# Marion Bichet - marion.bichet@monash.edu

Unit 6/ 8 Davis St, Richmond 3121 VIC, Australia - +61 (0)4 78 666 638
25 years old - French nationality - Driving license - International mobility

## CAREER

2018 **Interaction between bacteriophages and eukaryotic cells**
PhD in **the Barr Lab**, Team of Jeremy Barr
Monash University, Melbourne Australia
Confocal microscopy, ddPCR, MicroArray, Transwells, immunology and cell culture
*My project focuses on the interactions between bacteriophages and epithelial cells using microscopy to follow in real-time the entry of phages into the cells as well as ddPCR to have an absolute quantification of the number of phages present in the cells and how many were able to cross the epithelial cell barrier. I am also interested in the influence of phages in the immune response of eukaryotic cells. The purpose of these research is to fight the antibiotic resistance as well as promoting phage therapy.*

2017 **Role of Rab11 in *Shigella*'s vacuolar rupture**
Internship of master degree's second year at **Institut Pasteur**
Paris, France for 6 months
Team of Dr. Jost Enninga within 'Dynamique des interactions hôtes pathogènes' unit
Epi-fluorescence, video-microscopy, bacteria culture, cell culture and infections
*My project in the Pasteur Institute was to understand the role of the protein Rab11 in the vacuolar rupture of the bacterial pathogen Shigella. To answer this question, I used real-time microscopy to measure the time of vacuolar rupture and monitor the macropinocytosis formation as well as the Rab11 recruitment at the entry site. By understanding the role of Rab11 in the vacuolar rupture of Shigella we will be able to developpe new therapies against this pathogen.*

2016 **Invasion process of the motor deficient toxoplasmosis parasite in the host cell**
Internship in a biology research lab, **Institut for Advance Bioscience** – Grenoble, for two months
Team: 'Membrane Dynamics of Host-Parasite Interactions' of Dr. Isabelle Tardieux
Confocal microscopy, cell culture, imaging, video-microscopy and CRISPR/Cas9
*"Genetic impairment of parasite myosin motors uncovers the contribution of host cell membrane dynamics to Toxoplasma invasion forces."*
**Bichet** et al. BMC Biol. 2016 Nov 9;14(1):97.
*My research was focusing on role of the myosin motors of the pathogenic parasite Toxoplasma and how it influences the infection process by slowing down the entry set. To understand this process, we used confocal microscopy to follow in real-time engineered phages lacking myosin motors. The discoveries made about the role of myosin and the role of the host cells is fundamental to be able to develop new therapies against the Toxoplasma parasite.*

2016 **Study of cancer cells filopodia**
Internship of master degree's first year at **The Scripps Research Institute**
California, San Diego, USA for 3 months, "Inverstissements d'avenir" fellowship
Team of Dr. Céline Der Mardirossian in the Immunology department
Epi-fluorescence, STORM and FRET microscopy, cell culture and analysis
*At the Scripps Institute, I studied the interaction between two proteins in the filopodia of cancerous cells. Using FRET and STORM microscopy I followed the interaction of these two proteins at the tip of filopodia. These researches will help understand the cancer cells migration and the metastasis formation in cancers.*

## Languages
English: TOEFL 08/17 score 102
Spanish notions

## Software
Microsoft Office
- Word
- Excel
- PowerPoint

Biology
- FIJI/ICY
- MétaMorph
- Imaris
- Matlab
- Mathematica 9
- NIS-Element
- SoftWorx
- Volocity
- PRISM

Language C
RSudio

## Microscopy
- Confocal
- Epi-fluorescence
- WideField
- FRET
- TIRF
- STORM
- ApoTome

# Marion Bichet - marion.bichet@monash.edu

Unit 6/ 8 Davis St, Richmond 3121 VIC, Australia - +61 (0)4 78 666 638
25 years old - French nationality - Driving license - International mobility


2014 And 2015 **Invasion process of the toxoplasmosis parasite in the host cell**
Internship in a biology research lab, **Institut Cochin** - Inserm U1016 – Paris, France for a year
Team: 'Barrier and pathogenic' of Dr. Isabelle Tardieux
Confocal microscopy, cell culture, imaging and video-microscopy
*"The toxoplasma-host cell junction is anchored to the cell cortex to sustain parasite invasive force"*
**Bichet** et al. BMC Biol. 2014 Dec 31;12:773.
*With Isabelle Tardieux's team we looked at the kinetic of invasion of the Toxoplasma parasite into host cells. We used confocal microscopy and stains to labelled the parasite and follow their entry into the cells. We were able to classified the main entry movement that the parasite uses to enter the cells. These fundamental discoveries will help further research on the development of the parasite infection.*

2014 2012 Training to the scientific software **MatLab** and **Mathematica 9**
Functions and programming

2012 **Internship in pharmacy**, 1 rue des Châteaux Rentiers, Paris 13° for 1 month
Management of the stock and the computing flows in the direction of the administrations

2012 **Linguistic internship of English** at Oxford Regent School for 1 month

## GRADUATES

2016 **Second year of master's degree in microbiology** (completed: June 2017)
**Pasteur Institute** and **Sorbonne University** (University Pierre and Marie Curie, Paris VI)

2016 **First year of master's degree in cellular and molecular biology** (completed: June 2016)
**Sorbonne University** (University Pierre and Marie Curie, Paris VI)

2015 **Bachelor degree of Science and Technology, in life sciences** (completed: Sept 2015)
**Sorbonne University** (University Pierre and Marie Curie, Paris VI)

2011 **Scientific High School Diploma, Specialty life and Earth Sciences** - St Cyr l'Ecole

## Hobbies

French Red Cross (2014)
Council of high school life (2011)
Alphabétisme (2009)

## Social

Marion Bichet

Marion Bichet

Marion Bichet