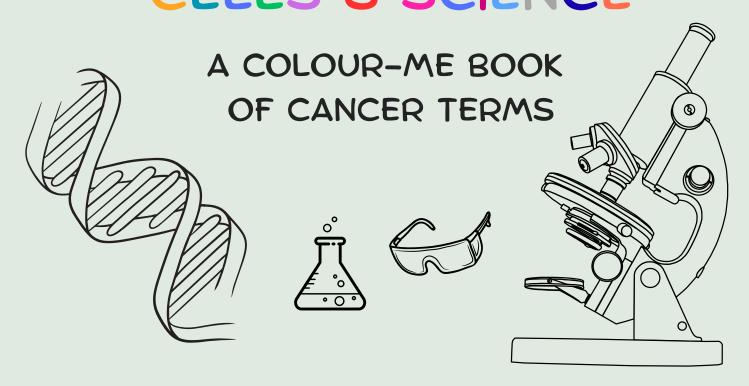


# AN A-Z ADVENTURE IN CELLS & SCIENCE



#### A COLOURING BOOK BY OMPRN



NAME:

## WELCOME TO AN A-Z ADVENTURE IN CELLS & SCIENCE!

This colouring book is designed to help you learn about cancer and the science of cells in a fun and creative way.

Each page introduces a new word from the world of molecular pathology, the study of how diseases like cancer begin and grow inside our bodies. You'll see how scientists and doctors use these words to understand cancer better and find new ways to help people.

As you colour, take your time to sound out the pronunciations on the next page and discover the meaning behind each term.

Colour in the pages, add your own drawings, and share your creations with friends and family, you'll be teaching others about cancer science while having fun!



#### MOLECULAR PATHOLOGY FROM A-Z

#### SUMMARY PAGE & PRONUNCIATION

Below is each term used in this book with its pronunciation (how to say it). Just sound it out slowly, one part at a time, to help you say the word correctly!



Allele

uh·leel



**Biopsy** 

bai-aap-see



Cell

sel



DNA

dee-en-ay



**Epidemiologist** 

eh·puh·dee·mee· aa·luh·juhst



Fluorescent Marker

flaw·reh·snt maar·kr



**Geneticist** 

juh·neh·tuh· suhst



**Hereditary** 

hr-eh-duh-teh-ree



Immunohistochemistry

im·yoo·noh·hiss· toh·kem·uh·stree



Journa

jer·nul



Karyotype

keh-ree-uh-tipe



Laboratory

la·bruh·taw·ree



**Microscope** 

mai·kruh·skowp



**Nucleus** 

noo-klee-uhs



**Oncologist** 

aang·kaa·luh ·juhst



**Pathologist** 

puh·thaa·luh ·juhst



**Quality Control** 

kwaa·luh·tee kuhn·trohl



RNA

ar·en·ay



**Sample** 

sam·pl



Tumour

too.mr



**Ultrasound** 

uhl·truh·sownd



**Variant** 

veuh-ree-uhnt



**White Blood Cell** 

wite bluhd sel



X-Chromosome

eks – krow·muh· sowm



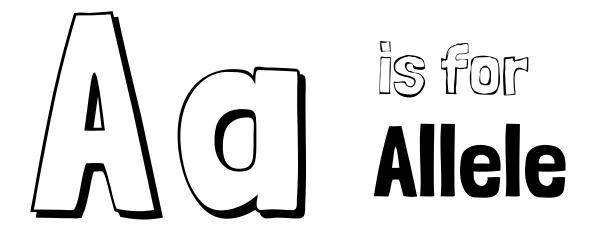
**Y-Chromosome** 

wai – krow·muh· sowm

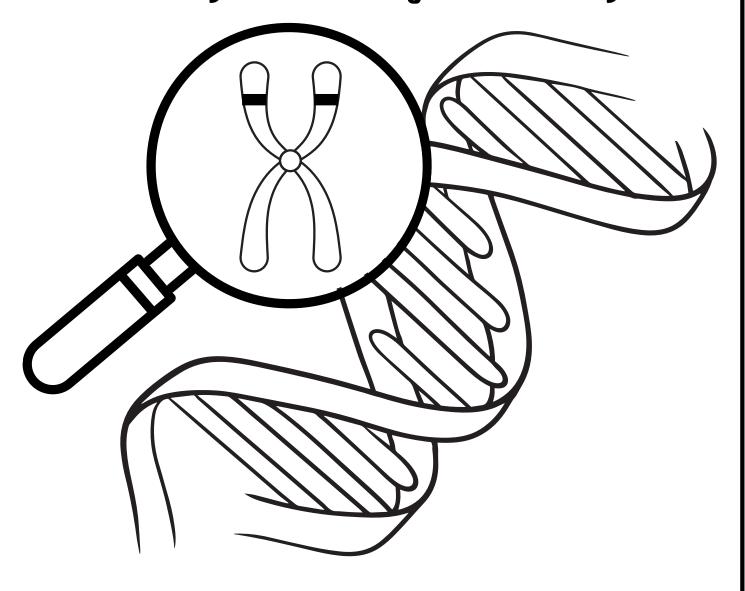


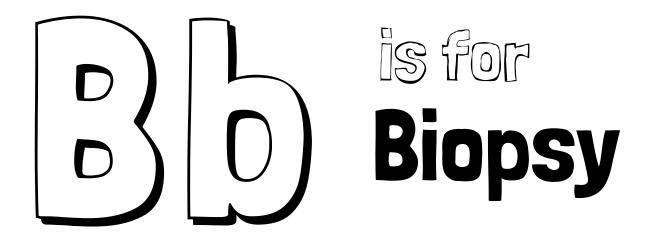
Zoom

zoom

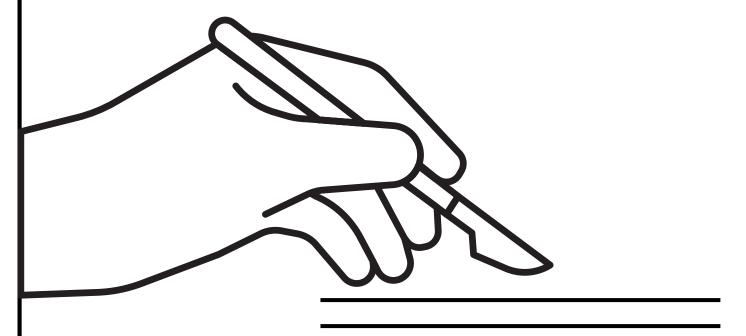


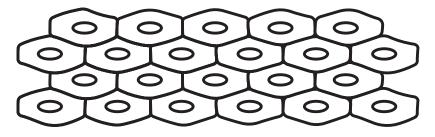
Alleles are genes that each have a say, In how you look and grow each day!

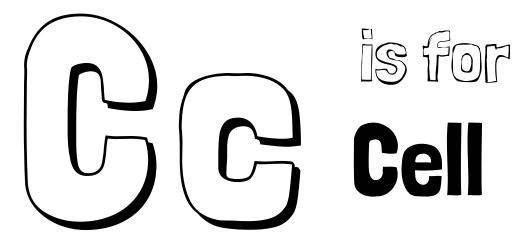




A tiny bit of tissue we take, To learn what's what, with no mistake.

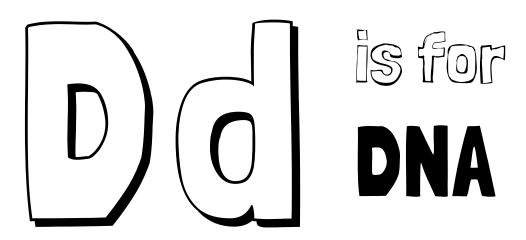




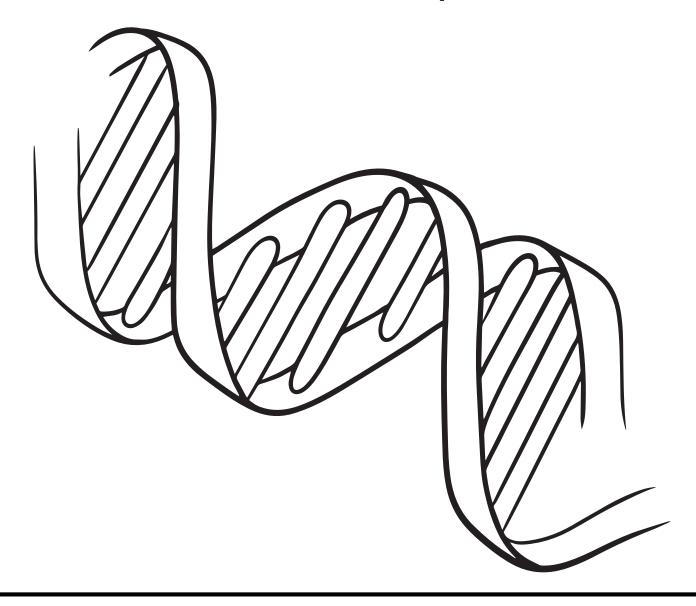


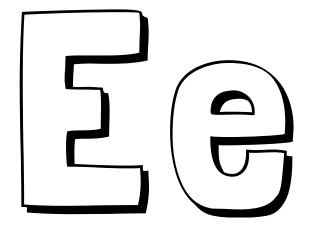
Tiny and busy, with parts so small, Cells work together to build us all!





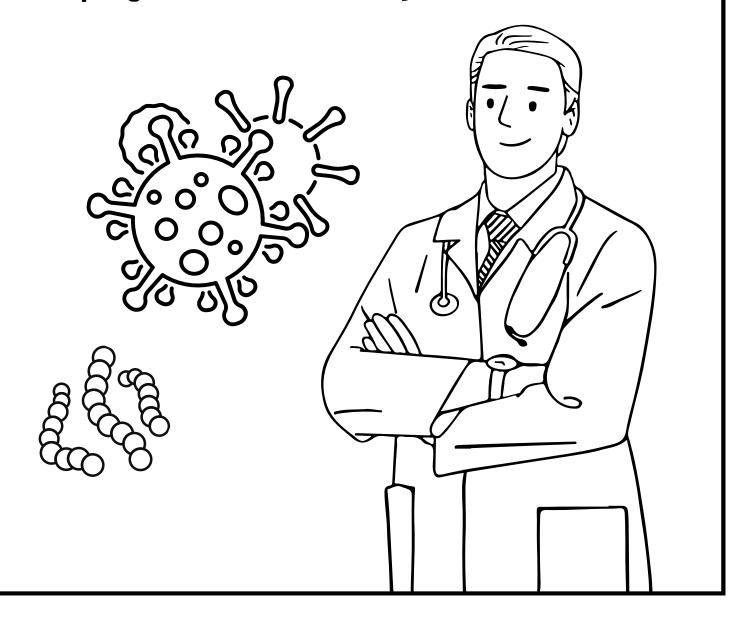
From head to toe, in every cell, The same DNA works quite well.

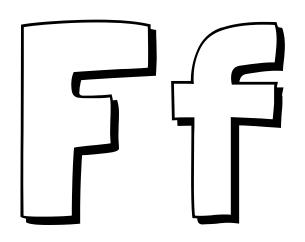




#### **Epidemiologist**

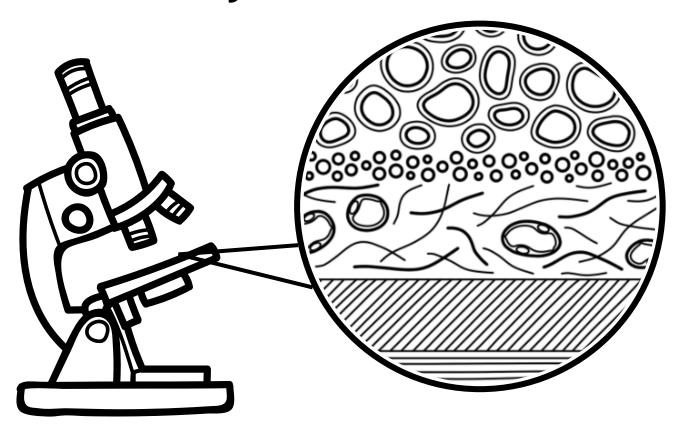
They track diseases, big and small, Keeping the world healthy and safe for all!



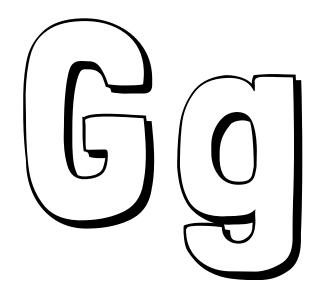


#### Fluorescent Marker

A glowing light that helps us see, Where tiny cells are meant to be!



Use a highlighter to colour in all the small circular cells seen under a microscope.



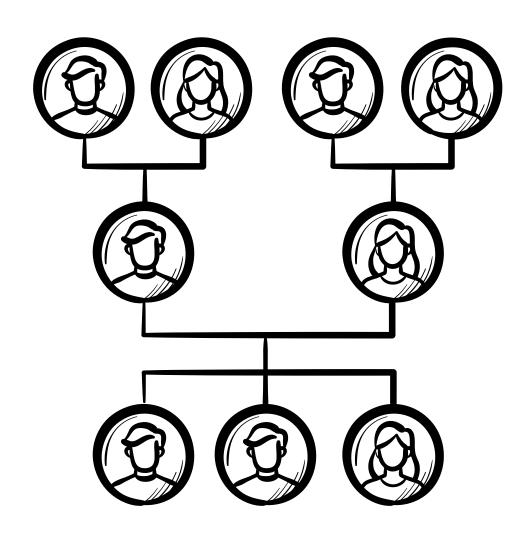
## Geneticist

A gene detective, smart and true Who knows what genes will mean to you.



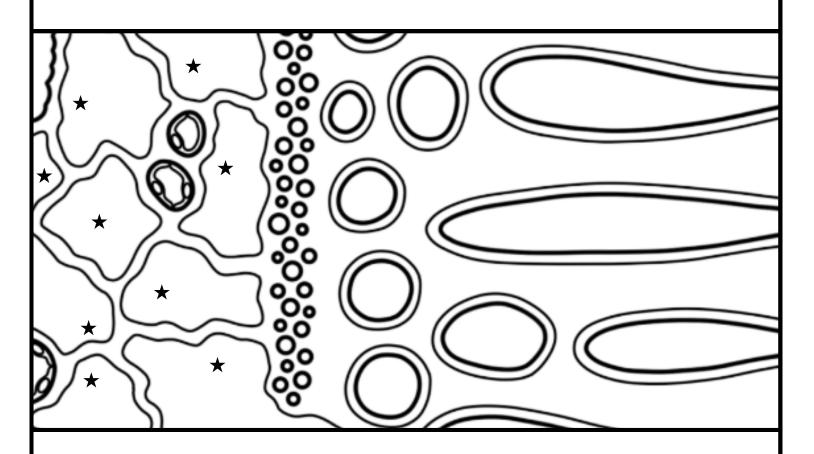


Things you get from family trees, Like curly hair or allergies!



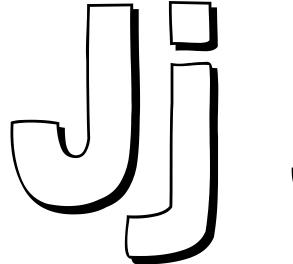


It paints the cells in colours bright, So doctors see what's wrong or right!



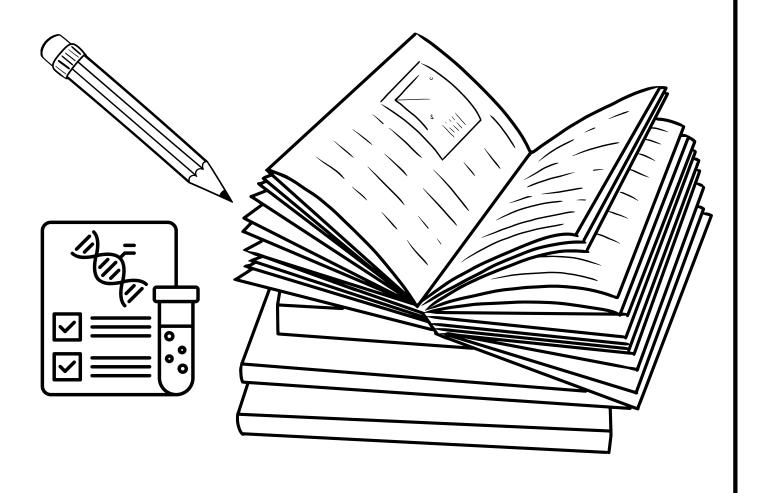
Only certain cells 'light up' with a stain.

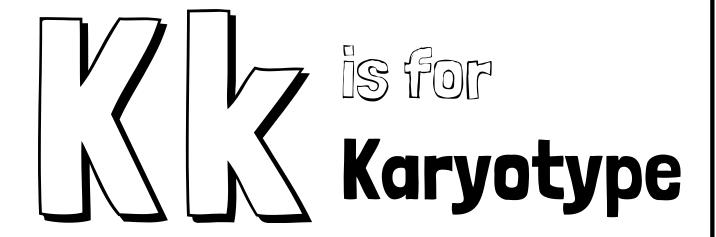
Use your highlighter to colour the cells with stars inside them.



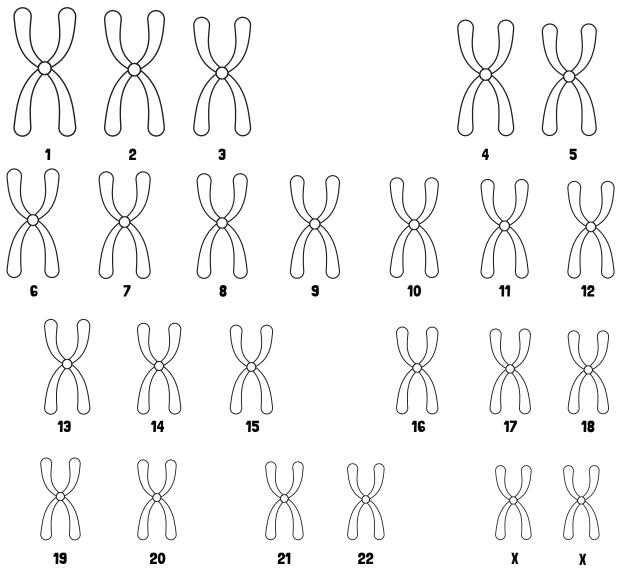
## Journal

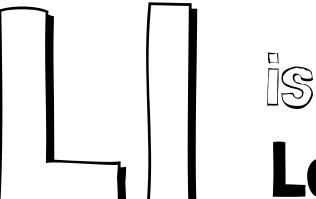
Scientists write so the world can see, How their cancer research brings new therapy.





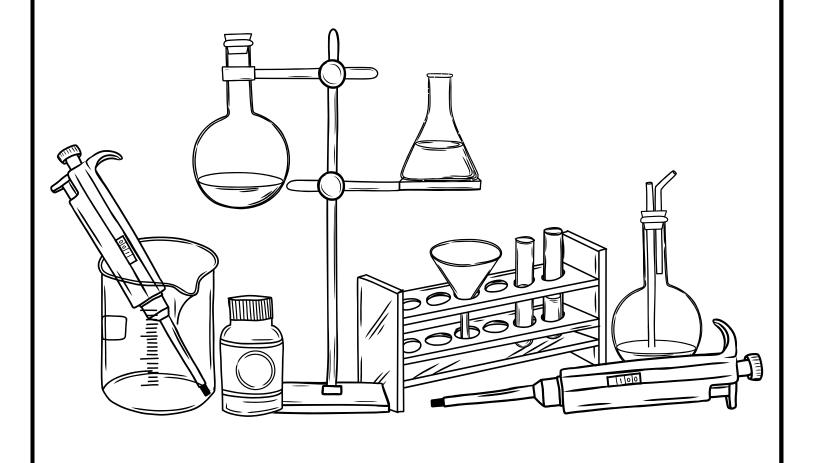
All chromosomes are placed in line, We count and match – now isn't that fine?





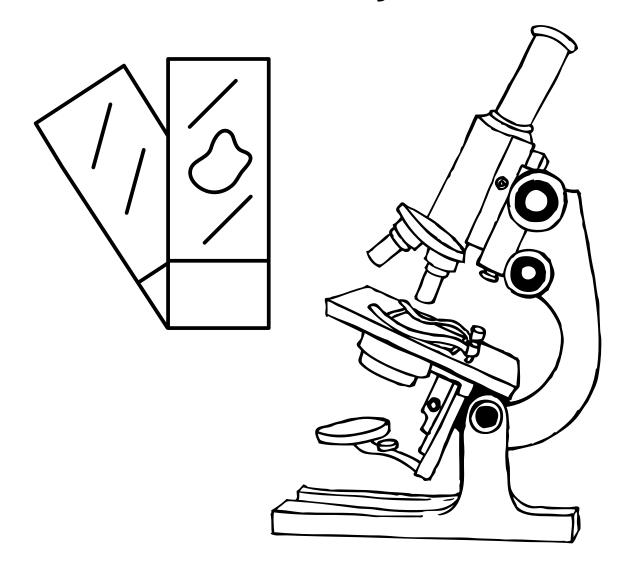
### Laboratory

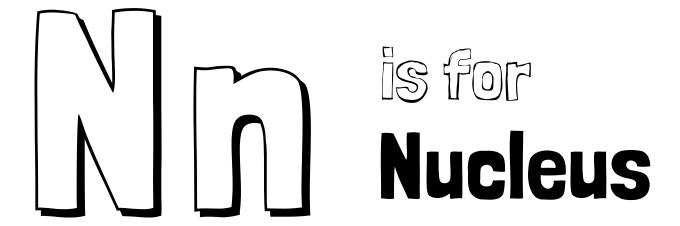
In the lab with tools so bright, We test and learn with great delight!



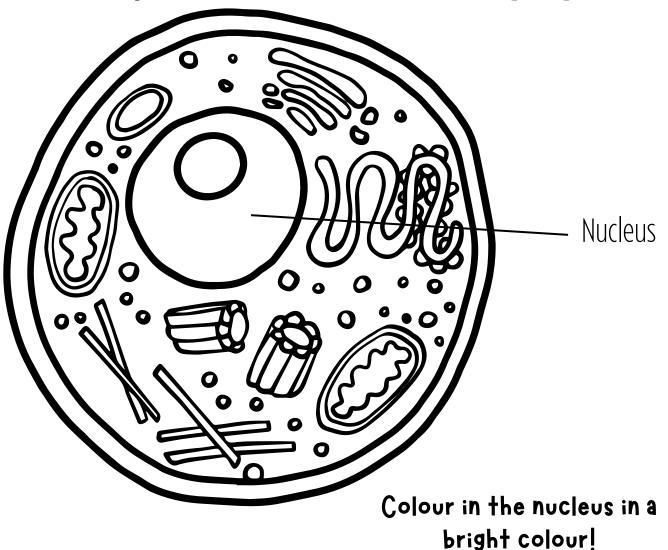


A microscope helps eyes to see, The tiniest bits of you and me!



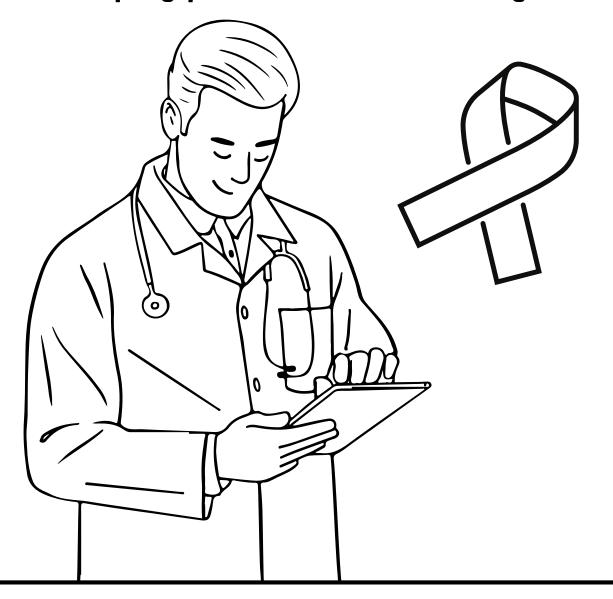


The cell's command, a brain so bright, It keeps the cell's work running right!



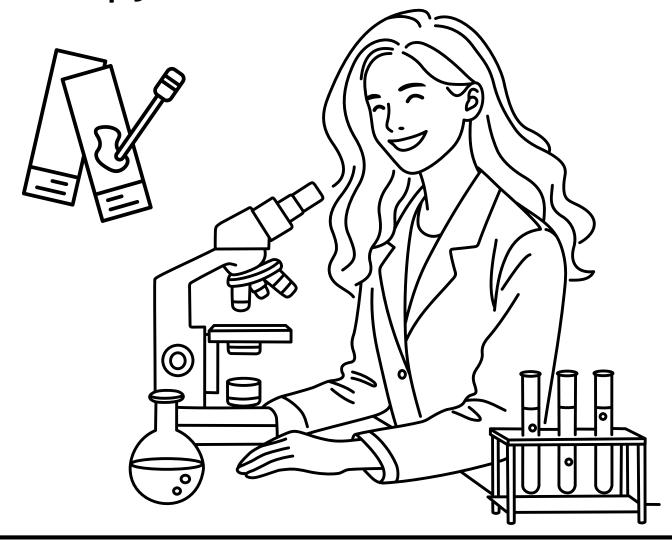


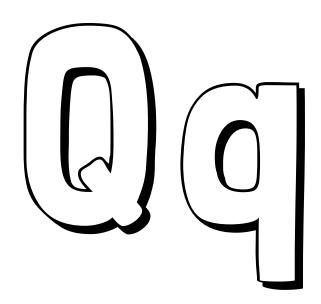
A cancer doctor with great insight In helping patients with their fight.





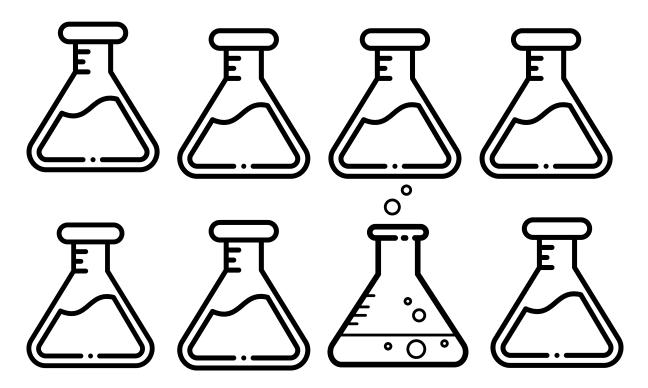
They look at tissues on a slide, And help your doctor know what's inside.



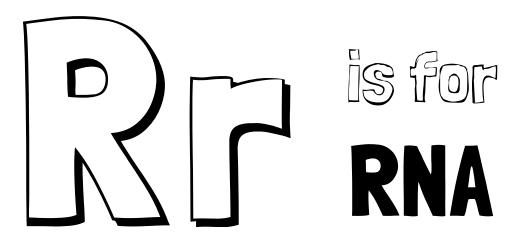


## Quality Control

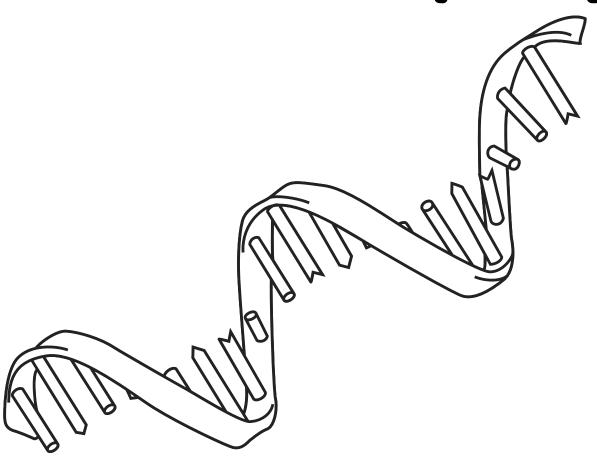
Checking twice to make things right, Keeping samples clean and bright.



Which beaker is the odd one out?

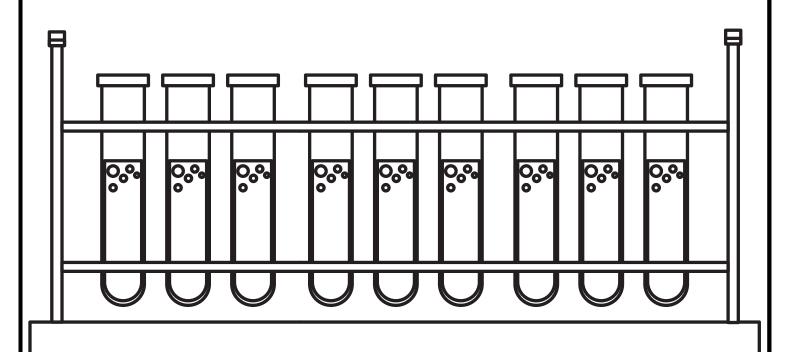


It reads the code and runs the show, It tells the cell where things should go!

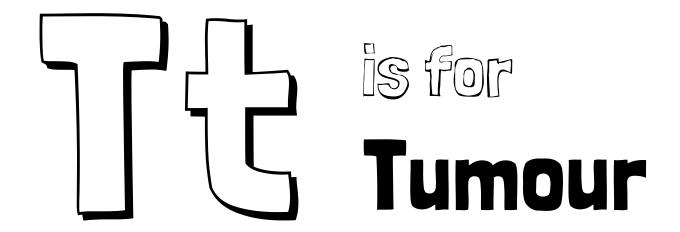




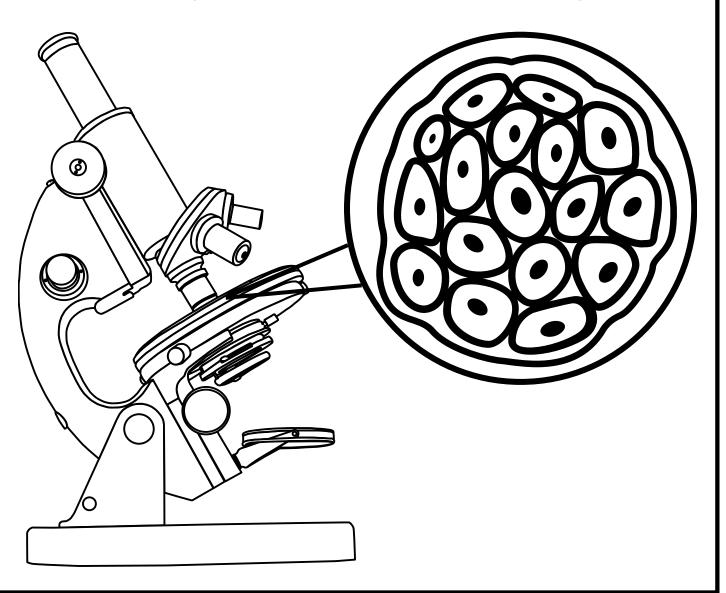
A sample is a very tiny part, That can help a doctor know where to start.

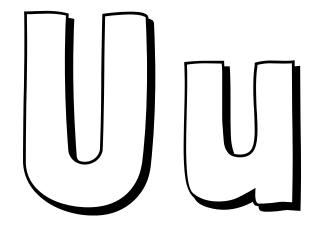


Colour the samples in your favourite colours!



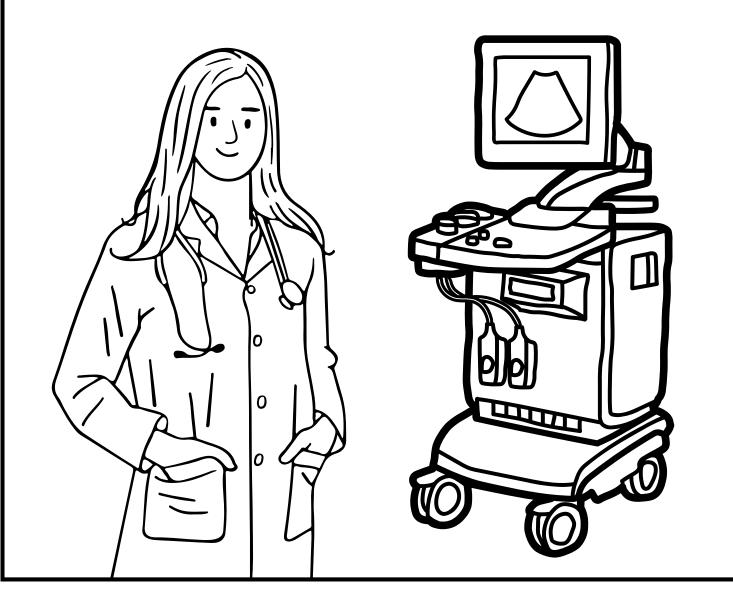
A lump of cells that grow too fast, Doctors check to make health last.





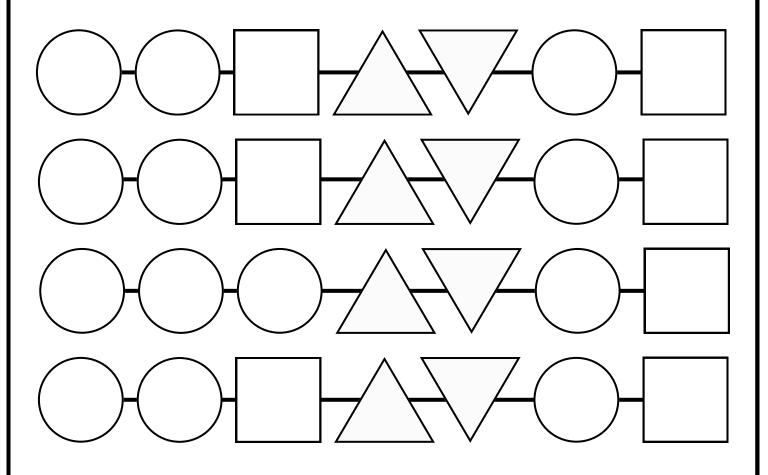
### Ultrasound

With ultrasound pictures, doctors can see, If a tumour is hiding where it shouldn't be.





A tiny change, and that's okay, It makes us different in every way!



Which one of these strands is different?
That is the variant!





#### White Blood Cell

White blood cells zoom and race, Chasing germs from place to place!



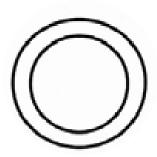
**Eosinophils** 



**Basophils** 



**Neutrophils** 



Lymphocytes



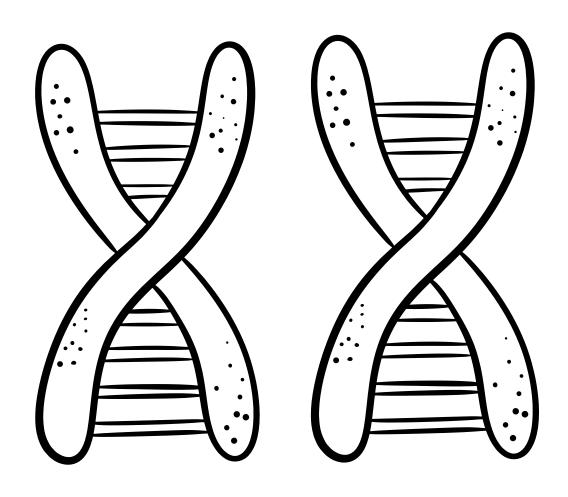
Monocytes





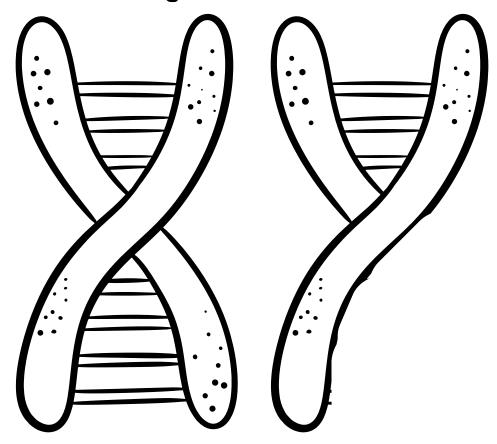
### X-Chromosome

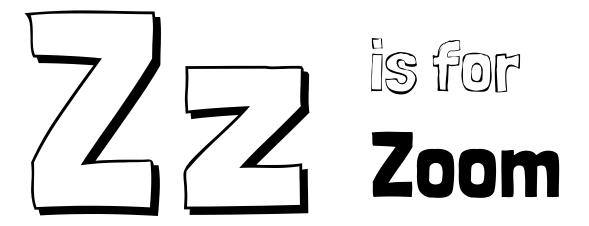
Two X's together can help life start, They carry instructions, a blueprint chart.



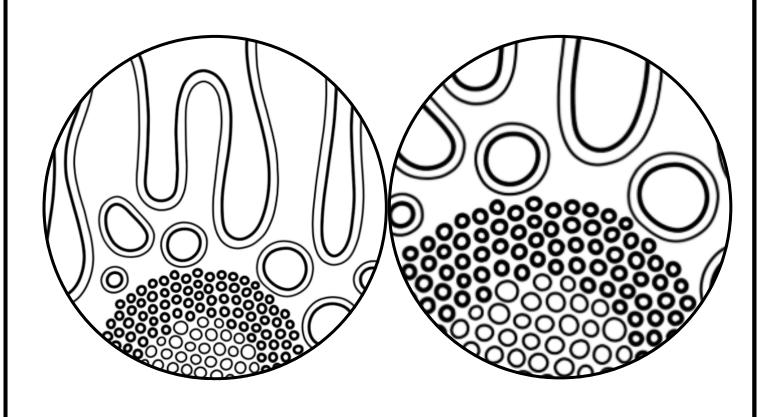


Y is a chromosome, small and fleet, Packed with genes that can't be beat!





Zoom in close, then closer still, You'll spot a cell with shape and will!



# THIS COLORING BOOK WAS CREATED AS PART OF OMPRN'S MICROLEARNING INITIATIVE

#### **Credits:**

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OMPRN is a province-wide network of pathologists, clinical laboratory scientists and cancer researchers collaborating to carry out high-quality cancer research with a clear potential for clinical impact.

OMPRN was established by the Ontario Institute for Cancer Research (OICR) as part of its 2016-2021 Strategic Plan. OMPRN is also part of OICR's Adaptive Oncology (AO) Initiative.

