Fiche mise à jour le 31/05/2022
201421551U : Unité Anticorps en Thérapie et Pathologie - Unité de recherche

Responsables

Directeur - Pierre Bruhns à partir du 01/11/2014

Adresse : Unité des Anticorps en Thérapie et Pathologie Département d'Immunologie 25-28, rue du Docteur Roux 75724 Paris Cedex 15
Site : https://research.pasteur.fr/en/team/antibodies-in-therapy-and-pathology/
Descriptif : Antibodies in Therapy & Pathology (INSERM U.1222): from Allergy & Autoimmunity to Cancer Immunotherapy Antibodies are key effectors of the immune system. They are responsible for disease induction (autoimmunity, allergy) and can be protecting from or facilitating infections and tumors. Antibodies do not exert by themselves, however, biological functions: these are mainly mediated by antibody receptors (FcRs) and complement. Aims: - Decipher the role of human antibodies, human antibody receptors (FcRs) and the cells expressing them, and human complement during therapy and in the induction of pathologies. - Establish high-throughput plasma cell screening, analysis and sorting using droplet microfluidics technologies to understand the antibody response, and demonstrate the pathogenic nature of antibodies in specific diseases (collaboration with ESPCI-ParisTech and HiFiBio) - Develop ¿humanized¿ mouse models and clinical studies (NASA; PlanA) to understand how antibodies and their effector functions induce/regulate autoimmune (rheumatoid arthritis, thrombocytopenia) and allergic diseases - Develop immunodeficient mice bearing human FcRs to study therapeutic antibodies against human tumors To enhance the clinical relevance of our studies in mice, we have generated ¿humanized¿ mouse models expressing human FcRs in the presence of human antibodies, and soon human complement and targets. Our recent focus has been on FcR-expressing myeloid cells, in particular neutrophils and monocytes/macrophages that we extend now to platelets and their interaction with neutrophils, and to mast cells. Altogether, our research integrating fundamental, clinical and industry-driven approaches, aims at elucidating the role of antibodies, their receptors and the cells expressing them in major disease and therapy models and, hopefully, propose novel therapeutic solutions in antibody-based therapies.
Ecole(s) doctorale(s) de rattachement : non renseignée
Rattachée au(x) thème(s) de recherche suivant(s):

- Anticorps, Fc récepteurs, allergie, autoimmunité, microfluidique, immunothérapie

Liens avec d'autres structures :
Participe à :

- Unité propre 200621930R - Département d'Immunologie (lien non exclusif)
- Unité mixte 201622813G - IMMUNITE HUMORALE (lien non exclusif)

Contact:
Année de création :2012
Site ESR : Aucun
Classement scientifique ERC :

- LS6 : Immunity, Infection and Immunotherapy : The immune system, related disorders and their mechanisms, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases, innovative immunological tools and approaches, including therapies

Domaine scientifique :

- 5 : Biologie, médecine et santé 2014

Etablissements

test	INSTITUT PASTEUR - Institut Pasteur (établissement tutelle à partir de 2014)	**Etablissement référent**

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Historique

- Libelle(s) de structure
  - 09/04/2018 : IMMUNITE HUMORALE
  - 07/07/2015 : 024419
- Etablissements
  - 2006 - 2006 : INSERM- Institut national de la sante et de la recherche medicale