

Chapter 7

Biomedical Technoethics

INTRODUCTION

It is now argued that people do own and control their bodies (and tissues) but have no right to sell them, for they cannot exist without them and their rights as human beings and as consumers cannot trump the right of society to attempt to stave off the process of co modification of human life. –Fait, 2008, p. 209).

The ethical use of new technologies is important for the advancement of modern health and medicine in many areas including, pharmaceuticals and healthcare, reproductive technologies and genetic research, sports, and nutrition. This is partly because revolutionary technologies have provided new opportunities that raise ethi-

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cal issues and public debate. In this context, technology is viewed not as a solution, but as a driver of societal development fostering change and generating new ethical considerations to address. The goal of technoethical inquiry within the context of modern health and medicine is to ensure that technological changes are desired and accepted by those affected.

Technoethics assumes that advancing work in biotechnology do not exist in a vacuum and are not socially, politically and ethically neutral. Rather, there are complex interrelations to consider between technological innovation, individual interests and needs, societal norms and values, organizational structures, and historical events. Some areas of biotech research are at low risk for creating a negative impact and require little attention outside the domain of biotechnology. Other areas of biotech research at high risk for creating a negative greater impact and may require the establishment of ethics committees, compliance with rigorous ethical standards, and government intervention in the private sphere. This is particularly true when dealing with areas of biotech research that affect human populations.

As will be discussed in this chapter, the relationship between ethics and technology within the context of modern healthcare and medicine raises a number of concerns in key areas affected by recent technology advances. New life-preserving technologies, advances in stem cell research, and controversial cloning technologies are redefining current conceptions of life, death, and patient care. Advances in nutrition and pharmacology offer new opportunities to enhance performance, extend life, and alter mental and physical states. Ethical issues arising from such advances have created a need for a technoethical framework in health and medicine to deal with a variety of exciting new technology related innovations which are redefining our biological and physical being.

This chapter reviews key technoethical speciality areas guiding the ethical use of technology within the context of modern healthcare and medicine including biotech ethics, and telehealth. By examining key developments, public concerns, and the role of ethics committees, this chapter provides information on key areas of concern and possible applications. By drawing on a technoethical framework, this chapter makes suggestions to help protect the public while guiding new developments in biotechnology that ensure mutual benefit-sharing.

BACKGROUND

The advances of modern medical technology transformed medical practice in the 20th century while creating a need for. First, new instrumentation allowed observation and measurement beyond the capacity of physicians. For instance, in 1913, the electrocardiograph began to be used for a diagnostic tool for exploring heart

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