

# Jeremie GUEDJ

Research Director, INSERM

DoB: June 24<sup>th</sup>, 1980

Married, 3 children

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## Mathematical Modeling of Infectious Diseases

### CV in research

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2021	Research Director (INSERM, Paris)
2012	Research Scientist (INSERM, Paris)
2009 – 2012	Postdoctoral research fellow Supervision : Pr. Alan S. Perelson <i>Theoretical Biology &amp; Biophysics, Los Alamos National Laboratory, NM, USA</i>
2007 – 2009	Postdoctoral research fellow Supervision : Pr. Avidan U. Neumann <i>Mina &amp; Everard Goodman Faculty of Life Sciences, Bar-Ilan University, Tel-Aviv, Israel</i>
2003- 2006	PhD in biostatistics: “Inference in dynamical models of population: application to HIV & HCV” Supervision : Dr. Rodolphe Thiébaud & Pr. Daniel Commenges <i>ISPED, University Bordeaux II, France</i>

### Publications

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1. Nguyen, Marc A, Suñer C, Marks M, Ubals M, Hernández-Rodríguez A, Melendez MA, Hruby DE, Russo AT, Mentré F, Mitjà O, Grotenbach DW, **Guedj J**. Early administration of tecovirimat shortens the time to mpox clearance in a model of human infection. *PLoS Biology* 2023.
2. Chenane HR, Menidjel R, Lebourgeois S, Laouénan C, Tubiana S, Descamps D, Abel L, **Guedj J**, Malhotra S, Kumar-Singh S, Ghosn J, Visseaux B. High sera levels of SARS-CoV-2 N antigen are associated with death in hospitalized COVID-19 patients. *Journal of Medical Virology* 2023.
3. Passaes C, Desjardins D, Chapel A, Monceaux V, Melard A, Perdomo-Celis A, Planchais D, Dimant N, David A, Dereuddre-Bosquet N, Barrail-Tran A, Lambotte O, **Guedj J**, Müller-Trutwin M, Mouquet H, Rouzioux C, Avettand-Fenoel V, Le Grand R, Sáez-Cirió A. Early antiretroviral therapy favors post-treatment SIV control, which is associated with the expansion of an enhanced memory CD8+ T cell response against rebounding virus – the pVISCONTI study. *Nature Communications* 2023.
4. Lingas G, Plana D, Péré H, Duffy D, Staropoli I, Chapuis N, Gobeaux C, Veyer D, Delaugerre C, Le Goff J, Getten P, Hadjadj J, Bellino D, Parfait B, Treluyer JM, Schwartz O, **Guedj J**, Kernéis S, Terrier B. Neutralizing antibody levels as a correlate of protection against SARS-CoV-2 infection: a modeling analysis. *Clinical Pharmacology & Therapeutics* 2023.
5. Gonçalves A, Marchand M, Chan P, Jin JY, **Guedj J**, Bruno R. Comparison of two-stage and joint TGI-OS modeling using data from six atezolizumab clinical studies in metastatic non-small cell lung cancer patients. *CPT:PSP* 2023.
6. Néant N, Lingas G, Gaymard A, Belhadi D, Hites M, Staub T, Greil R, Paiva JA, Poissy J, Peiffer-Smadja N, Costagliola D, Yazdanpanah Y, Bouscambert-Duchamp M, Gagneux-Brunon A, Ader F, Mentré F, Wallet F, Burdet C, **Guedj J**. Association between SARS-CoV-2 viral kinetics and clinical score evolution in hospitalized patients. *CPT:PSP* 2023.

7. Marc A, Marlin R, Donati F, Prague M, Kerioui M, Hérate C, Alexandre M, Dereuddre-Bosquet N, Bertrand J, Contreras V, Behillil S, Maisonnasse P, Van Der Werf S, Le Grand R, **Guedj J**. Impact of variants of concern on SARS-CoV-2 viral dynamics in non-human primates. *PLoS Computational Biology* 2023.
8. Kerioui M, Beaulieu M, Desmée S, Bertrand J, Mercier F, Lin A, Wu B, Jin JY, Bruno R, **Guedj J**. Nonlinear multilevel joint model for individual lesion kinetics and survival to characterize intra-individual heterogeneity in patients with advanced cancer. *Biometrics* 2023.
9. Clairon Q, Prague M, Planas D, Bruel R, Hocqueloux L, Prazuck T, Schwartz O, Thiébaud R, **Guedj J**. Modeling the kinetics of the neutralizing antibody response against SARS-CoV-2 variants after several administrations of Bnt162b2. *PLoS Computational Biology* 2023.
10. Bruno R, Chanu P, Kågedal M, Mercier F, Yoshida K, **Guedj J**, Li C, Beyer U, Jin J. Support to early clinical decisions in drug development and personalised medicine with checkpoint inhibitors using dynamic biomarker-overall survival models. *British Journal of Cancer* 2023.
11. Kerioui M, Bertrand J, Desmée S, Le Tourneau C, Mercier F, Bruno R, **Guedj J**. Assessing the increased variability in individual lesion kinetics during immunotherapy: does it exist, and does it matter? *JCO Precision Oncology* 2023.  
 ⇒ **Editorial:** Beckman R, Makohon-Moore A, Puzanov I. Intratumoral and Microenvironmental Heterogeneity in Patient Outcome Prediction. *JCO Precision Oncology* 2023.
12. Mitja O, et al. Viral dynamics in patients with monkeypox infection: a prospective cohort study in Spain. *The Lancet Infectious Diseases* 2022.
13. El Messaoudi S, Gonçalves A, Lemenuel-Diot A, **Guedj J**. A semi-mechanistic model to characterize the long-term dynamic of HBV markers during treatment with lamivudine and Peg-IFN. *Clinical Pharmacology & Therapeutics* 2022.
14. Marlin R, Desjardins D, Contreras V, Lingas G, Solas C, Roques P, Naninck T, Pascal Q, Behillil S, Maisonnasse P, de Lamballerie X, **Guedj J\***, Le Grand R\*. Antiviral efficacy of favipiravir against Zika and SARS-CoV-2 viruses in non-human primates. *Nature communications* 2022.  
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15. Delattre R, Seurat J, Haddad F, Nguyen TT, Gaborieau B, Kane R, Dufour N, Ricard JD, **Guedj J\***, Debarbieux\*. Combination of in vivo phage therapy data with in silico model highlights key parameters for treatment efficacy. *Cell reports* 39, 110825. 2022.  
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16. Guk J Bridier-Nahmias A, Magnan M, Grall N, Duval X, Clermont O, Ruppé E, d'Humières C, Tenailon O, Denamur E, Mentré F, **Guedj J**, Burdet C. for Modelling the bacterial dynamics in the gut microbiota following an antibiotic-induced perturbation. *CPT:PSP* 2022.
17. Prague M, Alexandre M, Thiébaud R, **Guedj J**. Within-host models of SARS-CoV-2: What can it teach us on the biological factors driving virus pathogenesis and transmission? *Anaesthesia Critical Care & Pain Medicine* 2022.
18. Lingas G, Néant N, Gaymard A, Belhadi D, Peytavin F, Hites M, Staub T, Greil R, Paiva JA, Poissy J, Peiffer-Smadja N, Costagliola D, Yazdanpanah Y, Wallet F, Gagneux-Brunon A, Mentré F, Ader F, Burdet C, **Guedj J**, Bouscambert-Duchamp M. Effect of remdesivir on viral dynamics in COVID-19 hospitalized patients: a modeling analysis of the randomized, controlled, open-label DisCoVeRy trial. *Journal of Antimicrobial Chemotherapy* 2022.
19. Kerioui M, Desmée S, Mercier F, Lin A, Wu B, Jin J, Shen X, Le Tourneau C, Bruno R, **Guedj J**. Assessing the impact of organ-specific lesion dynamics on survival in patients with recurrent urothelial carcinoma treated with atezolizumab or chemotherapy. *ESMO Open* 2021.
20. Kerioui M, Bertrand J, Bruno R, Mercier F, **Guedj J**, Desmée S. Modelling the association between biomarkers and clinical outcome: an introduction to nonlinear joint models. *British Journal of Clinical Pharmacology* 2021.
21. Thielebein et al. Virus persistence after recovery from acute Lassa fever in Nigeria: a 2-year interim analysis of a prospective longitudinal cohort study. *Lancet Microbe* 2021.
22. Eloy P, Malvy D, Le Grand R, **Guedj J**. Combined treatment of molnupiravir and favipiravir against SARS-CoV-2 infection: one + zero equals two? *Ebio medicine* 2021.
23. Ader F, Bouscambert-Duchamp M, Hites M, Peiffer-Smadja N, Poissy J, Belhadi D, Diallo A, Lê MP, Peytavin P, Staub T, Greil R, **Guedj J**, Paiva JA, Costagliola D, Yazdanpanah Y, Burdet C, Mentré F. Remdesivir plus standard of care versus standard of care alone for the treatment of patients admitted to hospital with COVID-19 (DisCoVeRy): a phase 3, randomised, controlled, open-label trial. *Lancet Infectious Diseases* 2022.

24. Marc A, Kerioui M, Blanquart F, Bertrand J, Mitjà O, Corbacho-Monné M, Marks M, **Guedj J**. Quantifying the relationship between SARS-CoV-2 viral load and infectiousness. *Elife* 2021.
25. Cosentino G, Bernard M, Giannoli JM, **Guedj J**, Debarre F, Blanquart F. SARS-CoV-2 viral dynamics in infections with Alpha and Beta variants of concern in the French community. *Journal of Infection* 2021.
26. Maisonnasse P, Aldon Y, Marc A, Marlin R..., Montefiori DC, Wilson IA, Ginoux E, de Bree GJ, García-Sastre A, Schotsaert M, Coughlan L, Bukreyev A, van der Werf S, **Guedj J**, Sanders RW, van Gils MJ, Le Grand R. COVA1-18 neutralizing antibody protects against SARS-CoV-2 in three preclinical models. *Nature Communications* 2021.
27. Bonil L, Lingas G, Coupeau D, Lucet JC, **Guedj J**, Visseaux B, Muylkens B. Survival of SARS-CoV-2 on non-porous materials in an experimental setting representative of fomites. *Coatings* 2021.
28. Reynard S, Gloaguen E, Baillet N, Madelain V, **Guedj J**, Raoul H, de Lamballerie X, Mullaert J, Baize S. Early control of viral load by favipiravir promotes survival to Ebola virus challenge and prevents cytokine storm in non-human primates. *PLoS Neglected Tropical Diseases* 2021.
29. Gonçalves A, Maisonnasse P, Donati F, Albert M, Behillil S, Contreras V, Naninck T, Marlin R, Solas C, Pizzorno A, Lemaitre J, Kahlaoui N, Terrier O, Ho Tsong Fang R, Enouf V, Dereuddre-Bosquet N, Brisebarre A, Touret F, Chapon C, Hoen B, Lina B, Rosa Calatrava M, de Lamballerie X, Mentré F, Le Grand R, van der Werf S, **Guedj J**. SARS-CoV-2 viral dynamics in non-human primates. *PLoS Computational Biology* 2021.
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33. Best K, Barouch DH, **Guedj J**, Ribeiro RM, Perelson AS. Zika virus dynamics: Effects of inoculum dose, the innate immune response and viral interference. *PLoS Computational Biology* 2020
34. Lingas G, Safronetz D, Rosenke K, **Guedj J**. Lassa viral dynamics in non-human primates treated with favipiravir or ribavirin. *PLoS Computational Biology* 2020.
35. Gonçalves A, Lemenuel-Diot A, Cosson V, Jin Y, Feng S, Bo Q and **Guedj J**. What drives the dynamics of HBV RNA during treatment? *Journal of Viral Hepatitis* 2020.
36. Mercier F, Kerioui M, Desmée S, **Guedj J**, Bruno R, Krieter O. Longitudinal analysis of individual tumor lesion size in metastatic colorectal cancer patients receiving first line standard chemotherapy in combination with anti-angiogenic treatment: A retrospective analysis. *Journal of pharmacokinetics and pharmacodynamics* 2020.
37. Kerioui M, Mercier F, Bertrand J, Tardivon C, Bruno R, **Guedj J**, Desmée S. Bayesian inference using Hamiltonian Monte-Carlo algorithm for nonlinear joint modelling in the context of cancer immunotherapy. *Statistics in Medicine* 2020.
38. Passaes C, Millet A, Madelain V, Monceaux V, David A, Versmisse P, Sylla N, Gostick E, Price DA, Blancher A, Dereuddre-Bosquet N, Desjardins D, Pancino G, Le Grand R, Lambotte O, Müller-Trutwin M, Rouzioux C, **Guedj J**, Avettand-Fenoel V, Vaslin B, Sáez-Ciri3n A. Optimal maturation of the SIV specific CD8+ T-cell response after primary infection is associated with natural control of SIV. *Cell reports* 2020.
39. Maisonnasse P\*, **Guedj J\***, Contreras V\*, Behillil S\*, Solas C\*, Marlin R, Naninck T, Pizzorno A, Lemaitre J, Gonçalves A, Kahlaoui N, Terrier O, Ho Tsong Fang R, Enouf V, Dereuddre-Bosquet N, Brisebarre A, Touret F, Chapon C, Hoen B, Lina B, Rosa-Calatrava M, van der Werf S, de Lamballerie X, Le Grand R. Hydroxychloroquine against SARS-CoV-2 infection in non-human primates. *Nature* 2020  
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40. Guk J, **Guedj J**, Burdet C, Andremont A, de Gunzburg J, Ducher A, Mentré F. Modeling the effect of DAV132, a novel colon-targeted adsorbent, on fecal concentrations of moxifloxacin and gut microbiota diversity in healthy volunteers. *Clinical Pharmacology & Therapeutics* 2020
41. Gonçalves A, Bertrand J, Ke R, Comets E, de Lamballerie X, Malvy D, Pizzorno A, Terrier O, Calatrava M, Mentré F, Smith P, Perelson AS, **Guedj J**. Timing of antiviral treatment initiation is critical to reduce SARS-CoV-2 viral load. *Clinical Pharmacology & Therapeutics: PSP* 2020.
42. Lê M, Peiffer-Smadja N, **Guedj J**, Néant N, Mentré F, Ader F, Yazdanpanah Y, Peytavin G. Rationale of a loading dose initiation for hydroxychloroquine treatment in COVID-19 infection in DisCoVeRy trial. *Journal of Antimicrobial Chemotherapy* 2020.
43. Eloy P, Solas C, Touret F, Mentré F, Malvy D, de Lamballerie X, **Guedj J**. Dose rationale for favipiravir use in patients infected with SARS-CoV-2 [letter]. *Clinical Pharmacology & Therapeutics* 2020.
44. Madelain V, Duthey A, Mentré F, Jacquot F, Solas C, Lacarelle B, Vallvé A, Barron S, Barrot C, Munweiler S, Thomas D, Carbonnelle C, Raoul H, de Lamballerie X, **Guedj J**. Ribavirin does not potentiate favipiravir antiviral activity against Ebola virus in non-human primates. *Antiviral Research* 2020.
45. Gonçalves A, Lemenuel-Diot A, Mentré F, **Guedj J**. Model Averaging in Viral Dynamic Models. *The AAPS Journal* 2020.
46. Madelain V, Mentré F, Baize S, Anglaret X, Laouénan V, Oestereich L, Nguyen THT, Malvy D, Piorkowski G, Graw F, Günther S, Raoul H, de Lamballerie X, **Guedj J**. Modeling favipiravir antiviral efficacy against emerging viruses: from animal studies to clinical trials. *CPT:PSP* 2019.
47. Friberg L & **Guedj J**. Acute bacterial or viral infection – What's the difference? A perspective from PKPD modellers. *Clinical Microbiology & Infection* 2019.
48. Bruno R, Bottino D, de Alwis DP, Fojo T, **Guedj J**, Liu C, Swanson KR, Zheng JJ, Zheng Y, Jin JY. Progress and Opportunities to Advance Clinical Cancer Therapeutics Using Tumor Dynamics Models. *Clinical Cancer Research* 2019.
49. Burdet C, Nguyen TT, Duval X, Ferreira S, Andremont A, **Guedj J**, Mentré F. Impact of antibiotic gut exposure on the temporal changes in microbiome diversity. *Antimicrobial Agents & Chemotherapy* 2019; 63: e00820-19.
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60. Desmée S, Mentré F, Veyrat-Follet C, Sébastien B, **Guedj J**. Nonlinear joint models for individual dynamic prediction of risk of death using Hamiltonian Monte Carlo: Application to metastatic prostate cancer. *BMC Medical Research Methodology* 2017; 17: e105.
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**See commentary:** Guedj J, Canini L, Cottler SH, Dahari H. Response to Goyal et al. *Hepatology* (in press)
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111. **Guedj J**, Thiébaud R, Commenges D. Joint modeling of the clinical progression and of the biomarkers dynamics using a mechanistic model. *Biometrics* 2010; 67(1):59-66.
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119. Thiébaud R, **Guedj J**, Jacqmin-Gadda H, et al. Estimation of dynamical model parameters taking into account undetectable marker values. *BMC Medical Research Methodology* 2006;6:1-10.
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\*: equal contributors

## Invited speaker in international conferences

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1. Modeling respiratory infections. Synergie & Résistances. Aix-en-Provence. October 2023.
2. Modeling viral dynamics of SARS-CoV2: treatment & transmission. Workshop on Mathematical Perspectives on Immunobiology. September 2023, Blagoevgrad, Bulgaria.
3. Modeling HBV & HDV kinetics during antiviral therapy. 10<sup>th</sup> international HBV Cure meeting, Paris, June 2023.
4. Integrating correlates of protection into mathematical models of SARS-CoV-2 viral dynamics. American Society of Clinical Pharmacology & Therapeutics, Atlanta, March 2023.
5. Viral dynamics of SARS-CoV2 and role of antiviral treatments. Sesstim webinars. December 2022.
6. Modeling viral kinetics during HBV treatment. What it can teach us to optimize future therapies. European Meeting on HIV & Hepatitis, Paris, June 2022.
7. Pharmacometrics to support clinical investigation during COVID-19 pandemics. Page Virtual Meeting, September 2021.
8. Modeling SARS-Cov-2 viral dynamics to optimize antiviral therapy. PK/UK Virtual Meeting. November 2020.
9. Modeling SARS-Cov-2 viral dynamics to optimize therapy. ACOP. Virtual Meeting. November 2020
10. SARS-Cov-2 viral dynamics in NHPs and hospitalized patients. Modelling Heterogeneous Populations with applications in Biology. Grenoble. November 2020
11. Modeling SARS-Cov-2 viral dynamics to optimize therapy. AAPS. Virtual meeting. October 2020
12. Pitfalls of PK/PD of repurposed drugs. ESCMID Conference on Coronavirus Disease (ECCVID). Virtual Meeting. September 2020.
13. Ebola viral dynamics. HPV & microbiota dynamics. Montpellier. March 2019.
14. Mechanistic models in oncology. Recent advances in joint models for cancer and the new statistical challenge of immunotherapy clinical studies. Bordeaux. January 2019.
15. Ebola viral dynamics. Mathematical Biosciences Institute Workshop. Columbia. February 2018.
16. Joint modeling of tumor kinetic and OS. FDA-ISoP Public Workshop: Model Informed Drug Development (MIDD) for Oncology Products. FDA, February 2018.
17. Joint modeling in pharmacokinetics. Fort-Lauderdale. October 2017
18. PK/PD in infectious diseases. FIP Pharmaceutical Sciences World Congress. Stockholm. May 2017
19. The role of pharmacometrics in viral dynamics. Viral dynamics: past, present & future. Santa Fe. May 2017.
20. HCV modeling: insights on drug development. PK UK. London. November 2016.
21. HCV modeling: insights on drug development. Synergie & Résistances. Aix-en-Provence. October 2016.
22. Review on HCV modeling. Kinetic and Dynamic Complexity in Drug Transit-Response in the Human Body. PAGE meeting. Crete. June 2015
23. Viral Dynamic Modeling of DAAs. Journées du Groupement de Recherche Statistique et Santé. Rennes. September 2012.
24. Viral Dynamic Modeling of DAAs. 7th International Workshop on Clinical Pharmacology of Hepatitis Drug. Boston. June 2012
25. Understanding silibinin's modes of action against HCV using viral kinetic modeling. Workshop on Silibinin, Cologne. February 2012.



## PhD supervision and cosupervision

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1. Adrien Mitard, “Correlates of protection in SARS-CoV-2”, since 2023
2. Clarisse Schumer, “Coinfection of viral respiratory viruses, from in vitro to in vivo analyses”, since 2023
3. Maxime Beaulieu, “Modeling the efficacy of antiviral strategies against variants of concerns of Sars-CoV-2: from general community to hospitalized patients, since 2022
4. Selma El Messaoudi, “Modeling to support HBV cure”, since 2020
5. Aurélien Marc, “The shifting paradigm of viral load and its implication on transmission”, 2020-2023.
6. Guillaume Lingas, “Modélisation de la dynamique virale du SARS-CoV-2 : implications pour l'évaluation thérapeutique », 2019-2022 (now Medical Student).
7. Marion Keroui, “Modèles conjoints de la dynamique des lésions cibles et de la survie : application à la prédiction de la réponse à l'immunothérapie dans le cancer de la vessie”, 2018-2022 (now postdoc at the Sloan Kettering Memorial Center)  
⇒ Recipient of the 2023 prize Daniel Schwartz rewarding the best PhD thesis in biostatistics
8. Antonio Gonçalves, “Development of a modeling framework to optimize combination therapy of new antiviral agents against HBV”, 2017-2020 (now at Certara).
9. Vincent Madelain, “Viral dynamics during infection with Ebola virus and treatment with favipiravir”, 2015-2018 (now at Servier).
10. Solène Desmée, “Modélisation conjointe de données longitudinales non-linéaires et de données de survie : applications au cancer de la prostate métastatique”, 2013-2016 (now associate professor at Université de Tours)
11. Tram Nguyen, “Handling data below the quantification limit in viral kinetic modeling for model evaluation and prediction of treatment outcome”, 2011-2014 (now at Sanofi)
12. Cédric Laouénan, “Utilisation des modèles dynamiques pour l'évaluation des traitements de l'hépatite C”, 2011-2014 (now Professor of Biostatistics at Université Paris Cité).

## PhD reviewer

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1. Macauley Locke, “Understanding viral infections using mathematical models and statistical analysis”, University of Leeds, 2023.
2. Denis Rustand, “Modèles conjoints pour un biomarqueur semi-continu et un évènement terminal avec application aux essais cliniques en cancérologie”, Université de Bordeaux, 2020.
3. Thibault Etienne, « Modélisation mathématique de la dégradation des ARNm bactériens et intégration de données omiques », Université Lyon 1, 2020.
4. Ronan Duchesne, “Erythroid differentiation in vitro under the lens of mathematical modelling”, ENS Lyon, Université Lyon 1, 2019.
5. Vincent Aranzana-Climent, « Apport de la modélisation semi-mécanistique dans l'étude PK/PD des antibiotiques seuls et en combinaison dans la lutte contre les bactéries résistantes », Université de Poitiers, 2019.
6. Rubest Raja, “Modelling and optimization of novel therapies for HIV and hepatitis C virus infections”, Indian Institute of Science, 2018.
7. Laura Villain, “ Analyse et modélisation de l'effet des injections d'interleukine 7 sur les patients infectés par le VIH”, Université de Bordeaux, 2018.

## Habilitation reviewer

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1. Raphaëlle Metras, “Modelling vector-borne and zoonotic pathogens », Sorbonne Université, 2022.
2. Max Von Kleist Contributions to the Mathematical Systems Medicine of Antimicrobial Therapy and Genotype-Phenotype Inference, Freie Universität Berlin, 2020.

## Reviewer (not exhaustive)

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<b>Biostatistics &amp; Biomathematics</b>	Bioinformatics. Bulletin of Mathematical Biology, Epidemics, CPT: Pharmacometrics & System Pharmacology, Journal of Statistical Planning & Inference, Journal of Pharmacokinetics & Pharmacodynamics, Journal of the Royal Statistical Society C,
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Journal of Theoretical Biology, Mathematical Biosciences, Mathematical Medicine & Biology, Philosophical Transactions of the Royal Society B, PLoS Computational Biology, Statistical Methods & Applications

**Medicine** Antimicrobial Agents & Chemotherapy, Antiviral Therapy, Antiviral Research, Clinical Infectious Diseases, Clinical Pharmacology & Therapeutics, Ebio medicine, Journal of Hepatology, Journal of Virology, Hepatology, Lancet Infectious Diseases, Microbiome, Nature Communications, Nature Medicine, PLoS Biology, PNAS, PLoS Pathogens, Science

**Editorial Board** Journal of Hepatology

## Scientific & Educational Societies

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**Since 2023** Member of the ANRS « groupe sur les antiviraux et les anticorps monoclonaux thérapeutiques »  
**Since 2021** Member of the INSERM evaluation and recruitment committee (CSS 6)  
**Since 2021** AC ANRS « Modélisation des maladies infectieuses »  
**2020-2022** Member of the preclinical group on SARS-CoV-2 (ANRS)  
**2020-2022** Drug expert committee, EU Response  
**2020-2022** Groupe d'évaluation des mAbs anti-Covid, Reacting (ANRS)  
**Since 2019** Conseil de l'école doctorale ED393 Pierre Louis de Santé Publique  
**2012-2016** ANRS CSS3 « Recherches cliniques et thérapeutiques sur le VIH »  
**Since 2014** AC34 (since 2014) « HBV Cure »

## Grant as PI (or WP PI)

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**2022-2025** Modelling of viral respiratory co-infection dynamics in human epithelium (ANR/DGF, 885KE incl 150 KE)  
**2021-2023** Emergen, ANRS (70 KE)  
**2021-2024** Multiscale modeling in HBV, PI, Roche (200 KE).  
**2020-2023** Mechanism of natural control of HIV, French Embassy in India  
**2020-2023** Therapeutics accelerator Covid-19, PI, Bill & Melinda Gates Foundation (250 KE)  
**2020-2022** Viral dynamics modeling, PI, ANR (200, incl 70 KE)  
**2020-2022** HIV modeling control, WP leader, NIH (150 KE)  
**2020-2022** Phage therapy, WP leader, French-German ANR (70 KE)  
**2020-2023** Nipah pathogenesis, WP leader, MESRI. (210 KE)  
**2018-2021** Modeling immune-oncology, PI, Genentech. (40 KE)  
**2017-2020** HBV Modeling, PI, Roche. (150 KE)  
**2014-2017** Prostate cancer therapeutic optimization, PI, Sanofi (150 KE).  
**2014-2016** Favipiravir against Ebola, WP leader, EU H2020 (

## Prize & Fellowship

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**2015-2018** Laureate APHP « Contrat d'Interface »  
**2012-2024** INSERM « Prime d'Excellence »  
**2009-2012** Los Alamos Postdoctoral Fellowship  
**2008-2009** French Consulate in Tel-Aviv, « Volontaire-International Chercheur »  
**2007** Postdoctoral Fellowship « Fondation de la recherche médicale »  
**2003-2006** PhD fellowship from the National Agency for Research in AIDS (ANRS)

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