



UNIVERSITÀ DEGLI STUDI DI MILANO

TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

ID CODE 5843

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

Scientist- in - charge: _____ Prof. Matteo Brilli _____

[Name and surname]

CURRICULUM VITAE

PERSONAL INFORMATION

Surname	FRANDI
Name	ANTONIO

PRESENT OCCUPATION

Appointment	Structure

EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
Degree			
Specialization			
PhD	Genetics	Florence	04/03/2011
Master	Biological Sciences	Florence	11/10/2006
Degree of medical specialization			
Degree of European specialization			
Other			

REGISTRATION IN PROFESSIONAL ASSOCIATIONS

Date of registration	Association	City



UNIVERSITÀ DEGLI STUDI DI MILANO

FOREIGN LANGUAGES

Languages	level of knowledge
Italian	Native
French	C1
English	B2

AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2012 - 2013	Reuter Fondation, Switzerland, co-applicant
2011 - 2012	Boninchi Foundation, Switzerland, co-applicant

TRAINING OR RESEARCH ACTIVITY

description of activity
Sep 2021 - Feb 2023 Dr. Sylvie Reverchon, Dr. William Nasser Department of Biosciences, CNRS-INSA, Lyon, FR
Sep 2019 - Dec 2020 Dr. Marcelo Nollmann Department of Structural Biology, CNRS-INSERM, Montpellier, FR
Dec 2015 - Aug 2019 Dr. Justine Collier Department of Fundamental Microbiology, University of Lausanne, CH
Theme 1: Characterisation of Toxin-Antitoxin systems in <i>C. crescentus</i> Theme 2: Characterisation of chromosome replication control in <i>C. crescentus</i>
Apr 2011 - Apr 2015 Prof. Dr. Patrick H. Viollier Department of Microbiology and Molecular Medicine, University of Geneva, CH Theme 1: Deciphering the mysterious mechanism of division and differentiation of the Chlamydiales Theme 2: Functional genome analysis in a genetically intractable system: an interdisciplinary proof-of-concept study
Jan 2007- Dec 2007 Prof. Dr. Renato Fani Department of Biology, University of Florence, IT Theme: SoilSINK, environmental changes and soil bacterial communities, structure and dynamics of six Italian soils

PROJECT ACTIVITY

Year	Project



PATENTS

Patent

CONGRESSES AND SEMINARS

Date	Title	Place
2020	Comprehensive identification of regulatory network interactions in Chlamydiae.	University of Milan Statale, Milan, ITALY; invited seminar Prof. Brilli
2018	Multilayered control of DNA replication in Caulobacter crescentus.	Centre de Biologie Structurale - C.N.R.S., Montpellier, FRANCE; invited seminar
2018	Multilayered control of DNA replication in Caulobacter crescentus.	76th Annual meeting of the Swiss Society for Microbiology, SSM, Lausanne, SWITZERLAND; oral presentation
2018	Multilayered control of DNA replication in Caulobacter crescentus.	EMBO Workshop, DNA replication, chromosome segregation and fate decisions, Kyllini, GREECE; poster
2017	Control of the initiation of DNA replication in Caulobacter crescentus.	Institut de Microbiologie de la Méditerranée - C.N.R.S., Marseille, FRANCE; invited seminar
2016	Characterisation of a putative toxin anti-toxin system in Caulobacter crescentus.	74th Annual meeting of the Swiss Society for Microbiology, SSM, Bern, SWITZERLAND; poster
2016	A new DNA binding protein regulates the initiation of DNA replication in Caulobacter crescentus.	EMBO conference "Bacterial morphogenesis survival virulence and regulation in 4D", Thrivandrum, Kerala, INDIA; poster
2015	Comprehensive identification of regulatory network interactions in Chlamydiae.	CBRS Chlamydia Basic Research Society 7th Congress; New Orleans LA, USA, oral presentation
2015	Chlamydial minimalism, how to divide with less than an essential division machinery.	Department of Biology, University of Florence, Florence, ITALY; invited seminar
2014	FtsZ-independent septal recruitment and function of cell wall remodelling enzymes in chlamydial pathogens.	72th Annual meeting of the Swiss Society for Microbiology, SSM, Fribourg, SWITZERLAND; poster
2013	Peeking through the "wall": insights into the chlamydial anomaly.	EMBO Workshop Planctomycetes-Verrucomicrobia-Chlamydiae Superlum, Exceptions to the bacterial definitions? University of Heidelberg, Heidelberg, GERMANY; oral presentation
2010	Comparative genomics of VirR regulons in Clostridium perfringens strains.	School of Genetics in Cortona, Cortona, ITALY; oral presentation
2010	Mining gene expression to understand functional processes in Gram positive bacteria.	University of Geneva Medical School, Geneva, SWITZERLAND; invited seminar
2009	Expression of <i>Bacillus subtilis</i> genes involved in calcite biomimetic mineralization.	SIMGBM XXVIII, Spoleto, ITALY; poster
2009	Comparative genomics of VirR regulons in Clostridium perfringens strains	IPG09(Integrative Post-Genomics, A multidisciplinary approach to living systems), Lyon, FRANCE; poster



PUBLICATIONS

Books

Toward a comparative systems biology of the alphaproteobacterial cell cycle.
Frandi A, Pini F, Beroual W, Bianchetti A, Chiodi A, Mascolo E, Miano L, Petazzoni G, Biondi E. G, Brilli M. Springer Nature - Cell cycle regulation and development in Alphaproteobacteria; (p. 1,29) isbn 978-3-030-90621-4; 2022

Articles in reviews

Frandi A and Collier J. HdaB: a novel and conserved DnaA-related protein that targets the RIDA process to stimulate replication initiation. *Nucleic Acid Research*; doi:10.1093/nar/gkz1193; 2020

Frandi A and Collier J. Multilayered control of chromosome replication in *Caulobacter crescentus*. *Biochemical Society Transactions*; doi.org/10.1042/BST20180460; 2018

Mattiuz G, Di Giorgio S, Tofani L, Frandi A, Donati F, Brilli M, Conticello SG. Mutational likeliness and entropy help to identify driver mutations and their functional role in cancer. *BioRxiv*; doi: 10.1101/354324; 2018

Mouammine A, Eich K, Frandi A, Collier J. Control of proline utilization by the Lrp-like regulator PutR in *Caulobacter crescentus*. *Scientific Reports*; 8:14677, doi:10.1038/s41598-018-32660-3. 2018

Ardissone S, Redder P, Russo G, Frandi A, Fumeaux C, Patrignani A, Schlapbach R, Viollier H. P. Conserved local hypomethylation control during the bacterial cell cycle and by superimposed environmental cues.

PLoS Genetics; 12(12): e1006499. doi:10.1371/journal.pgen.1006499. 2016

De Barsy M, Frandi A, Panis G, Theraulaz L, Pillonel T, Greub G, Viollier H. P. Regulatory (pan-)genome of an obligate intracellular pathogen in the PVC superphylum. *I.S.M.E. Journal*; doi: 10.1038/ismej.2016.23. 2016

Kirkpatrick L.C, Martins D, Redder P, Frandi A, Mignolet J, Bortoli Chapalay J, Chambon M, Viollier H. P. Growth control switch by a DNA damage-inducible toxin-antitoxin system in *Caulobacter*. *Nature Microbiology*; doi:10.1038/nmicrobiol.2016.8. 2016

Frandi A , Jacquier N , Viollier H. P, Greub G. Disassembly of a medial trans-envelope structure by antibiotics during intracellular division. *Chemistry & Biology*; 22:1217-1227, 2015

Frandi A, Jacquier N, Theraulaz L, Greub G, Viollier H. P. FtsZ-independent septal recruitment and function of cell wall remodelling enzymes in chlamydial pathogens. *Nature Communications*; 5:4200, 2014.

Fumeaux C, Radhakrishnan K. S, Ardissone S, Theraulaz L, Frandi A, Martins D, Nesper J, Soeren A, Jenal U, Viollier H. P. Cell cycle transition from S-phase to G1 in *Caulobacter* is mediated by ancestral virulence regulators. *Nature Communications*; 5:4081, 2014.

Jacquier N, Frandi A, Pillonel T, Viollier H. P, Greub G. Cell wall precursors are required to organize the chlamydial division septum. *Nature Communications*; 5:3578, 2014.

Fioravanti A, Fumeaux C, Mohapatra S. S, Bompard C, Brilli M, Frandi A, castric V, Villeret V, Viollier H. P, Biondi G. E. DNA binding of the cell cycle transcriptional regulator GcrA depends on N6-adenosine methylation in *Caulobacter crescentus*. *PLoS Genetics*; 9(5): e1003541, 2013.

Marvasi M, Donnarumma F, Frandi A, Mastromei G, Steringer K, Tiano P, Perito B. Black microcolonial fungi as deteriogens of two famous statues in Florence Italy. *International Biodegradation and Biodegradation*; 68:36-44, 2012.

Mazza G, Arizza V, Baracchi D, Barzanti G. P, Benvenuti C, Francardi V, Frandi A, Gherardi F, Longo S, Manachini B, Perito B, Rumine P, Schillaci D, Turillazzi S, Cervo R. Antimicrobial activity of the red palm weevil *Rhynchophorus ferrugineus*. *Bulletin of Insectology*; 64(1):33-41, 2011.

Frandi A, Mengoni A, Brilli M. Comparative genomics of VirR regulons in *Clostridium perfringens* strains. *BMC Microbiology*; 10:65, 2010.

Frandi A, Zucca P , Marvasi M , Mastromei M, Sanjust E, Perito B. *Bacillus subtilis fadB* (*ysiB*) gene encodes an enoyl-CoA hydratase. *Annals of Microbiology*; 61(2):371-374, 2010.

Papaleo M. C, Russo E, Fondi M, Emiliani G, Frandi A, Brilli M, Pastorelli R, Fani R. Structural evolutionary genetic analysis of the histidine biosynthetic "core" in the genus *Burkholderia*. *Gene*; 448(1):16-28, 2009.



Congress proceedings

Frandi A(2018) Multilayered control of DNA replication in Caulobacter crescentus. EMBO Workshop, DNA replication, chromosome segregation and fate decisions, Kyllini, GREECE
Frandi A(2018) Multilayered control of DNA replication in Caulobacter crescentus. 76th Annual meeting of the Swiss Society for Microbiology, SSM, Lausanne, SWITZERLAND
Frandi A(2016) A new DNA binding protein regulates the initiation of DNA replication in Caulobacter crescentus. EMBO conference "Bacterial morphogenesis survival virulence and regulation in 4D", Thrivandrum, Kerala, INDIA
Frandi A(2016) Characterisation of a putative toxin anti-toxin system in Caulobacter crescentus. 74th Annual meeting of the Swiss Society for Microbiology, SSM, Bern, SWITZERLAND
Frandi A(2015) Comprehensive identification of regulatory network interactions in Chlamydiae. CBRS Chlamydia Basic Research Society 7th Congress; New Orleans LA, USA
Frandi A(2014) FtsZ-independent septal recruitment and function of cell wall remodelling enzymes in chlamydial pathogens. 72th Annual meeting of the Swiss Society for Microbiology, SSM, Fribourg, SWITZERLAND
Frandi A(2013) Peaking through the "wall": insights into the chlamydial anomaly. EMBO Workshop Planctomycetes-Verrucomicrobia-Chlamydiae Superphylum, Exceptions to the bacterial definitions? University of Heidelberg, Heidelberg, GERMANY
Frandi A, Mengoni A., Brilli M. (2010) Comparative genomics of VirR regulons in Clostridium perfringens strains. School of Genetics in Cortona, Cortona, ITALY
Frandi A, Mengoni A., Brilli M. (2009) Comparative genomics of VirR regulons in Clostridium perfringens strains. IPG09 (Integrative Post-Genomics, A multidisciplinary approach to living systems), Lyon, FRANCE;
Frandi A, Mastromei G., Perito B. (2009) Expression of Bacillus subtilis genes involved in calcite biomineratization. SIMGBMXXVIII, Spoleto, ITALY;

OTHER INFORMATION

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.

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Place and date: __Fabrègues____, ____31/08/2023____