

Novel Trends in System Approach to Biotechnology-based Sustainable Development and Bio economy

J.W.Dobrowolski, E.Glowienka, M. Mikrut and J.Kobylarczyk

World Academy of Arts and Science AGH University of Science and Technology. Krakow. Poland PK Cracow University of Technology, Krakow, Poland

Long haul transdisciplinary exploration and critical thinking preparing support combination of current ecological and clinical biotechnology, human nature, ecotoxicology, ecoengineering, distant detecting, engineering and so on for advancement maintainable administration of the common assets and advancement natural wellbeing and bioeconomy-driven green labour market everywhere on the world. Suggestion of framework way to deal with Common Action of Experts and Knowledge-based Sustainable Society (counting e-separation instruction and Life Long Learning) for Biotechnology driven better Quality of Life. Comprehensive methodology ought to coordinate wide scale utilization of present day biotechnology for as ahead of schedule as conceivable identification of synergistic impacts of physical, substance and organic danger factors (in the characteristic and indoor climate and human natural way of life) with more productive essential counteraction. For avoidance of serious inherent contortions of sickness of human advancement Minamata just as expanding pace of disease/leukemia occurrence are suggested biotechnologies presented by the first of creators like assessment of the synergistic impacts of anthropogenic factors on embryological improvement, mutagenesis and carcinogenesis, including cell observing, free-extremist pathology-arranged postpone iridescence and other biophysical devices in linkage with checking of individual work and affectability, enhanced by wholesome and ecological wellbeing zeroed in on better counteraction of unexpected passing because of natural defilement. Presented by JWD laser biotechnology is suggested for more effective biodegradation of cancerogenic oil toxins PAH, bioremediation poisonous metals, recovery of defiled and semidesert zones, upgrade of biomass creation by energy ranches, greening urban communities, and for better variation of biotreatment and photodisinfection of wastewater and food creation to environmental change. For improvement choice zones inclined for laser biotechnology presentation helpful is application new strategies for distant detecting for example for identification developed or backwoods zones of high phytotoxic impacts followed by lessening of CO₂ absorption and biomass creation by multispectral examine for example part of Absorbed Photosynthetically.

Bioeconomy strategy methodologies as of now exist practically

everywhere on the world: beginning in 2012 in the EU and in the United States and not long after in numerous European nations, bio economy procedures have been immediately evolved in different nations, including exceptionally industrialized nations, change economies, and agricultural nations, as represented. Around 50 nations and areas have these days bioeconomy-related systems or activities, with a variety of bioeconomies around the globe, which can be found in the reports of the German Bioeconomy Council. Spreading bioeconomies quickly across Europe through a vital plan for conveying practical frameworks for food, cultivating, ranger service, and biobased items for advancements from pilot activities from rustic to metropolitan zones and ultimately, for an approach uphold office helping Member States and districts to configuration exclusively customized procedures for their bioeconomies. Growing new biorefining advances for the manageable change of biobased and inexhaustible assets is basic for this activity, which targets biobased items, materials, and powers, consequently adding high worth. Quick development and the production of new business sectors and age of work is normal. The bioeconomy lessens emanations and our reliance on fossil assets by supplanting nonfood biomass, for example, green growth cultivating can be another wellspring of inexhaustible biomass for food, materials, and energy use rather than petroleum products.

Biotechnology, both traditional and current, is at the center of assembling advances from essential area bioeconomies to enhanced and high-tech bioeconomies and gives huge occasions to all bioeconomies, with the fast development of information in life sciences and their worldwide access. In this extremely unpredictable picture of current biotechnology, it is applicable to accentuate the colossal advancement and achievement, which has been accomplished in the course of the most recent ten years, which is in like manner going to prompt extraordinary improvements in the coming decade. One of the most remarkable issues is the information and preservation of biodiversity and making of new assortments of yields, particularly considering the environmental change and strengthening of the rural creation, prompting expanding difficulties from vermin and microbes, while clients request high sanitation guidelines and a high caliber of agrarian items, biomaterials, and bioenergy creation. Medical care frameworks and

Note: This work is partly presented at Euro SciCon Joint Event on Biotechnology, Stem Cell and Molecular Diagnostics (April 16-17, 2018 Amsterdam, Netherlands)

social orders require protected, solid, compelling, and moderate medications focusing on the analyzed infections and important, exact, touchy, and ideally noninvasive diagnostics along with their strategies starting from medication, veterinary, and drug industry. Be that as it may, restrictions of current advancements and the continuous increment of the total populace are putting an edge on the accessibility of some new meds, analytic techniques, and new treatments. Consequently, the association between information in customary medication, plant science, agribusiness, regular item biosynthesis, and biotechnology offers extraordinary points of view. Advancement revelations in common items, and their biosynthetic pathway explanation and creation have prompted new mixes with colossal remedial advantages against parasitic illnesses and jungle fever for a large number of individuals, for example, avermectin, ivermectin, and artemisinin. Bioeconomy will be imperative to broaden these methodologies. Significant advancement is normal from new reproducing strategies, including techniques with creative hereditary changes.

Despite the fact that the advantages of biotechnology have gotten apparent some time in the past, in food and refreshments planning, treatment of sicknesses, flavors, and scents from biobased assets, in numerous societies at little scope and decentralized areas, new biotechnological measures at specific destinations have made conceivable large-scale mechanical assembling of significant items in our cutting edge life at particular locales. Despite the fact that the study of substance amalgamation zeroed in additional on fossil-based synthetic compounds as beginning materials, intermediates, and reagents, new manufactured courses beginning from biobased crude materials gain significance. Achievements in mechanical biotechnology draws near, for example, biocatalysis, metabolic designing, and manufactured science, offer extraordinary open doors for quickening this progress. These angles keep on

getting more consideration because of the earnest requirement for cleaner and more specific creation strategies. It has been assessed that generally 8% of the labor force in the EU are utilized in the bioeconomy and that up to 1,000,000 positions could be made by 2030 from biobased enterprises, which is of extraordinary premium for far off regions and close to coasts. The worldwide difficulties looked by people on our planet, for example, populace development, water, biodiversity, assets, food, environmental change, ecological corruption, or the decrease of energy reliance on fossil assets, request an unmistakable and vital vision to have the option to bring to reality viable reactions. Bioeconomy, along with other worldwide and territorial activities, establishes a significant key for interfacing and enabling individuals in tending to and discovering answers for these difficulties and for catalyzing change to a maintainable market economy. Bioeconomy comprises of, in outline, the combination of scholarly teaches, advances, and mechanical areas. At long last, these components must be upheld by society, which is changing over the bioeconomy into another development. It is another worldview that will prompt a brilliant method of dealing with the living assets of our planet in a financial and maintainable manner. Bioeconomy favors another method of relating people to the climate and another dynamic and offset with our biosphere that will undoubtedly proceed throughout the following ages.

Note: This work is partly presented at Euro SciCon Joint Event on Biotechnology, Stem Cell and Molecular Diagnostics (April 16-17, 2018 Amsterdam, Netherlands)