

FULL LIST OF PUBLICATIONS, PATENTS AND CRYSTALLOGRAPHIC STRUCTURES

A Buschiazzo – August 2026

Publications

1. [Core–sheath coupling controls flagellar curvature and motility in *Leptospira*.](#)
San Martin F, Brady M, Fule L, Nouchikian L, Rodriguez A, Duchateau M, Mondino S, Larrieux N, Wunder E, Ko A, Rey M, Chamot-Rooke J, Duran R, Trajtenberg F, Picardeau M, Sindelar C, Buschiazzo A. Nature Communications. 2026/07. doi: 10.1038/s41467-026-75995-6.
2. [Activation mechanism of the full-length histidine kinase LvrB from pathogenic *Leptospira*.](#)
Agustoni E, Mechaly A, Dalla Rizza J, Beriashvili D, Pluhackova K, Isaikina P, Trajtenberg F, Müntener T, Wunder EA Jr, Ko AI, Schirmer T, Buschiazzo A, Hiller S. Nat Commun. 2026 Apr 16;17(1):5298. doi: 10.1038/s41467-026-71783-4. PMID: 41991510 Free PMC article.
3. [Structural analysis of HER2-trastuzumab complex reveals receptor conformational adaptation.](#)
Vacca S, Gragera M, Buschiazzo A, Herreros D, Krieger JM, Bonn-Garcia S, Melero R, Sorzano CO, Carazo JM, Medalia O, Plückthun A. Sci Adv. 2025 Jul 25;11(30):eadu9945. doi: 10.1126/sciadv.adu9945. Epub 2025 Jul 25. PMID: 40712014 Free PMC article.
4. [Human glutathione transferases catalyze the reaction between glutathione and nitrooleic acid.](#)
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5. [Signal-sensing triggers the shutdown of HemKR, regulating heme and iron metabolism in the spirochete *Leptospira biflexa*.](#)
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6. [Diving into the complexity of the spirochetal endoflagellum.](#)
San Martin F, Fule L, Iraola G, Buschiazzo A, Picardeau M. Trends Microbiol. 2023 Mar;31(3):294-307. doi: 10.1016/j.tim.2022.09.010. Epub 2022 Oct 14. PMID: 36244923 Free article. Review.
7. [Horizontal transfer of the *rfb* cluster in *Leptospira* is a genetic determinant of serovar identity.](#)
Nieves C, Vincent AT, Zarantonelli L, Picardeau M, Veyrier FJ, Buschiazzo A. Life Sci Alliance. 2022 Dec 9;6(2):e202201480. doi: 10.26508/lsa.202201480. Print 2023 Feb. PMID: 36622346 Free PMC article.

8. [Structural features of sensory two component systems: a synthetic biology perspective.](#)
Nieves M, Buschiazzo A, Trajtenberg F. Biochem J. 2023 Jan 31;480(2):127-140. doi: 10.1042/BCJ20210798. PMID: 36688908 Review.
9. [An allosteric switch ensures efficient unidirectional information transmission by the histidine kinase DesK from *Bacillus subtilis*.](#)
Lima S, Blanco J, Olivieri F, Imelio JA, Nieves M, Carrión F, Alvarez B, Buschiazzo A, Marti MA, Trajtenberg F. Sci Signal. 2023 Jan 24;16(769):eabo7588. doi: 10.1126/scisignal.abo7588. Epub 2023 Jan 24. PMID: 36693130
10. [3D cryo-EM imaging of bacterial flagella: Novel structural and mechanistic insights into cell motility.](#)
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11. [*Listeria innocua* isolated from diseased ruminants harbour minor virulence genes of *L. monocytogenes*.](#)
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13. [Role of the major determinant of polar flagellation FlhG in the endoflagella-containing spirochete *Leptospira*.](#)
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16. [*Mycobacterium tuberculosis* FasR senses long fatty acyl-CoA through a tunnel and a hydrophobic transmission spine.](#)

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17. [An asymmetric sheath controls flagellar supercoiling and motility in the leptospira spirochete.](#)
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18. [Protein Dynamics in Phosphoryl-Transfer Signaling Mediated by Two-Component Systems.](#)
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Patents

1. "Crystallographic structure of TcPRACA and uses therefor"

Minoprio, P., Alzari, P.M., **Buschiazzo, A.**, Degraeve, W., Gregoire, C. and Chamond, N.

Institut Pasteur (Paris, France)

European Patent Office, BRPI0410975, 2006-07-04.

United States Patent Application, A1, Document N° 20050250195, Nov 10 2005.

Deposited experimental 3D structures in the Protein Data Bank (PDB)

One hundred sixteen (119) structures solved, with access codes:

1MR5, 1MS0, 1MS1, 1MS3, 1MS4, 1MS5, 1MS8, 1MS9, 1MZ5, 1MZ6, 1N1S, 1N1T, 1N1V, 1N1Y, 1RZU, 1RZV, 1S0I, 1S0J, 1W61, 1W62, 2A75, 2AGS, 2AH2, 2CKD, 2F3X, 2F41, 2FHR, 2FWV, 2GEJ, 2GEK, 2UYO, 2UYQ, 2V7S, 2WAM, 2XNC, 2XNJ, 2YOC, 3B69, 3EHF, 3EHG, 3EHH, 3EHJ, 3GIE, 3GIF, 3GIG, 3I0V, 3I11, 3I13, 3I14, 3I15, 3M8O, 3OPZ, 3PG1, 3PJQ, 3QNX, 3QNY, 3QNZ, 3QO0, 3QO1, 3UIB, 4A0X, 4A0Y, 4A0Z, 4A12, 4DVH, 4EMX, 4LDZ, 4LE0, 4LE1, 4LE2, 4LS5, 4LS6, 4LS7, 4LS8, 4PH0, 4PH1, 4PH2, 4PH3, 4Q7E, 5CEE, 5IUJ, 5IUK, 5IUL, 5IUM, 5K0W, 6BY0, 6C7N, 6D23, 6D24, 6NQW, 6NQX, 6NQY, 6NQZ, 6O6N, 6O6O, 6O6P, 6OC8, 6PWB, 6XQK, 7SSI, 7SSJ, 8EBF, 8VC9, 8VOU, 9CYN, 9NE1, 9PHZ, 9PI0, 9QBF, 9QBG, 9QBH, 9QIH, 9QJG, 9QL9, 9QQW, 9QR2

Structures 10LK, 10LL and 10LM are deposited and on hold until final publication.