

Curriculum Vitae

Family Name, First Name: Verret, Frédéric

Gender: Male

ORCID ID: 0000-0002-8175-7325



Publication record		Research Projects		Student supervision	
h-index	10	Coordinator (Co)	1	PhD	2
Articles (ISI-index)	14	Principle investigator (PI)	2	MSc	2
Citations (total)	2,371	Project member	10	BSc	4
Citations (non-self)	2,359	Funding (Co + PI)	291,300€		

Education

- PhD in Molecular Microbiology and Biotechnology (2005).
Faculty of Luminy/Department of Sciences, University of Aix-Marseille II, France.
Thesis title: Molecular and Physiological Characterization of AtHMA4, a Zn/Cd/Pb P-type ATPase of *A. thaliana*.
- M.Sc. in Cell Biology and Physiology (2000).
Faculty of Luminy/Department of Sciences, University of Aix-Marseille II, France.

Current Position

Since September 2022: Institute of Molecular Biology and Biotechnology (IMBB), Foundation for Research and Technology – Hellas (FORTH), Greece. Postdoctoral Research Assistant.

Previous Positions

- 2018-2022: Institute of Marine Biology, Biotechnology and Aquaculture (IMBBC), Hellenic Centre for Marine Research (HCMR), Crete, Greece. Research Fellow.
- 2012-2018: Institute of Molecular Biology and Biotechnology (IMBB), Foundation for Research and Technology – Hellas (FORTH), Greece. Postdoctoral Research Assistant.
- 2011-2012: Centro de Ciências do Mar do Algarve, University of Algarve, Portugal. Postdoctoral Research Assistant.
- 2008-2010: Department of Biological Sciences, University of Essex, United Kingdom. Postdoctoral Research Assistant.
- 2005-2008: Marine Biological Association, United Kingdom. Postdoctoral Research Assistant.

Fellowships/Prizes/Awards

- Hellenic Foundation for Research and Innovation (ELIDEK), First call for the “Promotion of Postdoctoral Researchers”. “RNA Silencing in Diatoms” (ELIDEK-GSRT 483; 2018-2021; 200 000 EUR).
- European Social Fund/NSRF 2007-2013, “Support for Postdoctoral Researchers”. “Bioenergetic cross-talk between RNA silencing and photosynthesis in plants” (15308/2.12.10; 2012-2015; 150 000 EUR).
- “Inventors Award” (2005). Patent “Genetically modified plants and their applications in phytoremediation”. French Alternative Energies and Atomic Energy Commission (CEA), France.

Publications:

(Corresponding author*)

Gabed N, **Verret F***, Peticca A, Kryvoruchko I, Gastineau R, Bosson O, Séveno J, Davidovich O, Davidovich N, Witkowski A, Kristoffersen JB, Benali A, Ioannou E, Koutsaviti A, Roussis V, Gâteau H, Phimmaha S, Leignel V, Badawi M, Khair F, Francezon N, Fodil M, Pasetto P, Mouget J-L. What Was Old Is New Again: The Pennate Diatom *Haslea ostrearia* (Gaillon) Simonsen in the Multi-Omic Age. *Marine Drugs*. 2022; 20(4): 234. <https://doi.org/10.3390/md20040234>

Gastineau R*, Lemieux C, Turmel M, Grypioti E, **Verret F**, Makris A, Argiriou A, Kafetzopoulos D, Stratidaki I, Carrier G, Jacquette B and Mouget JL. (2020) Two new bacilladnaviruses associated with the diatom *Haslea ostrearia*. *Eur. J. Phycol.* 1-10. doi.org/10.1080/09670262.2020.1748723

Helliwell KE, Chrachri A, Koester JA, Wharam S, **Verret F**, Taylor AR, Wheeler G* and Brownlee C*. (2019) Alternative Mechanisms for Fast Na⁺/Ca²⁺ Signaling in Eukaryotes via a Novel Class of Single-Domain Voltage-Gated Channels. *Curr. Biol.* 29 (9): 1503-1511.e6. doi.org/10.1016/j.cub.2019.03.041

Athanasakoglou A, Grypioti E, Michailidou S, Ignea C, Makris AM, Kalantidis K, Masse G, Argiriou A, **Verret F*** and Kampranis SC*. (2018) Isoprenoid biosynthesis in the diatom *Haslea ostrearia*. *New Phytol.* 222(1): 230-243. doi.org/10.1111/nph.15586

Mordecai GJ, **Verret F**, Highfield A and Schroeder D*. (2017) Schrödinger's Cheschire Cat: Are haploid *Emiliana huxleyi* cells resistant to viral infection or not? *Viruses*. 9(3): 51. doi:10.3390/v9030051

Mermigka G, **Verret F** and Kalantidis K*. (2016) RNA silencing movement in plants. *J. Integr. Plant Biol.* 58(4): 328-342. doi.org/10.1111/jipb.12423

Pearson G, Lago-Leston A, Cánovas F, Cox C, **Verret F**, Lasternas S, Duarte C, Agustí S and Serrão E*. (2015) Metatranscriptomes reveal functional variation in diatom communities from the Antarctic Peninsula. *ISME J.* 9(10): 2275-2279. doi.org/10.1038/ismej.2015.40

Swevers L*, Koliopoulou A, Li Z, Daskalaki M, **Verret F**, Kalantidis K, Smagghe G and Sun J*. (2014) Transfection of BmCPV genomic dsRNA in silkmoth-derived Bm5 cells: Stability, and interaction with the core RNAi machinery. *J. Insect Physiol.* 64(1): 21-29. doi.org/10.1016/j.jinsphys.2014.03.002

Read BA*, Kegel J, Klute MJ, Kuo A, Lefebvre SC, Maumus F, Mayer C, Miller J, Monier A, Salamov A, Aguilar M, Claverie J-M, Frickenhaus S, Gonzalez K, Herman EK, Lin Y-C, Napier J, Ogata H, Sarno AF, Shmutz J, Schroeder D, Vargas C, **Verret F**, von Dassow P, Valentin K, Van de Peer Y, Wheeler G, *Emiliana huxleyi* Annotation Consortium, Dacks JB, Delwiche CF, Dyrman ST, Glöckner G, John U, Richards T, Worden AZ, Young J, Zhang X and Grigoriev IV. (2013) *Emiliana's* pan genome drives the phytoplankton's global distribution. *Nature* 499 (7457): 209-213. doi.org/10.1038/nature12221

Verret F, Wheeler G, Taylor A, Farnham G and Brownlee C*. (2010) Calcium channels in photosynthetic eukaryotes: Implications for evolution of calcium-based signalling. *New Phytol.* 187(1): 23-43. doi.org/10.1111/j.1469-8137.2010.03271.x

Bowler C*, Allen AE, Badger JH, Grimwood J, Jabbari K, Kuo A, Maheswari U, Martens C, Maumus F, Otilar RP, Rayko E, Salamov A, Vandepoele K, Beszteri B, Gruber A, Heijde M, Katinka M, Mock T, Valentin K, **Verret F**, Berges JA, Brownlee C, Cadoret JP, Chiovitti A, Choi CJ, Coesel S, De Martino A, Deter JC, Durkin C, Falciatore A, Fournet J, Haruta M, Huysman MJ, Jenkins BD, Jiroutova K, Jorgensen RE, Joubert Y, Kaplan A, Kröger N, Kroth PG, La Roche J, Lindquist E, Lommer M, Martin-Jézéquel V, Lopez PJ, Lucas S, Mangogna M, McGinnis K, Medlin LK, Montsant A,

Oudot-Le Secq MP, Napoli C, Obornik M, Parker MS, Petit JL, Porcel BM, Poulsen N, Robison M, Rychlewski L, Ryneerson TA, Schmutz J, Shapiro H, Siaut M, Stanley M, Sussman MR, Taylor AR, Vardi A, von Dassow P, Vyverman W, Willis A, Wyrwicz LS, Rokhsar DS, Weissenbach J, Armbrust EV, Green BR, Van de Peer Y, Grigoriev IV. (2008) The *Phaeodactylum* genome reveals the evolutionary history of diatom genomes. *Nature* 456 (7219): 239-244. doi.org/10.1038/nature07410

Verret F, Gravot A, Auroy P, Preveral S, Forestier C, Vavasseur A and Richaud P*. (2005) Heavy metal transport by AtHMA4 involves the N-ter degenerated HMA domain and the C-ter His11 stretch. *FEBS Lett.* 579(6): 1515-1522. doi.org/10.1016/j.febslet.2005.01.065

Verret F, Gravot A, Auroy P, Leonhardt N, David P, Nussaume L, Vavasseur A and Richaud P*. (2004) Overexpression of AtHMA4 enhances root-to-shoot translocation of zinc and cadmium and plant metal tolerance. *FEBS Lett.* 576(3): 306-312. Doi.org/10.1016/j.febslet.2004.09.023

Gravot A, Lieutaud A, **Verret F**, Auroy P, Vavasseur A and Richaud P*. (2004) AtHMA3, a plant P1B-ATPase, functions as a Cd/Pb transporter in yeast. *FEBS Lett.* 561(1-3): 22-28. doi.org/10.1016/S0014-5793(04)00072-9

Book Chapters:

Mermigka G, **Verret F** and Kalantidis K. RNA Silencing Movement in Plants. In *Revue in Cell Biology and Molecular Medicine*, 2015, Wiley-VCH Verlag GmbH & Co. KGaA, Vol 1 No 3, pp 96-129. doi.org/10.1002/3527600906.mcb.201500016

Catty P, **Verret F**, Lecomte-Pradines C and Forestier C. Transport membranaire des métaux et métalloïdes in *Toxicologie Nucléaire Environnementale et Humaine*, 2009, Lavoisier pp 63-82. ISBN: 978-2-7430-1174-1.

Patent

Genetically modified plants and their applications in phytoremediation (2005)

Richaud P, **Verret F**, Gravot, A, Auroy P and Vavasseur A.

International Publication Number WO 2005/090583 A1.

Projects and activities

- 2022-** Technologies for Ocean Sensing (TechOcean).
Project member
Institute of Molecular Biology and Biotechnology (IMBB), Foundation for Research and Technology – Hellas (FORTH), and University of Crete, Greece.
Coordinator: National Oceanography Centre, Southampton, UK
H2020-EU.3.2. - SOCIETAL CHALLENGES - Food security, sustainable agriculture and forestry, marine, maritime and inland water research, and the bioeconomy, Grant agreement ID: 101000858
- 2021-2024** Exploring diatom resting stages in Calabrian marine waters: biological diversity, chemical cues and biotechnological potential (DIRCA).
Principal investigator
Institute of Marine Biology, Biotechnology and Aquaculture (IMBBC), Hellenic Centre for Marine Research (HCMR), Crete, Greece.
Coordinator: Stazione Zoologica Anton Dohrn, Italia.
Research center and advanced marine infrastructures in Calabria (CRIMAC), Calabria Region, Italia; €200,000 in total, €20,000 for HCMR.
- 2020-2023** 100 Diatom Genomes Project
Project member
Institute of Marine Biology, Biotechnology and Aquaculture (IMBBC), Hellenic Centre for Marine Research (HCMR), Crete, Greece.
Coordinator: University of East Anglia, United Kingdom
Community Science Program, US Department of Energy Joint Genome Institute (JGI); in kind.

- 2018-2022** RNA Silencing in Diatoms (RADIO)
Coordinator
Institute of Marine Biology, Biotechnology and Aquaculture (IMBBC), Hellenic Centre for Marine Research (HCMR), Crete, Greece.
General Secretariat for Research and Innovation, Hellenic Foundation for Research and Innovation, Project ID: 483; €200,000 for HCMR
- 2017-2022** The Genus Haslea, New marine resources for blue Biotechnology and Aquaculture (GHaNA).
Principal investigator
Institute of Marine Biology, Biotechnology and Aquaculture (IMBBC), Hellenic Centre for Marine Research (HCMR), Crete, Greece.
Coordinator: University du Maine, France
H2020-EU.1.3. - EXCELLENT SCIENCE - Marie Skłodowska-Curie Actions, Grant agreement ID: 734708; €1,602,000 in total, €93,000 for HCMR
- 2018-2021** Cluster for the Sustainable Exploitation of Marine Natural Resources (CMBR)
Project member
Coordinator: Institute of Marine Biology, Biotechnology and Aquaculture (IMBBC), Hellenic Centre for Marine Research (HCMR), Crete, Greece.
NSRF-ESF 2014-2020, Operational Program "Competitiveness, Entrepreneurship and Innovation", Action "Reinforcement of the Research and Innovation Infrastructure", Project MIS 5002670
- 2015** Development and employment of Minos-based genetic and functional genomic technologies in model organisms (MINOS)
Project member
Institute of Molecular Biology and Biotechnology (IMBB), Foundation for Research and Technology – Hellas (FORTH), and University of Crete, Greece.
Coordinator: BSRC 'Alexander Fleming', Greece
NSRF-ESF 2007-2013, Operational Program "Education and Lifelong Learning", Research Funding Program: THALES- Investing in Knowledge Society through the European Social Fund, Project MIS 376898
- 2012-2015** Bioenergetic cross-talk between RNA silencing and photosynthesis in plants.
Project member
Institute of Molecular Biology and Biotechnology (IMBB), Foundation for Research and Technology – Hellas (FORTH) and University of Crete, Greece.
NSRF-ESF 2007-2013, Operational Program "Education & Lifelong Learning", Action "Supporting Postdoctoral Researchers", Project 15308/2.12.10; €150,000 for IMBB
- 2011-2015** Biodiversity and Valorization of Blue Diatoms (BIOVADIA)
Project member
Institute of Molecular Biology and Biotechnology (IMBB), Foundation for Research and Technology – Hellas (FORTH) and University of Crete, Greece.
Coordinator: University du Maine, France
FP7-PEOPLE-2010-IRSES, Grant agreement ID: 269294
- 2011-2012** Arctic Tipping Points (ATP)
Project member
Centro de Ciências do Mar do Algarve, University of Algarve, Portugal.
Coordinator: University of Tromsø, Norway
FP7-ENVIRONMENT, Grant agreement ID: 226248

- 2011** The Marine Microbial Eukaryote Transcriptome Sequencing Project (MMETSP)
Project member
Marine Biological Association, United Kingdom.
Coordinator: The Gordon and Betty Moore foundation
The Gordon and Betty Moore foundation, GBMF Grants GBMF2637 and GBMF3111, Project
MMETSP0160
- 2008-2011** Response of *Emiliania huxleyi* to a high CO₂ world: assessing the extent of genetic diversity in the
pattern of gene expression
Project member
Department of Biological Sciences, University of Essex, UK.
NERC/SOFI-award, Project NE/F012411/1
- 2005-2007** Understanding Diatom Biology by Functional Genomics Approaches (DIATOMICS)
Project member
Marine Biological Association, United Kingdom.
Coordinator: Stazione Zoologica Anton Dohrn, Italia
FP6-LIFESCIHEALTH, Grant agreement ID: 512035