

PETIT Marine, PhD

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Date of Birth: 04/07/1990
Nationality: French

Education

- 2016 : Ph.D in Virology**, Institut Pasteur, University Pierre et Marie Curie, Paris, France.
2013: M.Sc. in Fundamental Virology, Institut Pasteur, University Paris Diderot, Paris, France.
2011: B.Sc. in Biochemistry and Molecular Biology, University Paris Diderot, Paris, France.

Research experience

Marie Curie Individual fellow: June 2021 to present day
Laboratory of Pr. Alain Kohl and Dr. Benjamin Brennan,
MRC-University of Glasgow Centre for Virus Research, Glasgow, UK
Post-doctoral project: TICKITS: Tick cell interactions with SFTS virus. A systemic approach to vector biology.

Research training:
MaxQuant summer school
EMBO Laboratory leadership workshop
Science communication CVR workshop

Post-doctoral training: September 2017 to February 2021 3^{1/2} years
Laboratory of Dr. Priya Shah, **UC Davis**, CA, USA.
Post-doctoral project: Molecular basis of flaviviral non-structural proteins and host gene expression machinery interactions.

PhD training: September 2013 to October 2016 3 years
Laboratory of Dr. Maria-Carla Saleh, **Institut Pasteur**, Paris, France.
Thesis project: Functional characterization of the piRNA pathway during viral infection in *Drosophila melanogaster*.

Research internship:
First Tripartite course in Bioinformatic, NGS analysis with Python/R
Organized by Dr. Magnus Fontes, Ribeirao Preto, Brazil, Sao Paulo University.
Sigma virus infection of *Drosophila melanogaster* wIII8 and 22a strains.
Laboratory of Prof. Frank Jiggins, Cambridge University, Cambridge, UK.
Dissection of *Drosophila* ovaries, immunostaining and confocal microscopy.
Laboratory of Dr. Cahir O’Kane, Cambridge University, Cambridge, UK.

Master 2 training: December 2012 to July 2013 6 months
Laboratory of Dr. Pierre Charneau, **Institut Pasteur**, Paris, France.
Project: Routing kinetic and nuclear import of HIV *in vitro* (study of early stage of HIV infection in cells).

Master 1 training: January 2012 to June 2012. **ERASMUS program** 6 months
Laboratory of Pr Jouko Vepsäläinen, **University of Eastern Finland**, Kuopio.
Project: R,S-g-methylspermidine (g = gamma), novel preparation strategies and biological testing.

B.Sc. training: June 2011

1 month

Laboratory of Dr Richardson, **Veterinary school of Maisons-Alfort**, France.

Project: Establishment and improvement of Adenoviral vectors for oral vaccination.

International and National meetings

2022

Bunyavirus 2022

Cambridge, UK

Poster: Learning from genes: a transcriptomic approach to bunyavirus-tick cell interactions

Tick and tick diseases French society annual meeting

Nancy, France

Invited Speaker: Learning from genes: a transcriptomic approach to bunyavirus-tick cell interactions

2020

American Society of Virology (ASV 2020) annual meeting

Virtual meeting

Invited Speaker: Understanding flavivirus NS5 antagonism of innate immunity

2019

QBI Arthropod-borne disease Symposium

UC San Francisco, CA

Poster: Understanding flavivirus NS5 antagonism of innate immunity in human systems

Bay viro 9th symposium

UC Berkeley, CA

Poster: Understanding flavivirus NS5 antagonism of innate immunity in human systems

Gordon Research Conference: Viruses and Cells

Barga, Italy

Poster: Understanding flavivirus NS5 antagonism of innate immunity in human systems

Gordon Research Seminar: Viruses and Cells

Barga, Italy

Invited Speaker and discussion leader: Women in Science

Gordon Research Seminars: Viruses and Cells

Barga, Italy

Invited Speaker: Understanding flavivirus NS5 antagonism of innate immunity in human systems

2018

American Society for Tropical Medicine and Hygiene annual meeting

New-Orleans, USA

Poster: Molecular basis of Non-structural flavivirus proteins and host-gene expression machinery interactions.

2016

EMBO workshop: piRNAs meeting

Montpellier, France

Selected talk: Characterization of the piRNA pathway during viral infection in *Drosophila melanogaster*.

Microsymposium small RNA (EMBL)

Vienna, Austria

Poster: Do piRNAs contribute to the RNAi mediated antiviral response in *Drosophila melanogaster*?

2015
Virology Afternoon, Institut Pasteur **Paris, France**
Selected Talk: Do piRNAs contribute to the RNAi mediated antiviral response in *Drosophila melanogaster*?

2014
Labex IBEID annual meeting **Paris, France**
Talk: Functional characterization of the piRNA pathway during viral infection in *Drosophila Melanogaster*.

Invited Speaker

2022 **Montpellier, France**
“Learning from the genes: a transcriptomic approach to bunyavirus-tick cell interaction”
Invitation to IRD-CNRS MIVEGEC unit, by Dr. Julien Pompon

2019 **Strasbourg, France**
“Understanding flavivirus NS5 antagonism of innate immunity in human systems”
Invitation to the University of Strasbourg/CNRS unit M3I, by Dr. Joao Marques and Dr. Jean-Luc Imler.

Grant and Fellowship

2021	Marie-Sklodowska Curie <u>Individual fellowship</u>	2 years
2020	ASV post-doctoral <u>travel fellowship</u>	\$500
2018	Philippe Foundation <u>fellowship</u>	2 years \$6000
2013	LabeX IBEID, PhD <u>grant</u> from French government	3 years

Grant and Fellowship (Submitted)

2022: L’Oreal UK Women in Science

2018: Life Science Research Foundation, Helen Hay Whitney Foundation, President’s Postdoctoral Fellowship Program (UC Davis).

2017: EMBO, Human Frontiers Science Program, Life Science Research Foundation, Helen Hay Whitney Foundation, President’s Postdoctoral Fellowship Program-UC Davis.

2016: EMBO, Human Frontiers Science Program.

Peer reviews (Invitation)

Transcriptome of *Aedes aegypti* cells in response to dengue virus serotype 1.

Journal of General Virology, 2019, Editor: Elisabeth Herniou.

Mentoring and Teaching experiences

2022 EMBO laboratory Leadership workshop

2022	<u>Master students</u> from Glasgow university, focusing on Immunoprecipitation technique.
2019-2021	<u>Undergraduate</u> student researcher, Matthew Kenaston. Now <u>junior scientist</u> in Dr. Shah lab.
December 2018	<u>PhD candidate</u> (rotation) student from MGG graduate group, Osman Sharifi (1 st generation PhD).
October 2018	<u>PhD candidate</u> (rotation) student from MMG graduate group, Tyler Laird.
Summer 2018	<u>Undergraduate</u> student researcher, mentored Shahabul Khan.
2017-2020	<u>Undergraduate</u> student researcher, mentored Ariana Nagainis (1 st generation College student). Now <u>PhD student</u> at University of Washington, USA.
2017-2019	<u>Undergraduate</u> student researcher, mentored Kush Patel.
2015	<u>Seminar</u> on viral emergence for Bachelor student, Ecole National Supérieure de Paris (E.N.S Ulm), Paris, France.

Membership

2018- present day	American Society for Tropical Medicine and Hygiene (ASTMH)
2019-present day	American Society for Virology (ASV)
2021-present day	Microbiology Society, UK

Science communication/Outreach

WeMerryStem: Frenemies, the tick-virus relationship! Science afternoon for kids (5-12). Games around virus biology, protein interactions and cell infection. Designed and animated by me.	Glasgow, UK
What makes virus tick? Exhibition at the Glasgow science festival Animation on the CVR stands. Targeted public, school pupils from Glasgow. Focus on tick biology and tick surveillance.	Glasgow, UK
Organizing committee “Pint of Science 2022” In charge of the “Our body” night. Creating the event line-up with top researchers in the fields of biology and medicine.	Glasgow, UK
External/Internal seminar committee In charge to organize/invite speakers to give seminar for the 2021-2022 years. Mandate of 1 year.	CVR, UK

Virology dept. delegates for PhD**Institut Pasteur, France**

Participate to every department meeting, transmit PhD students concerns (2 years).
Good for understanding the department work, and for networking.

La bio au labo**France**

Science communication on Twitter/Instagram/Facebook
Story telling on a week on Laboratory works including Science and Education.
<http://labioaulabo.tumblr.com/post/170144925624/marine-petit-post-doctorante-en-virologie>

Skype a scientist**Worldwide**

Sign up as a scientist to present my scientific work and career to students at any stage of their education. French and English with emphasis on role model for Women and 1st generation Higher Education student.

Physics and Chemistry tutor for High school students (Academia)**France**

Teaching basic of High-school program in Physics and Chemistry.

Skills**Biostatistic/visualization**

R

ProgrammingShell
Python**Communication**Microsoft office
Adobe suit Illustrator
Inkscape**Languages**French (native)
English (Fluent)**Others**Photography
Cellist (active member of Camelia symphonic orchestra,
Former members: Coalescence symphonic orchestra
(2011-2017), Music Conservatory of Paris region (1998-
2008))