Nagy *et al.* elucidate the role of vascular endothelial growth factor-A (VEGF-A) during induction of pathological angiogenesis, which generates a new vascular supply in tumours, wounds and chronic inflammatory disorders. A detailed description is given about the VEGF family of proteins and their receptors, their regulation, signalling pathways involved and the mechanisms by which VEGF-A induces pathological angiogenesis. Further, efforts taken to develop VEGF-A as a therapeutic target are also described. Rabinovitch discusses current experimental and clinical studies that investigate the pathobiology of pulmonary hypertension (PHA). A detailed account of different conditions that lead to the development of pulmonary arterial hypertension, and current treatment methods available is given. Moreover, this chapter also discusses the possibility of lung regeneration through stem cells and the role of bone morphogenetic receptor II in the development of both familial and sporadic PHA.

Chin and Parkos provide an overview of the consequences of neutrophil or polymorphonuclear leukocyte (PMN) infiltrations into epithelial tissues in particular, related to epithelial injury and highlight the molecular details of PMN epithelial interactions during transmigration. Besides providing both *in vitro* and *in vivo* models to study PMN epithelial migrations, this chapter also provides the role of various molecules like CD11b/CD18, intercellular adhesion molecule-1, desmosomal junctional adhesion molecule, CD47 and signal regulatory protein in PMN transmigration. Braun and Wei provide an update on the understanding about Inflammatory Bowel Disease (IBD). There exists a mutual beneficial relationship between the host and the resident commensal microbes. IBD is a set of chronic, relapsing inflammatory intestinal diseases in which rules of the normal host–microbe interactions have been violated. This chapter provides a good description about the role of pathological microbial traits, host immune and epithelial functions, recent advances in the genetics of IBD and immunology of host–microbial interactions and recent treatment strategies. Laflamme *et al.* review the potential mechanism behind the benefits of cell-based therapy for myocardial ischaemia and infarction. Table 1 in this chapter gives a comprehensive list of all cell-based randomized therapies in patients with ischaemic heart disease. The heterogeneous nature of the heart disease requires an individual-based cell therapy. Although several methods of cell-based therapy are under trial, benefits are yet to be established, thereby suggesting a need for better mechanistic understanding in order to develop newer improved therapeutic approaches.

Malaria is the only infectious disease covered in this book. Haldar *et al.* provide recent understanding of the molecular basis of infection. While the life cycle of the malarial parasite includes both its growth in mosquito and human, all the clinical symptoms of malaria are a consequence of infection of human erythrocytes. To develop new diagnostic and therapeutic methods, it is necessary to understand the basic mechanisms that govern parasite invasion, remodelling, growth and reinvasion of erythrocytes.

Overall, this book is an excellent collection of well-written chapters on different types of diseases, in particular cancer, including some contemporary areas like cancer stem cells and live animal imaging.

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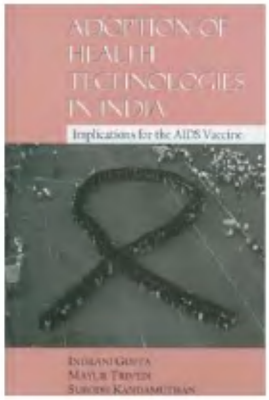

Adoption of Health Technologies in India: Implications for the AIDS Vaccine. Indrani Gupta, Mayur Trivedi and Subodh Kandamuthan. Sage Publications India Pvt Ltd, B1/I-1, Mohan Cooperative Industrial Area, Mathura Road, New Delhi 110 044. 2007. 235 pp. Price: Rs 295.

The book is based on secondary data and discussions with key players like health sector experts, planners and administrators involved in the introduction of health technologies in India. The idea is to look back at the success and failure of key health technologies with an aim to plan forward for the introduction of AIDS vaccine, which is still a distant dream because 120 candidate vaccines have so far failed in clinical trials.

India has the second largest population of HIV/AIDS cases in the world (about 5.1 million) with epicentre in southern and northeastern India. The Government of India recognized the need to contain AIDS by setting up NACP in 1987 and NACO in 1992. The efforts have been fortified with IAVI and ICMR joining in 2001 and the Global Fund for AIDS control, recently.

The authors have made a bold attempt to identify key factors that affect successful adoption of health technologies, which has been done by tracing the history of adoption and an in-depth analysis of ongoing selected health technologies in India, with an aim to import these lessons while introducing the AIDS vaccine. The key factors analysed are: timing of adoption, appropriateness and adaptability of the technology, policy framework of adoption, supply, demand and distribution issues. However, political commitment, nationwide mobilization of mass organizations, involvement of influential local leaders, strong advocacy and information, evaluation and communication have not been given prime importance in the analysis. Nevertheless, it has been highlighted that India adopts health technology early, but lacks commitment and resources for successful implementation.

The first part (chapters I–V) deals with the need for an AIDS vaccine in India in the backdrop of lessons learnt from the introduction of selected health technologies, namely Universal Immunization Programme (UIP), hepatitis B vaccine, no-scalpel vasectomy (NSV), voluntary counselling and testing (VCT) and antiretroviral therapy (ART) in India. Part II (chapters VI–X) presents critical analysis of case studies of adoption of these health technologies. It is evident that India has a good record of timely adoption/introduction, but without epidemiological survey of disease burden as is the case with hepatitis B and HIV testing without counselling. The process of approvals and regulations has been smooth. However, there is less than smooth implementation due to imperfect coordination between the Centre and States on various issues.

The role of the private sector has been limited, but NGOs have played a significant role in both VCT and ART; in case of hepatitis B and NSV, NGOs have not played much role. However, supply infrastructure and availability, information and knowledge dissemination have been found wanting. The experience of UIP (including hepatitis B, though limited) indicates that coverage has remained low in backward areas and small and inaccessible villages. Poor accessibility (UIP), uneven quality of services (VCT) and drug supply (ART) have been major constraints. The shortcomings in the implementation of each of the technologies have been clearly highlighted. The book brings to attention that effective programme management and adoption of technology critically depend on data management. However, corrective strategies and intervention points for the success of the analysed health technologies have not been delineated.

The authors have emphasized that it is critical to develop a strategic plan for the AIDS vaccine well ahead of time by introspection of experiences of introduction of varied health technologies, including UIP and hepatitis B. They suggest that special attention needs to be given to the target group, point of service delivery, schedule of phased roll-out, approval/regulation and dissemination of information, education and communication. However, the book has failed to recognize that with the current efforts for HIV/AIDS management and control, India has contained this disease and there are now about 2.5 million people living with HIV as against 5.1 million in 2006. There is 16% fall in estimated number of people infected with HIV worldwide, from 39.5 to 33.2 million in 2006. The annual number of new infections has dropped since 2006, from 4.3 to 2.5 million (*Science*, 30 November 2007).

The book provides insight into four health technologies and one major health programme adopted in India. It is educative for planners and all players in the health sector. It is an effort to look back to plan ahead for the adoption/introduction of new health technologies, particularly in the case of AIDS.

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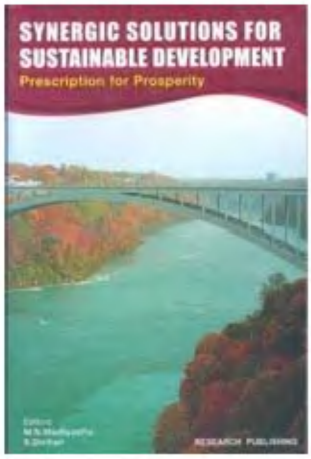

Synergic Solutions for Sustainable Development: Prescription for Prosperity. M. N. Madhyastha and S. Shrihari (eds). Research Publishing Services, H, 12F, Double Tank Colony, K. K. Nagar, Chennai 600 078. 2007. 300 pp. Price: Rs 550/US $30.

For a long time sustainable development was 'relegated' as the domain of social scientists bemoaning or literally lamenting about 'leaving unto our children a planet not worth living in…'. Over a period of time the architects and practitioners of this great modern world, of the giant urban structures of steel, concrete, aluminium, plastics, glass and ceramics – who till today have been admired for the modernity they created – are now asked to turn back and introspect. Such a turn around is and has been difficult. Then if it ever happened, such introspections were always at international conferences held at star hotels and far removed from realities. Opposed to this common criticism the SSSD2005 Conference Proceedings, which the book contains is refreshingly different. Scientists, engineers and technologists have addressed real, neighbourhood-based problems that we all encounter on a daily basis. The proceedings of the national conference titled 'Synergic Solutions for Sustainable Development' is thus a collection of papers presented at this conference held at NITK Suratkal. The volume is divided into eight sections loosely described as Energy, Environment, Urbanization, Water and wastewater, Ecology and natural resources, Pollution, etc., Environmental ethics and education and Biotechnology.

Water quality and resources in the west coast area of Karnataka had been of legendary purity, but are now been challenged. Thus issues of water quality, water resources and its management, wastewater treatment, etc. dominate the topics addressed in the papers and perhaps reflect the concerns on the ground as well. About a third of this volume is devoted to this burning subject of eroding water resources, its diminishing quality, means of purification and issues underlying them. Papers in this section bring to the forefront a variety of issues ranging from marine sources, water re-use and recycling of industrial wastewater, technical issues of specific component removal in various types of reactor systems, addressing new and emerging technical issues, resource recovery from treatment of wastewater, irrigation and water resource management, etc. The locations of the problems posed and addressed are also varied, ranging from the coastal belt to peninsular India. All these papers reveal the severity and nature of the problems being faced in this area and difficulties to be surmounted in the greater challenge of sustainable technology led-development. This helps a reader formulate the problem in a more technical way that lends itself to future problem-solving exercises that address issues of sustainability. Urbanization that we are faced with now brings in its wake wastes, both solids and liquids, and among liquids, wastes of domestic and industrial origin. Sustainability concepts dictate that wastes are something that society needs to put back into another use – resource recovery. Many articles refer to the nature of the problem in this approach and how toxic materials could be detoxified so that wastes containing these harmful substances could be reused.

This field being highly inter-disciplinary, all books on sustainable development have their share of omissions and over-emphasis on a specific area depending upon the dominant discipline of specialization of the authors. Thus this book is not an exception to this prevalent custom. The civil engineering perspective predominates and is not necessarily a fault. An attempt is made to bring in other fields; however, perhaps due to the absence of adequate number of papers in this field, weaving the cross-disciplinary fabric of sustainable development in this book has left many gaps leaving the broader picture to the imagination of the reader. A large fraction of our unsustainability woes arise from our technologies, choices in technologies and so-