

CURRICULUM VITAE ABREVIADO (CVA)

IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.

Part A. PERSONAL INFORMATION

First name	Yolanda		
Family name	Bayón Prieto		
Gender (*)		Birth date (dd/mm/yyyy)	
Social Security, Passport, ID number			
e-mail		URL Web	
Open Researcher and Contributor ID (ORCID) (*)		0000-0003-3089-5485	

(*) Mandatory

A.1. Current position

Position	Profesor Titular de Universidad		
Initial date	21/07/2010		
Institution	Universidad de Valladolid		
Department/Center		Bioquímica y Biología Molecular y Fisiología/IBGM-Facultad de Medicina	
Country	Spain	Teleph. number	983 184839
Key words	Immune system diseases, signal transduction, PSTPIP1, monocytes, lymphocytes, tyrosine phosphorylation, tyrosine kinases, tyrosine phosphatases, LYP, PYRIN, ABL.		

A.2. Previous positions (research activity interruptions, indicate total months)

Period	Position/Institution/Country/Interruption cause
1998	Posdoctoral/IBGM/Spain
1999-2003	Posdoctoral/Sidney Kimmel Cancer Center/USA
2004-2008	Ramón y Cajal/ IBGM/Spain
2009-2010	Profesor Contratado Doctor/ IBGM/Spain
2010-today	Profesor Titular de Universidad/IBGM/Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD in Medicine	University of Valladolid	1998

(Include all the necessary rows)

Part B. CV SUMMARY (max. 5000 characters, including spaces)

After a few months working at the University of País Vasco, where I obtained my degree in Biology, I moved to the University of Valladolid where I completed my PhD in Medicine at the laboratory of Dr. Mariano Sánchez Crespo. During this time, I worked in the study of the molecular mechanisms that underlie inflammation. Specifically, I analyzed the activation of the phospholipase A₂ by different agonists. I earned a FPI fellowship to do my PhD and made several stays abroad to learn new techniques useful to complete my PhD project. Therefore, I spend several months at Dr. Bereziat's laboratory in Paris, at Dr. Ye's in San Diego and at Dra. Leslie's in Denver. My PhD degree was awarded with the "Premio Extraordinario a la Tesis" of the School of Medicine. The main contribution of my work at this stage was to untie cytosolic phospholipase A₂ translocation from intracellular calcium increase, principal mechanism of translocation known at that time, showing alternative translocation mechanisms.

Afterwards, I obtained a postdoctoral fellowship from the Basque Government to go to Dr. Piedrafitas's laboratory where I could deepen in my knowledge about cell signaling and also acquire the required skill to become a researcher. From this stage, I would like to highlight our work in collaboration with Dr. Michael Karin laboratory about the study of inhibitory compounds of the IKK, kinase that activates NF- κ B, which allowed me to further study the molecular mechanisms of the inflammatory response. Additionally, my work contributed to describe the effect of several chemical compounds potentially useful against Cancer.

After 5 years of postdoctoral stage, I returned to Spain with a Ramón y Cajal contract. Then, I started to work in the Instituto de Biología y Genética Molecular of Valladolid. In 2010, I get an Associate Professor position at the University of Valladolid. In this stage, I have contributed, with other colleagues, to the initiation of a new research line based on the study of the regulation of the immune system by tyrosine phosphorylation. Specifically, my work is focused in tyrosine phosphatases that are relevant for immune system illnesses. In this sense, I have participated in several research projects, both as principal investigator and as part of a research team, and I have supervised four doctoral theses. Currently, my main objective is to continue in this research line, focusing on LYP, a tyrosine phosphatase present exclusively in hematopoietic cells that is implicated in immune system illnesses, and in other proteins that interacts with this phosphatase (PSTPIP1 and PYRIN), whose mutations cause autoinflammatory diseases.

On the other hand, my research group has trained technically and formed scientifically four Ph.D. students and has supervised several DEAs, TFGs and TFM. In addition to these students, we have supervised several others during temporal stays that latter on have continued their Ph.D in other labs. We have also trained quite a few technicians who spend 6 months doing their training project in our lab.

Regarding the outreach activities, I have participated in the diffusion of scientific work to high school students through the coordination of guided visits to the IBGM. Typically, we received up to three groups of students each month throughout the academic year. Some of these activities are included in "La Semana de la Ciencia". In the visits, the students receive a talk of general content presenting our center, its main lines of research and what are the steps to follow in the scientific career. After that, the students visit two labs where the researchers explain them the goals of their research, the tools that they use and the positives outcomes of their work to society.

I have also carried out various management tasks. I have been the academic secretary of the Instituto de Biología y Genética Molecular for 4 years, and a member of ACADEMIA evaluation committee. Moreover, I am currently the "Responsable Local de Materia" of Biology in Valladolid for the EBAU test.

Part C. RELEVANT MERITS (*sorted by typology*)

C.1. Publications (*see instructions*)

AUTHORS: RUIZ-MARTÍN V, MARCOS T, DE PEREDA JM, SÁNCHEZ-CRESPO M, DE LA FUENTE MA, BAYÓN Y, ALONSO A.

TITLE: LYP regulates SLP76 and other adaptor proteins in T cells

JOURNAL: Biol Res. 2024 Sep 28;57(1):69. doi: 10.1186/s40659-024-00536-8.

AUTHORS: FERNÁNDEZ JJ, MARÍN A, ROSALES R, PENRICE-RANDAL R, MLCOCHOVA P, ALVAREZ Y, VILLALÓN-LETELIER F, YILDIZ S, PÉREZ E, RATHNASINGHE R, CUPIC A, KEHRER T, UCCELLINI MB, ALONSO S, MARTÍNEZ F, MCGOVERN BL, CLARK JJ, SHARMA P, BAYÓN Y, ALONSO A, ALBRECHT RA, WHITE KM, SCHOTSART M, MIORIN L, STEWART JP, HISCOX JA, GUPTA RK, IRIGOYEN N, GARCÍA-SASTRE A, CRESPO MS, FERNÁNDEZ N.

TITLE: The IRE1 α -XBP1 arm of the unfolded protein response is a host factor activated in SARS-CoV-2 infection.



JOURNAL: Biochim Biophys Acta Mol Basis Dis. 2024 Jun;1870(5):167193. doi: 10.1016/j.bbadis.2024.167193.

AUTHORS: MANSO JA, MARCOS T, RUIZ-MARTÍN V, CASAS J, ALCÓN P, SÁNCHEZ CRESPO M, **BAYÓN Y**, DE PEREDA JM, ALONSO A.

TITLE: PSTPIP1-LYP phosphatase interaction: structural basis and implications for autoinflammatory disorders.

JOURNAL: Cell Mol Life Sci. 2022 Feb 12;79(2):131. doi: 10.1007/s00018-022-04173-w.

AUTHORS: ALONSO A, NUNES-XAVIER C.E, **BAYÓN Y**. AND PULIDO R.

TITLE: *The Extended Family of Protein Tyrosine Phosphatases.*

JOURNAL: Methods Mol. Biol. (2016); 1447:1-23.

AUTHORS: MARCOS T, RUIZ-MARTÍN V, DE LA PUERTA ML, TRINIDAD AG, RODRÍGUEZ MC, DE LA FUENTE MA, SÁNCHEZ CRESPO M, ALONSO A, AND **BAYÓN Y**.

TITLE: *Proline-serine-threonine phosphatase interacting protein 1 inhibition of T-cell receptor signaling depends on its SH3 domain.*

JOURNAL: FEBS J. (2014) Sep; 281(17):3844-5

AUTHORS: DE LA PUERTA M. L., TRINIDAD A. G., RODRÍGUEZ M. C., DE PEREDA J. M., SÁNCHEZ CRESPO M., **BAYÓN Y**. AND ALONSO A.

TITLE: *The autoimmunity risk variant LYPW620 cooperates with Csk in the regulation of TCR signaling.*

JOURNAL: PLoS One. (2013) 8(1): e54569

AUTHORS: DE LA PUERTA, M. L., GRACÍA TRINIDAD, A., RODRIGUEZ, M.C., BOGETZ, J., SÁNCHEZ CRESPO, M., ALONSO, A., AND **BAYÓN, Y**.

TITLE: *Characterization of new substrates targeted by Yersinia tyrosine phosphatase YopH.*

JOURNAL: PLoS ONE 4(2):e4431 (2009)

AUTHORS: **BAYÓN, Y.**, GRACÍA TRINIDAD, A., DE LA PUERTA, M. L., ROJAS, A., DE PEREDA, J.M., RAHMOUNI, S., WILLIAMS, S., MATSUZAWA, S., REED, J.C., SÁNCHEZ CRESPO, M., MUSTELIN, T., AND ALONSO, A.

TITLE: *KCTD5, a putative substrate adaptor for cullin3 ubiquitin ligases.*

JOURNAL: FEBS J. 275(15):3900-10 (2008)

AUTHORS: GRACÍA TRINIDAD, A., DE LA PUERTA, M. L., FERNÁNDEZ, N., **BAYÓN, Y.**, SÁNCHEZ CRESPO, M. AND ALONSO, A.

TITLE: *Coupling of C3bi to IgG inhibits the tyrosine phosphorylation signalling downstream Syk and reduces cytokine induction monocytes.*

JOURNAL: J of Leukoc Biol 79(5):1073-82 (2006)

AUTHORS: **BAYON Y.**, ORTIZ M.A., LOPEZ-HERNANDEZ F.J., HOWE PH., AND PIEDRAFITA F.J.

TITLE: *The retinoid antagonist MX781 induces clusterin expression in prostate cancer cells via heat shock factor-1 and activator protein-1 transcription factors.*

JOURNAL: Cancer Res. 15; 64(16):5905-12. (2004)

AUTHORS: LOPEZ-HERNANDEZ F.J., ORTIZ M.A., **BAYON Y.**, AND PIEDRAFITA F.J.

TITLE: *Retinoid-related molecules require caspase 9 for the effective release of Smac and the rapid induction of apoptosis.*

JOURNAL: Cell Death Differ: 11(2):154-64. (2004)

AUTHORS: **BAYON Y.**, ORTIZ M.A., LOPEZ-HERNANDEZ F.J., KARIN M., PFAHL M., AND PIEDRAFITA F.J.

TITLE: *Inhibition of IκB kinase by a new class of retinoid related anticancer drugs.*

JOURNAL: Mol Cell Biol.; 23(3):1061-74 (2003)

C.2. Congress, indicating the modality of their participation (invited conference, oral presentation, poster)

C.3. Research projects, indicating your personal contribution. In the case of young researchers, indicate lines of research for which they have been responsible.

Project Title: *Estudio de la regulación de la proteína PSTPIP1 por fosforilación en tirosinas y de su contribución a la etiología de la enfermedad autoinflamatoria PAPA*

Financing Entity: Junta de Castilla y León.

REF: VA071A11-2 (from: 05 /2011 to: 04/2014)

Principal Investigator: Yolanda Bayón Prieto

Amount: 30000 euros

Project Title: *Estudio de la regulación de la proteína PSTPIP1 por fosforilación en tirosinas y de su contribución a la etiología de la enfermedad autoinflamatoria PAPA*

Financing Entity: Fundación Ramón Areces (from: 10/3/ 2010 to: 31/12/2014)

Principal Investigator: Andrés Alonso García

Amount: 118020 euros

Project Title: *Estudio de la función de LYP en la señalización por el TCR y su implicación en la fisiopatología de las enfermedades autoinmunes*

Financing Entity: MICINN

REF: SAF2009-09724 (from: 1/1/ 2010 to: 31/12/2013)

Principal Investigator: Andrés Alonso García

Amount: 145200 euros

Project Title: *Caracterización de una nueva proteína que contiene un dominio BTB e interacciona con la fosfatasa VHR.*

Financing Entity: MEC

REF: BFU2006-01203 (from: 2006 to: 2009)

Principal Investigator: Andrés Alonso García

Amount: 121000 euros

Project Title: *LYP, una fosfatasa de tirosinas implicada en enfermedades autoinmunes. Estudio de su mecanismo de acción molecular.*

Financing Entity: Fundación Mutua Madrileña (from: 2006 to: 2009)

Principal Investigator: Yolanda Bayón Prieto

Amount: 56000 euros

Project Title: *Estudio de la función fisiológica de la fosfatasa de tirosinas VHR en la activación de linfocitos T por antígenos.*

Financing Entity: MCT

REF: SAF2003-05194 (from: 15/12/2003 to: 14/12/2006)

Principal Investigator: Andrés Alonso García

Amount: 145400 euros

C.4. Contracts, technological or transfer merits, Include patents and other industrial or intellectual property activities (contracts, licenses, agreements, etc.) in which you have collaborated. Indicate: a) the order of signature of authors; b) reference; c) title; d) priority countries; e) date; f) Entity and companies that exploit the patent or similar information, if any.