DAMERICAN MUSEUM & NATURAL HISTORY

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August 2015

THE AMERICAN MUSEUM OF NATURAL HISTORY ANNOUNCES NEW EXHIBITION THE SECRET WORLD INSIDE YOU

EXHIBITION TO EXPLORE THE MICROSCOPIC ORGANISMS THAT LIVE ON US AND IN US



OPENS NOVEMBER 7, 2015

The microbes in your body are more numerous than the stars in the Milky Way. Clump them together, and they weigh as much as your brain. And contrary to the knee-jerk reaction that all microbes – the term used for organisms that are too small to be seen with the naked eye – must be "germs" that cause disease, most of the ones that live in your body are vital to keeping your digestive system, your immune system, and even your brain working properly. This fall, the American Museum of Natural History presents *The Secret World Inside You*, a special exhibition that explores the rapidly evolving science that is revolutionizing how we view human health.

Our bodies are home to many trillions of microbes, including bacteria, viruses, fungi, and other organisms collectively called the **human microbiome**. In any human, microbial genes outnumber the genes in human DNA by more than 100 to one. Your body also contains more microbial cells than human cells. This new perspective leads us to look at our bodies not just as individuals but as entire ecosystems.

Investigating the human microbiome is a very young science, and researchers are just beginning to understand what constitutes a "normal" microbiome, how it changes over time, and how it affects health and disease. But what is clear is that the effects of the microbiome on its human host are profound and multifaceted – and could play an important role in common health problems like **allergies, asthma, obesity, and even anxiety and depression**.

The Secret World Inside You will take visitors on a tour of the human body, making stops at places where microbes thrive: your skin – which, covering about 20 square feet, is your largest organ – and your mouth and your gastrointestinal tract, which is home to your body's densest and most diverse microbial community, among others.

The exhibition also will explore where our microbiomes come from. Most babies encounter their first big batch of microbes during birth, when they are coated with microbes from the mother's birth canal, or, if born by caesarean section, from the skin of their mother, doctors, and others who touch them. New work also has shown that breast milk, in addition to providing nutrition for the baby, contains complex carbohydrates that cannot be digested by infants but are readily consumed by the dominant species of bacteria in the infant microbiome – evidence that we coevolved to live with these organisms.

How do your interactions with microbes — from the type of environment where you grew up to the number of times you have taken an antibiotic, which destroys both bad and good bacteria — influence your health? In what ways can your microbiome be said to be its own organ? And is it possible that the state of the bacteria in your gut plays a role in your mental health?

The Secret World Inside You will explore these intriguing questions and more with interactive activities, videos, and a live theater where a presenter will show visitors how scientists are navigating this exciting new field of research.

The Secret World Inside You is co-curated by Susan Perkins and Rob DeSalle, curators in the Museum's Division of Invertebrate Zoology and the Sackler Institute for Comparative Genomics. The exhibition will be open to the public from November 7, 2015, to August 14, 2016.

This project is supported by the Science Education Partnership Award (SEPA) program of the National Institutes of Health (NIH).

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AMERICAN MUSEUM OF NATURAL HISTORY (AMNH.ORG)

The American Museum of Natural History, founded in 1869, is one of the world's preeminent scientific, educational, and cultural institutions. The Museum encompasses 45 permanent exhibition halls, including the Rose Center for Earth and Space and the Hayden Planetarium, as well as galleries for temporary exhibitions. It is home to the Theodore Roosevelt Memorial, New York State's official memorial to its 33rd governor and the nation's 26th president, and a tribute to Roosevelt's enduring legacy of conservation. The Museum's five active research divisions and three cross-disciplinary centers support approximately 200 scientists, whose work draws on a world-class permanent collection of more than 33 million specimens and artifacts, as well as specialized collections for frozen tissue and genomic and astrophysical data, and one of the largest natural history libraries in the world. Through its Richard Gilder Graduate School, it is the only American museum authorized to grant the Ph.D. degree. In 2012, the Museum began offering a pilot Master of Arts in Teaching program with a specialization in Earth science, which is the only non-university affiliated such program in the United States. Annual attendance has grown to approximately 5 million, and the Museum's exhibitions and Space Shows can be seen in venues on five continents. The Museum's website and collection of apps for mobile devices extend its collections, exhibitions, and educational programs to millions more beyond its walls. Visit amnh.org for more information.

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