

Emanuele G. Biondi: Curriculum Vitae

Education and positions:

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| 2000-2003 | PhD in genetics, Università di Firenze. Title: "Genetic Diversity and mobile genetic elements <i>Sinorhizobium meliloti</i> ". |
| 2003-2006 | Postdoctoral fellow, Bauer center for genomics research (FAS Center for Systems Biology), Harvard University, Cambridge, USA. |
| 2006-2007 | Postdoctoral associate, Department of biology, Massachusetts Institute of Technology, Cambridge, USA. |
| 2007 | Research fellowship, C.R.A., piazza D'Azeglio, 30, 50121, Firenze, at the Dipartimento di Biologia Evoluzionistica, University of Florence. |
| 2008 | Fellowship "Fondazione Adriano Buzzati-Traverso" for molecular biology studies at the Dipartimento di Biologia Evoluzionistica, University of Florence. |
| 2009-2010 | Fellowship "Study of protein involved in bacterial cell cycle regulation", at the Dipartimento di Biologia Evoluzionistica, University of Florence. |
| 2010-2016 | CNRS, Chargé de Recherche, CR1 (permanent position), section 21 |
| 2016-present | CNRS, Directeur de Recherche, DR2 (permanent position), section 21 |
| 2011 | Habilitation à Diriger la Recherche (HDR), Université de Lille 1. |

Awards:

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| 2001: | FEMS fellowship, GSF - National Research Center for Environment and Health (Munich, Germany). |
| 2002: | Exchange fellowship between Italy and Spain (Estacion Experimental del Zaidin (EEZ), Consejo Superior de Investigaciones Científicas). |
| 2002: | Exchange fellowship between Italy and South Korea |
| 2010: | Accademia dei Lincei, "Valeria Vincenzo Landi" award, Italy. |

Conferences organization:

- Caulobacter meeting (Montreal, 2012) – Co-organizer. Organizer prof. Gregory Marczynski
- Stalked alpha-Proteobacteria and relatives: From genes to structure (Marburg, 2014) – Scientific commission, Organizers Martin Thanbichler and Patrick Viollier.
- ASM-Microbe (Boston, USA) (2016). Organizer of "Environmental control of bacterial cell cycle" Symposium.

Editorial and reviewing activity:

- 2015-present Member of the editorial board of Scientific Reports (Nature publishing).
- 2018-present Member of the editorial board of iScience (Cell Press).
- Reviewer of proposals for the ANR and for the Swiss National Science Foundation (SNSF)
- Peer-reviewer for PNAS, PLoS Biology, PLoS Genetics, NAR, Journal of Bacteriology, Environmental Microbiology, AEM, MPI, Molecular Ecology Resources, IUBMB life, BMC genomics and FEMS microbiology Letters etc.

Fundings:

1. "Laser Investigation of molecular mechanisms controlling the bacterial cell cycle" (2008-2009). Ente Cassa di Risparmio Firenze (Florence, Italy).
2. CSP_ 796808 (DOE – Joint Genome Institute), 2008-2009. "Genome sequence of *Sinorhizobium meliloti* natural strains AK83 and BL225C".
3. ANR-JCJC-Castacc (2011-2014), as coordinator. Title "Analyse comparative des facteurs de transduction des signaux contrôlant la régulation du cycle cellulaire chez les alpha-protéobactéries". Budget 280'000 euros.
4. CPER – Region Nord Pas de Calais; postdoctoral and doctoral fellowships (2011 – 2015).
5. CNRS, Start-Up/moving grant for the installation in Marseille (2016) (budget 27'000 euros).
6. ANR SymbiontCellCyc, as coordinator. Title "Role of the bacterial cell cycle in the symbiotic nitrogen fixation in legumes". Budget 250'000 euros.
7. SATT Saclay SYMBOOST. Coordinated by Benoit Alunni. Improvement of bacterial strains for nitrogen fixation in legumes. Budget 600'000 euros.
8. ANR Sincerely, as principal scientist. Title "Role of the bacterial cell cycle in the symbiotic nitrogen fixation in legumes". Budget 250'000 euros.
9. ANR SymGear, as coordinator. Title "Role of the bacterial cell cycle in the symbiotic nitrogen fixation in legumes". Budget 250'000 euros.

Selected Publications:

1. S. Dendene, S. Xue, R. Mohammedi, A. Vieillard, Q. Nicoud, O. Valette, A. Frascella, A. Bonnardel, R. Le Bars, M. Bourge, P. Mergaert, M. Brilli, B. Alunni, & E.G. Biondi, *Sinorhizobium meliloti* FcrX coordinates cell cycle and division during free-living growth and symbiosis by a ClpXP-dependent mechanism, Proc. Natl. Acad. Sci. U.S.A. 122 (11) e2412367122, <https://doi.org/10.1073/pnas.2412367122> (2025).
2. Beroual W, Prévost K, Lalaoua D, Ben Zaina N, Valette O, Denis Y, Djendli M, Brasseur G, Brilli M, Robledo Garrido M, Jimenez-Zurdo JI, Massé E, Biondi EG. The noncoding RNA CcnA modulates the master cell cycle regulators CtrA and GcrA in *Caulobacter crescentus*. PLoS Biol. 2022 Feb 22;20(2):e3001528. doi: 10.1371/journal.pbio.3001528.
3. Pini Francesco, De Nisco Nicole, Ferri Lorenzo, Penterman Jon, Fioravanti Antonella, Brilli Matteo, Mengoni Alessio, Bazzicalupo Marco, Viollier Patrick H, Walker Graham C, Biondi Emanuele G. (2015) Cell cycle control by the master regulator CtrA in *Sinorhizobium meliloti*. **PLoS Genetics**, 15;11(5):e1005232.
4. Fioravanti A., Coralie Fumeaux, Saswat S. Mohapatra, Coralie Bompard, Matteo Brilli, Antonio Frandi, Vincent Castric, Vincent Villeret, Patrick H. Viollier, Emanuele G. Biondi (2013) DNA binding of the cell cycle transcriptional regulator GcrA depends on N6-adenosine methylation in *Caulobacter crescentus* and other Alphaproteobacteria **PLoS Genetics**, DOI : pgen.1003541.
5. Ralf Paul, Tina Jaeger, Sören Abel, Irene Wiederkehr, Marc Folcher, Emanuele G. Biondi, Michael T. Laub, and Urs Jenal A posttranslational regulatory circuit underlying cell fate determination (2008), **Cell**, 133(3): 452-61.
6. Biondi E.G., S.J. Reisinger, J.M. Skerker, M. Arif, B.S. Perchuk, K. Ryan, M.T. Laub (2006) Regulation of the Bacterial Cell Cycle by an Integrated Genetic Circuit, **Nature**, 444: 899-904.