International Journal of Advance Innovations, Thoughts & Ideas

Mini Review Open Access

When will this New Technology be Popular Antecedents that Predict Future Inventions

Reinhilde Veugelers*

Peterson Institute for International Economics, Washington DC, USA

Abstract

The present review will briefly give an overview of how nanotechnologies can be utilized to improve quality of life in MS patients. This paper principally focuses on the nano scale approaches which has a successful implementation in other CNS disorders like Alzheimer's disease, parkinsonism, amyotrophic lateral sclerosis etc and shows a significant potential in treatment and management of MS [1-15]. There are various types of colloidal nano forms with successful surface modification strategies which can be used in molecular detection, targeted drug delivery, fabrication of implants and therapeutic monitoring, disease diagnosis in various neurodegenerative diseases The success of nanotechnology based approaches in diagnosis and treatment of MS is reviewed in this paper, it demonstrates the role of interdisciplinary nano science research for the early diagnosis along with possible cure and management of MS

Introduction

Despite academics' keen interest in discovering high-impact discoveries, little emphasis has been paid to understanding what motivates the (rapid) reuse of unique technology embedded in these inventions in later inventions. We solve this limitation by empirically finding innovative technologies, mapping their re-use trajectories, and investigating how the novel technologies' properties affect the shape of the trajectories. We identify novel technologies as unique combinations of existing technological components on a broad scale using patent data. The technological trajectory begins with the first invention that uses the new combination, and it is shaped by all subsequent inventions that use the same new combination. We found 10,782 technological paths in our research sample. We determine the take-off time and maximum technological impact for each of these trajectories, as measured by the maximum number of follow-on inventions.

In order to improve economic development, new technologies are critical. Those technologies are rarely embedded in a single invention, and they frequently attain their full influence through a development process that results in a trail of following inventions that reflect modifications or alternate uses of the technology. Evolutionary economics proposed the notions of technological paradigm and progress along defined trajectories to explain the systematic process of novel technology development. Scholars have sought to empirically measure these trajectories, but most of their work has concentrated on case studies involving only one or a few trajectories. For example, reconstructs the technological trajectory of fuel cell technology with an emphasis on hybrid electric vehicles, as well as four technological trajectories connected to antibacterial medicine classes. It was only the first time I tried to compare different trajectory trajectories over time. She identified 56 technologies using patent technology classes (IPC) and tracked patented inventions through time.

Subjective Heading

The present review will briefly give an overview of how nanotechnologies can be utilized to improve quality of life in MS patients. This paper principally focuses on the nano scale approaches which has a successful implementation in other CNS disorders like Alzheimer's disease, parkinsonism, amyotrophic lateral sclerosis etc and shows a significant potential in treatment and management of MS too [There are various types of colloidal nano forms with successful surface modification strategies which can be used in molecular detection, targeted drug delivery, fabrication of implants and therapeutic monitoring, disease diagnosis in various neurodegenerative diseases The success of nanotechnology based approaches in diagnosis and treatment of MS is reviewed in this paper, it demonstrates the role of interdisciplinary nano science research for the early diagnosis along with possible cure and management of MS

Discussion

Technological trajectories, antecedents, and novel technologies

To find novel technologies, examine their development trajectories, and investigate antecedents influencing the shape of the trajectories, our study uses a systematic large-scale quantitative approach. To demonstrate our approach, we take the case of "transgenic mammalian technology. “Identifying novel technologies

We identify new technologies based on the premise that technological components are the core components of inventions. argues that creators explore among existing technological components and recombine them to achieve something new, elaborating on the concept of innovation as a "recombinant search". We identify combinations emerging for the first time in an invention as signifying the development of a new "basic principle" or "novel technology on which innovators rely to produce their inventions1" among all the potential combinations of technological components. The two general types of immune response are the innate and adaptive immune responses and both play a major role in progression of this neurological disease. The innate immune response is mainly initiated by microbial products which activate specific toll-like receptors (TLR) in an antigen

***Corresponding author:** Reinhilde Veugelers, Peterson Institute for International Economics, Washington DC, USA, E-mail: reinhilde.veugelers@kuleen.be

Received: 04-Jun-2022, Manuscript No: ijaiti-22-68592, **Editor assigned:** 06-Jun-2022, PreQC No: ijaiti-22-68592 (PQ), **Reviewed:** 20-Jun-2022, QC No: ijaiti-22-68592, **Revised:** 22-Jun-2022, Manuscript No: ijaiti-22-68592 (R), **Published:** 28-Jun-2022, DOI: 10.4172/2277-1891.1000179

Citation: Veugelers R (2022) When will this New Technology be Popular Antecedents that Predict Future Inventions. Int J Adv Innovat Thoughts Ideas, 11: 179.

nonspecific manner. Binding of these antigenic molecules to TLR increases the production of cytokines which further modulate the adaptive immune response. The innate system influences the effector function of T and B cells and plays a role in initiation and progression of disease. On maturation dendritic cells begin to polarize $CD4^+$ T cells to differentiate into Th1, Th2 phenotypes or Th17 phenotypes and when T cells differentiate into a Th1 phenotype, inflammation is promoted The presence of lymphocytic cells within plaques and other bordering areas suggests that inflammatory destruction in MS is mainly by antigen specific targeting of myelin protein and other CNS components. Lymphocytic presentation of specific antigen by antigen presenting cells (APCs) to T lymphocytes initiates adaptive response. T cells from MS patients can recognize a variety of myelin protein targets. The adaptive immune responses by T lymphocytes are considered to mediate injury to myelin sheath and nerves within the CNS during progression of MS. The relevance of antigen specific CD4 T cell responses in MS was also reflected with the results of trials using an altered peptide ligand of MBP (myelin basic protein) designed for therapeutic suppression of CD4 T cell responses, which exacerbate the disease in MS These antigen presenting cells could be B cells, dendritic cells, microglia or macrophages. Several types of T cells like $CD4^+$ and $CD8^+$ phenotype are activated by APCs Study of family and twin has shown that genetic factors also influence MS pathogenesis susceptibility among first degree relatives of MS patients

Environmental factors such as exposure to infectious agents, sunlight, and vitamin D deficiency are also considered to account for changing risk of MS especially when a person having age less than 15 years migrates from one risk area to another.

Tracing technological trajectories

After identifying new technologies, the next stage is to follow their progress. We assume that any technology is based on a fundamental concept, or "backbone," that remains consistent across time. We establish the trajectory of a novel technology by tying together all subsequent innovations that re-use the same new combination of technological components over time, given that creations belonging to the same trajectory share the same underlying principle.

Similarity of components

The combination of components that are similar to each other can result in novel technology. For a single inventor or a group of inventors with comparable backgrounds, combining similar components is a simple task. Typically, single-field technological competencies are sufficient. Combining incompatible components, on the other hand, is difficult and frequently necessitates cross-field technological expertise. These skills may not yet exist in the innovators' team and must be learnt or obtained through the formation of teams with specialists from various technological disciplines. Complex novel technologies originating from the combination of incompatible components are predicted to take a long time to take off, as learning and building new teams are time-consuming operations. Clinical disability in MS is mainly due to the destruction of the CNS myelin protein. Currently there are no biomarkers available for MS diagnosis (other than oligoclonal IgG, which helps in diagnosis of disease but requires an invasive procedure and its correlation with disease activity and response to therapy is not clear). The monitoring, diagnosis and treatment of MS is mainly governed with the help of magnetic resonance imaging (MRI) which is an expensive technique. Nanomaterials have a wide range of application in diagnosis, treatment and management of disease as these materials are biocompatible and have ability to form biophysicochemical interaction with cells, cell membranes, proteins, D.N.A. and other organelles at nano-biointerface to assist for diagnosis and treatment of disease at cellular and molecular level There are several different types of nanostructures these include polymeric nanoparticles, nanocapsules, nanospheres, , nanosuspensions, nanomicelles, nanoliposomes, carbon nanotubes and nanofibers. The challenge for modern therapy is to identify mechanisms behind brain function, from gene expression to physiological changes, and to determine their role in the etiology and progression of CNS diseases

Conclusion

Despite historians' keen interest in finding successful inventions, little attention has been paid to how novel technologies embedded in these inventions are re-used across time and how the shape of their ensuing trajectory is related to the novel technologies' antecedent qualities. Such research necessitates a large-scale trajectory analysis, which has been lacking in the literature thus far.

References

1. Kumar R, Singh J (2021) Wuhan to World: The COVID-19 Pandemic. Front Cell Infect Microbial 11: 596201.
2. Rachel I J B, Gururaj N (2021) Pharmacogenetic Approach for the Improvement of COVID-19 Treatment Viruses 13: 413.
3. J Oral Maxillofac Pathol (2020) Innovative diagnostic approach and investigation trends in COVID19-a systematic review. 24: 421-436.
4. Pardo J, Shukl A M G (2020) The journey of remdesivir from Ebola to COVID-19 Drugs Context 9: 10-7573.
5. Bian W, Badie N (2014) T-tabulation and maturation of cardiomyocytes using tissue-engineered epicardial mimetics. Biomaterials 35: 3819-3828.
6. Allen DL, Leinwan LA (2021) postnatal myosin heavy chain isoform expression in normal mice and mice null for IIb or IId myosin heavy chain**s** Dev Biol 229: 383-395.
7. Argentati I, Tortorella M (2020) Harnessing the potential of stem cells for disease modeling progress and promises. Pers Med 10: 810.3390.
8. Bartos DC, Grandi E (2015) RipplingerIon channels in the heart. Compr Physiol 5: 14231464.
9. Bedada FB, Chan SSK (2014) Acquisition of a quantitative, stoichiometrically conserved ratiometric marker of maturation status in stem cell-derived cardiac myocytes.Stem. Cell Rep 3: 594-605.
10. Bian W, Badie N (2021) Robust T-tubulation and maturation of cardiomyocytes using tissue-engineered epicardial mimeticsBiomaterials. 35: 3819-3828.
11. Ramani RV (2012) Surface mining technology: progress and prospects. Procedia Eng 46: 9-21.
12. Nasarwanji MF, Dempsey PG, Pollard J, Whitson A, Kocher L (2021) A taxonomy of surface mining slip, trip, and fall hazards as a guide to research and practice. Appl Ergon 97: 103542.
13. Bergerson JA, Kofoworola O, Charpentier AD, Sleep S, MacLean HL (2012) Life cycle greenhouse gas emissions of current oil sands technologies: surface mining and in situ applications. Environ Sci Technol 46: 7865-7874.
14. Eisler R, Wiemeyer SN (2004) Cyanide hazards to plants and animals from gold mining and related water issues. Rev Environ Contam Toxicol 21-54.
15. Lin C, Tong X, Lu W (2005) Environmental impacts of surface mining on mined lands, affected streams and agricultural lands in the Dabaoshan mine region, southern China. Land Degrad Dev 16: 463-474.