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Actors: Scripps Institute of Oceanography (SIO), aovernment of The Bahamas

Bahamas

The Bahamas (provider): Salinispora tropica is a marine actinomycete bacteria, until now exclusively found in marine sediments of the Bahamian coasts. The initial research was triggered by the potential of actinomycetes to produce potential drug candidates. The Scripps Institute of Oceanography (University of California) as a public institution was authorised by the Bahamian government to collect and use sediment samples.

California

California/USA (user): After the description of the new genus Salinispora and the species Salinispora tropica, researchers discovered the secondary metabolite Salinosporamide A produced by S. tropica which showed anti-cancer activity via proteasome inhibition. The University of California filed patents on the genetic resource and potential medicinal uses of the biomolecule. Nereus Pharmaceuticals filed patents on its chemical synthesis and initiated clinical studies. In 2014, clinical phase 2 trials are being conducted by Triphase Research and Development I Corporation.



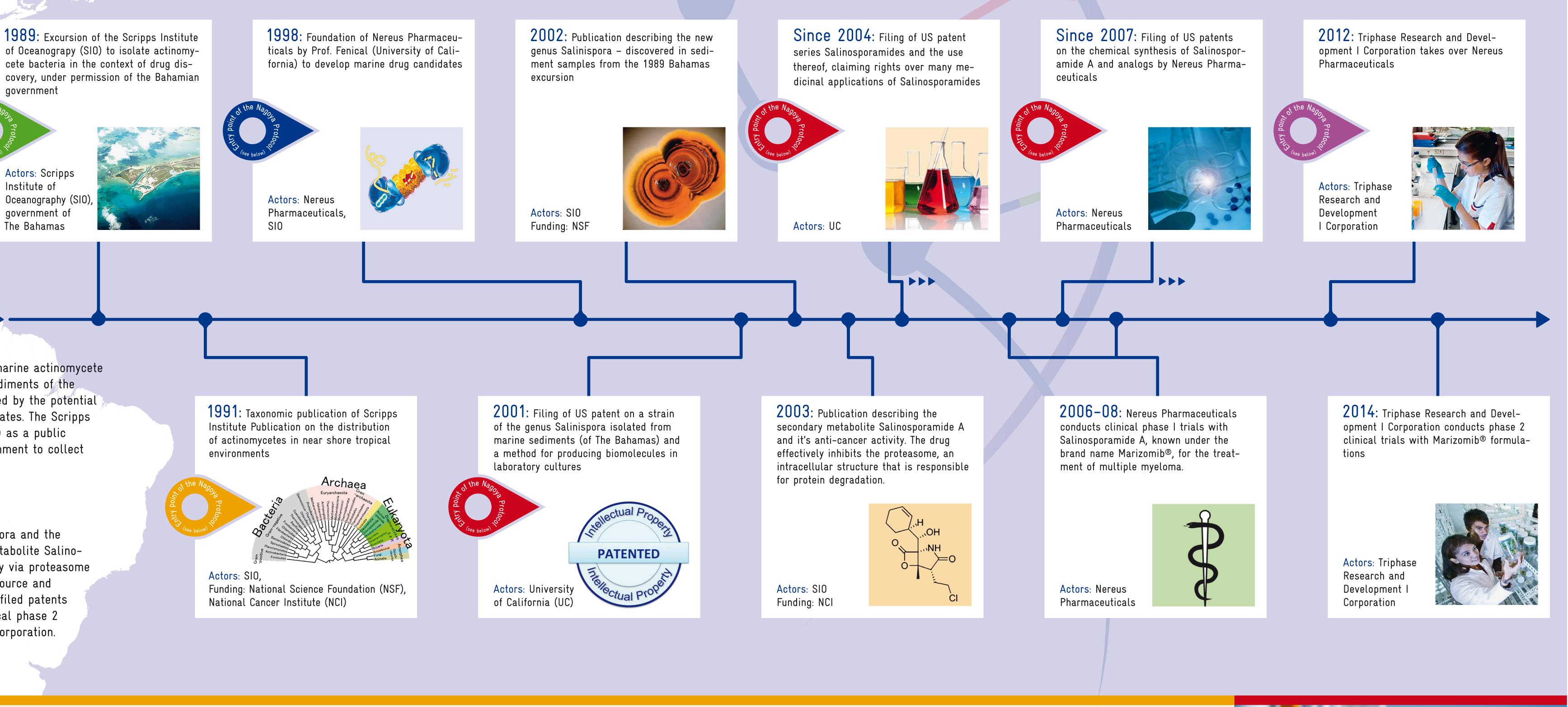
Salinospora tropica is a marine actinomycete bacteria first discovered and described by the Scripps Institute of Oceanography (University of California). Until now S. tropica is exclusively found in the marine sediments of the Bahamian coasts.

Analysis – User and Provider Activities

User activities: The pattern observed in the Salinispora tropica case exhibits many typical elements of bioprospection and R&D in the pharmaceutical field. These are, e.g. the initial research by a public institution, transfer of the genetic resource and research results to a research-oriented company, a series of strategic patents and the involvement of another medical company at the stage of clinical trials. More companies will be involved if a drug could be produced and marketed.

Provider activities: Although the Salinispora tropica case begun pre-CBD, the role of the provider country is symptomatic for a large number of post-CBD bioprospection cases. A lack of strategic approaches towards the valorisation of national genetic resources and a lack of policy and legislative activities on ABS result in missed opportunities with regard to benefit sharing and finally endogenous development. The absence of monitoring and compliance mechanisms result in a lack of information on the utilisation of provider's genetic resource.

PHARMACEUTICAL SECTOR – Salinispora tropica (The Bahamas)



OPPORTUNITIES PROVIDED BY THE NAGOYA PROTOCOL: Benefit sharing could have been ensured and the R&D and commercialisation process made more transparent for the provider country through national ABS legislation and in particular comprehensive and effective PIC and MAT, taking into account sector specific milestones.

O Monitoring of the research purpose right from the beginning of the R&D process

When the research shifted from non-commercial to commercial, the Bahamian government could have ensured its share of a possible benefit

Shift from non-commercial to commercial utilisation: a second MAT and PIC, particularly in regards to monetary benefits, would include third parties, especially commercial users, in ABS agreements

The Bahamas could have benefited from provisions related to Intellectual Property Rights (IPR), e.g. co-inventorship and sharing of royalties and licence fees

Changes of ownership: MAT provisions must cover possible changes of ownership over genetic resources, derivatives, information and IPR through acquisitions or after bancrupcies. Contractual benefit sharing obligations need to be handed over to new owners.

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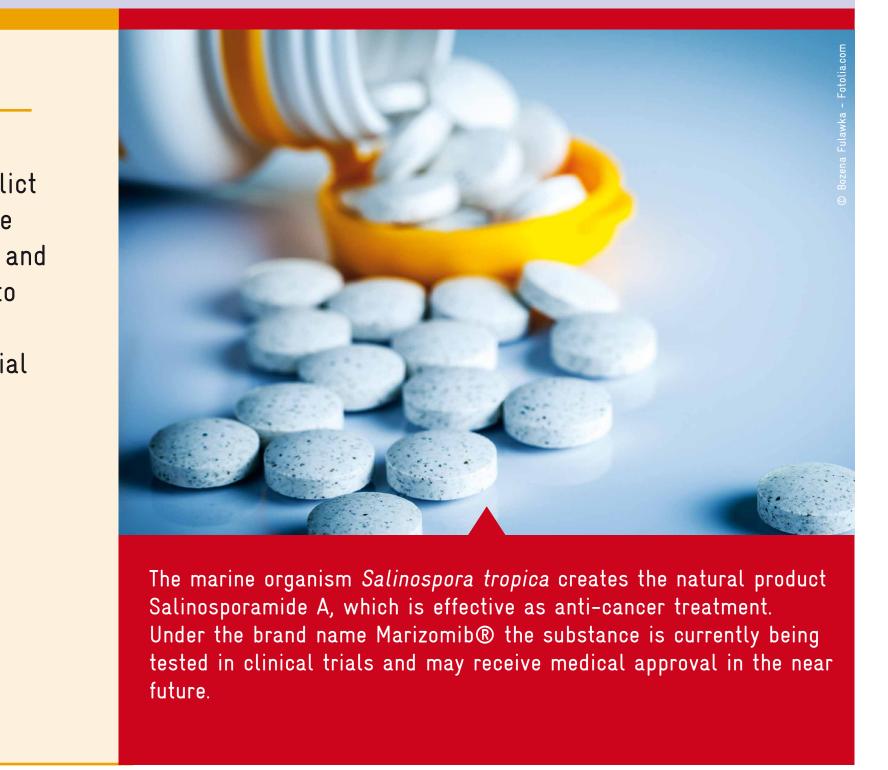


Key institutions and provisions (checkpoints, provisions of conflict resolution) to ensure compliance are still absent on the national and international level. The entry into force of the Nagoya Protocol in October 2014 represents a crucial step towards establishing such compliance mechanisms.

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