

GENETICIST



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Description:

Geneticists study the science of genes and heredity, and strive to understand the mechanism of inheritance. Utilizing advanced computer systems to aid their research, Geneticists work to identify DNA and RNA sequences, combinations, and some are responsible for modifying genes and genomes to acquire a desired trait in an organism.

Geneticists work in many different fields including medicine, agriculture and crime. Geneticists in the agriculture arena develop crops that can survive in abnormal conditions and perhaps interact differently with their environment and the pests in it. Some geneticists research diseases and the cause of genetic mutations, and work to reverse its spread or prevent mutations.

Some Geneticists work in a laboratory setting identifying DNA samples for purposes of solving a crime using genetic technologies.

Median Wage (as of 2006):

Entry Level Workers - 43,850
Experienced Workers - \$110,456

Level of Education:

B.S. (required), M.S. (required), Ph.D. (favorable)

Job Outlook (through 2016):

7-13% increase in number of jobs

Examples of Colleges & Affiliated Programs:

Cornell University - Molecular Biology and Genetics, Neurobiology, Entomology, Horticulture, Plant Breeding and Genetics, Ecology and Evolutionary Biology, Computational Biology

Hobart and William Smith Colleges - Biology, Chemistry

Rochester Institute of Technology (RIT) - Biochemistry, Biology, Biomedical Science

SUNY Stony Brook (Graduate Program) - Molecular Genetics and Microbiology

SUNY Cobleskill - Animal Breeding and Genetics

Western Kentucky University - Recombinant Genetics

Employers:

Federal and State Governments - New York State Agricultural Experiment Station, New York Department of Agriculture and Markets, United States Department of Agriculture - Agriculture Research Service, United States Food and Drug Administration, United States Department of Health and Human Services

Colleges & Universities - Cornell University's Center for Vertebrate Genomics, Cornell University College of Agriculture and Life Sciences, University of Rochester, New York University, Rochester Institute of Technology, Union College

Private Sector - Pfizer, Elanco, Taconic, RJ Reynolds, The Broad Institute, Wellcome Trust Sanger Institute, Monsanto, BASF

High School/College Courses to Take:

Life Sciences, Physical Sciences, Mathematics, Statistics, Computer Science, Oral and Written Communication

Related Professions:

Medical Scientist, Genetics Technician, Horticulturalist, Food and Agriculture Scientist



Cornell University

