

# Medical Research Scientist

## ***Nature of the Profession***

*Research scientists use scientific methods to study countless aspects of our world. Those who specialize in medical research study diseases, drugs, microorganisms, genetics and many other areas of human and animal health. They work toward improved understanding of diseases and of environmental hazards. They play a critical role in the development of new therapeutic treatments and innovative diagnostic techniques. The medicines we take, the inoculations that protect us from infectious diseases and the processes that preserve our food were all developed by medical research scientists.*

*Medical research scientists can pursue a variety of specialties. These include anatomy, biochemistry, biophysics, cell biology, embryology, genetics, immunology, microbiology, molecular biology, pathology, pharmacology, physiology and many others. Medical researchers usually work in laboratories at universities, government agencies, or in private industry. Some work in management or administration or as consultants to business or government. Others are involved with testing foods, drugs, and other products, or writing for technical publications*

## **APTITUDES**

- Ability to learn the complex science, math, and methods of scientific investigation
- Strong analytical skills
- Ability to make judgments based on data and observation
- Good oral and written communication skills
- Patience and objectivity
- Creativity and independent thinking

## **EDUCATION**

The minimum education requirement is a bachelor's degree, but a masters or doctoral degree is needed to conduct advanced research and to be eligible for many jobs at university, private sector, and government research laboratories. Students entering college with an interest in medical research should establish a major in one of the physical or biological sciences or in mathematics.

## **EDUCATIONAL PROGRAMS IN NEBRASKA**

All accredited colleges offer undergraduate courses in the sciences. Those institutions with graduate programs may offer masters and doctoral degrees in various scientific disciplines. Health science centers offer masters and doctoral programs in medical sciences. The University of Nebraska Medical Center has M.S. and Ph.D. programs in biochemistry & molecular biology; cancer research; cellular & integrative physiology; genetics, cell biology & anatomy; pathology & microbiology; pharmaceutical sciences; pharmacology and experimental neuroscience.

## **PROFESSIONAL ASSOCIATIONS**

***American Association for the Advancement of Science***

Web Address: [www.aaas.org](http://www.aaas.org)

***American Association for Cancer Research***

Web Address: [www.aacr.org](http://www.aacr.org)

***American Society for Biochemistry and Molecular Biology***

Web Address: [www.asbmb.org](http://www.asbmb.org)

***American Society for Cell Biology***

Web Address: [www.ascb.org](http://www.ascb.org)

***American Society for Microbiology***

Web Address: [www.asm.org](http://www.asm.org)

***American Society for Pharmacology and Experimental Therapeutics***

Web Address: [www.aspet.org](http://www.aspet.org)