

Inserm UMR 1043 – CNRS UMR 5282

Centre de Physiopathologie
de Toulouse Purpan (CPTP)

Directeur : Roland Liblau

Responsable d'Equipe : J. Izopet
Thématique : « Infections virales : persistance,
réponse de l'hôte et physiopathologie »

Post-doctoral position offer in Immunovirology

Keywords: Hepatitis E Virus, gamma-delta cells, immunoregulation, immunoevasion

Research project: We aim at dissecting the role of human gamma-delta T cells in viral infections and our work is currently focussed on HEV (hepatitis E virus) infection. This virus is responsible for persistent and severe clinical manifestations in immunosuppressed individuals in particular after organ transplantation. This involves immune escape mechanisms which are poorly understood although they appear to target conventional, non-conventional and innate immunity, including gamma-delta T cells. The candidate will study the immunoregulatory role of these lymphocytes in this context, their functional capabilities and fine phenotypic and transcriptomic characteristics. This will rely on the availability of a unique collection of human samples from acutely and chronically HEV-infected individuals. Position is in Toulouse (France) and under the supervision of Eric Champagne.

Web site: <https://www.cptp.inserm.fr>

Selected references from the team:

- Abravanel, F., H. Barrague, G. Dorr, K. Saune, J. M. Peron, L. Alric, N. Kamar, J. Izopet, and E. Champagne. 2016. Conventional and innate lymphocytes response at the acute phase of HEV infection in transplanted patients. *J Infect* 72: 723-730.
- Daguzan, C., M. Moulin, H. Kulyk-Barbier, C. Davrinche, S. Peyrottes, and E. Champagne. 2016. Aminobisphosphonates Synergize with Human Cytomegalovirus To Activate the Antiviral Activity of Vgamma9Vdelta2 Cells. *J Immunol* 196: 2219-2229.
- Gouilly, J., Q. Chen, J. Siewiera, G. Cartron, C. Levy, M. Dubois, R. Al-Daccak, J. Izopet, N. Jabrane-Ferrat, and H. El Costa. 2018. Genotype specific pathogenicity of hepatitis E virus at the human maternal-fetal interface. *Nat Commun* 9: 4748.
- Moulin, M., J. Alguacil, S. Gu, A. Mehtougui, E. J. Adams, S. Peyrottes, and E. Champagne. 2017. Vgamma9Vdelta2 T cell activation by strongly agonistic nucleotidic phosphoantigens. *Cell Mol Life Sci* 74: 4353-4367.
- Scotet, E., L. O. Martinez, E. Grant, R. Barbaras, P. Jenou, M. Guiraud, B. Monsarrat, X. Saulquin, S. Maillet, J. P. Esteve, F. Lopez, B. Perret, X. Collet, M. Bonneville, and E. Champagne. 2005. Tumor recognition following Vgamma9Vdelta2 T cell receptor interactions with a surface F1-ATPase-related structure and apolipoprotein A-I. *Immunity* 22: 71-80.

Starting Date: Nov2020-Feb2021

Financial support from ANRS is available for 2 years : salary 2544-2919€ depending on experience).

Candidate requirements:

Candidates should have a PhD in Immunology or Virology. They should have a strong background in immunology and/or virology, and FACS and biochemical techniques. Experience in immunogenomics / proteomics will be an advantage.

Application:

Send CV, a letter of motivation including a summary of previous research experience, and two reference contacts to eric.champagne@inserm.fr