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Biomedical techniques have wide clinical application in many elds of drug such as oncology, rheumatology, immunology, genomics, cardiology and diagnostics; among others. is has been made possible with the usage of genetic engineering and some of strategies like Immunohistochemistry (IHC), Fluorescent Microscopy, Cell Culture, Genetically Modi ed (GM) Cells, Monoclonal Antibodies (MAbs), Polymerase Chain Reaction (PCR) and Western blotting. e end of this literature review is to explore the foundations and bases of the generally used biomedical techniques, as well as their applications in biomedical research and clinical medicine in general.

is review also aims to shed some light on more recent advances in genetic engineering, especially in relation to genetically modi ed cells and use of monoclonal antibodies which have found more increasing use and relevance in genomics, oncology, rheumatology, immunology, cardiology as well as diagnostics, and have revolutionised patient care [1], while at the same time resulting in improved standard of health care. Unfortunately, some of these new ways are associated with unwanted side e ects which may pose a risk to the people they're

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and engineering to living organisms, which can involve a range of activities from designing medical equipment or conducting research. Keep reading to nd out more about biomedical technology and about your educational options within this eld.

Here are some of the breakthroughs that have occurred in biomedical engineering throughout its history that have had the biggest impact and changed lives.

X-ray machines

is century-old technology allows medical professionals to see

Sub eld – Clinical informatics

One of the sub elds of biomedical informatics is clinical informatics. is involves the application of mathematical and computer principles to solve problems in clinical medicine. For instance, a mathematical algorithm is used to analyse clinical images to detect diseases using a large set of image processing algorithms. is can help a researcher to detect a possible disease earlier than if they would have manually conducted the same analysis.

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