MARINA and the MICROSCOPE



Marina and the Microscope

FreeStyle Libre 2

JDRF IMPROVING LIVES. CURING TYPE 1 DIABETES. | Beyond Type 1

ALLIANCE

Abbott

life. to the fullest.®

This book is dedicated to the strong children with diabetes
all around the world.

You are unique. You are amazing.
You are so very special.



Marina was magnificent.

She looked at life like it was a puzzle.
There was no problem too big, no question too small.





She was an inventor who loved to make things
with her trusty assistant, Oliver.



When she got restless,
she made a hovercraft.



When she was bored,
she built a video game.

But when she was diagnosed with Type 1 diabetes, she wasn't sure what to invent next.



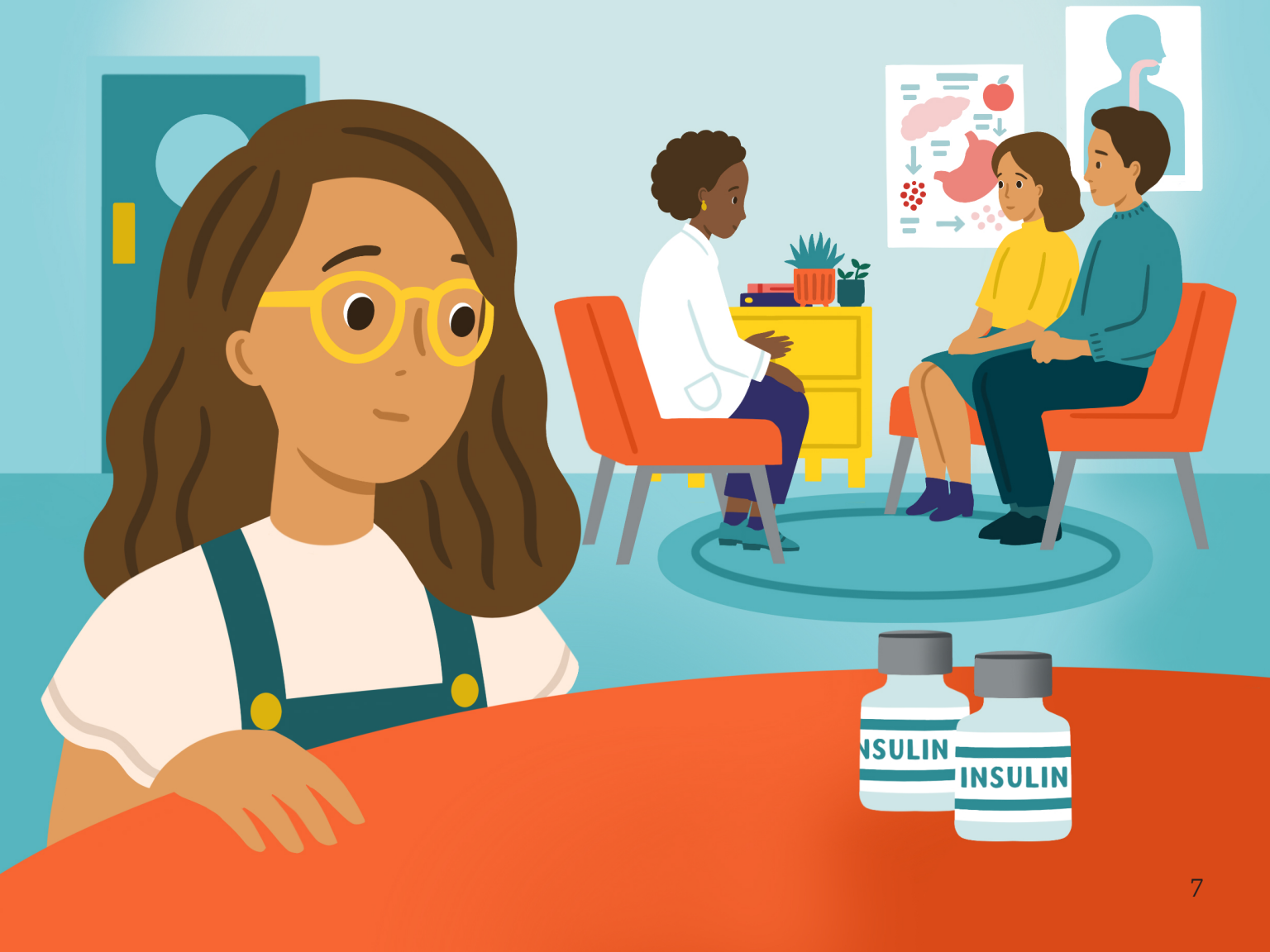
Marina's doctor told her about insulin.



"Insulin is an important hormone that helps our bodies use certain types of foods as energy," she said. "Some people's bodies make their own insulin, and some don't."

Marina learned that with Type 1 diabetes, her body would no longer make insulin.

She knew that she would need to take insulin from now on, but Marina wanted to better understand why.



So, Marina did something NO ONE had ever done before, with the help of her cat Oliver.

She made a microscope — which she called the Marina-Scope — that would let her see what was going on inside her body.





After a lot of work, all the nozzles were tight;
all the screws were screwed.

All the buttons were pushed, and the Marina-Scope was ready
to go, so she hit the switch and the camera turned on.

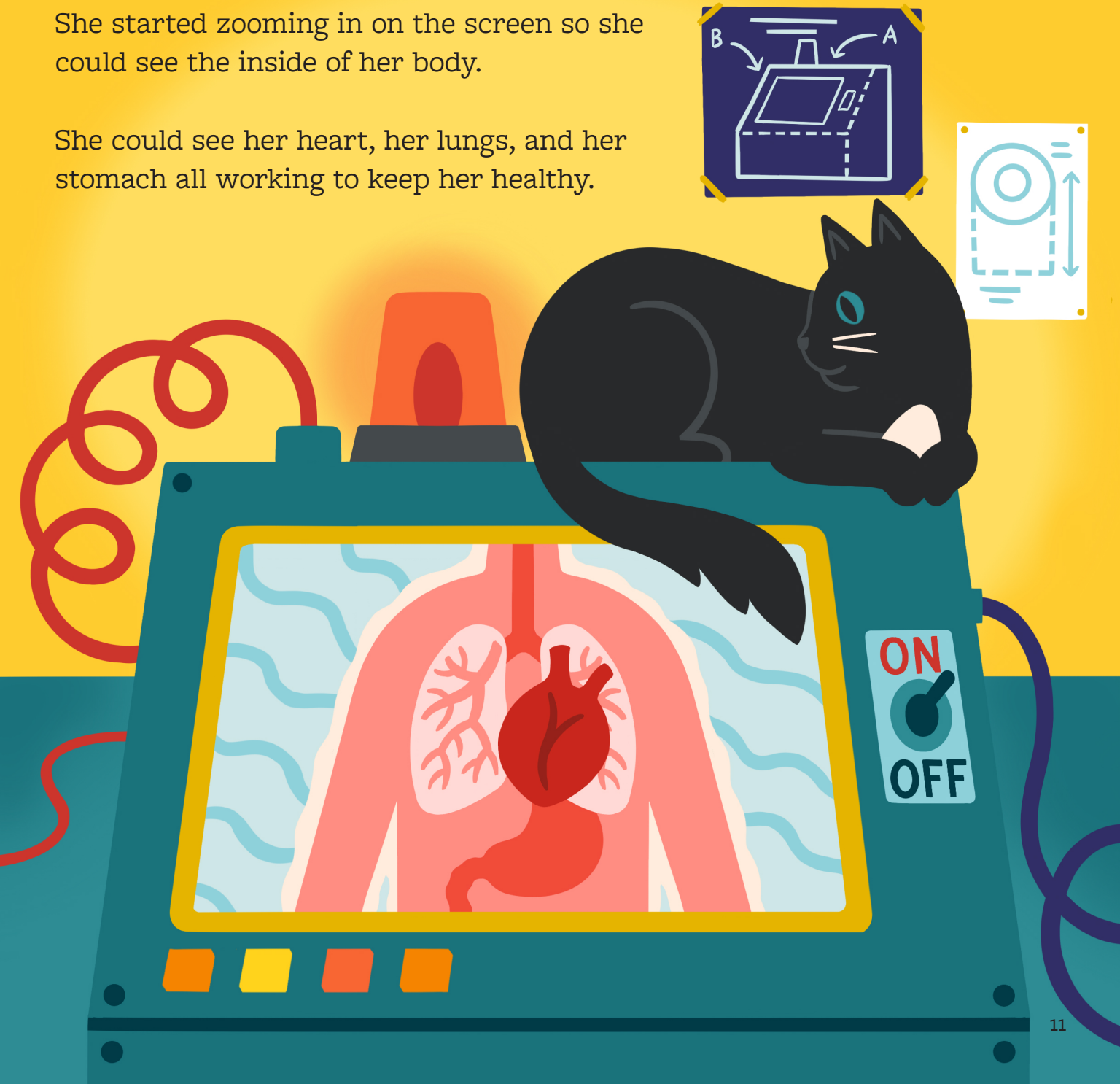


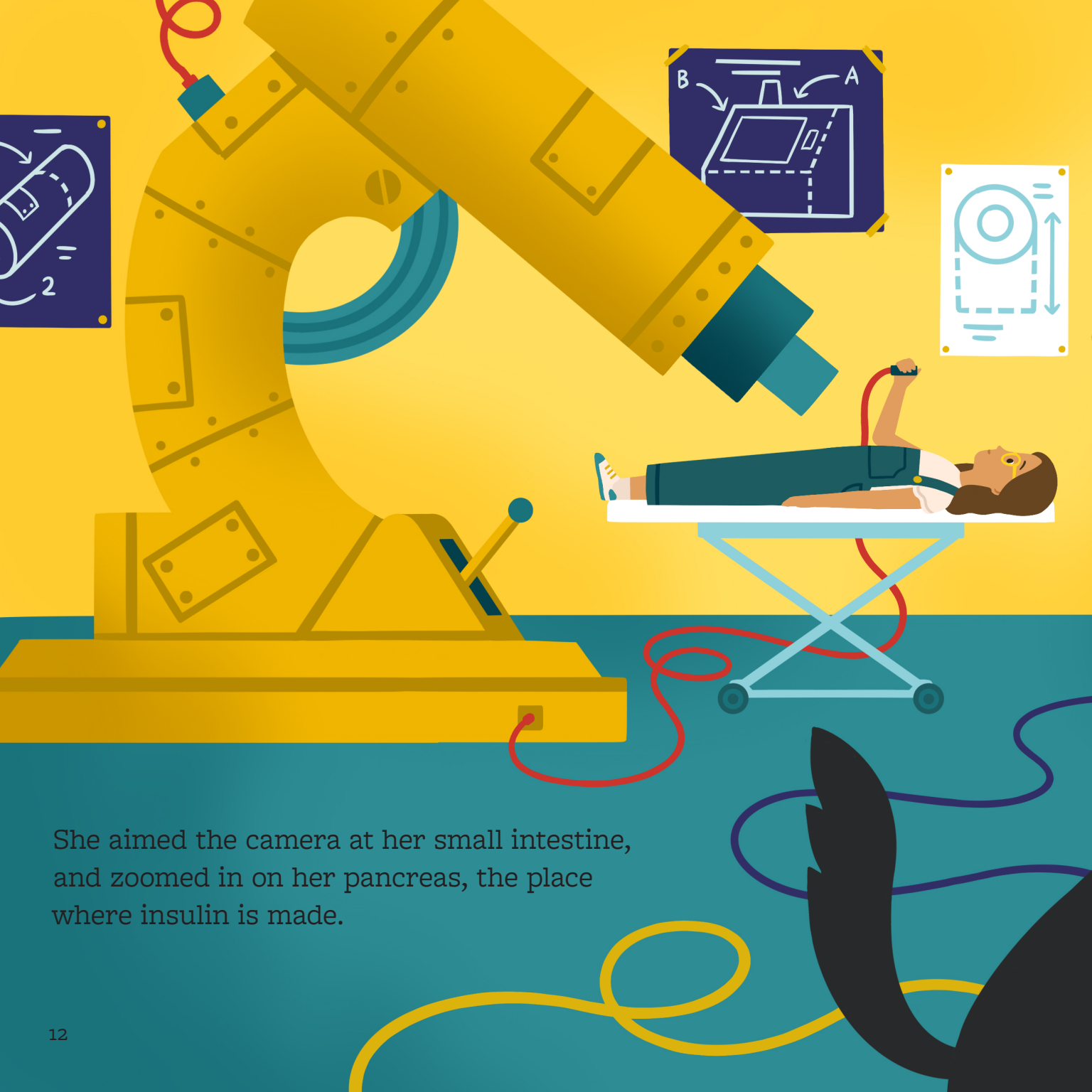
Zoop. Zam. Zoop. Bloop. Blam. Bloop.

"It worked, Oliver!" Marina exclaimed.
"Now, for the real test."

She started zooming in on the screen so she could see the inside of her body.

She could see her heart, her lungs, and her stomach all working to keep her healthy.





She aimed the camera at her small intestine, and zoomed in on her pancreas, the place where insulin is made.

When she looked at her pancreas, it seemed like the insulin-producing cells weren't working.

"Looks like no one is home. The doctor was right, my body has stopped making insulin," Marina said.

"Meowww," Oliver replied.

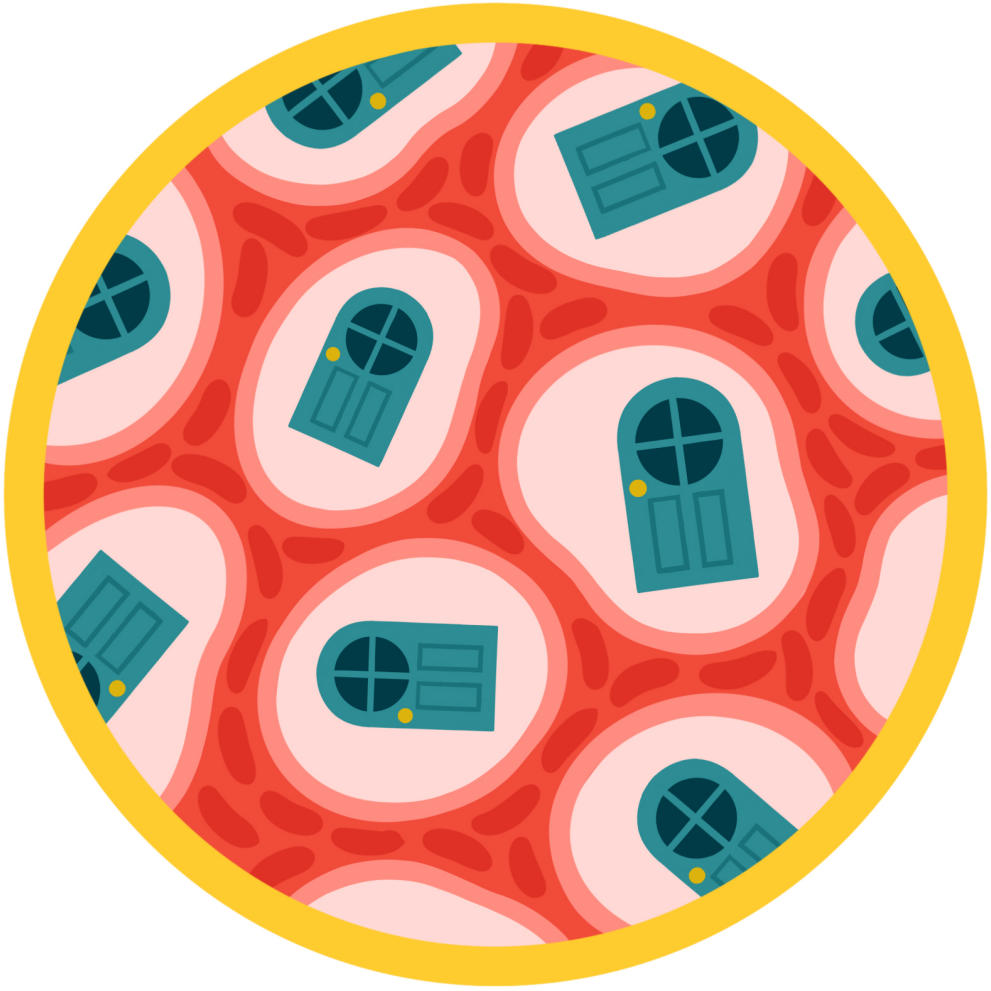


Further along, in Marina's intestines, there was something spectacular going on.

Her breakfast was being changed into a form of energy called glucose.

The glucose looked like little balls of energy.





Marina quickly zoomed in on the energy balls
as they went into the bloodstream.

Next, she noticed that all the cells in her body had little doors on them.

“This must be where the glucose from my breakfast enters
so my cells have energy.”

And that's where Marina realized there was a problem; the little doors on the cells were locked!

Marina was confused.

"Why is the glucose not able to enter when they are clearly invited to the party?"

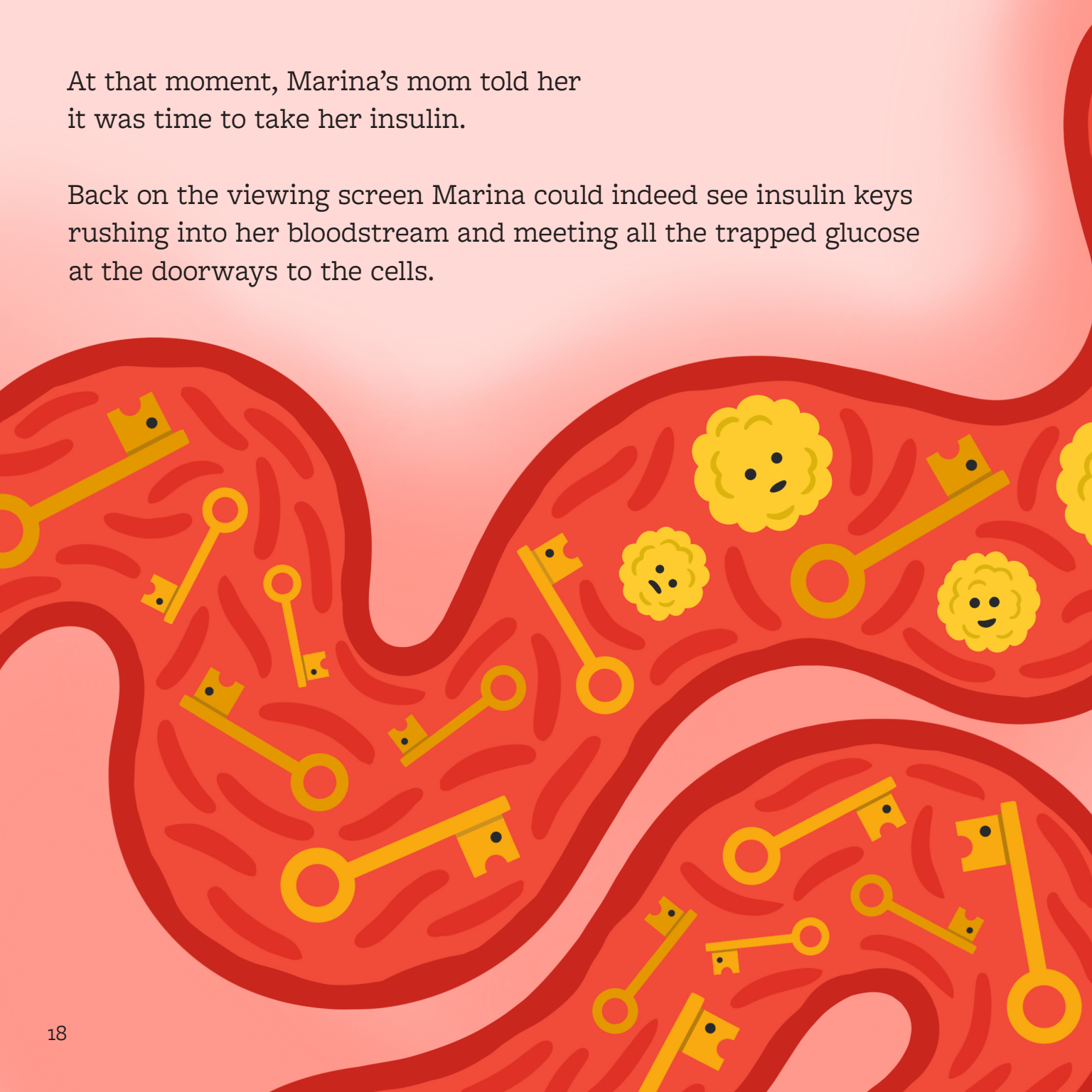


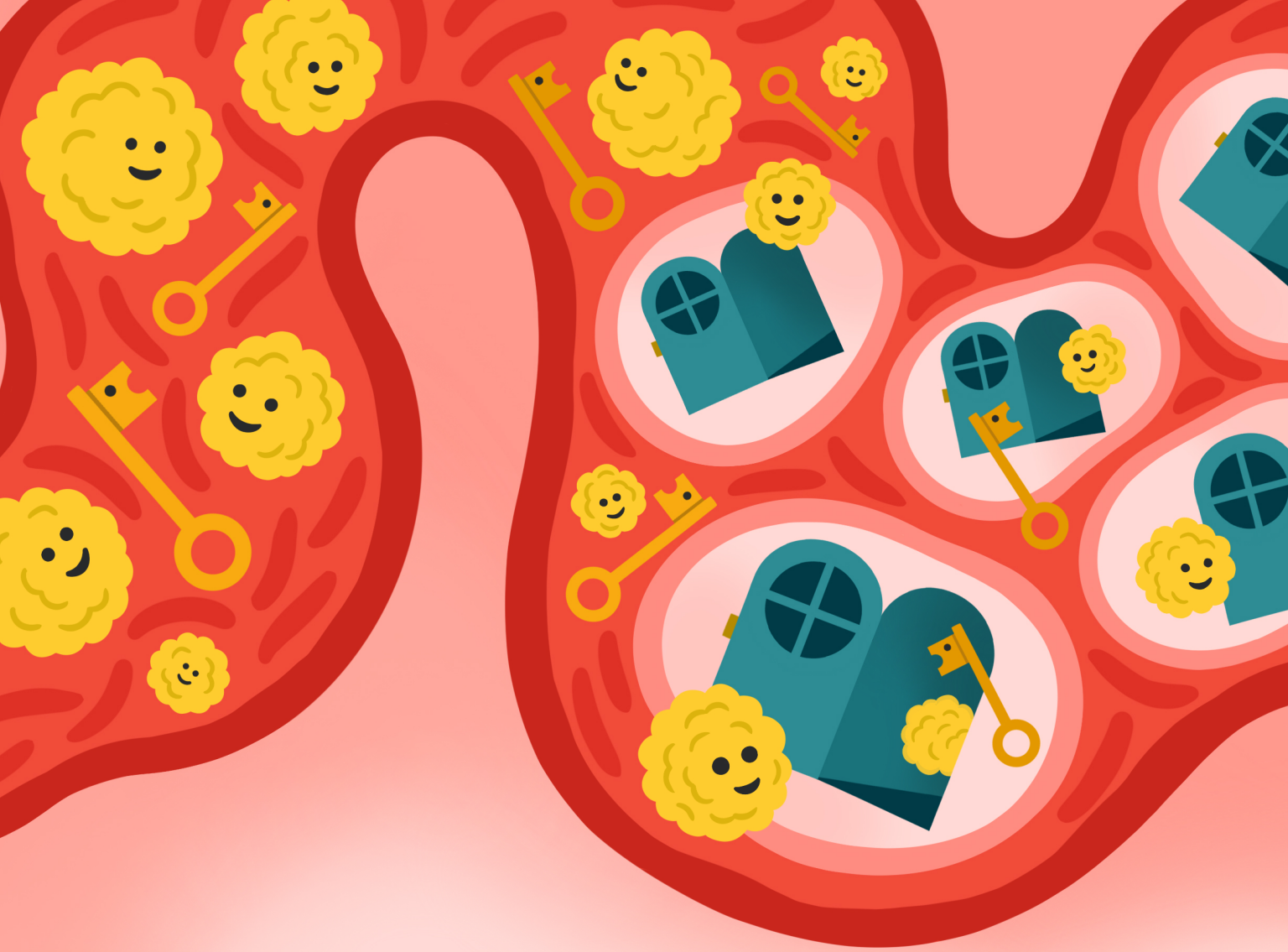


Marina then sat straight up and said, “I think I get it...the insulin that I take must be the key that opens the door to the party!”

At that moment, Marina's mom told her
it was time to take her insulin.

Back on the viewing screen Marina could indeed see insulin keys
rushing into her bloodstream and meeting all the trapped glucose
at the doorways to the cells.





They seemed like long-time pals—
hugging, giving each other high fives.

All of a sudden, together they opened the locked doors on the cells.

Finally, the glucose from her breakfast was able to get in!

“We did it, Oliver! High five,” Marina said in excitement.

“Meow,” replied the cat, hitting Marina’s hand with her paw.

“But how will we know when I need insulin? The Marina-Scope is too big to take with me!”





Marina then remembered her doctor had given her a different invention — a sensor that let her read her glucose levels anytime†.

Wherever Marina went, her sensor could go too.



Her lab.



The park.



Even in the water‡!



Sometimes she would check it, and her glucose would be high. Other times she'd get an alarm[§] letting her know that her glucose was too low[‖]. And a lot of the time, it would be just about right[¶].



After that day, Marina had a better understanding of her diabetes.

And Oliver, well, he's pretty much still the same.



The End

† Glucose readings are not available during 1-hour warmup, when sensor is too hot or too cold or when you see an error or “LO” or “HI” message or no current glucose reading.
‡ Sensor is water-resistant in up to 1 meter (3 feet) of water. Do not immerse longer than 30 minutes.
§ Notifications will only be received when alarms are turned on and the sensor is within 20 feet unobstructed of the reading device. You must enable the appropriate settings on your smartphone to receive alarms and alerts, see the FreeStyle Libre 2 User’s Manual for more information.
|| Alarm notifications depend on the threshold set by the user.
¶ Default range is 70-180 mg/dL. Consult with a healthcare professional on individual target glucose range.

FreeStyle Libre 2 system is indicated for use in people with diabetes age 4 and older.

The FreeStyle Libre 2 app is only compatible with certain mobile devices and operating systems. Please check our website for more information about device compatibility before using the app. Use of the FreeStyle Libre 2 app requires registration with LibreView.
Medicare coverage is available for the FreeStyle Libre 2 system if the FreeStyle Libre 2 reader is used to review glucose data on some days every month. Medicare and other third party payor criteria apply. Abbott provides this information as a courtesy, it is subject to change and interpretation. The customer is ultimately responsible for determining the appropriate codes, coverage, and payment policies for individual patients. Abbott does not guarantee third party coverage or payment for our products or reimburse customers for claims that are denied by third party payors.

Important Safety Information
Failure to use FreeStyle Libre 2 system as instructed in labeling may result in missing a severe low or high glucose event and/or making a treatment decision, resulting in injury. If glucose alarms and readings do not match symptoms or expectations, use a fingerstick value from a blood glucose meter for treatment decisions. Seek medical attention when appropriate or contact Abbott at 855-632-8658 or https://www.freestyle.abbott/us-en/safety-information.html for safety info.
The circular shape of the sensor housing, FreeStyle, Libre, and related brand marks are marks of Abbott.

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FreeStyle Libre 2



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