





### French German cooperation: ANR-DFG funding



#### Thierry NADALIG

(Maître de Conférences) (GMGM, UMR 7156 CNRS-Université de Strasbourg)

JOURNEE D'INFORMATION Le Rhin supérieur, territoire scientifique : opportunités et financement pour la coopération bi- et trinationale

Strasbourg, 05.05.2022

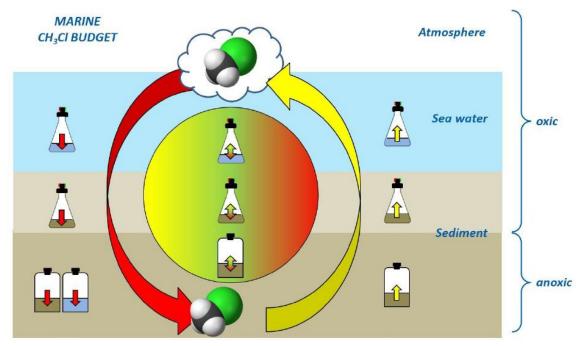
## **MAHABIO**

#### **MArine HAlomethane BIOgeochemistry**

#### Marine cycle of chloromethane (CH<sub>3</sub>Cl) a gas involved in ozone depletion

- bacterial production and consumption
- sediment and sea-water
- oxic and anoxic conditions

#### MAHABIO is an interdisciplinary project (microbiology, biochemistry and geochemistry )





# **EXPECTED IMPACTS**

Characterisation of new microbial actors and biomarker genes of halomethane production and consumption processes

- Isolating new marine bacterial players in the degradation of CH<sub>3</sub>Cl
- Distinguish between the microbial processes of production and consumption of CH<sub>3</sub>Cl
- Characterise the interactions between producers and consumers of CH<sub>3</sub>Cl

Discovery and characterisation of new enzymes for industrial applications

Meetings with the public on climate issues biogeochemical cycle of a greenhouse gas and ozone depleter

# **GENESIS OF THE PROJECT**

#### Team « Adaptations and Interactions of Micro-organisms in the Environment » (S. Vuilleumier)

- expertise in bacterial dehalogenative metabolism (CH<sub>3</sub>Cl)
- functioning of dehalogenating strains and of microbial communities in the environment
- several ANRs, including a Franco-German one (Chlorofilter, 2015-2017, F. Bringel)

Thesis "New degradation pathway of CH<sub>3</sub>Cl by marine bacteria" Jing Luo (2017-2021) - collaboration with Frank Keppler (Univ. Heidelberg)

First discussions (Team, F. Keppler)

Search for complementary partners in France and Germany

Drafting of the project

- first draft
- exchanges with the partners

AAPG : PRCI « Projet de Recherche Collaborative - International » Scientific Evaluation Committee: CE02 – Terre Vivante Scientific coordinator : T. Nadalig

# THE PARTNERS



#### Génétique Moléculaire, Génomique, Microbiologie (UMR7156, Univ. de Strasbourg-CNRS)

PI Thierry Nadalig (MCF)

CH<sub>3</sub>Cl bacterial metabolism Genomics, diversity

Institut Méditérannéen d'Océanologie (UM110, Univ. Aix-Marseille-CNRS-IRD) PI Agnès Hirschler-Réa (MCF)

Anaerobic metabolism Marine bacterial isolation



Institute of Earth Sciences (Heidelberg University) PI Frank Keppler (Professor)

Volatile organic compounds Stable isotope analysis

Institute of Biology II - Microbiology (Albert-Ludwigs-Universität Freiburg )

PI Matthias Boll (Professor)

Pollutant degradation Microbial biochemistry, enzymes



# ADDED VALUE TO THE FRENCH-GERMAN COOPERATION

- Scientific cooperation: complementary expertise of partners in several disciplines
  - Microbiology
  - Biochemistry
  - Isotopic analysis
- EUCOR (European Campus): Universities of Strasbourg and Freiburg
  - Geographical proximity
  - Strengthen research cooperation
  - Provide access to specialized skills
  - Develop common research infrastructures



# **FINANCIAL REQUESTS**

		GMGM	AMU-MIO	GEOW	ALUF			
Staff expenses			Postdoc, PhD and master studen					
Instruments and material costs (including scientific consumables)								
Building and ground cos								
Outsourcing / subcontra	tsourcing / subcontracting		Publication costs, sequencing					
General and	Travel costs							
administrative costs & other operating expenses	Administrative management & structure costs <sup>1</sup>		Overhead 12	.%				
Sub-total								
Requested funding (bef	ore overheads)							

Help with the financial set-up of the project: Pôle Unique d'Ingénierie (PUI)

First submission ANR-DFG in 2019: no funding obtained



First submission ANR-DFG in 2019: no funding obtained



" ... very good project that would enlarge the current understanding of marine biogeochemical cycling of halogenated volatile organic compounds, and therefore would be very welcome in the field."

" The international consortium is well balanced and has the potential to successfully address this interesting scientific objective, with a high added value for the French German cooperation."

" The scientific objectives are well defined and clearly presented ... "

" The panel, however, was concerned on the feasibility of such ambitious project for a time period of only three years ... "

" Some concerns were also raised about the limited experience of the PI with project coordination"

First submission ANR-DFG in 2019: no funding obtained ANR **DFG** 

EC2CO (ECosphère COntinentale et CÔtière, CNRS) in 2020 : funding obtained - Project scientific coordinator: T. Nadalig



- Duration: 2 years

#### First submission ANR-DFG in 2019: no funding obtained ANR **DFG**

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Continentale et - Duration: 2 years

#### Second submission ANR-DFG in 2021 :



More preliminary results: PhD Thesis Jing LUO, publication (Keppler et al. 2020)

Experience as scientific coordinator (EC2C0)

Redesign of the project taking into account the previous criticisms

#### First submission ANR-DFG in 2019: no funding obtained ANR **DFG**

*EC2CO (ECosphère COntinentale et CÔtière, CNRS) in 2020 : funding obtained - Project scientific coordinator: T. Nadalig* 



- Duration: 2 years

Second submission ANR-DFG in 2021 : funding obtained



- Project scientific coordinator: T. Nadalig
- German country referent: F. Keppler
- Duration: 3 years

"The MAHABIO project is ambitious and well organized, and the involved research groups complement each other well. The research field is environmentally important and the results may hence be interesting also outside of the academic world."

AAPG 2021 : instrument PRCI « Projet de Recherche Collaborative - International » (Collaborative Research Projects – International)

Early registration of proposals on the ANR website only: 1<sup>st</sup> December 2020

- Project identity
- Partners identification
- Administrative information for each partner
- Financial request for ANR and DFG

AAPG 2021 : instrument PRCI « Projet de Recherche Collaborative - International » (Collaborative Research Projects – International)

Early registration of proposals on the ANR website only: 1<sup>st</sup> December 2020

Submission of detailed proposals on the ANR website: **14<sup>th</sup> April 2021** 

- Complete detailed proposal (30 pages)
- A copy is provided to the DFG
- ANR and DFG check the eligibility of the project
- Projects are evaluated solely by the ANR (Lead Agency)

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Submission of detailed proposals on the ANR website: **14<sup>th</sup> April 2021** 

Evaluation by the experts and right of reply: June 2021

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Joint decision and publication of results: October 2021

Possible start of the projects: **last quarter of 2021 - January 2022** to be adapted according to the constraints of the foreign partners.

MAHABIO: June 2022

## ADMINISTRATIVE AND FINANCIAL MONITORING OF THE PROJECT SITE DE SUIVI DU PROJET (ANR)

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Fil info ANR	anr' Projet ANR : Soumissi	🎦 Ernest - Accueil - Ernest 🚷	Ocean Gene Atlas - Q 💮 SIGAP 🔽	https://ecandidat-gest	⊕ Études en France	A.R anr' Règlement financi	er		🗅 Autres
anr®								≡   ?	Thierry N nadalig@ Coordinateur(tr
	Projet : MAHABIO								
	Revenir à la liste								
	Suivi scientifiqu	e Suivi administratif et finan	cier Suivi des versements R	ésumés Partenari	ats et dates Annexe financie	Actes attributifs	Document scientifique	Demandes de modification	
	Présentation	ı du projet							
/									
	Instrument de fina	ncement : PRCI - Projets de reche	rche collaborative - International						
	Catégorie R&D : R	echerche fondamentale							
	Liste des a	gences de financement							
	Nom	de l'agence	Associée au projet		(x) partenaire(s)				
	ANR			GMGM MIO					
	DFG			GEOW Universität F	reiburg / Arbeitsgruppe Boll, Institu	ut für Biologie II			
	Liste de	s cofinanceurs :							
		cofinanceur ajouté au projet.							

## ADMINISTRATIVE AND FINANCIAL MONITORING OF THE PROJECT UNIVERSITY OF STRASBOURG



#### ADMINISTRATIVE AND FINANCIAL MONITORING OF THE PROJECT

#### Fichier de programmation budgétaire à destination des unités de recherche

Uni	versité				
	de Stras	sl	00	u	rg

Date du jour :

26/04/2022

		Contrat de recherche							
	Programmation budgétaire pluriannuelle								CTRL
	Catégories	Budget	2021	2022	2023	2024	2025	2026	cohérence
	Investissement								ОК
Coûte directe	Fonctionnement								ОК
cours unects	Missions								OK
	Salaires contractuels								ОК
C-Ot-	Overheads								
Coûts indirects	Frais administratifs								ОК
maneets	CFG								OK
	Total							0.00€	

Signature du responsable scientifique

Signature du Directeur d'unité

Help with the financial distribution of the project:

- Pôle Unique d'Ingénierie (PUI)
- Our administrative manager

#### ADMINISTRATIVE AND FINANCIAL MONITORING OF THE PROJECT

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	Catégories	Budget	2021	2022	2	023	2024	2025	cohérence		
	Investissement					<b>—</b>				OK	
Coûts directs	Fonctionnement					Sta	ff evne	nses			
cours un cous	Missions					Staff expenses					
	Salaires contractuels					Instruments and material costs					
Coûts	Overheads										
indirects	Frais administratifs					(including scientific consumables)					
	CFG					Duilding and ground costs					
	Total		Building and ground costs						5		
	Signature du responsable scientifique					Ou	tsourci	ng / sub	contrac	ting	
				Ge	neral a	nd		Travel co			
administrative & other operat expenses										Administ manager structure	

### ACKNOWLEDGEMENTS

#### « AIME » Team Members

Stéphane Vuilleumier (Pr, Unistra) Françoise Bringel (DR, CNRS) Emilie Muller (CR, CNRS) Eugénie Grigorian (ATER) Domitille Jarrige (Post-doc) Louis-François Mey (PhD student) Carmen Lazaro (PhD student) Maria Ossipenko (PhD student) Adrien Borreca (PhD student) Lucile Meyer (Master student)

#### MAHABIO Partners

Frank Keppler (Heidelberg) Markus Greule (Heidelberg)

Agnès Hirschler (Marseille) Nathalie Pradel (Marseille)

Matthias Boll (Freiburg)







