CURRICULUM VITAE

Sylvie **Tambutté** born **Bénazet**
Research Director, leader of the Coral Physiology/Biochemistry team, Marine Biology Department, Centre Scientifique de Monaco

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Date and place of Birth: 22nd June 1968 in Monaco
Monegasc citizen
Married, two children

✓ EDUCATIONAL BACKGROUND

2008

Habilitation à Diriger les Recherches (HDR). Université de Nice-Sophia Antipolis. « La biominéralisation chez les coraux ».

1996

PhD thesis in Oceanology, Université de la Méditerranée Université d'Aix-Marseille II. Internship at the Centre Scientifique de Monaco : "Le tissu oral des Anthozoaires : fonctionnement et rôle dans l'association symbiotique".

1993

Master 2 (DEA) in Marine Environmental Sciences. Option Marine Biotechnologies. Université d'Aix-Marseille II. Mention Bien.

1992

Master 1 in Animal Physiology. Faculté des Sciences de Nice Sophia-Antipolis. Membrane Physiology, Mention Bien. Endocrinology, Mention Bien. Immunology, Mention Bien. Cell Neurophysiology, Mention Bien.

✓ PROFESSIONAL BACKGROUND

Since 01/04/2008

Research Director, leader of the Physiology/Biochemistry team, Marine Biology Department, Centre Scientifique de Monaco

From 01/01/2003 to 31/03/2008

Co-leader of the Physiology/Biochemistry team at the Centre Scientifique de Monaco

From 15/10/01 to 31/12/2002

Senior scientist in the Physiology/Biochemistry team at the Centre Scientifique de Monaco

From 04/06/1999 to 14/10/2001

Executive Secretary of the RAMOGE Agreement

From 02/02/1998 to 03/06/1999

Administrator at the Service de l'Environnement de la Principauté de Monaco

✓ HONORS

Chevalier de l'Ordre de Saint Charles

✓ ADMINISTRATIVE ACTIVITIES LINKED TO SCIENCE

Participation to HDR and PhD thesis comitees
Participation in recruitment committees (technicians, engineers, researchers)

2023
Membre du Comité Scientifique du Congrès Biomin XVII, International Symposium on Biomineralization

2015-present
Member of the Coral Commission of the World Jewellery Confederation (CIBJO)
From July 2015 to July 2019
National Focal Point of the Principality of Monaco for the Pelagos Agreement
From June 2015 to June 2019
Vice-President of the French Society of Mineralized Tissues
From 2014 to 2015
Member of the board directors of the French Society of Mineralized Tissues
2011-2019
Member of the scientific council of the LABEX CORAIL

✓ SCIENTIFIC EVENTS' ORGANIZER

-Participation to the organization of Fêtes de la Science et Journées du Patrimoine
- Co-organization of Summer School: « From Bones to Oceans and Spaces : the untold stories of Biomineralization », **S. Tambutté**, Georges Leftherotis, Claudine Blin, co-organizers. Nice, digital. 07-09th July 2021.
- Co-organization of the 20èmes Journées Françaises de Biologie des Tissus Minéralisés. **S. Tambutté**, Georges Carle, Claudine Blin, co-organizers. 21-23rd March 2021, Monaco.
From 04/06/1999 to 14/10/2001
-Organization of several meetings and Comities when I was Executive Secretary of the RAMOGE Agreement.

✓ CURRENT RESEARCH ACTIVITIES

I lead the research team for "Coral Physiology-Biochemistry" at the Scientific Center of Monaco, overseeing a dynamic group comprising 4 permanent researchers, 1 postdoctoral researcher, 2 doctoral students, 1 engineer, 2 senior technicians, and collaborating with 2 technicians shared with the Coral Ecophysiology Team, as well as supervising undergraduate and graduate students.
Our primary research is centered on the biology and physiology of corals, with a specific focus on the calcification/biomineralization mechanism. This involves exploring various aspects, including investigating the role of intracellular vesicles, studying the regulation of ion transport, analyzing the synthesis of the organic matrix, and assessing the impact of environmental factors such as ocean acidification.
My research endeavors cover a broad spectrum from the gene level to the organism level with comparative approaches and leverage advanced techniques in biochemistry, microscopy, in vivo cell imaging, and physiology to deepen our understanding of coral physiology and contribute to the scientific community's knowledge in this field.

LIST OF PUBLICATIONS AND OTHERS

✓ PEER-REVIEWED PUBLICATIONS

102 peer-reviewed publications

2024

-Schmidt C A, Tambutté E, Venn A A, Zou Z, Castillo Alvarez C, Devriendt L S, Bechtel H A, Stifler C A, Anglemyer S, Breit C P, Foust C L, Hopanchuk A, Klaus C N, Kohler I J, LeCloux I M, Mezera J, Patton M R, Purisch A, Quach V, Sengkhammee J S, Sristy T, Vattem S, Walch E J, Albéric M, Politi Y, Fratzl P, **Tambutté S**, Gilbert P U P A. Myriad Mapping of nanoscale minerals reveals calcium carbonate hemihydrate in forming nacre and coral biominerals. Nat Commun 15:1812 (2024)

-Crovetto L, Venn A A, Sevilgen D, Tambutté S, Tambutté E. Spatial variability of and effect of light on the coelenteron pH of a reef coral. Comm Biol 7, 246(2024)

2023

-Chatin, B, Venn A A, Tambutté E, **Tambutté S**. In vivo observation of lipid droplets in coral calcifying cells: fat stores to fuel the reef-building process? Coral Reefs. 42, pages1379–1384

-Willard H F, Deutekom E S, Allemand D, Tambutté S, Kaandorp J A. Testing hypotheses on the calcification in scleractinian corals using a spatio-temporal model that shows a high degree of robustness. jtbi 561;111382

- Allison N, Venn A A, **Tambutté S**, Tambutté E, Wilckens F K, Kasemann S A. A comparison of SNARF-1 and skeletal δ11B estimates of calcification media pH in tropical coral. Geochim Cosmochim Acta 355 (2023) : 184-194

- Noel B, Denoeud F, Rouan A, Buitrago-Lopez C, Capasso L, Poulain J, Boissin E, Pousse M, Da Silva C, Couloux A, Armstrong E, Carradec Q, Cruaud C, Labadie K, Lê-Hoang J, **Tambutté S**, Barbe V, Moulin C, Bourdin G, Iwankow G, Romac S, Agostini S, Banaigs B, Boss E, Bowler C, de Vargas C, Douville E, Flores J-M, Forcioli D, Furla P, Galand P E, Lombard F, Pesant S, Reynaud S, Sullivan M B, Sunagawa S, Thomas O P, Troublé R, Vega Thurber R, Allemand D, Planes S, Gilson E, Zoccola D, Wincker P, Voolstra C R, Aury J-M. Pervasive tandem duplications and convergent evolution shape coral genomes. Genome Biol (2023)24:123

2022

-Capasso L, Aranda M, Cui G, Pousse M, **Tambutté S**, Zoccola D. Investigating calcification-related candidates in a non-symbiotic scleractinian coral, Tubastraea spp. Sci Rep 12, n°13515, 16pp**.**

-Venn A.A, Tambutté, E., Comeau, S., **Tambutté, S**. Proton gradients across the coral calcifying cell layer: effects of light, ocean acidification and carbonate chemistry. Frontiers in Marine Science. https://doi.org/10.3389/fmars.2022.973908

-Ganot, P. Loentgen, G., Marin, F., Plasseraud, L., Allemand, D. **Tambutté, S**. An alternative and effective method for extracting skeletal organic matrix adapted to the red coral *Corallium rubrum*. Biology Open, Methods and Techniques. https://doi.org/10.1242/bio.059536

-Capasso, L., Zoccola, D., Ganot, P., Aranda, M., **Tambutté, S**.SpiAMT1d: molecular characterization, localization, and potential role in coral calcification of an ammonium transporter in *Stylophora pistillata.* Coral Reefs https://doi.org/10.1007/s00338-022-02256-5

-Gilbert P U P A, Bergmann K D, Boekelheide N, **Tambutté S**, Mass T, Marin F, Adkins J F, Erez J, Gilbert B, Knutson V, Cantine M, Ortega Hernandez J, Knoll A H. Biomineralization: Integrating mechanism and evolutionary history. Sci Adv 10.1126

-Schmidt C. A., Stifler C. A., Luffey E. L., Fordyce B. I., Ahmed A., Barreiro Pujol Ga., Breit C. P., Davison S. S., Klaus C. N., Koehler I. J., LeCloux I. M, Matute Diaz C., Nguyen C. M., Quach V., Sengkhammee J. S., Walch E. J., Xiong M. M., Tambutté E., **Tambutté S**., Mass T., Gilbert P. U. P. A. Faster Crystallization

during Coral Skeleton Formation Correlates with Resilience to Ocean Acidification. J. Am. Chem. Soc. https://doi.org/10.1021/jacs.1c11434

2021

- Barreto, M. M., Ziegler, M., Venn, A., Tambutté, É., Zoccola, D., **Tambutté, S**., Allemand D., Anthony, C.P., Voolstra, C. Aranda, M. (2021). Effects of Ocean Acidification on Resident and Active Microbial Communities of *Stylophora pistillata*. *Front. Microbiol.* doi: 10.3389/fmicb.2021.707674

-Capasso L, Ganot P, Planas-Bielsa V, **Tambutté S**, Zoccola D. Intracellular pH regulation: characterization and functional investigation of H^+ transporters in *Stylophora pistillata*. BMC Mol Cell Biol 22(1): 18

- Herrera M, Liew Y J, Venn A A, Tambutté E, Zoccola D, **Tambutté S**, Cui G, Aranda M. New Insights From Transcriptomic Data Reveal Differential Effects of CO2 Acidification Stress on Photosynthesis of an Endosymbiotic Dinoflagellate in hospite. Front Microbiol 12, 666510

-Gilson E, Rouan A, **Tambutté S**, Zoccola D, Pousse M, Tambutté E, Djerbi N, Capasso L, Zozaya W. Telomere dysfunction is associated to dark-induced coral bleaching in the reef coral *Stylophora pistillata*. doi: 10.22541/au.161891844.42724819/v1

-Wang X, Zoccola D, Liew Y J, Tambutté E, Cui G, Allemand D, **Tambutté S**, Aranda M. The evolution of calcification in reef-building corals Mol Biol Evol msab103, doi.org/10.1093/molbev/msab103

- Le Roy N., Ganot P., Aranda M, Allemand D, **Tambutté S**. The skeletome of the red coral *Corallium rubrum* indicates an independent evolution of biomineralization process in octocorals**.** BMC Ecol Evol 21(1): 1-21

2020

- Tambutté E, Ganot P, Venn A A, **Tambutté S**. A role for primary cilia in coral calcification? Cell Tissue Res doi.org/10.1007/s00441-020-03343-1

- Sun C-Y, Stifler C A, Chopdekar R V, Schmidt C A, Parida G, Schoeppler V, Fordyce B I, Brau J H, Mass T, **Tambutté S**, Gilbert P U P A. From particle attachment to space-filling coral skeletons. Proc Natl Acad Sci USA doi.org/10.1073/pnas.2012025117

- Ottaviani A, Eid R, Zoccola D, Pousse M, Dubal J-M, Barajas E, Jamet K, Lebrigand K, Labépie P, Baudoin C, Giraud-Panis M-J, Rouan A, Beauchef G, Guéré C, Vié K, Barbry P, **Tambutté S**, Gilson E, Allemand D. Longevity strategies in response to light in the reef coral *Stylophora pistillata*. Sci Rep 10, Article 19937

-Venn A A, Bernardet C, Chabenat A, Tambutté E, **Tambutté S**. Paracellular transport to the coral calcifying medium: effects of environmental parameters. J Exp Biol jeb.227074/ doi:10.1242/jeb.227074.

- Barott L, Venn A A, Thies A B, **Tambutté S**, Tresguerres M. Regulation of coral calcification by the acid-base sensing enzyme soluble adenylyl cyclase. Biochem Biophys Res Commun 525(3): 576-580

- Ganot P, Tambutté E, Caminiti Segonds N, Toullec G, Allemand D, **Tambutté S**. Ubiquitous macropinocytosis in anthozoans. Elife 9: e50022

2019

- Bernardet, C., Tambutté, E., Techer, N., **Tambutté, S**., Venn, A.A. Ion transporter gene expression is linked to the thermal sensitivity of calcification in the reef coral *Stylophora pistillata*. Sci Rep 9, 18676 (2019) doi:10.1038/s41598-019-54814-7

- Del Prete S, Bua S, Alasmary F A S, AlOthman Z, **Tambutté S**, Zoccola D, Supuran C T, Capasso C. Comparison of the Sulfonamide Inhibition Profiles of the α-Carbonic Anhydrase Isoforms (SpiCA1, SpiCA2 and SpiCA3) Encoded by the Genome of the Scleractinian Coral *Stylophora pistillata*. Mar Drugs 17(146): 1-11. doi: 10.3390/md17030146.

- Venn A A, Tambutté E, Caminiti Segonds N, Técher N, Allemand D, **Tambutté S**. Effects of light and darkness on pH regulation in three coral species exposed to seawater acidification. Sci Rep 9(1):2201. doi: 10.1038/s41598-018-38168-0

- Sevilgen D, Venn A A, Hu M Y, Tambutté E, de Beer D, Planas-Bielsa V, **Tambutté S**. Full in vivo characterization of carbonate chemistry at the site of calcification in corals. Sci Adv 5: eaau7447. doi: 10.1126/sciadv.aau7447

- Bambridge T, Chlous F, D'Arcy P, Claudet J, Pascal N, Reynaud S, Rodolfo-Metalpa R, **Tambutté S**, Thomassin A, Recuero Virto L. Society-based solutions to coral reef threats in french pacific territories. Regional Studies in Marine Science 29: 100667

2018

- Del Prete S, Bua S, Zoccola D, Alasmary F A S, AlOthman Z, Alqahtani L S, Techer N, Supuran C T, **Tambutté S**, Capasso C. Comparison of the Anion Inhibition Profiles of the a-CA Isoforms (SpiCA1, SpiCA2 and SpiCA3) from the Scleractinian Coral *Stylophora pistillata* Int. J. Mol. Sci. 2018, 19, 2128; doi:10.3390/ijms19072128
- Liew Y J, Zoccola D, Li Y, Tambutté E, Venn A, Michell C T, Cui G, Deutekom E S, Kaandorp J A, Voolstra C R, Forêt S, Allemand D, **Tambutté S**, Aranda M Epigenome-associated phenotypic acclimatization to ocean acidification in a reef-building coral Science Advances 4, eaar8028
- Del Prete S, Vullo D, Zoccola D, Tambutté S, Supuran C T, Capasso C. Activation Profile Analysis of CruCA4, an alpha-Carbonic Anhydrase Involved in Skeleton Formation of the Mediterranean Red Coral, *Corallium rubrum*. Molecules 2018, 23(1): E66
- Del Prete S, Vullo D, Segonds N, Zoccola D, **Tambutté S**, Supuran C T, Capasso C Protonography and anion inhibition profile of the alpha-carbonic anhydrase (CruCA4) identified in the Mediterranean red coral *Corallium rubrum*. Bioorg Chem 76: 281-287

2017

- Taubner I, Böhm F, Eisenhauer A, Tambutté E, **Tambutté S**, Moldzio S, Bleich M An improved approach investigating epithelial ion transport in scleractinian corals. Limnol Oceanogr 15(9): 753-765
- Voolstra C R, Li Y, Liew Y J, Baumgarten S, Zoccola D, Flot J-F, **Tambutté S**, Allemand D, Aranda M Comparative analysis of the genomes of Stylophora pistillata and Acropora digitifera provides evidence for extensive differences between species of corals. Scientific Reports 7(1): 17583
- Comeau S, Tambutté E, Carpenter R C, Edmunds P, Evensen N R, Allemand D, Ferrier-Pagès C, **Tambutté S**, Venn A Coral calcifying fluid pH is modulated by seawater carbonate chemistry not solely seawater pH. Proc R Soc B 284(1847): 1-10
- Le Goff C, Tambutté E, Venn A, Techer N, Allemand D, **Tambutté S**. In vivo pH measurement at the site of calcification in an octocoral. Sci Rep 7: 11210
- Zoccola D, Morain J, Pagès G, Segonds N, Giuliano S, **Tambutté S**, Allemand D Structural and functional analysis of coral Hypoxia Inducible Factor. PLoS ONE 12(11): e0186262
- Raybaud V, **Tambutté S**, Ferrier-Pagès C, Reynaud S, Venn A, Tambutté E, Nival P, Allemand D. Computing the carbonate chemistry of the coral calcifying medium and its response to ocean acidification J Theoretical Biology 424: 26-36
- Wang X, Liew YJ, Yong L, Zoccola D, **Tambutté S**, Aranda M.. Draft genomes of the corallimorpharians *Amplexidiscus fenestrafer* and *Discosoma sp*. Mol Ecol Resour 17(6): 187-195doi: 10.1111/1755-0998.12680)
- Del Prete S, Vullo D, Zoccola D, **Tambutté S**, Capasso C, Supuran C T. Kinetic properties and affinities for sulfonamide inhibitors of an alpha-carbonic anhydrase (CruCA4) involved in coral biomineralization in the Mediterranean red coral *Corallium rubrum*. Bioorganic & medicinal chemistry Bioorg Med Chem 25(13): 3525-3530. DOI:10.1016/j.bmc.2017.05.001

2016

- Le Goff C, Ganot P, Zoccola D, Segonds N, Allemand D, **Tambutté S.** Carbonic Anhydrases in Cnidarians: Novel Perspectives from the Octocorallian Corallium rubrum. Plos One 11(8): e0160368.
- Edmunds P J, Comeau S, Lantz C, Andersson A, Briggs C, Cohen A, Gattuso J, Grady J M, Gross K, Johnson M, Muller E B, Ries J B, **Tambutté S**, Tambutté E, Venn A, Carpenter R C. Integrating the effects of ocean acidification across functional scales on tropical coral reefs. Bioscience doi:10.1093/biosci/biw023
- Bhattacharya D, Agrawal S, Aranda M, Baumgarten S, Belcaid M, Drake J L, Erwin D, Foret S, Gates R D, Gruber D F, Kamel B, Lesser M P, Levy O, Liew J Y, MacManes M, Mass T, Medina M, Mehr S, Meyer E, Price D C, Putnam H M, Qiu H, Shinzato C, Shoguchi E, Stokes A J, **Tambutté S**, Tchernov D, Voolstra

C R, Wagner N, Walker C W, Weber A P M, Weis V, Zelzion E, Zoccola D, Falkowski P G. Comparative genomics explains the evolutionary success of reef-forming corals. eLife 5: e13288
- Zoccola D, Innocenti A, Bertucci A, Tambutté E, Supuran C T, **Tambutté S**. Coral carbonic anhydrases: regulation by ocean acidification. Mar Drugs 14 (6): 109

2015

- Zoccola D, **Tambutté S.** Sex under the moon. eLife 4: e12936
- Venn, A.A., Tambutté, E., **Tambutté, S. 2015.** Plasticity of coral physiology under ocean acidification. Oncotarget 6(21): 18248-18249.
- Zoccola D, Ganot P, Bertucci A, Segonds N, Techer N, Voolstra C R, Aranda M, Tambutté E, Allemand D, Casey J R, **Tambutté S**. 2015. Bicarbonate transporters in corals point towards a key step in the evolution of cnidarian calcification. Sci Rep 5 (9983)
- Barott K, Venn A, Perez SO, **Tambutté S**, Tresguerres M. 2015. Coral host cells acidify symbiotic algal microenvironment to promote photosynthesis. Proc Natl Acad Sci US Am 112 (2): 607-612
- Tambutté E, Venn A, Holcomb M, Segonds N, Techer N, Zoccola D, Allemand D, **Tambutté S.** 2015. Morphological plasticity of the coral skeleton under CO_2-driven seawater acidification. Nat Comm 6 (7368)
- Ganot P, Zoccola D, Tambutté E, Voolstra C R, Aranda M, Allemand D, **Tambutté S.** 2015. Structural molecular components of Septate Junctions in cnidarians point to the origin of epithelial junctions in Eukaryotes. Mol Biol Evol 32: 44-62.

2014

- Holcomb M, Venn A, Tambutté E, **Tambutté S**, Allemand D, Trotter J, Mc Culloch M. 2014. Coral calcifying fluid pH dictates response to ocean acidification. Sci Rep 4: 5207
- Liew, Yi Jin, Aranda M, Carr, Adrian, Zoccola D, Baumgarten, Sebastian, Carr A, **Tambutté S**, Allemand D, Micklem, Gos, Voolstra, Christian R, Baumgarten S. 2014. Identification of MicroRNAs in the Coral *Stylophora pistillata*. PLoS ONE 9 (3): e91101
- Holcomb M, Tambutté E, Allemand D, **Tambutté S**. 2014. Light enhanced calcification in *Stylophora pistillata*: effects of glucose, glycerol and oxygen. PeerJ 2: e375
- Karako-Lampert S, Zoccola D, Salmon-Divon M, Katzenellenbogen M, **Tambutté S**, Bertucci A, Hoegh-Guldberg O, Deleury E, Allemand D, Levy O. 2014. Transcriptome Analysis of the scleractinian coral *Stylophora pistillata* . Plos One 9 (2): e88615

2013

- Bertucci, A., Moya, A., **Tambutté, S.,** Allemand, D., Supuran, C.T., Zoccola, D., 2013. Carbonic anhydrases in anthozoan corals-A review. Bioorganic & Medicinal Chemistry 21, 1437-1450.
- Vidal-Dupiol J., Zoccola D., Tambutté É., Grunau C., Cosseau C., Smith K.M., Freitag M., Dheilly N.M., Allemand D., **Tambutté S**. 2013. Genes related to ion-transport and energy production are upregulated in response to CO_2-driven pH decrease in corals: New Insights from Transcriptome Analysis PLoS ONE. 8(3): e58652 (doi:10.1371/journal.pone.0058652).
- Laurent, J., **Tambutté, S**., Tambutte, E., Allemand, D., Venn, A., 2013. The influence of photosynthesis on host intracellular pH in scleractinian corals. J. Exp. Biol. 216, 1398-1404.
- Laurent J, Venn A, Tambutté E, Ganot P, Allemand D, **Tambutté S**. 2013. Regulation of intracellular pH in cnidarians: response to acidocis in Anemonia viridis FEBS J. 281: 683-695
- Venn, A.A., Tambutté, E., Holcomb, M., Laurent, J., Allemand, D., **Tambutté, S**., 2013. Impact of seawater acidification on pH at the tissue-skeleton interface and calcification in reef corals. Proc. Natl. Acad. Sci USA 110, 1634-1639.

2012

- Debreuil, J., Tambutté, E., Zoccola, D., Deleury, E., Guigonis, J.M., Samson, M., Allemand, D., **Tambutté, S**., 2012. Molecular cloning and characterization of first organic matrix protein from Sclerites of Red Coral, *Corallium rubrum*. J. Biol. Chem. 287, 19367-19376.
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2011

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-Vidal-Dupiol J, Ladrière O, Destoumieux-Garzon D, Sautière P E, Meistertzheim A-L, Tambutté E, **Tambutté S**, Duval D, Fouré L, Adjeroud M, Guillaume M. 2011. Innate immune responses of a scleractinian coral to vibriosis J Biol Chem 286 (25) : 22688-22698
- Debreuil J., **Tambutté S**, Zoccola D, Segonds N, Techer N, Allemand D, Tambutte E. 2011. Comparative analysis of the soluble organic matrix of axial skeleton and sclerites of *Corallium rubrum*: Insights for biomineralization. Comp Biochem Physiol B Biochem Mol Biol, 159, 40-48
- Debreuil J., **Tambutté, S.**, Zoccola D., Segonds N., Techer N., Marschal C., Allemand D., Kosuge S., Tambutté E. 2011. Specific organic matrix characteristics in skeletons of *Corallium* species. Mar. Biol. 158(12): 2765-2774.
- Bertucci A, **Tambutté S**, Supuran C T, Allemand D, Zoccola D. 2011. A New Coral Carbonic Anhydrase in *Stylophora pistillata*. Mar Biotechnol. 13(5):992-1002
- Bertucci A, Innocenti A, Scozzafava A, **Tambutté S**, Zoccola D, Supuran C T. 2011. Carbonic anhydrase inhibitors. Inhibition studies with anions and sulfonamides of a new cytosolic enzyme from the scleractinian coral *Stylophora pistillata.* Bioorg Med Chem Lett, 21 : 710-714

2010

- Bertucci A., Tambutté E., **Tambutté S**., Allemand D., Zoccola D. 2010. Symbiosis-dependent gene expression in coral-dinoflagellate association: cloning and characterization of a P-type H+-ATPase gene. Proc. Roy. Soc. B. 277 (1678): 87-95. doi: 10.1098/rspb.2009.1266
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2009

- Venn A.A., Tambutté É., Lotto S., Zoccola D., Allemand D., **Tambutté S**. (2009). Imaging intracellular pH in a reef coral and symbiotic anemone. Proc. Natl. Acad. Sci. (USA). 106 : 16574-16579
- Zoccola D., Moya A., Béranger G.E., Tambutté E., Allemand D., Carle G.F., **Tambutté, S.** 2009. Specific expression of BMP2/4 ortholog in biomineralizing tissues of corals and action on mouse BMP receptor. Mar Biotechnol. 11: 260-269
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2008

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✓ OTHER PUBLICATIONS INCLUDING BOOK CHAPTERS

- Venn, AA., Tambutté, E., Zoccola D., Capasso, L., Allemand D., Caminiti-Segonds, N., Techer, N., Ganot, P., **Tambutté, S**. Coral Calcification at the Cellular Scale: Insight through the 'Window' of the Growing Edge. In Frontiers in Invertebrate Physiology. Chapter 9 Vol 1. Editors Saleuddin, S., Leys, S.P, Roer, R.R., Wilkie, I. *In press*
- Venn AA, Andersson A, **Tambutté S**. Status of Coral Reefs of the World: 2020. (Published 5th October 2021) Global Coral Reef Monitoring Network (GCRMN). Chapter 4 pages 11- 12. Box 2.
-Allemand D, **Tambutté S,** Zoccola D. 2017. Y aura-t-il encore des coraux dans la mer ? La Recherche 521: 53-57
- Tambutté S. Venn A. 2014. Participation à l'ouvrage "Updated Synthesis of the Impacts of Ocean Acidification on Marine Biodiversity (Eds: S. Hennige, J.M. Roberts & P. Williamson). Secretariat of the Convention on Biological Diversity (2014). Montreal, Technical Series No. 75, 99 pages
- Allemand D, Tambutté É, Zoccola D, **Tambutté S .** 2011. Coral calcification, cells to reefs . *In*: Coral reefs: an ecosystem in transition (eds Z Dubinsky & N Stambler), Springer, pp. 119-150.
- Tambutté S., Tambutté É., Zoccola D., Allemand D. 2007.Organic matrix and biomineralization of scleractinian corals. *In* : Handbook on Biomineralization. Vol. 1. The Biology of Biominerals Structure Formation (Ed. E. Baeuerlein, Wiley-VCH). 14: 243-259.

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-Allemand D., Furla P., Merle P.-L., Plantivaux A., Richier S., **Tambutté S.** 2004. Adaptation à la vie en symbiose des Cnidaires à zooxanthelles. Océanis 29 (3-4): 261-290

-**Tambutté S**, Ferrier-Pagès C. Effect of light and feeding on coral calcification Advances in coral husbandry in public aquariums. Vol. 2:27-29

- Interviews on corals for Science et Vie TV, Monaco Info

✓ INVITED LECTURES/SESSION CHAIRMAN

2023

-BiominXVII. Chairman de la session « Biomineralization in aquatic organisms ». Biomin XII, 17th International Symposium on Biomineralization, Saint Etienne, France, 28 Août-1er Septembre

2022

- LCMCP Seminars. Invited speaker **S. Tambutté**. "Molecular, cellular and physiological aspects of coral calcification". Paris, Sorbonne Université; 16 Septembre 2022.
-Biomineralization Gordon Research Conference. Bridging Scientific Disciplines to Understand Biomineral Formation in Breadth and Depth. Invited speaker. **S. Tambutté**. "Advances in Molecular, Cellular and Physiological Aspects of Coral Calcification", Castelldefels, B, Spain, 14-19 Août 2022.,
-14th International Coral Reef Symposium, ICRS2021.. E. Hathorne, T. Mass, **S. Tambutté**, A. Venn. chairmen of the session "How can innovative techniques to investigate calcification shed light into the past, present, future of coral reef organisms? / How do new insights into biomineralization help us understand reef calcification response to global climate change?" Bremen, 4-11 Juillet 2022.

2021

- Summer School « From Bones to Oceans and Spaces : the untold stories of Biomineralization », **S. Tambutté** Chairman de la session Societal/environmental aspects, Nice, digital, 07-09th July 2021.
-14th International Coral Reef Symposium, ICRS2021. **S. Tambutté**, chairman of the session "How can innovative techniques to investigate calcification and its mechanism shed light into the past, present and future of coral reef organisms". Theme "Scalable Observations and technologies". "Bremen, Virtual. 19-23rd July 2021
- Colloque : Le Cycle du Carbone dans l'Océan. Invited speaker **S. Tambutté,** « Acidification de l'océan et impact sur les organismes benthiques ». Collège de France, Paris, 18th June 2021.
- CIBJO, Coral Commission, Invited speaker **S. Tambutté,** "CSM activities on reef corals and precious corals". Digital. 17 Novembre 2021.

2020

- Colloque inaugural LIA ROPSE, Invited speaker **S. Tambutté,** « Biominéralisation chez le corail, étude des transporteurs de protons, rôle de l'autophagie et effets environnementaux ». Nice, 23rd October 2020.

2019

- BIOMIN XV International conference on biomineralization, Invited speaker **S. Tambutté**, "Coral Biomineralization: linking pieces of the puzzle". Munich (Germany), 09-13th September 2019.
- Workshop: Biomineralization: Integrating mechanisms and evolutionary history. Invited speaker **S. Tambutté** "Physiology of coral and skeleton formation". Radcliff Institute for advanced study. Harvard University. Boston, USA. 10th-12th July 2019

- Meeting: Understanding Biomineralisation and the impact of global change in marine organisms. **S.** Invited speaker **S. Tambutté,** "Physiology of Calcification in Corals" University of Amsterdam, Institute for Advanced Studies, Amsterdam, 3rd July 2019.

2017

- Meeting of the Society for Experimental Biology. Invited speaker **S. Tambutté,** "Role of pH regulation in coral calcification" Gothenburg, Suède. 03-07th July 2017.
- Physiologisches Kolloquium. Invited speakers **S. Tambutté** and A. Venn,"Ion transport and regulation in coral calcification", Christian Albrechts Universitat, Kiel, Allemagne. 13-15th November 2017.

2016

- International conference on Tight junctions and their proteins. Invited speaker **S. Tambutté,** "Septate junctions in corals and their role in biomineralization". 08-10th September 2016, Berlin**.**
- Biomineralization Gordon Research Conference (GRC), Session leader **S. Tambutté,** "Biomineralization in Sponges, Plants and Corals". Catalunya Business and Convention Centre, Girona, Spain 14-19th August, 2016

2015

-Munich GeoCenter's Frontiers in Earth Sciences Seminar Series. Invited speaker **S. Tambutté,** "Mechanistics of coral calcification in the context of ocean acidification". Munich, 16th January 2015".

2014

- Gordon Research Conferences (GRC) on Biomineralization (50th anniversary). Invited speaker **S. Tambutté,** "Ion Transport for Coral Biomineralization: From Physiology to Functional Genomics in the context of Ocean Acidification", Colby-Sawyer College, New London, New Hampshire, USA, 17-22 août 2014
- International Symposium on Pacific Precious Corals. Invited speaker **S. Tambutté,** "Calcification in *Corallium rubrum*, a jewel of interest for biologists". Taipei, Taiwan, 2014

2012

- 14èmes Journées Françaises de Biologie des Tissus Minéralisés. Invited speaker **S. Tambutté,** « Biominéralisation chez les coraux et changement global ». Bordeaux, France. 29-31st May 2012.
- International Consensus Statement Workshop. Invited speaker **S. Tambutté,**"Ocean acidification and Coral calcification : What we know and What we need to know". Paris, 13-15th December 2012.
- 12th International Coral Reef Symposium. **Tambutté S**., Cohen A., Holcomb M. Chairmen of the "Mini-Symposium: Functional coral biology: mechanisms of calcification". Cairns, Australie. 09-13th July

✓ MEETINGS

Oral communications (speaker underlined)

2023

-Ganot, P., Fritz, M., Rausch T., Zoccola D., Aurelle D., Haguenauer, A., Benes, V., Allemand, D., **Tambutté, S**. Specific genes for calcification of the red coral *Corallium rubrum*: identification and evolution deduced from tissue expression and phylogeny. International Conferences on the Chemistry and Biology of Mineralized Tissues. Oosterbeek, The Netherlands, 22-27 Octobre

-Venn, A., Gilbert, M., Tambutté, E., **Tambutté, S**. Investigating the impact of ocean acidification on $CaCO_3$ crystal growth rates in the reef coral *Stylophora pistillata.* Biomin XII, 17th International Symposium on Biomineralization, Saint Etienne, France, 28 Août-1er Septembre

-Chamard, V., Grünewald, T.A. Dicko, H., Vidal-Dupiol, J., Petton, B., Legrand, J., Campos, A. Tambutté E., Venn A., **S. Tambutté**, Le Luyer, L., Sztucki, Burghammer, M., Duboisset J. Towards in vivo imaging of the physico-chemistry processes involved in the biomineralization of the mollusc shells. Biomin XII, 17th International Symposium on Biomineralization, Saint Etienne, France, 28 Août-1er Septembre

-Ganot, P., Loentgen, G., Marin, F., Plasseraud, L., Allemand, D., **Tambutté,S**. An alternative method for extracting the organic matrix from the skeleton of the red coral Corallium rubrum. Biomin XII, 17th International Symposium on Biomineralization, Saint Etienne, France, 28 Août-1er Septembre

-Crovetto, L., Venn, A., Sevilgen, D., **Tambutté, S**., Tambutté E. Impact of environmental stressors on coral physiology: spatial variability and effect of irradiance on pH in the coelenteron. Society for Experimental Biology Centenary Conference, 4-7th July 2023, Edinburgh, Scotland

2022

- Alexander Venn, Eric Tambutté, **Sylvie Tambutté**. « Proton gradients across the coral calcifying cell layer: Effects of light, ocean acidification and carbonate chemistry". 15th International Coral Reef Symposium , 3-8 Juillet, Breme, Allemagne.

2021

- Capasso, L., Ganot, P., Planas-Bielsa, V., **Tambutté, S**., Zoccola, D. **"**Investigating the molecular tools used by reef-building corals to regulate pH". Theme "Scalable Observations and technologies". Session "How can innovative techniques to investigate calcification and its mechanism shed light into the past, present and future of coral reef organisms". 14th International Coral Reef Symposium, ICRS2021. Bremen, Virtual. 19-23th July 2021
- Ganot, P., Tambutté, E., Caminiti-Segonds, N. Toullec G., Allemand, D., **Tambutté S**. "Nanoparticles' voyage from the surrounding seawater to the cytoplasm of the coral cells". Theme "Global and local impacts". Session "Plastics in coral reefs: What is there and how does it impact reef organisms?" 14th International Coral Reef Symposium, ICRS2021. Bremen, Virtual. 19-23th July 2021
- Sevilgen, D.S., Venn, A.A., Hu, M.Y., Tambutté E., de Beer, D., Planas-Bielsa, V.,**Tambutté**, S. "Using microscope-guided microelectrode analysis to investigate carbonate chemistry and temporal dynamics at the site of calcification in live corals". Theme "Scalable Observations and technologies". Session "How can innovative techniques to investigate calcification and its mechanism shed light into the past, present and future of coral reef organisms". 14th International Coral Reef Symposium, ICRS2021. Bremen, Virtual. 19-23th July 2021
- Venn, A.A., Bernardet, C. Chabenat, A., Tambutte, E., **Tambutté S**. Imaging the paracellular pathway in corals: using calcein influx to investigate changes in tissue permeability. Theme "Scalable Observations and technologies". Session "How can new imaging-based tools help us better understand corals and other reef organisms"? 14th International Coral Reef Symposium, ICRS2021. Bremen, Virtual. 19-23th July 2021

2020

- Capasso L., Ganot P., Planas-Bielsa V., **Tambutté S**. Zoccola D. H^+ transporters: new insights into coral intracellular pH (pH_i) regulation. ECTS 2020 Digital Congress (Marseille, France)
1st October 2020

2019

- Ganot, P., Le Roy,N., Fritz, M., Rausch, T., Aurelle, D., Haguenauer, A., Aranda, M., Benes, V., Allemand, D., **Tambutté, S.** "The red coral as a comparative model for cnidarian biomineralization". ICCBMT, Montebello, Canada, 21-25th October 2019
- Venn A., Bernardet C., Tambutté E., Techer N**., Tambutté S.** « Ion transporter gene expression is linked to the thermal sensitivity of coral" 15th International Symposium on Biomineralization. Munich, Germany. 9-13th September 2019.
- Sevilgen D.S., Venn A.A, Hu, M.Y., Tambutté E., deBeer D., Planas-Bielsa V., **Tambutté S**. "Coral skeleton formation – concentrations and temporal dynamics of pH, [CO_3^{2-}] and [Ca^{2+}] in the extracellular calcifying medium of a live tropical coral". BIOMIN XV International conference on biomineralization, Munich (Germany), 09-13th September 2019
- Ganot P., Le Roy, N., Fritz, M., Rausch, T. Aurelle, D., Haguenauer, A., Aranda, M., Benes, V., Allemand, D. **Tambutté , S.** Coral Biomineralization toolkit differs in octocorallian vs. hexacorallians. BIOMIN XV International conference on biomineralization, Munich (Germany), 09-13th September 2019

- Ganot P., Tambutté E., Venn AA., Sevilgen D., Caminiti-Segonds N., Techer N., Allemand D., **Tambutté S.** Coral biomineralization and vesicles. ICMV, 2nd International Conference on Matrix vesicles: from biochemistry to clinic Lyon (France).14th June 2019
- Ganot P., Le Roy N., Fritz M., Rausch T., Aurelle D., Haguenauer A., Aranda M., Benes V., Allemand D., **Tambutté S**. "Comparative biomineralization in anthozoans: the red coral is not a reef coral". 21èmes Journées Françaises de Biologie des Tissus Minéralisés, Boulogne sur Mer, France.5-7th June 2019,

2018

- Sevilgen D.S., Venn A.A, Hu, M.Y., Tambutté E., deBeer D., Planas-Bielsa V., **Tambutté S**. "Direct in vivo evidence that corals elevate Ca^{2+}, CO_3^{2-} & pH at the site of calcification" SEB Society for environmental biology, Florence (Italy), 03-06th July 2018
- Bernardet, C., Techer N., **Tambutté, S**., Venn, A. "The impact of temperature on transcellular transport of ions for coral calcification". Society of Experimental Biology (SEB). Florence, Italie. 3-6th July 2018.
- Ganot, P., Fritz, M;, Rausch, T, Haguenauer, A. Benes, V., Allemandn D. **Tambutté, S**. Calcifying tissue specific expression in the red coral shows conserved pathways between coral and vertebrate biomineralization. Society of Experimental Biology (SEB). Florence, Italie. 3-6th July 2018.
- Sevilgen D.S., Venn A.A, Hu, M.Y., Tambutté E., deBeer D., Planas-Bielsa V., **Tambutté S**. "Corals actively regulate carbonate-chemistry to promote skeleton formation". Journées Françaises de Biologie des Tissus Minéralisés (Monaco), 21-23th March 2018
- Ganot, P., Fritz, M;, Rausch, T, Haguenauer, A. Benes, V., Allemandn D. **Tambutté, S**.Transcriptome specific expression of the calcifying tissue in Corallium rubrum suggests common regulatory origins between red coral calcification and vertebrate chondrogenesis. Journées Françaises de Biologie des Tissus Minéralisés, Monaco, 21-23th March 2018

2017

-Sevilgen DS, Venn A, Hu M Y-A, Tambutté E, deBeer D, **Tambutté S.** "Microscope-guided characterization of pH, CO32- and Ca2+ in the calcifying medium of *Stylophora pistillata* microcolonies –a combined methodological approach". European Coral Reef Symposium, Oxford. 13-15th December 2017

-Venn A, **Tambutté S.** Leaders of the session « Mechanistic insights into coral calcification in a context of global environmental change" European Coral Reef Symposium, Oxford. 13-15th December 2017

- Venn AA, Éric Tambutté, S. Comeau., P. Edmunds, Allemand D. and **Tambutté S**. "The influence of seawater dissolved inorganic carbon (DIC) on calcifying medium pH in corals". Meeting de la Society for Experimental Biology, Gothenburg, Sweden , 03-07th July 2017
- **S. Tambutté** and A.A. Venn, moderators of the working groups. Fourth International Workshop on "Bridging the Gap between Ocean Acidification Impacts and Economic Valuation", Monaco, 15-17th October 2017
- **S. Tambutté** and A.A Venn, moderators of the working groups. Workshop "Human impacts of anthropogenic changes on Mediterranean marine ecosystems", Monaco, 18-19th October 2017

2016

- Yi Jin Liew, Yong Li, Zoccola D, Tambutte E, **Tambutte S**, Allemand D, Voolstra C, Foret S, Aranda M. Epigenetic changes in the coral *Stylophora pistillata* in response to long-term ocean acidification. 13th International Coral Reef Symposium Honolulu, Hawaii 19–24 June 2016.
- Morain J, Pages G, Caminiti-Segonds N, Giuliano S, Allemand D, Tambutte S and Zoccola D Structural and functional analysis of coral hypoxia inducible factor. 13th International Coral Reef Symposium Honolulu, Hawaii 19–24th June 2016.
- Ganot P, Fritz M, Rauch T, Aurelle D, Hagenauerc A, Romans P, Zoccola D, Tambutté E, Manuel Aranda M, Benes V, Allemand D, **Tambutté S**. Calcification in Corallium rubrum: dissecting the process using genomics and transcriptomics together with scalpels and scissors. 13th International Coral Reef Symposium Honolulu, Hawaii 19–24th June 2016.

- Tambutté E,Venn A, Holcomb M, Segonds N., Techer N, Zoccola D, Allemand D, **Tambutté S**. Effets de l'acidification des océans sur la calcification et la morphologie du squelette des coraux 18èmes Journées Françaises de Biologie des Tissus Minéralisés, Nancy, 1-3rd Juneth 2016

2015

- Le Goff C., Ganot P., Zoccola D., Allemand D., **Tambutté S**. Inorganic carbon and calcification in the Mediterranean red coral *Corallium rubrum*. BiominXIII. Grenade, Espagne. 16-19th September 2015.
- Zoccola D, Bertucci A, Ganot P, Tambutté E, Voolstra CR, Aranda M, Allemand D, Casey JR, **Tambutté S**. Bicarbonate transporters in corals point towards a key step in the evolution of cnidarian calcification. 13th International Symposium on Biomineralization, Granada, Spain. 16–19th September 2015.
- Le Goff C., Venn A., Ganot P., Tambutté É., Allemand D., **Tambutté S**. In vivo measurement of pH at the sites of calcification of the red coral Corallium rubrum. 17èmes Journées Françaises de Biologie des Tissus Minéralisés. Clermont-Ferrand, France. 04-06th February 2015.

2014

- Le Goff C. , Ganot P., Zoccola D., Allemand D**., Tambutté S**. . "Characterization of carbonic anhydrases in the biomineralization of *Corallium rubrum*". 16èmes Journées Françaises de Biologie des Tissus Minéralisés (JFBTM), 14-16 May 2014, Limoges
- Zoccola D., Bertucci A., Ganot P., Tambutté E., Voolstra CR, Aranda M, Allemand D, Casey JR, **Tambutté S**. "Bicarbonate Anion Transporter family in a scleractinian coral". APCRS 2014, Kenting, Taiwan, 23-27th June 2014

2013

- Debreuil J., Tambutté E., Zoccola D., Allemand D., **Tambutté S.** Characterization and comparison of two organic matrix proteins from the skeletal structures of the Mediterranean Red Coral*, Corallium rubrum*. 12th International Symposium on biomineralization. Freiberg, Allemagne. 27-30th August 2013.
- Laurent J., **Tambutté S**., Tambutté E., Ganot P., Allemand D., **Venn A.** The influence of environmental parameters on intracellular pH regulation in symbiotic cnidarians. European Marine Biology Symposium. Galway, Irelande. August 2013.
- Venn AA, Tambutté E, Holcomb M, Laurent J, Allemand D, **Tambutté S**. "Buffering Ocean Change: Biological control of coral calcification'. Bermuda Institute of Ocean Sciences, Bermuda. 20th June 2013

2012

- Venn AA, Tambutte E, Holcomb M, Laurent J, Allemand D, **Tambutte S**. A mechanistic basis to the response of corals to ocean acidification: Seawater acidification reduces intracellular and extracellular pH at the tissue-skeleton. 3rd International Symposium on the Ocean in a High CO2 world, California, USA. Septembre 2012.
- Bertucci, A., **Tambutté S**., Tambutté E., Supuran C.T., Allemand D., Zoccola D. Response of carbonic anhydrases to pCO2 in *Stylophora pistillata*. 12th International Coral Reef Symposium. Cairns, Australie. 09-13 Juillet 2012.
- Debreuil J., Tambutté É., Zoccola D., Deleury E., Guigonis J-M., Samson M., Allemand D. , and **Tambutté S.** An organic matrix protein identified in the sclerites of the Mediterranean red coral, Corallium rubrum. 12th International Coral Reef Symposium. Cairns, Australie. 09-13 Juillet 2012.
- Holcomb, M., **Tambutté S**., Allemand D. Light enhanced calcification in Stylophora pistillata. 12th International Coral Reef Symposium. Cairns, Australie. 09-13 Juillet 2012.
- Laurent J., **Tambutté S.,** Tambutté E., Allemand D, Venn A. Photosynthesis induced changes in intracellular pH in the coral-algal symbiosis. 12th International Coral Reef Symposium. Cairns, Australie. 09-13 Juillet 2012.
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- Laurent J., **Tambutté S**., Tambutté E., Allemand D., Venn A.. The influence of environmental parameters on host intracellular pH in corals. International Atomic Energy Authority Marine Laboratory, Monaco. Février 2012.

Posters

2023

-Schmidt, C.A, Tambutté, E., **Tambutté, S**., Gilbert P.U.P.A. Random crystal orientations in coral skeleton centers of calcification become more ordered with acidification. Biomin XII, 17th International Symposium on Biomineralization, Saint Etienne, France, 28 Août-1er Septembre

-Forin, C., Loentgen, G., Allemand, D., **Tambutté, S**., Ganot P. In vivo injection method to study control of calcification in Octocorals. Biomin XII, 17th International Symposium on Biomineralization, Saint Etienne, France, 28 Août-1er Septembre

-Schmidt, C.A. Hopanchuk, A., Tambutté, E., **Tambutté, S**., Gilbert P. Amorphous and crystalline precursors to coral skeleton formation in acidifying oceans. Biomin XII, 17th International Symposium on Biomineralization, Saint Etienne, France, 28 Août-1er Septembre

-Venn, AA., Tambutté, E., Crovetto, L., Segonds, N., **Tambutté, S**. Effects of irradiance and ocean acidification on transepithelial proton flux in corals. Society for Experimental Biology Centenary Conference, Edinburgh, Scotland. 4-7th Juillet 2023,

-Crovetto, L., Venn, A., Sevilgen, D., **Tambutté, S**., Tambutté E. pH in the cœlenteron of *Stylophora pistillata*: spatial variability and effect of light. 23èmes Journées Françaises de Biologie des Tissus Minéralisés. Sète, France. 22-24 mai 2023.

-Forin, C., Loentgen, G., Allemand, D., **Tambutté, S**., Ganot, P. In vivo injection of exogenous molecules in octocorals : application to the study of calcification. 23èmes Journées Françaises de Biologie des Tissus Minéralisés. Sète, France. 22-24 mai 2023.

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-Lucas Crovetto, Alexander Venn, Duygu Sevilgen, **Sylvie Tambutté**, Eric Tambutté. Potential sources of pH variability in the cœlenteron, implications for coral calcification Journées Boris Ephrussi 2022. Ecole Doctorale Complexité du Vivant de Sorbonne Université, Paris 5-6 mai 2022.

-Lucas Crovetto, Alexander Venn, Duygu Sevilgen, **Sylvie Tambutté**, Eric Tambutté. Potential sources of pH variability in the cœlenteron, implications for coral calcification. 15th International Coral Reef Symposium 2022 (ICRS) à Bremen (3/8 juillet).

-Alexander Venn, Eric Tambutté, **Sylvie Tambutté**. « Proton gradients across the coral calcifying cells: effects of light, ocean acidification and carbonate chemistry". Gordon Research Conference on

2019

- Capasso L., **Tambutté S**., Zoccola D. Investigating ion transport and regulation for calcification in symbiotic and non symbiotic corals, effect of ocean acidification. Journée scientifique de l'ED Boris Ephrussi, Paris, France. 14-15th May, 2019

2018

- Ganot P., Rauch T., Fritz M., Aurelle D., A., Romans P., Zoccola D., Tambutté E., Wang X, Aranda M., Benes V., Allemand D., **Tambutté S**._High quality genome assembly of the octocorallian *Corallium rubrum*. Third Global Invertebrate Genomics Alliance Research Conference and Workshop-GIGA III, Curaçao (Royaume de Hollande). 19th-21st October 2018
- Venn AA., Tambutté E., Segonds N., Techer N., Allemand D., **Tambutté S**. Light influences interspecies differences in pH regulation and metabolism in corals exposed to seawater acidification. Society for Experimental Biology (SEB), Florence, Italie. 3-6th July 2018
- Venn AA., Tambutté E., Techer N., Allemand D., **Tambutté S**. "Light influences interspecies differnces in pH regulation and metabolism in corals exposed to seawater acidification*"*. 20èmes Journées françaises de Biologie des Tissus Minéralisés. Monaco. 21-23rd March2018.
- Bernardet C., Tambutté E., Techer N., Segonds N., **Tambutté, S.,** Venn, A. "Effect of temperature on coral biomineralization: case study of *Stylophora pistillata"*. 20èmes Journées Françaises de Biologie des Tissus Minéralisés . Monaco. 21-23rd March 2018.

2017

-Bernardet C, Tambutté E, Techer N, Segonds N, **Tambutté S**, Venn AA. "The impact of temperature on mechanisms driving coral calcification" European Coral Reef Symposium, Oxford: 13-15th December 2017
- Ganot P., Fritz M, Rausch T, Aurelle D, Haguenauer A, Benes V, Allemand D, **Tambutté S.** « Transcriptome specific expression of the calcifying tissues in *Corallium rubrum* highlights alternative processes for calcification". European Coral Reef Symposium, Oxford : 13-15th December 2017.

2016

- Xin Wang, Zoccola D, Voolstra C, **Tambutté S** and M Aranda. How corals got bones -- comparative genomics highlights the evolution of coral calcification, 13th International Coral Reef Symposium Honolulu, Hawaii 19–24 June 2016.
- Ganot P, Zoccola D, Tambutté E, Voolstra C, Aranda M, Allemand D, **Tambutté S**. Molecular components of septate junctions in Cnidarians delineate evolution of cell-cell occluding junctions in eukaryotes. International conference on Tight junctions and their proteins, Berlin, September 8-10th, 2016

2014

- Le Roy N., Tambutté E., Zoccola D., Segonds N., Techer N., Allemand D., **Tambutté S**. «Caractérisation de la matrice organique extracellulaire minéralisante du squelette carbonaté du corail rouge Corallium rubrum. », 16ème Journée Française de Biologie des Tissus Minéralisés, Limoges, 14-16th May 2014.

2013

- Debreuil J, Tambutté E., Zoccola D., Allemand D., **Tambutté S**. Caractérisation et comparaison de protéines de matrice organique des structures squelettiques du corail rouge de Méditerranée, *Corallium rubrum*. 15èmeJournées Françaises de Biologie des Tissus Minéralisés. Poitiers, France. 30th May -1st june 2013.
- Laurent J., **Tambutté S**., Tambutté E., Ganot P., Allemand D., Tambutté S. Regulation of intracellular pH in cnidarians: response to acidosis in *Anemonia viridis*. Society for Experimental Biology, annual meeting. Valence, Espagne. July 2013.

2012

- Tambutté, E., Holcomb M., Venn A., Zoccola D., Ruffing S., Patapy C., Laugier J-P, Techer N., Segonds N., **Tambutté S**. Insight on coral skeletal growth from acidification experiments. 12th International Coral Reef Symposium. Cairns, Australie. 09-13th. July 2012.

2011

- Debreuil, J., **Tambutté S**., Zoccola D., Segonds N., Techer N., Marschal C., Allemand D., Kosuge S., Tambutté E. Specific Organic Matrix Characteristics in skeletons of *Corallium* species. 11th International Symposium on biomineralization. Noosa Heads, Australie. 10-14th July 2011.

✓ INVOLVEMENT IN THE CONTEXT OF INTERNATIONALLY FUNDED PROJECTS

- University of Wisconsin September 2021-2024. Project leader UW : Gilbert Pupa. Project leader CSM : Sylvie Tambutté. Participants CSM : Eric Tambutté, Alexander Venn, Didier Zoccola. Study on the impact of climate change on coral biomineralization.
- CHANEL 2020 à 2025 Project leader : Allemand D. Participants CSM : Allemand D, Tambutté S, Ferrier-Pagès C, Ganot P, van de Water J A J M. Unité de recherche sur la biologie des coraux précieux.
- HAMEL 2013 à 2019 Project leader : Allemand D. Participants CSM : Allemand D, Tambutté S, Ferrier-Pagès C, Ganot P, van de Water J A J M. Genomics and metagenomics of the red coral : basic and applied aspects.
- L'OREAL 2019-2020 Project leaders : Tambutté S, Ferrier-Pagès C. Participants CSM : Tambutté S, Ferrier-Pagès C, Tambutté E. Expertise on the effects of UV filters on coral physiology.
- L'OREAL 1er juillet au 31 décembre 2019 Project leader : Tambutté S. Participants CSM : Tambutté S, Tambutté E. Set up and validation of a test to measure the effect of components on the growth of microcolonies of the coral *Stylophora pistillata*
- King Abdullah University of Science and Technology 2016-2017. Project leader du Projet Manuel Aranda. Intervenants CSM : Sylvie Tambutté, Eric Tambutté, Alexander Venn, Didier Zoccola. Study on the evolution of biomineralizations and effect of environmental stress on corals, genomic and epigenetic approaches.
- Van Cleef & Arpels 2004. Project leaders CSM and participants CSM : Denis Allemand, Sylvie Tambutté.
- Caltech 2004 Project leader Caltech: Jess ADKINS. Project leader CSM: Sylvie Tambutté. Participants CSM: all team members. Study of carbonic anhydrases in corals.

✓ STUDENTS/POST-DOCTORANTS ADVISOR

- 12 Students Licence/Master

Marie Robert, Master 2 Biodiversité, Ecologie et Evolution (SU), 30 janvier au 30 juin 2023 ; Margaux Gilbert Master 2 Biodiversité, Ecologie et Evolution (SU), 30 january -30 june 2023 ; Clémence Forin, Master 2 Biologie Intégrative et Physiologie (SU), February-June 2022 ; Lucas Crovetto Master 2 Biologie Intégrative et Physiologie (SU), February-June2021 ; Xavier Maccario, Final year internship Technician Intechmer, 19 avril au 27 Août 2021 ; Amaury Jacheet ; Licence 1, Sciences de la Vie et de la Terre, Université de Louvain 6-31 January 2021 ; Paul Cassini, Licence 2 Sciences de la Vie et de la Santé, Université Côte d'Azur, 15-26 July 2021 ; Caroline Bonpain, Licence 3 , Sciences de la Vie, Faculté de Gestion Economie et Sciences de Lille, 2-19 June 2020 ; Apolline Chabenat, Master 2 en Sciences de l'Univers, Environnement, Ecologie (UPMC) ; Pauline Bergsten, Master 1 en Biologie Intégrative et Physiologie (UPMC), 28 April – 30 June 2014 ; Lisandrina Mari, Master 1 en Sciences et Vie de la Santé, Université de Nice Sophia-Antipolis, Nice, February – June 2014 ; Béatrice Gaume, Master 2 Sciences et technologie, UPMC January-June 2007; Béatrice Lecroq, Diplôme d'ingénieur de l'Ecole Polyclinique Fédérale de Lausanne, October 2004-February 2005.

-8 PhD students

- PhD Advisor of Clémence Forin (2022-2025), Ecole Doctorale Complexité du vivant, Sorbonne Universités,
- PhD Advisor of Lucas Crovetto (2021-2024), Ecole Doctorale Complexité du vivant, Sorbonne Universités,
- PhD Advisor of Laura Capasso (2018-2021), Ecole Doctorale Complexité du vivant, Sorbonne Universités,

-PhD Advisor of Coralie Bernardet (2016-2019), Ecole Doctorale Complexité du vivant, Université Pierre et Marie Curie,
-PhD Advisor of Carine LeGoff (2013-2016), Ecole Doctorale Complexité du vivant, Université Pierre et Marie Curie,
-PhD Advisor of Julien Laurent (2010-2013), Ecole Doctorale Diversité du Vivant, Université Pierre et Marie Curie,
-PhD Advisor of Julien Debreuil (2009-2012), Ecole Doctorale Diversité du Vivant Université Pierre et Marie-Curie
-PhD Advisor of Aurélie Moya (2004-2007), Doctorante de l'Université d'Aix Marseille II

9 Post doctorants
Dr Benoit Chatin, Dr Duygu Sevilgen, Dr Nathalie Leroy; Dr Philippe Ganot; Dr Julien Debreuil ; Dr Michael Holcomb ; Dr Jérémie Vidal-Dupiol ; Dr Lucilia Pereira Mouriès ; Dr Isabelle Domart-Coulon.