**CV**

**Academic education**

**2017-2020 PhD Degree in Virology,** Université Toulouse III, Paul Sabatier, France / Duke-NUS Medical School, Singapore

**2008-2010 Master Degree in Cellular and Molecular biology,** Université Pierre et Marie Curie, Paris IV, France

**2005-2008 Bachelor Degree in Microbiology,** Université Claude Bernard, Lyon 1, France

**Research experience**

**January 2022** **Post-doctoral researcher** Institut Pasteur, Paris, France. Supervisor: Dr. Louis Lambrechts. Project: Single-cell characterization of dengue virus Aedes mosquitoes interactions.

**November 2020 – November 2021 Post-doctoral researcher** Department of pathology, Division of Virology, University of Cambridge, Cambridge, United-Kingdom /AMC Medical Research, Amsterdam UMC, Amsterdam, Netherland. Supervisor: Dr AJ te Velthius, Project: Study of emerging mutations and inhibitors impact on coronavirus replication by the establishment of a virus-free high-throughput platform.

**September 2017 – June 2020 PhD student** Duke-NUS Medical Shool, Singapore / PharmaDev, Faculté de pharmacie, Université de Touloue 3, France. Supervisor: Dr Julien Pompon / Dr Eric Deharo. Project: Study of the metabolic interactions between Dengue virus and mosquitoes using a metabolomic approach to identify host targets in order to limit viral transmission

**January 2016 – December 2017 Scientific cooperation officer** Institut de Recherche pour le Développement (IRD), Vientiane, Laos**.** Supervisor: Dr Eric Deharo. Project: Coordination of interdisciplinary research projects on emerging infectious diseases.

**March 2012- December 2015 Project manager / Immunology Team Leader** Diagnostica Stago, Paris, France**.** Project: In charge of the development of the immunological reagent for the diagnosis of venous thromboembolic diseases.

**Januray 2010- December 2011 Master – 2nd research internship / Research Associate in Virology** Sanofi-Pasteur, Lyon, France**.** Project: Study the attenuation of flavivirus vaccine strains and immunization potential of vaccine candidates.

**January – March 2009 Master – 1st research internship** Sanofi-Pasteur, Lyon, France. Supervisor: Dr Bruno Pozetto. Project: In vitro evaluation of the benefit-risk effects of anti-HIV microbicides under vaginal epithelium.

**Publications**

Link pubmed: <https://pubmed.ncbi.nlm.nih.gov/?term=Vial+Thomas>

**T. Vial**, C. Phakeovilay, S. Watanabe, K. Chan, M. Peng, E. Deharo, F. Chassagne, S. G. Vasudevan, G. Marti. Antiviral potential of medicinal plants: a case-study with guava tree against dengue virus using a metabolomic approach. **Elsevier**, Chapter 13, Medicinal plants as anti-infectives: Current knowledge and new perspectives, (**2022**).

<https://www.elsevier.com/books/medicinal-plants-as-anti-infectives/chassagne/978-0-323-90999-0>

**T. Vial**, G. Marti, D. Missé, J. Pompon. Lipid Interactions Between Flaviviruses and Mosquito Vectors. **Front. Physiol**. 12, 1744 (**2021**).

<https://www.frontiersin.org/articles/10.3389/fphys.2021.763195/full>

**T. Vial**, M. S. Oade, C. A. Russell, D. Eggink, A.J.W. te Velthuis. A SARS-CoV-2 mini-genome assay based on negative-sense RNA to study replication inhibitors and emerging mutations. Preprint **Biorvix**, (**2021**)

<https://www.biorxiv.org/content/10.1101/2021.06.28.450211v2>

S. Elli, D. Bojkova, M. Bechtel, **T. Vial**, D. Boltz, M. Muzzio, X. Peng, F. Sala, C. Cosentino, A. Goy, M. Guerrini, L. Müller, J. Cinatl, V. Margitich, A.J.W. te Velthuis. Enisamium Inhibits SARS-CoV-2 RNA Synthesis. **Biomedicines**, 9(9), 1254 (**2021**)

<https://www.mdpi.com/2227-9059/9/9/1254>

**T. Vial**, W-L. Tan, E. Deharo, D. Missé, G. Marti, J. Pompon. Mosquito metabolomics reveal that dengue virus replication requires phospholipid reconfiguration via the remodeling cycle. **Proc. Natl. Acad. Sci**. 117, 27627–27636 (**2020**).

<https://www.pnas.org/content/117/44/27627.long>

A. Chowdhury, C. M. Modahl , S. Thing Tan, B. Wong Wei Xiang, D. Missé, **T. Vial**, R. Manjunatha Kini , J. Pompon. JNK pathway restricts DENV2, ZIKV and CHIKV infection by activating complement and apoptosis in mosquito salivary glands. **PLOS Pathog**. 16, e1008754 (**2020**).

<https://journals.plos.org/plospathogens/article?id=10.1371/journal.ppat.1008754>

**T. Vial**, W-L. Tan, B. Wong Wei Xiang, D. Missé, E. Deharo, G. Marti, J. Pompon. Dengue virus reduces AGPAT1 expression to alter phospholipids and enhance infection in Aedes aegypti. **PLOS Pathog**. 15, e1008199 (**2019**).

<https://journals.plos.org/plospathogens/article?id=10.1371/journal.ppat.1008199>

F. Diop, **T. Vial**, P. Ferraris, S. Wichit, M. Bengue, R. Hamel, L. Talignani, F. Liegeois, J.Pompon, H. Yssel, G. Marti, D. Missé. Zika virus infection modulates the metabolomic profile of microglial cells. **PLOS ONE** 13, e0206093 (**2018**).

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0206093>

P. Paboriboune, **T. Vial**, P. Sitbounlang, S. Bertani, C. Trépo, P. Dény, F-X. Babin, N. Steenkeste, P. Pineau, E. Deharo. Hepatitis C in Laos: A 7-Year Retrospective Study on 1765 Patients. Virol. Sin., 33, 295–303 (**2018**)

<https://link.springer.com/article/10.1007/s12250-018-0039-9>

P. Paboriboune, **T. Vial**, F. Chassagne, P. Sitbounlang, S. Soundala, S. Bertani, D. Sengmanothong, F-X. Babin, N. Steenkeste, P. Dény, P. Pineau , E. Deharo. A Seven-Year Retrospective Study on the Surveillance of Hepatitis B in Laos. Int J Hepatol., 2018:9462475 (**2018**)

<https://www.hindawi.com/journals/ijh/2018/9462475/>

J. Pompon, R. Morales-Vargas, M.Manuel, C. Huat Tan, **T. Vial**, J. Hao Tan, O. M. Sessions, P. da Costa Vasconcelos, L. Ching Ng, D. Missé. A Zika virus from America is more efficiently transmitted than an Asian virus by Aedes aegypti mosquitoes from Asia. **Sci. Rep**. 7, 1215 (**2017**).

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