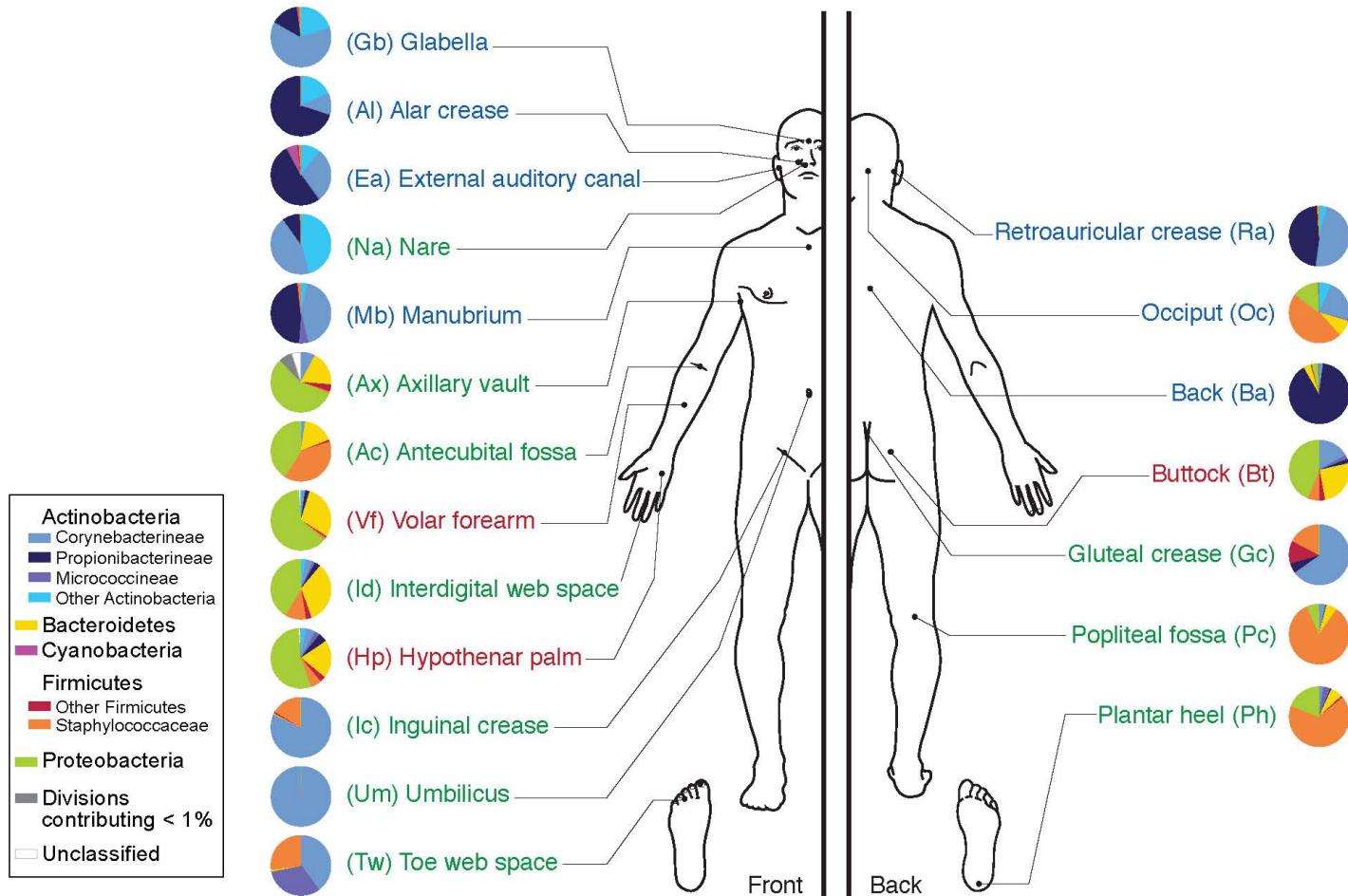


The Microbiome



By Darryl Leja, NHGRI - <http://www.genome.gov/dmd/img.cfm?node=Photos/Graphics&id=85320>, Public Domain, <https://commons.wikimedia.org/w/index.php?curid=29534265>

Our microbiome is composed of all the organisms, bacteria, archaea, fungi, protists and animals that live in or on us. Bacteria is the most numerous member, both in absolute numbers and number of species. There are approximately twice as many bacteria cells in our bodies than our own cells.

Bacteria live on us because we provide the three essential requirements for life: **water, food, and heat**. Many of the bacteria, the "good" bacteria feed off our unwanted in our digestive system, our excretions like oils and sweat, and other micro-organisms. The "bad" bacteria feed off our cells or cell products.

Our microbiomes originate from our passage through the birth canal and from nursing, from the nipple and from the milk.

Some hospitals give pregnant women who are scheduled for cesarian sections small sponges to put in their vagina for days before the surgery. When the baby is born, it is wiped with the sponge, inoculating the baby with bacteria.

As kids, we expose ourselves to bacteria by putting everything in our mouths.

Our microbiome serve important functions. Our gut bacteria produce vitamin K. They breakdown some foods making them easier to digest. They train our immune cells. They maintain a healthy balance in our microbiome.

Our microbiomes are also connected to our personalities, health, diabetes, obesity and much more. What the connection is we are still investigating.