mainstream, which ultimately did not do any good to them. The natives have seen a drastic population reduction and exposure to many diseases since more people started settling down on the Islands. To sustain this population, forests were cut down and land was used for settlements and agriculture. The author has described the situation of the tribal communities in great detail; this book may be the first documentation of the life of these indigenous communities in such a detailed manner.

Tourism is another major source of destruction of these fragile islands. Every year a large number of tourists visit the Islands (thanks to Government subsidies), putting more pressure on this delicate ecosystem. Chapters 18 and 22 speak about two different incidences related to tourism which are interesting. Numerous orders by the Supreme Court in favour of the environment and their non-compliance by the local administration are really disturbing; the book provides a detailed list of these orders.

The author associates several problems with the construction of the 340 km-long Andaman Trunk Road (ATR), which runs through the heart of Jarawa settlements. Due to increasing encroachment in and around the area, more forests are being cut down affecting the overall ecosystem as well as the well-being of the Jarawas. Despite orders to close down the ATR in 2002, the local administration seems to be ignoring them. In 2003, the Supreme Court had ordered to close down parts of the ATR which passed through Jarawa territory. ATR is a convenient route for tourists and the conflict is difficult to resolve. A photograph of Jarawa women begging for food along the ATR in this book is disturbing and illustrates the unfortunate situation of the native people.

Political agenda seems to be development-oriented, ignoring the ecosystem as well as the native people. Environmentalist are fighting to restore or at least conserve what is left. The local administration is turning a deaf ear to environmental problems and problems of the native people. Chapter 23 talks about what happened during the visits by various Presidents of India. The military is also gaining interests, especially in the Nicobar Islands.

This book emphasizes that it is important to evaluate the consequences of development. Unsustainable ways of development have proven to be catastrophic to the natural systems. The land-use changes, population growth, unsustainable use of natural resources in the recent past and disastrous effects of the tsunami have left the A&N Islands fragile. Immediate action-oriented plan for sustainable development is extremely important for the future of the Islands. This book also lists five appendices which describe the laws, policy and timeline of the A&N Islands that are vital to understanding the history and political issues of the Islands. Twelve boxes spread across the book are filled with information ranging from origin of the names of places on the Islands to policy related to indigenous people to turtle biology and endemic biota. Photographs in the middle portion of the book are representative of the major topics covered, such as forests and biodiversity, timber extraction and interaction between tribal people and tourists.

The book is an advisable read for all Government employees who get posted in the A&N Islands, including the military personnel. Using previous experiences which the author narrates in detail, the decision makers can make correct choices in the future. This book will also be of interest to social science students and any enthusiast who would like to know more about the Islands than simple tourism. Additionally, this book will serve as an important reading material for anthropologists, as there is notable information provided about the indigenous people and issues related to them. It can also serve as a good course material for environmental laws and management courses. The author never hesitates to point out the impracticable visions of the administration with regard to tourism, military, tribal affairs and biodiversity conservation. Finally, we recommend that all flights and ships to Port Blair from the mainland should hand over chapters from this book as a part of on-board magazines, especially to the 'subsidized tourists', as parts of this book are as important as safety protocols in the flight seat pouches.

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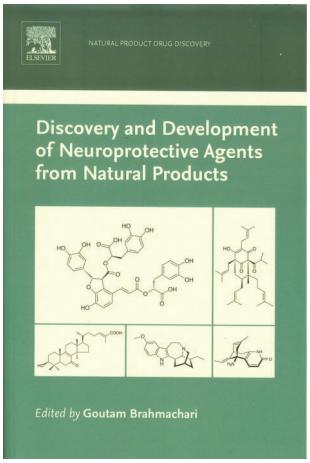

Discovery and Development of Neuroprotective Agents from Natural products: Natural Product Drug Discovery. Goutam Brahmachari (ed.). Elsevier, Radarweg 29, PO Box 211, 1000 AE Amsterdam, The Netherlands. 2018. xxiii + 465 pages. Price: US$ 200.

This book discusses about recent developments in the area of neuroprotective natural products with respect to their isolation, characterization, and their pharmaceutical applications in the area of neurodegenerative diseases. In the first of 12 chapters, the author gives a brief outline of the book and summarizes the contents presented in each chapter.

Chapter 2 provides details regarding the natural phytoestrogen showcasing their promising neuroprotective activities against Parkinson disease. Phytoestrogens are a group of compounds found naturally in plants which exhibit similar structural and chemical properties like 17β-estradiol. The antioxidant and anti-inflammatory activities along with neurotropic signalling pathways induced by phytoestrogens are discussed. Additionally, neuroprotective effects of various flavonoids such as quercetin, myricitrin, kaempferol, morin, etc. and isoflavonoids such as daidzein, puerarin and biochanin A are discussed in detail.

Chapter 3 is about Alzheimer's disease (AD) and its treatment using natural products and their derivatives. In the beginning there is a brief introduction about AD followed by a discussion on current treatments using natural products and their derivatives, based on cholinesterase inhibitors (ChE-Is), a group of drugs used for mild to moderate AD. The three most commonly used drugs are galanthamine, donepezil and rivastigmine.

Next a comprehensive discussion on different plant species with potential to treat AD is presented. There is information about *Galanthus* and *Narciussus* species (Amarryllidaceae), *Berberis* species (Berberidaceae), *Cistus* species (Cistaceae) and different plants from the Lamiaceae family.

Chapter 4 deals with the treatment of AD using natural biophenols. These ubiquitous secondary metabolites from plants possessing at least an aromatic ring substituted with one or more hydroxyl groups. Initially, the classification of biophenols is provided along with details on sample handling, extraction and analysis techniques for these compounds. It also provides valuable information regarding *in vitro* and *in vivo* effects of different bi-phenols and their anti-tau, anti-amyloid and anti-cholinesterase properties.

Chapter 5 deals with coumarin-based molecules as suitable models for developing new neuroprotective agents against AD and Parkinson disease through structural modification. Information regarding isolation and extraction of coumarins from natural sources is provided in brief. Later, various classical and modern approaches for the synthesis of coumarin skeleton are discussed comprehensively. Finally, the rule of five (Lipinski parameters) is explained in context with the *in silico* physico-chemical properties of coumarins.

Chapter 6 describes therapeutic potential of plant-derived alkaloids against neuroprotective diseases along with their mode of action showcasing *in vitro*, *in vivo*, or human clinical studies. Additionally, the role of structural modification of these alkaloids for further optimization as therapeutic agents against neurodegenerative diseases and cognitive impairment is also presented, which will provide an opportunity to develop novel natural product-based drugs.

Chapter 7 focuses on neuroprotection using plant-derived anti-inflammatory steroid analogs. Initially, the role of neuroinflammation in neurodegenerative diseases is presented. This is followed by detailed explanation on anti-inflammatory, naturally occurring steroid analogs along with the mechanism involved in neuroinflammation. Also, the effect of phytoestrogens on pathways other than the estrogenic pathway is evaluated.

Chapter 8 deals with nutraceuticals in prophylaxis and therapy of neurodegenerative diseases. In this chapter the focus is on prevention and cure of neurodegenerative diseases by nutraceuticals. The word 'nutraceuticals' is a combination of two words, viz. 'nutrients' and 'pharmaceuticals'. The effect of food habit on the prevention of neurodegenerative diseases is well explained by giving examples of various spices used in Indian and Asian diet along with their phytochemical effects. Various examples of nutraceuticals as therapeutic agents against neurodegenerative diseases have also been explained, which includes traditional and folk medicines, dietary supplements and diet, and nutrients.

Chapter 9 is about the discovery of neuroprotective antioxidants for the treatment of ischaemic brain stroke. In the beginning of this chapter basic information regarding brain stroke such as its type, etiology, pathology, oxidative insight into stroke pathophysiology and post-stroke complications is presented. Later, the role of various naturally occurring antioxidants such as ginseng, naringin, hesperidin, etc. in the treatment of stroke and related problems is mentioned.

Chapter 10 is about neuroactive components of culinary and medicinal mushrooms with potential for the treatment of neurodegenerative diseases. This chapter discusses about various compounds isolated from different species of mushrooms which are capable of enhancing the activities of neurotrophic factors against neurodegenerative diseases like AD and dementia. Neuronal health-promoting effects of mushrooms, including the mechanisms for neuro protection are also discussed.

Chapter 11 describes the role of natural products in addition treatment. The major focus is on ibogaine – an alkaloid having anti-additive activity – with its isolation, purification and characterization. A few synthetic approaches for ibogaine are also discussed along with its pharmacodynamics, metabolization and toxicity studies. The anti-addition properties of various other natural products such as salvinorin A, cyclazocine, varinicline, etc. have been addressed.

The final chapter deals with biosynthesis and total synthesis of (+)-hyperforin which possess a promising anti-depressant activity. Information is provided on the isolation, chemical features of hyperforin followed by its biosynthesis. Recent total synthetic approaches for (+)-hyperforin are also highlighted.

Suggested correction: The structure of daidzin (**32**) (p. 13 in figure 2.2 and p. 14 in scheme 2.1) needs correction. The oxygen atom is missing in the carbohydrate ring.

Overall the book gives a detailed insight into natural products as neuroprotective agents and is recommended for colleges/institutions and industries working in the areas of natural products isolation and/or in the exploration of compounds for their activity on the central nervous system.

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