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Find Out What You're Afraid Of When *Goose Bumps! The Science of Fear* Premieres at the California Science Center on July 4, 2007

Los Angeles—Why do our hearts race, our knees shake, and our bodies sweat when we are scared? *Goose Bumps! The Science of Fear*, a new exhibit developed by the California Science Center, explores this universal emotion that can save our lives. Through fun, interactive challenges guests can experience fear in a safe environment and discover the science behind their physical and emotional responses. The exhibit premieres in Los Angeles on July 4, 2007, and runs through December 31, 2007; admission is free.

Goose Bumps! is scheduled to travel to Science Centers across the nation on a five-year tour. The 6,000 square-foot exhibit includes immersive environments and full-body, interactive experiences that allow guests to test their own fears and rate their physiological responses. Leading scientists and their current research on the neurobiology, physiology and psychology of fear are also featured throughout the exhibit.

"We all experience fear, but many people do not understand why", said Dr. David Bibas, California Science Center Curator of Technology Programs and exhibit organizer for *Goose Bumps!* "This is the first comprehensive exhibit on fear that engages visitors with fun experiences that trigger an authentic fear response and then motivates them to learn how the brain and body work together in response to danger. "

Goose Bumps! begins with the **Fear Challenge Course**, where visitors can face four common fears in a safe environment. The first challenge, **Fear of Animals**, dares guests to reach into concealed terrariums that might be the home of creepy-crawly creatures. In the next room, **Fear of Electric Shock**, visitors may feel their heart pounding as they anticipate getting zapped by a jolt of electricity. In **Fear of Loud Noises** visitors test this innate fear that helps keep us out of harm's way. Finally, the **Fear of Falling** challenge allows guests to experience a sudden loss of support and then watch a video recording of their reaction to the backwards drop.

Another exhibit highlight is the **Fear Lab**, a section which explores the brain's structures and pathways that drive the fear response. Visitors will meet Mr. Goose Bumps, a larger-than-life figure that illustrates, through animation, how the brain and body work together in response to danger. Real brains and brain slices preserved through the process of plastination are on display showing similarities in a key fear structure in the brains of humans and animals.

Other thematic areas in the exhibit include:

Faces of Emotion – Visitors can explore the facial expressions of fear and other emotions that may be universal in humans. Cutting edge software is used to analyze and identify guests' facial expressions.

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Fear in the Wild – A put-yourself-in-the-picture immersive video game allows guests to explore common responses to danger, including freeze, flight and fight. Visitors will discover how fear helps all animals, including humans, stay alive.

Fear and Society – Some fears spread beyond the individual and become stronger as more people become afraid. A short film and exhibit displays how our collective fears are represented and transmitted through media and pop culture.

Coping with Fear – While a certain amount of fear is normal, some anxieties can get out of control. Visitors can find out what fears are common at different stages in life and learn about ways to help children move past their fears. They can also watch interviews with patients suffering from anxiety disorders to understand what happens when the fear system goes awry.

California Science Center education presenters will engage visitors with live demonstrations that support the exhibit's science concepts. With the "Creepy Creatures" education cart, presenters will talk about the fear response as guests have the opportunity to touch commonly feared creatures including a cockroach, giant millipede or corn snake. A second cart, "Neurons and the Brain", will explore the role of neurons as the brain processes fear stimuli. **Fear Theater** will periodically present a 20-minute live demonstration that illustrates the process of fear conditioning and how scientists measure the fear response in the lab.

Design and Development

This exhibit was developed in cooperation with and partially funded by the Science Museum Exhibit Collaborative, which includes the California Science Center, the Boston Museum of Science, COSI, Columbus, the Fort Worth Museum of Science and History, The Franklin Institute, the Science Museum of Minnesota and the Oregon Museum of Science and Industry.

This project was supported, in part, by a grant from the Informal Science Education program of the National Science Foundation under grant ESI-0515470.

Goose Bumps! National Tour will include:

California Science Center, Los Angeles, CA
COSI, Columbus, OH
Museum of Science, Boston, MA
Science Museum of Minnesota, St. Paul, MN
OMSI, Portland, OR
Fort Worth Museum of Science and Industry, Fort Worth, TX
The Franklin Institute, Philadelphia, PA

July 4 – December 31, 2007
February – April 2008
October – December 2008
February – April 2009
June – August 2009
October – December 2009
October – December 2010

Schedule is subject to change

About the California Science Center

The California Science Center's mission is as follows: "We aspire to stimulate curiosity and inspire science learning in everyone by creating fun, memorable experiences, because we value science as an indispensable tool for understanding our world, accessibility and inclusiveness, and enriching people's lives."

The **California Science Center** and **IMAX Theater** are located in historic Exposition Park just west of the Harbor (110) Freeway at 700 State Drive, Los Angeles. Open daily from 10 a.m. to 5 p.m., except on Thanksgiving, Christmas and New Year's Day. Admission to *Goose Bumps!* and all permanent exhibit galleries is free. For recorded information, including IMAX show times, call 323.SCIENCE (323.724-3623). IMAX ticket prices range from \$4.75 to \$8.00. For advance ticket purchases, group rates, or to make reservations for any visiting group of 15 or more (*required*), call 213.744-2019. Parking is available in the guest lot at Figueroa and 39th Street at \$6 per car, \$10 for buses or oversized vehicles. Both the Science Center and IMAX Theater are wheelchair accessible. For further information, please visit our website at www.californiasciencecenter.org.

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