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STATE-OF-ART ADVANCED NANOTECHNOLOGY FOR HEALTHCARE

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DESCRIPTION

In recent decades, nanotechnology has played a pivotal role in fields like agriculture, textile, engineering, construction, etc., where healthcare is not an exception. Nanotechnology can deal with particles of atomic levels and has a vast capacity to transform healthcare units to a greater extent. Advance features of nanotechnology are seeking attention among many clinicians and healthcare workers globally. Presently, their particulars deal with various aspects of healthcare sectors to develop its administrative services and treatments considerably. Potential applications of nanotechnology in healthcare are numerous, such as diagnosing, examining, detecting, etc. Their applications are majorly found in surgical tools, drugs, and regenerative medicines, making healthcare more efficient.

Nanotechnology is acknowledged to serve in various healthcare disciplines, and the scope is found to be enormous for future applications with high success rates in the medical industry. Current advancements of nanotechnology in healthcare units include nanotech implemented contact lenses for better vision; nano detectors for heart attacks that could provide early signs and aids to save the life of humans. Incorporating nanomaterial for the inhibition of bacterial growth are found to be a noticeable advancement today. Extending its applications, Nano batteries are playing an essential role in 3D Printing. Unlike this, nanoapplications that could be in plugged into medical devices like hearing aids for better performance foresees a great future. Moreover, in recent time's nanoelectronic chips have been designed for healthcare wearable and artificial eyes, nanotech cancer apps for easy detection and diagnosis of cancer cells, implicating silver nanoparticles in a toothbrush for germ inhibition, etc. Today, advanced features of nanotechnology are also being implemented to prevent, diagnose, and treat the covid-19 virus by integrating nanotechnology-based vaccines for promising results to decrease the number of COVID cases. Forthcoming and future research perspectives focus on implementing innumerable attributes of nanotechnology such as nano drugs, nano wearable, nanobots to transform the healthcare units to a greater extent. The research investigates that nanotechnology advancements hold the potentiality to make significant changes in healthcare sectors in improving medical techniques and treatments worldwide. However, apart from the growing sense of scope, nanotechnology in healthcare still has many hurdles to overcome. The future challenges and limitations include toxicity, environmental damage, organ failure, neuronal translocation, dermal exposure, pulmonary morbidity, etc.

Future research direction indulges the deeper study of nanotechnology with its limitations to overcome the drawbacks and effects on healthcare industries. Policymakers and practitioners are welcomed to present a contextual research framework against this background. The special issue allows scholars and academicians to discuss the most adaptable secure methodologies to provide enhanced healthcare sectors globally. List of potential topics of the special section include, but are not limited to, the following:

- Emerging advancements of nanotechnology for the development of healthcare units
- Nanotechnology: Advancements and limitations in the development of healthcare units
- Current trends and perspectives of nanotechnology for the enhancement of medical industries
- Frontiers of nanotechnology in monitoring healthcare services
- Analytical methodologies for featuring nanotechnology in healthcare industries
- Risk factors correlated in implicating nanotechnological trends in medicine
- Future perspectives: Efficacy of nanotechnology implied medical devices
- Assessing the drawbacks in involving nanotechnology in healthcare
- Deep learning: Challenges and objectives to overcome limitations of nanotechnology in healthcare units
- Adoption of policies and legislations regarding nanotechnology trends for the development of

PUBLICATION SCHEDULE / HOW TO SUBMIT

Open for submissions: 1st September 2023
Paper submission deadline: 5th March 2024
Authors Notification: 15th March 2024
Revised Papers Due: 25th June, 2024
Final notification: 10th August 2024

When entering your submission please choose the option type of an article: "**State-of-Art Advanced Nanotechnology for Healthcare**". Submissions for the special issue are now open. In case of any technical problems, please contact the Managing Editor of Nanotechnology Reviews: **Juliusz Skoryna, Ph.D.**, Juliusz.Skoryna@degruyter.com