

CURRICULUM VITAE

Sylvie **Tambutté** born **Bénazet**

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

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Date and place of Birth: 22 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. "Le tissu oral des Anthozoaires : fonctionnement et rôle dans l'association symbiotique".

1993

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

1992

Master 1 in Animal Physiology. Faculté des Sciences de Nice Sophia-Antipolis.

✓ **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 of the Environment of Monaco

✓ **ADMINISTRATIVE ACTIVITIES**

Since July 2015

National Focal Point of the Principality of Monaco Monaco for the Pelagos Agreement

Since 10/06/2015

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

Since 2011

Member of the scientific council of the LABEX CORAIL

✓ CURRENT RESEARCH ACTIVITIES

My research activities concern the biology and physiology of marine organisms. I'm particularly interested in studying the mechanistics of the process of biomineralization/calcification in corals and the impacts of environmental parameters on this process. I'm working on i) the link between symbiosis and calcification, ii) the regulation of ionic transport for calcification, iii) the synthesis of organic matrix used for building calcium carbonate skeletons, iv) the effect of ocean acidification on the mechanistics of coral calcification. My research activities spread from the genes to the cells and the organisms by combining biochemistry, microscopy and physiology approaches. I'm currently leading a team of 3 senior scientists, 2 post-doctorants, 1 PhD student, 2 technicians and Master students.

LIST OF PUBLICATIONS AND OTHERS

✓ PEER-REVIEWED PUBLICATIONS

2018

-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. Coral calcifying fluid pH is modulated by seawater carbonate chemistry not solely seawater pH. 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 CO₂-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 CO₂-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 acidosis 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.

-Tambutté, E., **Tambutté, S.**, Segonds, N., Zoccola, D., Venn, A., Erez, J., Allemand, D., 2012. Calcein labelling and electrophysiology: Insights on coral tissue permeability and calcification. *Proc. Biol. Sci.* 279, 19-27.

2011

-**Tambutté, S.**, Holcomb, M., Ferrier-Pagès, C., Reynaud, S., Tambutté, E., Zoccola, D., Allemand, D., 2011. Coral biomineralization: From the gene to the environment. *J. Exp. Mar. Biol. Ecol.*, 58-78.

-Venn, A., Tambutté, E., Holcomb, M., Allemand, D., **Tambutte, S.**, 2011. Live tissue imaging shows reef corals elevate pH under their calcifying tissue relative to seawater. *PLoS ONE* 6, e20013.

-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

- Bertucci, A., Zoccola D., **Tambutté S.**, Vullo, D., Supuran, C. 2010. Carbonic anhydrase activators. The first activation study of a coral secretory isoform with amino acids and amines. *Bioorg. Med. Chem.* 18(6): 2300-2303. doi:10.1016/j.bmc.2010.01.059

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

- Vidal-Dupiol J., Adjeroud M., Roger E., Fouré L., Duval D., Moné Y., Ferrier-Pagès C., Tambutté É., **Tambutté S.**, Zoccola D., Allemand D., Mitta G. 2009. Coral Bleaching Under Thermal Stress: Putative Involvement of Host/Symbiont Recognition Mechanisms. *BMC Physiology.* 9 : 14. Doi : 10.1186/1472-6793-9.14

- Bertucci A., Innocenti A., Zoccola D., Scozzafava.A., Allemand D., **Tambutté S.**, Supuran C.T. 2009. Carbonic anhydrase inhibitors: Inhibition studies of a coral secretory isoform with organic anions. *Bioorg. Med. Chem. Lett.* 19(3):650-3.

- Ferrier-Pagès C., Tambutté E., Zamoum, T., Segonds N., Merle P.L., Bensoussan, N., Allemand D., Garrabou, J., **Tambutté S.** 2009. Physiological response of the symbiotic gorgonian *Eunicella singularis* to a long-term temperature increase. *J. Exp. Biol.* 212: 3007-3015

- Bertucci A, Innocenti A, Zoccola D, Scozzafava A, **Tambutté S**, Supuran CT. Carbonic anhydrase inhibitors. 2009 Inhibition studies of a coral secretory isoform by sulfonamides. *Bioorg Med Chem.* 2009 Jul 15: 17(14):5054-8

2008

- Moya A., **Tambutté S.**, Bertucci A., Tambutté E., Lotto S., Vullo D., Supuran C., Allemand D, and Zoccola D. 2008. Carbonic anhydrase in the Scleractinian Coral *Stylophora pistillata*. Characterization and role in biomineralization. *J. Biol. Chem.* 283 (37): 25475–25484.

- Moya A., **Tambutté S.**, Béranger G., Gaume B., Scimeca J-C., Allemand D., Zoccola D. 2008. Cloning and use of a coral 36B4 gene to study the differential expression of coral genes between light and dark conditions. 2008. Mar. Biotech. 10:653-663.

- Moya A., Ferrier-Pagès C., Furla P., Richier S., Tambutté E., Allemand D., **Tambutté S.** 2008. Calcification and associated physiological parameters during a stress event in the scleractinian coral *Stylophora pistillata*. Comp. Biochem. Physiol. A : 151: 29-36.

- Cvejić J., **Tambutté S.**, Lotto S., Mikov M., Slacanin I., Allemand D. 2008. Reply to the comment of Fritsch and Karampelas on "Determination of canthaxanthin in the red coral (*Corallium rubrum*) from Marseille by HPLC combined with UV and MS detection" by Cvejić et al. (2007) Mar Biol 152:855-862. Mar Biol 154:931-932.

2007

- Tambutté É., Allemand D., Zoccola D., Meibom A., Lotto S., Caminiti N., **Tambutté S.** 2007. Observations of the tissue-skeleton interface in the scleractinian coral *Stylophora pistillata*. Coral Reefs. 26 :517-529.

- Cvejić J., **Tambutté S.**, Lotto S., Mikov M., Slacanin I., Allemand D. 2007. Determination of canthaxanthin in the red coral (*Corallium rubrum*) from Marseille by HPLC combined with UV and MS detection. Mar Biol. 152 : 855-862.

- Puverel S., Houlbrèque F., Tambutté É., Zoccola D., Payan P., **Tambutté S.**, Allemand D. 2007. Evidence of low molecular weight components in the organic matrix of the reef building coral, *Stylophora pistillata*. Comp. Biochem. Physiol. Mol. Integr. Physiol. 147 (4) : 850-857.

2006

-Meibom A., Yurimoto H., Cuif J.-P., Domart-Coulon I., Houlbreque F., Constantz B., Dauphin Y., Tambutté É., **Tambutté S.**, Allemand D., Wooden J., Dunbar R. 2006. Vital effects in coral skeletal composition display strict three-dimensional control. Geophys. Res. Lett. 33: L11608.

-**Tambutté S.**, Tambutté É., Zoccola D., Caminiti N., Lotto S., Moya A., Allemand D., Adkins J. 2006. Characterization and role of carbonic anhydrase in the calcification process of the azooxanthellate coral *Tubastrea aurea*. Mar Biol. 151:71-83.

-Moya A., **Tambutté S.**, Tambutté É., Zoccola D., Caminiti N., Allemand D. 2006. Study of calcification during a daily cycle of the coral *Stylophora pistillata*. Implications for "Light-Enhanced Calcification". J. Exp. Biol. 209: 3413-3419.

2005

- Puverel S., Tambutté É., Pereira-Mouries L., Zoccola D., Allemand D., **Tambutté S.** 2005. Soluble organic matrix of two Scleractinian corals: Partial and comparative analysis. Comp. Biochem. Physiol. Biochem. Mol. Biol. 141B : 480-487.

-Puverel, S., Tambutté É., Zoccola D., Coulon-Domart I. , Bouchot A. , Lotto S., Allemand D., **Tambutté S.** 2005. Antibodies against the organic matrix in scleractinians: a new tool to study coral biomineralization. Coral Reefs 24: 149-156.

-Furla P., Allemand D., Shick J.M., Ferrier-Pagès C., Richier S., Plantivieux A., Merle P.-L., **Tambutté S.** 2005. The Symbiotic Anthozoan: a Physiological Chimera between Alga and Animal. Integr. Comp. Biol. 45 (4) : 595-604

2004

- Domart-Coulon. I. J., Sinclair C.S., Hill R.T., **Tambutté S.**, Ostrander G. K. 2004. A basidiomycete isolated from the skeleton of *Pocillopora damicornis* (Scleractinia) selectively stimulates short-term survival of coral skeletogenic cells. Mar. Biol. 144: 583-592.

-Domart-Coulon I., **Tambutté S.**, Tambutté É., Allemand D. 2004. Short term viability of soft tissue detached from the skeleton of reef-building corals. J. Exp. Mar. Biol. Ecol. 309: 199-217.

-Plantivieux A., Furla P., Zoccola D., Garello G., Forcioli D., Richier S., Merle P.-L., Tambutté É., **Tambutté S.**, Allemand D. 2004. Molecular characterization of two CuZn-superoxide dismutases in a sea anemone. Free Radical Biology & Medicine 37 (8): 1170-1181.

-Zoccola D., Tambutté É., Kulhanek E., Puverel S., Scimeca J-C., Allemand D., **Tambutté S.** 2004. Molecular cloning and localization of a PMCA P-type calcium ATPase from the coral *Stylophora pistillata*. Biochim Biophys Acta Biomembr. (1-2):117-26.

-Allemand D., Ferrier-Pagès C., Furla F., Houlbrèque F., Puvarel S., Reynaud S., Tambutté É., **Tambutté S.**, Zoccola D. 2004. Biomineralisation in reef-building corals: from molecular mechanisms to environmental control. *Comptes Rendus Palevol* 3: 453-467.

-Pereira-Mouriès L., **Tambutté S.**, Tambutté, E., Puvarel, S., Zoccola, D., Payan, P., Allemand D. Preliminary study of the organic matrix secretion pattern into biominerals : the scleractinian corals and fish otolith models. *Geochim. Cosmochim. Acta.* 68 (11): A203.

1998

-Allemand D., Furla P., Bénazet-**Tambutté S.** 1998. Mechanisms of carbon acquisition for endosymbiont photosynthesis in Anthozoa. *Can. J. Bot.* 76: 925-941.

-Furla P., Bénazet-**Tambutté S.**, Jaubert J., Allemand D. 1998. Diffusional permeability of dissolved inorganic carbon through the isolated oral epithelial layers of the sea anemone, *Anemonia viridis*. *J. Exp. Mar. Biol. Ecol.* 221: 71-88.

-Furla P., Bénazet-**Tambutté S.**, Jaubert J., Allemand D. 1998. Functional polarity of the tentacle of the sea anemone, *Anemonia viridis*: role in inorganic carbon acquisition. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 274 (2): R303-R310.

1997

-Bénazet-**Tambutté S.**, Allemand D. 1997. Water permeability of the oral epithelial layers of the sea anemone, *Anemonia viridis*. *J. Exp. Zool. Part A.* 279: 1-8.

1996

-Bénazet-**Tambutté S.**, Allemand D. 1996. Inorganic carbon supply to symbiont photosynthesis of the sea anemone, *Anemonia viridis*: role of the oral epithelial layers. *Symbiosis.* 20: 199-217.

-Bénazet-**Tambutté S.**, Allemand D., Jaubert J. 1996. Permeability of the oral epithelial layers in cnidarians. *Mar. Biol.* 126: 43-53.

-Allemand, D., Tambutté, S. 1996. Dynamics of calcification in the Mediterranean red coral, *Corallium rubrum* (Linnaeus) (Cnidaria, Octocorallia). *J. Exp. Zool.* 276 : 270-278.

✓ OTHER PUBLICATIONS

-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.

-Allemand D., Ferrier-Pagès C., Furla P., Houlbrèque F., Puvarel, S., Reynaud, S., Tambutté E., **Tambutté S.**, Zoccola, D. 2004. Biomineralisation in reef-building corals : from molecular mechanisms to environmental control. *Palevol* 3: 453-467.

-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*

✓ MEETINGS

Oral communications

2017

-Sevilgen DS, Venn A, Hu M Y-A, Tambutté E, deBeer D, **Tambutté S.** "Microscope-guided characterization of pH, CO₂- and Ca²⁺ in the calcifying medium of *Stylophora pistillata*

microcolonies –a combined methodological approach”. European Coral Reef Symposium, Oxford. 13.-15.12.2017

-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.-15.12.2017

-Venn AA, Éric Tambutté, S. Comeau., P. Edmunds, Denis Allemand and Sylvie Tambutté “*The influence of seawater dissolved inorganic carbon (DIC) on calcifying medium pH in corals*”. Meeting de la Society for Experimental Biology, Gothenburg, Sweden , 03-07 Juillet 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, 15th-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, 18th -o19th 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 19–24 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 19–24 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, 1-3 juin 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. 16-19 Septembre 2015.

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Posters

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-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: 13-15 décembre 2017

- Ganot P., Fritz M, Rausch T, Aurelle D, Haguenaer 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 : 13-15 décembre 2017.

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-Xin Wang, Zoccola D, Voolstra C, **Tambutté S** and Aranda M. 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 – 10, 2016

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-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 au 16 mai 2014.

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-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. Juillet 2013.

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-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. 09-13. Juillet 2012.

-Serrano, B., Tambutté, E. Tambutté S., Allemand D., Gilles P., Maurel P., Rigo P. Coral annual banding occurs in the absence of environmental fluctuations. 12th International Coral Reef Symposium. Cairns, Australie. 09-13. Juillet 2012.

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-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. 10-14 Juillet 2011.

✓ INVITED LECTURES

-Meeting of the Society for Experimental Biology, 03-07 Juillet 2017, Gothenburg, Suède
“Role of pH regulation in coral calcification” **S. Tambutté**.

- Physiologisches Kolloquium, Christian Albrechts Universität, Kiel, Allemagne. Ion transport and regulation in coral calcification” **S. Tambutté** et A. Venn “

-Biomineralization in Sponges, Plants and Corals. Biomineralization Gordon Research Conference 14-19 août, 2016, GA Catalunya Business and Convention Centre, Girona, Spain **S. Tambutté**, (session leader)

-Tight junctions and their proteins. 08-10 September 2016, Berlin. **S. Tambutté**.

-Gordon Research Conferences (GRC) on Biomineralization. 14-19 Juillet 2016. Leader of the session “Biomineralization in Sponges and Corals”. Girona, Spain. **S. Tambutté**

-Munich GeoCenter’s Frontiers in Earth Sciences Seminar Series. 16 Janvier 2015. “Mechanistics of coral calcification in the context of ocean acidification”. ”. **S. Tambutté**

- Gordon Research Conferences (GRC) on Biomineralization (50th anniversary), Colby-Sawyer College, New London, New Hampshire, USA, 17-22 août 2014: “Ion Transport for Coral Biomineralization: From Physiology to Functional Genomics in the context of Ocean Acidification”. **S. Tambutté**

-International Symposium on Pacific Precious Corals, Taipei, Taiwan, 2014. “Calcification in *Corallium rubrum*, a jewel of interest for biologists. **S. Tambutté**

- 14èmes Journées Françaises de Biologie des Tissus Minéralisés. Bordeaux, France. 29-31 Mai 2012. Biominéralisation chez les coraux et changement global. **S. Tambutté**
- International Consensus Statement Workshop. Paris, 13-15 Décembre 2012. Ocean acidification and Coral calcification : What we know and What we need to know. **S. Tambutté**
- Mini-Symposium: Functional coral biology: mechanisms of calcification. Chairman de la session. 12th International Coral Reef Symposium. Cairns, Australie. 09-13. Juillet 2012. **Tambutté S.**, Cohen A., Holcomb M.

✓ **STUDENTS / POST-DOCTORANTS ADVISOR**

- 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
- Co-PhD Advisor of Aurélie Moya (2004-2007), Doctorante de l'Université d'Aix Marseille II
- Advisor of Master students: Apolline Chabenat, Master 2 en Sciences de l'Univers, Environnement, Ecologie (UPMC), Pauline Bergsten, Master 1 en Biologie Intégrative et Physiologie (UPMC), 28 avril – 30 juin 2014 ; Lisandrina Mari, Master 1 en Sciences et Vie de la Santé, Université de Nice Sophia-Antipolis, Nice, Février – Juin 2014 ; Béatrice Gaume, Master 2 Sciences et technologie, UPMC Janvier-Juin 2007; Béatrice Lecroq, Diplôme d'ingénieur de l'Ecole Polyclinique Fédérale de Lausanne, Octobre 2004-Février 2005.
- Advisor of Post-doctorants : Dr Duygu Sevilgen, Dr Nathalie Leroy; Dr Philippe Ganot; Dr Julien Debreuil ; Dr Michael Holcomb ; Dr Jérémie Vidal-Dupiol ; Dr Lucilia Pereira Mourière ; Dr Isabelle Domart-Coulon.