

Curriculum Vitae

(Last actualization: January 2026)

Family Name, First name: Pol Sorolla, Albert.

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Place and Date of Birth: Barcelona, 05.10.1969.

E-mail: albertpolsorolla@gmail.com

Professional Degree: Senior Research Professor of the Catalan Institution for Research and Advanced Studies (ICREA, Pg. Lluís Companys 23, 08010 Barcelona).

Position (1): ICREA Research Professor, Lipid Trafficking and Disease group, IDIBAPS-Fundació Clínic Barcelona (IDIBAPS-FCB).

Position (2): Assistant Professor, Department of Biomedical Sciences, Medical School, University of Barcelona (UB).

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Web: <https://www.clinicbarcelona.org/en/idibaps/areas-and-programs/liver-digestive-system-and-metabolism/lipid-trafficking-and-disease>

Social: Bluesky (@albertpol.bsky.social), X (@AlbertPol10), LinkedIn (Albert Pol Sorolla).

Education and key qualifications

Jun 1993: BSc Biology, UB.

Jul 1998: PhD in Biology, UB.

Nov 2007: ICREA Research Professor, IDIBAPS-FCB.

Professional positions

Jul 1993 - Jul 1995: Student. Biochemistry Department. Medical School, UB.

Jul 1995 - Jul 1998: PhD Student. Biology Department. Medical School, UB.

Jul 1998 - Feb 1999: Researcher. Biology Department. Medical School, UB.

Feb 1999 - Nov 2001: NHMRC Research Officer. Professor Robert G. Parton Group. Institute for Molecular Biosciences (IMB). University of Queensland. Brisbane, Australia.

Nov 2001 - Nov 2006: “Ramón y Cajal” contract from the Spanish Science and Technology Ministry (MCYT). Cell Compartments and Signalling Group, IDIBAPS-FCB.

Nov 2006 - Dec 2007: Senior Researcher (I3-supported). “Cell Compartments and Signalling Group”, IDIBAPS-FCB.

Nov 2007 - present: ICREA Research Professor and group leader of the “Lipid Trafficking and Disease Group”, IDIBAPS-FCB.

Mar 2011 - present: Assistant Professor, Department of Biomedical Sciences, Cell Biology Unit, Medical School, UB.

Key Publications and Key Words

(Source Dimensions/Google Scholar)

6 - MAMMALIAN LIPID DROPLETS ARE INNATE IMMUNE HUBS INTEGRATING CELL METABOLISM AND HOST DEFENSE.

Bosch M, Sánchez-Álvarez M, Fajardo A, Kapetanovic R, Steiner B, Dutra F, Moreira L, López JA, Campo R, Marí M, Morales-Paytuví F, Tort O, Gubern A, Templin RM, Curson JEB, Martel N, Català C, Lozano F, Tebar F, Enrich C, Vázquez J, Del Pozo MA, Sweet MJ, Bozza PT, Gross SP, Parton RG, **Pol A**.

SCIENCE 2020

Oct 16;370(6514): eaay8085. doi: 10.1126/science.aay8085.

Cited by 409/441.

5 - AMPK ACTIVATION PROMOTES LIPID DROPLET DISPERSION ON DETYROSINATED MICROTUBULES TO INCREASE MITOCHONDRIAL FATTY ACID OXIDATION.

Herms A, Bosch M, Reddy BJ, Schieber NL, Fajardo A, Rupérez C, Fernandez-Vidal A, Ferguson C, Rentero C, Tebar F, Enrich C, Parton RG, Gross SP, **Pol A**.

NATURE COMMUNICATIONS 2015

May 27; 6:7176. doi: 10.1038/ncomms8176.

Cited by 277/335.

4 - BIOGENESIS OF THE MULTIFUNCTIONAL LIPID DROPLET: LIPIDS, PROTEINS, AND SITES.

Pol A, Gross SP, and Parton RG.

THE JOURNAL OF CELL BIOLOGY 2014

Mar 3; 204(5):635-46. doi: 10.1083/jcb.201311051.

Cited by 432/584.

3 - ACYL-COA SYNTHETASE 3 PROMOTES LIPID DROPLET BIOGENESIS IN ER MICRODOMAINS.

Kassan A, Herms A, Fernández-Vidal A, Bosch M, Schieber NL, Reddy BJ, Fajardo A, Gelabert-Baldrich M, Tebar F, Enrich C, Gross SP, Parton RG, **Pol A**.

THE JOURNAL OF CELL BIOLOGY 2013

Dec 23; 203(6):985-1001. doi: 10.1083/jcb.201305142.

Cited by 326/383.

2 - CAVEOLIN-1 IS ESSENTIAL FOR LIVER REGENERATION.

Fernández M, Albor C, Ingelmo M, Nixon S, Ferguson C, Kurzchalia T, Tebar F, Enrich C, Parton RG, **Pol A**.

SCIENCE 2006

Sep 15; 313(5793):1628-32.

Cited by 245/343.

1 - A CAVEOLIN DOMINANT NEGATIVE MUTANT ASSOCIATES WITH LIPID BODIES AND INDUCES INTRACELLULAR CHOLESTEROL IMBALANCE.

Pol A, Luetterforst R, Lindsay M, Heino S, Ikonen E, Parton RG.

THE JOURNAL OF CELL BIOLOGY 2001

Mar 5; 152(5):1057-70.

Cited by 293/406.

Scientific Publications

(Reverse chronological order. Source Dimensions®/Google Scholar®. A, article; R, invited Review)

As Principal Investigator (2001-present):

36 – Lipid droplets provide metabolic flexibility for cancer progression.

Safi R, Menéndez P, **Pol A**.

FEBS Letters 2024. May;598(10):1301-1327. doi: 10.1002/1873-3468.14820.

I.F. – 3.500. Cited by 35/35. (R).

35 – Early proteostasis of caveolins synchronizes trafficking, degradation, and oligomerization to prevent toxic aggregation.

Morales-Paytuví F, Fajardo A, Ruiz-Mirapeix C, Rae J, Tebar F, Bosch M, Enrich C, Collins B, Parton RG, **Pol A**.

Journal of Cell Biology 2023. Sep 4;222(9):e202204020. doi: 10.1083/jcb.202204020.

I.F. – 7.800. Cited by 16/15. (A).

34 – Defensive-lipid droplets: Cellular organelles designed for antimicrobial immunity.

Safi R, Sánchez-Álvarez M, Bosch M, Demangel C, Parton RG, **Pol A**.

Immunological Reviews 2023. Aug;317(1):113-136. doi: 10.1111/imr.13199.

I.F. – 12.988. Cited by 20/24. (R).

33 – Insights Into the Biogenesis and Emerging Functions of Lipid Droplets From Unbiased Molecular Profiling Approaches.

Sánchez-Álvarez M, Del Pozo MA, Bosch M, **Pol A**.

Frontiers in Cell and Developmental Biology 2022. Jun 8;10:901321. doi: 10.3389/fcell.2022.901321.

I.F. - 6.081. Cited by 14/17. (R).

32 – Eukaryotic lipid droplets: metabolic hubs, and immune first responders.

Bosch M, **Pol A**.

Trends in Endocrinology & Metabolism 2022. Mar;33(3):218-229. doi: 10.1016/j.tem.2021.12.006.

I.F. - 12.015. Cited by 39/45. (R).

31 – Lipid droplets and the host-pathogen dynamic: FATal attraction?

Bosch M, Sweet MJ, Parton RG, **Pol A**.

Journal of Cell Biology 2021. Aug 2;220(8):e202104005. doi: 10.1083/jcb.202104005.

I.F. - 10.539. Cited by 68/71. (R).

30 – Mammalian lipid droplets are innate immune hubs integrating cell metabolism and host defense.

Bosch M, Sánchez-Álvarez M, Fajardo A, Kapetanovic R, Steiner B, Dutra F, Moreira L, López JA, Campo R, Marí M, Morales-Paytuví F, Tort O, Gubern A, Templin RM, Curson JEB, Martel N, Català C, Lozano F, Tebar F, Enrich C, Vázquez J, Del Pozo MA, Sweet MJ, Bozza PT, Gross SP, Parton RG, **Pol A**.

Science 2020. Oct 16;370(6514):eaay8085. doi: 10.1126/science.aay8085.

I.F. 41.845. Cited by 409/441. (A).

Editor's comment in <https://science-sciencemag-org.sire.ub.edu/content/370/6514/eaay8085.editor-summary>

Special Comment in <https://science-sciencemag-org.sire.ub.edu/content/370/6514/294>

F1000 recommended <https://facultyopinions.com/prime/recommendations/all?query=Mammalian+lipid+droplets>

29 – Novel contact sites between lipid droplets, early endosomes, and the endoplasmic reticulum.

Parton RG, Bosch M, Steiner B, **Pol A**.

Journal of Lipid Research 2020. Nov;61(11):1364. doi: 10.1194/jlr.ILR120000876.

I.F. - 4.743. Cited by 15/15. (A).

28 - Non-caveolar caveolins - duties outside the caves.

Pol A*, Morales-Paytuví F, Bosch M, Parton RG*.

(*corresponding authors)

Journal of Cell Science 2020. May 11;133(9):jcs241562. doi: 10.1242/jcs.241562.

I.F. - 4.831. Cited by 53/61. (R).

27 - Lipid droplets, bioenergetic fluxes, and metabolic flexibility.

Bosch M, Parton RG, **Pol A**.

Seminars in Cell and Developmental Biology 2020. Mar 4:S1084-9521(19)30052-7. doi:

10.1016/j.semcdb.2020.02.010.

I.F. - 6.691. Cited by 53/67. (R).

26 - Interplay between hepatic mitochondria-associated membranes, lipid metabolism and caveolin-1 in mice.

Sala-Vila A, Navarro-Lérida I, Bosch M, Calvo C, López JA, Calvo E, Ferguson C, Balsinde J, Enríquez JA, Giacomello M, Scorrano L, Parton RG, Vázquez J, **Pol A***, del Pozo MA*.

(*corresponding authors)

Scientific Reports 2016. Jun 6;6:27351. doi: 10.1038/srep27351.

I.F. - 4.259. Cited by 170/222. (A).

25 - Hepatic Primary and Secondary Cholesterol Deposition and Damage in Niemann-Pick Disease.

Bosch M, Fajardo A, Alcalá-Vida R, Fernández-Vidal A, Tebar F, Enrich C, Cardellach F, Pérez E, **Pol A**.

The American Journal of Pathology 2016. Jan 16. pii: S0002-9440(15)00693-8.

doi: 10.1016/j.ajpath.2015.12.002.

I.F. - 4.057. Cited by 12/17. (A).

24 - AMPK activation promotes lipid droplet dispersion on detyrosinated microtubules to increase mitochondrial fatty acid oxidation.

Herms A, Bosch M, Reddy BJ, Schieber NL, Fajardo A, Ruperez C, Fernandez-Vidal A, Ferguson C, Rentero C, Tebar F, Enrich C, Parton RG, Gross SP, **Pol A**.

Nature Communications 2015. May 27; 6:7176. doi: 10.1038/ncomms8176.

I.F. - 11.329. Cited by 277/335. (A).

F1000 recommended <https://f1000.com/prime/725516656>

23 - Biogenesis of the Multifunctional Lipid Droplet: Lipids, Proteins, and Sites.

Pol A*, Gross SP, and Parton RG*.

(*corresponding authors)

The Journal of Cell Biology 2014. Mar 3; 204(5):635-46. doi: 10.1083/jcb.201311051.

I.F. - 9.834. Cited by 432/584. (R).

Invited Review: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3941045/>

22 - Acyl-CoA synthetase 3 promotes lipid droplet biogenesis in ER microdomains.

Kassan A, Herms A, Fernández-Vidal A, Bosch M, Schieber NL, Reddy BJ, Fajardo A, Gelabert-Baldrich M, Tebar F, Enrich C, Gross SP, Parton RG, **Pol A**.

The Journal of Cell Biology 2013. Dec 23; 203(6):985-1001. doi: 10.1083/jcb.201305142.

I.F. - 9.688. Cited by 326/383. (A).

21 - Cell-to-cell heterogeneity in lipid droplets suggests a mechanism to reduce lipotoxicity.

Herms A, Bosch M, Ariotti N, Reddy BJ, Fajardo A, Fernández-Vidal A, Alvarez-Guaita A, Fernández-Rojo MA, Rentero C, Tebar F, Enrich C, Geli MI, Parton RG, Gross SP, **Pol A**.

Current Biology 2013. Aug 5; 23(15):1489-96. doi: 10.1016/j.cub.2013.06.032.

I.F. - 9.916. Cited by 179/242. (A).

F1000 recommended <https://f1000.com/prime/718043521?r=mra>

20 - Mitochondrial cholesterol: a connection between caveolin, metabolism, and disease.

Bosch M, Marí M, Gross SP, Fernández-Checa JC, **Pol A**.

Traffic 2011. Nov; 12(11):1483-9. doi: 10.1111/j.1600-0854.2011.01259.x.

I.F. - 4.919. Cited by 50/73. (A).

19 - Caveolin-1 deficiency causes cholesterol-dependent mitochondrial dysfunction and apoptotic susceptibility.

Bosch M, Marí M, Herms A, Fernández A, Fajardo A, Kassan A, Giralto A, Colell A, Balgoma D, Barbero E, González-Moreno E, Matias N, Tebar F, Balsinde J, Camps M, Enrich C, Gross SP, García-Ruiz C, Pérez-Navarro E, Fernández-Checa JC, **Pol A**.

Current Biology 2011. Apr 26; 21(8):681-6. doi: 10.1016/j.cub.2011.03.030.

I.F. - 9.647. Cited by 182/260. (A).

Editor's choice in **Science**: <https://www.science.org/doi/10.1126/science.2011.332.6034.twil>

18 - Hydrophobic and basic domains target proteins to lipid droplets.

Ingelmo-Torres, M, Gonzalez-Moreno E, Kassan A, Hanzal-Bayer M, Tebar F, Herms A, Grewal T, Hancock JF, Enrich C, Bosch M, Gross SP, Parton RG, **Pol A**.

Traffic 2009. Dec;10(12):1785-801. doi: 10.1111/j.1600-0854.2009.00994.x.

I.F. - 6.255. Cited by 74/103. (A).

17 - Triton X-100 promotes a cholesterol-dependent condensation of the plasma membrane.

Ingelmo M, Gaus K, Herms A, González-Moreno E, Kassan A, Bosch M, Grewal T, Tebar F, Enrich C, **Pol A**.

Biochemical Journal 2009. May 27; 420(3):373-81. doi: 10.1042/BJ20090051.

I.F. - 5.155. Cited by 23/33. (A).

16 - Caveolin-1 is essential for liver regeneration.

Fernández M, Albor C, Ingelmo M, Nixon S, Ferguson C, Kurzchalia T, Tebar F, Enrich C, Parton RG, **Pol A**.

Science 2006. Sep 15; 313(5793):1628-32.

I.F. - 30.028. Cited by 245/343. (A).

Editor's choice in **Science**: <http://stke.sciencemag.org/cgi/content/abstract/2006/353/tw321>

Highlights in **Science**: <http://www.sciencemag.org/content/313/5793/1581.summary>

F1000 recommended: <https://f1000.com/prime/1048255>

15 - Identification and Characterization of Associated with Lipid Droplet Protein 1: A Novel Membrane-Associated Protein That Resides on Hepatic Lipid Droplets.

Turró S, Ingelmo M, Estanyol J, Tebar F, Fernández MA, Albor CV, Gaus K, Grewal T, Enrich C, **Pol A**.

Traffic 2006. Sep; 7(9):1254-69.

I.F. - 6.612. Cited by 186/227. (A).

Cover article.

14 - Cholesterol and fatty acids regulate dynamic caveolin trafficking through the Golgi complex and between the cell surface and lipid bodies.

Pol A*, Martin S, Fernández MA, Ingelmo-Torres M, Ferguson C, Enrich C, Parton RG*.

(*corresponding authors)

Molecular Biology of the Cell 2005. Apr; 16(4):2091-105.

I.F. - 6.520. Cited by 186/272. (A).

13 - Dynamic and regulated association of caveolin with lipid bodies: modulation of lipid body motility and function by a dominant negative mutant.

Pol A, Martin S, Fernandez MA, Ferguson C, Carozzi A, Luetterforst R, Enrich C, Parton RG.
Molecular Biology of the Cell 2004. Jan; 15(1):99-110.
I.F. - 7.517. Cited by 182/261. (A).
Cover article.

12 - Intracellular trafficking during liver regeneration. Alterations in late endocytic and transcytotic pathways.

Fernández MA, Turró S, Ingelmo-Torres M, Enrich C, **Pol A**.
Journal of Hepatology 2004. Jan; 40(1):132-9.
I.F. - 4.816. Cited by 6/9. (A).

Postdoctoral period (1999-2001):

11 - A caveolin dominant negative mutant associates with lipid bodies and induces intracellular cholesterol imbalance.

Pol A, Luetterforst R, Lindsay M, Heino S, Ikonen E, Parton RG.
The Journal of Cell Biology 2001. Mar 5; 152(5):1057-70.
I.F. -12.915. Cited by 293/406. (A).
Highlights in **Nature Reviews**: http://www.nature.com/nrm/journal/v2/n4/full/nrm0401_234a.html
Highlights in **The Journal of Cell Biology**: <http://jcb.rupress.org/content/152/5/F29.long>
Cover Article of the number.

PhD period (1997-1999):

10 - Changes of skeletal muscle proteases activities during a chronic low-frequency stimulation period.

Parreno M*, **Pol A***, Cadeau J, Parra J, Alvarez L, Membrilla E, Cusso R.
(*equal contribution)

Pflügers Archiv - European Journal of Physiology 2001 Aug; 442(5):745-51.
I.F. - 1.632. Cited by 6/9. (A).

9 - Epidermal growth factor-mediated caveolin recruitment to early endosomes and MAPK activation. Role of cholesterol and actin cytoskeleton.

Pol A, Lu A, Pons M, Peiro S, Enrich C.
Journal of Biological Chemistry 2000 Sep 29; 275(39):30566-72.
I.F. - 7.368. Cited by 47/64. (A).

8 - EGF triggers caveolin redistribution from the plasma membrane to the early/sorting endocytic compartment of hepatocytes.

Pol A, Calvo M, Lu A, Enrich C.
Cellular Signalling 2000 Aug; 12(8):537-40.
I.F. - 3.294. Cited by 12/17. (A).

7 - Cellubrevin is present in the basolateral endocytic compartment of hepatocytes and follows the transcytotic pathway after IgA internalization.

Calvo M*, **Pol A***, Lu A, Ortega D, Pons M, Blasi J, Enrich C.
(*equal contribution)
Journal of Biological Chemistry 2000 Mar 17;275(11):7910-7.
I.F. - 7.368. Cited by 20/31. (A).

6 - The "early-sorting" endocytic compartment of rat hepatocytes is involved in the intracellular pathway of caveolin-1 (VIP-21).

Pol A, Calvo M, Lu A, Enrich C.

Hepatology 1999 Jun; 29(6):1848-57.

I.F. - 7.344. Cited by 57/81. (A).

5 - Isolated endosomes from quiescent rat liver contain the signal transduction machinery. Differential distribution of activated Raf-1 and Mek in the endocytic compartment.

Pol A, Calvo M, Enrich C.

FEBS Letters 1998 Dec 11; 441(1):34-8.

I.F. - 3.581. Cited by 90/130. (A).

4 - Annexin VI defines an apical endocytic compartment in rat liver hepatocytes.

Ortega D*, **Pol A***, Biermer M, Jackle S, Enrich C.

(*equal contribution)

Journal of Cell Science 1998 Jan; 111 (Pt 2):261-9.

I.F. - 5.453. Cited by 48/78. (A).

3 - Membrane transport in rat liver endocytic pathways: preparation, biochemical properties and functional roles of hepatic endosomes.

Pol A, Enrich C.

Electrophoresis 1997 Dec; 18(14):2548-57.

I.F. - 3.054. Cited by 20/25. (R).

2 - Identification of cytoskeleton-associated proteins in isolated rat liver endosomes.

Pol A, Ortega D, Enrich C.

Biochemical Journal 1997 Nov 1; 327 (Pt 3):741-6.

I.F. - 3.855. Cited by 68/94. (A).

1 - Identification and distribution of proteins in isolated endosomal fractions of rat liver: involvement in endocytosis, recycling and transcytosis.

Pol A, Ortega D, Enrich C.

Biochemical Journal 1997 Apr 15; 323 (Pt 2):435-43.

I.F. - 3.855. Cited by 40/44. (A).

Publications as Collaborator (1999-present):

36 – Pro-ferroptotic lipids as key control points for caveola formation and disassembly.

Wu Y, Lim YW, McMahon KA, Martel N, Rae J, Lo HP, Gao Y, Tillu V, Larsson E, Lundmark R, Levic DS, Bagnat M, Lim J, Fairlie DP, **Pol A**, Collins BM, Ariotti N, Hall TE, Parton RG.

Cell Rep. 2025 Jun 24;44(6):115789. doi: 10.1016/j.celrep.2025.115789.

I.F. – 7.500. (A).

35 – Moving the fat: Emerging roles of rab GTPases in the regulation of lipid droplet contact sites.

Alonso-Bivou M, **Pol A**, Lo HP.

Curr Opin Cell Biol. 2025 Apr;93:102466. doi: 10.1016/j.ceb.2025.102466.

I.F. – 4.300. (R).

34 – Organismal metabolism regulates the expansion of oncogenic PIK3CA mutant clones in normal esophagus.

Herms A, Colom B, Piedrafita G, Kalogeropoulou A, Banerjee U, King C, Abby E, Murai K, Casada I, Fernandez-Antoran D, Ong SH, Hall MWJ, Bryant C, Sood RK, Fowler JC, **Pol A**, Frezza C, Vanhaesebroeck B, Jones PH.

Nat Genet. 2024 Oct;56(10):2144-2157. doi: 10.1038/s41588-024-01891-8.

I.F. – 31.700. (A).

33 – Mitofusin-2 induced by exercise modifies lipid droplet-mitochondria communication, promoting fatty acid oxidation in male mice with NAFLD.

Bórquez JC, Díaz-Castro F, La Fuente FP, Espinoza K, Figueroa AM, Martínez-Ruiz I, Hernández V, López-Soldado I, Ventura R, Domingo JC, Bosch M, Fajardo A, Sebastián D, Espinosa A, **Pol A**, Zorzano A, Cortés V, Hernández-Alvarez MI, Troncoso R.

Metabolism. 2024 Mar;152:155765. doi: 10.1016/j.metabol.2023.155765.

I.F. – 9.800. (A).

32 – Aged lipid-laden microglia display impaired responses to stroke.

Arbaizar-Roviroso M, Pedragosa J, Lozano JJ, Casal C, **Pol A**, Gallizioli M, Planas AM.

EMBO Mol Med. 2023 Feb 8;15(2):e17175. doi: 10.15252/emmm.202217175.

I.F. – 14.005. (A).

31 – Ductular reaction promotes intrahepatic angiogenesis through Slit2-Roundabout 1 signaling.

Coll M, Ariño S, Martínez-Sánchez C, Garcia-Pras E, Gallego J, Moles A, Aguilar-Bravo B, Blaya D, Vallverdú J, Rubio-Tomás T, Lozano JJ, Pose E, Graupera I, Fernández-Vidal A, **Pol A**, Bataller R, Geng JG, Ginès P, Fernandez M, Sancho-Bru P.

Hepatology. 2022 Feb;75(2):353-368. doi: 10.1002/hep.32140.

I.F. - 17.425. (A).

30 – ContactJ: Characterization of lipid droplet-mitochondrial contacts using fluorescence microscopy and image analysis.

Martín G, Bosch M, Coll E, Parton RG, **Pol A**, Calvo M.

F1000Res. 2021 Apr 1;10:263. doi: 10.12688/f1000research.51900.2.

I.F. -2.64. (A).

29 – Lack of Annexin A6 exacerbates liver dysfunction and reduces lifespan of NPC1-deficient mice.

Meneses-Salas E, Garcia-Forn M, Castany-Pladevall C, Lu A, Fajardo A, Jose J, Wahba M, Bosch M, **Pol A**, Tebar F, Klein AD, Zanlungo S, Pérez-Navarro E, Grewal T, Enrich C, Rentero C.

Am J Pathol. 2020 Dec 17:S0002-9440(20)30564-2. doi: 10.1016/j.ajpath.2020.12.009.

I.F. - 3.491. (A).

28 – Mammalian histones facilitate antimicrobial synergy by disrupting the bacterial proton gradient and chromosome organization.

Doolin T, Amir HM, Duong L, Rosenzweig R, Urban LA, Bosch M, **Pol A**, Gross SP, Siryaporn A.

Nat Commun. 2020 Aug 4;11(1):3888. doi: 10.1038/s41467-020-17699-z.

I.F. - 12.121. (A).

27 - Annexin A6 is critical to maintain glucose homeostasis and survival during liver regeneration.

Alvarez-Guaita A, Blanco-Muñoz P, Meneses-Salas E, Wahba M, Pollock AH, Jose J, Casado M, Bosch M, Artuch R, Gaus K, Lu A, **Pol A**, Tebar F, Moss SE, Grewal T, Enrich C, Rentero C.

Hepatology. 2020 Mar 14. doi: 10.1002/hep.31232.

I.F. - 14.971. (A).

26 – Annexin A6 modulates TBC1D15/Rab7/StARD3 axis to control endosomal cholesterol export in NPC1 cells.

Meneses-Salas E, García-Melero A, Kanerva K, Blanco-Muñoz P, Morales-Paytuvi F, Bonjoch J, Casas J, Egert A, Beevi SS, Jose J, Llorente V, Rye KA, Heeren J, Lu A, **Pol A**, Tebar F, Ikonen E, Grewal T, Enrich C, Rentero C.

Cell Mol Life Sci. 2020 Jul;77(14):2839-2857. doi: 10.1007/s00018-019-03330-y.

I.F. - 7.014. (A).

25 - The Myxobacterial Metabolite Soraphen A Inhibits HIV-1 by Reducing Virus Production and Altering Virion Composition.

Fleta-Soriano E, Smutná K, Martínez JP, Lorca Oró C, Sadiq SK, Mirambeau G, Lopez-Iglesias C, Bosch M, **Pol A**, Brönstrup M, Diez J, Meyerhans A.

Antimicrob Agents Chemother. 2017 Jul 25;61(8). doi: 10.1128/AAC.00739-17.

I.F. - 4.415. (A).

24 - ROCK1 is a novel Rac1 effector to regulate tubular endocytic membrane formation during clathrin-independent endocytosis.

Soriano-Castell D, Chavero A, Rentero C, Bosch M, Vidal-Quadras M, **Pol A**, Enrich C, Tebar F.

Sci Rep. 2017 Jul 31;7(1):6866. doi: 10.1038/s41598-017-07130-x.

I.F. - 4.259. (A).

23 - Annexin A6 and late endosomal cholesterol modulates integrin recycling and cell migration.

Garcia-Melero A, Reverter M, Hoque M, Meneses-Salas E, Koese M, Conway J R, Johnsen CH, Alvarez-Guaita A, Morales F, Elmaghrabi YA, **Pol A**, Tebar F, Murray RZ, Timpson P, Enrich C, Grewal T, Rentero C.

J Biol Chem. 2016 Jan 15; 291(3):1320-35. doi: 10.1074/jbc.M115.683557.

I.F. - 4.125. (A).

22 - Dynamics of KRas on endosomes: Involvement of acidic phospholipids in its association.

Gelabert-Baldrich M, Soriano-Castell D, Calvo M, Lu A, Viña A, Rentero C, **Pol A**, Grinstein S, Enrich C, Tebar F. **FASEB J.** 2014 Jul; 28(7):3023-37. doi: 10.1096/fj.13-241158.

I.F. – 5.043. (A).

21 - Cholesterol Regulates Syntaxin 6 Trafficking at trans-Golgi Network Endosomal Boundaries.

Reverter M, Rentero C, Garcia-Melero A, Hoque M, Vilà de Muga S, Alvarez-Guaita A, Conway JR, Wood P, Cairns R, Lykopoulou L, Grinberg D, Vilageliu L, Bosch M, Heeren J, Blasi J, Timpson P, **Pol A**, Tebar F, Murray RZ, Grewal T, Enrich C.

Cell Rep. 2014 May 8; 7(3):883-97. doi: 10.1016/j.celrep.2014.03.043.

I.F. - 8.358. (A).

20 - Annexins and endosomal signaling.

Tebar F, Gelabert-Baldrich M, Hoque M, Cairns R, Rentero C, **Pol A**, Grewal T, Enrich C.

Methods Enzymol. 2014; 535:55-74. doi: 10.1016/B978-0-12-397925-4.00004-3.

I.F. - 2.088. (A).

19 - A novel role for lipid droplets in the organismal antibacterial response.

Anand P, Cermelli S, Li Z, Kassan A, Bosch M, Sigua R, Huang L, Ouellette AJ, **Pol A**, Welte MA, Gross SP.

eLife 2012 Nov 13; 1:e00003. doi: 10.7554/eLife.00003.

I.F. - 8.519. (A).

Editor's choice in **eLife**.

F1000 recommended.

18 - Caveolin-1 orchestrates the balance between glucose and lipid-dependent energy metabolism: implications for liver regeneration.

Fernandez-Rojo MA, Restall C, Ferguson C, Martel N, Martin S, Bosch M, Kassan A, Leong GM, Martin SD, McGee SL, Muscat GE, Anderson RL, Enrich C, **Pol A**, Parton RG.

Hepatology 2012 May; 55:1574-84. doi: 10.1002/hep.24810.

I.F. - 12.004. (A).

F1000 recommended.

17 - Rac1 and calmodulin interactions modulate dynamics of ARF6-dependent endocytosis.

Vidal-Quadras M, Gelabert-Baldrich M, Soriano D, Lladó A, Rentero C, Calvo M, **Pol A**, Enrich C, Tebar F. **Traffic** 2011 Dec; 12(12):1879-96. doi: 10.1111/j.1600-0854.2011.01274.x. I.F. - 4.919. (A).

16 - Cholesterol transport from late endosomes to the Golgi regulates t-SNARE trafficking, assembly, and function.

Reverter M, Rentero C, de Muga SV, Alvarez-Guaita A, Mulay V, Cairns R, Wood P, Monastyrskaya K, **Pol A**, Tebar F, Blasi J, Grewal T, Enrich C. **Mol Biol Cell**. 2011 Nov; 22(21):4108-23. doi: 10.1091/mbc.E11-04-0332. I.F. - 4.942. (A).

15 - Altered arachidonate distribution in macrophages from caveolin-1 null mice leading to reduced eicosanoid synthesis.

Astudillo AM, Pérez-Chacón G, Meana C, Balgoma D, **Pol A**, Del Pozo MA, Balboa MA, Balsinde J. **J Biol Chem**. 2011 Oct 7; 286(40):35299-307. doi: 10.1074/jbc.M111.277137. I.F. - 4.773. (A).

14 - Ras/mitogen-activated protein kinase (MAPK) signaling modulates protein stability and cell surface expression of scavenger receptor SR-BI.

Wood P, Mulay V, Darabi M, Chan K, Heeren J, **Pol A**, Lambert G, Rye K, Enrich C, Grewal T. **J Biol Chem**. 2011 Jul 1; 286(26):23077-92. doi: 10.1074/jbc.M111.236398. I.F. - 4.773. (A).

13 - Altered cholesterol homeostasis contributes to enhanced excitotoxicity in Huntington's disease.

del Toro D, Xifró X, **Pol A**, Humbert S, Saudou F, Canals JM, Alberch J. **J Neurochem**. 2010 Oct; 115(1):153-67. doi: 10.1111/j.1471-4159.2010.06912.x. I.F. - 4.337. (A).

12 - Differential involvement of H- and K-Ras in Raf-1 activation determines the role of calmodulin in MAPK signalling.

Moreto J, Vidal-Quadras M, **Pol A**, Santos E, Grewal T, Enrich C, Tebar F. **Cell Signal**. 2009 Dec 21; 12:1827-1836. doi: 10.1016/j.cellsig.2009.07.018. I.F. - 4.094. (A).

11 - Annexin A6 inhibits Ras signalling in breast cancer cells.

Vilá de Muga S, Timpson P, Cubells L, Evans R, Hayes TE, Rentero C, Hegemann A, Reverter M, Leschner J, **Pol A**, Tebar F, Daly RJ, Enrich C, Grewal T. **Oncogene** 2009 Jan 22; 28(3):363-77. doi: 10.1038/onc.2008.386. I.F. - 7.135. (A).

10 - Calmodulin modulates H-Ras mediated Raf-1 activation.

Moretó J, Lladó A, Vidal-Quadras M, Calvo M, **Pol A**, Enrich C, Tebar F. **Cell Signal**. 2008 Jun; 20(6):1092-103. doi: 10.1016/j.cellsig.2008.01.022. I.F. - 4.305. (A).

9 - Annexin A6-induced inhibition of cytoplasmic phospholipase A(2) is linked to caveolin-1 export from the Golgi.

Cubells L, de Muga SV, Tebar F, Bonventre JV, Balsinde J, **Pol A**, Grewal T, Enrich C. **J Biol Chem**. 2008 Apr 11; 283(15):10174-83. doi: 10.1074/jbc.M706618200. I.F. - 5.520. (A).

8 - PKC and Calmodulin Regulate EGF Receptor Recycling from Early Endosomes through Arp2/3 Complex and Cortactin.

Llado A, Timpson P, Vila S, Moreto J, **Pol A**, Grewal T, Daly R, Enrich C, Tebar F.

Mol Biol Cell. 2008 Jan; 19(1):17-29.

I.F. – 5.558. (A).

7 - Annexin A6-Induced Alterations in Cholesterol Transport and Caveolin Export from the Golgi Complex.

Cubells L, Vila S, Tebar F, Wood P, Evans R, Ingelmo M, Calvo M, Gaus K, **Pol A**, Grewal T, Enrich C.

Traffic 2007 Oct 15; 8(11):1568-1589.

I.F. – 6.533. (A).

6 - Inhibition of H-Ras and MAPK is compensated by PKC-dependent pathways in annexin A6 expressing cells.

Rentero C, Evans R, Wood P, Tebar F, Vila de Muga S, Cubells L, de Diego I, Hayes TE, Hughes WE, **Pol A**, Rye KA, Enrich C, Grewal T.

Cell Signal. 2006 Jul; 18(7):1006-16.

I.F. – 4.887. (A).

5 - Involvement of Targeting and Scaffolding Proteins in the Regulation of the EGFR/Ras/MAPK Pathway in Oncogenesis.

Grewal T, Tebar F, **Pol A**, Enrich C.

Current Signal Transduction Therapy 2006 May; 1(2): 147-67.

doi: 10.2174/157436206777012066. <http://www.eurekaselect.com/57111/article>.

I.F. – 0.958. (A).

4 - Annexin A6 stimulates the membrane recruitment of p120GAP to modulate Ras and Raf-1 activity.

Grewal T, Evans R, Rentero C, Tebar F, Cubells L, de Diego I, Kirchhoff MF, Hughes WE, Heeren J, Rye KA, Rinninger F, Daly RJ, **Pol A**, Enrich C.

Oncogene 2005 Sep 1; 24(38):5809-20.

I.F. – 6.872. (A).

3 - Inhibition of lipid raft-dependent signaling by a dystrophy-associated mutant of caveolin-3.

Carozzi AJ, Roy S, Morrow IC, **Pol A**, Wyse B, Clyde-Smith J, Prior IA, Nixon SJ, Hancock JF, Parton RG.

J Biol Chem. 2002 May 17; 277(20):17944-9.

I.F. – 6.696. (A).

2 - Late endocytic compartments are major sites of annexin VI localization in NRK fibroblasts and polarized WIF-B hepatoma cells.

Pons M, Ihrke G, Koch S, Biermer M, **Pol A**, Grewal T, Jackle S, Enrich C.

Exp Cell Res. 2000 May 25; 257(1):33-47.

I.F. – 3.860. (A).

1 - Dissection of the multifunctional "Receptor-Recycling" endocytic compartment of hepatocytes.

Enrich C, **Pol A**, Calvo M, Pons M, Jackle S.

Hepatology 1999 Nov; 30(5):1115-20.

I.F. – 7.344. (A).

Funding

Relevant funding

6 - Deciphering the Role of Lipids and Micropeptides in the Innate Immunity Defence mediated by Lipid Droplets.

Proyectos de Generación del Conocimiento **RETOS INVESTIGACIÓN, MICINN** (PID2024-156272OB-I00).
Aug 2025-Jul 2028.

381.250€.

1 staff contract (technician) and 1 FPI.

PI: Albert Pol

5 - Lipid droplets as key players in brain microgliosis after stroke.

CAIXA RESEARCH HEALTH (HR23-00560).

Oct 2023- Sep 2026.

224.698€.

2 staff contracts (1 Technician and 1 Postdoc).

PI: Albert Pol

Coordinated by Anna Planas (CSIC), total conceded 946.676€ (3 groups).

4 - Lipid droplets as innate immunity hubs.

HORIZON ERC Synergy Grants (ERC-2022-SYG, 101071784).

Feb 2023-Jan 2029.

3.141.849 €.

5 staff contracts (4 Postdocs, 1 Technician, 1 Project Manager).

PI: Albert Pol

Coordinated by Albert Pol, total conceded 8. 793.579 € (3 groups).

3 – EU Training Network in understanding the molecular regulation and the role of endo-lysosomal processes in cardio-metabolic diseases (EndoConnect). Project: 953489, **H2020-MSCA-ITN-2018**.

Jan 2021- Dec 2023.

250.905€.

1 staff contract (PhD candidate contract and support).

PI: Albert Pol (12 European academic and industry groups network, coordinated by Bart van de Sluis, total conceded 4,074,589€).

2 - Mammalian lipid droplets: a central role in the organismal antibacterial response? RGP0020/2015.

HUMAN FRONTIER SCIENCE PROGRAM (HFSP).

Jun 2015 - May 2018.

337.500\$ (US).

3 staff contracts (1 Technician and 2 Postdocs).

PI: Albert Pol (Coordinated by Steven Gross (UC, Irvine); total conceded 1.350.000\$).

1 - Mechanism of protein secretion and compartment organization. Mechanism of Lipid Droplet formation.

CSD2009.00016. **CONSOLIDER INGENIO. MINECO**.

Dec 2009 - Nov 2014 (+1-year extension).

420.000€.

2 staff contracts (Technician and Postdoc).

PI: Albert Pol (Coordinated by Vivek Malhotra (CRG). Total conceded 4.200.000€).

Grants as Principal Investigator (PI):

20 - Deciphering the Role of Lipids and Micropeptides in the Innate Immunity Defence mediated by Lipid Droplets.

Proyectos de Generación del Conocimiento RETOS INVESTIGACIÓN, **MICINN** (PID2024-156272OB-I00).

Aug 2025-Jul 2028.

381.250€.

1 staff contract (technician) and 1 FPI.

PI: Albert Pol

19 - Metabolism and disease programme (MetaDis).

IDIBAPS multidisciplinary research programs.

2024-2028.

PI: Albert Pol

Coordinated by Mercedes Fernández, total conceded 400.000€ (9 groups).

18 - Lipid droplets as key players in brain microgliosis after stroke.

CAIXA RESEARCH HEALTH (HR23-00560).

Oct 2023- Sep 2026.

224.698€.

2 staff contracts (Technicians).

PI: Albert Pol

Coordinated by Anna Planas (CSIC), total conceded 946.676€ (3 groups).

17 - Lipid droplets as innate immunity hubs.

HORIZON ERC Synergy Grants (ERC-2022-SYG, 101071784).

Feb 2023-Jan 2029.

3.141.849 €.

5 staff contracts (3 Postdocs, 1 Technician, 1 Project Manager).

PI: Albert Pol

Coordinated by Albert Pol, total conceded 8. 793.579 € (3 groups).

16 - Mapping the innate immunity defences organised on lipid droplets.

Convocatoria 2021, Proyectos de Generación de Conocimiento. **MICINN**. PID2021-127043OB-I00.

Set 2021- Aug 2024.

381.150€.

1 staff contract (Technician).

1 FPI (PhD student).

PI: Albert Pol.

15 – EU Training Network in understanding the molecular regulation and the role of endo-lysosomal processes in cardio-metabolic diseases (EndoConnect). Project: 953489, **H2020-MSCA-ITN-2018**.

Jan 2021- Dec 2023.

250.905€.

1 staff contract (PhD candidate contract and support).

PI: Albert Pol (12 European academic and industry groups network, coordinated by Bart van de Sluis, total conceded 4,074,589€).

14 - Lipid Droplets and Mitochondria: immune hubs controlling host defence and immunometabolism.

RTI2018-098593-B-I00. Proyectos de I+D+i RETOS INVESTIGACIÓN. **MICINN**.

Jan 2019- Dec 2021.

302.500€.

1 staff contract (Technician).

PI: Albert Pol.

13 - Discovering the Partners of PCSK9 in Hepatic Endosomes: The Where, How, and Why of PCSK9 in Atherosclerosis.

Amgen 2018 Competitive Grant Program.

Sep 2018- Aug 2020 (+1-year extension).

199.988\$ (US).

1 staff contract (PhD).

PI: Albert Pol.

12 - Organización compartimental y transporte. Redes de Excelencia.

BFU2016-81912-REDC (2017-2019). **Redes Consolidar. MINECO.**

PI: Albert Pol (Coordinated by Vivek Malhotra (CRG); total conceded 41.500€, 7 groups).

11 - Lipid Droplet Overloading Promotes Pathogenesis and Progression of Type 2 Diabetes: Identifying New Therapeutic Targets and Applying Upgraded Therapies.

31/U/2016. **Fundació Marató de TV3.**

Jan 2017- Dec 2019.

199.920 €.

1 staff contract (PhD).

PI: Albert Pol.

10 - Novel roles of ACSL3, CAV1, and cholesterol in the Endoplasmic Reticulum: homeostatic sensors that determine cell's survival or death.

BFU2015-66401-R. Proyectos de I+D+i RETOS INVESTIGACIÓN. **MINECO.**

Jan 2016 - Dec 2018.

314.600€

1 FPI fellowship (Frederic Morales Paytuví).

1 staff contract (Technician).

PI: Albert Pol.

9 - Mammalian lipid droplets: a central role in the organismal antibacterial response? RGP0020/2015.

Human Frontier Science Program (HFSP).

Jun 2015 - May 2018.

337.500\$ (US).

3 staff contracts (1 Technician and 2 PhD).

PI: Albert Pol (Coordinated by Steven Gross (UC, Irvine); total conceded 1.350.000\$).

8 - Consecuencias metabólicas, celulares y sistémicas de mutaciones en caveolinas y NPC1 humanas.

BFU2011-23745. **MINECO.**

Jan 2012 - Dec 2014 (+1-year extension).

287.980€

1 FPI fellowship (Andrea Fernández Vidal) and 1 staff contract (Technician).

PI: Albert Pol.

7 - Hepatic and brain mitochondrial cholesterol/glycosphingolipids and altered metabolism contribute to the pathology of Niemann Pick Type C disease and caveolinopathies. 201005-30-31. **Fundació Marató de TV3**

Oct 2011 - Oct 2013 (+1-year extension).

147.686€.

PI: Albert Pol (Coordinated by JC Fernández-Checa (CSIC); total conceded 400.000€).

6 - Mechanism of protein secretion and compartment organization. Mechanism of Lipid Droplet formation. CSD2009.00016. **Consolider Ingenio. MINECO**.

Dec 2009 - Nov 2014 (+1-year extension).

420.000€.

2 staff contracts (Technician and PhD).

PI: Albert Pol (Coordinated by Vivek Malhotra (CRG). Total conceded 4.200.000€).

5 - Intracellular accumulation of lipids: Role of CAV1, molecular mechanisms and implications on cell proliferation. BFU2008-00345. **MINECO**.

Jan 2009 - Dec 2011.

205.700€

1 FPI fellowship (Mariona Gelabert Baldrich).

PI: Albert Pol.

4 - Papel de la Caveolina y de los Cuerpos Lipídicos en el control de la regeneración hepática. BFU2005-01716/BMC. **MINECO**.

Nov 2005 - Oct 2008.

83.300€.

PI: Albert Pol.

3 - Caracterización de una nueva vía de transporte intracelular de proteínas entre el aparato de Golgi y los cuerpos lipídicos. GEN2003-20662-C07-05. **MINECO**.

Nov 2004 - Nov 2007.

90.000€.

PI: Albert Pol.

2 - Análisis proteómico de los cuerpos lipídicos. Papel de la caveolina en el transporte y acumulación intracelular de lípidos. BMC2002-03553. **MINECO**.

Nov 2002 - Nov 2005.

106.950€.

PI: Albert Pol.

1 - Estudio del papel de las caveolas y de la caveolina en el tráfico intracelular, transducción de señales y el transporte de colesterol. Entidad financiadora: **Programa Ramón y Cajal. MINECO**.

Nov 2001 - Oct 2006.

90.000€.

PI: Albert Pol

Participation in other projects:

14 - ORGANIZACION COMPARTIMENTAL Y TRANSPORTE. Redes de Excelencia CONSOLIDER BFU2016-81912-REDC. **MINECO**. 2017-2019. 41.500€. PI: Vivek Malhotra (CRG).

13 - Mecanismos Moleculares en el estudio del cáncer. ISCIII- **Ministerio de Sanidad y Consumo**. RTICC 2006. 2007-2009. 72.000€. PI: Carlos Enrich.

12 - Role of lipid droplets and lipid metabolism in the proliferative response after partial hepatectomy. HA2006-0106. **MICINN**. 2007-2008. 10.000€. PI: Carlos Enrich.

11 - Análisis de la actividad Ras y Raf-1 por anexina A6 y GAP. Papel de los lipid rafts. SGR2005-00492. **Grups de Recerca de la Generalitat de Catalunya**. 2005. 26.600€. PI: Carlos Enrich.

10 - Estudio funcional de nuevos “targets” terapéuticos en patología humana: las caveolas como dianas celulares de nuevos sistemas de liberación específica de fármacos y de principios activos con efecto supresor de tumores. CENIT-2005. **MICINN**. 2006-2009. 220.000€. PIs: Carlos Enrich and Teresa Royo.

9 - Estudio de los mecanismos patogénicos de las hepatitis víricas y esteatohepatitis: implicaciones en la terapia farmacológica. FIS-G03/015. **Ministerio de Sanidad y Consumo**. 2003-2005. 360.069€. PI: Carlos Enrich.

8 - Estudio del papel de la anexina 6 en la señalización. HA2002-0055. **ACCIONES INTEGRADAS Hispano-alemanas**. 2003-2004. 10.000€. PI: Carlos Enrich.

7 - Molecular characterization of cholesterol intracellular transport mediated by caveolin. Australian National Health and Medical Research Council (**NHMRC**). 2001-2004. 200.000\$ (AU). PI: Robert G. Parton.

6 - Molecular characterization of cholesterol intracellular transport mediated by caveolin. Australian National Health and Medical Research Council (**NHMRC**). 1999-2001. 180.000\$ (AU). PI: Robert G. Parton.

5 - Análisis molecular y celular de la regeneración hepática post-hepatectomía. FIS. **Ministerio de Sanidad y Consumo**. 2001-2003. 58.000€. PI: Carlos Enrich.

4 - Caracterización del sistema endocítico del hepatocito de rata. **ACCIONES INTEGRADAS Hispano-Alemanas**. 1998-1999. 5.000€. PI: Carlos Enrich.

3 - Análisis de las interacciones moleculares de la proteína CFTR con la membrana plasmática de células epiteliales. **Fundació Marató de TV3**. 1999- 2001. 125.000€. PI: Carlos Enrich

2 - Análisis molecular de la endocitosis y del tráfico intracelular de proteínas. PM99-0166. CICYT. Programa Sectorial de Promoción General del Conocimiento. **MINECO**. 2000- 2002. 102.188€. PI: Carlos Enrich.

1 - Análisis molecular y celular de la regeneración hepática post-hepatectomía. Implicaciones en el trasplante hepático de donante vivo. **Fundació Marató de TV3**. 2000- 2002. 84.154€. PI: Carlos Enrich.

PhD Supervised

12 - Marina Sánchez-Quijada.

FPI (MINECO) fellowship.

Department of Biomedical Sciences, Cell Biology Unit, Medical School, UB/IDIBAPS.

To be finished in 2030.

11 - Carles Ruiz-Mirapeix.

FPI (MINECO) fellowship.

Department of Biomedical Sciences, Cell Biology Unit, Medical School, UB/IDIBAPS.

To be finished in 2027.

10 - Gyana-Lipsa Parida.

H2020-MSCA-ITN-2018.

Department of Biomedical Sciences, Cell Biology Unit, Medical School, UB/IDIBAPS.

To be finished in 2026.

9 - Frederic Morales Paytuví, PhD.

FPI (MINECO) contract.

Regulation of synthesis, transport and accumulation of lipids in lipid droplets by acetyl-carboxylase and caveolins.

Department of Biomedical Sciences, Cell Biology Unit, Medical School, UB/IDIBAPS. 2017-2022.

Excellent *Cum Laude*.

Next position: Postdoctoral Position at Josep Carreras Leukaemia Research Institute (Barcelona).

8 - Andrea Fernández-Vidal, PhD.

FPI (MINECO) fellowship.

ACSL3 role in the metabolism of lipid droplets and implications in hepatic regeneration.

Department of Biomedical Sciences, Cell Biology Unit, Medical School, UB/IDIBAPS. 2012-2017.

Excellent *Cum Laude*.

Next position: Postdoctoral Position at the University of Barcelona.

7 - Albert Herms Fiol, PhD.

IDIBAPS fellowship.

The Cell Biology of Lipid Droplets.

Cell Biology Department, Medical School, UB/IDIBAPS. 2008-2014.

Excellent *Cum Laude*.

Awarded with extraordinary doctorate award from the University of Barcelona, 2015.

Next position: Postdoctoral Position at the University of Cambridge (UK). EMBO granted.

6 - Mariona Gelabert Baldrich, PhD.

FPI (MINECO) fellowship.

Dynamics and Functionality of endosomal KRas.

Cell Biology Department, Medical School, UB/IDIBAPS. 2010-2014.

Excellent *Cum Laude*.

Next Position: Postdoctoral Position at IMIM (Barcelona).

5 - Adam Kassan, PhD.

IDIBAPS fellowship.

The Biogenesis of Lipid Droplets.

Cell Biology Department, Medical School, UB/IDIBAPS. 2007-2012.

Excellent *Cum Laude*.

Awarded with extraordinary doctorate award from the University of Barcelona, 2013.

Next position: Postdoctoral Position at the University of California (San Diego, US).

4 - Elena González-Moreno, PhD.

Molecular mechanisms of lipid droplet formation.

Cell Biology Department, Medical School, UB/IDIBAPS. 2006-2011.

Excellent *Cum Laude*.

Next position: Postdoctoral Position at the Aston University (UK). Marie Curie granted.

3 - Cecilia Albor Parada, PhD.

IDIBAPS fellowship.

Role of caveolin-1 and lipid droplets during mice liver regeneration and cell proliferation.

Cell Biology Department, Medical School, UB/IDIBAPS. 2004-2008.

Excellent *Cum Laude*.

Awarded with extraordinary doctorate award from the University of Barcelona, 2009.

Next position: Postdoctoral Position at the Molecular Biology Institute of Barcelona (IBMB)-CISC.

2 - Silvia Turró Valls, PhD.

IDIBAPS fellowship.

Proteomic analysis of lipid bodies. Involvement of caveolin in the intracellular transport and accumulation of lipids.

Cell Biology Department, Medical School, UB/IDIBAPS. 2002-2006.

Excellent *Cum Laude*.

Next position: Pharmaceutical private sector.

1 - Manuel Alejandro Fernández-Rojo, PhD.

Study of the endocytic system in rat liver during regeneration.

Cell Biology Department, Medical School, UB/IDIBAPS. 2002-2006.

Excellent *Cum Laude*.

Awarded with: "Premi Extraordinari Ramon Margalef del Consell Social de la UB" (to the best scientific work derived from a doctoral thesis in the University of Barcelona during 2006).

Awarded with extraordinary doctorate award from the University of Barcelona, 2006.

Next position: Postdoctoral Position at the Institute for Molecular Bioscience (IMB, Brisbane, Australia).

Other Merits

Awards and recognitions:

- 2023 – Caixa Research Health competitive grant (HR23-00560)
2022 – European Research Council competitive grant (ERC-2022-SYG, 101071784).
2022 – Generalitat of Catalonia Certificate as “Accredited Research Group” (AGAUR, SGR 00284)
2015 – Human Frontier Science Program competitive grant (RGP0020/2015).
2011 – Assistant Professor. Biomedicine Department, Medical School, UB.
2009 – Scientific Quality Certificate, AQU, Generalitat de Catalunya.
2007 – ICREA Research Professor contract, Generalitat de Catalunya.
2006 – City of Barcelona Award, Barcelona City Council, Barcelona, Spain.
2006 – Best Ideas Award, ‘Diario Médico’, Madrid, Spain.
2006 – Scientific Quality Certificate I3 Programme (MICINN). IDIBAPS, Barcelona, Spain. A positive I3 evaluation recognized the scientific quality of the work developed during the RYC contract. The I3 program supported IDIBAPS to hire me permanently.
2001 – Ramón y Cajal contract (IDIBAPS). The objective of these MICINN grants was to promote the incorporation of research personnel with an outstanding career abroad. In that first call (2001), only 25% of the incorporated researchers were Spanish.
1999 – NHMRC contract. IMB, UQ, Brisbane, Australia.
1999 – Fellowship for PhD students (Government of Catalonia) for a stay in UQ, Brisbane, Australia.
1995 – University Personnel Formation (FPU) contract (MICINN), UB, Barcelona, Spain.

Reviewer activities:

- 2021 – Associate faculty member for Faculty Opinions.
2001 – Advisor and evaluator of national and international agencies: ERC (EU), BSF (USA-Israel), ANEP (Spain), MICIN (Spain), DEVA (Spain), Fondazione Telethon (Italy), Wellcome Trust (UK), BTRC (Scotland), APP (Australia), UICC (Switzerland), BBSRC (UK), ANR (France), etc.
2001 – Reviewer of international journals: Science, Nature, Cell, Cell Metabolism, Nature Cell Biology, Journal of Cell Biology, eLife, Nature Communications, Current Biology, etc.

Teaching activity:

- | | |
|-----------------|--|
| 2001 - 2006: | Cell Biology and Developmental Biology lectures at the School of Pharmacy and Dental School of the University of Barcelona. |
| 2001 - 2006: | Methods of Cell Biology in the PhD program “Biología Celular y Patología” with a quality mention from the MINECO (DOGC 2622 de 20.4.1998). |
| 2001 - Present: | <ul style="list-style-type: none">- Cell Biology lectures at the Medical School, UB.- Cell Biology lectures at the School of Pharmacy, UB.- Developmental Biology lectures at the Medical School, UB. |
| 2009 - Present: | <ul style="list-style-type: none">- Master of Biomedicine for PhD students at UB.- Monitoring Committees for PhD students, Master of Biomedicine, UB.
- Master of Research Methods in Experimental Hepatology for PhD students at UB/HCPB/IDIBAPS. |

- Master of Translational Medicine CELLEX for PhD students at UB/HCPB/IDIBAPS.

Selected Invited Conferences

29 – The life of lipid droplets: from cell biology to physiology.

Sociedad Española de Biología Celular.

October 21, 2025. Santiago de Compostela (Spain).

28 -Defensive Lipid Droplets: Cellular organelles designed by antimicrobial immunity.

10th Annual MetNet International Meeting, Mitochondria and Metabolism in Health and Disease.

October 24, 2024. Barcelona (Spain).

27 - Mammalian Lipid droplets: From cell biology to physiology.

BioFor UPV/EHU.

October 22, 2024. Bilbao (Spain).

26 – Lipid droplets and the host-pathogen dynamic: FATal attraction?

FASEB Research Conference on “Lipid droplets in health and disease”.

July 21, 2024. St. Paul, MN (US).

25 – Lipid droplets and the host-pathogen dynamic: FATal attraction?

First EMBO Workshop on “Lipid Droplets: Metabolic Hubs in Health and Disease”.

September 17, 2023. Sant Feliu de Guixols (Spain).

24 – Lipid droplets and the host-pathogen dynamic: FATal attraction?

CNIC Inflammation and Immunity Day.

September 30, 2022. Madrid (Spain).

23 – Contribution of Lipid Droplets to the pathogenesis and chemoresistance of Acute Myeloid Leukemia

FASEB Research Conference on “Lipid droplets in health and disease”.

June 26, 2022, Asheville, NC (US).

22 - Mammalian Lipid droplets: From metabolism to immunity.

Sociedad Española de Inmunología.

December 17, 2020

Virtual Research Conference.

21 - Mammalian Lipid droplets: From metabolism to immunity.

BioFor UPV/EHU.

November 5, 2020.

Bilbao (Spain).

20 - Mammalian lipid droplets: from metabolism to immunity.

The Lipids Droplets Conference.

Federation of American Societies for Experimental Biology (FASEB).

July 6-7, 2020.

Virtual FASEB Science Research Conference.

19 - Mammalian lipid droplets: from metabolism to immunity.

21st Severo Ochoa Seminar Series (2019-2020).

CBM Severo Ochoa (CSIC).

December 13, 2019.

Madrid (Spain)

18 - The many faces of caveolin in the endoplasmic reticulum.

First EMBO workshop on caveolae and nanodomains.

May 15, 2019.

Le Pouliguen (France).

17 - Mammalian lipid droplets: a central role in the organismal antibacterial response?

18th HFSP Awardees Meeting.

July 10, 2018.

Toronto (Canada).

16 - Burning the fat: When Lipid Droplets meet Mitochondria.

XXVII Paulo Foundation Symposium.

June 15, 2016.

Helsinki (Finland).

15 - AMPK activation promotes lipid droplet dispersion to increase mitochondrial fatty acid oxidation.

9th International Symposium on AMPK.

November 12, 2016.

Xiamen (China).

14 - Burning the fat, when lipid droplets meet mitochondria.

BioForum UPV/EHU.

December 2, 2015.

Bilbao (Spain).

13 - AMPK activation promotes lipid droplet dispersion to increase mitochondrial fatty acid oxidation.

2nd European Workshop on AMPK.

September 13, 2015.

Maastricht (Netherlands).

12 - Biogenesis of the multifunctional lipid droplet: Lipids, proteins, and sites.

Tom Wahlig Stiftung Symposium.

April 17, 2015.

Graz (Austria).

11 - Biogenesis of the multifunctional lipid droplet: Lipids, proteins, and sites.

International Meeting of the German Society for Cell Biology (DGZ).

March 24, 2015.

Cologne (Germany).

10 - Lipid trafficking and disease: from fatty liver to neurodegeneration.

Vall d'Hebron Institute of Research Seminars (VHIR).

December 9, 2014.

Barcelona (Spain).

9 - Understanding the biogenesis and accumulation of Lipid Droplets.

FASEB Science Research Conferences.

July 13, 2014.

Saxtons River (USA).

8 - The multiple faces of the endoplasmic reticulum: From fat storage to the integrity of mitochondria.

37 congreso de la Sociedad Española de Bioquímica y Biología Molecular (SEBBM).

September 9, 2014.

Granada (Spain).

7 - The multiple faces of the endoplasmic reticulum: From fat storage to the integrity of mitochondria.

Vascular Biology and Inflammation Seminars (CNIC).

November 15, 2013.

Madrid (Spain).

6 - The multiple faces of the endoplasmic reticulum: From fat storage to the integrity of mitochondria.

XV Congreso de la Sociedad Española de Biología Celular (SEBC).

November 6, 2013.

Madrid (Spain).

5 - Mitochondrial cholesterol: a connection between caveolin, metabolism and disease.

Barcelona BioMed Seminars (IRB).

March 8, 2012.

Barcelona (Spain).

4 - Caveolin-1 and lipid droplets a role for liver regeneration.

The Institute of Translational Medicine Seminars (University of Liverpool).

February 18, 2009

Liverpool (UK).

3 - Role of caveolin during liver regeneration.

EMBO Conferences.

October 5, 2008.

Mallorca (Spain).

2 - Dynamic sorting of caveolins to Lipid Droplets: implications during liver regeneration.

XXXI Congreso de la Sociedad Española de Biología Celular (SEBC).

September 1, 2008.

Bilbao (Spain).

1 - Dynamic sorting of caveolins to Lipid Droplets.

7th Meeting of the European Life Scientist Organization (ELSO).

August 30, 2008.

Nice (France).