

The Connecticut Department of Public Health Genomics Office participated in a novel program held for teachers and health educators in the spring of 2010, which had as part of its program goals greater awareness and inclusion of genetics and genomics into science and health curricula from the elementary through high school level. The following resources were identified as examples of sites offering actual coursework modules, lecture materials, slides or other useful information.

[Resources for Teaching Genomics, 2010](#)

Building Capacity

“Better training of health professionals in genomics and its ethical implications is essential for assuring that the potential of new technologies is realized for the full benefits of patients. Improving the training of medical researchers, clinical geneticists, genetic counsellors and other core members of the health care team, will enable them to recommend the use of genomic-based applications and genetic services and counseling to their patients, increasing understanding of existing technologies, and ultimately improving their efficacy. This means including science, including the rudiments of genomics, as part of the curriculum in elementary and secondary schools, and creating programmes in genomics at the university level to equip researchers and clinicians with the necessary technical and analytic skills. Students across disciplines need to be sensitized to the ethical, legal, and social implications of genomics, with specific training for those pursuing a career in health policy, research, practice, or related field.” - *from the World Health Organization website, accessed 3/23/10*

Resource List:

1. Can a gene test change your life?

A brief interview with Francis Collins regarding the current status of genetic testing.

<http://www.washingtonpost.com/wp-dyn/content/video/2010/03/16/VI2010031604133.html?referrer=emailink>

2. Genomics Careers: Find Your Future

This National Human Genome Research Institute/NHGRI site describes future careers in genomics with interactive videos of professionals describing their professions. It also has a “Genomics Challenge” to test your knowledge of careers in genomics.

<http://www.genome.gov/GenomicCareers/>

3. National Institute of Health/National Human Genome Research Institute web site

Specifically for educators: <http://www.genome.gov/Educators/>

And each spring, NHGRI looks for schools across the country to participate in a DNA Day chat room, among other activities: <http://www.genome.gov/10506367>

Additional NHGRI activities include DNA Day contests through their Facebook page:

http://www.facebook.com/DNAday - !/DNAday?v=app_2344061033

4. Genes & Taste Preferences Video

The article and video for the "taste gene" is at the Science Daily website below. (Note that this article is from 2005).

http://www.sciencedaily.com/videos/2005/0508-the_taste_gene.htm

5. The beta preview of the new Teach.Genetics website.

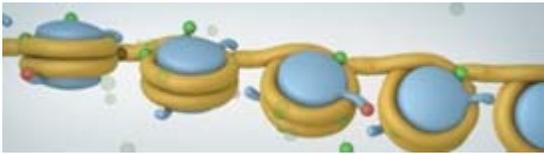
<http://teach.genetics.utah.edu/>

Here you will find a wealth of resources and information aimed at helping educators bring genetics, bioscience and health alive in the classroom. A companion to the popular [Learn.Genetics website](http://learn.genetics.utah.edu/) (at:

<http://learn.genetics.utah.edu/>), Teach.Genetics offers additional tools and resources to support your curriculum, all free of charge. Since this is a beta version, remember to keep checking back periodically and see what has been added. See below for examples:

[PRINT-AND-GO™ LESSON PLAN INDEX](#)

Activities designed to support and extend students' learning of topics on Learn.Genetics. Downloadable PDFs include complete instructions, student worksheets, overhead masters and answer keys.



[EPIGENETICS:](#)

[SUPPLEMENTAL MATERIALS](#)

Integrating the Epigenetics curriculum from Learn.Genetics and Teach.Genetics into your classroom is a breeze! Activities, assessment questions, learning objectives, background information and thoughts from other teachers to help you get started on your way.



[AMAZING CELLS:](#)

[SUPPLEMENTAL MATERIALS](#)

Cells like you haven't seen them before! Print-and-Go activities, background information and a module tour to help you integrate the Amazing Cells curriculum from Learn.Genetics and Teach.Genetics into your classroom.

6. "What's the Risk?" pdf, from the Print-and-Go modules of the Genetic Science Learning Center of the University of Utah. This module focuses on the "New Science of Addiction: Genetics and the Brain".

<http://teach.genetics.utah.edu/content/addiction/What's%20the%20Risk.pdf>

7. **Genetics Home Reference** provides consumer-friendly information about the effects of genetic variations on human health. <http://ghr.nlm.nih.gov/> Site also contains a Learning Activities section under the "In the Spotlight" heading that contains activities such as a scavenger hunt, and a "Help Me Understand Genetics" handbook with a multi-player mini-quiz, among others.

8. Family Health History project – from Utah Department of Health

From 1983 through 1999, the Utah Department of Health, local health departments, school districts, the University of Utah, and the Baylor College of Medicine implemented and conducted the Family High Risk Program, which identified families at risk for chronic diseases using the Health Family Tree Questionnaire in Utah high schools.

Homepage: <http://health.utah.gov/genomics/familyhistory/fhrp.html>

Report: http://health.utah.gov/genomics/familyhistory/documents/fhrp_report.pdf

9. ASHG – American Society of Human Genetics. Site contains resources such as “Six things everyone should know about genetics”, links to basic genetics resources, and others. Click on the link below, and visit the items on the left “Education” menu for “K-12”, “Everyone”, and more.

<http://www.ashg.org/education/k12statement.shtml>

10. Genetics to Genomics project - As part of a CDC cooperative agreement with the Michigan Health Department, a well-known Michigan science teacher developed a workshop with lots of activities that have been successfully tested in actual classrooms. The website can be viewed at:

<http://www.migeneticsconnection.org/genomics/>

11. University of Kansas Medical Center “Genetics Education Center” - for educators interested in human genetics and the human genome project. Their site, <http://www.kumc.edu/gec/>, contains links to many resourceful sites.

12. Nature Publishing Group, provides a free science library and personal learning tool, “Scitable” which currently concentrates on genetics, the study of evolution, variation, and the rich complexity of living organisms.

<http://www.nature.com/scitable>

13. Careers in Genetics, for further information:

Careers in Human Genetics - <http://www.ashg.org/education/careers.shtml>

Genetic technologist careers - <http://www.agt-info.org/Careers.aspx>

Genetics Society of America careers link - http://www.genetics-gsa.org/pages/careers_traincareers.shtml

Careers in genetics and biosciences:

http://www.ornl.gov/sci/techresources/Human_Genome/education/careers.shtml



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