

Inflammatory Diseases



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Members

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Main Lines of Research

- ▶ The role of the natural immune system in the development of autoimmune and inflammatory processes.
- ▶ Immunological response and clinical course in immunomodulator treatments.
- ▶ The role of autoantibodies, components of the adaptive immunity system, in the pathogenesis of autoimmune processes and their use as diagnostic and prognostic markers in these diseases.
- ▶ Mechanisms involved in immunodeficiency.

Challenges

- ▶ Role of cells, molecules and autoantibodies of the innate and adaptive immune response in the development and control of inflammatory processes, in the appearance of autoimmune phenomena, immunodeficiencies, infections, cardiovascular diseases and development of tumours.
- ▶ Role of TLR and STAT signalling in inflammatory diseases and response to superantigens.
- ▶ Study of mechanisms involved in immunodeficiency caused by alterations of molecular components.
- ▶ Analysis of the evolution of immunological parameters and their correlation with clinical response to treatment with immunomodulators.
- ▶ Composition of complex human biological fluids. Association with clinical parameters.

Collaborations with other IIB Sant Pau Groups

- ▶ Dr. C. Guarner and Dr. G. Soriano (Digestive Diseases and CIBER)
- ▶ Dra. Isabel Illa (Neurology)
- ▶ Dra. Esther Garcia-Planella (Digestive Diseases)
- ▶ Dr. Cesar Diaz-Torné (Reumatologia)
- ▶ Dr. Plaza and Dr. Sibila (Chronic Respiratory Diseases)
- ▶ Dr. Lluís Puig (Dermatology)
- ▶ Dra. Majem i Dr. Barnades (Clinical Oncology)
- ▶ Dr. Maroto (Clinical Oncology)

External Collaborations

- ▶ Dra. Manichanh (Digestive Pathology, Hospital Vall d'Hebron)
- ▶ Dra. Hernandez (Rheumatology, Hospital Clinic)
- ▶ Dr. Albert Selva i Dr. Moises Labrador (Allergology, Hospital Vall d'Hebron)
- ▶ Dr. Porcel (Internal Medicine, Hospital Arnau de Vilanova)
- ▶ Dr. Fernandez (Fundació Puigvert)
- ▶ Dra. Andia (Hospital Universitario de Cruces)
- ▶ Dra. Semnani i Dr. Nutman del NIAID-NIH (Bethesda, USA)
- ▶ Dra. Catalfamo del Georgetown University School of Medicine (Washington DC)

Active Grants

- ▶ Sílvia Vidal Alcorisa. Estudio de la interacción entre el linfocito T y plaquetas: su aplicación en el desarrollo de una terapia celular para regular la respuesta inmune en la artritis reumatoide. PI14/00741. Instituto de Salud Carlos III. Duration: 2015-2017. 41,500.00 €.
- ▶ Sílvia Vidal Alcorisa. Platelet-leukocyte complex/interaction: a new biomarker for the immune-related adverse events in

lung cancer patients treated with immune checkpoint inhibitors. IR16-P6. Fundació Privada Hospital de la Santa Creu i Sant Pau. Duration: 2017-2017. 7,000.00 €.

Note: Total amount granted to PI. It does not include indirect costs.

Grants Awarded in 2017

- ▶ Sílvia Vidal Alcorisa. Caracterización de las plaquetas “educadas” en un entorno inflamatorio crónico para optimizar las terapias inmunoreguladoras con plaquetas. PI17/00072, Instituto de Salud Carlos III. Duration: 2018-2020. 47,500.00 €.

Note: Total amount granted to PI. It does not include indirect costs.

Transfer Products

- ▶ Sílvia Vidal Alcorisa. Análisis de los mecanismos inmunoreguladores de la Treg inducidos por tocilizumab en artritis reumatoide. Roche Farma, S.A.
- ▶ Sílvia Vidal Alcorisa. Caracterización de los macrófagos y las células madre del cáncer en pacientes con cáncer de pulmón, mama y ovario. MERCK.
- ▶ Sílvia Vidal Alcorisa, Marga Majem. Fuentes de PD-1 y PD-L1 en el cáncer de pulmón no microcítico. BMS.
- ▶ Pablo Maroto Análisis del perfil inmunológico de las células tumorales y de los linfocitos en la orina de pacientes con cáncer de vejiga. Roche Farma, S.A.
- ▶ César Díaz-Torné. Systemic inflammation in patients with gout. Astra Grunenthal.

*TIF: 38.733 **MIF: 5.533

Scientific Production

Leiding J.W., Okada S., Hagin D., Abinun M., Shcherbina A., Balashov D.N., Kim V.H.D., Ovadia A., Guthery S.L., Pulsipher M., Lilic D., Devlin L.A., Christie S., Depner M., Fuchs S., van Royen-Kerkhof A., Lindemans C., Petrovic A., Sullivan K.E., Bunin N., Kilic S.S., Arpaci F., Calle-Martin O.D.L., Martinez-Martinez L., Aldave J.C., Kobayashi M., Ohkawa T., Imai K., Iguchi A., Roifman C.M., Gennery A.R., Slatter M., Ochs H.D., Morio T., Torgerson T.R., Hematopoietic stem cell transplantation in patients with gain-of-function signal transducer and activator of transcription 1 mutations (2017) J ALLERGY CLIN IMMUN.

IF: 13.258

Martinez-Martinez L., Lleixa M.C., Boera-Carnicero G., Cortese A., Devaux J., Siles A., Rajabally Y., Martinez-Pineiro A., Carvajal A., Pardo J., Delmont E., Attarian S., Diaz-Manera J., Callegari I., Marchioni E., Franciotta D., Benedetti L., Lauria G., de la Calle Martin O., Juarez C., Illa I., Querol L., Anti-NF155 chronic in-

flammatory demyelinating polyradiculoneuropathy strongly associates to HLA-DRB15 (2017) J NEUROINFLAMM, 14 (1).

IF: 5.193

Nieto J.C., Zamora C., Canto E., Garcia-Planella E., Gordillo J., Ortiz M.A., Juarez C., Vidal S., CSF-1 regulates the function of monocytes in Crohn's disease patients in remission (2017) SCI REP-UK, 7 (1).

IF: 4.122

Sanchez E., Nieto J.C., Vidal S., Santiago A., Martinez X., Sancho F.J., Sancho-Bru P., Mirelis B., Corominola H., Juarez C., Manichanh C., Guarner C., Soriano G., Fermented milk containing Lactobacillus paracasei subsp. paracasei CNCM I-1518 reduces bacterial translocation in rats treated with carbon tetrachloride (2017) SCI REP-UK, 7.

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Suarez-Calvet X., Gallardo E., Pinal-Fernandez I., De Luna N., Lleixa C., Diaz-Manera J., Rojas-Garcia R., Castellvi I., Martinez M.A.,

Grau J.M., Selva-O'Callaghan A., Illa I., RIG-I expression in perifascicular myofibers is a reliable biomarker of dermatomyositis (2017) ARTHRITIS RES THER, 19 (1).

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Suarez-Cuartin G., Smith A., Abo-Leyah H., Rodrigo-Troyano A., Perea L., Vidal S., Plaza V., Fardon T.C., Sibila O., Chalmers J.D., Anti-Pseudomonas aeruginosa IgG antibodies and chronic airway infection in bronchiectasis (2017) RESP MED, 128, 1-6.

IF: 3.230

Zamora C., Canto E., Nieto J.C., Bardina J., Diaz-Torne C., Moya P., Magallares B., Ortiz M.A., Julia G., Juarez C., Llobet J.M., Vidal S., Binding of platelets to lymphocytes: A potential anti-inflammatory therapy in rheumatoid arthritis (2017) J IMMUNOL, 198 (8), 3099-3108.

IF: 4.539

Other Publications

- ▶ Crespo-Lessmann A, Mateus E, Torrejón M, Belda A, Giner J, Vidal S, Sibila O, Plaza V. Asthma with bronchial hypersecretion: expression of mucins and toll-like receptors in sputum and blood. J Asthma Allergy. 2017 Oct 12; 10: 269-276.