
ALICIA
CALVO-VILLAMAÑÁN, PhD
MICROBIOLOGY
MOLECULAR BIOLOGY & SYN BIO

PROFILE

Hello! I am a Microbiologist in the Plasmid Biology and Evolution lab @CNB-CSIC working on plasmid biology and evolution. I also freelance as a scientific illustrator (check my portfolio).

More information about myself:

aliciacalvo.github.io

orcid.org/0000-0001-7033-2834

twitter.com/AliciaPCV

CONTACT ME

✉ Centro Nacional de Biotecnología
Calle Darwin nº3, Campus de
Cantoblanco, 28049 Madrid
España (Spain)

@ aliciacalvovillamanan@gmail.com

PERSONAL SKILLS

Spanish and Portuguese (mother
tongues)

C2 English (certified by Cambridge's
Certificate of Proficiency in English)

C1 French (6 years studying in France)

PROJECTS AND
ORGANISATIONS

- **Creative Editor of Native Scientist**

(since 2020): Native empowers communi-
ties by doing science-communication
workshops with immigrant kids in their
mother tongue.

nativescientist.com/

- **Scientific illustrator** (amateur level):

I have been working on science illustration
for science communication purposes for a
few years.

Check my portfolio in my twitter and at:

instagram.com/aliciapcv/



WORK EXPERIENCE

PLASMID BIOLOGY AND EVOLUTION LAB @ CNB - CSIC- Supervised
by Dr. Álvaro San Millán / JULY 2021 - to date

Postdoc Researcher. Study of successful plasmid-bacteria associations for
understanding AMR plasmids' dynamics and evolution.

SYNTHETIC BIOLOGY LAB @ INSTITUT PASTEUR - Supervised by Dr.
David Bikard / OCTOBER 2017 - JULY 2021

PhD Student. Study of the sequence specificity of the activity of Cas9
and dCas9, towards better biotechnological tools in bacteria

SYNTHETIC BIOLOGY LAB @ INSTITUT PASTEUR - Supervised by Dr.
David Bikard / JANUARY 2017 - JUNE 2017

Research assistant. Interaction between NHEJ and type II-A CRISPR
systems.

iGEM PARIS BETTENCOURT @ INSERM (Center for Research and
Interdisciplinarity) - Supervised by Dr. Ariel Lindner / FEBRUARY 2016 -
NOVEMBER 2016

iGEM 2016 competition. Development of fabric-specific synthetic enzymes
for dry cleaning purposes through phage-display.

SYNTHETIC BIOLOGY LAB @ INSTITUT PASTEUR - Supervised by Dr.
David Bikard / SEPTEMBER 2015 - JUNE 2016

Internship for my MSc. thesis. Combining CRISPR-Cas with RecET towards
efficient genetic manipulations on bacteria.

YEAST GENOMICS LAB @ UCIBIO - Supervised by Prof. Paula
Gonçalves / JUNE 2012 - SEPTEMBER 2014

Voluntary Internship. Comparative genomics and *in vivo* studies of sugar
transporters in yeast, more specifically xylose transporters and sensors.

PUBLICATIONS

Tas H, Amara A, Cueva ME, Bongaerts N, **Calvo-Villamañán A**, Hamad-
ache S, Vavitsas K. [The synthetic microbiology caucus: are synthetic
biology standards applicable in everyday research practice?](#) *Microbial
Biotechnology* (2020) doi.org/10.1111/1751-7915.13612

Calvo-Villamañán A*, Wong Ng J*, Planel R, Ménager H, Chen A, Cui L*,
Bikard D. [On-target activity predictions enable improved CRISPR-dCas9
screens in bacteria.](#) *Nucleic Acids Research* (2020)
doi.org/10.1093/nar/gkaa294

Calvo-Villamañán A, Bernheim A, Bikard D. [Methods for the analysis &
characterisation of defense mechanisms against HGT II: CRISPR.](#) In *Methods in Horizontal Gene Transfer, Methods in Molecular Biology* (2020)
doi.org/10.1007/978-1-4939-9877-7_17

Bernheim A, **Calvo-Villamañán A**, Basier C, Cui L, Rocha EPC, Touchon M,
Bikard D. [Inhibition of NHEJ repair by type II-A CRISPR-Cas systems in
bacteria.](#) *Nature Communications* (2017)
doi.org/10.1038/s41467-017-02350-1

EDUCATION AND TRAINING

PhD in Genetics, Omics, Bioinformatics and Systems Biology / 2017-2021
École Doctoral FIRE, Centre de Recherches Interdisciplinaires (Center for
Research and Interdisciplinarity) - Université Sorbonne Paris Cité

MASTER'S DEGREE: MSc. in MICROBIOLOGY / 2014-2016
Instituto Superior Técnico @ Universidade de Lisboa.

BACHELOR'S DEGREE: BSc. in CELL AND MOLECULAR BIOLOGY /
2011-2014
Faculdade de Ciências e Tecnologia @ Universidade Nova de Lisboa