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**Middle School Students from Madison, Mississippi, Win Top Award:  
The \$25,000 Columbus Foundation Community Grant in  
National Science/Community Service Competition  
Held at Walt Disney World®**

*Students develop device to enable arthritis sufferers  
to open doors without pain.*

AUBURN, N.Y.—June 18, 2010—Bright ideas, solid research and teamwork won three students from Madison Middle School in Madison, Mississippi, the top prize in the Christopher Columbus Awards, a nationwide program that challenges middle-school students to explore opportunities for positive change in their communities.

Eighth-graders Mary Chiang, Gul Shaheen and Thomas Wiygul, and their coach, Nancy M. Rubel, made it to the finals last month, and now are winners of the grand prize—the **\$25,000 Columbus Foundation Community Grant**.

The students chose to focus their project on arthritis because it affects so many elderly people, including some of their own loved ones, and interferes with their quality of life. Further, the team's hometown of Madison is a certified retirement community and is therefore also home to many residents of retirement age—the age group most hampered by arthritis. The students identified the everyday act of gripping and turning a doorknob, which can trigger pain in an arthritis sufferer, as something they could simplify to alleviate discomfort.

The team hypothesized that a device that would allow arthritis sufferers to turn a standard doorknob by pulling downward rather than by using a twisting motion could help reduce the distress of opening a door. The students developed and tested a prototype of the device, which they dubbed "Arthritis Magic." Results indicated that Arthritis Magic does help alleviate the arthritic pain that can be caused by using a doorknob. Now that they've won the grant, the students plan to refine, produce and market their invention.

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A panel of community leaders, scientists and experts in science education selected this idea as one of the top eight entries in the U.S. More than 600 students and coaches participated nationwide.

### **Team Wins a Trip to Walt Disney World®**

The team and their coach won an all-expense-paid trip to the *Walt Disney World®* Resort, where they competed in the **Christopher Columbus Awards' National Championship Week**, and participated in the **Christopher Columbus Academy**, a custom-designed educational program conducted by scientists, engineers and educators. The program reveals the science and technology behind the thrills and excitement of *Epcot®* and the *Magic Kingdom®*.

### **Positive Community Change**

The Christopher Columbus Awards challenge teams of middle-school students to explore and discover opportunities for positive change in their communities using science and technology. The program is now in its 14th year and has attracted more than 18,000 students from diverse backgrounds all across the U.S. The program is sponsored by the Christopher Columbus Fellowship Foundation ([www.columbusfdn.org](http://www.columbusfdn.org)) and is endorsed by the National Middle School Association.

Past winners have included a team from San Diego that has secured a provisional patent for a specialized seat cushion design that uses sensory feedback to train people to maintain a healthy posture while sitting at a computer, and a group of students from Illinois who developed a multifaceted recycling awareness campaign that has increased recycling in their community by 60% in just four months.

### **Strong Participation from Girls, Minorities**

The program attracts many students who may not typically enter a science competition. More than half of the entrants are girls, and nearly a fourth are from diverse ethnic and cultural backgrounds, statistics that are higher than those of most science competitions. The Christopher Columbus Fellowship Foundation believes the teamwork aspect and community focus draw a broader range of students to enter.

### **About the Sponsor**

The Christopher Columbus Fellowship Foundation is an independent Federal government agency created by Congress in 1992 to encourage and support research, study and labor designed to produce new discoveries in all fields of endeavor for the benefit of mankind. The Foundation has established *Frontiers of Discovery—Work in Progress and Discover the Future*, programs that recognize “cutting edge” innovations, innovative ideas of America’s youth, and honor teachers. These programs include the *Agriscience Awards*, *Christopher Columbus Awards*, *Homeland Security Awards* and *Life Sciences Awards*.

For more information on the Christopher Columbus Awards, call 800-291-6020 or visit [www.christophercolumbusawards.com](http://www.christophercolumbusawards.com).

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