51st Annual
CSEF Awards Ceremony
April 7, 2006
Welcome .........................................................................................................Ms. Courtney Butler, CSEF Director

Special Awards
Announcer....................................................................................................................... Ms. Jody Oaks, San Luis Valley Regional Science Fair, Inc.

American Association of University Women
American Chemical Society
American Institute of Chemical Engineers
American Meteorological Society
American Vacuum Society
Armbruster Associates
ASM International
Association for Women Geoscientists
Cherry Creek Basin Water Quality Authority
Colorado Association of Meat Processors
Colorado Association of Science Teachers
Colorado Biology Teachers Association
Colorado Dental Association
Colorado Division of Wildlife
Colorado Environmental Health Association
Colorado Foundation for Agriculture
Colorado Geological Survey/Division of Minerals & Geology
Colorado Medical Society
Colorado Mineral Society
Colorado Mycological Society
Colorado Scientific Society
CSU, Department of Biochemistry and Molecular Biology
CSU, Department of Chemistry
CSU, Department of Horticulture and Landscape Architecture
Colorado Veterinary Medical Association
Colorado-Wyoming Society of American Foresters
Decisioneering, Inc. – Crystal Ball Software
Eastman Kodak Company

Erudite Linguistic Services
Fort Collins Conservation District
Human Factors and Ergonomics Society
Institute of Electrical and Electronics Engineering
International Society for Optical Engineering
Lockheed Martin
MAST Hotline
MedVent Communications
National Geophysical Data Center
National Renewable Energy Laboratory
Optical Society of America
Rio Tinto Minerals
Rocky Mountain Association of Geologists
Rocky Mountain Goat Foundation
Rocky Mountain Inventors Association
Rocky Mountain Water Environment Association
Society for Mining, Metallurgy and Exploration, Inc.
Society of Manufacturing Engineers
Society of Women Engineers
Soil and Water Conservation Society
United States Air Force ROTC
United States Army
United States Department of Commerce
United States Geological Survey
United States Navy and United States Marine Corps
UCHSC Medical Scientist Training Program
Yale Science and Engineering Association
Zonta Club of Boulder County

Grand Awards
Announcer....................................................................................................................... Dr. Bonnie Hames, NREL
Presenter.................................................................................................................... Dr. David Holm, President, Colorado State Science Fair, Inc.

Junior and Senior Division Individual Project Category Awards

Behavioral & Social Sciences
Botany
Chemistry
Earth & Space Sciences

Engineering
Environmental Sciences
Mathematics & Computer Sciences

Medicine & Health
Microbiology
Physics
Zoology

Pioneers of Science Awards
Discovery Young Scientist Challenge Awards
Science Service Awards
Poster Art Contest
Student Choice Awards
Ralph F. Desch Memorial Technical Writing Award

Scholarships
Adams State College............................................................................................................ Dr. Larry Sveum
Colorado School of Mines.................................................................................................. Ms. Heather Boyd
Colorado State University – Pueblo...................................................................................... Dr. David Holm
University of Colorado......................................................................................................... Mr. Ryan Patterson
The Ryan Patterson Scholarship .......................................................................................... Mr. Ryan Patterson

Junior and Senior Division Best Team Project Awards
Junior and Senior Division Best Individual Project Awards
Intel Foundation Computer Awards
Teacher of the Year Award

Colorado ISEF Finalist Presentation & Closing Remarks..................................................Ms. Courtney Butler
Special Award Organizations

Adams State College Foundation
A scholarship has been established by the Adams State College Foundation, Board of Directors. The Scholarship is intended to recognize students participating in the Colorado Science and Engineering Fair who are identified as having significant performance potential in science and mathematics. The value of the scholarship will be equivalent to one-year resident tuition and fees and will be awarded to one student in each of the following Senior Division categories: Behavioral & Social Sciences, Botany, Chemistry, Earth & Space Sciences, Engineering, Environmental Sciences, Mathematics & Computer Sciences, Medicine & Health, Microbiology, Physics, and Zoology.

American Association of University Women
The American Association of University Women became interested in presenting an award to girls in Middle School in the fields of math and science when our studies showed that girls were falling behind in these two fields. In principle and in practice, AAUW values and seeks a diverse membership.

American Chemical Society, Colorado Section
The Colorado Section of the American Chemical Society was founded over 100 years ago as an organization to support and promote the profession and interest of chemists and chemical engineers. One major aim of the Society is to encourage an interest in the chemical sciences in the young people of Colorado.

American Institute of Chemical Engineers
Rocky Mountain Section
The Rocky Mountain Section of the American Institute of Chemical Engineers contains over 500 members in a geographic area that includes Colorado and Wyoming as well as parts of South Dakota and New Mexico. Its members are involved in the petroleum, energy services, chemical and environmental industries, and are well represented in both academia and government.

American Meteorological Society
Denver/Boulder Chapter
The American Meteorological Society is an organization whose membership is open to anyone who has an interest in meteorological matters. The aims of the American Meteorological Society are to promote "the development and dissemination of knowledge of meteorology in all its phases and the advancement of its professional ideals."

American Vacuum Society
Rocky Mountain Chapter
The American Vacuum Society is a member society of the American Institute of Physics. We promote communication, dissemination of knowledge, recommended practices, research, and education in the use of vacuum and other controlled environments to develop new materials, process technology, devices and related understanding of material properties for the betterment of mankind. The Rocky Mountain Chapter of the AVS is made up of several hundred scientists, engineers, technicians, and others involved with the use of vacuum in their work in the Rocky Mountain Region.

Armbruster Associates
Armbruster Associates is an organization which designs, develops, and markets motivational products for use in learning. Armbruster Associates provides the Charles Armbruster Memorial Award. It is given for the best example by a Junior contestant of energy, creativity, and enthusiasm for problem-solving using available existing or recycled material and/or inexpensive common objects.

ASM International, Rocky Mountain Chapter
ASM International is a professional society of materials scientists and engineers. It was formed during the 1920's as an outgrowth of the Heat Treating Society. The Rocky Mountain Chapter was founded in 1941 and has about 450 members.

Association for Women Geoscientists
Denver Chapter
The goals of the Association for Women Geoscientists, Denver Chapter, are to encourage the participation of women in the geosciences; to exchange education, technical and professional information; and to enhance the professional growth and advancement of women in the geosciences.

Colorado Association of Meat Processors
It is the mission of the Colorado Association of Meat Processors to advance and improve the meat and related food industry through various channels: collect information about the industry and communicating it promptly and clearly to the membership and the community it serves; provide members with formal and informal opportunities for education and information exchange; serve as a forum and resource for discussion and development of industry positions and courses of action on any matter affecting the industry or its consuming public; encourage the principles of efficiency and effectiveness, while supporting the humane treatment and handling of animals and livestock.; and support full measure and full disclosure within the trade and to its community and moving toward an even safer, healthier meat and food supply for the consumer

Colorado Association of Science Teachers
The Colorado Association of Science Teachers is a state chapter of the National Association of Science Teachers and represents educators from elementary and secondary schools, colleges, and universities. The purpose of CAST is to support, stimulate and improve science education at all levels of instruction (pre-K through college) in the state of Colorado.

Colorado Biology Teacher’s Association
The Colorado Biology Teachers’ Association is dedicated to the improvement of biological science instruction at all educational levels. Our activities include a Spring Seminar and a Fall Workshop to improve teacher and student understanding of a variety of biological topics; co-sponsorship of the Colorado Science Convention each fall in Denver; mini-grants for the support of classroom activities; Outstanding Biology Teacher Award program; and a Newsletter to keep teachers informed about a variety of activities designed to improve teaching.

Colorado Dental Association
The Colorado Dental Association is the largest professional association of dentists in Colorado, representing 80 percent of the licensed dentists in the state. The Colorado Dental Association is actively involved in public education projects promoting oral hygiene and care.

Colorado Division of Wildlife
The mission of the Colorado Division of Wildlife is to perpetuate the wildlife resources of the state and provide people the opportunity to enjoy them. The Division regulates hunting and fishing activities by issuing licenses and enforcing regulations. The DOW also manage more than 230 state wildlife areas for public recreation; conduct research to improve wildlife management activities; provide technical assistance to private and other public landowners concerning wildlife and habitat management; and develop programs to protect and recover threatened and endangered species. The DOW provides wildlife recreation opportunities for residents and visitors, including hunting, fishing and wildlife viewing.
Special Award Organizations

**Colorado Environmental Health Association**

Colorado Environmental Health Association is a non-profit professional organization whose mission is to promote environmental health as a profession which strives for continual improvement in environmental health quality and the growth of individual professionalism. CEHA has 325 members comprised of local and state health department professionals and industry representatives. CEHA is educationally structured, providing scholarships, one-day trainings, and an Annual Educational Conference to educate and inform environmental health professionals.

**Colorado Foundation for Agriculture**

“Agriculture in the Classroom”
The purpose of the "Agriculture in the Classroom" Task Force is to educate food, fiber, and nutritional supplement consumers on the importance of agriculture in our daily lives through educational programs.

**Colorado Geological Survey & Division of Minerals and Geology**
The Colorado Geological Survey and Division of Minerals & Geology serve the people of Colorado by providing sound geologic information and evaluation, and educating the public about the important role of earth sciences in everyday life in Colorado.

**Colorado Medical Society**
The Colorado Medical Society is a 133-year-old professional organization of 5,500 physician members dedicated to providing excellence in healthcare to all Coloradans. The Colorado Medical Society Education Foundation is a non-profit, tax-exempt charitable foundation established primarily to support educational and charitable programs in Colorado. It has dedicated itself to funding first-year medical student scholarships and educational programs such as the Colorado State Science and Engineering Fair.

**Colorado Mineral Society**
The Colorado Mineral Society is an educational society of professionals and amateurs with an interest in the earth sciences. The Society promotes the study of minerals and other geologic materials, encourages mineral collecting as a hobby, and conducts public meetings, lectures, and field trips. In addition, the society engages in a number of other activities which relate to the society's purposes. The Colorado Mineral Society is the only private organization that has presented special awards during the entire 51-year history of the State Science Fair.

**Colorado Mycological Society**
The Colorado Mycological Society was founded in 1966 to stimulate the interest of young people, and to educate the general public, in areas relating to earth sciences.

**Colorado Scientific Society**
The Colorado Scientific Society was founded in 1882 to promote the interchange of information among Colorado scientists. The Society seeks to stimulate the interest of young people, and to educate the general public, in areas relating to earth sciences.

**CSU, Department of Chemistry**
The faculty and students of the Department of Chemistry at Colorado State University are committed to excellence in chemical education and research. Research at all levels promotes the practice of the scientific method. In that spirit, the Department of Chemistry recognizes through financial awards the excellence in chemistry research at the science fair by presenting awards for two projects - one from the senior division and one from the junior division - judged to have represented the best exhibits in the area of chemistry.

**CSU, Department of Biochemistry and Molecular Biology**
The Department of Biochemistry and Molecular Biology at CSU is committed to providing high quality undergraduate education. A strong, well-balanced background in the biological, physical, and mathematical sciences is provided. As a biochemistry major, your studies will include macromolecular structure and function; cellular biochemistry; metabolism; gene expression, structure, replication, and repair; cell organization, communication, growth, aging, and death with and emphasis on animal cells. Our Biochemistry Major is ideally suited for pursuing advanced degrees in biochemistry, molecular biology, or related life sciences; for health professions; and for employment in the biotechnology industry. Several opportunities for experiential learning and working closely with our faculty are provided. Dedicated modern laboratories with state-of-the-art instrumentation ensure that our students receive the best possible training. More than 25% of the 180 biochemistry majors are participants in the university honors program, the largest representation from any major. Most of our majors engage in independent research projects under the guidance of one of our 13 faculty members. For outstanding undergraduates, the Department offers the opportunity to do a semester abroad, funded by a grant from the National Science Foundation, the only such program in biosciences in the United States. A local internship program providing our students with work experience in our Macromolecular Resource Facility or in industrial laboratories is also available.

**CSU, Department of Horticulture and Landscape Architecture**

Horticulture is the application of scientific principles in the growing, developing, marketing, processing and utilizing of fruits, vegetables, flower and foliage plants, trees, shrubs, and turfgrasses. The major requires a strong grounding in botany, chemistry, horticulture, and business. There are four concentrations in the horticulture major - floriculture, horticultural business management, horticultural food crops, and horticultural science.

**Colorado School of Mines**
The Colorado School of Mines together with the CSM Alumni Association in making available a total of five scholarships for Colorado Science and Engineering Fair winners in five specified categories for high school students. These scholarships are for full-resident tuition for four years. The specified categories are Earth & Space Science, Engineering, Mathematics and Computer Science, Physical Science and Environmental Sciences.
Special Award Organizations

Colorado State University – Pueblo
Colorado State University-Pueblo is a regional, comprehensive university with moderately selective admissions standards. The University offers a broad array of baccalaureate programs with a strong professional focus and a firm grounding in the liberal arts and sciences. The University also offers a select number of masters level graduate programs. The University addresses students' immediate and long-term educational needs through a focus on career-oriented education grounded in the traditional liberal arts and sciences. Students graduate with the knowledge to enter their professions and with the learning skills (e.g. problem solving, critical thinking, research, communication) to keep current in those professions into the future.

Colorado Veterinary Medical Association
CVMA Auxiliary to the AVMA
The Colorado Veterinary Medical Association and its auxiliary's mission is to enhance animal health and welfare and the status of the veterinary profession, through advocacy, education, and increased public awareness of the value of Veterinary medicine. It is a proactive group of more than 1,600 professionals representing clinical practice, public health, academe, industry, and military.

Colorado-Wyoming Society of American Foresters
The Society of American Foresters, Colorado-Wyoming State Society, is a nonprofit professional organization whose mission is to use the knowledge, skills and conservation ethic of the profession to ensure the continued health and use of forest ecosystems and the present and future availability of forest resources to benefit society. The membership is comprised of local, state and federal government employees, industry representatives, private consultants, and students.

Decisioneering, Inc. – Crystal Ball Software
Decisioneering® is the maker of Crystal Ball® software, a full suite of Microsoft® Excel-based applications for Monte Carlo simulation, time-series forecasting, optimization and real options analysis. Crystal Ball transforms spreadsheets into dynamic models that solve almost any problem involving uncertainty, variability and risk. Crystal Ball is currently used by 85% of Fortune 500 companies and taught in more that 600 universities world-wide.

Eastman Kodak Company
The Eastman Kodak Company, a sponsor of the Colorado Science and Engineering Fair, contributes from its Colorado Division and Corporate Division to award students who make the most effective use of photography in a Science Fair project. The project itself need not be concerned directly with the science of photography.

Erudite Linguistic Services
Erudite Linguistic Services offers translation, interpretation, editing, and research in most of the world's languages. The company's main marketing focus is on multiple-language translations for local companies, providing face-to-face consulting. We also provide instruction in foreign languages and other language related areas.

Fort Collins Conservation District
The Fort Collins Conservation district was formed in 1945, along with many Districts across Colorado and across the Nation, to assist landowners heal the scars of the Dust Bowl days. The District's boundaries contain irrigated and non-irrigated cropland, range land, forest land, and urban areas. The purpose of the Conservation District is to deal with soil and water conservation problems through a cooperative effort with landowners, State and Federal Agencies, and other groups and organizations concerned with water and soil conservation issues.

Human Factors and Ergonomics Society
Rocky Mountain Chapter
The Human Factors and Ergonomics Society, Rocky Mountain Chapter, promotes the discovery and exchange of knowledge concerning the characteristics of human beings that apply to the design of systems and devices of all kinds. In other words, we help to ensure that systems are well suited to their human audience. Our chapter offers programs of interest to human factors engineers, product designers, industrial psychologists, corporate ergonomists, software engineers, safety engineers and professionals in related fields.

Institute of Electrical and Electronics Engineering
The Institute of Electrical and Electronics Engineers is a non-profit professional organization that supports the advancement of technology. Its mission is to promote the development and application of electrical and electronics engineering concepts for the benefit of humanity.

International Society for Optical Engineering
SPIE-The International Society for Optical Engineering is a nonprofit organization dedicated to advancing scientific research and engineering applications of optical, photonic, imaging and optoelectronic technologies through its meetings, education programs, publications, and exhibitions.

Lockheed Martin
Headquartered in Bethesda, Maryland, Lockheed Martin employs about 130,000 people worldwide and is principally engaged in the research, design, development, manufacture and integration of advanced technology systems, products and services. The Corporation reported 2003 sales of $31.8 billion. Lockheed Martin Space Systems Company, headquartered near Denver, CO., is one of the major operating units of Lockheed Martin Corporation. Space Systems Company designs, develops, tests and manufactures a variety of advanced technology systems for space and defense. Chief products include space launch systems, defense systems, interplanetary and science spacecraft, spacecraft for commercial and government customers, fleet ballistic missiles and missile defense systems.

MAST Hotline
The MAST Hotline at the University of Northern Colorado is an information and support center for educators in Colorado since 1988. Content and pedagogical materials, along with professional assistance and services are available to educators and pre-service teachers at no cost. The MAST Institute provides resources, opportunities, and services of which the Hotline is a part.
Special Award Organizations

**MedVet Communications**
MedVet Communications, based in Fort Collins, Colorado, is a full-service communications agency specializing in the medical, veterinary, and pharmaceutical markets. We provide creative, high-quality marketing and educational programs for the print, digital, and multimedia mediums to simplify difficult messages. We do this by producing animations, videos, motion graphics, and illustrated graphics about a variety of topics, including surgical procedures, life cycles, patient education, and much more. Our talented group of artists, animators, designers, videographers and programmers, with more than 100 years of combined medical and art experience, bring their expertise to each project by fusing art and science to help communicate difficult topics into easy-to-understand messages.

**National Geophysical Data Center**
The National Geophysical Data Center provides scientific stewardship, products and services for geophysical data describing the solid earth, marine, and solar-terrestrial environment, as well as earth observations from space.

**National Renewable Energy Laboratory**
The National Renewable Energy Laboratory (NREL) is the U.S. Department of Energy's premier laboratory for renewable energy research, development and deployment, and a leading laboratory for energy efficiency. As such, NREL is a world leader in the development of these technologies, benefiting both the environment and the economy. The laboratory's mission is to develop renewable energy and energy efficiency technologies and practices, advance related science and engineering, and transfer knowledge and innovations to address the nation's energy and environmental goals.

**Optical Society of America**

**Rocky Mountain Section**
The Rocky Mountain Section of the Optical Society of America fosters interest in optics and seeks to advance the study and practice of optical science and engineering.

**Rio Tinto Minerals**
Rio Tinto Mineral's tale provides benefit to a wide range of products in the agricultural, paper, plastic, and personal care industries. Each year, more than 1.4 million tons of talc is processed from 11 mines and in 20 plants throughout the world. North American headquarters is located in Centennial, CO.

**Rocky Mountain Association of Geologists**
The Rocky Mountain Association of Geologists is one of the largest associations of geologists in the United States. The RMAG is composed of earth scientists from industry, government, and academia encompassing a wide spectrum of backgrounds. All share a common interest in the geology of our Rocky Mountain area. Founded in 1922, the RMAG is one of the most active geological societies in the country. The Rocky Mountain Association of Geologists supports professional exchange and education through sponsorship of events, publications, training, and seminars. RMAG publishes a monthly newsletter, The Outcrop, a quarterly scientific journal, The Mountain Geologist, and regular guidebooks on a variety of subjects. For additional information about the Rocky Mountain Association of Geologists, visit: www.rmag.org.

**Rocky Mountain Inventors Association**
The Rocky Mountain Inventors and Entrepreneurs Congress is a Colorado non-profit corporation organized in 1978. It is dedicated to the education, professional growth, and success of people involved in all aspects of the innovation process.

**Rocky Mountain Goat Foundation**
The Rocky Mountain Goats Foundation is a non-profit group dedicated to the preservation of high-country wildlife, habitat and overall wildlife conservation. The Foundation funds various educational and scholarship activities, grade-school through college. Wildlife habitat is disappearing in Colorado at the rate of 72 football fields every day and because of that, we are trying to encourage the study of wildlife habitat. The Rocky Mountain Goats Foundation has purchased 3 new Rocky Mountain Goat kids for the Cheyenne Mountain Zoo in Colorado Springs as well as provided monies for improvements to the shelter facilities at the Zoo.

**Rocky Mountain Water Environment Association**
The Rocky Mountain Water Environment Association is a leading organization of dedicated and knowledgeable professionals collectively working together to preserve and enhance the watershed environments originating in the states of Colorado, Wyoming, and New Mexico. The Rocky Mountain Water Environment Association is affiliated with the Water Environment Federation, recognized as the worldwide organization dedicated to the preservation and enhancement of the global water environment.

**Society for Mining, Metallurgy and Exploration**

**Colorado Section**
The Society for Mining, Metallurgy, and Exploration, Inc. is a professional society of geoscientists, engineers, and other professionals involved in the exploration, mining, beneficiation, and production of metals, industrial minerals, and energy minerals worldwide. It is the principal publisher of textbooks and handbooks for the mineral industry and establishes the standards of ethics and engineering practice in the United States for mining and mineral processing engineers.

**Society of Manufacturing Engineers**

**Northern Colorado, Chapter 354**
The Society of Manufacturing Engineers (SME) is a non-profit professional organization that serves the technical and professional growth of its members by providing a variety of information resources and seeks to increase the image and public awareness of manufacturing. Its membership consists of engineers, scientists, technicians and students engaged in supporting manufacturing. The Northern Colorado Range Chapter (354) -- serving members from Denver to Cheyenne, and east to Kansas and Nebraska -- emphasizes electrical and electronics and mechanical manufacturing.
Special Award Organizations

Society of Women Engineers
Rocky Mountain Section
The Society of Women Engineers is a nonprofit educational service organization. It consists of women and men who are graduate engineers as well as those with equivalent engineering experience and/or those interested in supporting SWE's education goals. The national organization of SWE was founded in 1950. The Denver Section was chartered in 1954 and renamed the Rocky Mountain Section in 1986. One of SWE's goals is to inform young women, their parents, counselors and the general public of the qualifications and achievements of women engineers and the opportunities open to them. To fulfill this mission, the Rocky Mountain Section provides outreach and career guidance activities in math, science and engineering at the elementary, middle, high school and college levels. In addition to participation in events such as the CSEF, SWE has college scholarship programs at both the local and national levels. To learn more about SWE go to www.societyofwomenengineers.org.

Soil and Water Conservation Society
Colorado Chapter
The Soil and Water Conservation Society (SWCS) is dedicated to advancing the science and art of good land and water use worldwide. In addition to participation in events such as the CSEF, SWE has college scholarship programs at both the local and national levels. To learn more about SWE go to www.societyofwomenengineers.org.

United States Air Force ROTC
Air Force ROTC, Detachment 90, at Colorado State University is the tenth largest AFROTC unit in the nation. The mission of Detachment 90 is to commission highly qualified Air Force officer candidates by recruiting, educating, training and motivating cadets at both CSU and UNC and prepare them to lead in the world's greatest air and space force.

United States Army
The US Army and the Fort Collins US Army Recruiting station would like to recognize and congratulate all of the participants involved with the 2006 Colorado State Science Fair. The US Army understands the importance of these events and the effects they can have on an individual’s academic record. The categories the US Army has recognized are Engineering, Earth and Environmental Sciences, Health and Behavioral Sciences, Mathematics and Computer Science and Physical Sciences in the Senior Division. The winners in each of the 5 categories will receive a certificate of achievement with a presentation folder. Four of the five category winners will each receive a $50 US savings bond. The most outstanding of the five will receive a $100 U.S. savings bond and the Army’s silver medallion for science/engineering excellence.

United States Department of Commerce
The U.S. Department of Commerce, through its Agencies, the National Institute of Standards and Technology, the National Ocean and Atmospheric Administration, and the National Telecommunications and Information Administration, provides a major sponsorship of the Colorado Science and Engineering Fair. The Department research laboratories in Boulder, Colorado, serve as a center around which a major technological complex had developed in the Boulder Area.

United States Geological Survey
The United States Geological Survey (USGS) is a science research organization established by Congress in 1879 and is responsible for providing the nation with reliable and impartial research of earth science problems relevant to society. The USGS is organized into geologic, water resource, mapping, and biological resource divisions. There are over 300 USGS Field Offices in the United States. The USGS produces geologic and topographic maps, databases, and research reports of the earth sciences, all of which are available to the general public.

United States Navy and Marine Corps
The Office of Naval Research has relentlessly pursued science and technology. Research initiatives undertaken by Naval scientists and engineers have enabled the extremely capable Naval forces we depend upon today. Science is a central aspect of our society and economic productivity. Advancement in science and technology helps us maintain the military advantage that is vital to our national security.

University of Colorado at Boulder
College of Engineering and Applied Sciences
This award is given by the College of Engineering at the University of Colorado at Boulder to recognize outstanding innovation and excellence in science and engineering. At the College of Engineering and Applied Science at the University of Colorado at Boulder, we strive to train engineers who are not only creative and have deep technical knowledge, but who are also broadly educated as citizens and future leaders of the world. The one year scholarships may be renewable, based on the academic performance of the recipient.

University of Colorado, Health Sciences Center
Medical Scientist Training Program
At the University of Colorado School of Medicine, the Medical Scientist Training Program (MSTP) is a seven to eight year program for highly motivated students interested in a career in academic medicine. Our program excels in preparing students for such a career by having students complete a Medical Degree (M.D.) and a Doctorate in Philosophy (Ph.D.). This program in the biomedical sciences combines graduate training in basic research skills with outstanding clinical preparation. To learn more about our program please check us out on the web at http://www.uchsc.edu/sm/mstp/.

Yale Science and Engineering Association
Yale University is an outstanding educator in the sciences and engineering. The Yale Science and Engineering Award is given to a 11th grade student for the most outstanding exhibit at a state or regional high school science fair in Computer Science, Engineering, Physics, or Chemistry. The award consists of the YSEA medal and a formal certificate. Each winner also receives a brochure about undergraduate studies in Engineering at Yale. The list of winners is forwarded to the Yale Admissions Office.

Zonta Club of Boulder County
Zonta International, founded in 1919, is an organization of executive and professional women. Amelia Earhart was one of its most famous members, and this award is given in her memory.
# Colorado State Science Fair - Pioneers of Science Awards

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<tr>
<th>Category</th>
<th>Sponsor</th>
<th>Pioneer</th>
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<tbody>
<tr>
<td>Behavioral &amp; Social Sciences</td>
<td>Dave Barton</td>
<td>Abraham Maslow</td>
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<tr>
<td>Abraham Maslow (1908 – 1970) is best known for the concept of self-actualization and his famous hierarchy of needs. Maslow is an inspirational figure in personality theories. Maslow was one of the pioneers in the movement to bring human beings (vs. dogs and rats) back into psychology and the person back into personality.</td>
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<tr>
<td>Botany</td>
<td>David Holm</td>
<td>Luther Burbank</td>
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<td>Luther Burbank (1849 – 1926) was widely known as a horticulturist, botanist, and scientist. Burbank only had an elementary education, but he was an avid reader. Burbank went on to become one of history’s most inventive and productive plant breeders. Burbank has been credited with being the “world’s greatest plant breeder.” Burbank established as nursery garden, greenhouse and experimental farms in Santa Rosa, California that have become famous throughout the world.</td>
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<td>Chemistry</td>
<td>Bonnie Hames</td>
<td>Marie Curie</td>
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<td>Marie Curie (1867-1934), a chemist and physician became the first woman Professor of General Physics in the Faculty of Sciences at the Sorbonne, in Paris, France. In 1903 she shared the Nobel Prize in physics with her husband, Pierre, and Henri Becquerel, for their work on radioactivity, thus becoming the first woman to win a Nobel Prize. Dr. Curie went on to receive a second Nobel Prize in Chemistry in 1911 for isolating the element radium and thus becoming the first person to ever be awarded a second Nobel Prize.</td>
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<tr>
<td>Earth &amp; Space Sciences</td>
<td>Sam Bartlett</td>
<td>Alfred Lothar Wegner</td>
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<td>Alfred Lothar Wegner (1880-1930) was a German geologist, geophysicist, meteorologist and artic explorer who is known for the theory of continental drift. Wegner was the first to investigate in detail the idea of continental drift and published his findings in 1915. However his work was widely criticized and it was not until the late 1960s that this theory was accepted as the basis for plate tectonics.</td>
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<tr>
<td>Engineering</td>
<td>Ryan Patterson</td>
<td>Nicola Tesla</td>
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<td>Nicola Tesla (1856 – 1943), a brilliant inventor, was born in Austria and migrated to the United States in 1884. Tesla pioneered the invention of the fluorescent light, AC induction motor, radio, various transformers, wireless communications, and alternating current power transmission. All of these inventions were critical to the modern industrial revolution, and are still in use today. Throughout his life, Tesla received more than 700 patents, along with the Edison Medal.</td>
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<tr>
<td>Environmental Sciences</td>
<td>Linda Lung</td>
<td>Rachel Louise Carson</td>
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<td>Rachel Louise Carson (1907 - 1964) was an American writer and marine biologist. Her widely known books on sea life combined keen scientific observation with rich poetic description. Carson’s book, <em>Silent Spring</em> is a provocative study of the dangers involved in the use of insecticides and is wildly believed to have initiated the environmental movement in the United States.</td>
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<tr>
<td>Mathematics &amp; Computer Sciences</td>
<td>Al Bedard</td>
<td>Charles Babbage</td>
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<td>Charles Babbage (1792-1871) was a British mathematician and inventor who designed and built mechanical computing machines on the principles that anticipated the modern computer. Babbage excelled in a variety of scientific and philosophical subjects through his present-day reputation rests largely on the invention and design of his vast mechanical calculating engines, causing him to frequently be referred to as the “father of the computer.”</td>
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<tr>
<td>Medicine &amp; Health</td>
<td>Robert Morrow</td>
<td>Hippocrates</td>
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<td>Hippocrates (460-377 B.C.) was a Greek physician known as “the father of medicine.” Hippocrates’ work was of enormous importance in separating medicine from superstition. Hippocrates recognized the link between environment and disease was considered one of the most important steps in the development of modern medicine. The Hippocratic oath, which all doctors ascribe to, is named in honor of Hippocrates and his teachings.</td>
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<td>Microbiology</td>
<td>Jody Oaks</td>
<td>Jonas Edward Salk</td>
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<tr>
<td>Jonas Edward Salk (1914 - 1995) was an American microbiologist who was an authority on virus diseases. Salk is best known for his development of the 1st polio vaccine. The <em>Salk vaccine</em> is made by cultivating three strains of the poliovirus separately in monkey tissue.</td>
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<tr>
<td>Physics</td>
<td>John Parker</td>
<td>Albert Einstein</td>
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<tr>
<td>Albert Einstein (1879-1955) was a professor of theoretical physics who is best known for his general theory of relativity and his contributions to quantum physics. Einstein received the Noble Prize for physics in 1921 for his work in theoretical physics, most notably on the photoelectric effects. He fled Nazi Germany in 1933 and became an American Citizen. Einstein was an ardent pacifist and was active in the cause of world peace.</td>
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<tr>
<td>Zoology</td>
<td>Carol Denning</td>
<td>Georges LCF Cuvier</td>
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<tr>
<td>Georges Leopold Chretien Fredric Cuvier (1769-1832) was a French naturalist who was a pioneer in the science of comparative anatomy. Cuvier originated a system of zoological classification that comprised four phyla based on differences in structure of the skeleton and organs. His reconstruction of the soft parts of fossils base on skeletal remains greatly advanced the science of paleontology.</td>
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