CURRICULUM VITAE

Claudine LANDES claudine.landes@inrae.fr claudine.landes@universite-angers.fr

Head of BIDefI Team (Bio-Informatic for plant Defense Investigation)
Institute of Research in Horticulture and Seeds (IRHS) - 42 rue Georges Morel, 49071 Beaucouzé, France
Prof. Bioinformatics - Angers University - Science UFR - Biology Department

TRAINING

1988 DESS in Computer Science Applied to Biology - University of Paris VI. Honors.
1992 PhD, University of Paris VI - Specialization in Cellular and Molecular Genetics
2011 Habilitation to supervise research - University of Evry Val d'Essonne

PROFESSIONAL EXPERIENCE

1993 Senior Lecturer at Versailles University (UVSQ) - Genome and Computing Laboratory
2004 Senior Lecturer at Evry University (UEVE) - Mathematical Modeling Laboratory
2015 Professor of Bioinformatics at Angers University - Institute of Research in Horticulture and Seeds (IRHS)

RESEARCH TOPICS

Evolutionary genomics of Rosaceae, Study of duplicated genes, Detection of duplications on a large, medium and small scale, Characterization of duplications, Study of the role of duplication mechanisms in adaptation to the environment. Role of transposable elements in genome dynamics.

TEACHING

Algorithms for sequence analysis and phylogeny
Statistical data analysis
Omics data analysis and comparative genomics
Basics Python and R programming for biologists
Introduction to large-scale biology for data scientist

DOCTORAL SUPERVISION

2014 - Justin Whalley - Fate of duplicated genes, the contribution of biological networks - Evry University
2018 - Nicolas Daccord - Apple genomics and epigenomics - Angers University
2022 - Tanguy Lallemand - Evolution of duplicated genes in apple - Angers University
2022 - Martin Leduc - Evolution of duplicated genes in Rosaceae - Angers University
in progress - Andréa Bouanich - Integrative study of the evolution of Rosaceae genomes and epigenomes

PUBLICATIONS since 2020

1. Lallemand, T., Leduc, M., Desmazières, A., Aubourg, S., Rizzon, C., Celton, J. M., **Landès, C.** (2023). "Insights into the Evolution of Ohnologous Sequences and Their Epigenetic Marks Post-WGD in Malus Domestica". *Genome Biology and Evolution,* 15(10), evad178.
2. **Landès C**, Diaz-Lazcoz Y, Hénaut A, Torrésani B (2023). "Pseudo-Rate Matrices, Beyond Dayhoff's Model". In: Flandrin, P., Jaffard, S., Paul, T., Torrésani, B. (eds) Theoretical Physics, Wavelets, Analysis, Genomics. *Applied and Numerical Harmonic Analysis*. Birkhäuser, Cham. https://doi.org/10.1007/978-3-030-45847-8_26
3. Didier G, **Landès C**, Hénaut A, Torrésani B (2023). "Four Billion Years: The Story of an Ancient Protein Family". In: Flandrin, P., Jaffard, S., Paul, T., Torresani, B. (eds) Theoretical Physics, Wavelets, Analysis, Genomics. *Applied and Numerical Harmonic Analysis*. Birkhäuser, Cham. https://doi.org/10.1007/978-3-030-45847-8_25
4. Eid, R., **Landès, C**., Pernet, A., Benoit E., El Ghaziri A., Bourbeillon J. "DIVIS: a semantic DIstance to improve the VISualisation of heterogeneous phenotypic datasets". *BioData Mining* 15, 10 (2022). https://doi.org/10.1186/s13040-022-00293-y
5. Zang L, Paweł Tarkowski L, Morere-Le-Paven MC, Zimy M, Balliau T, Clochard T, Bahut M, Blazergue S., Pelletier S, **Landès C,** Limami A, Montrichard F (2022)."The nitrate transporter MtNPF6.8 is a master sensor of nitrate signal in the primary root tip of Medical truncatula". Front. Plant Sci, doi 10.3389/fpls.2022.832246
6. Lallemand T., Aubourg S., Celton J-M, **Landès C**.(2021). "Chromosome dominance in apple after whole genome duplication ». *ISHS Acta Horticulturae* 1362, doi 10.17660/ActaHortic.2023.1362.9
7. Pernet A, Eid R, **Landès C**, Benoît E, Santagostini P Marie-Magdelaine J, Clotault J, El Gahziri A, Bourbeillon J, (2021). "Construction of a semantic distance for inferring structure of the variability between 19th century Rosa varieties". *ISHS Acta Horticulturae* 1362
8. Lallemand T., Leduc M., **Landès C**., Rizzon C, Lerat E. (2020). "An overview of duplicated gene detection methods: Why the duplication mechanism has to be accounted for in their choice". *Genes*, **11**(9):1046.