

Technology Entrepreneurship in the Case of Marine-Based Nutraceuticals

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Principal Topic

This paper investigates entrepreneurship in an emerging sector, i.e. nutraceuticals derived from marine extracts, which involves the injection of marine biotechnology. This sector is increasingly important in light of the push towards the 'knowledge economy' in primary industries such as the seafood sector of New Zealand.

Methodology/Key Propositions

The study induces insights into successful entrepreneurship from both primary and secondary data. Primary data concern the entrepreneurial activities of an Australasian firm that has overseen the innovation of a highly purified marine lipid extract (Lyprinol®), which is an anti-inflammatory) as well as the subsequent commercialization of Lyprinol® through the partial transfer of technology to business affiliates. Secondary data pertain to successful ventures, such as Martek Biosciences, in other locales.

Results and Implications

Our findings run contrary to the perspective held by marine biotechnologists that the ultimate goal of marine biotech pioneers should be to interest industrial firms in markets such as food, cosmetics, and pharmaceuticals, and that pioneers should accordingly make 'smart choices.' (Such a perspective derives from the promise and potential that is suggested by the unsurpassed natural variety that obtains in marine organisms, especially microalgae and invertebrates.) However, this view is not easily reconcilable with the relative paucity of success-stories in marine pharmacology and the causes thereof. Rather, the management of risk by pioneers in marine biotech calls for contingency measures, such as natural extraction in lieu of chemical synthesis, should the transfer of technology to industrial firms not eventuate. A critical element of the management of such risk is collaborative innovation, and in particular, the juxtaposition of critical and diverse flows of information for generating meaningful problem definitions.

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