



<Name>

<Company>

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<City>

<Country>

Stockholm, <day Month> <year>

Please fill in the information below electronically, as directed.

Delete any unused rows / parts of the application or add more space if required.

All sections are mandatory unless indicated otherwise and must be complete.

ECDC Fellowship Application Form

VACANCY TITLE

ECDC Fellowship

Where did you see this position advertised?

ECDC website

If 'other' please specify here:

PERSONAL INFORMATION

Family name(s):

Laureti

First name(s):

Mathilde

Date of birth:

Gender:

Nationality/ies:

CONTACT INFORMATION

Current address including city, country and postal code:

Mobile phone (incl. country code):

Alternative phone (optional):

Email address:

EDUCATION (starting with most recent) – add/delete rows as required

From (DD/MM/YY)	To (DD/MM/YY)	Title and subject of qualification awarded	Name and address of education establishment
01/08/2017	01/11/2021	PhD in Virology and Microbiology	University of Melbourne, Parkville VIC 3052, Australia
01/09/2016	01/06/2017	Master's in Cellular and Molecular Biology and Human Physiopathology	University of Angers, 40 rue de Rennes, 49100 Angers, France
01/09/2014	01/06/2016	Master's in Fundamental Virology	University of Paris Diderot Paris 7, 26 rue de Paradis, 75010 Paris, France
01/09/2011	01/06/2014	Bachelor's in Cellular and Molecular Biology and Physiology	University of Angers, 40 rue de Rennes, 49100 Angers, France

CERTIFIED TRAINING (optional – add/delete rows as required)

From (DD/MM/YY)	To (DD/MM/YY)	Title of Qualification Awarded	Name and address of training establishment
01/01/2023	01/01/2024	Mental Health First Aider	Acute First Aid, 17 Sundridge, Woking GU22 9AU, UK
01/01/2023	01/01/2024	First Aider	Acute First Aid, 17 Sundridge, Woking GU22 9AU, UK

WORK EXPERIENCE (starting with current or most recent employer)

From (DD/MM/YY)	To (DD/MM/YY)	Position Held / Job title
01/11/2021	13/04/2024	Postdoctoral Scientist
Name and address of employer: The Pirbright Institute, Ash road, Woking GU24 0NF, UK		

Full-time or part-time: Full-time	Percentage of time worked (i.e. 100% / 50%): 100%
<u>Description of main tasks / duties / responsibilities:</u> <p>I led independent research on DENV NS4A impacts on Aedes aegypti mosquito immunity. I contributed to research funding applications, and the coordination of collaborative research initiatives with national and international groups. I supervised, trained and mentored students and other scientists at various lab techniques and on multiple research projects. I developed and implemented biosafety protocol for in vivo studies in BSL2 facilities, and conducted comprehensive risk assessments for BSL3 and BSL2 viral research. I managed the in vivo capacity for the BSL2 mosquito lab at the institute, designing and implementing biosafety protocols, and organised training. I published my findings in top-tier journals and presented my work at international conferences. I seated at various decision-making meetings such as the BSL2 risks board and the insectary facility board. In addition of my management, teaching and research roles, I also taught myself how to use Omic tools such as R and Unix for research purposes.</p>	

From (DD/MM/YY)	To (DD/MM/YY)	Position Held / Job title
12/04/2021	01/11/2021	Postdoctoral Scientist
Name and address of employer: The Pirbright institute, Ash road, Woking GU24 0NF, UK		
Full-time or part-time: Full-time	Percentage of time worked (i.e. 100% / 50%): 100%	
<u>Description of main tasks / duties / responsibilities:</u> <p>I investigated the immune responses in Aedes aegypti cells to Rift Valley fever virus. I took on most of the lab management while the team leader was on maternity leave. I trained, and supervised students, undergrads and PhD. I co-wrote and published the results of the study. I helped to manage biosafety and biosecurity risks associated with BSL2 and BSL3 virus research in cells.</p>		
From (DD/MM/YY)	To (DD/MM/YY)	Position Held / Job title
01/02/2020	01/02/2020	Clinical Field study Scientist
Name and address of employer: ACDP, CSIRO, 5 Portalington road, East Geelong, VIC 3219 Australia		
Full-time or part-time: Full-time	Percentage of time worked (i.e. 100% / 50%): 100%	
<u>Description of main tasks / duties / responsibilities:</u> <p>I participated in a field epidemiological study on SARS-Covid-2 infection incidence among quarantined travellers following enhanced testing regimen. I contributed to biological samples collection and testing in high biosecurity conditions, and ensured compliance with biosafety standards at the Howard Springs quarantine facility in Darwin. I contributed to data collection, analysis, and report to provide insights that informed public health protocols for managing infectious diseases. I was also helping in preparing and checking equipment for the field studies.</p>		
From (DD/MM/YY)	To (DD/MM/YY)	Position Held / Job title
01/08/2017	12/04/2021	PhD student
Name and address of employer: ACDP, CSIRO, 5 Portalington road, East Geelong, VIC 3219 Australia, and The Peter Doherty Institute for infection and Immunity, 792 Elizabeth st, Melbourne VIC 3000, Australia		

Full-time or part-time: Full-time		Percentage of time worked (i.e. 100% / 50%): 100%
<u>Description of main tasks / duties / responsibilities:</u> I conducted pioneering research on superinfection exclusion of Alphaviruses in Aedes mosquitoes for direct application in vector control strategies. I developed and implemented biosafety and biosecurity protocols for handling high-containment pathogens for in vitro and in vivo work. I collaborated with international research teams to ensure on various projects. I published in peer-reviewed journals and presented my research at international and national conferences.		
From (DD/MM/YY)	To (DD/MM/YY)	Position Held / Job title
01/08/2016	01/06/2017	Research intern
Name and address of employer: Centre for Virus Research, 4G61 1QH, UK		
Full-time or part-time: Full-time		Percentage of time worked (i.e. 100% / 50%): 100%
<u>Description of main tasks / duties / responsibilities:</u> My project focused on the development of molecular tools for study of antiviral immunity of the Aedes aegypti mosquitoes. I also contributed to mosquito colony maintenance and help a PhD students on several experiments. Results of the studies were published.		
From (DD/MM/YY)	To (DD/MM/YY)	Position Held / Job title
01/01/2016	01/06/2016	Research intern
Name and address of employer: Erasmus MC, Dr Molewaterplein 40, 3015 GD Rotterdam, Netherlands.		
Full-time or part-time: Full-time		Percentage of time worked (i.e. 100% / 50%): 100%
<u>Description of main tasks / duties / responsibilities:</u> My project focused on gliomas' permissiveness to oncolytic adenoviruses. I worked with patient samples and implemented biosafety protocols for handling human tissues. I also contributed to the gliomas culture for the lab by collecting tissues out of surgery and maintaining them in culture for the lab research.		
From (DD/MM/YY)	To (DD/MM/YY)	Position Held / Job title
01/01/2015	01/06/2015	Research intern
Name and address of employer: WHO reference centre, University of Milan, via Beldiletto I-20142, Milan, Italy		
<u>Description of main tasks / duties / responsibilities:</u> I participated to the epidemiological and virological surveillance of Influenza during the 2014-2015 epidemic season in Lombardia. I implemented strict biosafety protocols in order to handle infected patient samples, and I contributed to the epidemiological study of the Influenza epidemic which has been published.		

LANGUAGE SKILLS

Mother tongue(s):	French
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OTHER LANGUAGE(S) - add/delete rows as required:

Choose the right level for each skill:

* Levels: A1/2 = Basic user, B1/2 = Independent user, C1/2 = Proficient user – according to the CEFR

	Understanding		Speaking		Writing
	Listening	Reading	Interaction	Production	
English	C2	C2	C2	C2	C2
Italian	B2	B1	A2	A2	A2

For a detailed description of the CEFR levels please use the following link: [Common European Framework of Reference for Languages](#)

SKILLS IN SOFTWARE - relevant for epidemiology, biostatistics and microbiology (Stata, R, GIS, BioNumerics, MEGA, etc.)

R	Intermediate user
Unix	Intermediate user
Python	Basic user
MEGA	Basic user
snapGene	Intermediate user

LIST OF PUBLICATIONS & ADDITIONAL INFORMATION

Please enter any additional information here; for example, a list of publications, starting with peer reviewed published/accepted, using the following format: All authors. Title. Journal, Year (e.g., Vancouver style), or additional projects, volunteer work, professional networks, awards, etc. If not required, please delete this page.

Peer reviewed published/accepted **M. Laureti**, R Lee, A Bennett, L Wilson, V Sy, A Kohl, I Dietrich. "Rift Valley fever virus primes immune responses in *Aedes aegypti* cells." *Pathogens*, April 2023.

Peer reviewed published/accepted **M. Laureti**, PN Paradkar, JK Fazakerley, J Rodriguez-Andres. "Review: Superinfection exclusion in mosquitoes and its potential as an arbovirus control strategy." *Viruses*, November 2020.

Peer reviewed published/accepted M. McFarlane, **M. Laureti**, T Levée, S Terry, A Kohl, E Pondeville . "Improved transient silencing of gene expression in the mosquito female *Aedes aegypti*." *Insect Molecular Biology*, October 2020. Co-first author.

Peer reviewed published/accepted M. McFarlane, F Almire, J Kean, C Donald, A McDonald, **M. Laureti**, M Varjak, S Terry, M Vazeille, C Loney, AB Failloux, E Schnettler, E Pondeville, A Kohl. "The *Aedes aegypti* Domino ortholog, p400 regulates antiviral exogenous siRNA pathway activity through control of ago-2 levels." *mSphere*, March 2020.

Peer reviewed published/accepted **M. Laureti**, D Narayanan, J Rodriguez-Andres, JK Fazakerley, L Kedzierski. "Review: Flavivirus Receptors: Diversity, Identity, and Cell entry." *Frontiers in Immunology*, September 2018.

Peer reviewed published/accepted L. Bubba, L Pellegrinelli, M Martinelli, T Raphael, **M. Laureti**, S Binda, E Pariani . "Circulation of enteroviruses and Human Parechoviruses in children aged up to 5 years with influenza-like illness in Northern Italy during the 5 previous winter seasons." *ESCAIDE*, June 2015.

Awards :

Microbiology Society travel grant - 2024

Pirbright continuous professional development - 2024

University of Melbourne Veterinary school travel grant - 2019

Volunteering work :

2021 - 2024 Member of Richmond Good Neighbour association

2018 Teaching and science mentoring at the Gene Technology Access Centre, Melbourne.

LETTER OF MOTIVATION (required)

Please provide an explanation (maximum 1 page) of why you are applying to the Fellowship. Include an account of your experience, expertise, knowledge, and skills that you feel are relevant to the requirements listed in the call for application.

To whom it may concern,

I am writing to express my interest for the EUPHEM Fellowship with the ECDC, as I believe my diverse experience in virology, molecular biology, and public health makes me a strong candidate.

I hold two Master's degrees, one in Virology from the University of Paris Diderot, where I completed the fundamental virology program at the Pasteur Institute, and another in Cellular and Molecular Biology from the University of Angers. During my studies, I undertook a first internship at the WHO reference centre in Milan where I contributed to my first epidemiology study through the virological surveillance of Influenza during the 2014-2015 epidemic season. I also interned at the Erasmus MC (Netherlands) to investigate oncolytic adenoviruses as a strategy to treat gliomas, and at the Centre for Virus Research (UK) where I developed immune genes silencing tools for the study of *Aedes aegypti*'s antiviral immunity. Following this insightful experience and my keen interest in virology, I pursued doctoral studies at the University of Melbourne (Australia), where I worked on superinfection exclusion of alphaviruses in *Aedes* mosquitoes.

Throughout my academic and professional career, I have gained a broad technical skill set in microbiology and molecular biology. During my PhD, I had the privilege of working at the Australian Centre for Disease Preparedness (ACDP), where I developed strong skills in handling BSL2 and BSL3 viruses for both *in vitro* and *in vivo* studies and learn the importance of biosafety and biosecurity for public health operations. In addition, I volunteered at the Howard Spring quarantine facility during the COVID-19 pandemic, contributing to a field epidemiological study on SARS-CoV-2 incidence in travellers. This experience was pivotal, sparking my deep interest in epidemiology and public health, which I continue to pursue outside of work by taking online courses on epidemiology.

After completing my PhD, I joined the Pirbright Institute as a postdoctoral scientist to further strengthen my expertise and technical skills. I led projects on Rift Valley Fever virus and Dengue virus, focusing on their interactions with the mosquito immune system. My role extended beyond research and project management, as I wrote and reviewed several manuscripts and grant applications, and presented my work at international conferences, fostering my strong communication skills. I also took on leadership responsibilities, including group management, training, mentoring and supervision of students and scientists, participating in decision-making groups, and building and managing the group's *in vivo* capacity, as well as the BSL2 lab for *in vivo* studies within the Institute. These experiences have sharpened my organisational, problem-solving, and leadership abilities.

Alongside my research work, I have developed a strong interest in bioinformatics, learning Omic tools such as R and Unix to enhance my research and provide valuable skills for epidemiological studies. This effort was recognised with a Continuous Professional Development award from the Pirbright Institute. The combination of my scientific expertise, growing bioinformatics skills, and enthusiasm for public health positions me well to make meaningful contributions in this field.

Having worked in multiple countries with multidisciplinary, multicultural teams, I am well-equipped for international collaborative work. My exposure to diverse working environments has expanded my perspective and strengthened my ability to work effectively in global settings. I pride myself of being a quick learner and I am confident in my ability to swiftly adapt to new challenges and roles. I believe my work experience and knowledge acquired throughout my career, as well as my ability to think critically, and logically analyse any problem are valuable skills. I have confidence that my independent nature, strong communication skills, ability to work in a team and troubleshooting skills make me a strong fit for this fellowship. My passion for microbiology, public health, and continuous learning drives me to seek new challenges, and I am eager to bring my unique experience to the EUPHEM program.

IMPORTANT

Your application will only be considered if submitted electronically, in full, prior to the application deadline stated in the Call for Application.

By submitting this application, I, the undersigned, declare that the information provided above is true and correct. I further declare that:

I will undertake to submit documents in support of the above statements and declarations if requested to do so.

I understand that any false statement or omission in the ECDC application, even if unintended on my part, may lead to the termination of my application or appointment.

I have read and accept the conditions set out in the call for application, Administrative Decision and any other documents relevant to this selection which have been published on the ECDC website.

Mathilde Laureti 16/09/2024

