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Gold Nanoparticles: An Aid to the Photothermal Treatment of Cancer

Shreyoshi Das and Preeti Mangala

Abstract

The use of plasmonic nanoparticles as highly enhanced photo-absorbing agents for photothermal ablation is being extensively studied as a selective strategy for cancer therapy. As theranostic agents, gold nanostructures have drawn a lot of interest because of their spatiotemporal selectivity and specificity for disease destruction when functionalized with targeting moieties, ease of surface functionalization and modification, low toxicity, high biocompatibility, high surface-to-volume ratio, optical properties, and interaction of size-and shape-dependent NIR imaging and therapeutic efficacies. Due to their numerous positive characteristics, gold nanoparticles can be a promising contributor in the field of cancer therapy.

Key words: Cancer, gold nanoparticles (AuNP), Photothermal therapy, surface plasmon resonance.

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Autism Linked to Gut Microbiota during Pregnancy

Shanmugam V M and Thanushree N

Abstract

Autism spectrum disorder (ASD) is a complex behavioral condition that is recognized by brain development dysfunction along with speech and language disability. Recent evidences has shown the relationship between the gut microbiota and the brain axis. Several external and internal factors plays a vital role that effect the changes involved in gut microbiota. Pregnancy is a crucial period that requires a lot of care towards their physical and mental health. The changes in mother's health like obesity, thyroid dysfunction, lack of nutrient supplements, metabolites and diabetes mellitus etc., will affect the fetus sooner or later. These factors are all linked to gut-brain axis. Hence, much more studies are required to prevent the infants suffering from ASD. In the current review work undertaken with the objective to emphasize impact of various factors towards changes in the gut-brain axis that further leads to the development of ASD.

Key words: Autism spectrum disorder, Gut microbiota, neurological, Diabetes mellitus, Zinc, pregnancy.

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Congenital Adrenal Hyperplasia associated with Female Pseudomorphisim and Gender Identity

Rini Abraham and Poojitha Kishore

Abstract

Congenital adrenal hyperplasia (CAH) is a genetically inherited disease due to a deficiency of enzymes required to produce corticosteroids affecting their synthesis. Low levels of cortisol are accompanied by androgen excess, with/without aldosterone insufficiency. The review studies the most common enzyme deficiency 21- hydroxylase CAH, which is further classified into classic and non-classic CAH. Impaired cortisol synthesis leads to chronic elevations of Adrenocorticotrophic hormone (ACTH) through a negative feedback mechanism, resulting in over-stimulation of the adrenal cortex causing hyperplasia and also over-production of precursors to the enzymatic defect. CAH leads to adrenal insufficiency and adrenal crisis in severe forms, disorders of sex development, infertility, gender dysphoria, and identity crisis. CAH is more prevalent in females hence resulting in female pseudomorphism and masculinization of the genitalia leading to the development of male characters in a female due to sex steroids (androgen). .women with CAH have higher perceived distress, tension- anxiety, depression - dejection, fatigue - inertia, and worse environmental aspects of quality of life. The review focuses on finding the importance of early diagnosis and how CAH affects the gender role behavior of individuals.

Key words: Congenital adrenal hyperplasia, Adrenocorticotrophic hormone, corticosteroids.

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The Glimpses of Science in Ancient India

Latha V and Meera. B.K.

Abstract

The history of science is not just a chronological description of events of scientific discovery; but it is a story of an on-going process of the interaction of science and society.

It is a story of how socio-economic conditions of a given society necessitate particular inventions and innovations. These processes are neither time restricted nor space restricted. In the sense, they are of universal applied value. In this context, it is worth remembering that, the rich heritage of India, comprises science and technology too, though only few people are aware of this. However, only recently, since few decades, people are attempting to popularize the scientific facts hidden latent in ancient works which have been mostly written in either Sanskrit or Halegannada.

The present review article has tried to compile the invaluable contributions of scientists of ancient India and also has tried to highlight the fact that most of the ancient scientists of India were yogis and were able to realise the ultimate facts and realities when they were in Samadhi state.

Key words: History of science, Ayurveda, Astronomy, Mathematics, Surgery, Environment

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Modernity and its Discontents - A Study of Narayan's Kocharethi: The Araya Woman

Namrata Mohan

Abstract

Kocharethi: The Araya Woman, is a novel originally published in Malayalam by Narayan in 1998, and translated to English in 2011 by Catherine Thankamma. It was written as a response to all the misinterpretations of the Araya tribe. The novel can be seen as a chronicle of a community that focuses on the changing perception of the Adivasis with respect to land and its ownership. Being an Adivasi, is Narayan successful in defining for his community and himself a unique cultural identity? There have been various attempts to study how internal colonization takes place. This article will focus primarily on the cultural aspects, customs, practices and beliefs of the Malayarayar tribal community. The author can therefore be called an ethnographer. The article aims to throw light on the effects of modernization on the Malayarayar tribe. Modernization has always curbed the growth of the tribals and pushed them to the periphery. Owing to this, the tribals do not welcome changes in their community. Narayan is against the tribals being portrayed as demons, negative, or uncivilized (Kattallam) people. He has used his literary ability as a weapon against the upper caste who misinterpreted their community.

Key words: Culture, Development, Modernization, Adivasi, Nature, Beliefs, Tribals.

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Climate Change and Sustainable Development Goals

Maya V H and Vannela N

Abstract

Development at all costs has resulted in threat to our very survival. Development cannot be halted. It has to be made sustainable. Sustainability has become the urgent need of the hour. Save our Planet is the clarion call. Concerted efforts towards this end from individuals to governments is necessary.

Key words: Development, Sustainability, Policies, Implementation, India's Role and Contribution.

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The Eco-Feminist Struggle at Plachimada: The Life and Mission of Mayilamma, The Anti-Coke Crusader of Kerala

Priyadarsini.P

Abstract

This paper analyses the role of Mayilamma, the eco-warrior of Kerala who led an agitation against the corporate giant, Coca-Cola. Mayilamma who belonged to the Perumatty Panchayat of Plachimada in Palakkad, waged a fierce battle against the factory that manufactured Coca-Cola. In the 34 acres of land owned by the company, 6.36 lakh litres of underground water was pumped out using bore wells and mechanical pumps on a daily basis. The water in the area started getting contaminated due to the disposal of cadmium waste from the factory. We can see how development, a feature of modernity that is manifested through globalization, privatization and commercialization has led to the destruction of many a natural economy. The Adivasis were denied their individual as well as collective rights over land and other natural resources on account of various discriminatory policies. Mayilamma's protracted struggle had the support of the members of her tribe. It brought tribal women at Plachimada out of their hamlets and made them confident to put up a formidable resistance against corporatocracy.

Key words: Mayilamma, Anti-Coke, Kerala, Eco-warrior.

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Western Modernity and its Intellectual History: A Select Survey

Suparna Sengupta

Abstract

The Paris Universal Expositions of 1889 and 1900 witnessed dazzling displays of electric lighting, the latest armaments and powerful machines, a moving sidewalk, the world's largest Ferris wheel (*La Grande Roué*), and examples of the recently invented motion picture. Nearly 60 years later, in the concentration camps of Auschwitz and Buchenwald, spectacles of genocide provoked trauma and confusion about the continuity of culture and civilization within Western modernity. Theodor Adorno asserted that to persist after Auschwitz in the production of art and culture that produced Auschwitz in the first place, is to ignore the contradictions of modernity. This historical process may be subjected to scrutiny through its intellectual evolution across philosophy, art, science and political economy. From the Enlightenment values of reason and rationale to the post-modernist disbelief in truth, Western modernity has charted a ruptured trajectory. 'Progress' in science, technology, art and architecture has been paralleled by war, violence, genocide and brutalities of colonialism. Across 200 years, Western modernity witnessed shifting values towards truth, knowledge and man's relationship with the same. This paper attempts to narrativise the contradictions of Western modernity by capturing the views of some of its leading thinkers and theoreticians.

Key words: Enlightenment, Modernity, Europe, Culture, Intellectual History.

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Impact of Economic, Environmental and Social Disclosure CSR and Firm Performance: A Study of CSE Listed Companies in Sri Lanka

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Abstract

Corporate social responsibility and Firm Performance is an continuing discussion encountered by most of the commercial organizations. This study investigates the of economic, social and environmental disclosure CSR and Firm Performance of CSE listed companies in Sri Lanka. Thus, 30 listed companies with sustainability reporting are selected for the analysis purpose and all these companies follow the Global Reporting Initiative (GRI) guidelines. This study collected secondary data from the yearly reports, both from the financial section and sustainability reporting. Firm performance is measured by Tobin's q and ROA. Statistical analysis purposes have conducted regression and correlation analysis. The findings show economic and social disclosures significant impact on tobin's q. No significant relationship was identified between economic and social disclosure on ROA and association was recorded between economic and social disclosure and Tobin's Q. It is recommended to increase the disclosure of sustainability information of the CSE Listed companies in the future to arrive at a valuable finding.

Key words: CSR, Economic, Environmental, Social, Return on assets.

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Time Bank Credit is more Valuable than Sound Bank Balance– Analysis of Students Outreach Programme

J Josephine Narmadha, Ms.Gita Kishore, Mr.Sharath Prabhu and Ranjani M

Abstract

“Time is Money”, is a phrase which signifies the importance of time in our life, by equating it to money. “Time Bank” is an important concept which was first introduced in Switzerland, and then by more than 40 countries, including India. This concept gives importance to time-based services that are required by the people in the older age group, orphans, people on the streets, street animals and the environment. The importance of volunteering time is more important than money. The students of the Department of Commerce and Management, Jyoti Nivas College Autonomous, were encouraged to render service through the outreach program under the House of Commerce and Management.

Key words: Time Bank, Volunteer, Time-based service, Socialwork, Satisfaction.

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A Study on Cyber Securities at SBI and Consumer Satisfaction

Vijayalakshmi. R, D. Thomas Victor Raja and Dr. S. Anil Kumar

Abstract

Cyber security in banks refers to protecting the financial assets of the customers from unauthorized access or malware. The stolen information can be used to hack various IT infrastructures. Hence Banks must ensure a strong security to their customers. Encryption, Antivirus, Anti-spyware programs, Firewalls, VPN's are few of the cyber security methods adopted by the banks. This study is conducted on SBI to analyze and understand the customer's satisfactory level and the level of satisfaction is measured through statistical data. This information has been collected even through secondary sources through SBI official website and Wikipedia. This research gave the clear picture about safety usage of internet banking services and satisfactory position of the customers at SBI.

Key words: Cyber Security, Customer satisfaction, VPN, antivirus, Encryptions.

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Prospects for Globalisation: a Study on The Indian Cottage Industry

Gracy Mathan and Farah Mathew

Abstract

The products that are being produced by cottage enterprises primarily consist of consumable items and are made using conventional methods. Particularly in the rural areas of a nation where under employment and unemployment are common, cottage industries began to operate. As a result, this business boosts the economy by utilising a sizable portion of the excess labour in the rural economy. The fact that the cottage industry does not mass produce goods is another obvious characteristic of the sector. The major threat to this business is posed by huge, capital-intensive, medium-sized enterprises that are head quartered in factories. This is as a result of the huge industries' extensive use of low-cost technology, which enables them to offer the goods at low prices. The Cottage Industry, on the other hand, relies heavily on labor-intensive conventional manufacturing methods that are typically not cost-effective, driving up the cost of their goods. As a result, the Cottage Industry's goods run the risk of going extinct if the government doesn't provide adequate financial or other forms of assistance.

Key words: Cottage industries, Self-Employed, Handcrafted Products, Opportunities and Challenges.

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