

Simposio Internacional: Biointeractómica

International Symposium: Biointeractomics

Sevilla, 30 y 31 de octubre de 2012

Sevilla, October 30-31, 2012

Juan-Pablo Albar Ramírez

Head of Proteomics Facility, CNB, Spain

CSIC Senior Research Scientist

ProteoRed-ISCIIL Coordinator/Director

Current position

Institution: Consejo Superior de Investigaciones Científicas (Spanish Council for Scientific Research) (CSIC)

Centre: Centro Nacional de Biotecnología

Position: Investigador Científico / Research Senior Scientist

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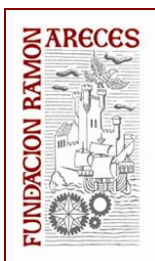
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Education

Institution and location	degree	YEAR	field of study
Universidad Complutense de Madrid, Spain	B.S.	1975	Biochem. Sciences
Universidad Complutense de Madrid, Spain	M.S.	1977	Biochem. Sciences.
Universidad Complutense de Madrid, Spain	Ph.D.	1981	Immunology

Professional Experience:

2005-Spain	Coordinator/Director, National Institute for Proteomics, ProteoRed-ISCIIL,
2003-	Senior Research Scientist, CSIC, Spain (Investigador Científico CSIC)
1999-Madrid, Spain	Head of Proteomics Facility, National Center for Biotechnology, CSIC,
1987-99	Staff Scientist, R+D, Pharmacia Corporation., Madrid. Spain.



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- 1985-87 Staff Scientist, R+D, Invesgen S.A., Madrid, Spain.
- 1982-85 Staff Scientist, R+D, Instituto LLorente S.A., Madrid, Spain
- 1981 Research Fellow, Human Gen Dept, Instituut voor Antropogenetica, Leiden, Holland.
- 1975-1980 Research Fellow, Immunology Dept., FJD , Madrid, Spain .

Areas of expertise: Mass Spectrometry, Proteomics, Peptide synthesis, protein chemistry, structure-function of antibodies, production of antibodies, Epitope mapping.

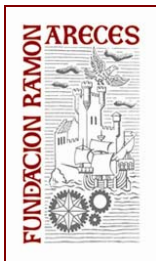
Areas of Interest: Molecular mimicry, Antigen presentation, Apoptosis, Neuroendocrine-immune relationship, Gene expression.

Research Lines

- **Functional Proteomics:** Analysis and contributions of structural biology, proteomics and bioinformatics in particular areas of Life Sciences and Health.
- Towards an **Automatic processing of Proteomics data:** From mass spectrometry to biological knowledge.
- Development of **new probability-based methods** for large-scale peptide and protein identification from tandem mass spectrometry data
- **Protein-protein interactions:** affinity methods, peptide arrays and mass spectrometry approaches. Molecular mimicry
- **Biomarker search:** Novel diagnostic and prognostic protein search in cardiovascular diseases by proteomic analysis
- Characterization of **wheat, barley and rye prolamins in foods:** Classical and mass spectrometry approaches.

SYNOPSIS OF CURRENT RESEARCH INTERESTS

Evaluating Quantitative Differential Proteomics: Several approaches based on electrophoresis and/or chromatography combined with chemical or metabolic labelling,



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mass spectrometry and bioinformatics tools. **Biomarker search** by means of advanced proteomics technologies.

Design of multi-centric proteomics experiment for evaluating the standardization, reproducibility and robustness issues of proteomics workflows: ProteoRed goals.

Developing bioinformatics tools for Proteomics data collection, reporting and storage using HUPO-PSI standards

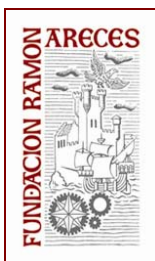
Proteomics improvements in the Analysis of Gluten in food

FORMER RESEARCH INTERESTS (with dates)

Structure-function of Immunoglobulins 1976-82; Immunological tools for immunoassays 1982-90; Protein molecular surface analysis 1987-95; Peptide synthesis 1990-99; Protein-protein interaction studies 1995-200

RUNNING PROJECTS

- “Creación de la Plataforma en Red Carlos III, ProteoRed-ISCI” PI: JP ALBAR; FINANCING: Instituto Salud Carlos III (MICINN); AMOUNT: 1,3 M €/year; PERIOD: 2010-2012.
- “Identificación de Proteínas con valor filogenético y diagnóstico en Anisakis Spp (nematoda: anisakedae)” PI: A. Navas; FINANCING AGENCY: P Nacional AGL2009-12485-C03-02 (MICINN) Amount: 100.000 €; PERIOD: 2010-2
- “International Data Exchange and Data Representation Standards for Proteomics: ProteomeXchange” PI: JP Albar, FINANCING AGENCY: EU FP7-HEALTH-2010-single-stage AMOUNT: 2,2 M€; PERIOD: 2011-13
- “Mass Spectrometry Imaging: New Tools for Healthcare Research”. PI: Liam McDonnell/ JP Albar FINANCING AGENCY: EU COST ACTION (BM 1104); AMOUNT: 300 K€; PERIOD: 2011-13
- “Vida intrauterina y desarrollo de la enfermedad cardiometabólica: De los biomarcadores en cordón umbilical a fenotipos intermedios en época pediátrica PI: E. LURBE, FINANCING AGENCY: Instituto de Salud Carlos III Amount: 330.000 €; PERIOD: 2012-14.
- “PROFUN II: Centrosome Interactomics. Code: S2010/BMD-2305 PI: JP ALBAR, (JM Carazo Coordinator) FINANCING AGENCY: CAM Amount: 650.000 €; PERIOD: 2012-15)



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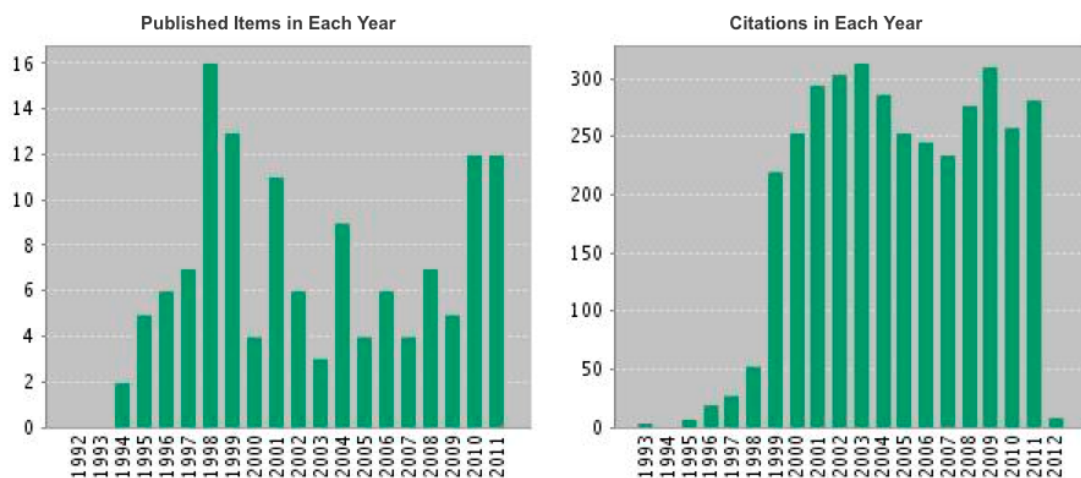
OTHER ISSUES

- 1 - Opening Lecture in the "Seminars on Proteomics UCO-2003" Congress. Cordoba Feb 2003
- 2 - Invited Editor in the special edition of the Proteomics journal. Feb 2004
- 3 - General Coordinator of Instituto Nacional de Proteómica, ProteoRed-ISCI 2005 – 2012
- 4 - Member of the Spanish Proteomics Association (SEProt) Council
- 5 - **Member of the European Proteomics Association (EuPA) Educational Committee** 2005-
- 6 - Member of the Human Proteome Organization (HUPO) Educational Committee 2007-
7. **Member of the HUPO-PSI Steering Committee** and Chair of the HUPO-PSI Protein Sep Work Group
- 8- **Elected Member of the HUPO Council (Board of Directors)** (*Jan 1st, 2011 to December 31st, 2013*)
- 9 - European Commission Expert/Evaluator of CA and SSA projects (FP6-2005-LIFESCIHEALTH-6)
- 10 - European Commission Expert/Evaluator of Marie Curie Actions FP6-2006
- 11 - European Commission Expert/Evaluator CP-Clinical Omics (FP7-Health-2007-A)
- 12 -Evaluator for National Scientific Agencies (Spain): ANEP and FIS for Molecular Biology, Cancer, Proteomics-related fields and Nano-technology. Since 2000-.
- 13 - Active Scientific Referee of Proteomics journal (2004-)
- 14 - Active Scientific Referee of Journal Proteome Research journal (2005-)
- 15 - Member of the Journal of Proteomics Editorial Board (2008-)
- 16 - Associated member of the ProDaC FP6-EU project (2008-2010)
- 17 - Partner of the ProteomeXchange FP7-EU project (2011-2013)
- 17 –**Invited speaker in international proteomics meetings** in 2000, 2001, 2003 y 2006 at Münster (Germany), in 2002 at Rhodas (Greece), in 2006 at Turku (Finland), in 2007 at

Paris (France), Buenos Aires (Argentina) LA-HUPO, Seul (South Korea) HUPO-PSI and Guanajuato (México), in 2008 at Toledo HUPO-PSI Spring Meeting (Opening Lecture), Cordoba (Arg) Bioq Clinica and Girona Pharmacogenics and Pharmacogenomics ESF conference, and in 2009 First International Radiation Proteomics Workshop (Munich, Germany, 2009), 3rd EUPA Meeting (Stockholm, Sweden 2009), 8th HUPO World Congress (Toronto, Canada, 2009), ESF Meeting on QC in Proteomics (Cambridge, UK, 2009), 9th HUPO World Congress (Sydney, Australia, 2010), ABRF 2011, (San Antonio, USA, 2011), 10th HUPO World Congress (Geneva, Switzerland, 2011). Analytica Conference (Munich, Germany, 2012). 6th AOHUPO/CNHUPO (Beijing, China, 2012)

Publications

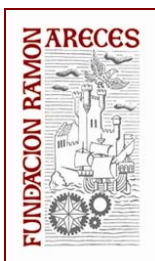
ISI web of knowledge: 141 publications; Sum of times Cited without self citations: 3820; Average Citations per item: 27,65; h-index: 33. Average citation per year: 112,41. (See PubMed or ISI Web of knowledge : Albar JP)



JPAIbar PubMed

135. Medina-Aunon, J.A., Martinez-Bartolome, S., Lopez-Garcia, M.A., et al., The ProteoRed MIAPE web toolkit: A user-friendly framework to connect and share proteomics standards. Mol Cell Proteomics 2011 Jun19.

134. Paradela, A., Mariscotti, J.F., Navajas, R., et al., Inverse regulation in the metabolic genes *pckA* and *metE* revealed by proteomic analysis of the *Salmonella* RcsCDB regulon. J Proteome Res 2011.June10



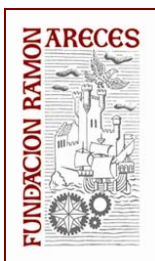
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133. Valenzuela, M., Albar, J.P., Paradela, A., et al., *Helicobacter pylori* Exhibits a Fur-Dependent Acid Tolerance Response. *Helicobacter* 2011, 16, (3), 189-99.
132. Navajas, R., Paradela, A., and Albar, J.P., Immobilized metal affinity chromatography/reversed-phase enrichment of phosphopeptides and analysis by CID/ETD tandem mass spectrometry. *Methods Mol Biol* 2011, 681, 337-48.
131. Monteoliva, L., Martinez-Lopez, R., Pitarch, A., et al., Quantitative proteome and acidic subproteome profiling of *Candida albicans* yeast-to-hypha transition. *J Proteome Res* 2011, 10, (2), 502-17.
130. Yakimov, M.M., Cono, V.L., Smedile, F., et al., Contribution of crenarchaeal autotrophic ammonia oxidizers to the dark primary production in Tyrrhenian deep waters (Central Mediterranean Sea). *ISME J* 2011, 5, (6), 945-61.
129. Medina-Aunon, J.A., Carazo, J.M., and Albar, J.P., PRIDEViewer: a novel user-friendly interface to visualize PRIDE XML files. *Proteomics* 2011, 11, (2), 334-7.
128. Marcilla, M., Alpizar, A., Paradela, A., et al., A systematic approach to assess amino acid conversions in SILAC experiments. *Talanta* 2011, 84, (2), 430-6.
127. Kenyani, J., Medina-Aunon, J.A., Martinez-Bartolome, S., et al., A DIGE study on the effects of salbutamol on the rat muscle proteome - an exemplar of best practice for data sharing in proteomics. *BMC Res Notes* 2011, 4, 86.
126. Grancha, S., Navajas, R., Maranon, C., et al., Incomplete tyrosine 1680 sulphation in recombinant FVIII concentrates. *Haemophilia* 2011.
125. Varela, C., Mauriaca, C., Paradela, A., et al., New structural and functional defects in polyphosphate deficient bacteria: a cellular and proteomic study. *BMC Microbiol* 2010, 10, 7.
124. Trevino, M.A., Rodriguez-Rodriguez, M., Correias, I., et al., NMR characterisation of the minimal interacting regions of centrosomal proteins 4.1R and NuMA1: effect of phosphorylation. *BMC Biochem* 2010, 11, 7.
123. Paradela, A., Marcilla, M., Navajas, R., et al., Evaluation of isotope-coded protein labeling (ICPL) in the quantitative analysis of complex proteomes. *Talanta* 2010, 80, (4), 1496-502.
122. Orchard, S., Jones, A., Albar, J.P., et al., Tackling quantitation: a report on the annual Spring Workshop of the HUPO-PSI 28-30 March 2010, Seoul, South Korea. *Proteomics* 2010, 10, (17), 3062-6.



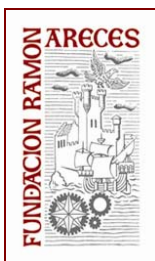
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120. Medina-Aunon, J.A., Paradela, A., Macht, M., et al., Protein Information and Knowledge Extractor: Discovering biological information from proteomics data. *Proteomics* 2010, 10, (18), 3262-71.
119. Martinez-Bartolome, S., Medina-Aunon, J.A., Jones, A.R., et al., Semi-automatic tool to describe, store and compare proteomics experiments based on MIAPE compliant reports. *Proteomics* 2010, 10, (6), 1256-60.
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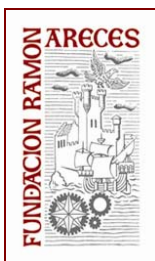
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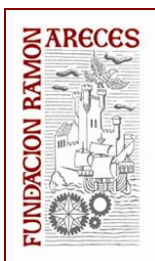
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96. Araujo-Bazan, L., Fernandez-Martinez, J., Rios, V.M., et al., NapA and NapB are the *Aspergillus nidulans* Nap/SET family members and NapB is a nuclear protein specifically interacting with importin alpha. *Fungal Genet Biol* 2007.
95. Albar, J.P., Corthals, G.L., Gil, C., et al., Promoting Proteomics Knowledge in Europe: report on the Activities of the EuPA Education Committee 2006 - 2007. *Proteomics* 2007, 7 Suppl 1, 90-4.
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93. Richard, E., Monteoliva, L., Juarez, S., et al., Quantitative analysis of mitochondrial protein expression in methylmalonic acidemia by two-dimensional difference gel electrophoresis. *J Proteome Res* 2006, 5, (7), 1602-10.
92. Paradela, A., Escuredo, P.R., and Albar, J.P., Geographical Focus. *Proteomics Initiatives in Spain: ProteoRed*. *Proteomics* 2006, 6 Suppl 2, 73-6.
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86. Paradela, A., Bravo, S.B., Henriquez, M., et al., Proteomic analysis of apical microvillous membranes of syncytiotrophoblast cells reveals a high degree of similarity with lipid rafts. *J Proteome Res* 2005, 4, (6), 2435-41.



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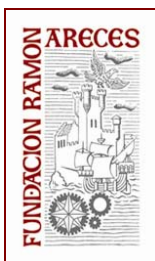
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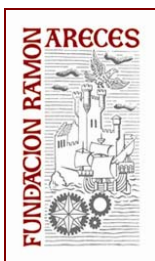
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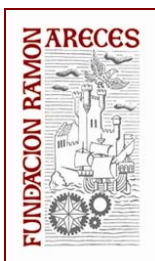
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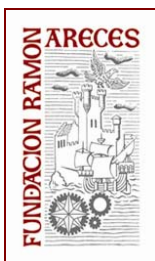
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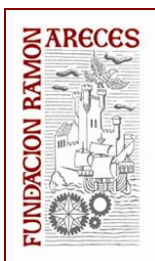
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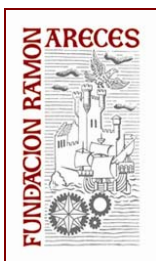
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