Curriculum Vitae

(Last actualization: December 2020)

Family Name, First name:	**Pol Sorolla, Albert**.
ID:	46576506B
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 Team, IDIBAPS-Fundació Clínic Barcelona.
Position (2):	Assistant Professor at the Department of Biomedical Sciences, Medical School, University of Barcelona (UB).
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Twitter:	@AlbertPol10

Education and key qualifications

Jun 1993:	BSc Biology, UB.
Jul 1998:	PhD in Biology, UB.
Nov 2007:	ICREA Research Professor, IDIBAPS.

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 Biology Department. Medical School, UB/IDIBAPS.
Nov 2006 - Dec 2007:	Senior Researcher (I3-supported) at IDIBAPS. Cell Biology Department. Medical School, UB/IDIBAPS.
Nov 2007 - present:	ICREA Research Professor at the Cell Compartments and Signalling Group, IDIBAPS.
Mar 2011 - present:	Assistant Professor at the Department of Biomedical Sciences, Cell Biology Unit, Medical School, UB.

Representative Publications as PI and Key Words

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 1/7.

5 - 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 244/328.

4 - 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 135/185.

3 - CAVEOLIN-1 DEFICIENCY CAUSES CHOLESTEROL-DEPENDENT MITOCHONDRIAL DYSFUNCTION AND APOPTOTIC SUSCEPTIBILITY.
Bosch M, Marí M, Herms A, Fernández A, Fajardo A, Kassan A, Giralt 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.
Cited by 128/180.

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 198/275.

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 260/349.

Scientific Publications

(Reverse chronological order. Own and collaborative publications are listed separately. Font Scopus®/Google Scholar®)

As Principal Investigator (2001-present):

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 1/7.
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 0/0.

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 5/6.

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 4/5.

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 66/77.

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 6/9.

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 104/138.
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 238/322.
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 134/178.

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 85/136.
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 34/45.

19 - Caveolin-1 deficiency causes cholesterol-dependent mitochondrial dysfunction and apoptotic susceptibility.
Bosch M, Marí M, Herms A, Fernández A, Fajardo A, Kassan A, Giralt 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 128/180.
Editor's choice in ***Science***: http://www.sciencemag.org/content/332/6034/1129.1.full?sid=3fd8d415-f444-4713-a554-3866c3a4eaef

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 49/66.

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 22/33.

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 198/275.
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 138/178.
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 156/219.

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 171/236.
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 8/9.

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 260/349.
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 candidate period (1997-1999):

10 - Changes of skeletal muscle proteases activities during a chronic low-frequency stimulation period.
Parreno M*, **Pol A***, Cadefau 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

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

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

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

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

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

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

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

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

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

Publications as Collaborator (1999-present):

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

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

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. Online ahead of print.
I.F. - 14.971

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

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

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

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

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

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

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

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
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
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

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

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

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

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
doi: 10.1042/BJ20090051.

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

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

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

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

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

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

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

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

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

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

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

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

Numerical Summary of the Publications:

(Font Scopus® / Google Scholar®)

Total Publications (h index = 32/34)		
# publications (1997-)	Impact factor	Times cited
58	419.003	3002/4209

Own Publications as Principal Investigator		
# publications (2001-)	Impact factor (average)	Times cited (average in 2019)
20	201.208 (12.576)	1823/2494 (114/156)

Own Publications as PhD candidate		
# publications (1997-2001)	Impact factor (average)	Times cited (average)
10	46.804 (4.680)	362/508 (36/50)

Publications in Collaboration		
# publications (1999-)	Impact factor (average)	Times cited (average)
28	170.991 (6.107)	767/1229 (27/49)

Funding

Grants as Principal Investigator (PI):

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 Consolider. 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.
195.000€
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.
70.000€.
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.
93.000€.
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 Maratò 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-hepatectomia. Implicaciones en el trasplante hepático de donante vivo. **Fundació Maratò de TV3**. 2000- 2002. 84.154€. PI: Carlos Enrich.

PhD Supervised

9 - Frederic Morales Paytuví.
FPI (MINECO) fellowship.
Department of Biomedical Sciences, Cell Biology Unit, Medical School, UB/IDIBAPS.
From 2017.

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:

1 - ICREA Senior contract 2007, ICREA, Generalitat de Catalunya.
2 - Scientific Quality Certificate, AQU, Generalitat de Catalunya 2009.
3 - Scientific Quality Certificate "Programa I3", MINECO 2006.
4 - "City of Barcelona Award" 2006. Barcelona City Council.
5 - "Best Ideas Award" 2006. Diario Médico (Madrid).
6 - "Ramón y Cajal" contract 2001, MINECO.

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:	- 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:	- 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.

Other qualifications:

1 - Advisor to national and international agencies: ERC (European Research Council), BSF (U.S.-Israel Binational Science Foundation), ANEP (Spain), MINECO (Spain), DEVA (Spain), Fondazione Telethon (Italy), Welcome Trust (UK), Biomedical and Therapeutic Research Committee (Scotland), Academic Policy and Programs Agency (Australia), Swiss Cancer League, Biotechnology and Biological Sciences Research Council (UK), Agence Nationale de la Recherche (France), etc...
2 - Reviewer of International Journals: Science, Nature Cell Biology, Journal of Cell Biology, eLife, Journal of Clinical Investigation, Nature Communications, Current Biology, Molecular Biology of the Cell, Scientific Reports, Journal of Cellular Science, Traffic, BBA-Molecular Cell Research, Proteomics, Journal of Proteomic Research, Future Medicine, FASEB Journal, Biophysical Journal, American Journal of Physiology, Trends in Cancer, Biology Open, Science Advances, BMC Biology, Journal of Hepatology, Experimental Cell Research, PLOS one, etc…
3 - Accreditation of Laboratory Animal Care and Manipulation by the University of Barcelona (UB).
4 - Supervisor of Radioactive Facilities accredited by the Spanish Nuclear Safety Council (CSN).

Selected Invited Conferences

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 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).