



What is Biomedical Research?

Biomedical research is an approach used towards solving medical problems. It deals with beliefs or theories which can be proven or disproven through observations and experimentation. Before humans can be asked to participate in testing, researchers must first use animals whose living systems best represent that of humans. Almost every major medical advance in this century has been dependent on animal research and it remains critical to unlocking the cure to many diseases which still claim the lives of millions.

What are the different types of research?

BASIC RESEARCH is undertaken to increase knowledge about the basic processes of living organisms. Animal models are often used to observe and evaluate those life processes. This type of research provides the foundation upon which other types of research are built.

CLINICAL RESEARCH focuses on using humans and is based on basic research results.

PRODUCT SAFETY RESEARCH involves in vitro (an artificial environment), in vivo (within a living organism), and human testing using the exact chemical substance or compound that is intended for or actually exists in a product that will be sold to and used by humans or animals.



Science Process Terms

Many of the following skills are used in solving medical problems.

OBSERVE

To collect data through use of the five senses.

COMPARE

To recognize similarities and differences between objects, events, and places.

IDENTIFY

To name objects, events, and places.

CLASSIFY

To arrange or organize based on observed similarities.

MEASURE

To find the dimensions, quantity, or capacity of something.

PREDICT

To state a future occurrence based on previous observations.

VERIFY

To check or test the accuracy of a prediction.

HYPOTHESIZE

To form a hypothesis (a possible explanation to a problem, a theory).

EXPERIMENT

To plan and conduct tests to support or disprove a hypothesis.

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