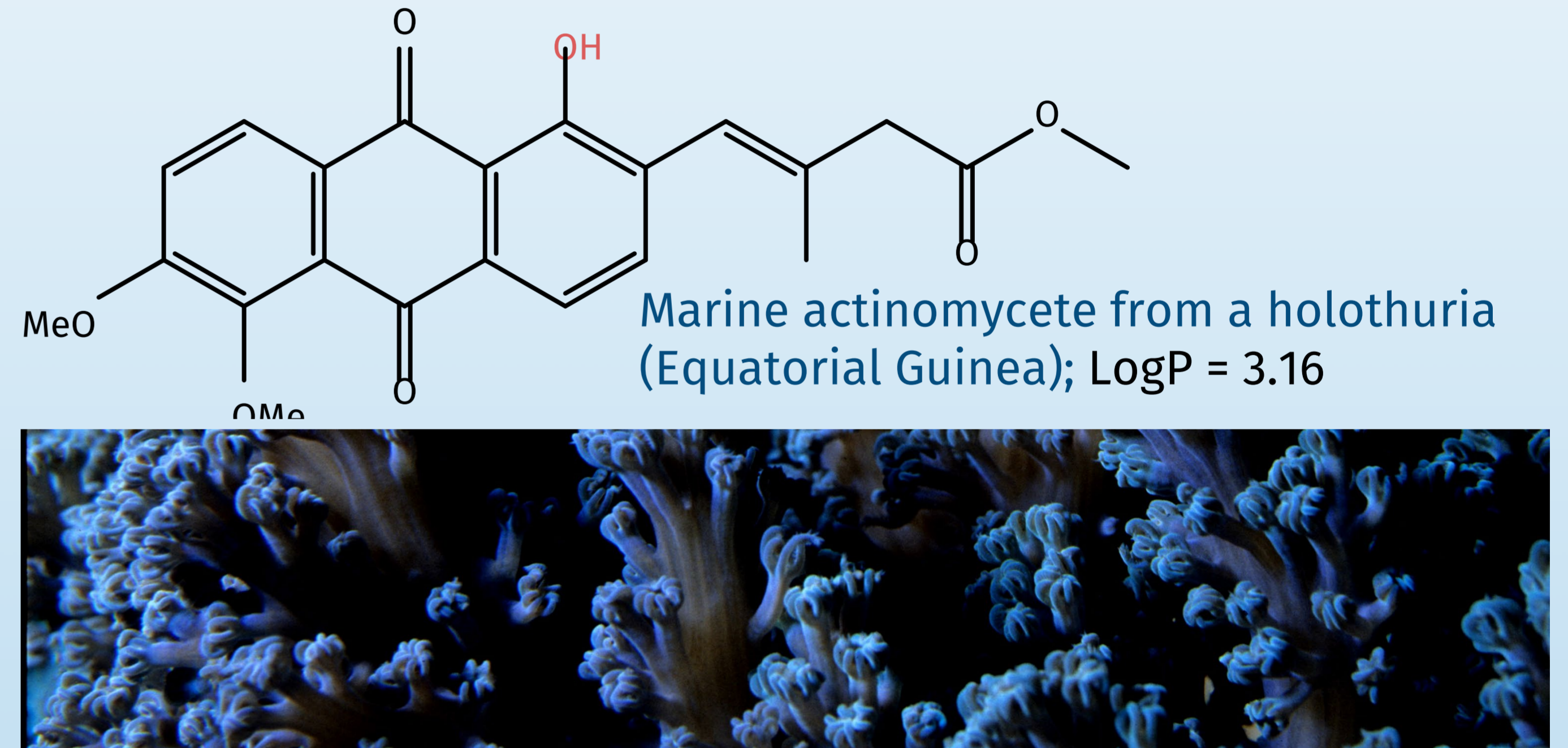
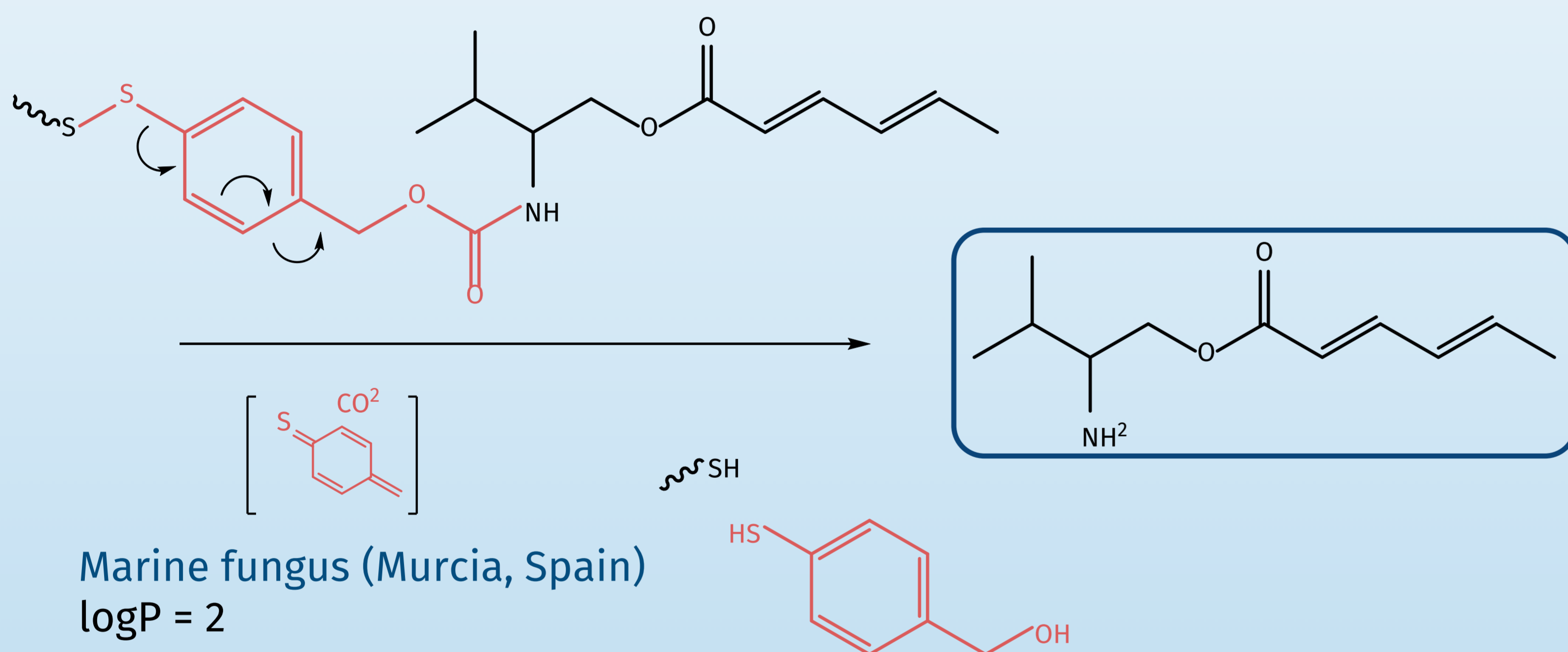
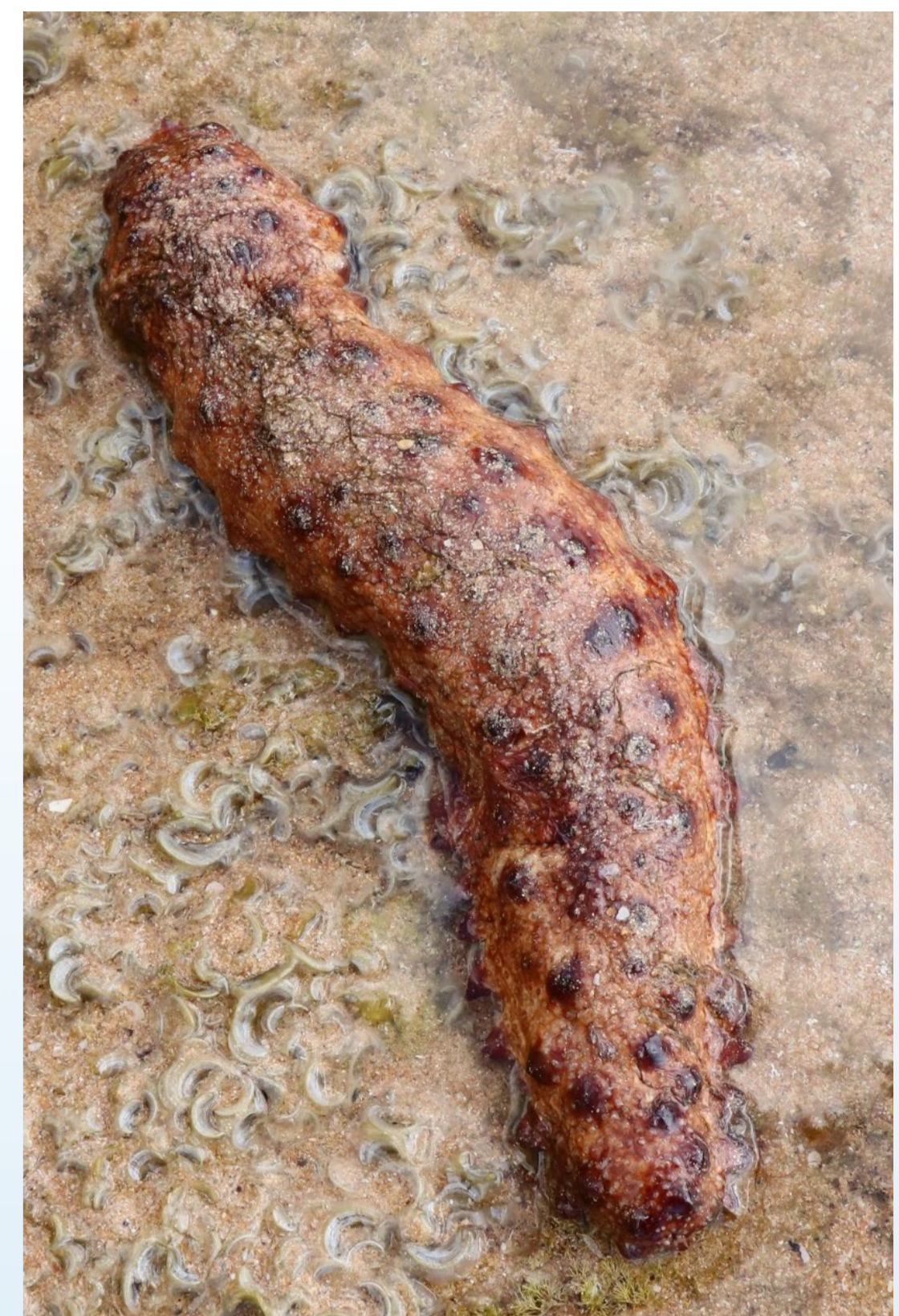
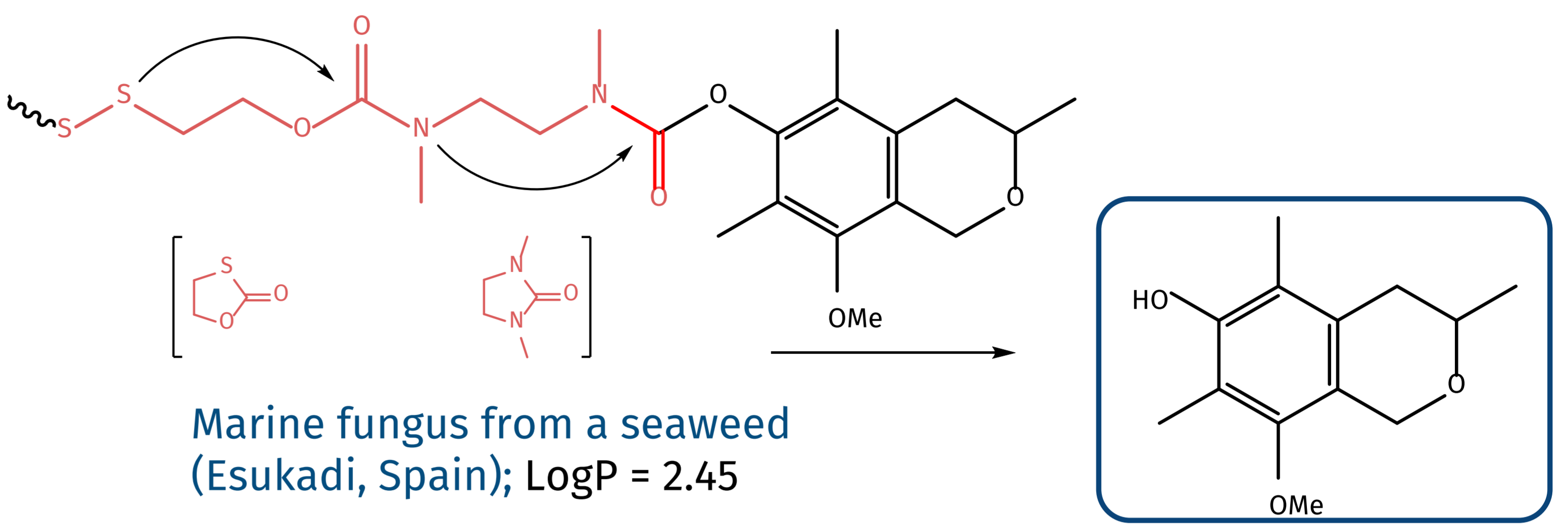
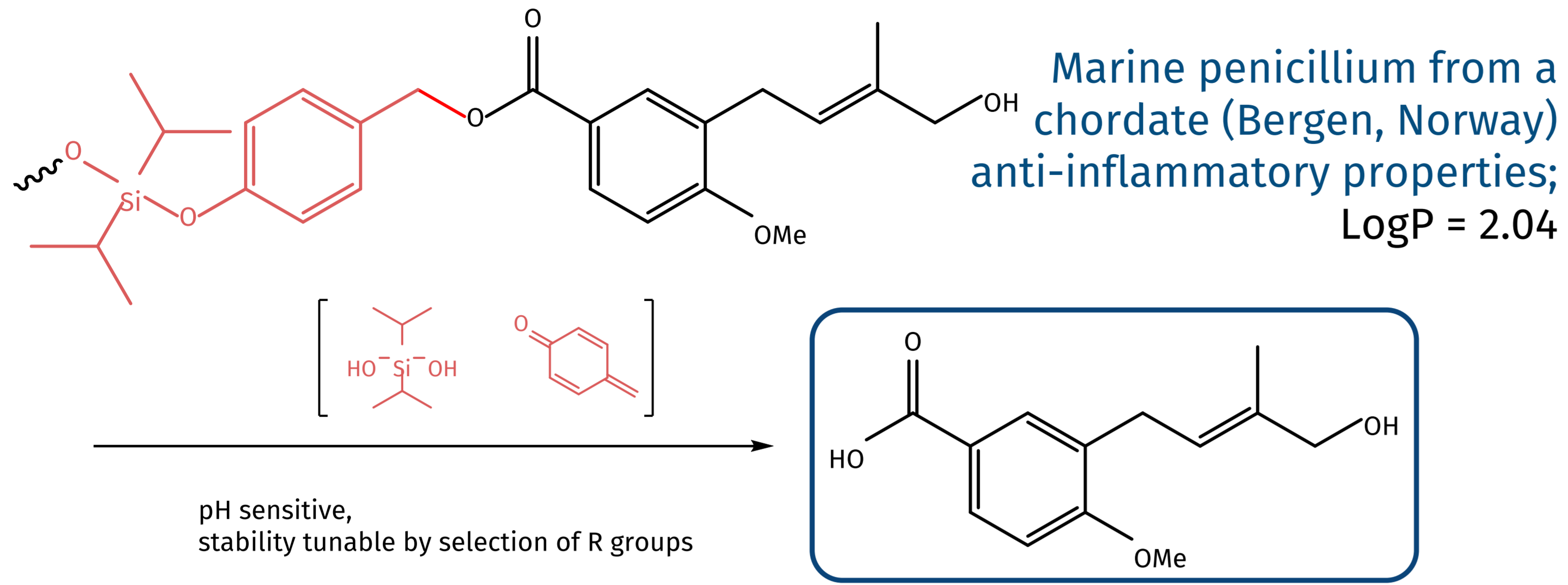


Linkerology®

2023 # 02 – Conjugation of Marine Natural Products



Examples how Marine Natural Products can be Decorated with (Self-Immolative) Linkers



Linkerology® - Conceptual Overview

Carrier	Surface Treatment & Conjugation Chemistry	Cleavage	Fragmentation	Cargo Functionality
Biopolymers: <ul style="list-style-type: none"> Peptides Proteins Antibodies Single Chain Nanobodies Camelids Oligonucleotides Aptamers 	Thioether formation with maleimide Disulfide bond formation Acylation of amines His-Tag acylation Click conjugation (CuCAAC, SPAAC, IEDDA) Enzyme supported conjugation: <ul style="list-style-type: none"> HaloTag® CLIP-Tag™ SNAP-Tag® Sequence dependent conjugation (Sortase)	Enzymatic hydrolysis: <ul style="list-style-type: none"> Val-Ala Val-Cit Phe-Lys Gly-Phe-Leu-Gly Ala-Leu-Ala-Leu Cyclobutyl-Ala Cyclobutyl-Cit Glucuronic acid 	p-Aminobenzyl p-Hydroxybenzyl p-Mercaptobenzyl Oxathiolone Dimethylimidazolidinone 	Primary & secondary amines Tertiary amines Alcohols Phenols Carboxylic acids
Carbon: <ul style="list-style-type: none"> Nanotubes Fullerenes 	Nitrenen addition via photoactivation of perfluoroarylazides	Reduction 		
Metals: <ul style="list-style-type: none"> Gold Silver 	Affinity of sulfur to gold and silver			
Metal oxide	Chelat formation			
Plastic polymers: <ul style="list-style-type: none"> Teflon Polyethylene Polystyrene Latex 	Ammonia or acrylic acid plasma followed by amide bond formation	Acidic hydrolysis 		
Silicates	Affinity of silicon and oxygen			