

# DOG YEARS

THE BERGER FAMILY IS IN A BIG-BOX STORE, ONE THEY HAVE driven several miles out of their West L.A. neighborhood to find, and the cart is piled so high Ellen has finally conceded to getting another. With their speed through the aisles and the ziggurat of toilet paper, tissue, and toothpaste now cresting over the lip, the scene is suggestive of an apocalypse. Or the late great game show *Supermarket Sweep*. It is odd, Ellen thinks, that the possibility of racing through a supermarket, knocking rows of pure maple syrup, wrapped hams, and giant wedges of parmesan into a cart to compete for the highest sales total ever sounded like a good time. Was it wish fulfillment for the thrifty, this one chance to buy only the most expensive—if arguably unglamorous—items? Or was it the hope that all those hours spent in actual grocery stores, hunching to see prices, dodging mindless carts, and placating babies (who kept dropping their binkies on the floor) were training days, that there would be a moment when all of that wasted time would find meaning?

They are near the end of this trip but have come to their customary paralysis at the cereal aisle, the place where every color has its chance

to compete: yellow to suggest wheat or corn; red and neon green to suggest candy; brown for all things chocolate; purple to simply say raisins; white or understated blue to attract adults; and orange, the most conflicted, which can signify honeyed wholesomeness in its more subdued hues or full-on space food in its brighter versions. Ellen has been arguing for the regular Cheerios (yellow), which are on sale for \$2.28 for an 18-ounce box, but her younger son, Zach, prefers the peanut butter ones (orange for regular, white for multigrain), which are \$3.68 for a 12.25-ounce box. They have a rule about cereal in their house—no more than \$2.50 per box, even for the smallest size. Two dollars is better. But they've never bothered to adjust for inflation, so the options continue to diminish.

Her eyes keep drifting across the aisle to a display of melamine plates printed with blue anchors and sand-colored starfish. Summer is almost here. If she had those plates, they could have people over and she could serve—what is the least troublesome thing she could serve?—Prosecco, maybe, and some decent beer; they could do it if they make it easy enough. She begins to wander away from the aisle toward the display of plates and little votive holders wrapped in beachy rope, even though she promised herself on the way to the store—no melamine! no duvet covers! no scented candles!—and when she leans over to look at the price, she sees the red tag instead of the white, the color that would normally give her a hit of pleasure until she realizes that the plates are on sale because it is the *end* of summer, not the beginning. She knows that, of course, how can she not *know* that, but for a moment, it still seemed like there was time for summer.

Her husband Gordy calls her back to the cereal. Zach's legs are getting tired and Tyler, their sixteen-year-old, will be late for his guitar lesson. There is still no agreement about the Cheerios. They have considered other options, compared ounces, become nostalgic for Raisin Nut Bran

(orange, purple, *and* white, a real crowd pleaser), which has not been on sale for many years.

“Just get what you want,” she says, less magnanimous than tired. But at moments like this, she can’t help but think, Zach will live a short life, and you are going to deny him Peanut Butter Cheerios? But it is the principle of the thing, of living a normal life, that includes grocery thrift.

This is why their house assistant, Jeanette, who is away for a friend’s wedding, usually does the household shopping. Jeanette, who spends her free time gorging on house porn online, determined to bring beauty to their lives.

“I’m still getting these,” Ellen says, balancing the box of plain Cheerios on top of the cart. “It will bring the per-box average down, at least.”

“This is not going in the movie montage,” Gordy says.

The watch on Ellen’s wrist spells out eleven fifty-three. It was a gift from Gordy for her forty-sixth birthday, and she gasped with primal relief when she opened it: some product designer had understood how little energy she had in reserve to translate numbers into words, let alone the geometry of hands into numbers into words. The watch is actually a small computer designed to keep her even more tethered to demands, when her head is already a ball on a string, getting whacked around a pole. She ignores the zings and pulses on her wrist and enjoys the Helvetica, instead.

Eleven fifty-three means running only four minutes late to make it to north campus by noon, where Ellen has been asked to speak to an undergraduate seminar about her research. Twenty minutes of zipper talk, fifteen for questions and she can get back down the hill and review a fellow’s grant application by 2 p.m. She speeds up the main walk, running her hands along the tops of papery reeds planted beside the sidewalk, reeds that look like small bamboo but are another, noninvasive species. She likes to do this, as though she is not a professor but a young girl. It

makes her feel present, somehow. Like she is stopping to rest while still moving forward.

She arrives only two minutes late, good enough to make a detour to one of the powdered coffee machines that Gordy calls her transfusion centers. On south campus, she knows how they are all calibrated—some sweeter than others—and can choose accordingly. The plunk of the cup being dropped, the plastic door sliding open in its Jetsonian way, and the sight of the little froth the machine leaves at the top fills her with the deep, chewy comfort another person might get from a basket of rolls passed at a dinner table.

There are five versions of the zipper talk that scale in complexity: versions four and five don't contain a zipper analogy at all, because the transcription and translation of DNA to RNA to protein is more complex than that. The zipper is a lie, but the kind of lie that helps people understand.

"DNA replication is like a zipper," she begins, sipping at her froth. "A gene is a section of DNA that contains instructions for producing a protein. The gene is split into exons—the part that codes for a protein—and introns, the junk. Duchenne muscular dystrophy is caused by a mutation in the dystrophin gene. In Duchenne, an exon is missing, and because of that, the rest of the strand can't be assembled. Imagine the offset teeth of a zipper and a missing tooth. The rest of the zipper won't zip. So the body can't code for dystrophin."

She recognizes a few of the students near the front, overly eager undergraduates who have had summer internships in the lab and who refer to Gordy as Dr. Gordy, since no one can bear to call him Gordon, much less refer to him by last name. They do all but call him *swell*.

"The concept of exon skipping," she goes on, "is that we inject a molecular patch that hides the exon you want to skip. So, if someone were missing exon 52, the patch would hide the neighboring exon, so that now 51 and 54 will match up again. You still have a gap, but the rest can zip

up. The trial that our Center for Duchenne is working on now is for a drug that enhances the effects of the patch.”

At the end of the talk, one of the girls near the front raises her hand. She is a small Asian student who looks about twelve, in pink Converse and a T-shirt silk-screened with a butterfly, the kind of student Ellen often finds surprisingly formidable. She wants to know—although she asks it quietly, her head gently cocking—which came first, the research or their son?

“Is that okay to ask?” the girl says, even though she has already asked it.

Ellen is a molecular geneticist; Gordy is a clinical geneticist; their son, Zach, has Duchenne’s, a genetic disorder. In the movie version of their lives, scientists scribble on whiteboards while kids in wheelchairs pull wheelies and give high fives. Two scientists born to find a cure . . . racing against the clock . . . to save their own son! Ellen likes the moment in a movie trailer when the screen fades to black and the tinkling of piano—over which the dramatic problem has been laid—bursts open into chorus, and someone driving down a country road in a convertible throws her hands up in the summer air. “Where is my convertible?” she asks Gordy.

“The genetics came first,” Ellen tells the student. “But we didn’t study muscular dystrophy. We both were—are—cancer researchers. But if we could devote some of our time and resources to Duchenne after Zach was born? It only made sense. There wasn’t enough being done.”

The gene for muscular dystrophy was discovered in the ’80s, and since then, nothing; that was academic freedom for you. Now, she and Gordy run a center that has NIH funding, clinical trials, boys coming from across California to receive care, the kind of success that was hard to come by in the crowded world of cancer immunology. For a different audience, Ellen likes to say she will not cure cancer in her lifetime, but she can cure Duchenne muscular dystrophy. And that cure will lead the way for other genetic diseases. But this is a student, and she doesn’t like to spin with students.