in Mechanobiology”
 Coordinated proposal (10 PIs)
 Reference: BFU2017-90692-REDT
- 10. Ministry of Economy and Competitiveness (Spain) – CNIC** 2017-2019
 Intramural Grants Program – Severo Ochoa
 Title: Immune – Mechanical Crosstalk in the Cardiomyopathic Heart
 Coordinated proposal (2 PIs, coordinator: Alegre-Cebollada)
 Reference: 03-2016 IGP
- 11. European Research Area Network on Cardiovascular Diseases – Horizon 2020** 2017-2020
 Joint Transnational Call 2016
 Title: Metabolic Therapy for Managing Diastolic Heart Failure (MINOTAUR)
 Coordinated proposal (5 PIs)
 Reference: AC16/00045
- 12. Regional Government of Madrid (Spain)** 2017-2018
Ayudas para la promoción del empleo joven 2016
 Reference: PEJ 16/MED/TL-1593
- 13. Ministry of Economy and Competitiveness (Spain)** 2015-2017
Programa Estatal de Fomento de la Investigación Científica y Técnica de Excelencia
 Title: “Mechanobiochemistry: from the regulation of muscle elasticity to the production of biomaterials with adjustable stiffness”
 Reference: BIO2014-54768-P
- 14. Ministry of Economy and Competitiveness (Spain)** 2015-2020
Ramón y Cajal Program (top candidate in the BFU section)
 Reference: RYC-2014-16604
- 15. CNIC-IIF Marie Curie** 2014-2015
 International Incoming Fellowship for Young Group Leaders
 Reference: FP7-PEOPLE-2010-COFUND-267149
- 16. National Institute of Allergy and Infectious Diseases (NIH, US)** 5/17/13 – 5/16/14
 Pathway to Independence Award (K99/R00)
 Title: Bacterial Attachment under Mechanical Perturbations
 Reference: 1K99AI106072
 Duration: K99 Mentored Phase (1 year) + R00 Independent Phase (2 years).
 R00 phase was cancelled due to international move.

AWARDS AND HONORS

- Spanish Young Academy** 2021
 Elected member
- Biophysical Reviews** 2021
[Michèle Auger Award](#)

Spanish Biochemical Society (SEBBM) Highlighted profile “ Acércate a nuestros científicos ”	2019
General Military Hospital (Zaragoza, Spain) Plenary speaker – Commemorative Conference <i>N^a S^a del Perpetuo Socorro</i>	2019
International Union for Pure and Applied Chemistry (IUPAC) Selected for the Periodic Table of Younger Chemists – Arsenic	2018
Spanish Biophysical Society Award to the Best Biophysicist under 33 years	2014
Complutense University (Madrid, Spain) Annual Award for Best Dissertation in Biochemistry (<i>Premio Extraordinario Doctorado</i>)	2008
Spanish Ministry of Science 1 st National Award on Biochemistry (<i>1^{er} Premio Nacional Fin de Carrera</i>)	2004
Complutense University (Madrid, Spain) Annual Award for Masters Students (<i>Premio Extraordinario Licenciatura</i>)	2003

FELLOWSHIPS

Fundación Ibercaja (Zaragoza, Spain) Postdoctoral Fellowship	2011-2012
Fundación Alfonso Martín Escudero (Madrid, Spain) Postdoctoral Fellowship	2008-2010
Fundación Caja Madrid (Madrid, Spain) Postdoctoral Fellowship	2008
Spanish Ministry of Science Research Fellowship for Graduate Students (FPU program)	2004-2008
Spanish Ministry of Education Research Fellowship for Undergraduate Students	2002-2003

INSTITUTIONAL RESPONSIBILITIES

CNIC (Madrid, Spain) Coordinator, Predoctoral Affairs Office	from 2021
CNIC (Madrid, Spain) Coordinator, Cell and Developmental Biology Area	2020-2022
Spanish Society of Biochemistry and Molecular Biology (SEBBM) Vocal, committee for selection of new members	2018-2022
CNIC (Madrid, Spain) Committee for the generation of an institutional repository ISCIII/CNIC/CNIO (Repisalud)	2017-2018

CNIC (Madrid, Spain) Member of the editorial committee, CNIC-Pulse Magazine	from 2016
CNIC (Madrid, Spain) Scientific Activities, Web and Library committee (Coordinator 2015-2019)	from 2015
CNIC (Madrid, Spain) Coordinator, Working Group – Proteomics Core Facility	2015-2023
CNIC (Madrid, Spain) Committee for the renewal of the institutional web site	2015

PROFESSIONAL MEMBERSHIPS

Member, Spanish Biophysical Society	2007-present
Member, Spanish Biochemical Society	2004-present

PUBLICATIONS

Positive Evaluation 3 Research Periods by Spanish Ministry of Education (“*Sexenios*”): 2004-2009; 2010-2015; 2016-2021

Positive Evaluation I3 Program by Spanish Ministry of Science, Education and Universities (2016-2019)

* Shared authorship # Corresponding author

Manuscripts uploaded to preprint servers:

1. Carla Huerta-López, Alejandro Clemente-Manteca [...] [Jorge Alegre-Cebollada](#)[#] (20/20). Cell response to extracellular matrix energy dissipation outweighs rigidity sensing. bioRxiv: [2022.2011.2016.516826](#).

2. Laura Sen-Martín, Ángel Fernández-Trasancos, Miguel Á. López-Unzu, Divya Pathak, Alessia Ferrarini, Verónica Labrador-Cantarero, David Sánchez Ortiz, María Rosaria Pricolo, Natalia Vicente, Diana Velázquez-Carreras, Lucía Sánchez-García, Jose Ángel Nicolás-Ávila, María Sánchez-Díaz, Saskia Schlossarek, Lorena Cussó, Manuel Desco, María Villalba-Orero, Gabriela Guzmán-Martínez, Enrique Calvo, Roberto Barriales Villa, Jesús Vázquez, Fátima Sánchez-Cabo, Andrés Hidalgo, Lucie Carrier, James A. Spudich, Kathleen M. Ruppel, [Jorge Alegre-Cebollada](#)[#] (2024). Broad therapeutic benefit of myosin inhibition in hypertrophic cardiomyopathy. bioRxiv [2024.03.22.584986](#)

H-index: 29 (Google Scholar), 25 (WoS) (January 2024)

10 most relevant publications

1. Inés Martínez-Martín[#], Audrey Crousilles, Juan Pablo Ochoa, Diana Velázquez-Carreras, Simon A. Mortensen, Elías Herrero-Galán, Javier Delgado, Fernando Domínguez, Pablo García-Pavía, David de Sancho, Matthias Wilmanns, [Jorge Alegre-Cebollada](#)[#] (2023). Titin domains with reduced core hydrophobicity cause dilated cardiomyopathy. **Cell Reports** **42**, 113490.
2. Jaime Andrés Rivas-Pardo, Yong Li, Zsolt Mártonfalvi, Rafael Tapia-Rojo, Andreas Unger, Ángel Fernández-Trasancos, Elías Herrero-Galán, Diana Velázquez-Carreras, Julio M. Fernández, Wolfgang A. Linke[#], [Jorge Alegre-Cebollada](#)[#]. A HaloTag-TEV genetic cassette for mechanical phenotyping of proteins from tissues (2020). **Nature Communications** **11**, 2060. Selected as paper of the month by the Spanish Biophysical Society. Highlighted by >30 news outlets.

3. Carmen Suay-Corredera, Maria Rosaria Pricolo, Diana Velázquez-Carreras, Divya Pathak, Neha Nandwani, Carolina Pimenta-Lopes, David Sánchez-Ortiz, Iñigo Urrutia-Irazabal, Silvia Vilches, Fernando Dominguez, Giulia Frisso, Lorenzo Monserrat, Pablo García-Pavía, David de Sancho, James A. Spudich, Kathleen M. Ruppel, Elías Herrero-Galán, Jorge Alegre-Cebollada[#] (2021). Nanomechanical phenotypes in cardiac myosin-binding protein C mutants that cause hypertrophic cardiomyopathy. **ACS Nano** **15**, 10203-10216. Selected as paper of the month by the Spanish Biophysical Society. Highlighted by 10 news outlets.
4. Elías Herrero-Galán[#], Inés Martínez-Martín, Cristina Sánchez-González, Natalia Vicente, Elena Bonzón-Kulichenko, Enrique Calvo, Carmen Suay-Corredera, Maria Rosaria Pricolo, Ángel Fernández-Trasancos, Diana Velázquez-Carreras, Claudio Badía Careaga, Mahmoud Abdellatif, Simon Sedej, Peter P. Rainer, David Giganti, Raúl Pérez-Jiménez, Jesús Vázquez, Jorge Alegre-Cebollada[#] (2022). Basal oxidation of conserved cysteines modulates cardiac titin stiffness and dynamics. **Redox Biology** **52**, 102306. Highlighted by >10 news outlets. Highlighted by the Spanish Society for Biochemistry and Molecular Biology.
5. (Review) Jorge Alegre-Cebollada[#] (2021) Protein nanomechanics in biological context. **Biophysical Reviews** **13**, 435.
6. Carmen Suay-Corredera, Maria Rosaria Pricolo, Elías Herrero-Galán, Diana Velázquez-Carreras, David Sánchez-Ortiz, Diego García-Giustiniani, Javier Delgado, Juan José Galano-Frutos, Helena García-Cebollada, Silvia Vilches, Fernando Domínguez, María Sabater Molina, Roberto Barriales-Villa, Giulia Frisso, Javier Sancho, Luis Serrano, Pablo García-Pavía, Lorenzo Monserrat, Jorge Alegre-Cebollada[#] (2021) Protein haploinsufficiency drivers identify *MYBPC3* variants that cause hypertrophic cardiomyopathy. **Journal of Biological Chemistry** **297**, 100854. This article was selected as **Editors' Pick**.
7. Carolina Pimenta-Lopes, Carmen Suay-Corredera, Diana Velázquez-Carreras, David Sánchez-Ortiz, Jorge Alegre-Cebollada[#] (2019). Concurrent Atomic Force Spectroscopy. **Communications Physics** **2**, 91. Selected as paper of the month by the Spanish Biophysical Society.
8. David Giganti, Kevin Yan, Carmen L. Badilla, Julio M. Fernández, Jorge Alegre-Cebollada[#] (2018). Disulfide isomerization reactions in titin immunoglobulin domains enable a mode of protein elasticity. **Nature Communications** **9**:185. Selected as paper of the month by the Spanish Biophysical Society.
9. Jorge Alegre-Cebollada^{*,#}, Pallav Kosuri^{*}, David Giganti, Edward Eckels, Jaime-Andrés Rivas-Pardo, Nazha Hamdani, Chad M. Warren, R. John Solaro, Wolfgang A. Linke, Julio M. Fernández[#] (2014). S-glutathionylation of cryptic cysteines enhances titin elasticity by blocking protein folding. **Cell** **156**, 1235-1246. This article was chosen for the **cover** of the issue.
10. Jorge Alegre-Cebollada[#], Pallav Kosuri, Jaime Andrés Rivas-Pardo, Julio M. Fernández[#] (2011). Direct observation of disulfide isomerization in a single protein. **Nature Chemistry** **3**, 882-887. This article was highlighted in the **cover of Nature Chemistry** and in a **News and Views** article. The article was also featured in **Chemical and Engineering News**.

Additional publications (reverse chronological order):

11. Fernando Domínguez, Laura Lalaguna, Inés Martínez-Martín, Jesús Piqueras-Flores, Torsten B. Rasmussen, Esther Zorio, Giovanna Giovinazzo, Belén Prados, Juan P. Ochoa, Belén Bornstein, Esther González-López, Diana Velázquez-Carreras, Maria R. Pricolo, Francisco Gutiérrez-Agüera, Juan A. Bernal, Elías Herrero-Galán, Jorge Alegre-Cebollada, Enrique Lara-Pezzi and Pablo García-Pavía (2023). Titin Missense Variants as a Cause of Familial Dilated Cardiomyopathy. **Circulation** **147**, 1711-1713.
12. Ángela Pérez-Benito, Carla Huerta-López, Jorge Alegre-Cebollada, José Manuel García-Aznar, Silvia Hervas-Raluy (2023) Computational modelling of the mechanical behaviour of protein-based hydrogels. **Journal of the Mechanical Behavior of Biomedical Materials** **138**, 105661.

13. (Review) Carmen Suay-Corredera[#], Jorge Alegre-Cebollada[#] (2022). The mechanics of the heart: zooming in on hypertrophic cardiomyopathy and cMyBP-C. **FEBS Letters** **596**, 703-706.
14. (Commentary) Carmen Suay-Corredera, Jorge Alegre-Cebollada[#] (2021). Correspondence on “Computational prediction of protein subdomain stability in MYBPC3 enables clinical risk stratification in hypertrophic cardiomyopathy and enhances variant interpretation” by Thompson et al. **Genetics in Medicine** **23**, 2009-2010.
15. (Review) Carla Huerta-López[#], Jorge Alegre-Cebollada[#] (2021). Protein Hydrogels: The Swiss Army Knife for Enhanced Mechanical and Bioactive Properties of Biomaterials. **Nanomaterials** **11**, 1656.
16. Carlos del Fresno, Juan García-Arriaza, Sarai Martínez-Cano, Ignacio Heras-Murillo, Aitor Jarit-Cabanillas, Joaquín Amores-Iniesta, Paola Brandi, Gillian Dunphy, Carmen Suay-Corredera, Maria Rosaria Pricolo, Natalia Vicente, Andrés López-Perrote, Sofía Cabezudo, Ana González-Corpas, Oscar Llorca, Jorge Alegre-Cebollada, Urtzi Garaigorta, Pablo Gastaminza, Mariano Esteban and David Sancho (2021) The Bacterial Mucosal Immunotherapy MV130 Protects Against SARS-CoV-2 Infection and Improves COVID-19 Vaccines Immunogenicity. **Frontiers in Immunology** **12** <https://doi.org/10.3389/fimmu.2021.748103>
17. Mahmoud Abdellatif, Viktoria Trummer-Herbst, Franziska Koser, Sylvère Durand , Rui Adão, Francisco Vasques-Nóvoa, Johanna K Freundt, Julia Voglhuber, Maria-Rosaria Pricolo, Michael Kasa, Clara Türk , Fanny Aprahamian, Elías Herrero-Galán, Sebastian J Hofer, Tobias Pendl, Lavinia Rech, Julia Kargl, Nathaly Anto-Michel, Senka Ljubojevic-Holzer, Julia Schipke, Christina Brandenberger , Martina Auer , Renate Schreiber , Chintan N Koyani, Akos Heinemann, Andreas Zirlik, Albrecht Schmidt, Dirk von Lewinski, Daniel Scherr, Peter P Rainer, Julia von Maltzahn, Christian Mühlfeld, Marcus Krüger, Saša Frank, Frank Madeo, Tobias Eisenberg, Andreas Prokesch, Adelino F Leite-Moreira, André P Lourenço, Jorge Alegre-Cebollada, Stefan Kiechl, Wolfgang A Linke, Guido Kroemer, Simon Sedej. (2021) Nicotinamide for the treatment of heart failure with preserved ejection fraction. **Science Translational Medicine** **13**, eabd7064.
18. Maria Rosaria Pricolo, Elías Herrero-Galán, Cristina Mazzaccara, Maria Angela Losi, Jorge Alegre-Cebollada[#], Giulia Frisso (2020). Protein Thermodynamic Destabilization in the Assessment of Pathogenicity of a Variant of Uncertain Significance in Cardiac Myosin Binding Protein C. **Journal of Cardiovascular Translational Research** **13**, 867-877.
19. José A. Nicolás-Ávila, Ana V. Lechuga-Vieco, Lorena Esteban-Martínez, María Sánchez-Díaz, Elena Díaz-García, Demetrio J. Santiago, Andrea Rubio-Ponce, Jackson LiangYao Li, Akhila Balachander, Juan A. Quintana, Raquel Martínez-de-Mena, Beatriz Castejón-Vega, Andrés Pun-García, Paqui G.Través, Elena Bonzón-Kulichenko, Fernando García-Marqués, Lorena Cussó, Noelia A-González, Andrés González-Guerra, Marta Roche-Molina, Sandra Martin-Salamanca, Georgiana Crainiciuc, Gabriela Guzmán, Jagoba Larrazabal, Elías Herrero-Galán, Jorge Alegre-Cebollada, Greg Lemke, Carla V. Rothlin, Luis Jesús Jimenez-Borreguero, Guillermo Reyes, Antonio Castrillo, Manuel Desco, Pura Muñoz-Cánoves, Borja Ibáñez, Miguel Torres, Lai Guan Ng, Silvia G. Priori, Héctor Bueno, Jesús Vázquez, Mario D. Cordero, Juan A.Bernal, José A. Enríquez, Andrés Hidalgo (2020). A Network of Macrophages Supports Mitochondrial Homeostasis in the Heart. **Cell**, **183**, 94-109.
20. Asier Echarri, Dácil M. Pavón, Sara Sánchez, María García-García, Enrique Calvo, Carla Huerta-López, Diana Velázquez-Carreras, Christine De Viaris, Nicholas Ariotti, Ana Lázaro-Carrillo, Raffaele Strippoli, David De Sancho, Jorge Alegre-Cebollada, Christophe Lamaze, Robert G. Parton and Miguel A. Del Pozo (2019). An Abl-FPB17 mechanosensing system couples local plasma membrane curvature and stress fiber remodeling during mechanoadaptation. **Nature Communications**, **10**, 5828.
21. (Review) Elías Herrero-Galán[#], Inés Martínez-Martín, Jorge Alegre-Cebollada[#] (2019) Redox regulation of protein nanomechanics in health and disease: Lessons from titin. **Redox Biology**, **21**, 101074.
22. Aitor Manteca, Jörg Schönfelder, Alvaro Alonso-Caballero, Marie J. Fertin, Nerea Barrueta-beña, Bruna F. Faria, Elias Herrero-Galán, Jorge Alegre-Cebollada, David De Sancho, Raul Perez-Jimenez (2017). Mechanochemical evolution

of the giant muscle protein titin as inferred from resurrected proteins. **Nature Structural and Molecular Biology**, **24**, 652-657. This article was chosen for the **cover** of the issue.

23. Daniel J. Echelman*[#], Jorge Alegre-Cebollada*[#], Carmen L. Badilla, Chungyu Chang, Hung Ton-That, Julio M. Fernández[#] (2016). CnaA domains in bacterial pili are efficient dissipaters of large mechanical shocks. **PNAS**, **113**, 2490-2495.
24. Esperanza Rivera-de-Torre, Sara García-Linares, Jorge Alegre-Cebollada, Javier Lacadena, José G. Gavilanes and Álvaro Martínez-del-Pozo (2016) Synergistic action of actinoporin isoforms from the same sea anemone species assembled into functionally active heteropores. **Journal of Biological Chemistry**, **291**, 14109-14119.
25. Farees Saqlain, Ionel Popa, Julio M. Fernández[#], Jorge Alegre-Cebollada[#] (2015). A novel strategy for utilizing voice coil servactuators in tensile tests of low volume protein hydrogels. **Macromolecular Materials and Engineering**, **300**, 369-376.
26. Jaime Andrés Rivas-Pardo, Jorge Alegre-Cebollada, César A. Ramírez-Sarmiento, Julio M. Fernández, Victoria Guixé (2015) Identifying sequential substrate binding at the single-molecule level by enzyme mechanical stabilization. **ACS Nano**, **9**, 3996-4005.
27. Carles Solsona, Thomas B. Kahn, Carmen L. Badilla, Cristina Álvarez-Zaldiernas, Juan Blasi, Julio M. Fernandez, Jorge Alegre-Cebollada (2014). Altered thiol chemistry in human amyotrophic lateral sclerosis-linked mutants of superoxide dismutase 1. **Journal of Biological Chemistry**, **289**, 26722-26732.
28. Ionel Popa, Ronen Berkovich, Jorge Alegre-Cebollada, Carmen L. Badilla, Jaime Andres Rivas-Pardo, Yukinori Taniguchi, Masaru Kawakami, Julio M. Fernández (2013). Nanomechanics of HaloTag tethers. **Journal of the American Chemical Society**, **135**, 12762-12771.
29. Ionel Popa, Pallav Kosuri, Jorge Alegre-Cebollada, Sergi Garcia-Manyes, Julio M. Fernandez (2013). Force dependency of biochemical reactions measured by single molecule force-clamp spectroscopy. **Nature Protocols**, **8**, 1261-76.
30. David Giganti, Jorge Alegre-Cebollada, Saioa Urresti, David Albesa-Jové, Ane Rodrigo-Unzueta, Natalia Comino, Michael Kachala, Sonia López-Fernández, Dmitri I. Svergun, Julio M. Fernández, Marcelo E. Guerin (2013). Conformational plasticity of the essential membrane-associated mannosyltransferase PimA from Mycobacteria. **Journal of Biological Chemistry**, **288**, 29797-29808.
31. Sara García-Linares, Inés Castrillo, Marta Bruix, Margarita Menéndez, Jorge Alegre-Cebollada; Alvaro Martinez-del-Pozo, José G Gavilanes (2013). Three-dimensional structure of the actinoporin sticholysin I. Influence of long-distance effects on protein function. **Archives of Biochemistry and Biophysics**, **532**, 39-45. This article was chosen for the **cover** of the issue.
32. (*Book chapter*) Raul Perez-Jimenez, Jorge Alegre-Cebollada (2013). **Enzyme catalysis at the single-molecule level**, in “Single-molecule Studies of Proteins” (Ed. Andres F. Oberhauser), Springer, New York, US.
33. Pallav Kosuri, Jorge Alegre-Cebollada, Jason Feng, Anna Kaplan, Álvaro Inglés-Prieto, Carmen L. Badilla, Brent R. Stockwell, José M. Sánchez-Ruiz, Arne Holmgren, Julio M. Fernández (2012). Protein folding drives disulfide formation. **Cell**, **151**, 794-806.
34. Sergi Garcia-Manyes, Carmen L. Badilla, Jorge Alegre-Cebollada, Yalda Javadi, Julio M. Fernández (2012). Spontaneous dimerization of the titin Z1-Z2 domains induces a strong nano-mechanical anchoring. **Journal of Biological Chemistry**, **287**, 20240-20247.

35. (*Preview*) Jorge Alegre-Cebollada, Pallav Kosuri, Julio M. Fernández (2011). Protease power strokes force proteins to unfold. **Cell**, **145**, 339-340.
36. Raúl Perez-Jimenez, Álvaro Inglés-Prieto, Ziming Zhao, Inmaculada Sanchez-Romero, Jorge Alegre-Cebollada, Pallav Kosuri, Sergi Garcia-Manyes, Arne Holmgren, José Manuel Sanchez-Ruiz, Erik A. Gaucher, Julio M. Fernandez (2011). Single-molecule paleoenzymology probes the chemistry of resurrected enzymes. **Nature Structural and Molecular Biology**, **18**, 592-596.
37. (*Review*) Lucía García-Ortega, Jorge Alegre-Cebollada, Sara García-Linares, Marta Bruix, Álvaro Martínez del Pozo, José G. Gavilanes (2011). The behaviour of sea anemone actinoporins at the water-membrane interface. **BBA-Biomembranes**, **1808**:2275-2288.
38. Miguel A. Pardo-Cea, Inés Castrillo; Jorge Alegre-Cebollada, Álvaro Martinez-del-Pozo, José G. Gavilanes, Marta Bruix (2011). Intrinsic local disorder and a network of charge-charge interactions are key to actinoporin membrane disruption and cytotoxicity. **FEBS Journal**, **278**, 2080-2089.
39. Jorge Alegre-Cebollada[#], Carmen L. Badilla, Julio M. Fernández[#] (2010). Isopeptide bonds block the mechanical extension of pili in pathogenic *Streptococcus pyogenes*. **Journal of Biological Chemistry**, **285**, 11235-11242.
40. (*Review*) Jorge Alegre-Cebollada, Raúl Pérez-Jiménez, Pallav Kosuri, Julio M. Fernández (2010). Single-molecule force spectroscopy approach to enzyme catalysis. **Journal of Biological Chemistry**, **285**, 18961-18966.
41. Inés Castrillo, Nelson A. Araujo, Jorge Alegre-Cebollada, José G. Gavilanes, Álvaro Martínez del Pozo, Marta. Bruix (2010). Specific interactions of sticholysin I with model membranes: an NMR study. **PROTEINS: Structure, Function, and Bioinformatics**, **78**, 1959-1970.
42. Miguel A. Pardo-Cea, Jorge Alegre-Cebollada, Álvaro Martínez-del-Pozo, José G. Gavilanes, Marta Bruix (2010). ¹H, ¹³C, and ¹⁵N NMR assignments of StnII-Y111N, a highly impaired mutant of the sea anemone actinoporin Sticholysin II. **Biomolecular NMR Assignments**, **4**, 69-72.
43. Inés Castrillo, Jorge Alegre-Cebollada, Álvaro Martínez del Pozo, José G. Gavilanes, Jorge Santoro and Marta Bruix (2009). ¹H, ¹³C, and ¹⁵N NMR resonance assignments of the actinoporin Sticholysin I. **Biomolecular NMR Assignments**, **3**, 5-7.
44. Inés Castrillo, Jorge Alegre-Cebollada, Álvaro Martínez del Pozo, José G. Gavilanes, Marta Bruix (2009). (¹H), (¹³C), and (¹⁵N) NMR assignments of StnII-R29Q, a defective lipid binding mutant of the sea anemone actinoporin Sticholysin II. **Biomolecular NMR Assignments**, **3**, 239-241.
45. Elisa Álvarez-García, Jorge Alegre-Cebollada, Eva Batanero, Vicente Monedero, Gaspar Pérez-Martínez, Rosa García-Fernández, José G. Gavilanes and Álvaro Martínez del Pozo (2008). *Lactococcus lactis* as a vehicle for the heterologous expression of fungal ribotoxin variants with reduced IgE-binding affinity. **Journal of Biotechnology**, **134**, 1-8.
46. (*Review*) Nelson Carreras-Sangrà, Elisa Álvarez-García, Elías Herrero-Galán, Jaime Tomé, Javier Lacadena, Jorge Alegre-Cebollada, Mercedes Oñaderra, José G. Gavilanes and Álvaro Martínez del Pozo (2008). The therapeutic potential of fungal ribotoxins. **Current Pharmaceutical Biotechnology**, **9**, 153-160.
47. (*Book chapter*) Elías Herrero-Galán, Elisa Álvarez-García, Nelson Carreras-Sangrà, Javier Lacadena, Jorge Alegre-Cebollada, Álvaro Martínez del Pozo, Mercedes Oñaderra and José G. Gavilanes (2008). **Fungal ribotoxins: structure, function and evolution**, in “Microbial toxins: current research and future trends” (Ed. Thomas Proft). Horizon Bioscience, Norwich, UK.

Curriculum Vitae – Jorge Alegre-Cebollada, PhD

48. Jorge Alegre-Cebollada, Michela Cunietti, Elías Herrero-Galán, José G. Gavilanes and Álvaro Martínez del Pozo (2008). Calorimetric scrutiny of lipid binding by sticholysin II toxin mutants. **Journal of Molecular Biology**, **382**, 920-930.
49. Jorge Alegre-Cebollada, Giorgia Clementi, Michela Cunietti, Christian Porres, Mercedes Oñaderra, José G. Gavilanes and Álvaro Martínez del Pozo (2007). Silent mutations at the 5'-end of the cDNA of actinoporins from the sea anemone *Stichodactyla helianthus* allow their heterologous overproduction in *E. coli*. **Journal of Biotechnology**, **127**, 211-221.
50. (Review) Javier Lacadena, Elisa Álvarez-García, Nelson Carreras-Sangrà, Elías Herrero-Galán, Jorge Alegre-Cebollada, Lucía García-Ortega, Mercedes Oñaderra, José G. Gavilanes and Álvaro Martínez del Pozo (2007). Fungal ribotoxins: molecular dissection of a family of natural killers. **FEMS Microbiology Reviews**, **31**, 212-237.
51. Jorge Alegre-Cebollada[#], Álvaro Martínez del Pozo, José G. Gavilanes[#] and Erik Goormaghtigh (2007). Infrared spectroscopy study on the conformational changes leading to pore formation of the toxin sticholysin II. **Biophysical Journal**, **93**, 3191-3201.
52. (Review) Jorge Alegre-Cebollada, Mercedes Oñaderra, José G. Gavilanes and Álvaro Martínez del Pozo (2007). Sea anemone actinoporins: The transition from a folded soluble state to a functionally active membrane-bound oligomeric pore. **Current Protein and Peptide Science**, **8**, 558-572.
53. Jorge Alegre-Cebollada, Ignacio Rodríguez-Crespo, José G. Gavilanes and Álvaro Martínez del Pozo (2006). Detergent-resistant membranes are platforms for actinoporin pore-forming activity on intact cells. **The FEBS Journal**, **273**, 863-871.
54. Jorge Alegre-Cebollada, Valle Lacadena, Mercedes Oñaderra, José M. Mancheño, José G. Gavilanes and Álvaro Martínez del Pozo (2004). Phenotypic selection and characterization of randomly produced non-haemolytic mutants of the toxic sea anemone protein sticholysin II. **FEBS Letters**, **575**, 14-18.

ORAL PRESENTATIONS AND INVITED TALKS

1. **Invited presentation** 2023
9th Multifrequency AFM Conference, Madrid, Spain
2. **Invited seminar** 2023
Instituto de Química Física Blas Cabrera – CSIC, Madrid, Spain
3. **Invited seminar** 2023
Bristol Myers Squibb, Cardiovascular Drug Discovery and Development teams, California (online)
4. **Invited seminar** 2023
CIC Biomagune, San Sebastián, Spain
5. **Invited presentation** 2023
Bits of Advanced Nanobioscience Symposium. Centro Nacional de Biotecnología, Madrid, Spain
6. **Invited presentation** 2022
XI Jornada de Cardiogenética, Hospital Clínico Universitario Virgen de la Arrixaca, Murcia, Spain
7. **Invited presentation** 2022
Heart Failure Conflux 2022 online meeting, Centre for Advanced Research and Excellence in Heart Failure, India

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|-----|---|------|
| 8. | Invited presentation
Meeting of the Spanish Society of Cardiology, Zaragoza, Spain (online) | 2021 |
| 9. | Invited presentation
International Cardiovascular Symposium at King's College London-BHF Centre of Research Excellence (online) | 2021 |
| 10. | Invited presentation
7 th International Iberian Biophysics Congress, Coimbra, Portugal (online) | 2021 |
| 11. | Invited seminar
EMBL-Hamburg, Germany (online) | 2021 |
| 12. | Invited seminar
Center of Biological Research (CIB), Madrid, Spain (online) | 2021 |
| 13. | Invited seminar (postponed due to covid19)
Department of Chemistry, University of Basel, Switzerland | 2020 |
| 14. | Oral presentation
64 th Biophysical Society meeting, San Diego, CA | 2020 |
| 15. | Invited lecture
Chemistry Day (<i>Foro Química y Sociedad</i>), Palma de Mallorca, Spain | 2019 |
| 16. | Keynote lecture
Symposium celebrating the 250th anniversary of Semmelweis University, Budapest, Hungary | 2019 |
| 17. | Invited talk
Meeting of the National Mechanobiology Network, Zaragoza, Spain | 2019 |
| 18. | Invited seminar
Department of Molecular Medicine and Medical Biotechnology, University of Naples Federico II, Italy | 2019 |
| 19. | Invited talk
XII Course on Cardiovascular Pathophysiology, CNIC, Madrid, Spain | 2018 |
| 20. | Invited talk
41 st Congress of the Spanish Society of Biochemistry and Molecular Biology, Santander, Spain | 2018 |
| 21. | Oral presentation
47 th European Muscle Conference, Budapest, Hungary | 2018 |
| 22. | Invited talk
2nd ELECOMI International Workshop, Universidad de Zaragoza, Spain | 2018 |
| 23. | Invited seminar
IQFR-CIB Hub on Integrative Structural Biochemistry (V), Madrid, Spain | 2018 |
| 24. | Invited seminar
Biodonostia Health Research Institute, San Sebastian, Spain | 2018 |
| 25. | Invited talk
Summer School “Mechanobiology of polarised cells”, Les Houches, France | 2018 |

Curriculum Vitae – Jorge Alegre-Cebollada, PhD

26. **Invited talk** 2018
7th Multifrequency AFM Conference, Madrid, Spain
27. **Invited talk** 2017
FEBS3+ 1st Joint Meeting of the French-Portuguese-Spanish Biochemical and Molecular Biology Societies
Barcelona, Spain
28. **Oral presentation** 2017
46th European Muscle Conference, Potsdam, Germany
29. **Invited seminar** 2017
Department of Cell Biology and Immunology, Center for Molecular Biology (CBM-Severo Ochoa), Madrid, Spain
30. **Invited seminar** 2017
IMDEA – Nanoscience, Madrid, Spain
31. **Invited seminar** 2017
Department of Structural and Computational Biology, University of Vienna & Max Perutz Laboratories, Austria
32. **Invited seminar** 2017
Institute of Science and Technology, Austria
33. **Invited seminar** 2017
Institute of Biomedicine of Seville, Spain
34. **Oral presentation and co-chair of the platform “Cardiac Muscle Mechanics and Structure”** 2017
61st Biophysical Society meeting, New Orleans, LA
35. **Invited talk** 2016
Mechanobiology across Networks Conference, Barcelona, Spain
36. **Invited seminar** 2016
Department of Condensed Matter Physics, University of Barcelona, Spain
37. **Oral presentation** 2016
39th Congress of the Spanish Society of Biochemistry and Molecular Biology, Salamanca, Spain
1st Workshop of the Emerging Investigator
38. **Oral presentation** 2016
5th International Iberian Biophysics Congress, Porto, Portugal
39. **Invited Seminar** 2016
Department of Physiology and Cardiothoracic Surgery, University of Porto, Portugal
40. **Invited Seminar** 2015
Institute of Materials Science of Madrid (ICMM-CSIC), Madrid, Spain
41. **Invited seminar** 2015
Department of Biochemistry and Molecular Biology I, Complutense University, Madrid, Spain
42. **Invited seminar** 2015

Curriculum Vitae – Jorge Alegre-Cebollada, PhD

Medical Research Institute, Hospital Universitario de La Princesa, Madrid, Spain

43. **Oral presentation** 2014
Health in Code, A Coruña, Spain
44. **Invited seminar** 2014
Spanish National Center of Biotechnology (CNB-CSIC), Madrid, Spain
45. **Invited talk** 2014
XIV International Congress of the Spanish Biophysical Society, Alcalá de Henares, Spain
46. **Oral presentation and co-chair of the platform “Fiber & Molecular Mechanics & Structure”** 2014
58th Biophysical Society meeting, San Francisco, CA
47. **Oral presentation** 2014
Department of Physiology and Biophysics, University of Washington, Seattle, WA
48. **Oral presentation** 2014
Earl Stadtman Symposium on Molecular Biology and Biochemistry, NIH, Bethesda, MD
49. **Oral presentation** 2013
Department of Biochemistry, UNAM, Mexico City, Mexico
50. **Invited speaker** 2013
3rd USA-Mexico Workshop in Biological Chemistry. Guanajuato, Mexico
51. **Oral presentation** 2013
Department of Cardiovascular Physiology, Ruhr University Bochum, Germany
52. **Oral presentation** 2013
Department of Medicine, Microbiology Section, Imperial College London, UK
53. **Oral presentation** 2013
Department of Molecular Biology and Biotechnology, University of Sheffield, UK
54. **Oral presentation** 2013
National Institute of Cardiovascular Research (CNIC), Madrid, Spain
55. **Oral presentation** 2013
Department of Biochemistry, University of Oxford, UK
56. **Oral presentation** 2012
Gordon Research Seminar, “Thiol-Based Redox Regulation & Signalling”, Lewiston, ME
57. **Oral presentation and co-chair of the platform “Molecular Mechanics & Force Spectroscopy”** 2012
56th Biophysical Society meeting, San Diego, CA
58. **Oral presentation** 2012
Physical Chemistry Seminar Series, Department of Chemistry, Columbia University, NY
59. **Oral presentation** 2011
Departmental Retreat, Department of Biological Sciences, Columbia University, NY

60. **Oral presentation** 2011
 XI Spanish Biophysical Society meeting, Murcia, Spain

61. **Oral presentation** 2004
 27th Congress of the Spanish Society of Biochemistry and Molecular Biology, Lleida, Spain

ORGANIZATION OF SCIENTIFIC EVENTS

50th European Muscle conference (Florence, Italy) 2023
 Co-chair of session *Young Researchers*

XVII International Congress of the Spanish Biophysical Society (Castelldefels, Spain) 2023
 Co-chair of session *Cell and Tissue Biophysics*

42th SEBBM conference (Madrid, Spain) 2019
 Scientific Committee

Joint 12th EBSA and 10th ICBP-IUPAP Biophysics Congress (Madrid, Spain) 2019
 Organizing Committee

CNIC (Madrid, Spain) 2016
 Co-organizer of the VI CNIC conference “Mechanical forces in physiology and disease”
 Competitive funding obtained: EMBO Keynote Lecture (1000 EUR), EMBO Young Investigator Lecture (800 EUR),
 Company of Biologists (£2000), SBE (600 EUR), SEBBM (1000 EUR)

CNIC (Madrid, Spain) 2014-2020
 Co-organizer of the “Mechanobiology” series of Seminars

TEACHING EXPERIENCE

University Alfonso X El Sabio (Villanueva de la Cañada, Spain) 2023
 Guest lecturer
 Topic: “Leadership in the scientific career”

CIC Biomagune (San Sebastian, Spain) 2023
Guest lecturer in the soft skills program
 Topic: “Moral dilemmas in scientific research”

Autonomous University, Master in Biomolecules and Cell Dynamics (Madrid, Spain) from 2021
Guest lecturer in the course “Understanding biomolecules”
 Topic: “Single-molecule methods”

Complutense University, Degree in Biochemistry from 2020
Guest lecturer in the course “Biophysics and Bioinformatics”. Topic: “Single-molecule biophysics”

University of Zaragoza, Master in Biomedical Engineering (Zaragoza, Spain) 2020
Guest lecturer in the course “Cell Mechanobiology”. Topic: “Protein mechanics”.

Complutense University, Summer School (El Escorial, Spain) 2019
 Lecturer in course “2019: international year of the periodic table. The impact of Chemistry in Society”

Complutense University of Madrid, Master in Biomedical Physics (Madrid, Spain) 2018-2019

Curriculum Vitae – Jorge Alegre-Cebollada, PhD

Guest lecturer in the course “Molecular Biophysics”

Topic: “Protein Mechanics by Single-Molecule Methods”

Complutense University, Summer School (El Escorial, Spain)

2017

Lecturer in course “New manners of dissemination of research in health: beyond classical scientific publications”

Autonomous University, Master in Biomolecules and Cell Dynamics (Madrid, Spain)

from 2017

Guest lecturer in the course “Biomolecular nanomachines”

Topic: “The machinery of muscle contraction”

Autonomous University (Madrid, Spain)

from 2016

Guest lecturer in the Masters Program in Molecular Biosciences

Topic: “Moral dilemmas in scientific research”

CNIC and Autonomous University of Madrid, Master in Molecular Biomedicine (Madrid, Spain)

2017-2020

Coordinator of the course “Insight into cardiovascular pathology research”

CNIC and Autonomous University of Madrid, Master in Molecular Biomedicine (Madrid, Spain)

from 2016

Guest lecturer in the course “Insight into cardiovascular pathology research”

Topic: “From single molecules to heart disease”

Complutense University, Degree in Biology (Madrid, Spain)

2016

Guest lecturer in the course “Biotechnology of Enzymes”, invited by Jesús Pérez-Gil

Topic: “Single-molecule enzymology”

Complutense University, Degree in Biochemistry (Madrid, Spain)

2016, 2018

Guest lecturer in the course “Enzymology”, invited by Jesús Pérez-Gil

Topic: “Single-molecule enzymology”

Complutense University (Madrid, Spain)

2015, yearly since 2018

Guest lecturer in the opening session of the Masters Program in Biochemistry, Molecular Biology and Biomedicine

Topic: “Moral dilemmas in scientific research”

Autonomous University of Madrid – UAM (Madrid, Spain)

2015

Guest lecturer in the course of Contemporary Humanities: “What do I do now? Problem solving in different situations”

Coordinated by Teresa Sanz García and Félix García Moriyón

Topic: “Moral dilemmas in scientific research”

Complutense University, Master in Biochemistry, Molecular Biology and Biomedicine (Madrid, Spain)

2014

Guest lecturer in the course “Protein structure and function and proteomics”, coordinated by Oscar Palomares

Topic: Application of single-molecule techniques to the study of proteins

Columbia University, Department of Biological Sciences (New York, NY)

2011, 2013

Guest lecturer in the course “Single-molecule Approaches to Biology”, coordinated by Prof. Julio M. Fernández

1 class per year. An introductory lecture is followed by discussion of recent single-molecule publications

Spanish Government, ANECA

2011

Certification to teach at the Assistant Professor level (Spanish equivalent, Profesor Contratado Doctor)

This teaching certification is required to become Assistant Professor at any Spanish University

Complutense University, Department of Biochemistry and Molecular Biology (Madrid, Spain)

2003-2008

Teaching Assistant in the Biochemistry Laboratory for Undergraduates

5 Academic Years

Curriculum Vitae – Jorge Alegre-Cebollada, PhD

20-30 students perform under my guidance basic experiments such as isolation of DNA, determination of kinetic parameters of enzymes, and separation of proteins by chromatography and electrophoresis

Complutense University, Graduate Program in Biochemistry and Molecular Biology (Madrid, Spain) 2008
Guest lecturer in the course for graduate students “Structure of Proteins”, coordinated by Prof. Rosalía Rodríguez
Topic: Application of infrared spectroscopy to the study of proteins

Milan-Bicocca University (Milan, Italy) & Complutense University (Madrid, Spain) 2005
Co-supervisor of the Thesis work of Masters student Giorgia Clementi
Thesis Title: Heterologous expression and purification of the cytolytic protein Sticholysin I from cytolytic sea anemone *Stichodactyla helianthus*

SUPERVISION AND MENTORING ACTIVITIES

Current postdoctoral scientists

Elías Herrero-Galán (since 2014)
Maria Rosaria Pricolo (since 2019)
Roberto Silva-Rojas (since 2022)
Miguel López-Unzu (since 2022)
Agata Bak (since 2023)

Current PhD students

Inés Martínez Martín (since 2017. 2018 BSc in Biochemistry; 2019 MSc in Biophysics with honors, La Caixa Fellow)
María Sánchez Díaz (since 2017, co-supervised by Andrés Hidalgo, CNIC)
Laura Sen (since 2020. 2020 MSc in Biochemistry, Molecular Biology and Biomedicine)
Manuel Gavilán Herrera (since 2021. 2021 MSc in Biochemistry, Molecular Biology and Biomedicine)

Current technicians

Diana Velázquez-Carreras (since 2014)
Natalia Vicente (since 2021)
Cristina Morales (since 2023)
Alejandro Clemente Manteca (since 2021. 2022 BSc in Biomedical Engineering. 2023 MSc in Biomedical Technology)

Current Residents in Medicine

David Sánchez Ortiz (since 2017, 2019 MD with honors)

Current Undergraduate and Master students

Rubén Rojas (since 2023)

Advisor of PhD thesis

1. Maria Rosaria Pricolo (PhD 2019, co-supervised with Giulia Frisso, U. Naples Federico II, Italy)
2. Carla Huerta-López (PhD 2021 with honors, moved to Stanford University for postdoc in 2022)
3. Carmen Suay-Corredera (PhD 2022 with honors, moved to University of Pennsylvania for postdoc in 2023)
4. Agata Bak (PhD 2023 with honors, now a postdoctoral scientist at CNIC)

Former postdoctoral trainees

1. Angel Fernández-Trasancos (2018-2020. Currently at BioInnova Consulting as a Life Sciences Consultant)
2. Andra Dumitru (2021-2023. Currently a Group Leader at UCLouvain, Belgium)

Member of MSc/PhD Thesis Committees:

National: 1. Benjamin Gollnick (UAM, 2014); 2. Andrés Manuel Vera Gómez (U. Sevilla, 2015); 3. Jörg Schönfelder (UAM, 2016); 4. Albert Galera (UAM, 2016); 5. César López Pastrana (UAM, 2017); 6. Minerva Bosch

Curriculum Vitae – Jorge Alegre-Cebollada, PhD

Fortea (UAM, 2018); 7. Roberto Moreno Vicente (UAM, 2018); 8. María del Carmen Fernández Ramírez (UAM, 2019); Pablo David García López (UAM, 2019); 10. Antonio Quílez Álvarez (UAM, 2020); 11. Adrián del Valle García (UAM, 2020); 12. Master Theses Program in Biochemistry, Molecular Biology and Biomedicine (UCM, 2021); 13. Cristina Márquez (UAM, 2021); 14. Blanca González Bermúdez (UPM, 2021); 15. Giulio Fulgoni (UAM, 2021); 16. Maria Jesús Ruiz Rodríguez (UAM, 2022); 17. María García García (UAM, 2022); 18. Juan García (UAM, 2023); 19. Laura Sotodosos (UAM, 2024)

International: 1. Amy E. M. Beedle (King’s College London, 2018); 2. PhD Theses from the Department of Molecular Medicine and Medical Biotechnology (U. Naples II, 2019); 3. Zhaowei Liu (U. Basel, 2021); 4. Fani Panagaki (King’s College London, 2022)

Autonomous University of Madrid (Spain) 2023
Degree Thesis (Juan Barquillo)

University Carlos III of Madrid (Spain) 2023
Master Thesis (Alejandro Clemente Manteca)

Polytechnic University of Madrid (Spain) 2022
Degree Thesis (Alejandro Clemente Manteca)

Autonomous University of Madrid (Spain) 2022
Degree Thesis (Leila Zafra)

Universidad Carlos III de Madrid (Spain) 2021
Degree Thesis (Irene Medrano)

Autonomous University of Madrid (Spain) 2021
Degree Thesis (Iván Zumeta)

Complutense University (Spain) 2020
Master Thesis (Laura Sen)

University of Alcalá de Henares (Spain) 2020
Master Thesis (Nallely Nava)

Autonomous University of Madrid (Spain) 2020
Degree Thesis (Francisco Martín Zamora)

Autonomous University of Madrid 2019
Master Thesis (Niels Groenewegen)

CNIC 2019
Laboratory rotation – technical personnel (Israel Anguiano)

University of León 2018
Master Thesis (Andrea Rodríguez Blanco)

CNIC 2017-2019
Laboratory rotation – technical personnel (Natalia Vicente)

University of Barcelona (Spain) 2017
Masters Thesis work (Carolina Lopes)

Curriculum Vitae – Jorge Alegre-Cebollada, PhD

CNIC Member of Advisory Thesis Committee, Giulio Fulgoni, María García-García	2016
CNIC, European Commission International Training Network “BIOPOL” (Madrid, Spain) Secondary co-supervisor of PhD students Víctor Jiménez, Antonio Quílez	2016-2018
Complutense University (Madrid, Spain) Masters Thesis work (Cristina Sánchez, Carmen Suay)	2016
CNIC (Madrid, Spain) Laboratory rotation for MDs who are doing their residency in cardiology (Res@CNIC program) María Plaza (2016), Andrés Escudero (2017), Josu Erquicia (2021)	from 2016
University of Alcalá de Henares (Spain) Undergraduate Thesis work (Cristina Sánchez)	2015
CNIC (Madrid, Spain) Laboratory rotation for undergraduate students (CICERONE program) Carmen Suay (2014, 2015), Carla Huerta (2015), Ricardo Esteban (2016), Íñigo Urrutia (2016), Inés Martínez (2017) David Sánchez (2017, 2018), Manuel Mayo (2018), Luis Gutiérrez (2018)	from 2014
Columbia University, Department of Biological Sciences (New York, NY) Laboratory rotation (graduate students) Daniel Echelman (MD/PhD, 2013), Edward Eckels (MD/PhD, 2012), Kausik Regunath (PhD-Biology, 2010)	2010-2013
Columbia University, Department of Biological Sciences (New York, NY) Thesis work (Pallav Kosuri)	2012
Columbia University, Department of Biological Sciences (New York, NY) Summer rotation program for undergraduate students (SURF program) Farees Saqlain (2013), Ido Haimi (2012)	2012, 2013
Complutense University, Department of Biochemistry and Molecular Biology (Madrid, Spain) Rotation program for international undergraduate students (ERASMUS) Michela Cunietti (Italy, 2006), Giorgia Clementi (Italy, 2005), Christian Porres (Germany, 2004)	2004-2006

SERVICE AND OUTREACH

Ad hoc reviewer

Scientific Journals: Nature Communications, eLife, PNAS, JACS, ACS Nano, Redox Biology, PLOS-One, Biophysical Journal, BBA-Biomembranes, BBA-Molecular Cell Research, Scientific Reports, Protein Science, FEBS Letters, Journal of Chemical Physics, Frontiers Molecular Biosciences, Frontiers in Cardiovascular Medicine, Current Research in Structural Biology, ACS Biomaterials Science & Engineering, JACS Au, Gels, Nucleus, Annals of Biomedical Engineering, Food Science and Technology, Revista Española de Cardiología, Chemistry and Physics of Lipids

Funding agencies: H2020, Human Frontier Science Program, Spanish National Agency of Evaluation (ANEP), International Foundation for Science, Slovenian Research Agency (ARRS), AFM Telethon (France), ProteoRed

Promotion committees: University of Oxford

Member of award committees: Top ten emerging technologies (IUPAC), Michèle Auger Award (Biophysical Reviews)

Bertelsmann Foundation – *Empresas que inspiran* 2024

Curriculum Vitae – Jorge Alegre-Cebollada, PhD

Vocations in science seminars (x2)

Spanish Ministry of Science and Innovation Member of the evaluation committee of national grants – Cellular and Molecular Biology section	2023
IES Principe Felipe (Secondary School, Madrid, Spain) Vocations in science seminars (x2)	2023
Article - Federation of European Biochemical Societies (FEBS) Network Multidisciplinary research for early-career scientists	2022
Young Academy of Spain Mentoring Working Group – co-coordinator	2022
Spanish Foundation for Science and Technology (FECYT) Invited presentation – ERC Reading Days	2022
Spanish Ministry of Science and Innovation Member of the evaluation committee of national grants – Cellular and Molecular Biology section	2022
Young Academy of Spain Invited presentation II Workshop “Crafting a Winning ERC-CoG” Proposal	2022
Outreach Video – Spanish Association for the Advancement of Science https://aeac.science/actividad/dr-jorge-alegre-cebollada/	2021
Biophysical Reviews Member of the Editorial Board	from 2020
Opinion Article – SBE’s Newsletter (http://biofisica.info/) Seeing the science glass half full	2020
Outreach Organization of practical workshops during Madrid’s Science week at CNIC and at local schools	yearly
Opinion Article – NIAIA website Who does Science belong to? (in Spanish, <i>¿A quién pertenece la ciencia?</i>)	2019
Outreach, ISCIII Presentation of the National Catalogue in Health Science	2018
Opinion Article – NIAIA website Moral dilemmas in research (in Spanish, <i>Los dilemas morales en la investigación científica</i>)	2018
Outreach, CNIC Organization of activity “Meet research groups” within the “Acércate” program for High School students	from 2018
ERA-CVD Minotaur project Dissemination Manager	2017-2019
Spanish Foundation for Science and Technology (FECYT) Coordinator of CNIC’s stand “ <i>Tu sistema cardiovascular al descubierto</i> ” in the Science Fair “ <i>Finde Científico</i> ”	2017

Spanish National Agency of Evaluation (ANEP) <i>Selection committee Ramón y Cajal Program (Biomedicine)</i>	2017
Popular science, SBE's Newsletter Eric Betzig “super resolves” the way to ground-breaking science	2017
Spanish National Agency of Evaluation (ANEP) <i>Selection committee Ramón y Cajal Program (Medicine)</i>	2016
Nanotechnology <i>Guest editor of a focus issue on Protein Folding</i>	2016
NIAIA group – Training and research in solving moral problems <i>Member</i>	from 2015
Spanish Society of Biochemistry and Molecular Biology (SEBBM) <i>Junior representative at CNIC</i>	from 2015
Popular science, SBE's Newsletter (in Spanish) Title of the article: La Medicina y la Biofísica . (<i>Medicine and Biophysics</i>)	2015
Spanish Biophysical Society (SBE) <i>Editorial Committee, SBE's Newsletter</i> http://biofisica.info/	2014-2020
Popular science, website of the Spanish Society of Biochemistry and Molecular Biology (in Spanish) Title of the article: <i>Jugando en el laboratorio con moléculas únicas</i> (Playing with single-molecules)	2011
Popular science article, <i>Investigación y Ciencia</i> journal (in Spanish) Title of the article: <i>Viaje molecular al pasado</i> (Molecular travel to the past) Co-authors: Raúl Pérez-Jiménez, Jorge Alegre-Cebollada , Julio M. Fernández.	2011
Workshop for the General Public, 7th Science Week, Madrid, Spain <i>Co-organizer</i> Topic: Introduction to protein separation techniques: chromatography and ultracentrifugation	2007

APPEARANCES IN THE MEDIA

El País Interview (Sep 28 th) – Back Page	2018
Diario Médico	2017
La Razón Interview (May 17 th)	2015
Heraldo de Aragón – Tercer Milenio Interview (November 25 th)	2014
Aragon TV Featured in the Evening News (July 29 th)	2014

Spanish National Radio (RNE)

2014

Interview (In Spanish) – A Hombros de Gigantes (June 30th)

<http://www.rtve.es/alacarta/audios/a-hombros-de-gigantes/hombros-gigantes-estudiar-proteinas-para-prevenir-enfermedades-cardiacas-30-07-2014/2638179/>