



Comisión Interministerial de Ciencia y Tecnología

Curriculum vitae

Name: José Manuel Martín García

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1. PERSONAL INFORMATION

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WoS ID	ABC-1333-2022
Google Scholar	https://scholar.google.co.uk/citations?user=-Gz7cTcAAAAJ&hl=en

2. CURRENT PROFESSIONAL POSITION

Position	Tenured Scientist
Start date	18/12/2024
Center / Institution	Blas Cabrera Institute of Physical Chemistry - Spanish National Research Council (CSIC)
Department / Center	Crystallography and Structural Biology IQF-CSIC
Telephone	917459507 (Ext. 442041)

3. PREVIOUS SCIENTIFIC AND PROFESSIONAL EXPERIENCE

Period	Position / Institution / Country
2020-2024	Talent Attraction Program Research Fellow, Community of Madrid / IQF-CSIC / Spain
2019-2020	Associate Research Scientist /Arizona State University / USA
2015-2019	Assistant Research Scientist /Arizona State University / USA
2011-2015	Postdoctoral Research Associate /Arizona State University / USA
2010-2011	Postdoctoral Research Associate /University of Almería / Spain

4. ACADEMIC EDUCATION

Degree	University / Country	Year
PhD in Chemistry	University of Granada / Spain	2010
Degree in Chemistry	University of Granada / Spain	2004

5. BIOGRAPHY

Dr. José M. Martín García is a Tenured Scientist in the Department of Crystallography and Structural Biology at the Blas Cabrera Institute of Physical Chemistry (IQF-CSIC) in Madrid. He obtained his degree in Chemistry in 2004 and his PhD in Chemistry in 2010 from the University of Granada. His scientific career has focused on understanding protein structure, conformational dynamics and reaction mechanisms by combining advanced macromolecular crystallography with the development of innovative approaches for protein structure determination.

After a postdoctoral period at the University of Almería, he joined Arizona State University (USA) in 2011, where he progressed from Postdoctoral Research Associate to Assistant Research Scientist and Associate Research Scientist. During nearly a decade at ASU, he contributed to major methodological advances in serial crystallography, including nano- and microcrystal production and characterization, *in-cellulo* crystallization, high-viscosity and microfluidic sample-delivery approaches, and the implementation of serial crystallography at synchrotron radiation sources and X-ray free-electron lasers (XFELs). This work helped establish experimental strategies for studying biological macromolecules from very small crystals while reducing sample consumption and enabling experiments under near-physiological conditions.

In 2020, he returned to Spain through the Community of Madrid Talent Attraction Program and established an independent research line at IQF-CSIC, where he was appointed Tenured Scientist in 2024. His current research centers on time-resolved structural biology, with particular emphasis on visualizing protein motions and enzymatic reactions as they occur. His group combines room-temperature and time-resolved serial crystallography at synchrotrons and XFELs with biochemical, biophysical and computational approaches to investigate enzyme catalysis, conformational dynamics, allostery and functional asymmetry.

A major objective of his research is to move beyond static structural descriptions toward molecular movies of biological function, particularly in systems relevant to cancer, antibiotic resistance and other biomedical processes. Alongside these biological applications, he continues to develop and optimize experimental methodologies for protein microcrystallization and sample delivery, linking methodological innovation with fundamental questions in structural enzymology and structure-based drug discovery.

6. CURRENT RESEARCH LINES

- Time-resolved serial crystallography at synchrotrons and XFELs.
- Dynamic studies of cancer-related processes and antibiotic resistance using XFELs.
- Development and optimization of new methods for producing protein nanocrystals.
- Development of sample-delivery devices for crystalline samples at XFELs and synchrotrons.

7. SCIENTIFIC PROFILE AT A GLANCE

Research output and scientific impact

- 55 peer-reviewed articles published, with 2 additional manuscripts currently under review.
- 16 corresponding-author publications and 8 first/co-first-author research articles.
- 4 review articles and 1 book chapter.
- 8 conference publications.
- 6 articles published in journals with an impact factor >10.
- 1,945 citations; h-index: 23; i10-index: 38 (Google Scholar).

Scientific leadership and competitive funding

- **Principal Investigator of 5 competitively funded research projects**, attracting **€635,000 + US\$69,295** in direct research funding.
- Participation in **13 additional national and international research projects**, including projects funded by the NSF, NIH, Spanish State Research Agency and Community of Madrid.
- **Nine years of research experience at Arizona State University**, USA (2011–2020), progressing from Postdoctoral Research Associate to Assistant Research Scientist and Associate Research Scientist.

- **1 patent application** related to sample delivery for time-resolved crystallography.

International scientific visibility

- **71 contributions** to conferences, workshops, schools, seminars and symposia, including:
 - **33 invited lectures, of which 5 were keynote lectures.**
 - **11 contributed oral presentations.**
 - **27 poster presentations.**
- Organizer, co-organizer or scientific chair of **11 conferences, workshops, symposia and seminars.**
- Member of **9 scientific organizations and collaborative networks**, including 7 current memberships.

Supervision and training

- Primary supervisor of **3 PhD theses: 1 defended in 2025 and 2 ongoing.**
- Co-supervisor of **1 additional PhD thesis** at Arizona State University.
- Supervisor of:
 - **1 undergraduate final-year project.**
 - **2 Master's theses.**
 - **2 CSIC JAE-INTRO projects.**
 - **1 Erasmus+ trainee.**
- Additional co-supervision of **2 student research projects at Arizona State University.**

Scientific service, editorial activity and recognition

- Guest Editor of **3 Special Issues** of the journal *Crystals*.
- Topical Advisory Panel Member of *Crystals* and the *International Journal of Molecular Sciences*.
- Associate Editor for Structural Biology in *Frontiers in Molecular Biosciences* and *Frontiers in Cell and Developmental Biology*.
- Participation in **7 proposal/panel evaluation activities** for the LCLS, Spanish State Research Agency (AEI), Human Frontier Science Program (HFSP) and Swiss National Science Foundation (SNSF).
- Member of **3 doctoral thesis evaluation committees.**
- Member of **1 selection committee for a tenured university faculty position.**
- Reviewer for **11 scientific journals.**
- **I3 Certification awarded in 2022 with a score of 9.5.**
- Positive **ANECA evaluation** of research and teaching activity.
- Recipient of **2 Best Poster Awards** and the **Arizona State University Knowledge Enterprise Development and Biodesign Institute Leadership Award.**

8. PUBLICATIONS

(*Corresponding author)

Manuscripts under review

1. Alice Grieco, Isabel Quereda-Moraleda, Sabine Botha, Katerina Dörner, Christina Schmidt, Huijong Han, Joachim Schulz, Raphael de Wijn, Adam Round, Johan Bielecki, Marko Kloos,

Christopher Kupitz, Ray Sierra, Valerio Mariani, Shibom Basu, Julien Orlans, Samuel Rose, Daniele de Sanctis, Leeland Gee, Richard Bean, **Jose M. Martin-Garcia***. (*In review at IUCrJ*). Ambient temperature structural studies of Penicillin-binding Protein 2a of Methicillin-Resistant Staphylococcus aureus with XFELs and synchrotrons

2. Isabel Quereda-Moraleda, Sergio Boneta, Alice Grieco, Diandra Doppler, Domin Koh, Abhik Manna, Adil Ansari, Roberto Alvarez, Konstantinos Karpos, Hung Le, Mukul Sonker, Samira Mahmud, Romain Letrun, Katerina Dörner, Jayanath C. P. Koliyadu, Raphael de Wijn, Johan Bielecki, Huijong Han, Chan Kim, Faisal H. M. Koua, Adam Round, Abhisakh Sarma, Tokushi Sato, Christina Schmidt, Mohammad Vakili, Dmitrii Zabelskii, Richard Bean, Adrian P. Mancuso, Joachim Schulz, Sabine Botha, Angel Luis Pey, Milagros Medina*, Alexandra Ros*, **Jose Manuel Martin-Garcia***. (*In review at Science Advances*). Time-resolved crystallography reveals new structural and dynamic insights into the mechanism of the human flavoenzyme NQO1.

Accepted articles

2026

1. Doppler D, Grieco A, Koh D, Manna A, Ansari A, Alvarez R, Karpos K, Le H, Sonker M, Ketawala GK, Mahmud S, Quereda-Moraleda I, Sen S, Pey AL, Letrun R, Dörner K, Koliyadu JCP, de Wijn R, Bielecki J, Han H, Kim C, Koua FHM, Round A, Sarma A, Sato T, Schmidt C, Vakili M, Zabelskii D, Bean R, Mancuso AP, Schulz J, Fromme R, Medina M, Grant TD, Fromme P, Kirian RA, Botha S, **Martin-Garcia JM***, Ros A*. Minimized sample consumption for time-resolved serial crystallography applied to the redox cycle of human NQO1. **Commun Chem**. 2026;9(1):107. doi: [10.1038/s42004-026-01908-9](https://doi.org/10.1038/s42004-026-01908-9)
2. Ranaweera ME, Jernigan RJ, Boradia KS, Trimble KL, Loskutov VA, **Martin-Garcia JM**, Schrag LG, Craciunescu FM, Karr TL, Parsawar K, Zhang N, Hansen DT, Fromme P. Purification and structural characterization of the tularemia membrane protein virulence factors CapB and CapC. **Biochim Biophys Acta Biomembr**. 2026;1868(3):184522. doi: [10.1016/j.bbamem.2026.184522](https://doi.org/10.1016/j.bbamem.2026.184522)
3. Rivero M, Pacheco-Garcia JL, Vankova P, Loginov D, Quereda-Moraleda I, **Martin-Garcia JM**, Man P, Pey AL, Medina M. Tyrosine residues at the substrate binding site in human NQO1 homodimer: Protein conformational dynamics and optimization of substrate binding geometry. **FEBS J**. 2026. doi: [10.1111/febs.70511](https://doi.org/10.1111/febs.70511)

2025

1. Giraldo-Ruiz L, Quereda-Moraleda I, Grieco A, Ruiz-Sanz J, Luque I*, **Martin-Garcia JM***. Structural insights into full-length human fascin1: a target for cancer treatment. **Acta Crystallogr F Struct Biol Commun**. 2025;81(Pt 7):319-331. doi: [10.1107/S2053230X25005254](https://doi.org/10.1107/S2053230X25005254)
2. Reyes L, Naser L, Weiner WS, Thifault D, Stahl E, McCreary L, Nott R, Quick C, Buchberger A, Alvarado C, Rivera A, Miller JA, Khatiwala R, Cherry BR, Nelson R, **Martin-Garcia JM**, Stephanopoulos N, Fromme R, Fromme P, Cance W, Marlowe T. Structure-based discovery of hydrocarbon-stapled paxillin peptides that block FAK scaffolding in cancer. **Nat Commun**. 2025;16(1):2060. doi: [10.1038/s41467-025-57196-9](https://doi.org/10.1038/s41467-025-57196-9)
3. Hou Y, Zhong B, Zhao L, Wang H, Zhu Y, Wang X, Zheng H, Yu J, Liu G, Wang X, **Martin-Garcia JM**, Chen X. A small molecule cryptotanshinone induces non-enzymatic NQO1-dependent necrosis in cancer cells through the JNK1/2/Iron/PARP/calcium pathway. **Acta Pharm Sin B**. 2025;15(2):991-1006. doi: [10.1016/j.apsb.2024.12.005](https://doi.org/10.1016/j.apsb.2024.12.005)

2024

1. Manna A, Sonker M, Koh D, Steiger M, Ansari A, Hu H, Quereda-Moraleda I, Grieco A, Doppler D, de Sanctis D, Basu S, Orlans J, Rose SL, Botha S, **Martin-Garcia JM***, Ros A. Cyclic Olefin

Copolymer-Based Fixed-Target Sample Delivery Device for Protein X-ray Crystallography. **Anal Chem.** 2024;96(52):20371–81. DOI: [10.1021/acs.analchem.4c03484](https://doi.org/10.1021/acs.analchem.4c03484)

2. Moreno A, Quereda-Moraleda I, Lozano-Vallhonrat C, Buñuel-Escudero M, Botha S, Kupitz C, Lisova S, Sierra R, Mariani V, Schleissner P, Gee LB, Dörner K, Schmidt C, Han H, Kloos M, Smyth P, Valerio J, Schulz J, de Wijn R, Melo DVM, Round A, Trost F, Sobolev E, Juncheng E, Sikorski M, Bean R, Martínez-Júlvez M, **Martin-Garcia JM***, Medina M. New insights into the function and molecular mechanisms of Ferredoxin-NADP⁺ reductase from *Brucella ovis*. **Arch Biochem Biophys.** 2024;762:110204. DOI: [10.1016/j.abb.2024.110204](https://doi.org/10.1016/j.abb.2024.110204)
3. Grieco A, Quereda-Moraleda I, **Martin-Garcia JM***. Innovative Strategies in X-ray Crystallography for Exploring Structural Dynamics and Reaction Mechanisms in Metabolic Disorders. **J Pers Med.** 2024;14(9):909. DOI: [10.3390/jpm14090909](https://doi.org/10.3390/jpm14090909). (Review).
4. Grieco A, Boneta S, Gavira JA, Pey AL, Basu S, Orlans J, Sanctis D, Medina M, **Martin-Garcia JM***. Structural dynamics and functional cooperativity of human NQO1 by ambient temperature serial crystallography and simulations. **Protein Sci.** 2024;33(4):e4957. DOI: [10.1002/pro.4957](https://doi.org/10.1002/pro.4957)
5. Vankova P, Pacheco-Garcia JL, Loginov DS, Gómez-Mulas A, Kádek A, **Martin-Garcia JM**, Salido E, Man P, Pey AL. Insights into the pathogenesis of primary hyperoxaluria type I from the structural dynamics of alanine:glyoxylate aminotransferase variants. **FEBS Lett.** 2024;598(4):485-499. DOI: [10.1002/1873-3468.14800](https://doi.org/10.1002/1873-3468.14800)

2023

1. Grieco A, Ruiz-Fresneda MA, Gómez-Mulas A, Pacheco-García JL, Quereda-Moraleda I, Pey AL, **Martin-Garcia JM***. Structural dynamics at the active site of the cancer-associated flavoenzyme NQO1 probed by chemical modification with PMSF. **FEBS Lett.** 2023;597(21):2687-2698. DOI: [10.1002/1873-3468.14738](https://doi.org/10.1002/1873-3468.14738)
2. Malla TN, Zielinski K, Aldama L, Bajt S, Feliz D, Hayes B, Hunter M, Kupitz C, Lisova S, Knoska J, **Martin-Garcia JM**, Mariani V, Pandey S, Poudyal I, Sierra RG, Tolstikova A, Yefanov O, Yoon CH, Ourmazd A, Fromme P, Schwander P, Barty A, Chapman HN, Stojkovic EA, Batyuk A, Boutet S, Phillips GN Jr, Pollack L, Schmidt M. Heterogeneity in *M. tuberculosis* β -lactamase inhibition by Sulbactam. **Nat Commun.** 2023;14(1):5507. DOI: [10.1038/s41467-023-41246-1](https://doi.org/10.1038/s41467-023-41246-1)
3. El-Araby AM, Jiménez-Faraco E, Feltzer R, **Martin-Garcia JM**, Karri BR, Ramachandran B, Kim C, Fisher JF, Hermoso JA, Mobashery S. Catalytic process of anhydro-N-acetylmuramic acid kinase from *Pseudomonas aeruginosa*. **J Biol Chem.** 2023;299(10):105198. DOI: [10.1016/j.jbc.2023.105198](https://doi.org/10.1016/j.jbc.2023.105198)
4. Doppler D, Sonker M, Egatz-Gomez A, Grieco A, Zaare S, Jernigan R, Meza-Aguilar JD, Rabbani MT, Manna A, Alvarez RC, Karpos K, Cruz Villarreal J, Nelson G, Yang JH, Carrion J, Morin K, Ketawala GK, Pey AL, Ruiz-Fresneda MA, Pacheco-Garcia JL, Hermoso JA, Nazari R, Sierra R, Hunter MS, Batyuk A, Kupitz CJ, Sublett RE, Lisova S, Mariani V, Boutet S, Fromme R, Grant TD, Botha S, Fromme P, Kirian RA, **Martin-Garcia JM***, Ros A. Modular droplet injector for sample conservation providing new structural insight for the conformational heterogeneity in the disease-associated NQO1 enzyme. **Lab Chip.** 2023;23(13):3016-3033. DOI: [10.1039/d3lc00176h](https://doi.org/10.1039/d3lc00176h)
5. Jernigan RJ, Logeswaran D, Doppler D, Nagarathnam N, Sonker M, Yang JH, Ketawala G, **Martin-Garcia JM**, Shelby ML, Grant TD, Mariani V, Tolstikova A, Sheikh MZ, Yung MC, Coleman MA, Zaare S, Kaschner EK, Rabbani MT, Nazari R, Zacks MA, Hayes B, Sierra RG, Hunter MS, Lisova S, Batyuk A, Kupitz C, Boutet S, Hansen DT, Kirian RA, Schmidt M, Fromme R, Frank M, Ros A, Chen JJ, Botha S, Fromme P. Room-temperature structural studies of SARS-CoV-2 protein NendoU with an X-ray free-electron laser. **Structure.** 2023;31(2):138-151.e5. DOI: [10.1016/j.str.2022.12.009](https://doi.org/10.1016/j.str.2022.12.009)

2022

1. Sonker M, Doppler D, Egatz-Gomez A, Zaare S, Rabbani MT, Manna A, Cruz Villarreal J, Nelson G, Ketawala GK, Karpos K, Alvarez RC, Nazari R, Thifault D, Jernigan R, Oberthür D, Han H, Sierra R, Hunter MS, Batyuk A, Kupitz CJ, Sublett RE, Poitevin F, Lisova S, Mariani V, Tolstikova A, Boutet S, Messerschmidt M, Meza-Aguilar JD, Fromme R, **Martin-Garcia JM**, Botha S, Fromme P, Grant TD, Kirian RA, Ros A. Electrically stimulated droplet injector for reduced sample consumption in serial crystallography. *Biophys Rep*. 2022 Sep 29;2(4):100081. DOI: [10.1016/j.bpr.2022.100081](https://doi.org/10.1016/j.bpr.2022.100081)
2. Nagaratnam N, **Martin-Garcia JM**, Yang JH, Goode MR, Ketawala G, Craciunescu FM, Zook JD, Sonowal M, Williams D, Grant TD, Fromme R, Hansen DT, Fromme P. Structural and biophysical properties of FopA, a major outer membrane protein of Francisella tularensis. *PLoS One*. 2022;17(8):e0267370. DOI: [10.1371/journal.pone.0267370](https://doi.org/10.1371/journal.pone.0267370)
3. Zhang S, Hansen DT, **Martin-Garcia JM**, Zook JD, Pan S, Craciunescu FM, Burnett JC Jr, Fromme P*. Purification, characterization, and preliminary serial crystallography diffraction advances structure determination of full-length human particulate guanylyl cyclase A receptor. *Sci Rep*. 2022;12(1):11824. DOI: [10.1038/s41598-022-15798-z](https://doi.org/10.1038/s41598-022-15798-z)
4. **Martin-Garcia, J.M***. Macromolecular Serial Crystallography (Volume II). *Crystals* 2022, 12, 768. <https://doi.org/10.3390/cryst12060768>
5. **Martin-Garcia JM***, Botha S, Hu H, Jernigan R, Castellví A, Lisova S, Gil F, Calisto B, Crespo I, Roy-Chowdhury S, Grieco A, Ketawala G, Weierstall U, Spence J, Fromme P, Zatsepin N, Boer DR*, Carpena X*. Serial macromolecular crystallography at ALBA Synchrotron Light Source. *J Synchrotron Radiat*. 2022;29(Pt 3):896-907. *J Synchrotron Radiat*. 2022;29(Pt 4):1130. DOI: [10.1107/S1600577522002508](https://doi.org/10.1107/S1600577522002508)
6. Doppler D, Rabbani MT, Letrun R, Cruz Villarreal J, Kim DH, Gandhi S, Egatz-Gomez A, Sonker M, Chen J, Koua FHM, Yang J, Youssef M, Mazalova V, Bajt S, Shelby ML, Coleman MA, Wiedorn MO, Knoska J, Schön S, Sato T, Hunter MS, Hosseinizadeh A, Kuptiz C, Nazari R, Alvarez RC, Karpos K, Zaare S, Dobson Z, Discianno E, Zhang S, Zook JD, Bielecki J, de Wijn R, Round AR, Vagovic P, Kloos M, Vakili M, Ketawala GK, Stander NE, Olson TL, Morin K, Mondal J, Nguyen J, Meza-Aguilar JD, Kodis G, Vaiana S, **Martin-Garcia JM**, Mariani V, Schwander P, Schmidt M, Messerschmidt M, Ourmazd A, Zatsepin N, Weierstall U, Bruce BD, Mancuso AP, Grant T, Barty A, Chapman HN, Frank M, Fromme R, Spence JCH, Botha S, Fromme P, Kirian RA, Ros A*. Co-flow injection for serial crystallography at X-ray free-electron lasers. *J Appl Crystallogr*. 2022;55(Pt 1):1-13. DOI: [10.1107/S1600576721011079](https://doi.org/10.1107/S1600576721011079)

2021

1. **Martin-Garcia JM***. Protein Dynamics and Time Resolved Protein Crystallography at Synchrotron Radiation Sources: Past, Present, and Future. *Crystals*. 2021 11(5), 521. <https://doi.org/10.3390/cryst11050521> (Review)
2. Nagaratnam N, Delker SL, Jernigan R, Edwards TE, Snider J, Thifault D, Williams D, Nannenga BL, Stofega M, Sambucetti L, Hsieh JJ, Flint AJ, Fromme P, and **Martin-Garcia JM***. Structural Insights into the Function of the Catalytically Active Human Taspase1. *Structure*. 2021 25: S0969-2126(21)00081-2. DOI: [10.1016/j.str.2021.03.008](https://doi.org/10.1016/j.str.2021.03.008)
3. Pandey S, Calvey G, Katz AM, Malla TN, Koua FHM, **Martin-Garcia JM**, Poudyal I, Yang JH, Vakili M, Yefanov O, Zielinski KA, Bajt S, Awel S, Doerner K, Frank M, Gelisio L, Jernigan R, Kirkwood H, Kloos M, Koliyadu J, Mariani V, Miller MD, Mills G, Nelson G, Olmos JL Jr, Sadri A, Sato T, Tolstikova A, Xu W, Ourmazd A, Spence JCH, Schwander P, Barty A, Chapman HN, Fromme P, Mancuso AP, Phillips GN Jr, Bean R, Pollack L, Schmidt M*. Observation of substrate diffusion and ligand binding in enzyme crystals using high-repetition-rate mix-and-inject serial crystallography. *IUCrJ*. 2021;8(Pt 6):878-895. DOI: [10.1107/S2052252521008125](https://doi.org/10.1107/S2052252521008125)

4. Gisriel C, Fromme P, **Martin-Garcia JM***. Methods for Crystallization and Structural Determination of M-T7 Protein from Myxoma Virus. In: Lucas A.R. (eds) *Viruses as Therapeutics. Methods in Molecular Biology*. 2021, vol 2225. Humana, New York, NY. DOI: [10.1007/978-1-0716-1012-1_8](https://doi.org/10.1007/978-1-0716-1012-1_8). (Book Chapter)

2020

1. Echelmeier A, Cruz Villarreal J, Messerschmidt M, Kim D, Coe JD, Thifault D, Botha S, Egatz-Gomez A, Gandhi S, Brehm G, Conrad CE, Hansen DT, Madsen C, Bajt S, Meza-Aguilar JD, Oberthür D, Wiedorn MO, Fleckenstein H, Mendez D, Knoška J, **Martin-Garcia JM**, Hu H, Lisova S, Allahgholi A, Gevorkov Y, Ayyer K, Aplin S, Ginn HM, Graafsma H, Morgan AJ, Greiffenberg D, Klujev A, Laurus T, Poehlsen J, Trunk U, Mezza D, Schmidt B, Kuhn M, Fromme R, Sztuk-Dambietz J, Raab N, Hauf S, Silenzi A, Michelat T, Xu C, Danilevski C, Parenti A, Mekinda L, Weinhausen B, Mills G, Vagovic P, Kim Y, Kirkwood H, Bean R, Bielecki J, Stern S, Giewekemeyer K, Round AR, Schulz J, Dörner K, Grant TD, Mariani V, Barty A, Mancuso AP, Weierstall U, Spence JCH, Chapman HN, Zatsepin N, Fromme P, Kirian RA, Ros A*. Segmented flow generator for serial crystallography at the European X-ray free electron laser. *Nat Commun*. 2020;11(1):4511. DOI: [10.1038/s41467-020-18156-7](https://doi.org/10.1038/s41467-020-18156-7)
2. Nass K, Redecke L, Perbandt M, Yefanov O, Klinge M, Koopmann R, Stellato F, Gabdulkhakov A, Schönherr R, Rehders D, Lahey-Rudolph JM, Aquila A, Barty A, Basu S, Doak RB, Duden R, Frank M, Fromme R, Kassemeyer S, Katona G, Kirian R, Liu H, Majoul I, **Martin-Garcia JM**, Messerschmidt M, Shoeman RL, Weierstall U, Westenhoff S, White TA, Williams GJ, Yoon CH, Zatsepin N, Fromme P, Duszenko M, Chapman HN, Betzel C. In cellulo crystallization of Trypanosoma brucei IMP dehydrogenase enables the identification of genuine co-factors. *Nat Commun*. 2020;11(1):620. DOI: [10.1038/s41467-020-14484-w](https://doi.org/10.1038/s41467-020-14484-w)
3. **Martin-Garcia, JM***; Basu, S*. Macromolecular Serial Crystallography. *Crystals* 2020, 10, 1079. DOI: [10.3390/cryst10121079](https://doi.org/10.3390/cryst10121079)
4. Tang Y, Saul J, Nagaratnam N, **Martin-Garcia JM**, Fromme P, Qiu J, LaBaer J*. Construction of gateway-compatible baculovirus expression vectors for high-throughput protein expression and in vivo microcrystal screening. *Scientific reports*. 2020, 10(1), 13323. DOI: [10.1038/s41598-020-70163-2](https://doi.org/10.1038/s41598-020-70163-2)
5. Nagaratnam N, Tang Y, Botha S, Saul J, Li C, Hu H, Zaare S, Hunter M, Lowry D, Weierstall U, Zatsepin N, Spence JCH, Qiu J, LaBaer J, Fromme P, **Martin-Garcia JM***. Enhanced X-ray diffraction of in vivo grown μ NS crystals by viscous jets at XFELs. *Acta Crystallographica section F Struct Biol Communications*. 2020;76(Pt 6):278-289. DOI: [10.1107/S2053230X20006172](https://doi.org/10.1107/S2053230X20006172)
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2019

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3. Jensen S, Sullivan BT, Hartzler DA, Meza Aguilar J, Awel S, Bajt S, Basu S, Bean R, Chapman H, Conrad C, Frank M, Fromme R, **Martin-Garcia JM**, Grant TD, Heymann M, Hunter MS, Ketawala G, Kirian RA, Knoska J, Kupitz C, Li X, Liang M, Lisova S, Mariani V, Mazalova VL, Messerschmidt M, Moran M, Nelson G, Oberthuer D, Schaffer A, Sierra RG, Vaughn N, Weierstall U, Wiedorn MO, Xavier PL, Yang JH, Yefanov O, Zatsepin N, Aquila AL, Fromme P, Boutet S, Seidler GT, Pushkar YN*. X-ray Emission Spectroscopy at X-ray Free Electron Lasers: Limits to Observation of the Classical Spectroscopic Response for Electronic Structure Analysis. *J Phys Chem Lett*. 2019. DOI: [10.1021/acs.jpcclett.8b03595V](https://doi.org/10.1021/acs.jpcclett.8b03595V)

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Camara-Artigas A, **Martin-Garcia JM**, Morel B, Ruiz-Sanz J, Luque I*. Intertwined dimeric structure for the SH3 domain of the c-Src tyrosine kinase induced by polyethylene glycol binding. *FEBS Lett*. 2009;583(4):749-53. DOI: [10.1016/j.febslet.2009.01.036](https://doi.org/10.1016/j.febslet.2009.01.036)

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Martin-Garcia JM, Luque I, Mateo PL, Ruiz-Sanz J, Camara-Artigas A*. Crystallographic structure of the SH3 domain of the human c-Yes tyrosine kinase: loop flexibility and amyloid aggregation. *FEBS Lett*. 2007;581(9):1701-6. DOI: [10.1016/j.febslet.2007.03.059](https://doi.org/10.1016/j.febslet.2007.03.059)

9. CONFERENCE PUBLICATIONS

2021

1. **Martin-Garcia JM**, Nagaratnam N, Delker S, Jernigan R, Edwards T, Sneider J, Thifault D, Williams D, Nannenga B, Stofega M, Sambucetti L, Hsieh JJ and Flint A. New structural insights into the function of the catalytically active human Taspase1. *Acta Cryst*. (2021). A77, a110

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1. **Martin-Garcia JM**, Nagaratnam N, Jernigan R, Ketawala G, Delker S, Edwards T, Mendez D, Li C, Zatsepin N, Fromme R, Tong L, Schneider J, Hsieh JJ, Flint A, Fromme P. Structure Determination of Active Full Length HumanTaspase1: Towards Novel Anti-Cancer Therapeutics. *Biophysical Journal*. 2019, Vol. 116, Issue 3, Supplement p 17a.
2. **Martin-Garcia JM**, Spence J, and Fromme P*. Latest advances in serial crystallography at XFELs and synchrotron sources. *Acta Cryst*. 2019. A75, a109.
3. Kissick DJ, **Martin-Garcia JM**, Hu H, Venugopalan N, Xu S, Corcoran S, Ferguson D, Hilgart MC, Makarov O, Xu Q, Ogata C, Stepanov S, Thifault D, Marlowe T, Alvarado C, Zacks M, Cance W, Fromme P, Fischetti RF. Improvements in Serial Crystallography Capabilities at GM/CA. *Acta Cryst*. (2019). A75, a449

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1. S. M.D.C. Perera, X. Xu, A.V. Struts, U. Chawla, S. Boutet, S. Carbajo, M.D. Seaberg, M.S. Hunter, **Martin-Garcia JM**, J.D. Coe, M.O. Wiedorn, G. Nelson, S. Chamberlain, D.P. Deponte, R. Fromme, T.D. Grant, R.A. Kirian, P. Fromme, M.F. Brown*. Time-Resolved Wide-Angle X-Ray Scattering Reveals Protein Quake in Rhodopsin Activation. *Biophysical Journal*. 2017. Volume 11, Issue 3, Supplement 1, p506a-507a.
2. Fischetti, R. F., **Martin-Garcia, J.M**, Zatsepin, N., Stander, N., Zhu, L., Subramanian, G., Nelson, G., Coe, J., Nagaratnam, N., Roy-Chowdury, S., Kissick, D., Ishchenko, A., Conrad, C., Ketawala, G., James, D., Zook, J., Ogata, C., Venugopalan, N., Xu, S., Meents, A., Srajer, V., Henning, R., Chapman, H., Spence, J., Weierstall, U., Cherezov, V., Fromme, P. & Liu, W*. Monochromatic and polychromatic serial crystallography at the Advance Photon Source. *Acta Cryst*. 2017. A73, a368-a369.

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1. **Martin-Garcia JM**, Debra T. Hansen, Andrey V. Loskutov, Mark D. Robida, Felicia M. Craciunescu, Kathryn Sykes, Rebekka M. Wachter, Petra Fromme, James P. Allen*. Sequence analysis and biophysical characterization reveal the presence of a long-disordered region in the CapA membrane protein from *F. tularensis*. **Biophysical Journal Abstracts Issue**. 2014. Vol. 106 (2), 3485-Pos, Board-213.
2. Dörner, K., **Martin-Garcia, JM**, Kupitz, C., Gong, Z., Mallet, T. C., Chen, L., Wachter, R., Fromme, P*. Characterization of Protein Nanocrystals Based on the Reversibility of Crystallization. **Biophysical Journal**. 2014. Volume 106, Issue 2, p458a.

10. CONFERENCES, SEMINARS AND WORKSHOPS

Invited speaker

1. Jose M. Martin-Garcia. Talk Title: "When Proteins Come to Life: Making Molecular Movies with XFELs". Seminar in the Master's degree course "Frontiers in the study of biomolecules BDC2", Autonomous University of Madrid. Madrid, Spain. November 3, 2026.
2. Jose M. Martin-Garcia. Talk title: "Best practices to prepare and deliver samples in serial femtosecond crystallography experiments at XFELs". International School on Biological Crystallization (ISBC). Granada, Spain. October 4-9, 2026.
3. Jose M. Martin-Garcia. Talk Title: "From static structures to molecular movies: Time-resolved crystallography at X-ray free-electron lasers". 12th International Meeting of the Spanish Society on Neutron Techniques (SETN), Bilbao, Spain. July 13-15, 2026. (**Keynote speaker**)
4. Jose M. Martin-Garcia. Talk Title: "From static snapshots to molecular movies: An introduction to serial crystallography". EMBO Practical Course on Time-resolved macromolecular serial crystallography, Hamburg, Germany. July 6-10, 2026. (**Keynote speaker**).
5. Jose M. Martin-Garcia. Talk Title: "A sip of science with XFELs: Introduction, applications and experimental aspects". Macromolecular Crystallography & Cryo-EM School (MCCS-2023). Blas Cabrera Institute of Physical Chemistry, CSIC, Madrid, Spain. March 23-27, 2026.
6. Jose M. Martin-Garcia. Talk Title: "Towards deciphering the structure and dynamics of biological and non-biological molecules using time-resolved serial crystallography at ID29". XXXI GE3C Symposium, Jaca, Spain. January 16-19, 2026. (**Keynote speaker**).
1. Jose M. Martin-Garcia. Talk Title: "When Proteins Come to Life: Making Molecular Movies with XFELs". Seminar in the Master's degree course "Frontiers in the study of biomolecules BDC2", Autonomous University of Madrid. Madrid, Spain. November 4, 2025.
2. Jose M. Martin-Garcia. Talk Title: "Time-resolved serial crystallography to uncover the reaction mechanism and dynamics of the human NQO1 flavoenzyme". Seminar at LCLS, Palo Alto, California, USA. October 7, 2025.
3. Jose M. Martin-Garcia. Talk Title: "A sip of science with XFELs: Introduction, applications and experimental aspects". Macromolecular Crystallography & Cryo-EM School (MCCS-2023). Blas Cabrera Institute of Physical Chemistry, CSIC, Madrid, Spain. May 12-16, 2025.
4. Jose M. Martin-Garcia. Talk Title: "Time-resolved structural studies with XFELs". Seminar in the Master's degree course "Frontiers in the study of biomolecules BDC2", Autonomous University of Madrid. Madrid, Spain. November 6, 2024.
5. Jose M. Martin-Garcia. Talk Title: "Time-resolved structural studies with serial crystallography: A new frontier in biomedical research". Seminar at BIFI. Zaragoza, Spain. October 27, 2024.
6. Jose M. Martin-Garcia. Talk Title: "Time-resolved Crystallography: A New Frontier in Drug Discovery". XI AUSE conference and VI ALBA Users' Meeting. Oviedo, Spain. September 2-6, 2024. (**Keynote speaker**).
7. Jose M. Martin-Garcia. Talk Title: "Towards deciphering the structure and dynamics of biological and non-biological molecules using time-resolved serial crystallography at ID29".

- Symposium Towards filming macromolecular movies at the ESRF-EBS at the ESRF users' meeting, Grenoble (France). February 7, 2024. (**Keynote speaker**).
8. Jose M. Martin-Garcia. Talk Title: "Towards deciphering the structure and dynamics of biological and non-biological molecules using time-resolved serial crystallography at ID29". XXXI GE3C Symposium, Tarragona, Spain. January 16-19, 2024.
 9. Jose M. Martin-Garcia. Talk Title: "Time-resolved structural studies with serial crystallography: Overview, applications and future perspectives". Seminar given at the Instituto General de Química Orgánica, CSIC (IQOG-CSIC). Madrid, Spain. July 12, 2023
 10. Jose M. Martin-Garcia. Talk title: "Time-resolved structural biology using X-ray free electron lasers". Seminar at the Department of Chemistry, Autonomous University of Madrid (UAM), Madrid, Spain. June 14, 2023.
 11. Jose M. Martin-Garcia. Talk title: "Manipulation of Tiny Crystals for Serial Crystallography". International School on Biological Crystallization (ISBC). Granada, Spain. May 21-26, 2023.
 12. Jose M. Martin-Garcia. Talk title: "A sip of science with XFELs: Introduction, applications and experimental aspects". Macromolecular Crystallography & Cryo-EM School (MCCS-2023). Rocasolano Institute of Physical Chemistry, CSIC, Madrid, Spain. May 8-12, 2023.
 13. Jose M. Martin-Garcia. Talk title: "Time-resolved structural biology: an overview and latest breakthroughs". Symposium Towards Molecular Movies of Enzymatic Reactions with Time-resolved Crystallography. 44th National Congress of the Spanish Society of Biochemistry and Molecular Biology (SEBBM), Malaga, September 6-9, 2022.
 14. Jose M. Martin-Garcia. Talk title: "Room-Temperature Macromolecular Serial Crystallography at XFELs and Synchrotrons". Microsymposium "New high-resolution structural techniques: advances and possibilities", organized within the RSEQ Biennial Meeting. July 1, 2022.
 15. Jose M. Martin-Garcia. Talk title: "Monochromatic and Pink X-ray Beam Serial Synchrotron Crystallography with Viscous Jets". Workshop on Dynamic X-ray Crystallography. APS/CNM Users' Meeting 2021. VIRTUAL. May 3-14th, 2021.
 16. Jose M. Martin-Garcia. Talk title: "Perspectives for Macromolecular Crystallography at X-ray Free Electron Lasers". First meeting of the European XFEL Spanish user community at the 2020 European XFEL users' meeting. Hamburg, Germany. January 27-30, 2020.
 17. Jose M. Martin-Garcia. Talk title: "Latest Advances on Serial Crystallography at XFELs and Synchrotron Sources". Annual Meeting American Crystallographic Association (ACA). Cincinnati, USA. July 20-24, 2019.
 18. Jose M. Martin-Garcia. Talk title: "Using Microgravity at the International Space Station to Lead to New Therapeutics for Taspase1: A Novel Cancer Target". Annual Meeting American Crystallographic Association (ACA). Cincinnati, USA. July 20-24, 2019.
 19. Jose M. Martin-Garcia. Talk title: "Manipulation of Tiny Crystals for Serial Crystallography". International School on Biological Crystallization (ISBC). Granada, Spain. May 26th to June 3rd, 2019.
 20. Jose M. Martin-Garcia. Talk title: "Preparation and characterization of micro-crystals for Serial Crystallography". 2019 NSLS-II & CFN Users' Meeting. Upton, NY, USA. May 20th, 2019.
 21. Jose M. Martin-Garcia. Talk title: "Monochromatic and Polychromatic Serial Crystallography at Synchrotron Sources". 6th BioXFEL International Conference. San Diego, CA, United States of America. February 2-4, 2019.
 22. Jose M. Martin-Garcia. Talk title: "ASU CXLS/CXFEL: Breaking Frontiers in Structure Determination and Drug Discovery Science". Workshop on Dynamics, Structure, and Function in Biological Systems, Scientific opportunities at ASU Compact X-ray Free Electron Laser. Biodesign Institute, Center for Applied Structural Discovery. Arizona State University, Tempe, AZ, USA, April 6-8, 2018.

23. Jose M. Martin-Garcia. Talk title: "Serial Femtosecond Crystallography: Dealing with the tiny". Mini-workshop on Perspectives of Bio-crystallography on Free Electron Lasers. Rocasolano Institute of Physical Chemistry, CSIC, Madrid (Spain), June 5, 2017.
24. Jose M. Martin-Garcia. Talk title: "Manipulation of Tiny Crystals for Serial Crystallography". International School on Biological Crystallization (ISBC), Laboratorio de Estudios Cristalograficos, Granada (Spain), May 29-June 2, 2017.
25. Jose M. Martin-Garcia. Talk title: "Introduction to data collection at XFELs and serial femtosecond crystallography data analysis". Macromolecular Crystallography School (MCS2017). Rocasolano Institute of Physical Chemistry, CSIC, Madrid (Spain), May 5-10, 2017.
26. Jose M. Martin-Garcia. Talk title: "New structural finding in CapA membrane protein from Francisella Tularensis" (Colloquium). School of Cellular and Molecular Biology, Astbury Centre for Structural Molecular Biology, University of Leeds, UK, March 27, 2014.
27. Jose M. Martin-Garcia. Talk title: "Structure and function of the M2-1 protein of human respiratory syncytial virus" (Colloquium). School of Cellular and Molecular Biology, Astbury Centre for Structural Molecular Biology, University of Leeds, UK, March 28, 2014.

Oral presentations and posters

2024

1. Title: "Time-resolved serial crystallography to uncover the reaction mechanism and dynamics of the human NQO1 flavoenzyme". **Jose M. Martin-Garcia**. 21st International Symposium on Flavins and Flavoproteins. Atlanta (Georgia, USA). July 15-19, 2024. (Oral presentation)
2. Title: "Practical session on sample preparation for time-resolved serial crystallography experiments". **Jose M. Martin-Garcia**. EMBO Course Time-resolved macromolecular serial crystallography. Grenoble (France). July 8-12, 2024. (Oral presentation)

2023

1. Title: "Towards deciphering Catalytic Mechanisms by Time-Resolved Serial Femtosecond Crystallography at XFELs". Alice Grieco, Miguel A. Ruiz-Fresneda, Juan Luis Pacheco, Rebecca Jernigan, Diandra Doppler, Mukul Sonker, Shahriar Mobashery, Mayland Chang, Petra Fromme, Juan A. Hermoso, Alexandra Ros, Angel L. Pey, **Jose M. Martin-Garcia**. XXX Symposium of the Specialized Group in Crystallography and Crystal Growth (GE3C). Benidorm, Alicante, Spain, January 17-19, 2023. (Oral presentation)

2022

1. Title: "Towards deciphering Catalytic Mechanisms by Time-Resolved Serial Femtosecond Crystallography at XFELs". Alice Grieco, Miguel A. Ruiz-Fresneda, Juan Luis Pacheco, Rebecca Jernigan, Diandra Doppler, Mukul Sonker, Shahriar Mobashery, Mayland Chang, Petra Fromme, Juan A. Hermoso, Alexandra Ros, Angel L. Pey, **Jose M. Martin-Garcia**. X AUSE Conference & V ALBA User's Meeting. ALBA Synchrotron, Barcelona. September 5-8, 2022. (Oral presentation)
2. Title: "Towards revealing the unique allosteric resistance mechanism of PBP2a of Staphylococcus aureus at X-ray free electron lasers". Alice Grieco, Mayland Chang, Shahriar Mobashery, Juan A. Hermoso, **Jose M. Martin-Garcia**. European XFEL Users' Meeting. January 21-27, 2022. VIRTUAL. (Poster)

2021

1. Title: "Towards deciphering the Catalytic Mechanism of human NQO1 by Time-Resolved Serial Femtosecond Crystallography at XFELs". Alice Grieco, Miguel Angel Ruiz, Rebecca Jernigan, Juan Luis Pacheco-García, Diandra Doppler, Mukul Sonker, Ana Egatz-Gomez, Sabine Botha, Gihan Ketwala, Garrett Nelson, Mohammad Towshif Rabbani, Abhik Manna, Cole Errico, Jorvani Cruz Villarreal, Sahba Zaare, Konstantinos Karpos, Roberto Alvarez,

Thomas Grant, Alexandra Tolstikova, Reza Nazari, Juan Antonio Hermoso, Raimund Fromme, Uwe Weierstall, Valerio Mariani, Richard Kirian, Petra Fromme, Angel L. Pey, Alexandra Ros, and **Jose M. Martin-Garcia**. SSRL/LCLS Users Meeting. September 20-24, 2021. (**Poster**)

2. Title: "Small is Beautiful". **Jose M. Martin-Garcia**. 43rd Annual Meeting of the Spanish Society of Biochemistry & Molecular Biology (SEBBM). Barcelona, July 19-22, 2021. (**Poster**)
3. Title: "Structural and Functional Studies of Prophylactic Drug Target, NendoU from SARS-CoV-2, at LCLS". Rebecca Jernigan, Dhenugen Logeswaran, Sabine Botha, Nirupa Nagarathnam, Jay-How Yang, Diandra Doplar, Mokul Sonker, Michelle Sheikh, Gihan Hetawala, Megan Shelby, Mimi Cho Young, Matthew Coleman, Julius Chen, Emily Kaschner, Sebastien Boutet, Mark Hunter, Meng Liang, Ray Sierra, Raimund Fromme, Michelle Zacks, Matthias Frank, **Jose M. Martin-Garcia**, Marius Schmidt, Alexandra Ros, Debra Hansen, Julius Chen, Petra Fromme. SSRL/LCLS Users Meeting. September 20-24, 2021. (**Poster**)
4. Title: "Tiny crystals and XFELs: The perfect synergy to revolutionize the structural biology". **Jose M. Martin-Garcia**. Rocasolano Institute Seminar Series. Madrid, March 17, 2021. (**Oral presentation**)
5. Title: "Pump-probe TR-SFX for Structural Dynamic Studies of Flexible Metal Organic Frameworks (MOFs) at the European XFEL". **Jose M. Martin-Garcia**, Javier Castells-Gil, Jose Navarro, Natalia M. Padial, Carlos Marti-Gastaldo. European XFEL Users' Meeting. January 25-29, 2021. (**Poster**)
6. Title: "New Structural Insights into the Function of the Catalytically Active Human Taspase1". Nirupa Nagarathnam, Silvia Delker, Rebecca Jernigan, Thomas Edwards, Janey Sneider, Darren Thifault, Dewight Williams, Brent Nannenga, Mary Stofega, Lidia Sambucetti, James J. Hsieh, Andrew Flint, Petra Fromme, **Jose M. Martin-Garcia**. 71st Annual ACA Virtual Meeting. July 30 - August 5, 2021. (**Poster**)
7. Title: "Serial Femtosecond Crystallography: A decade at the Forefront of Structural Biology". **Jose M. Martin-Garcia**. XXIX Symposium of the Specialized Group in Crystallography and Crystal Growth. Because of the COVID-19 pandemic, this event, organized by the University of Vigo, was held ONLINE. January 19-22, 2021. (**Oral presentation**)
8. Title: "Manipulation of Tiny Crystals for Serial Crystallography". **Jose M. Martin-Garcia**. GE3C Symposium. XXIX Symposium of the Specialized Group in Crystallography and Crystal Growth. Because of the COVID-19 pandemic, this event, organized by the University of Vigo, was held ONLINE. January 19-22, 2021. (**Oral presentation**)

2019

1. Title: "Watching the Inactivation of an Antibiotic by an Enzyme at an X-ray Free Electron Laser". **Jose M. Martin-Garcia**, J.L. Olmos, S. Pandey, P. Fromme, M. Schmidt. Nature Conference. Arizona State University, Tempe, AZ, November 5-7, 2019 (**Poster**)
2. Title: "New Structural Insights into the Function of the Active Full Length Human Taspase1: A Novel Anticancer Therapeutic Target". R. Jernigan, N. Nagarathnam, D. Thifault, S. Delker, M. Zacks, T. Edwards, L. Sambucetti, L. Tong, R. Fromme, J. Schneider, J. Hsieh, B. Mroczkowski, A. Flint, P. Fromme, **Jose M. Martin-Garcia**. Nature Conference. Arizona State University, Tempe, AZ, November 5-7, 2019. (**Poster**)

2018

1. Title: "Structure Determination of Inhibitor Complexes with Full Length Human Taspase1: Towards Rational Drug Design Against a New Cancer Target". **Jose M. Martin-Garcia**, N. Nagarathnam, R. Jernigan, M. Holl, L. Tong, J. Schneider, J. Hsieh, A. Flint, P. Fromme. Inaugural Chemical Biology Consortium: Bridging the Gaps of Drug Discovery. University of California San Francisco. San Francisco, CA, November 16th, 2018. (**Poster**)

2. Title: "Applied Structural Discovery: Innovating in Drug Discovery Science". **Jose M. Martin Garcia**, Michele Zacks, Justin Flory, Petra Fromme. Inaugural Chemical Biology Consortium: Bridging the Gaps of Drug Discovery. University of California San Francisco. San Francisco, CA, November 16th, 2018. **(Poster)**
3. Title: "Applied Structural Discovery: Innovating in Drug Discovery Science". **Jose M. Martin Garcia**, Michele Zacks, Justin Flory, Petra Fromme. Joint Symposium on Cancer Biology and Therapeutic Development. The University of Arizona Cancer Center, Tucson, AZ, USA, October 18th, 2018. **(Poster)**
4. Title: "Structure Determination of Inhibitor Complexes with Full Length Human Taspase1: Towards Rational Drug Design Against a New Cancer Target". **Jose M. Martin-Garcia**, N. Nagaratnam, R. Jernigan, M. Holl, L. Tong, J. Schneider, J. Hsieh, A. Flint, P. Fromme. 5TH BioXFEL Annual International Conference, New Orleans, LA, USA, February 13-15, 2018. **(Poster)**

2017

1. Title: "Monochromatic and Pink Beam Serial Millisecond Crystallography at the Advanced Photon Source". **Jose M. Martin-Garcia**, R. Fischetti, N. Zatsepin, N. Stander, L. Zhu, G. Subramanian, G. Nelson, J. Coe, N. Nagaratnam, S. Roy-Chowdhury, D. Kissick, A. Ishchenko, C. Conrad, G. Ketawala, D. James, J. Zook, C. Ogata, N. Venugopalan, S. Xu, A. Meents, V. Srajer, R. Henning, H. Chapman, J. Spence, U. Weierstall, V. Cherezov, P. Fromme, W. Liu. West Coast Protein Crystallography Workshop, Asilomar, Pacific Grove, CA, USA, March 19-22, 2017. **(Oral presentation)**
2. Title: "In vivo Crystallization and Initial Diffraction Patterns using the SFX-LCP technique of the μ NS Protein of Avian Reovirus". **Jose M. Martin-Garcia**, Nirupa Nagaratnam, Justin Saul, Ji Qiu, John Spence, Petra Fromme, Joshua LaBaer. 2nd Annual ABRC Research Conference, The University of Arizona College of Medicine, Phoenix, USA, March 9th, 2017. **(Oral communication)**
3. Title: "Monochromatic and Pink Beam Serial Millisecond Crystallography at the Advanced Photon Source". **Jose M. Martin-Garcia**, R. Fischetti, N. Zatsepin, N. Stander, L. Zhu, G. Subramanian, G. Nelson, J. Coe, N. Nagaratnam, S. Roy-Chowdhury, D. Kissick, A. Ishchenko, C. Conrad, G. Ketawala, D. James, J. Zook, C. Ogata, N. Venugopalan, S. Xu, A. Meents, V. Srajer, R. Henning, H. Chapman, V. Cherezov, U. Weierstall, W. Liu, J. Spence, P. Fromme. 4th Annual International BioXFEL Conference, Las Vegas, NV, USA, January 10-12, 2017. **(Poster)**
4. Title: "Monochromatic and Polychromatic Serial Crystallography at the Advanced Photon Source". R.F. Fischetti, **Jose M. Martin-Garcia**, N. Zatsepin, N. Stander, L. Zhu, G. Subramanian, G. Nelson, J. Coe, N. Nagaratnam, S. Roy-Chowdhury, D. Kissick, A. Ishchenko, C. Conrad, G. Ketawala, D. James, J. Zook, C. Ogata, N. Venugopalan, S. Xu, A. Meents, V. Srajer, R. Henning, H. Chapman, J. Spence, U. Weierstall, V. Cherezov, P. Fromme, W. Liu. American Crystallographic Association, 67th Annual Meeting, New Orleans, LA, USA, May 26-30, 2017. **(Poster)**

2016

1. Title: "Serial Millisecond Crystallography at the Advanced Photon Source". **Jose M. Martin-Garcia**, Nadia Zatsepin, Gihan Ketawala, Lan Zhu, Ganesh Subramanian, Garret Nelson, Daniel James, Alexander Schaffer, Andrii Ishchenko, Craig Ogata, Naga Venugopalan, David Kissick, Vadim Cherezov, Uwe Weierstall, Wei Liu, John Spence, Petra Fromme, Robert Fischetti. American Crystallographic Association, 66th Annual Meeting, Dever, CO, USA, July 22-26, 2016. **(Oral presentation)**
2. Title: "Serial Millisecond Crystallography at the Advanced Photon Source". **Jose M. Martin-Garcia**, R. Fischetti, N. Zatsepin, N. Stander, L. Zhu, G. Subramanian, G. Nelson, J. Coe, N. Nagaratnam, S. Roy-Chowdhury, D. Kissick, A. Ishchenko, C. Conrad, D. James, J. Zook, C.

Ogata, N. Venugopalan, S. Xu, V. Cherezov, U. Weierstall, W. Liu, J. Spence, P. Fromme. LCLS-SSRL Annual Users' Meeting and Workshops, SLAC National Accelerator Laboratory, Menlo Park, CA, USA, October 5-8, 2016. **(Poster)**

2015

1. Title: "Femtosecond crystallography of the CapA inner membrane protein of *Francisella tularensis*". **Jose M. Martin-Garcia**, Rebekka M. Wachter, Shibom Basu, Ingo Grotjohann, Christopher Kupitz, Katerina DÖerner, Zhen Gong, Liqing Chen, John Spence, Henry Chapman, Nadia Zatsepin, Uwe Weierstall, Anton Barty, Sebastien Boulet, Thomas White, Richard Kirian, Andrew Aquila, Dingjie Wang, Daniel James, Garth Williams, Marvin Seibert, Mike Bogan, Raimund Fromme, Mark S. Hunter, William A. Cramer, Thomas Tomasiak, Robert M. Stroud, Michele H. Corzett, Brent W. Segelke, Amy Rasley, Matthias Frank, Conn Mallett, James P. Allen, Petra Fromme. 65th Annual Meeting of the American Crystallographic Association, Philadelphia, PA, USA, July 25-29, 2015. **(Poster)**

2014

1. Title: "Sequence analysis and biophysical characterization reveal the presence of a long-disordered region in the CapA membrane protein from *F. tularensis*". **Jose M. Martin-Garcia**, Debra T. Hansen, Andrey V. Loskutov, Mark D. Robida, Felicia M. Craciunescu, Kathryn Sykes, Rebekka M. Wachter, Petra Fromme, James P. Allen. Center for Membrane Proteins in Infectious Diseases. 3rd Annual Meeting, Arizona State University, TEMPE, AZ, USA, March 6-7, 2014. **(Poster)**
2. Title: "Sequence analysis and biophysical characterization reveal the presence of a long-disordered region in the CapA membrane protein from *F. tularensis*". **Jose M. Martin-Garcia**, Debra T. Hansen, Andrey V. Loskutov, Mark D. Robida, Felicia M. Craciunescu, Kathryn Sykes, Rebekka M. Wachter, Petra Fromme, James P. Allen. 58th Biophysical Society Annual Meeting, San Francisco, CA, USA, February 15-19, 2014. **(Poster)**

2013

1. Title: "Proliferating Cell Nuclear Antigen (PCNA) Interactions in Solution Studied by NMR". Alfredo De Biasio, Ramón Campos-Olivas, Ricardo Sánchez, Jorge P López Alonso, David Pantoja-Uceda, Nekane Merino, Maider Villate, **Jose M. Martin Garcia**, Francisco Castillo, Irene Luque, Francisco J Blanco. XXXVI Conference of the Spanish Society of Biochemistry and Molecular Biology, Madrid, Spain, September 3-6, 2013. **(Poster)**
2. Title: "Purification, Biophysical Characterization, and Initial Crystallization Screening of the CapA membrane protein from *Francisella tularensis*". **Jose M. Martin Garcia**, James Paul Allen, Rebekka Wachter, Petra Fromme. West Coast Protein Crystallography Workshop XXI (WCPCW), Monterey, CA, USA, March 17-20, 2013. **(Poster)**
3. Title: "Biophysical Characterization, and Initial Crystallization Experiments of the CapA membrane protein from *Francisella tularensis*". **Jose M. Martin Garcia**. Center for Membrane Proteins in Infectious Diseases 2nd Annual Meeting, Arizona State University, Tempe, AZ, USA, March 14-15, 2013. **(Oral presentation)**

2012

1. Poster Title: "Purification, Biophysical Characterization, and Initial Crystallization Screening of the CapA membrane protein from *Francisella tularensis*". **Jose M. Martin Garcia**, Katerina Dorner, James Paul Allen, Rebekka Wachter, Petra Fromme. NIH Roadmap to Membrane Protein Structures and Complexes. The 4th Membrane Protein Technologies Meeting, San Francisco, CA, USA, Nov. 28 - 30, 2012. **(Poster)**
2. Poster Title: "Biophysical characterization and initial crystallization screening of the CapA membrane protein from *Francisella Tularensis*". **Jose M. Martin Garcia**, Srinivas N. Makam, James P. Allen, Petra Fromme. Workshop on Membrane Proteins, Tempe, Arizona, USA, March 13-15, 2012. **(Poster)**

2007

1. Poster Title: "Binding specificity in SH3 domains: Structural and thermodynamic analysis of the interaction of type I and type II proline-rich ligands with c-Src, c-Yes and Fyn-SH3 domains". **Jose M. Martin Garcia**, Jose Cristobal Martinez, Javier Ruiz Sanz, Irene Luque. FEBS Workshop: Trends in Transient Interactions between Biological Macromolecules. Seville, Spain, 2007. **(Poster)**

2006

2. Poster Title: "Binding specificity in SH3 domains: Structural and thermodynamic analysis of the interaction of type I and type II proline-rich ligands with c-Src, c-Yes and Fyn-SH3 domains". **Jose M. Martin Garcia**, Jose Cristobal Martinez, Javier Ruiz Sanz, Irene Luque. VI Ibero-American Conference of Biophysics (IACB 06), Madrid, Spain, 2006. **(Poster)**
3. Poster Title: "Determinants of binding specificity within SH3 domains from Src family: A thermodynamic study". **Jose M. Martin Garcia**, Jose Cristobal Martinez, Javier Ruiz Sanz, Irene Luque. BIFI 2006, Zaragoza, Spain, 2006. **(Poster)**

2005

1. Poster Title: "Binding specificity within SH3 domains from Src family: a calorimetric study". **Jose M. Martin Garcia**, **Jose Cristobal Martinez**, Javier Ruiz Sanz, Irene Luque. FEBS Workshop on Modular Protein Domains. From Functional Plasticity to Protein Linguistics, Seefeld, Austria, 2005. **(Poster)**
2. Poster Title: "A thermodynamic analysis of the specificity determinants on proline-rich ligand recognition by SH3 domains". **Jose M. Martin Garcia**, Jose Cristobal Martinez, Javier Ruiz Sanz, Irene Luque. VI European Symposium of the Protein Society, Barcelona, Spain, 2005. **(Poster)**

11. PROJECTS

Projects funded with the applicant as Principal Investigator

1. Project title: "New approaches in millisecond-scale time-resolved crystallography technique for 3D structural and dynamic studies of enzymes of therapeutic interest".
Funding agency: Spanish State Research Agency.
Reference: PID2023-151100NB-I00.
Start date: 09/01/2024.
End date: 31/12/2027.
Funding: 150.000 €. (FPI predoctoral fellowship awarded)
PI: Jose M. Martin Garcia.
2. Project title: "Linking time-resolved crystallography to dynamics and allosteric processes in proteins".
Funding agency: Spanish State Research Agency.
Reference: CNS2022-135713.
Start date: 09/01/2023.
End date: 31/08/2025.
Funding: 200.000 €.
PI: Jose M. Martin Garcia.
3. Project title: "Development and application of time-resolved crystallography for 3D structural and dynamic studies of allosteric regulation in bacteria".
Funding agency: Community of Madrid.
Reference: 2023-5A/BMD-28921.
Start date: 09/01/2024.
End date: 31/08/2025.

Funding: 85.000 €.

PI: Jose M. Martin Garcia.

4. Project title: "Unraveling the resistance mechanism of the enzyme penicillin binding protein of Staphylococcus aureus by serial femtosecond crystallography at X-ray free electron lasers".

Funding agency: Community of Madrid.

Reference: 2019-T1/BMD-15552.

Start date: 09/01/2020.

End date: 08/31/2024.

Funding: 200.000 €.

PI: Jose M. Martin Garcia.

5. Project title: "Improving the Quality of Taspase1 Crystals by Microgravity".
Funding agency: The Center for the Advancement of Science in Space (CASIS) / The National Aeronautics and Space Administration (NASA).

Reference: Start date: 10/01/2019

End date: 08/31/2019.

Funding: \$69,295.

PI: Jose M. Martin Garcia

Participation in research projects

1. Project title: "Collaborative Research: Exploring the mechanisms, functional diversity, and conformational dynamics of flavin-dependent monooxygenases"

Reference: NSF-CHE-2431741/2431742

Funding agency: National Science Foundation (NSF)

Funding: 500.000€

Start date: 01/01/2025

End date: 31/12/2028

PI: Pablo Sobrado / Missouri University of Science and Technology

Role: International collaborator

2. Project title: "Matter in Action with Ultrafast Optical and X-ray Lasers (MATRIX-CM)"

Reference: TEC-2024/TEC-85

Funding agency: Community of Madrid

Funding: 1.025.000€

Start date: 01/01/2025

End date: 31/12/2028

PI: Luis Bañares / IMDEA Nanociencia

Role: Research Team

3. Project title: "Towards Digital Transition in Solar Chemistry (SolarChem 5.0)"

Reference: TED2021-130173B-C41

Funding agency: Spanish State Research Agency

Funding: 203,550€

Start date: 01/01/2023

End date: 12/31/2024

Role: Research team member in Work Package 2.

4. Project title: Focal Adhesion Kinase – Tumor Biology and Therapeutics.

Reference: 5R01CA065910-23

Funding agency: National Institutes of Health (NIH)

Start date: 31/08/2018

End date: 31/08/2020

Funding: \$310.838.

PI: William G. Cance.
Role: Co-investigator

5. Project title: High-resolution structure determination of p97 protein with allosteric inhibitors.
Reference: Agreement #: 16X118
Funding agency: Leidos Biomed (NIH-NCI)
Start date: 08/31/2019
End date: 03/31/2020
Funding: \$80.000
PI: Petra Fromme and Po-Lin Chiu
Role: Co-investigator
6. Project title: High-resolution structure determination of the full-length enzymatically active Taspase1 and Taspase1 substrate/inhibitor complexes
Reference: Agreement #: NX118-107-160-007
Funding agency: Leidos Biomed (NIH-NCI)
Start date: 04/01/2016
End date: 06/30/2021
Funding: \$150.000
PI: Petra Fromme
Role: Co-investigator
7. Project title: Establishment of a High Throughput Protein Production Center to Empower Translational Research in Arizona.
Funding agency: Flinn Foundation
Reference: 1991
Start date: 10/01/2014
End date: 09/30/2018
Funding: \$175.641
PI: Joshua LaBaer
Role: Co-investigator
8. Project title: Femtosecond nano-crystallography of membrane proteins.
Reference: 2R01GM095583-06
Funding agency: NIH/NIGMS
Start date: 06/01/2015
End date: 5/31/2019
Funding: \$202.590
PI: Petra Fromme
Role: Postdoctoral researcher
9. Project title: Center for Membrane Proteins and Infectious Diseases
Reference: 5U54GM094599-04
Funding agency: NIH
Start date: 09/01/11
End date: 08/30/16
Funding: \$8M
PI: Petra Fromme
Role: Postdoctoral researcher
10. Project title: "Structural Determination of Proline-rich Sequences of Recognition Modules and their Complexes".
Reference: BIO2009-13261-C02-02.
Funding agency: MCYT
Funding: 209,330€

Start date: 01/01/2010
End date: 12/31/2012
PI: Ana Cámara Artigas.
Role: Postdoctoral researcher

11. Project title: "Molecular Basis of the Binding Affinity and Specificity in the Recognizing of Proline-Rich Sequences. Design and Development of Inhibitors of Biotechnological Interest"
Reference: BIO2009-13261-C02-01
Funding agency: MCYT
Funding: 340,010€

End date: 12/31/2012
PI: Irene Luque Fernández
Role: Predoctoral researcher

12. Project title: "Molecular Basis of the Binding Affinity and Specificity in the Recognizing of Proline-Rich Sequences. Design and Development of Inhibitors of Biotechnological Interest"
Reference: BIO2006-15517-C02-01
Funding agency: MCYT
Funding: 342,793€
Start date: 01/10/2006
End date: 12/31/2009.
PI: Irene Luque Fernández
Role: Predoctoral researcher

13. Project title: "Development of a Thermodynamic, Structural and Dynamic Methodology for the Design of Peptidic Ligands of SH3 Domains of Biotechnological Interest"
Reference: BIO2003-14274
Funding agency: MCYT
Funding: 220,000€
Start date: 12/01/2003
End date: 11/30/2006
PI: Pedro Luis Mateo Alarcón
Role: Predoctoral researcher

12. SUPERVISION AND TRAINING

PhD Thesis Supervisor

- Student: Celia Lozano Valhonrat
Thesis supervisor: Jose M. Martin Garcia
Thesis title: "Structural dynamics studies of the AnmK and AGT enzymes using time-resolved crystallography at XFELs and synchrotrons."
Host institution: Blas Cabrera Institute of Physical Chemistry, CSIC
Doctoral program: Molecular Biosciences, Autonomous University of Madrid
Start date: 22 de October 2024
Year of defense: Thesis currently in progress
- Student: Isabel Quereda Moraleda
Thesis supervisor: Jose M. Martin Garcia
Thesis title: "New approaches to millisecond time-resolved crystallography for 3D structural and dynamic studies of enzymes of therapeutic interest."
Host institution: Blas Cabrera Institute of Physical Chemistry, CSIC
Doctoral program: Molecular Biosciences, Autonomous University of Madrid
Start date: 15 de October 2023
Year of defense: Thesis currently in progress

- Student: Alice Grieco
Thesis supervisor: Jose M. Martin Garcia
Thesis title: "Room-temperature crystallography for probing enzyme conformational dynamics in antibiotic resistance and cancer"
Host institution: Blas Cabrera Institute of Physical Chemistry, CSIC
Doctoral program: Molecular Biosciences, Autonomous University of Madrid
Start date: March 2021
Defense date: September 2025
Link: <https://dialnet.unirioja.es/servlet/tesis?codigo=397814>

PhD thesis co-supervisor

- Student: Nirupa Nagaratham
Thesis supervisors: Petra Fromme (Supervisor), Jose M. Martin Garcia (co-supervisor), Debra T. Hansen (co-supervisor)
Thesis title: "Structure determination of a soluble (Taspase 1) and a membrane (FopA) protein towards rational drug design against cancer and infectious disease"
University: Arizona State University
Year of defense: 2020

Supervision of undergraduate projects, Master's theses, and other trainees

Undergraduate final-year projects

- Student: Mariam Elide Di Sibio Velásquez
Project title: "Experimental and AI-assisted optimization of flavoenzyme microcrystals for dynamic studies at XFELs"
Degree: Biotechnología
University: Universidad Europea de Madrid
Host institution: IQF-CSIC
Defense date: June 2025

Master's theses

- Student: Celia Lozano Valhonrat
Project title: "Development and optimization of microcrystals of flavoenzymes for time resolution crystallography on XFEL."
Master's program: Biomolecules and Cellular Dynamics
University: Autonomous University of Madrid
Host institution: IQF-CSIC
Defense date: June 2024
- Student: Isabel Quereda Moraleda
Project title: "Structural resolution of the human protein Fascin 1: a novel target for antitumoral treatment."
University: Autonomous University of Madrid
Master's program: Biomolecules and Cellular Dynamics
Host institution: IQF-CSIC
Defense date: June 2024

Supervisor becas JAE-INTRO-ICU

- Student: Celia Lozano Valhonrat
Project title: "Dynamic studies of the reaction mechanisms of the FFTR and IMPDH proteins by time-resolved serial X-ray crystallography."
Project reference: JAE-INTRO through the Life Hub CSIC
Host institution: IQF-CSIC
Start date: April 2024

End date: October 2024

- Student: Isabel Quereda Moraleda
Project title: “Dynamic studies of the allosteric mechanism of the PBP2a enzyme by room-temperature X-ray crystallography.”
Project reference: JAEIntro-2021-IQFR-03
Host institution: IQF-CSIC
Start date: February 2023
End date: July 2023

Erasmus+ student supervisor

- Student: Myrtho Chrysovergi
Project title: “Dynamic studies of the allosteric mechanism of the PBP2a enzyme by room-temperature X-ray crystallography.”
Start date: February 2026
End date: April 2026
- Student: Rebecca Jernigan
Thesis supervisors: Petra Fromme (supervisor), Jose M. Martin Garcia (co-supervisor), Debra T. Hansen (co-supervisor)
Thesis title: “Steps in Crystallography Towards Solving Protein Structures of Medically Relevant Proteins”
University: Arizona State University
Year of defense: 2021

Research project supervisor for a high-school student

- Student: Rebecca Jernigan
Project supervisors: Petra Fromme, and Jose M. Martin Garcia
Project title: “The Innovative Use of Proteolytic Enzymes as Specific Targeting Antivirals against GP9”
University: Arizona State University
Year of defense: 2015

13. PATENTS

- Droplet Injector for Time-Resolved Crystallography with XFELs. A. Ros, D. Doppler, M. Sonker, A. Egatz-Gomez, R. Kirian, S. Zaare, A. Manna, K. Karpos, R. Alvarez, J. M. Martin-Garcia, A. Grieco. U.S. Patent Application No. 18/665,475, filed May 15, 2024. Arizona State University / Skysong Innovations.

14. PROJECT EVALUATION

- Panel Reviewer / Participant, LCLS Run 27 PRP Review. Linac Coherent Light Source (LCLS), SLAC National Accelerator Laboratory, Menlo Park, CA, USA — April 21–23, 2026.
- Spanish State Research Agency (AEI): reviewer of one proposal in the PID2024 call
- Human Frontier Science Program (HFSP): 2021
- Swiss National Science Foundation (SNSF): 2021, 2022, 2024, 2025

15. EDITORIAL ACTIVITIES

- Guest Editor of three Special Issues of the MDPI journal Crystals:
- Novel Structural studies of coronavirus proteins:
https://www.mdpi.com/journal/crystals/special_issues/structural_studies_of_coronavirus_proteins
- Macromolecular serial crystallography (Volume I):

https://www.mdpi.com/journal/crystals/special_issues/Macromolecular_Serial_Crystallography

- Macromolecular serial crystallography (Volume II):
https://www.mdpi.com/journal/crystals/special_issues/Macromolecular_Serial_Crystallography2
- Topical Advisory Panel Member for Crystals (MDPI).
- Topical Advisory Panel Member of the MDPI journal IJMS
- Associate Editor for Structural Biology, a section of Frontiers in Molecular Biosciences and Frontiers in Cell and Developmental Biology.

16. DISSEMINATION AND OUTREACH

Organization of events (conferences, workshops, symposia and seminars)

1. Event title: "Room-Temperature Serial Snapshot Micro-Crystallography: Highlights from XFELs and Synchrotrons" (MS-138)
Activity type: Microsymposium
Organizing entity: 27th Congress of the International Union of Crystallography (IUCr)
Role: Chair of the microsymposium along with Swagatha Ghosh
Venue: BMO Centre, Stampede Park (Calgary, Alberta, Canada)
Date: August 11-18, 2026
Link: <https://event.fourwaves.com/iucr-2026/schedule?date=2026-08-18>
2. Event title: "XI AUSE Conference & VI ALBA User's Meeting"
Activity type: CONFERENCE
Organizing entity: AUSE, ALBA and Spain XFEL Hub
Role: ORGANIZER
Venue: Faculty of Geology, University of Oviedo, Spain.
Date: 2-6 de September 2024
Link: <https://indico.cells.es/event/1506/>
3. Event title: "European XFEL: Un microscopio gigante para observar el nanocosmos"
Activity type: SCIENCE AND INNOVATION WEEK
Organizing entity: IQF-CSIC, IMDEA Nanociencia, UAM, EuXFEL, Spain XFEL Hub
Role: ORGANIZER
Venue: Instituto Goethe, Madrid, Spain.
Date: 7 de November 2023
4. Event title: "Towards Molecular Movies of Enzymatic Reactions with Time-resolved Crystallography"
Activity type: SYMPOSIUM
Invited speakers: José Manuel Martín García (IQF-CSIC), Allen Orville (Harwell Science and Innovation Campus Didcot, Oxfordshire, United Kingdom) y Arwen Pearson (Universität Hamburg, Institute for Nanostructure and Solid State Physics, Hamburg, Germany).
Organizing entity: IQF-CSIC and the Spain XFEL Hub
Role: ORGANIZER
Venue: 44th SEBBM Congress, Málaga, Spain.
Date: 6-9 de September 2022
Link: <https://congresos.sebbm.es/malaga2022/simposios/>
5. Event title: "X AUSE Conference & V ALBA User's Meeting"
Organizing entity: AUSE, ALBA and Spain XFEL Hub
Role: COORGANIZER
Venue: ALBA Synchrotron, Barcelona, Spain
Date: 5-7 de September 2022

Link: <https://ause.es/congreso10/>

6. Event title: "X AUSE Conference & V ALBA User's Meeting"
Activity type: Mini workshop on XFELs
Invited speakers: see program here (<https://ause.es/congreso10/scientific-program/>).
Organizing entity: IQFR-CSIC, UAM, and the Spain XFEL Hub
Role: ORGANIZER
Venue: ALBA Synchrotron, Barcelona, Spain
Date: 7 de September 2022
7. Event title: "High-resolution molecular structure determination: Methods development and applications"
Activity type: SEMINAR sobre micro electron diffraction (Micro-ED).
Invited speaker: Brent Nannenga, Arizona State University.
Organizing entity: IQFR-CSIC
Role: COORGANIZER
Venue: Assembly Hall of the Rocasolano Institute of Physical Chemistry
Date: 6 de April 2022
Link:
<https://www.youtube.com/watch?v=3OOy10paYkw&list=PLnTdWBB0KOtcl3ZmP06uw6sXpw3CYNVNW&index=19>
8. Event title: "The ID29 project, a new tool for time-resolved serial crystallography experiments at room temperature"
Activity type: SEMINAR
Invited speaker: Daniele de Sanctis and Shibom Basu (European Synchrotron Radiation Facility, ESRF).
Organizing entity: IQFR-CSIC
Role: COORGANIZER
Venue: ONLINE
Date: 17 de March 2022
9. Event title: "Scientific opportunities for the Spanish Community at XFELs"
Activity type: WORKSHOP
Organizing entity: IQFR-CSIC, IMDEA, UAM
Role: ORGANIZER
Venue: Because of the COVID-19 pandemic, this event was held entirely ONLINE
Date: 10 y 11 de June 2021
10. Event title: "High-resolution molecular structure determination: Methods development and applications"
Activity type: SEMINAR sobre micro electron diffraction (Micro-ED).
Invited speaker: Brent Nannenga, Arizona State University.
Organizing entity: IQFR-CSIC
Role: COORGANIZER
Venue: ONLINE
Date: 9 de June 2021
11. Event title: "Macromolecular Serial Crystallography using the LCP Injector"
Activity type: WORKSHOP
Organizing entity: National Synchrotron Light Source II, Brookhaven National Laboratory, Upton, NY, USA
Role: ORGANIZER
Venue: National Synchrotron Light Source II (NSLS-II)
Date: 20 de May 2019

TV, press and web interviews

1. I created the website of my research group: <https://www.biomoleculardynamicsgroup.com/>.
2. Together with my colleague Wojciech Gawelda from IMDEA Nanoscience (Madrid, Spain), we created the “Spain XFEL Hub” (<https://xfel-hub.es/>), an international platform that integrates approaches from multiple research areas with the aim of bringing XFEL technology closer to scientists working in Spain and abroad.
3. Created the XFEL chapter “The XFEL Revolution” on the website of the Crystallography and Structural Biology (CBE) group: <https://www.xtal.iqfr.csic.es/Cristalografia/index-en.html>
4. Video on protein structural dynamics using X-ray free-electron lasers, published on Twitter by CBE-IQFR: https://twitter.com/CBE_IQFR/status/1435545312324632578
5. Interview for *La Voz de Almería*:
<https://www.lavozdealmeria.com/noticia/12/almeria/177346/un-virgitano-que-llega-a-la-nasa>
6. Article for Arizona State University:
<https://asunow.asu.edu/20190426-discoveries-finding-answers-cancer-cosmos>
7. Interview with Europa Press:
<https://www.europapress.es/andalucia/almeria-00350/noticia-investigador-universidad-almeria-lidera-estudio-nasa-proteina-relacionada-cancer-20190520184511.html>
8. Interview with Fundación Descubre:
<https://fundaciondescubre.es/noticias/investigador-la-universidad-almeria-lidera-proyecto-la-nasa-mejorar-la-salud-humana/>
9. Article for the University of Almería:
<https://news.ual.es/ciencia/un-investigador-de-la-ual-lidera-un-proyecto-de-la-nasa-para-mejorar-la-salud-humana/>
10. Interview for NYCT:
<https://noticiasdelaciencia.com/art/32870/un-investigador-de-la-universidad-de-almeria-lidera-un-proyecto-de-la-nasa-para-mejorar-la-salud-humana>
11. Interview for Innova España
<https://www.innovaspain.com/el-espanol-que-lidera-un-proyecto-de-la-nasa-para-desarrollar-una-medicina-contr-el-cancer/>
12. Interview for Canal Sur TV’s CONCIENCIA program:
<https://www.youtube.com/watch?v=Z5xVCJibJgU>
13. Interview for Arizona PBS’s Horizon:
<https://azpbs.org/horizon/2019/07/cancer-fighting-research-in-space/>
14. Interview for the ABC 15 News television channel:
<https://www.dailymotion.com/video/x7dlps2>

17. MEMBERSHIP OF SCIENTIFIC ORGANIZATIONS

1. Member of the Commission on Synchrotron and XFEL Radiation of the International Union of Crystallography; Start date: 2022; End date: to date
2. Life Hub CSIC collaboration network; Start date: 2021; End date: to date; Country: Spain
3. Specialized Group in Crystallography and Crystal Growth (GE3C); Start date: 2020; End date: to date; Country: Spain

4. Spanish Society of Biophysics and Molecular Biology (SEBBM); Start date: 2021; End date: To date; Country: Spain
5. Spanish Royal Society of Chemistry (RSEQ); Start date: 2020; End date: To date; Country: Spain
6. Asociación de Usuarios de Sincrotrones de Spain (AUSE); Start date: 2020; End date: To date; Country: Spain
7. American Crystallographic Association (ACA); Start date: 2015; End date: To date; Country: USA
8. American Chemical Society (ACS); Start date: 2015; End date: 2021; Country: USA.
9. National Cancer Institute (NCI), Experimental Therapeutics Program (NExT), National Institutes of Health (NIH); Start date: 2016; End date: 2020; Country: U.S.A.

18. MEMBERSHIP OF EVALUATION COMMITTEES

Doctoral theses:

1. Thesis title: Advancing the Use of Serial Crystallography in Drug Discovery
Doctoral candidate: Andreas Dunge
Doctoral Program: Doctor of Philosophy in Natural Science, specialization in Chemistry
Thesis supervisor: Gisela Brädén and Helena Käck
Place of defense: University of Gothenburg, Sweden
Date of defense: April 28th, 2025
Link: <https://gupea.ub.gu.se/items/682e6509-652b-49f6-a482-5dc44a6d0217>
2. Thesis title: Chimera Proteins of the SH3 Domains of c-Src and Fyn Tyrosine Kinase: A Study of the Molecular Basis of Three-dimensional Domain Contracting.
Doctoral candidate: Marina Plaza Garrido
Doctoral Program: Doctorate in Advanced Chemistry (RD99/11) (8911)
Thesis supervisor: Dr. Ana María Cámara Artigas
Place of defense: University of Almería
Date of defense: July 16th, 2021
Link: <https://dialnet.unirioja.es/servlet/tesis?codigo=290664>
3. Thesis title: Flavoenzymes in Microbial Systems: Analysis of Structure-Function Relationships.
Doctoral candidate: Martha Isabel Minjárez Sáenz
Doctoral Program: Biochemistry and Molecular Biology (Program-485)
Thesis supervisor: Dr. Milagros Medina Trullenque and Marta Martínez Júlvez
Place of defense: University of Zaragoza
Date of defense: March 7th, 2024
Link: <https://zaguan.unizar.es/record/135847/export/hx?ln=es>

Other:

1. Full Member (Vocal Titular) of the Selection Committee for a competitive examination for appointment to the University Faculty Corps, position of Associate Professor (Profesor Titular de Universidad), Area of Physical Chemistry, University of Granada, 2026.

19. AWARDS, HONORS AND DISTINCTIONS

- Awarded I3 Certification in 2022 with a score of 9.5.
- Awarded the CrystEngComm Best Poster Prize at the 71st Annual Meeting of the American Crystallographic Association (virtual conference) in 2021. Poster title: "New Structural Insights into the Function of the Catalytically Active Human Taspase1".

- Awarded the “Knowledge Enterprise Development and Biodesign Institute Leadership” Award in 2017 by Joshua LaBaer, Director of the Biodesign Institute at Arizona State University (ASU), in recognition of five years of outstanding service to ASU.
- Awarded the Best Poster Prize in Catalysis in 2019 for “Watching the Inactivation of an Antibiotic by an Enzyme at an X-ray Free Electron Laser” at the Nature Conference held at Arizona State University, 6–8 November 2019.
- Positive ANECA evaluation of research and teaching activity for eligibility for appointment as Assistant Professor (Profesor Ayudante Doctor) (2018).

20. RESEARCH STAYS

- Laboratory of Dr. Martin Caffrey
Entity: Trinity College, Dublin, Ireland
Dates: March 4-8, 2013
Funding entity: Arizona State University, USA
Task: Crystallization of membrane proteins by using the in meso method
Acquired skills: Membrane protein crystallization by using the "in meso" or lipidic cubic phase (LCP) method.

21. PEER REVIEW OF SCIENTIFIC ARTICLES

- Reviewer for the scientific journals: Nature Communications, International Journal of Biological Macromolecules, Cells, Biomolecules, Crystals, International Journal of Molecular Sciences, Processes, EBioMedicine, Acta Crystallographica Section D, Journal of Applied Crystallography, and Molecules.