CURRENT RESEARCH SUPPORTED
by the
Down Syndrome Research | Awareness Group

SCIENTIFIC STUDIES ON DOWN SYNDROME occur in the research lab and examine how the extra chromosome 21 affects individuals with Down syndrome. Scientists have created a mouse model that mimics the effects of having the extra chromosome. Using the mouse model, scientists are able to target overactive genes and test drug therapies that can reduce the activity of these genes to a normal level.

CLINICAL STUDIES ON DOWN SYNDROME involve both mouse models and individuals with Down syndrome. By testing functional abilities, researchers gain a better understanding of the differences and develop tools to test therapies and treatments.

Our first grant recipient, Dr. Alberto Costa, Associate Professor of Medicine and Neuroscience at University of Colorado at Denver, conducts both scientific and clinical studies. His studies are designed to lead to treatments that will improve the learning and reasoning capabilities of individuals with Down syndrome as well as practical therapies to better teach fundamental skills such as reading. This is a start but we have to do more to make a difference. The practical implication of these efforts is immense not only for people with Down syndrome but also for society as a whole. It has been estimated that an increase in ability, health and independence for people with Down syndrome could save over $3 billion per year.

YOUR DONATION TO TODAY'S RESEARCH CAN TURN DREAMS INTO REALITY.

THANK YOU FOR YOUR SUPPORT!

DSR | AG
c/o MHDSA
2121 S. Oneida Street
Suite 600
Denver, CO 80224

Mile High Down Syndrome Association
2121 S. Oneida Street
Suite 600
Denver, CO 80224

$21 for Trisomy 21

DSR | AG
Down Syndrome Research Awareness Group

A committee of the Mile High Down Syndrome Association

Supporting research that enhances the quality of life for people with Down syndrome.

DSR|AG

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Research turns dreams into reality!

I WANT TO...

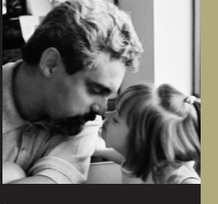
be a **Hollywood Actor**

get **Married**

be a **Dentist**

be a **Basketball Player**

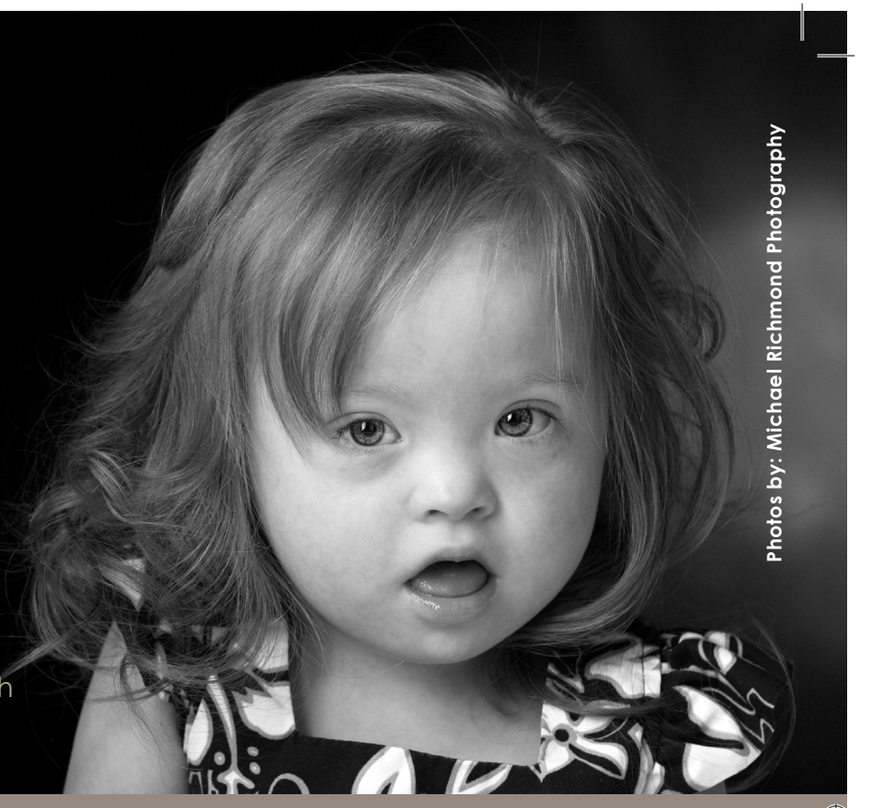
"The driving force of my work and the philosophy of my laboratory, is the idea that the intellectual disabilities associated with Down syndrome may at least be partially reversible."



— Alberto Costa, M.D. Ph.D., Associate Professor of Medicine and Neuroscience at UCD, father of a daughter with Down syndrome and DSR|AG's first grant recipient.

21 Reasons for Research

Your donation to today's research can turn dreams into reality.



Photos by: Michael Richmond Photography

STATISTICS

1. Trisomy 21 is the result of an individual being born with three 21st chromosomes, instead of two.
2. Trisomy 21, a genetic condition, is also known as Down syndrome.
3. Down syndrome affects 1 in 733 live births.
4. Average maternal age is 26.
5. Advances in medicine have increased the life expectancy from 25 years in 1983 to 49 years today.

SOCIAL

6. Individuals with Down syndrome have goals and dreams just like everyone else.
7. Individuals with Down syndrome want to be treated with respect.
8. Inclusive social and educational settings have resulted in a marked increase in productivity, acceptance, and even I.Q., but social changes alone do not ensure opportunity and success.

MEDICAL

9. Down syndrome is the most common genetic cause of significant intellectual disability.
10. Down syndrome also causes delays in reaching developmental milestones.
11. Decreased motor coordination and low muscle tone affect speech, physical skills, and sleep.
12. Nearly 50% of all infants with Down syndrome have heart defects.
13. Individuals with Down syndrome are at greater risk for Leukemia, seizures, autism, hypothyroidism, celiac disease, sleep apnea, ear infections, vision, and orthopedic problems.
14. Individuals with Down syndrome have about a 25% chance of developing Alzheimer's disease.

RESEARCH

15. Funding for research on Down syndrome is dramatically less than for other developmental disabilities.
16. Current scientific research is focused on developing drug therapies to improve learning and memory.
17. Current clinical studies on memory and behavior will improve teaching and therapeutic methods.
18. Genome mapping and other methods of genetic investigation provide powerful new tools for Down syndrome research.
19. Scientists are targeting candidate genes that are believed to cause certain attributes of Down syndrome.
20. The results of current studies may translate into new techniques that improve speech and learning.
21. Progress in studies of related diseases provide hope that an effective drug therapy is on the horizon.