**Marston comic strip – transcript for users with visual impairment**

**Image 1**

Panel 1: Adele Marston holding a petri dish. Speech bubble: “I’m Adele Marston, welcome to the Marston Lab. It’s our aim to understand the very first steps of how life is made in humans, so we research a process called meiosis.”

Panel 2: lab group members working. Speech bubble continues: “We’ve got many people in the lab studying all kinds of different aspects of meiosis as it happens in different kinds of organisms.”

**Image 2**

Panel 1. Male and female chromosome pairs standing separately, then the pairs separating and afterwards - the male joining the single female chromosome. Text: “Meiosis is a special type of cell division where when cells divide, they only have half the usual number of chromosomes, one from each chromosome pair, producing something called a haploid gamete cell. We more commonly know these as sperm and eggs.

“When a sperm fertilises an egg, their chromosomes join, restoring the number of chromosomes back to the normal, or diploid. This is how you end up with one set of chromosomes from your mum, and one from your dad. If this process goes wrong and the end number of chromosomes alters, this makes miscarriages or babies that are born with health conditions more likely. In the Marston Lab, we want to learn about why this process can sometimes go wrong.”

Panel 2: A man in a safety hat is reviewing a list. Numbers 46 are shown continuing on a conveyor belt while a group of numbers such as 45 or 47 are stored in a separate box, taken off the belt.

**Image 3**

Panel 1.

Researcher Anu holding a petri dish. Magnifying lens showing a yeast cell, another magnifying lens showing 16 pairs of chromosomes inside the cell. Speech bubble from Anu: “Hi, I’m Anu. It’s easier to study meiosis, and where it can all go wrong, using model organisms. Yeast has 16 pairs of chromosomes and is easy to make in the lab. It’s useful as it grows quickly and we can study millions of yeast cells doing meiosis at the same time!”

Speech bubble from the yeast cell: “Check out my 16 chromosomes.”

Panel 2.

Researcher Gerard holding a petri dish, with one magnifying lens showing a frog cell and the other magnifying lens showing a number of oocytes. Speech bubble from Gerard: “I’m Gerard and I work on something a little bit more complicated than yeast: frogs – specifically frog oocytes. Frogs have 18 pairs of chromosomes and they produce hundreds of oocytes at the same time, and they are also very large (1 mm), but sometimes it can be hard to find chromosomes in such big eggs.”

Text bubble from the frog cell: “Oocytes are immature egg cells.”

Comic strip 4

Single panel: Anu, Adele and Gerard looking at a petri dish containing a man, a frog and a yeast cell all wearing safety hats and reviewing lists, while conveyor belts of numbers are going past them. Speech bubble from Adele: “By studying how meiosis can go wrong in these model organisms, we aim to contribute to knowledge which will help us understand reproduction for all kids of living things.”