

Xabier Vázquez-Campos, PhD

Computational biologist | Environmental microbiologist

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EDUCATION

- | | | |
|-------------------|---|---|
| 2015

2011 | <ul style="list-style-type: none">● PhD in Environmental Engineering
The University of New South Wales<ul style="list-style-type: none">· Thesis: "Geomicrobiological aspects of the (bio)leaching of weathered low-grade uranium ore".  |  Sydney, Australia |
| 2008

2007 | <ul style="list-style-type: none">● MSc in Microbiology
Autonomous University of Madrid<ul style="list-style-type: none">· Thesis: "Set-up of molecular ecology methodologies for the monitoring of microbial populations in an indirect reactor for the bioleaching of Zn from polymetallic sulfide concentrates" [in Spanish]. |  Madrid, Spain |
| 2007

2002 | <ul style="list-style-type: none">● Licenciate in Biology
University of Vigo |  Vigo, Spain |

RESEARCH EXPERIENCE

- | | |
|----------------------|--|
| Current

2023 | <ul style="list-style-type: none">● Senior research associate / Postdoctoral fellow
School of Biotechnology and Biomolecular Sciences
 The University of New South Wales |
| 2023 | <ul style="list-style-type: none">● Research assistant (casual)
School of Biotechnology and Biomolecular Sciences
 The University of New South Wales |
| 2023 | <ul style="list-style-type: none">● Bioinformatics scientist
MINIMUM bio
 Sydney, Australia |
| 2023 | <ul style="list-style-type: none">● Visiting fellow
School of Biotechnology and Biomolecular Sciences
 The University of New South Wales |
| 2022 | <ul style="list-style-type: none">● Senior research associate / Postdoctoral fellow
NSW Systems Biology Initiative. School of Biotechnology and Biomolecular Sciences
 The University of New South Wales |
| 2021

2017 | <ul style="list-style-type: none">● Research associate / Postdoctoral fellow
NSW Systems Biology Initiative. School of Biotechnology and Biomolecular Sciences
 The University of New South Wales |
| 2017

2015 | <ul style="list-style-type: none">● Research associate / Postdoctoral fellow
BioGEMS group. Water Research Centre and School of Civil and Environmental Engineering
 The University of New South Wales |

CONTACT

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-  [ResearchGate](#)
-  [Google Scholar](#)
-  [0000-0003-1134-5058](#)
-  [E-4772-2013](#)

COMPUTATIONAL BIOLOGY

- Amplicon data analysis (16S, 18S and ITS).
- Genome-based metagenomics.
- Phylogenetics and phylogenomics with maximum likelihood methods.
- Assembly and annotation of (meta)genomes, including eukaryotes.
- Experience with short and long read data.
- Structural modelling of proteins and protein complexes. Protein model evaluation.

> CODING SKILLS

- Main languages: BASH and R. Some SQL and AWK.
- Reproducible reporting with Rmarkdown.
- Environment management with Conda.
- Experienced HPC user.
- Data visualisation and integration.

Made with the R package [pagedown](#).

The source code is available on my [datadrivencv-academic repository](#).

Last updated on 2025-12-01.

- 2011 • **Research assistant (casual)**
BioGEMS group, School of Civil and Environmental Engineering
📍 The University of New South Wales
- 2011 | 2010 • **Research assistant**
Bioprocesses Group, Faculty of Chemistry
📍 University of Vigo
- 2007 | 2006 • **Research assistant**
Bioprocesses Group, Faculty of Chemistry
📍 University of Vigo
- 2006 • **Teaching assistant**
Faculty of Biology
📍 University of Vigo

☞ TEACHING EXPERIENCE

- 2020 • **CVEN9855 - Water & Wastewater Analysis**
School of Civil and Environmental Engineering.
📍 The University of New South Wales

☞ Invited Lectures

- 2012 • **Uranium heap leaching: Microbiological aspects**
School of Civil and Environmental Engineering.
📍 The University of New South Wales

☞ Workshops

- 2019 • **EMBL-ABR: Phylogenetic trees for beginners**
EMBL-ABR (Sydney node).
📍 The University of New South Wales
 - Node organiser and facilitator.
- **EMBL-ABR: Implementing Scalable Bioinformatic Workflows in Snakemake & Nextflow**
EMBL-ABR (Sydney node).
📍 The University of New South Wales
 - Facilitator.
- 2018 • **EMBL-ABR: 16S Metagenomics with Galaxy Australia**
EMBL-ABR (Sydney node).
📍 University of Sydney
 - Facilitator.
- **Long-read Data Analysis Workshop**
NSW Systems Biology Initiative.
📍 The University of New South Wales
 - Organiser, trainer, facilitator.

2011	<ul style="list-style-type: none"> ● Hands on Zotero, a free alternative to EndNote Bioprocesses group.<ul style="list-style-type: none"> · Organiser, sole trainer. 	 University of Vigo
Current 2022	<p> <i>Supervision</i></p> <ul style="list-style-type: none"> ● Julia Meltzer PhD. Role: Cosupervisor.  University of New South Wales Biology of Asgard Archaea viruses 	I have also informally supervised, supported, mentored, or collaborated with a total of 38 students across multiple levels (1 Course project, 16 Honours, 20 PhD, and 1 Practicum).
2024 2019	<ul style="list-style-type: none"> ● Kevin Yonathan PhD. Role: External supervisor.  University of Technology, Sydney Study of the response of microbial communities to silver nanoparticles through metagenomics. 	
	<p> GRANTS</p> <ul style="list-style-type: none"> ● Bioplatforms Australia / NSW Department of Industry RAAP – NCRIS NSW Co-investment Support Shared Grant  School of Biotechnology and Biomolecular Sciences / Ramaciotti Centre for Genomics at The University of New South Wales<ul style="list-style-type: none"> · Total amount: AU\$600,000 ● BABS sequencing grant Investigation of a phage capable of species cross-infection  School of Biotechnology and Biomolecular Sciences / Ramaciotti Centre for Genomics at The University of New South Wales<ul style="list-style-type: none"> · AU\$5,000 for sequencing ● ResTech Support Scheme OTUreporter pipeline coding project  The University of New South Wales<ul style="list-style-type: none"> · AU\$15,000 ● Postdoctoral writing Fellowship Grant  School of Civil and Environmental Engineering at The University of New South Wales<ul style="list-style-type: none"> · 0.4 FTE salary for 12 weeks ● UNSW Tuition fee scholarship  Graduate Research School at The University of New South Wales<ul style="list-style-type: none"> · Tuition fees for PhD program ● Australian Postgraduate Award (Industry)  Australian Federal Government<ul style="list-style-type: none"> · AU\$27,651.00 per year for 3.5 years 	

2020

 AWARDS

SRAP Laureate 2020

 Spanish Researchers in Australia-Pacific

PUBLICATIONS

2023

- **Cross-linking mass spectrometry discovers, evaluates, and corroborates structures and protein–protein interactions in the human cell**
Proceedings of the National Academy of Sciences 120(17), e2219418120. [doi](#)
T. K. Bartolec, X. Vázquez-Campos, A. Norman, C. Luong, M. Johnson, R. J. Payne, M. R. Wilkins, J. P. Mackay & J. K. Low.
- **Evidence for a putative isoprene reductase in *Acetobacterium wieringae***
mSystems 8(2), e00119-23. [doi](#)
M. Kronen*, X. Vázquez-Campos*, M. R. Wilkins, M. Lee & M. J. Manefield [* co-first authors].

2021

- **Community-led, integrated, reproducible multi-omics with anvi'o**
Nature Microbiology 6(1), 3–6. [doi](#)
A. M. Eren, E. Kiefl, A. Shaiber, I. Veseli, S. E. Miller, M. S. Schechter, I. Fink, J. N. Pan, M. Yousef, E. C. Fogarty, F. Trigodet, A. R. Watson, Ö. C. Esen, R. M. Moore, Q. Clayssen, M. D. Lee, V. Kivenson, E. D. Graham, B. D. Merrill, A. Karkman, D. Blankenberg, J. M. Eppley, A. Sjödin, J. J. Scott, X. Vázquez-Campos, L. J. McKay, E. A. McDaniel, S. L. Stevens, R. E. Anderson, J. Fuessel, A. Fernandez-Guerra, L. Maignien, T. O. Delmont & A. D. Willis.

2015

- **Uranium binding mechanisms of the acid-tolerant fungus *Coniochaeta fodinicola***
Environmental Science & Technology 49(14), 8487–8496. [doi](#)
X. Vázquez-Campos, A. S. Kinsela, R. N. Collins, B. A. Neilan, N. Aoyagi & T. D. Waite.
- ***Fodinomyces uranophilus* gen. nov. sp. nov. and *Coniochaeta fodinicola* sp. nov., two uranium mine inhabiting Ascomycota fungi from northern Australia**
Mycologia 106(6), 1073–1089. [doi](#)
X. Vázquez-Campos, A. S. Kinsela, T. D. Waite, R. N. Collins & B. A. Neilan.



CONFERENCE CONTRIBUTIONS

2019

- **Unusual DPANN Archaea from a radioactive legacy site**
Australian Microbial Ecology Conference (AusME 2019). [doi](#)
📍 Perth, WA, Australia
X. Vázquez-Campos, A. S. Kinsela, M. W. Bligh, M. R. Wilkins, T. E. Payne & T. D. Waite [oral presentation].

Selected peer-reviewed publications (5 out of 25). For a full list of my publications, including pre-prints and manuscripts under review, please consult [my long-format CV](#).

Selected abstracts presented at conferences (5 out of 10, including 3 oral presentation and 7 posters).

I have also contributed to 30 abstracts presented by co-authors at conferences.

2018

- OTUreporter: an automated pipeline for the analysis and report of amplicon sequencing data

ABACBS-2018 National Conference. 

 Melbourne, VIC, Australia

X. Vázquez-Campos, A. Chilton, J. Koval, J. J. Tree & M. R. Wilkins [poster].

- New Archaea lineages from a radioactive legacy site

Molecular biology of archaea: From mechanisms to ecology (MoBA6). 

 Vienna, Austria

X. Vázquez-Campos, A. S. Kinsela, M. W. Bligh, M. R. Wilkins, T. E. Payne & T. D. Waite [poster].

2017

- Metagenomic and geochemical changes following rainfall at a legacy radionuclide waste disposal site

Australian Microbial Ecology Conference (AusME 2017). 

 Melbourne, VIC, Australia

X. Vázquez-Campos, A. S. Kinsela, T. E. Payne & T. D. Waite [oral presentation].

2016

- Rainfall-mediated biogeochemical changes at a legacy radionuclide waste disposal site

16th International Symposium on Microbial Ecology (ISME16). 

 Montreal, Canada

X. Vázquez-Campos, A. S. Kinsela, J. J. Harrison, K. Wilsher, S. Thiruvoth, B. Rowling, T. E. Payne & T. D. Waite [poster].

SERVICE

- Institutional Service

- University of New South Wales

- Postgraduate student representative at the OH&S Committee of the School of Civil and Environmental Engineering (2013–2015).

- Professional Affiliations

- American Society for Microbiology

- Regular member (2015–Current).

- Australian Bioinformatics and Computational Biology Society

- Regular member (2018–Current).

- Australian Society for Microbiology

- Regular member (2015–Current).

- International Society for Microbial Ecology

- Regular member (2014–Current).

- Spanish Researchers in Australia-Pacific

- Co-founder (2014).

- Board member and web/IT coordinator (2014–2020).

- Regular member (2021–Current).

- **Conferences**

- Australian Microbial Ecology conference 2022 (AusME2022)
 - Plenary chair and poster judge (2022).
- 6th Australia-Spain Research Forum: Big Data
 - Event registration (2020).
- 5th Australia-Spain Research Forum: 5 years Bridging Australia and Spain in Research and Academia
 - Website (2019).
- 4th Australia-Spain Research Forum: Earth
 - Website (2018).
- 3rd Australia-Spain Research Forum: Air
 - Website and event registration (2017).
- 2nd Australia-Spain Research Forum: Light
 - Website (2016).
- Australia-Spain Water Forum
 - Website and event photography (2015).

- **Peer Reviews**

Reviewer for >10 different journals since 2016, including leading journals in their own fields, e.g., *Astrobiology*, *Environmental Science and Technology*, or *Microbiome*.

For a full record as reviewer, consult my public [ResearcherID profile](#).