

# Chapter 11

## Grand Challenges in Marine Biotechnology: Overview of Recent EU-Funded Projects



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### 1 Introduction

The EU FP7 programme funded several projects from 2007 until 2017. Theme 2 ‘Food, Agriculture and Fisheries, and Biotechnologies’ played a key role to support marine-related research projects and covered sustainable production and management of fisheries and aquaculture, quality and safety in food products as well as marine biotechnologies ([http://ec.europa.eu/research/bioeconomy/pdf/interim\\_catalogue\\_of\\_marine\\_projects-2012\\_en.pdf](http://ec.europa.eu/research/bioeconomy/pdf/interim_catalogue_of_marine_projects-2012_en.pdf)). Theme 2 included the following activities: (2.1) sustainable production and management of biological resources from land, forest and aquatic environments; (2.2) fork to farm, food (including seafood), health and well-being; and (2.3) life sciences, biotechnology and biochemistry for sustainable non-food products and processes. The projects belonging to Theme 2 are reported in Table 11.1. In this chapter, we focus only on projects related to activity 2.3 and, in particular, on KBBE-3-2 on ‘Marine and fresh-water biotechnology (blue biotechnology)’ projects since these are the ones that are most related to drug discovery. In addition, we also focus on the few ongoing projects funded under the topic ‘Blue Growth’ of H2020 aimed at improving the exploitation of marine organisms for drug discovery and other industrial applications. Exploring the potential of marine biodiversity has increased and will further increase also, thanks to advancements in sampling and cultivation technologies and in molecular biology techniques. The number of potential compounds isolated from marine organisms now exceeds 28,000 with hundreds of new compounds being discovered every year [1]. However, those that have either been marketed or are under development are relatively few

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