UNIVERSITÀ DEGLI STUDI DI MILANO

TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship.

Diane Marie Valérie Jeanne Bonnet

CURRICULUM VITAE

PERSONAL INFORMATION

Surname	Bonnet
Name	Diane Marie Valérie Jeanne
Date of birth	29 July 1993

LAST OCCUPATION

Appointment	**Structure**
Lab manager – Pauline Jullien group	Institute of Plant Sciences, University of Bern, CH

EDUCATION AND TRAINING

Degree	**Course of studies**	**University**	**year of achievement of the degree**
Bachelor degree (Licence, L1, L2 and L3)	Biology of Organisms Option Biodiversity and Conservation Biology	University of Burgundy, Dijon, France	2015
Master degree (Master, M1 and M2)	Integrative Biology of Plant, Microbe and Environment Interactions Option Biotechnology	University of Burgundy, Dijon, France	2017
Additional formation	Formation in Image J	INRAE Bordeaux	2017

TRAINING OR RESEARCH ACTIVITY

Year	Activity
2016 (2 months)	Research activity for the study of the internalization and localization of cryptogein, elicitor molecule in BY2 cell. ***Tasks:*** Confocal microscopy and transmission electron microscopy observation, sample preparation (ultramicrotomy – cryofixation), protocol improvement for sample preparation, image analysis, reporting of results with written and oral presentations. ***Equipment***: Leica TCS SP2; Hitachi H7500; AFS cryofixation; Leica Ultracut E. Pole UMR Agroécologie of DimaCell microscopy plaftform, INRAE Dijon. (France)
2017 (6 months)	Research activity for the study of the dynamic of callose deposition in the buds of cherry trees. ***Tasks:*** Observation in epifluorescence microscopy, confocal microscopy and transmission electron microscopy, sample preparation (chemical fixation and microtomy), RNAseq data analysis, experiment planning, optimization of protocols, reporting of results with written and oral presentations. ***Equipment:*** Macroscope Axio Zoom Zeiss V.16; Epifluorescence Zeiss AxioPhot; Confocal Zeiss LSM 880; FEI tecnai TEM; Reichert Ultracut S. A3C group, UMR 1332 INRAE Biology and pathology of fruits and BIC microscopy plaftform INRAE Bordeaux. (France)
2017 (4 months)	Research activity aimed at developing a protocol to image *Bacillus* sp. bacteria in PALM/STROM microscopy. ***Tasks***: Support and maintenance at the microscopy platform, services for users, spectrofluorimetry, photonic microscopy, super resolution protocol setup, microbiology, writing and collecting technical documentation of the instruments in the platform for the purpose of creating a database for the ISO 9001 quality certification. ***Equipment:*** Biphoton nikon A14-Mp; Nikon STORM V4; Spectrofluorometer. Pole UMR PAM of DimaCell microscopy plaftform, Agrosup Dijon. (France)

2018-2022	Research activity in the epigenetic roles of the 10 argonautes proteins in *Arabidopsis thaliana*. ***Responsibility:*** Supervision of the microscope equipment; Lab manager; Safety responsible ***Tasks:*** Lab management (ordering – autoclave - stock – cleaning – lab schedule organisation - support to group members), *A.thaliana* culture, molecular biology (PCR – qPCR - RNA/DNA extraction), confocal microscopy, epifluorescence microscopy, sample preparation (GUS - Schiff reagent – several dyes), *A.thaliana* agrobacteria transformation, infection on *A.thaliana*, phenotyping and genotyping. ***Equipment:*** Leica SP5; Leica DM2000; Leica M165 FC; Nikon SMZ1500; QuantStudio5; SimpliAmpPCR; NanoDrop™ One. Pauline Jullien group, Institute of Plant Sciences, University of Bern. (Switzerland)
2019-2022	At Institute of Plant Sciences, University of Bern, CH -Training of 20+ people for the use of the microscopy equipment of the Institute of Plant Sciences, University of Bern. -Training of 5+ people for the use of Image J. -Supervision and training of one high school student for the "Matura" project (Swiss high school degree). -Supervision and training of one Bachelor student for a one month practical project. -Training of one Master student for the Master thesis project (1 year). -Assistance and technical support to practical lectures for students in the first year of Bachelor. -Safety training of 15+ laboratory users (chemical danger, fire emergencies, first aid).

PROJECT ACTIVITY

Year	**Project**
2016 (2 months)	***Project***: Study of the internalization and localization of cryptogein, elicitor molecule in BY2 cell. ***Supervisor***: Dr. J Lherminier Use of a time course to know how fast cryptogein can be internalized in the BY2 cells by using TEM and an immunostaining specific to the crptogein epitope.
2017 (6 months)	***Project***: Study of the dynamics of callose deposits in buds of cherry tree during dormancy. ***Supervisor***: Prof. Dr. B Wenden Observation of the callose deposition at different scales (macro – micro – nanoscopic) at different stages during the dormancy (before flowering). Experiments aimed at identify where the deposition takes place and how it gets degraded (with RNAseq data analysis).

2017 (4 months)	***Project:*** Work on the ISO 9001 validation. ***Supervisors:*** Prof. Dr. JM Perrier Cornet & Dr. P Winckler Support the platform to obtain the ISO certification 9001 by working on the necessary documentation and on the organisation of the platform.
2018-2022	***Main project*****:** Argonaute proteins in *Arabidopsis thaliana.* ***Supervisor***: Prof. Dr. P Jullien Study of the role of the 10 AGOs in *A.thaliana* reproductive tissues and meristematic tissues using mutants and plants transformed with fluorescent reporters. Analyses of different phenotypes (molecular and morphologic). Focus on AGO3 through different experiments (RNAseq – Bisulfiteseq), infection, phenotyping, imaging.

LANGUAGES

Languages	**level of knowledge**
French	Native speaker
English	Advanced
Italian	Basic knowledge

OTHER SKILLS

Software:

Zen, NIS, Image J, MorphoGraphX

RStudio

Word, Excel, PowerPoint

Operating System:

Windows

Occasional use of Linux Mint

Cross-cutting skills:

Free hand drawing (also for science communication and botanical drawing)

CONGRESSES AND SEMINARS

Date	**Title**	**Place**
2016	6ème journée de DimaCell.	Dijon- France
2018	Symposium of the Microscopy Imaging Center	Bern -Switzerland
2020	Swiss Microscopy Core Facility Day 2020	Bern – Switzerland

Date	Title	Place
2022	NCCR RNA & Disease Annual Retreat (with poster presentation)	Engelberg– Switzerland
2022	ICAR (with poster presentation)	Belfast-UK

POSTER

Lherminier J., Aubert V., Bonnet D., Robert F., Fromentin J., Leborgne-Castel N. (2016) Internalization of the elicitor cryptogein into *Nicotiana tabacum* cells, cv Bright Yellow 2 (BY-2). **Presented at:** Les 7èmes Journées Scientifiques et Techniques du Réseau des Microscopistes de l'INRA 2016
Bonnet DMV., Grob S., Tirot L and Jullien PE (2022) *Arabidopsis* ARGONAUTE3 function upon bacterial infection. Presented at: NCCR RNA & Disease Annual Retreat 2022 and ICAR2022

ARTICLES IN JOURNALS

Jullien PE et al; Functional characterization of Arabidopsis ARGONAUTE 3 in reproductive tissues. The Plant Journal, 2020 Jun.
Bonnet DMV et al; Methylome dynamic upon proteasome inhibition by the Pseudomonas syringae virulence factor Syringolin A. bioRxiv 2021.
Jullien PE et al; Asymmetric expression of Argonautes in reproductive tissues. Plant Physiol,2022 Jan.
Tirot L et al; DNA Methyltransferase 3 (MET3) is regulated by Polycomb group complex during Arabidopsis endosperm development. PlantReprod, 2022 Jan.
Schröder JA et al; Non-cell autonomous small RNA silencing in female gametes and early embryo of Arabidopsis. Current Biology, 2023 Jan.

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Place and date: Bern, 28/01/2023

SIGNATURE