

Foreword

Founded in 1980, the Immune Deficiency Foundation (IDF) is the national non-profit patient organization dedicated to improving the diagnosis, treatment and quality of life of persons with primary immunodeficiency diseases through advocacy, education and research. There are approximately 250,000 people who are diagnosed with a primary immunodeficiency in the U.S., and thousands more go undetected.

Primary immunodeficiency diseases (PI) are a group of more than 240 rare, chronic disorders in which part of the body's immune system is missing or functions improperly. While not contagious, these diseases are caused by hereditary or genetic defects, and although some disorders present at birth or in early childhood, the disorders can affect anyone, regardless of age or gender.

Individuals diagnosed with PI often identify with zebras. This is based on an old saying. In medical school, many doctors learn the saying, "when you hear hoof beats, think horses, not zebras" and are taught to focus on the likeliest possibilities when making a diagnosis, not the unusual ones. However, sometimes physicians need to look for a zebra. Patients with PI are the zebras of the medical world. So IDF says THINK ZEBRA!™

In 2009, IDF created THINK ZEBRA!, an awareness program that aims to teach the world about PI. Patients and family members can be seen wearing zebra striped clothes and using accessories adorned with black and white stripes. This has been a way for children with PI to describe their disease to others—they are like zebras.

A Zebra Tale from the Immune Deficiency Foundation was written for children—young and old—living with PI and their families to provide hope and encouragement. The Immune Deficiency Foundation offers many educational publications, including another children's storybook, *Our Immune System*, which are available at www.primaryimmune.org.

IDF is grateful to the American Legion Child Welfare Foundation for their support of this book and to the healthcare professionals, educators, adults and children in the IDF community for their input throughout the creation of the story.

About Katherine Antilla

As a mother of a child with PI, Katherine Antilla has been a member of the IDF community since 1997. Using her background in education and personal experiences, Katherine developed the story to inspire those living with PI to lead happy, fulfilling lives surrounded by family, friends and others in the IDF community.

About Rebecca Zook

Rebecca Zook is an artist who specializes in acrylic painting. Diagnosed with Common Variable Immunodeficiency Disease, Rebecca put her heart and soul into the illustrations to capture the beauty of the characters and their surroundings.



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This book contains general medical information which cannot be applied safely to any individual case. Medical knowledge and practice can change rapidly. Therefore, this book should not be used as a substitute for professional medical advice.

A Zebra Tale

from the Immune Deficiency Foundation



To all 'zebras' and those who love them.

Story by Katherine Antilla Illustrations by Rebecca Zook



om and Dad loved their new baby as he lay sleeping in the warm, sturdy stable. The soft hay rustled, and the colt's eyes slowly blinked open.

Mom snuggled the foal, and her mane tickled his nose. Then, in one big breath, the little colt bolted up onto shaky legs.





hat was fast!" Mom whinnied.

The colt wobbled.

Then walked.

And then trotted across the stall.

Mom and Dad noticed a beautiful, black stripe on their baby's snow-white coat. It looked like a flash of lightning. So, they named him Flash.



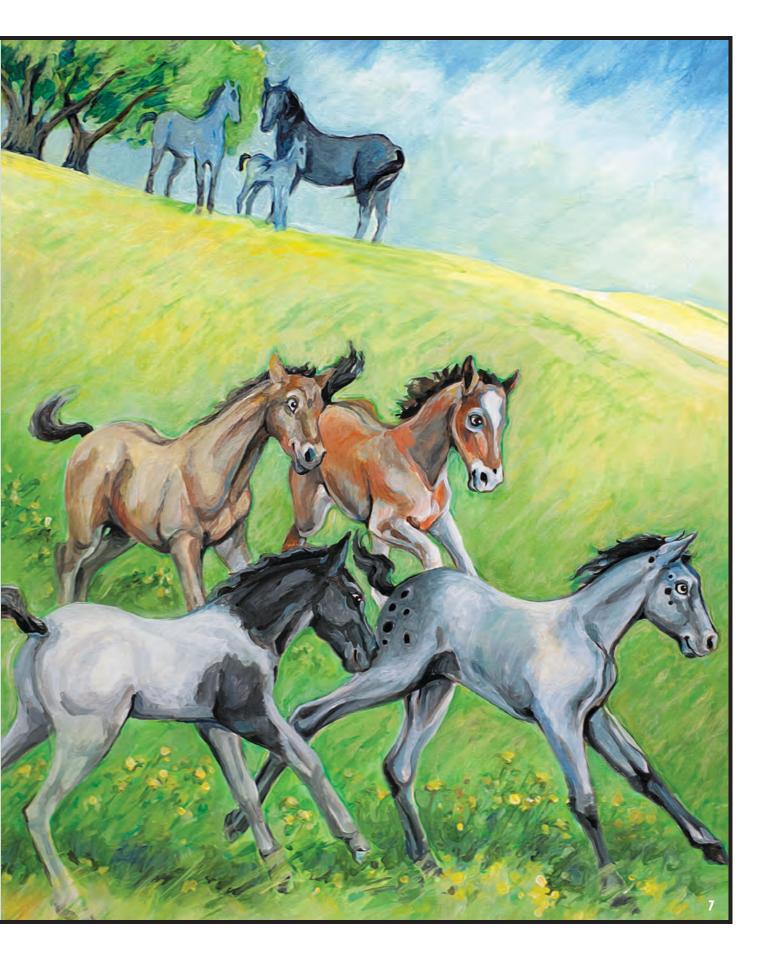


he first time Dad pushed open the stable door, Flash bounded outside.

Mom trotted out of the stable, raced ahead and laughed. "Catch me if you can!"

Flash and his dad gave chase, and caught up to her at a beautiful, wide meadow filled with horses. "Welcome home, Flash," Dad said.







little filly broke away from the herd and bounded toward Flash. "Hi! I'm Sky! What's your name? Want to be friends?"

Sky raced around Flash but did *not* stop talking. "Want to race? I've been racing with other foals. They're fast, but I'm really fast!"

Flash laughed and took off running as his mother had done. "Catch me if you can!" he shouted to Sky.

Flash leaped across the meadow, running between all the other horses. "I'm winning!" he cried over his shoulder as he heard Sky's hoof beats.

"I'll...catch...up...," Sky panted between breaths.





lash reached the edge of the meadow first and skidded to a stop. He did a victory prance and began to cough.

Flash didn't pay attention to the cough. He was having too much fun!

When Mom heard the cough, she said, "I think it's time to go home."

Flash frowned, said goodbye and trotted away with his parents.





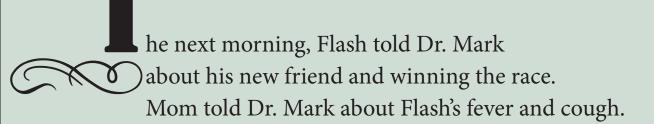
ack in the stable, Flash rested on the fresh straw.

Mom felt his face, noticed it was warm and said,

"I think we'll visit Dr. Mark tomorrow."





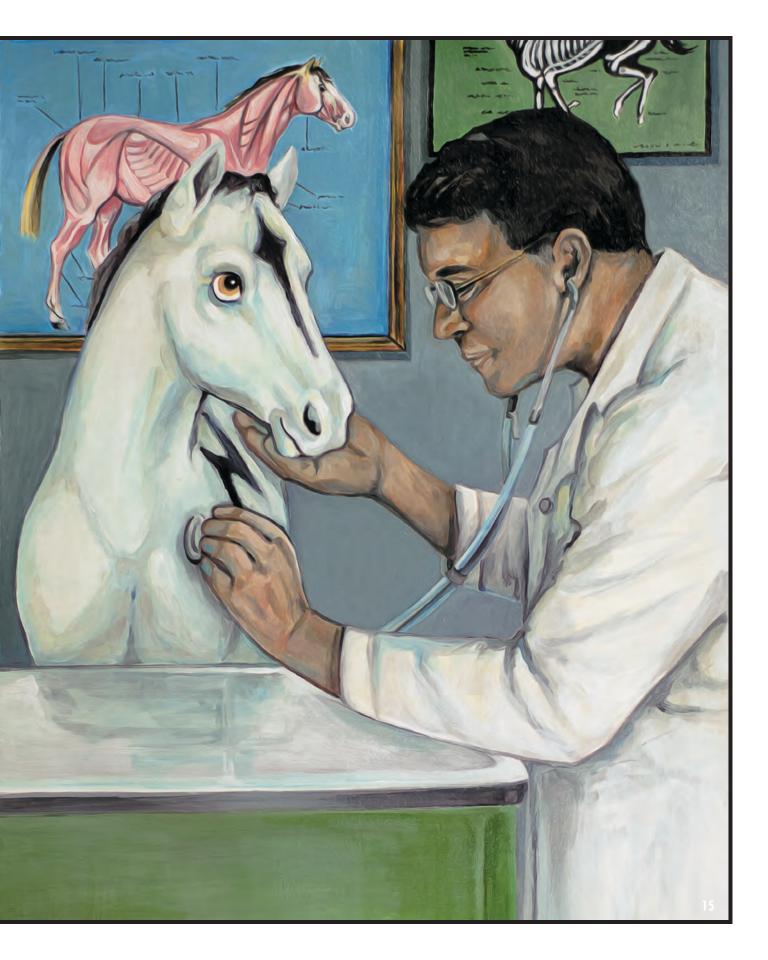


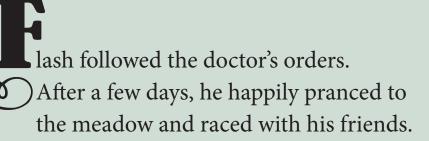
"I'm going to look in your eyes, ears, nose and mouth with a little light. Then, I'll listen to your lungs and heart. OK, Flash?" said the doctor.

Flash nodded. He giggled when Dr. Mark put the cold stethoscope on his chest.

"There's an infection in your lungs, Flash," the doctor said. "I'll give you medicine to take for a few days. Finish all the medicine, get lots of rest and you should be racing again in no time."



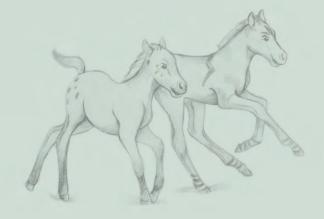




Before long, Flash told Mom and Dad that his throat hurt. Then, he was back in Dr. Mark's office.

The doctor used a scope to look inside his mouth. "Well, Flash, I'm glad your cough is better, but I can see why your throat hurts. Now, there's an infection in your throat. I'll give you medicine to take for a few days. Finish all the medicine and get lots of rest before you return to the races."

Flash was not happy but followed the doctor's orders as he watched his friends have fun.







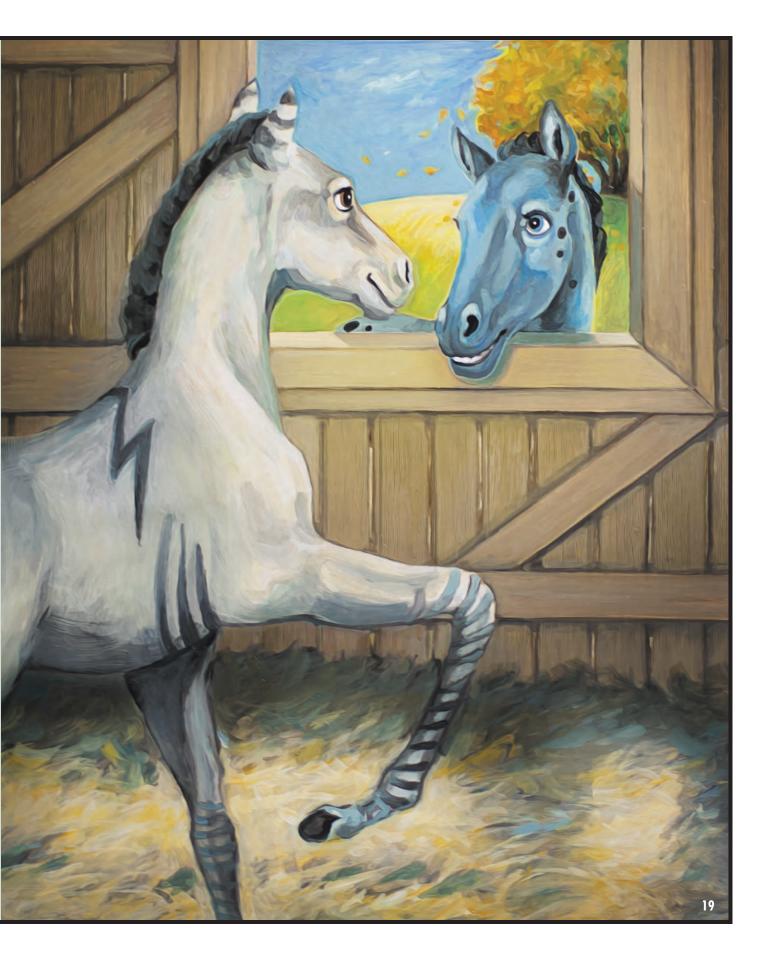
few days later, Sky poked her head over the top of Flash's stall.

"Hi, Flash," Sky stomped her front hooves and reared up, "I miss you. Want to race?"

Flash whinnied, "Can I, Mom?"

"Sure, if you feel okay," she replied.

Flash quickly shoved open the stall door and took off at a gallop. Before long, Sky passed Flash in a blur of her swishing tail.



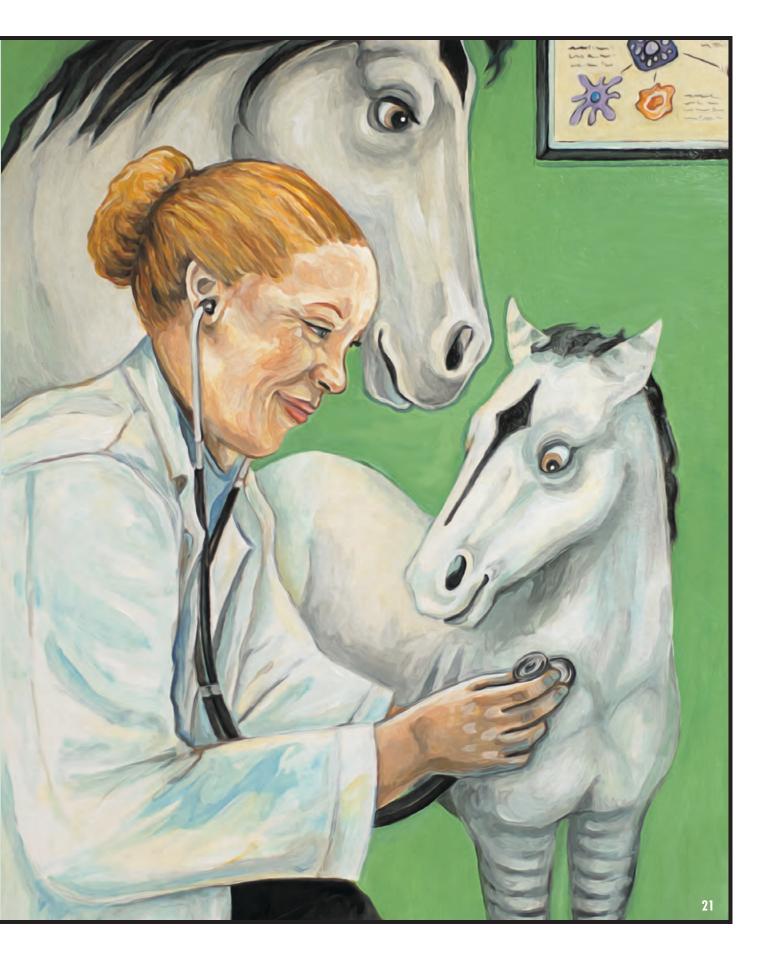
lash tried to keep up with Sky, but his throat still hurt. A few days later, the cough was back. Dr. Mark told Mom and Dad to take Flash to a doctor called an immunologist.

"I'm Dr. Rose," the immunologist said as she smiled warmly at Flash. "I hear you've been sick a lot. May I check you over?"

Flash nodded in agreement.

Dr. Rose checked Flash's eyes, ears, nose and mouth. She listened to his heart and lungs, and asked many questions.





r. Rose explained, "Inside our bodies we have different kinds of tiny protectors that keep us from getting sick. They are found in our immune system. I'd like to look at your protectors to make sure they are doing their job. Can you be brave while Nurse Amy takes a little sample of your blood so we can take a close look at your protectors?"

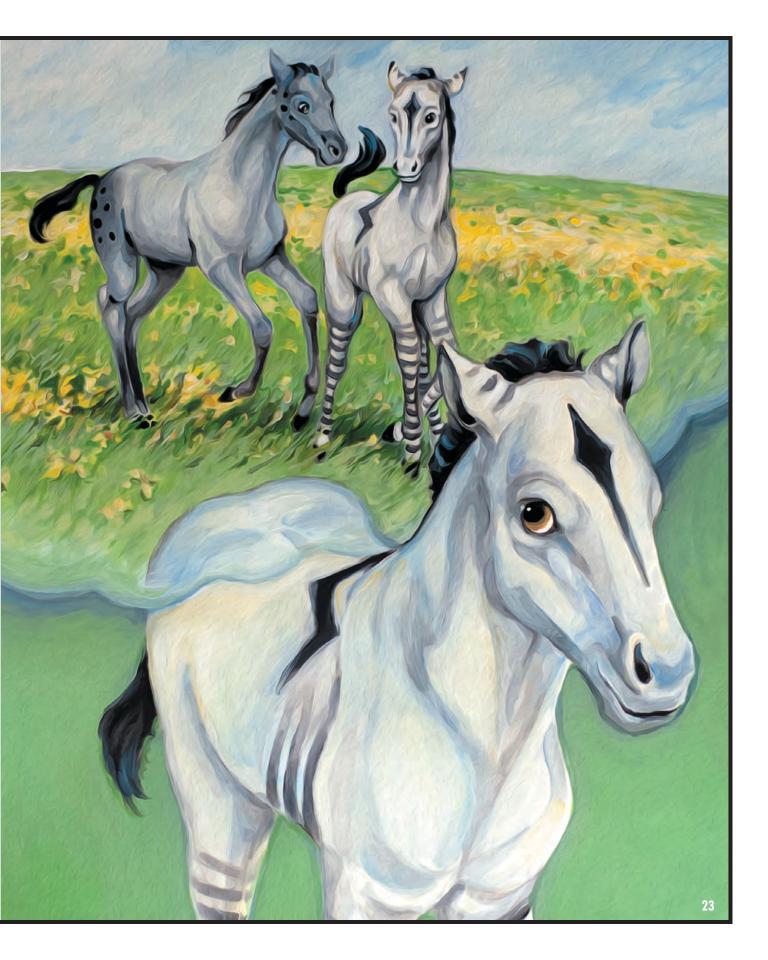
Flash thought about racing in the meadow with Sky.

"Hmmm, okay," Flash said, "Let's do it."

Flash was very brave as Nurse Amy quickly did her job. She thanked Flash for his help and scheduled another

Our Protector

appointment.



hen Flash went back to see Dr. Rose, she patted his mane. "Flash, I know why you've been sick, and I can help you."

Flash's eyes went wide. Mom and Dad stood close on either side of him.

She looked at Flash with gentle eyes and said, "You have a primary immunodeficiency disease. This means you were born with protectors in your immune system that are not doing their jobs to keep you healthy. Have you noticed the black stripes on your white coat?"

Flash and his parents nodded and noted that the stripes seemed more beautiful than ever.

"Your stripes were a clue that your immune system might need help. When I hear hoof beats, I usually see a horse. Sometimes, when I take a closer look, I find a zebra, like you."



hat? Flash is a zebra!" The family was amazed.

Dr. Rose said, "The world is full of zebras that learn about their stripes at different ages. Medicines and treatments help their immune system do its job. As long as you take your medicine and take care of yourself, you should be winning races again in no time. And, you know, zebras can run as fast as most horses!"

Flash said, "Hmmm, being a zebra might be okay."





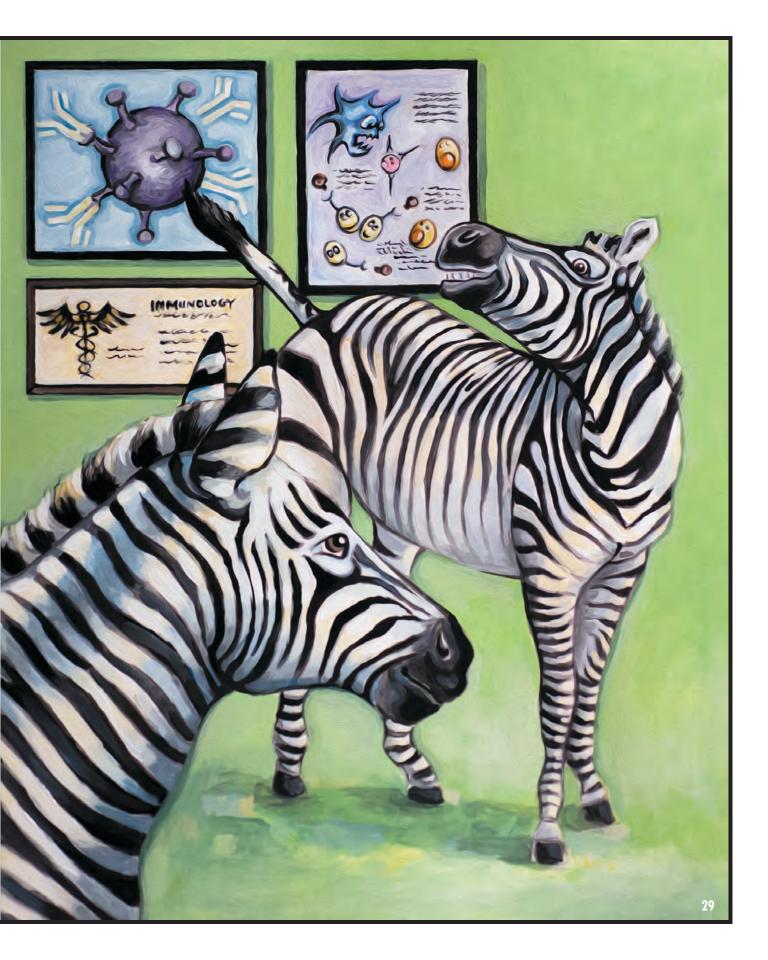
r. Rose gave Flash's parents information about his primary immunodeficiency.

As Flash was leaving, he met a zebra arriving for a check-up. Her name was Hope, and she had known about her primary immunodeficiency for a long time.

Hope stomped her hooves and shook her mane. "Follow Dr. Rose's orders. And then, wow ...," she let out a piercing whinny, "You'll feel sooo much better!"

Flash was excited to meet Hope. He invited her to join the races in the meadow and was so happy when she said she would.





lash went home, took his medicine and took) care of himself. It wasn't hard to do. And Hope was right. Before long, Flash galloped from the stable out to the yard and onto the meadow.

He whinnied a greeting to the herd. Sky and the other horses broke away to race with him.

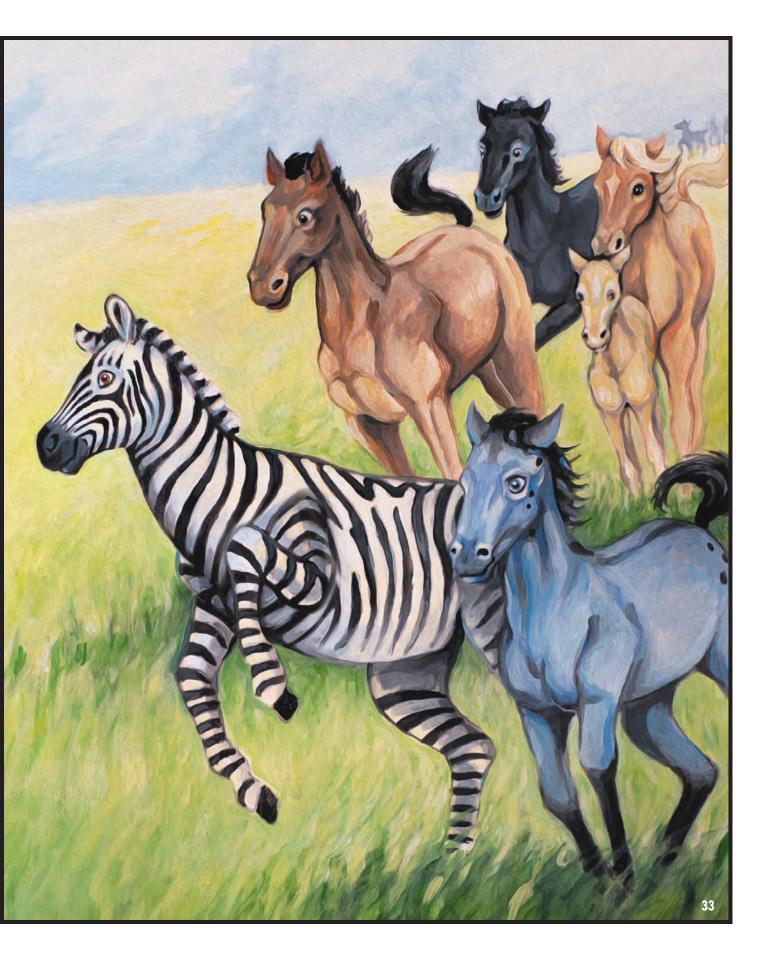
Flash ran, his legs stretching, his hooves pounding the earth, his stripes flashing in and out of the sun and shadows.

Flash's friends raced with him across the great, green meadow.



A nd the zebra was in the lead!





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The national patient organization dedicated to improving the diagnosis, treatment and quality of life of persons with primary immunodeficiency diseases through advocacy, education and research.

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