

# Xabier Vázquez-Campos, PhD

Computational biologist | Environmental microbiologist

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## EDUCATION

2015  
|  
2011

### PhD in Environmental Engineering

The University of New South Wales

📍 Sydney, Australia

· Thesis: "Geomicrobiological aspects of the (bio)leaching of weathered low-grade uranium ore". [doi](#)

2008  
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2007

### MSc in Microbiology

Autonomous University of Madrid

📍 Madrid, Spain

· 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].

2007  
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2002

### Licenciante in Biology

University of Vigo

📍 Vigo, Spain



## RESEARCH EXPERIENCE

Current  
|  
2023

### Senior research associate / Postdoctoral fellow

School of Biotechnology and Biomolecular Sciences

📍 The University of New South Wales

2023

### Research assistant (casual)

School of Biotechnology and Biomolecular Sciences

📍 The University of New South Wales

2023

### Bioinformatics scientist

MINIMUM bio

📍 Sydney, Australia

2023

### Visiting fellow

School of Biotechnology and Biomolecular Sciences

📍 The University of New South Wales

2022

### Senior research associate / Postdoctoral fellow

NSW Systems Biology Initiative. School of Biotechnology and Biomolecular Sciences

📍 The University of New South Wales

2021  
|  
2017

### Research associate / Postdoctoral fellow

NSW Systems Biology Initiative. School of Biotechnology and Biomolecular Sciences

📍 The University of New South Wales

## CONTACT

✉ [xvazquezc@gmail.com](mailto:xvazquezc@gmail.com)

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📺 [xvazquezc](#)

in [LinkedIn](#)

ℹ [ResearchGate](#)

📖 [Google Scholar](#)

🆔 [0000-0003-1134-5058](#)

ℹ [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 2025-12-02.*

- 2017  
|  
2015
- **Research associate / Postdoctoral fellow**  
BioGEMS group. Water Research Centre and School of Civil and Environmental Engineering  
📍 The University of New South Wales
- 2011
- **Research assistant (casual)**  
BioGEMS group, School of Civil and Environmental Engineering  
📍 The University of New South Wales
- 2011  
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2010
- **Research assistant**  
Bioprocesses Group, Faculty of Chemistry  
📍 University of Vigo
- 2007  
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2006
- **Research assistant**  
Bioprocesses Group, Faculty of Chemistry  
📍 University of Vigo
- 2006
- **Teaching assistant**  
Faculty of Biology  
📍 University of Vigo



## TEACHING EXPERIENCE



### *Courses*

- 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 ● **Hands on Zotero, a free alternative to EndNote**  
Bioprocesses group.  
📍 University of Vigo  
· Organiser, sole trainer.

## Supervision

- Current | 2022 ● **Julia Meltzer**  
PhD. Role: Cosupervisor.  
📍 University of New South Wales  
Biology of Asgard Archaea viruses
- 2024 | 2019 ● **Kevin Yonathan**  
PhD. Role: External supervisor.  
📍 University of Technology, Sydney  
Study of the response of microbial communities to silver nanoparticles through metagenomics.

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).

## GRANTS

- 2021 | 2020 ● **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  
· Total amount: AU\$600,000
- 2020 ● **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  
· AU\$5,000 for sequencing
- 2020 | 2019 ● **ResTech Support Scheme**  
OTUreporter pipeline coding project  
📍 The University of New South Wales  
· AU\$15,000
- 2015 ● **Postdoctoral writing Fellowship Grant**  
📍 School of Civil and Environmental Engineering at The University of New South Wales  
· 0.4 FTE salary for 12 weeks
- 2015 | 2011 ● **UNSW Tuition fee scholarship**  
📍 Graduate Research School at The University of New South Wales  
· Tuition fees for PhD program

2015  
|  
2011



### **Australian Postgraduate Award (Industry)**

📍 Australian Federal Government

• AU\$27,651.00 per year for 3.5 years



## **AWARDS**

2020



### **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.

2014

- ***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.* [doi](#)

📍 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).* [doi](#)

📍 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).* [doi](#)

📍 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).* [doi](#)

📍 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](#).