



Naoual Azzouzi-Sadequi

I am a researcher teacher at the University of RENNES at UFR health, life and environment, attached to a Genetics/Genomics research team.
I teach molecular biology and bioinformatics

Since 2008, I have been working at the Institute of Genetics and Development (IGDR) UMR6290 in France under the direction of Prof. Francis Galibert. My work has focused on the comparative analysis of the genomes of eukaryotic species by hybrid irradiation mapping. This mapping has enabled the assembly of genomes. As a result of this project, which is part of a large international consortium (Broad Institute). I identified the receptor olfactory (OR) gene repertoire of five species of the cichlid family by bioinformatics methods.

I performed Bioinformatics analyzes of large high-throughput NGS (Next Generation Sequencing) sequence files (RNAseq).

I acquired a solid analytical expertise in bioinformatics with several tools for bioinformatics.

For two years I have also participated in the activities of the CRB platform, directed by Dr Catherine André. This involves sample preparation, quality controls, improvement of practices and installation of quality standards.

Currently I am analyzing the profile of the OR transcriptome in human in the olfactory epithelium and in particular those expressed in spermatozoa under the hypothesis that they have a role in the remote recognition of the ovum and that in certain cases of sterility would result from the mutation of the olfactory receptor gene(s). another project in collaboration with a cancerology hospital in paris is underway

Major publications

◆ Francis Galibert* and **Naoual Azzouzi** Are the Olfactory Receptors Present at the Sperm Membrane Involved in Reproduction? *Int J Mol Sci.* 2023 Jul; 24(14): 11277. Published online 2023 Jul 10. doi: 10.3390/ijms241411277

Azzouzi N, Guillory AS, Chaudieu G, Galibert F. Dog olfactory receptor gene expression profiling using samples derived from nasal epithelium brushing. *Canine Med Genet.* 2022 May 20;9(1):7. doi: 10.1186/s40575-022-00116-7.PMID: 35596227

◆ **Azzouzi N**, Barloy-Hubler F, Galibert F. Identification and characterization of cichlid TAAR genes and comparison with other teleost TAAR repertoires.**BMC Genomics.** 2015 Apr 23;16:335.

◆ **Azzouzi N**, Barloy-Hubler F, Galibert F. Inventory of the cichlid olfactory receptor gene repertoires: identification of olfactory genes with more than one coding exon. **BMC Genomics.** 2014 Jul 11;15(1):586.

◆ Federica Di Palma, David Brawand, Catherine Wagner, Yang Li, Milan Malinsky, Irene Keller, Shaohua Fan, Oleg Simakov, Alvin Ng, Zhi Lim, Etienne Bezault, Jason Turner- Maier, Jeremy Johnson, Rosa Alcazar, Pamela Russell, Bronwen Aken, Chris Amemiya, **Naoual Azzouzi**, Jean-Francois Baroiller, Frederique Barloy-Hubler, Aaron Berlin, Ryan Bloomquist, Karen Carleton, Matthew Conte, Helena D'Cotta, Orly Eshel, Leslie Gaffney, Francis Galibert, Hugo Gante, Sante Gnerre, Lucie Greuter, Richard Guyon, et al. The genomic substrate for adaptive radiation in African cichlid fish" in **Nature** 2014-12- 16283C

◆ Guyon R, Rakotomanga M, **Azzouzi N**, Coutanceau JP, Bonillo C, D'Cotta H, Pepey E, Soler L, Rodier-Goud M, D'Hont A, et al: A high-resolution map of the Nile tilapia genome: a resource for studying cichlids and other percomorphs. **BMC Genomics** 2012, 13:222.

◆ Guyon R1, Senger F, Rakotomanga M, **Azzouzi- Sadequi N**, Volckaert FA, Hitte C, Galibert F. A radiation hybrid map of the European sea bass (*Dicentrarchus*

labrax) based on 1581 markers: Synteny analysis with model fish genomes. **Genomics**. 2010 Oct;96(4):228-38.

◆ **Azzouzi N**, Elhataoui M, Bakhatar A, Takourt B, Benslimane A. Part of Chlamydia pneumoniae in atherosclerosis and exacerbation of chronic obstructive pulmonary disease and asthma. **Ann Biol Clin** (Paris). 2005 Mar-Apr;63(2):179-84