

## CV CHIFFOLEAU ELISE

### LEADER OF TEAM 1 (Inserm labelled):

“Mononuclear Phagocytes, ImmunoPathology, ImmunoVirology” of the Center for Research in Transplantation and Translational Immunology.

**ORCID: 0000-0001-6167-682X**

**48 publications, H index 28**



### NAME, QUALIFICATIONS AND CONTACT DETAILS

Elise Chiffolleau, born on 16/09/1975, French Nationality.  
CRHC INSERM, CR2TI, UMR 1064, Nantes, France  
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### EDUCATION AND EMPLOYMENT

- 1998-2002: PhD student at INSERM437 (Nantes, France).  
PhD (Mentor: MC Cuturi).
- 2002-2003: U Penn, Dept of Medicine (Philadelphia, USA).  
Postdoctoral Fellow (Mentor: LA Turka).
- 2005-Pres: CRTI UMR1064 (Nantes, France).  
Position: Researcher CRHC INSERM.
- 2009: HDR University of Nantes (Ability to conduct research).

### ACADEMIC RESEARCH GRANTS

- FP6 EU-RISET and WP2 manager (540 k€, 2005-2010),
- SFT (30k€, 2007-2008),
- FRM (60k€, 2007-2010),
- VLM (45k€, 2008-2011),
- Fondation des Treilles (12.5k€, 2008),
- Fondation Centaure (155k€, 2008-2011),
- IHU CESTI (456 k€, 2012-2018),
- Fondation du Rein 2015-2017, 30k€,
- DHU Oncogreffa (20 k€, 2018).
- Agence de la Biomédecine 2015-2018, 30k€,
- Ligue contre le Cancer 2019 25k€, 2020, 10 k€,
- Labex Immuno Graft Oncology (IGO) 2018-2020, 84k€,
- ANR PRCE C-LECT-INHIB 2018-2022, 326k€,
- ANR PRC CLIPS 2023-2026, 399k€,
- R Pays de Loire 2023-2026, 50 k€
- Fondation ARC 2022 PJA2 (2023-2024), 50 k€.

### INDUSTRIAL AND R&D CONTRACTS

- OSE Immunotherapeutics 25k€ (2016-2017), 156k€ (2018-2021), CIFRE fellowships (2018-2022) and (2023-2026).

## PEDAGOGICAL RESPONSIBILITY

- Coordinator of the Immunopathology, Immuno-intervention and Transplantation, options of Master 2 BBRT Nantes (40h, 6 ECTS) (2013-2024).
- Steering committee and coordinator of GPI<sup>3</sup> Immunology ImmunoIntervention Graduate School TRITON, Nantes University (2023-present).

## TEACHING AND TRAINING

- Master degree course at M2 Biology, Biotechnology and Therapeutical Research (BBRT), University of Nantes, Department of Sciences (2013-present) and at Master 1 Biological and Medical Sciences, University of Nantes, Department of Medicine (2015-present).
- Training of 7 PhD candidates and of numerous Master and license students.
- External referee of thesis defenses at the University of Paris-Cité (2023), Toulouse (2020, 2016), Tours (2019), Poitiers (2019), Paris Sorbonne (2018), Lyon (2016).
- Permanent jury at Master 2 BBRT at the University of Nantes (2013-present).

## SUPERVISION

**phD** : (P Thebault (ETP 0.5, 2006-2009), T Condamine (ETP 0.5, 2006-2009), L Le Texier (ETP 1, 2009-2012), J Durand (ETP 1, 2011-2014)), (MD Lopez (ETP 1, 2014-2017), M Drouin (ETP 1, 2018-2022), C Ligeron (ETP 1, 2023-present) ;

**ITA** : ((ETP 0.5, JM Heslan (2005-2007), G Tilly (ETP 1, 2008-2009), A.Lavault (ETP 1, 2009-2011), V Huchet (ETP 1, 2014-2017), A Pallier (ETP 0.8, 2015-2017), B Evrard (ETP 1, 2019-2020) ;

**Postdocs** : (J Saenz (ETP 1, 2019-2022), T Ogor (ETP 1, 2023-present)).

## PATENTS AND LICENSE

- Methods and pharmaceutical compositions for promoting T cells response (patent WO/2018/073440 licensed in 2022 by OSEImmunotherapeutics).
- Methods for the detection of cells and molecules interacting with receptor CLEC-1, in particular for the detection of CLEC-1 endogenous ligand, EP 19306584.4, 05/12/2019.
- Anti-CLEC-1 antibodies and antigen-binding fragment thereof (WO2021110990).
- Humanized anti-CLEC-1A antibodies and antigen-binding fragments thereof and mimetics thereof, (WO2022258714A1).
- Identification of CLEC-1 ligand and uses thereof (WO2023083890A1).

## PARTICIPATION IN INSTITUTIONAL COMMITTEES

- Panel member of the Portuguese public funding agency for R&D in 2021 and 2022 (section Clinical Medicine, Immunology and Infection).
- Jury of "Prime d'Encadrement Doctoral et de Recherche" PEDR INSERM 2020-2021.
- Scientific (2020-2022) and management (2022-present) councils of University of Medicine, Nantes.

## HONORS AND AWARDS

Award "Don de vie, don du soi" Fondation du rein (2015),  
Award "Mentee-Mentor" Basic Science Symposium of Transplant Committee (2013),  
Award "Victor et Erminia Mesclé" Fondation pour la Recherche médicale (2007),  
Award Société Francophone de Transplantation "Best Master 2" (1998).

## REVIEW OF GRANT APPLICATIONS (2018-2024)

PSL University of Paris Valorisation & Qlife (1 app 2020), Welcome Trust (1 app 2021), UK MRC (1 app 2021), Portuguese FCT (2021, 2022, 20 app/year), ANR (1 app 2023), Agence de Biomedecine (1 app 2023), Fond de la Recherche Scientifique (Belgium) (2017-2024, 3 app/year).

## EDITORIAL ACTIVITY

Review Editor for *Frontiers in Medicine* and *Frontiers in Immunology* (2020-present).

## REVIEWING ACTIVITY

Science Translational Medicine, JCI Insight, American Journal of Transplantation, Frontiers in Immunology, European Journal of Immunology, Scientific Reports, Plos One, Transplantation, Oncoimmunology, Oncotarget, Frontiers in Medicine, Theranostics, Cellular Physiology and Biochemistry, Cell communication and Signalling, Immunology, International Immunopharmacology, Mediators of Inflammation, Transplantation international, DNA and Cell Biology, Journal of International Medical Research.

## ORGANIZATION OF MEETING

- 52nd annual meeting of the French Society for Immunology, Nantes, France, 2019.
- 22nd Nantes Transplantation congress "Immunotherapies in transplantation & cancer", Nantes, 2017.
- Session moderation: 2nd Labex IGO meeting, Nantes, France 2016, 52nd annual meeting of the French Society for Immunology, Nantes, France, 2019.

## HOSPITAL RESEARCH CONTRACT

Vacation contract 2010-2018 on transplantation tolerance.

## MAJOR PUBLICATIONS (H-INDEX: 28)

- 1- Ligeron C, Saenz J, Evrard B, Drouin M, Merieau E, Mary C, Biteau K, Wilhelm E, Batty C, Gauttier V, Baccelli I, Poirier N, Chiffolleau E. CLEC-1 restrains acute inflammatory response and recruitment of neutrophils following tissue injury. J Immunol. 2024 Feb 14;ji2300479. doi: 10.4049/jimmunol.2300479. Epub ahead of print. PMID: 38353642.
- 2- Drouin M, Saenz J, Gauttier V, Evrard B, Teppaz G, Pengam s, Mary C, Desselle A, Thepenier V, Wilhelm E, Girault I, Lopez MD, Fourgeux C, Sinha D, Moreau M, Louvet C, Josien R, Poschmann J, Poirier N, Chiffolleau E. CLEC-1 is a sensor of death limiting antigen cross-presentation by dendritic cells and represents a target for cancer immunotherapy. Science Advances 2022, Volume: 8 Issue: 46, DOI 10.1126/sciadv.abo7621.
- 3- Cummings, R. D., Chiffolleau, E., van Kyook, Y., & McEver, R. P..C-Type Lectins. In A. Varki (Eds.) et. al., Essentials of Glycobiology 2022. (4th ed., pp. 455–474). Cold Spring Harbor Laboratory Press. DOI: 10.1101/glycobiology.4e.34.
- 4- Drouin M, Saenz J, Chiffolleau E. C-Type Lectin-Like Receptors: Head or Tail in Cell Death Immunity. Front Immunol. 2020;Feb 11:251. PMID: 32133013

- 5- Chiffolleau E. C-Type Lectin-Like Receptors As Emerging Orchestrators of Sterile Inflammation Represent Potential Therapeutic Targets. Front Immunol. 2018 Feb 15;9:21. PMID: 29497419
- 6- Lopez Robles M-D, Pallier A, Huchet V, Le Texier L, Remy S, Braudeau C, Delbos L, Moreau A, Louvet C, Brosseau C, Royer P-J, Magnan A, Halary F, Josien R, Cuturi M-C, Anegon I, Chiffolleau E. Cell-surface C-type lectin-like receptor CLEC-1 dampens dendritic cell activation and downstream Th17 responses. Blood Advance. 2017;1(9):557-568.
- 7- Durand J, Huchet V, Merieau E, Usal C, Chesneau M, Remy S, Heslan M, Anegon I, Cuturi MC, Brouard S, Chiffolleau E. Regulatory B Cells with a Partial Defect in CD40 Signaling and Overexpressing Granzyme B Transfer Allograft Tolerance in Rodents. J Immunol. 2015 Nov 15;195(10):5035-44.
- 8- Le Texier L, Durand J, Lavault A, Hulin P, Collin O, Le Bras Y, Cuturi MC, Chiffolleau E. LIMLE, a new molecule over-expressed following activation, is involved in the stimulatory properties of dendritic cells. PLoS One. 2014 Apr 4;9(4)
- 9- Le Texier L, Thebault P, Carvalho-Gaspar M, Vignard V, Merieau E, Usal C, Cuturi MC, Wood KJ, Chiffolleau E\*. Immunoregulatory function of IL-27 and TGF- $\beta$ 1 in cardiac allograft transplantation. Transplantation. 2012 Aug 15;94(3):226-33.
- 10- Le Texier L, Thebault P, Lavault A, Usal C, Merieau E, Quillard T, Charreau B, Soullillou JP, Cuturi MC, Brouard S, Chiffolleau E. Long-term allograft tolerance is characterized by the accumulation of B cells exhibiting an inhibited profile. Am J Transplant. 2011 Mar;11(3):429-38.
- 11- Condamine T, Le Texier L, Howie D, Lavault A, Hill M, Halary F, Cobbold S, Waldmann H, Cuturi MC, Chiffolleau E. Tmem176B and Tmem176A are associated with the immature state of dendritic cells. J Leukoc Biol. 2010 May 28.
- 12- Thebault P, Lhermite N, Tilly G, Le Texier L, Quillard T, Heslan M, Anegon I, Soullillou JP, Brouard S, Charreau B, Cuturi MC, Chiffolleau E. The C-type lectin-like receptor CLEC-1, expressed by myeloid cells and endothelial cells, is up-regulated by immunoregulatory mediators and moderates T cell activation. J Immunol. 2009 Sep 1;183(5):3099-108. Epub 2009 Aug 10.
- 13- Thebault P, Condamine T, Heslan M, Hill M, Bernard I, Saoudi A, Josien R, Anegon I, Cuturi MC, Chiffolleau E. Role of IFN $\gamma$  in allograft tolerance mediated by CD4+CD25+ regulatory T cells by induction ofIDO in endothelial cells. Am J Transplant. 2007 Nov;7(11):2472-82. Epub 2007 Sep 14.
- 14- Chiffolleau E, Heslan JM, Heslan M, Louvet C, Condamine T, Cuturi MC. TLR9 ligand enhances proliferation of rat CD4+ T cell and modulates suppressive activity mediated by CD4+ CD25+ T cell. Int Immunol. 2007 Feb;19(2):193-201. Epub 2007 Jan 5.

- 15-** Heslan JM, Renaudin K, Thebault P, Josien R, Cuturi MC, Chiffolleau E. New evidence for a role of allograft accommodation in long-term tolerance. Transplantation. 2006 Nov 15;82(9):1185-93.
- 16-** Heslan JM, Beriou G, Le Luduec JB, Guillonneau C, Anegon I, Souillou JP, Cuturi MC, Chiffolleau E. Accumulation of T cells with potent regulatory properties and restricted Vbeta7-TCR rearrangements in tolerated allografts. Transplantation. 2005 Nov 27;80(10):1476-84.
- 17-** Louvet C, Heslan JM, Merieau E, Souillou JP, Cuturi MC, Chiffolleau E. Induction of Fractalkine and CX3CR1 mediated by host CD8+ T cells in allograft tolerance induced by donor specific blood transfusion. Transplantation. 2004 Nov 15;78(9):1259-66.
- 18-** Chiffolleau E, Kobayashi T, Walsh MC, King CG, Walsh PT, Hancock WW, Choi Y, Turka LA. TNF receptor-associated factor 6 deficiency during hemopoiesis induces Th2-polarized inflammatory disease. J Immunol. 2003 Dec 1;171(11):5751-9.
- 19-** Chiffolleau E, Beriou G, Dutartre P, Usal C, Souillou JP, Cuturi MC. Induction of donor-specific allograft tolerance by short-term treatment with LF15-0195 after transplantation. Evidence for a direct effect on T-cell differentiation. Am J Transplant. 2002 Sep;2(8):745-57.
- 20-** Chiffolleau E, Beriou G, Dutartre P, Usal C, Souillou JP, Cuturi MC. Role for thymic and splenic regulatory CD4+ T cells induced by donor dendritic cells in allograft tolerance by LF15-0195 treatment. J Immunol. 2002 May 15;168(10):5058-69.
- 21-** Chiffolleau E, Heslan JM, Souillou JP, Cuturi MC. New insight into mechanisms of allograft transplantation in the rat by differential display: macrophage scavenger receptor-A brings to light. Mol Med. 2000 Dec;6(12):1054-61.