

A GARDEN IN YOUR BELLY

MEET THE MICROBES IN YOUR GUT

MASHA D'YANS



TO MISHA, THE GARDNER, AND ZENO, THE SPROUT

Special thanks to Klaudyna Borewicz, PhD (microbiota researcher), for reviewing the text

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WHAT IS THE MICROBIOME?

A microbiome includes all the microorganisms living in a particular environment. The microorganisms living in and on the human body are one of the best examples of a microbiome. At this moment, 2 to 6 pounds (1 to 3 kg) of microbes are living in and on you. You're home to trillions of microorganisms, which are collectively known as the microbiome.



THERE ARE OVER
700 SPECIES
OF MICROBIOTA
IN THE MOUTH,
THROAT, AND
LUNGS.



THERE ARE OVER
1,000 SPECIES
OF MICROBIOTA
ON THE SKIN,
WHICH INCLUDE
BACTERIA, VIRUSES,
PROTOZOA, AND
FUNGI.

Your gut microbiome is constantly changing. At first, it is impacted by your parents, but it changes with every breath you take, every food you eat, and every person you meet. Your microbiome works best when there are lots of different kinds of microorganisms, bacteria, and microbes working together. The more diverse your microbiome, the stronger it is!

Scientists say that each microbiome needs different types of microorganisms to be healthy. There is no one microorganism that is the best to have in your microbiome. However, scientists have found that people with an abundance of Bacteroidetes and Firmicutes bacteria in their guts have the healthiest microbiomes. They may be part of what scientists call the functional core of the gut microbiome.



THE **HUMAN GUT**
CONTAINS MORE
THAN 100 TRILLION
MICROORGANISMS
AND IS CONSIDERED
ONE OF THE MOST
DENSELY POPULATED
MICROBIAL HABITATS
KNOWN ON EARTH.



GLOSSARY

FERTILIZER: a nutrient-rich substance that helps plants grow

HARVEST: to gather like a crop

INTESTINES: a part of the digestive system where nutrients and water are absorbed

MICROBIAL: relating to a microorganism or microbe

MICROBIOME: a community of microorganisms that live in a specific place, such as your body

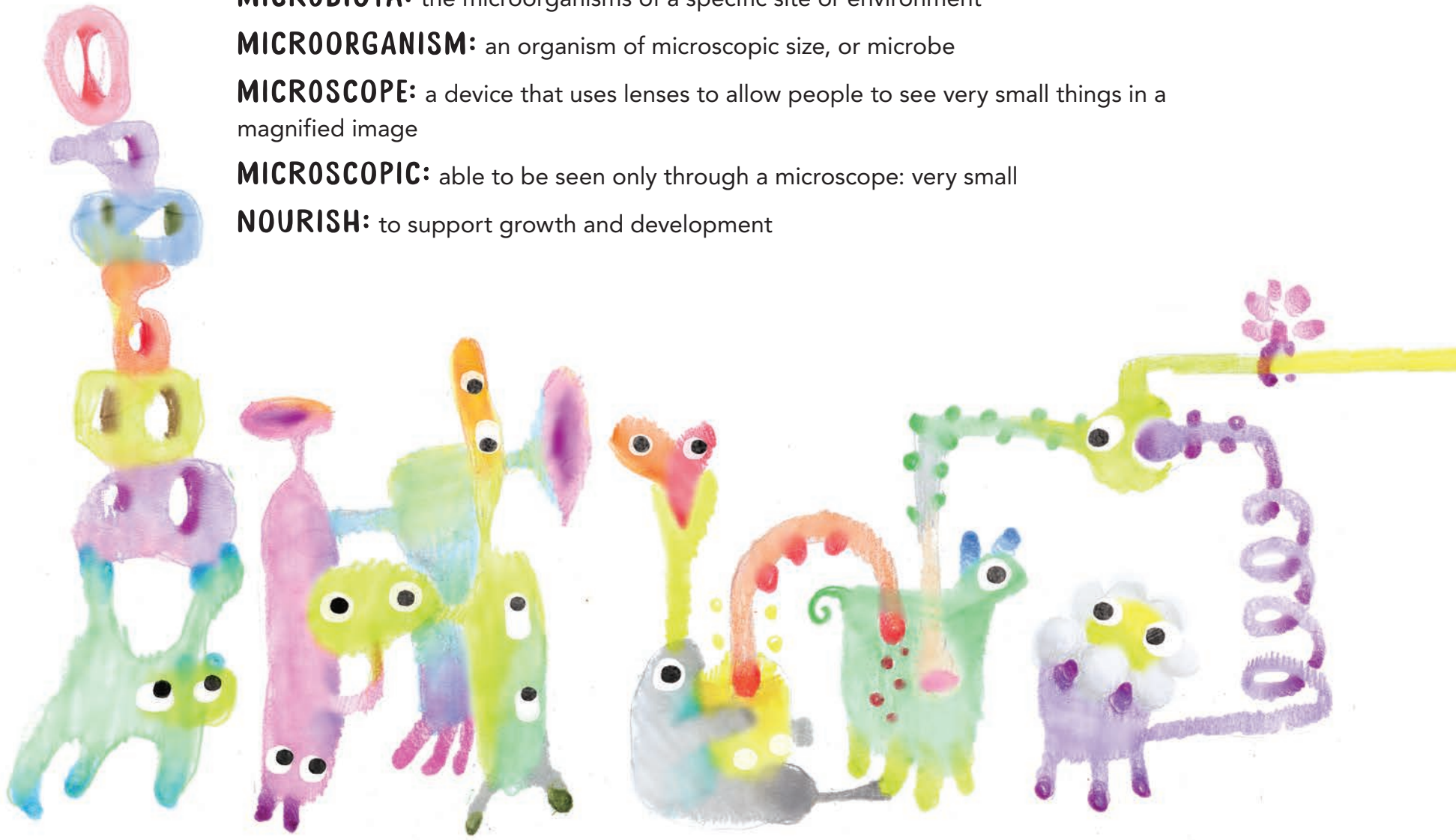
MICROBIOTA: the microorganisms of a specific site or environment

MICROORGANISM: an organism of microscopic size, or microbe

MICROSCOPE: a device that uses lenses to allow people to see very small things in a magnified image

MICROSCOPIC: able to be seen only through a microscope: very small

NOURISH: to support growth and development



AMAZING GUT FACTS

A healthy microbiome can help fight off diseases and illness. Scientists are currently investigating how to treat diseases by treating the gut microbiome.

This microbiome acts as its own "brain." Unlike the rest of your body, your gut's not waiting for your head to tell it what to do. Why would it, when there are more than 100 million brain cells in your gut!

Food really affects your mood. Each thing you eat nourishes different microorganisms that make you feel one way or another.

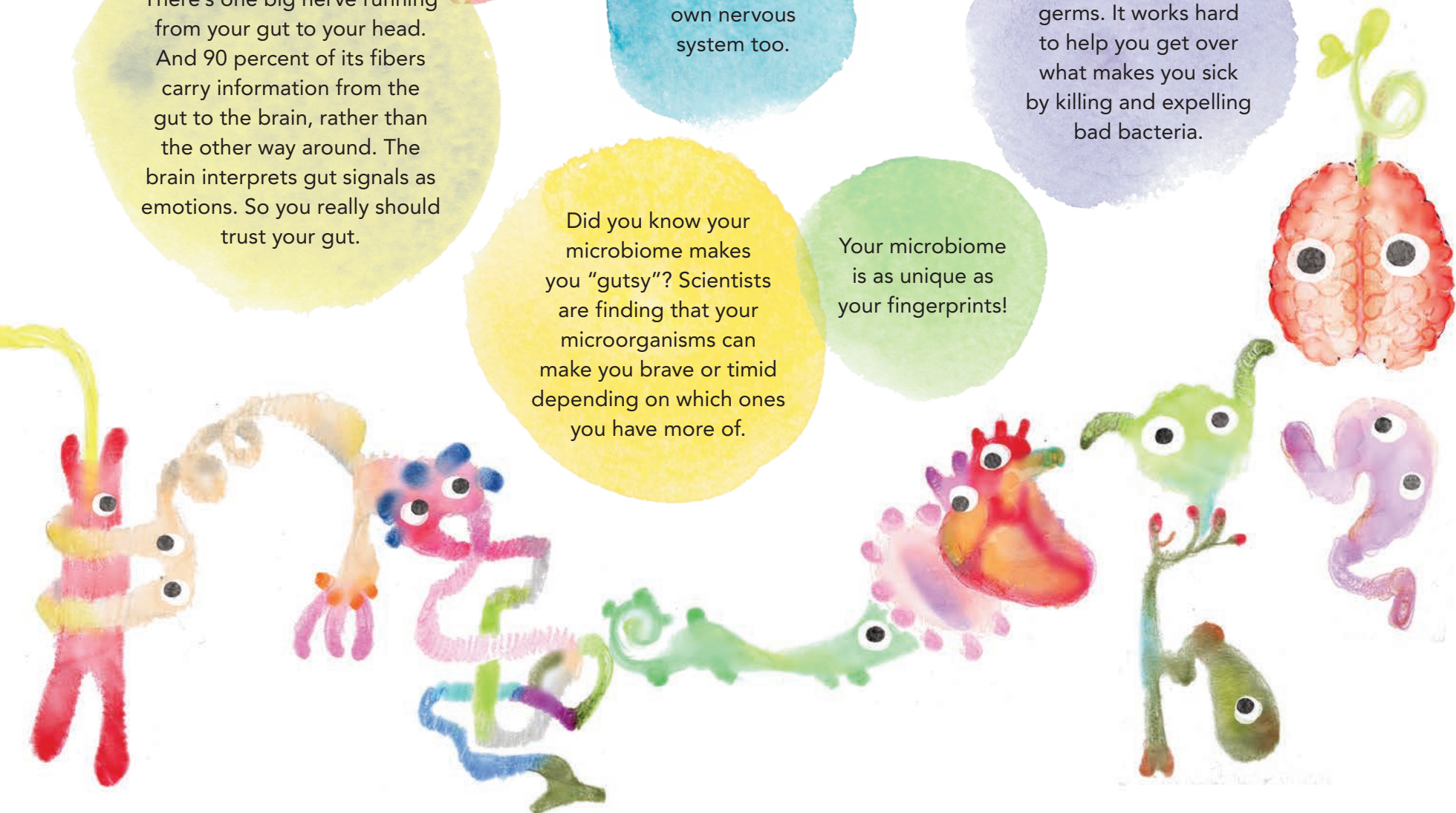
There's one big nerve running from your gut to your head. And 90 percent of its fibers carry information from the gut to the brain, rather than the other way around. The brain interprets gut signals as emotions. So you really should trust your gut.

Your gut has its own nervous system too.

Your gut is your best friend in fighting germs. It works hard to help you get over what makes you sick by killing and expelling bad bacteria.

Did you know your microbiome makes you "gutsy"? Scientists are finding that your microorganisms can make you brave or timid depending on which ones you have more of.

Your microbiome is as unique as your fingerprints!



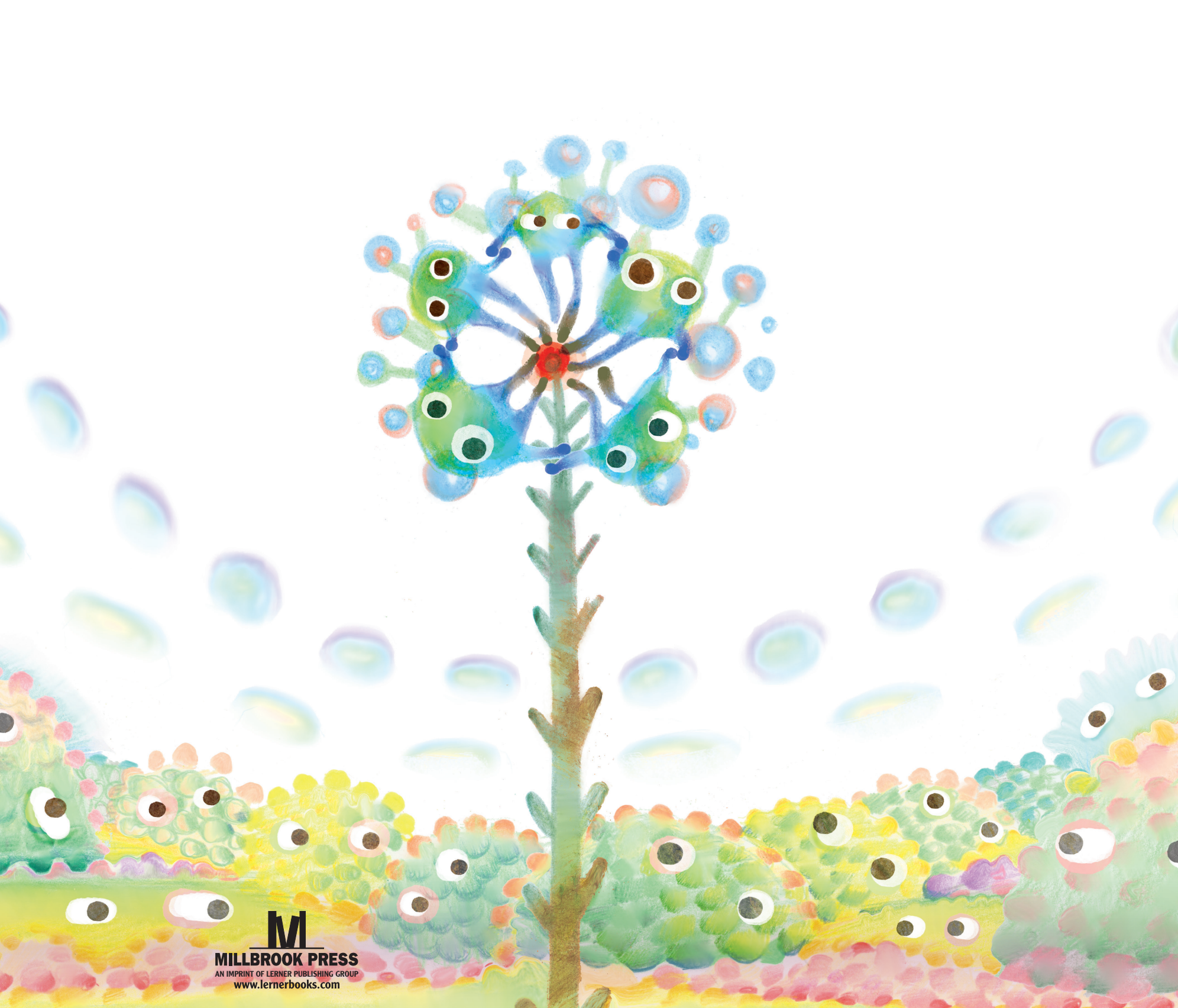


A classically
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