

# Alise PONSERO

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Department of Agricultural and biosystems engineering  
University of Arizona, Tucson, AZ

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## EDUCATION

**2017:** Master's degree in Computer science.

Master compétences complémentaires en informatique, Université de Rennes 1, France.

**2016:** PhD in molecular and cellular biology.

Doctorat de biologie moléculaire et cellulaire. École doctorale structure et dynamique des systèmes vivants, Université de Paris-Saclay / CEA, France.

**2012:** Master's degree in fundamental and applied microbiology.

Master de microbiologie fondamentale et appliquée, Université de Rennes 1, France.

**2010:** BA in cellular biology.

Licence de biologie cellulaire, Université de Rennes 1, France.

## RESEARCH EXPERIENCES

**November 2017-present:** Post-doctoral fellow in the lab of Dr. Bonnie Hurwitz.

Department of Agricultural and biosystems engineering. University of Arizona, Tucson.

**May-August 2017:** visiting student in the lab of Dr. Bonnie Hurwitz.

Department of Agricultural and biosystems engineering. University of Arizona, Tucson.

**January-July 2012:** visiting student in the lab of Dr. Steven Wilhelm.

Department of microbiology. University of Tennessee, Knoxville.

**April-July 2011:** visiting student in the lab of Dr. Alain Sarniguet.

UMR Bio3P. INRA le Rheu, France.

**January-March 2010:** visiting student in the lab of Dr. Philippe Le Normand

UMR 5557. CNRS, Lyon, France.

## HACKATHONS

**January 2019:** Virus discovery project.

NCBI Hackathon, San Diego, California.

## FIELD EXPERIENCES

**February 2012:** POWOW cruise #1.

Sampling expedition cruising from Honolulu, Hawaii to San Diego California.

## AWARDS AND FUNDINGS

### Fundings:

**2016:** Doctoral award for cancer science – 1 year funding

Fondation ARC pour la recherche contre le cancer

**2012:** Doctoral fellowship – 3 years funding

IRTELIS program, CEA Saclay

### Awards:

**2018:** ASM Microbe travel award

**2017:** Fellowship for a 6 months abroad experience – French ministry of Research and Education award

**2014:** EMBO conference travel award

**2012:** “Ulysse” fellowship for a 6 month abroad experience – Brittany regional award

**2011-12:** “student excellency” award – French ministry of Research and Education award (bourse de mérite)

## PUBLICATIONS

### In review/press:

Youens-Clark K, Bomhoff M., Ponsero, A.J., Wood-Charlson E., Choi I., Hartman J., Hurwitz B.L. iMicrobe: Tools and data-driven discovery platform for the microbiome sciences (2019).

Accepted in Gigascience

### Research articles:

**Ponsero A.J.,** Hurwitz B.L. The promises and pitfalls of machine learning for detecting viruses in aquatic metagenomes. (2019) *Frontiers in Microbiology*

I. Choi, **A.J Ponsoero**, M. Bomhoff, K. Youens-Clark, J.H Hartman, B.L Hurwitz. Libra: scalable k-mer based tool for massive all-vs-all metagenome comparisons. (2018) Gigascience

I. Choi, **A.J Ponsoero**, M. Bomhoff, K. Youens-Clark, J.H Hartman, B.L Hurwitz. Libra: Improved Partitioning Strategies for Massive Comparative Metagenomics Analysis (2018) Proceedings of the 9th Workshop on Scientific Cloud Computing

Lurthy T, Alloisio N, Fournier P, Anchisi S, **Ponsoero A**, Normand P, Pujic P, Boubakri H Molecular response to nitrogen starvation by *Frankia alni* ACN14a revealed by transcriptomics and functional analysis with a fosmid library in *Escherichia coli*. (2018) Research in Microbiology

**Ponsoero A.J**, Igbaria A., Darch M., Miled S., Outten C., Winther J.R., Benoit D'Autreaux, Delaunay A., Toledano M. Sec61-dependent transport of GSH into the ER is regulated by the ER chaperone Kar2 and by the activity of the ER oxidase Ero1 (2017) Molecular Cell.

**Ponsoero A.J.**, Chen F., Lennon J.T., Wilhelm S.W. Complete genome sequence of cyanobacterial siphovirus KBS2A. (2013) Genome Announcement.

Matheson A.R., Rowe J.M., **Ponsoero A.J.**, Pimentel T.M., Boyd P.W and Wilhelm S.W. High abundances of cyanomyoviruses in marine ecosystems demonstrate ecological relevance. (2013) FEMS Microbiology ecology.

## Review articles:

B.L. Hurwitz , **A.J Ponsoero**, J. Thornton Jr., J.M. U'Ren. Phage Hunters: computational strategies for finding phages in large-scale 'omics datasets (2018) Virus research

Delaunay A., **Ponsoero A.J.**, Toledano M. Reexamining the function of glutathione in protein folding and secretion. (2017) Antioxid Redox Signal.

## ORAL PRESENTATIONS

2019: Ecosystem genomics conference series, University of Arizona

2015: EMBO symposium Thiol-based redox switches in life science, San Feliu, Spain

2015: CEA doctoral conference series, Saclay, France

2014: CEA doctoral conference series, Saclay, France

2009: Symposium on scientific heritage in Brittany, Brest, France

## POSTER PRESENTATIONS

2019: TRIPODS conference, Tucson, Arizona

2019: EGU meeting, Vienna, Austria

2018: Aquatic virus workshop, Lincoln, Nebraska

2014: Gordon Research Conference, "thiol-redox based regulation and signaling", Girona, Spain

2013: I2BC (Institute of cellular integrative biologie) annual conference series, Saclay, France

## TEACHING/OUTREACH

### Supervision/Mentorship

2019 Undergrad summer internship

2018 KEYS program - high school students two months research experience

2017 KEYS program - high school students two months research experience

2016 Master's degree six months internship

2015 Medical student three months internship

### Science vulgarization articles

- J-S Steyer, **A Ponsoero** and R. Lehoucq. (2019) "Les monstres de la science-fiction : des morphologies et des gènes hors-norme", Bifrost magazine n°93
- Sawtschuk J., **Ponsoero A.**, André-Ormod E., 2009 Les herbiers du massif armoricain, N°22 E.R.I.C.A. (Echo régional pour l'inventaire et la conservation Armoricaïne)

## SERVICE

2019: Grant panel reviewer GWIS (Graduate women in science) fellowship program

2014 : Vice-chair Gordon research seminar, "thiol-redox based regulation and signaling"

## CERTIFICATIONS

2015 : Radioactivity experimentation in biology certification,  
CEA Saclay

2016 : First aid training certificate  
Croix Rouge Française

2007 : PADI advanced Open diver