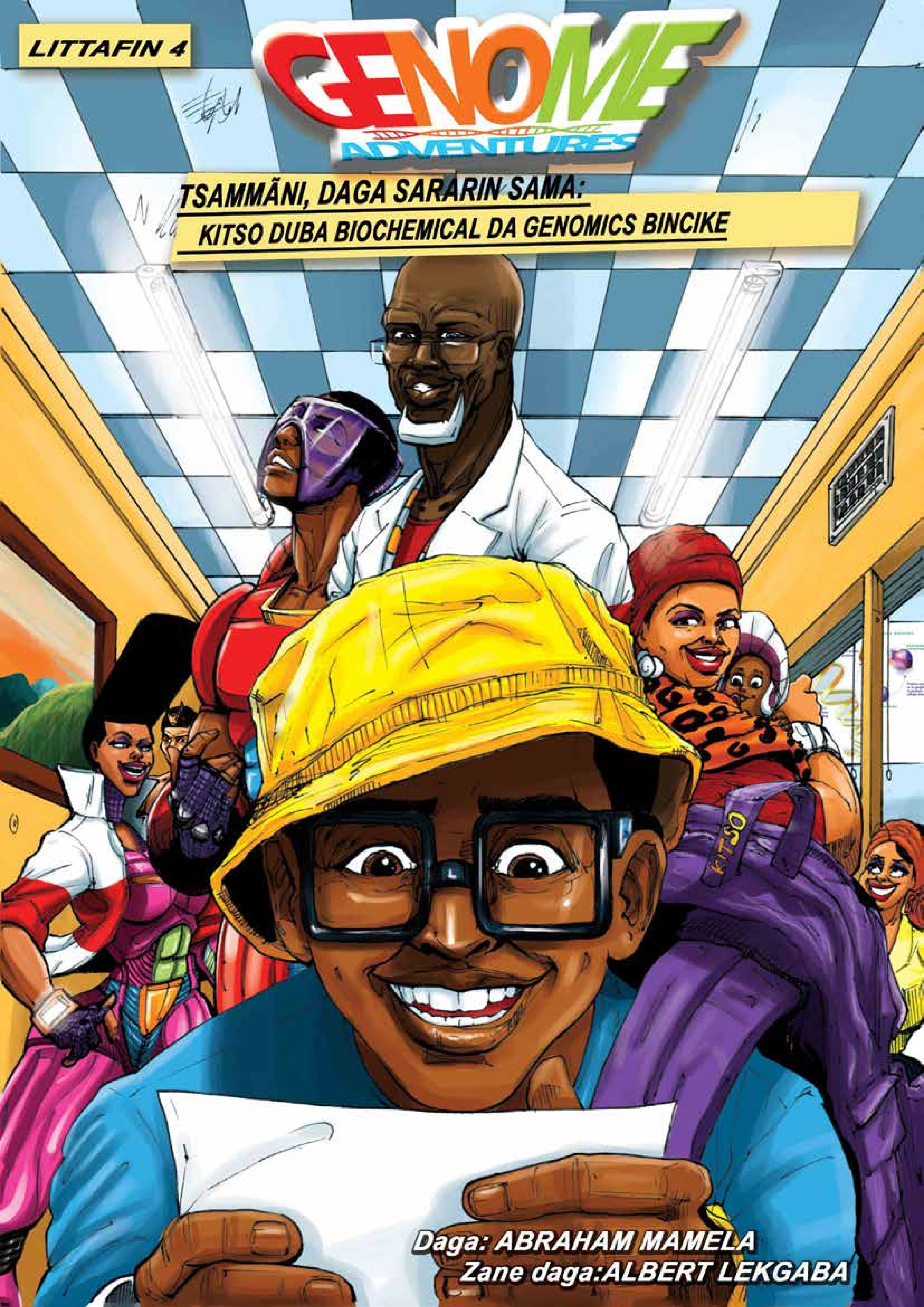
LITTAFIN 4

GENOME ADVENTURES

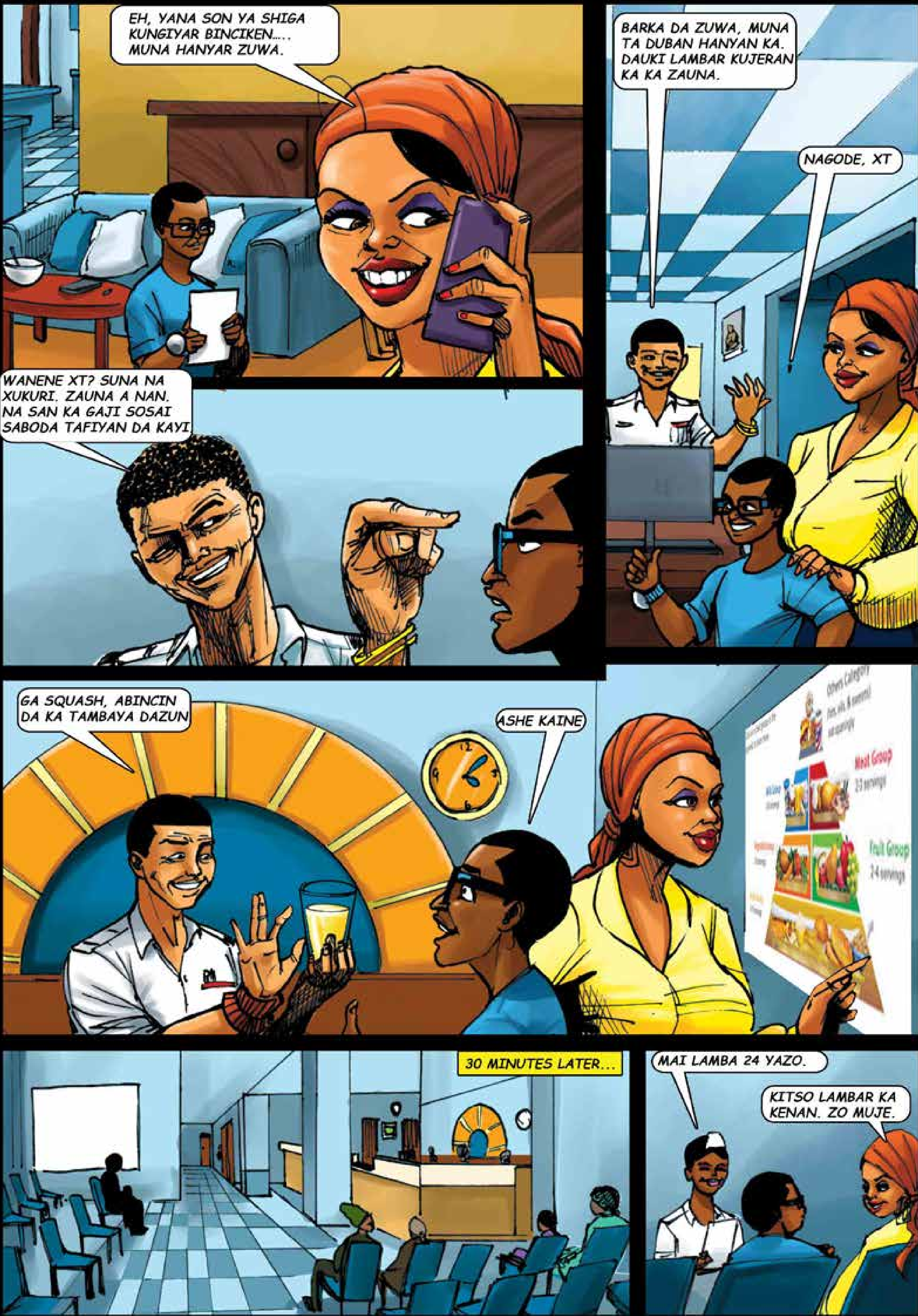
TSAMMĀNI, DAGA SARARIN SAMA:

KITSO DUBA BIOCHEMICAL DA GENOMICS BINCIKE



Daga: ABRAHAM MAMELA
Zane daga:ALBERT LEKGABA

ANYA KO BA MAFARKI NIKEYI BA?
KITSO, MASOYIN RAI NA, ABINCIN KA YA FARA SANYI.
KUMA GASKIYA NE FA.
TUNI INA SHA'AWAN YIN HAKA. GWANAYE A KAN WANNAN SUN KOYA MINI DUK ABINDA YA KAMATA IN SANI GAME DA ILIMIN KWAYOYIN HALITTA, DA ITA KANTA KWAYAN DNA. WAYYO, INA SON INCHI SQUASH?
GWANAYE KUMA? YI HAKURI BAMU DA SQUASH A NAN.
SUN MAYAR DANI DAN MITSITSI SA'ANNAN SUKA AIKA NI CIKIN JIKIN DAN ADAM. NAYI MURNA SOSAI.
EYYA, KA SANI?
EH, AUNTIE. INA DA BABBAN LABARIN DA ZAN BAKI. INA SON IN SHIGA BINCIKEN DA ZA'AYI A KALAHARI. ILIMIN FASAHA YANA DA KYAU. INA SON IN TAIMAKA WAJEN YAKI DA CUTAR KANJAMAU DA TARIN HUHU. ZO MUJE ASIBITI.
TAU! IDAN KA GAMA CIN PATE SAI MU TAFI.


EH, YANA SON YA SHIGA KUNGIYAR BINCIKEN..... MUNA HANYAR ZUWA.
BARKA DA ZUWA, MUNA TA DUBAN HANYAN KA. DAUKI LAMBAR KUJERAN KA KA ZAUNA.
NAGODE, XT
WANENE XT? SUNA NA XUKURI. ZAUNA A NAN. NA SAN KA GAJI SOSAI SABODA TAFIYAN DA KAYI
GA SQUASH, ABINCIN DA KA TAMBAYA DAZUN
ASHE KAINE
Others Category
Meat Group
Fruit Group
30 MINUTES LATER...
MAI LAMBA 24 YAZO.
KITSO LAMBAR KA KENAN. ZO MUJE.

KA BIYO NI!
KGOSIGADI, KAMAR ANA SANYI A NAN. YI AMFANI DA BAIWAN KI DOMIN MU SAMU ZAFI.
SUNA NA MMA KALAFI. NI MALAMAN ASIBI NE, ZANYI MA BAYANI AKAN TAKARDAN BADA UMURNI, AMMA MU FARA DAUKAN ABUBUWAN DA SUKA BAYYANA TUKUN.
?
SA'ANNAN IN KUNA NA'URAN ZAFI.
SWISHHH!
!!
KINGA WANCAN KO AUNTIE?
EH NA GANI, RANA TA FITO, GA ALAMU YANAYI ZAIYI KYAU.
A'A AUNTIE, KGOSIGADI CE TAYI HAKAN DA BAIWAN TA.
KITSO TSAYA, BA SUNA NA KENAN BA. MU FARA DA WANNAN TUKUN.

ZAN GWADA GUDUN JININKA,
DA BUGUN ZUCIYARKA,
DA ZAFIN JIKIN KA, DA KUMA NAUYIN KA.
NA GWADA KOMAI YAYI, YANZUN MUYI MAGANA AKAN WANNAN BINCIKEN.
BAYANIN FARKO SHINE KANA IYA FITA DAGA WANNAN BINCIKEN AKO WANI LOKACI KA BUKATA.. KITSO, KA FAHIMCI ABINDA WANNAN BINCIKEN YA KUNSA?
BINCIKE NE AKAN FAHIMTAR HIV DA TARIN HUHU. HAKANE KO?
HAKANE, KITSO.
BINCIKEN ZAI DUBI KWAYAN HALITTAN KA DA NA SAURAN WASU YARA. KA TUNA BAKA FARA SHAN MAGANI BA SAI DA KA KAI SHEKARA GOMA.
EH, WANNAN SHI AKE KIRA 'LONG-TERM PROGRESSOR'. WASU YARA MASU DAUKE DA CUTAR KANJAMAU SUNA BUKATAN SHAN MAGANI A WATANNIN FARKO NA HAIHUWA.
EH!
ANA KIRAN WADANNAN 'RAPID PROGRESSORS'.

MUNA SON MU GWADA KWAYAR HALITTAN KA DA NASU SABODA FAHIMTAR KO AKWAI BAMBANCIN DA ZASU TAIMAKA DOMIN NEMAN KIRKIRO MAGUNGUNA ZUWA GABA.
TOH, KAMAR YADDA AKE DANGANTA KWAYOYIN HALITTA DOMIN FAHIMTAR CUTUTTUKA?
EH, HAKANE KITSO. YA AKAYI KA SAN DA WANNAN?
MUNYI MAGANA GAME DA SHI A GHANZI, KIN TUNA?
HABA KITSO, BAKA TABA ZUWA GARIN GHANZI BA.

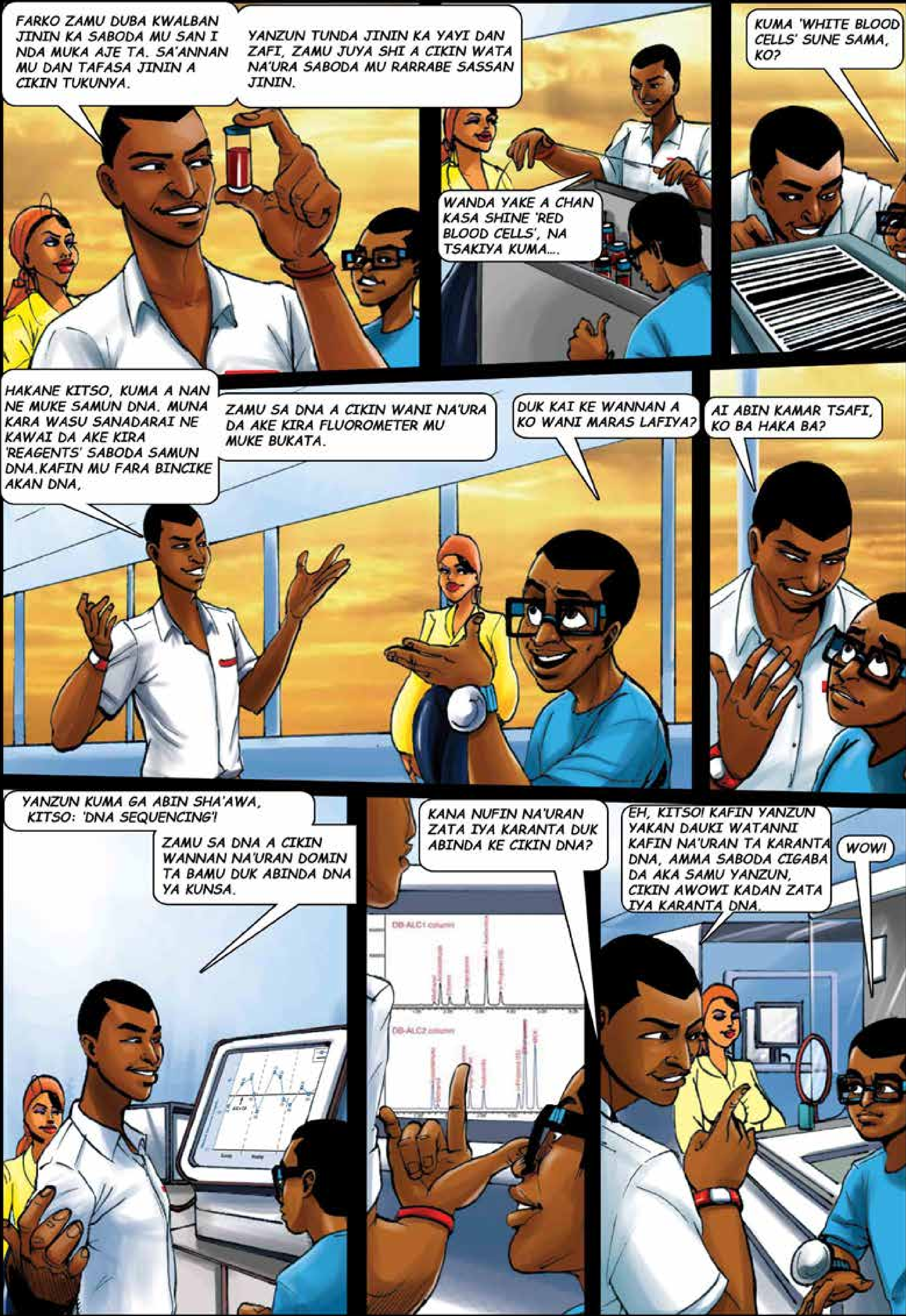
TOH, BARI MUYI MAGANAN AMFANIN SHIGA WANNAN BINCIKEN A GAREKA. A KOWANI WATA SHIDA ZAKA ZO DOMIN AWO DA DAUKAN JININ KA.
DUK LOKACIN DA KAZO ZIYARAN WURIN BINCIKEN, ZAMU DAUKI JININ KA.
ANYA, BA ZA'A KARA SOKA MUN ALLURA BA KO?
KUMA BA ZIYARTAN ASIBITI?
A'A, BA ZA'A KARA DAUKAN JININ KA BA FIYE DA YADDA AKA DAUKA YANZUN—KUMA DUK ZIYARTAN KA ZUWA WURIN BINCIKE A RANA DAYA NE DA ZUWA ASIBITI KA.
YAYI DAIDAI!
YANZUN MUYI MAGANAN TAKARDAN BADA HADIN KAI. WATAU KANA BAMU UMURNI KENAN MUYI AMFANI DA JININ KA A WANNAN BINCIKEN.
YANA DA MATUKAR MUHIMMACI KA FAHIMCI WADANNAN ABUBUWA KAFIN KA BADA UMURNIN KA: ME YASA MUKEYIN WANNAN BINCIKEN, ME ZAI FARU A LOKACIN YIN BINCIKEN, KUMA WA ZAIGA SAKAMAKON BINCIKE AKAN JININ KA. BARI MUYI MAGANA AKAN SU DAYA BAYAN DAYA.
KITSO, WANNAN SASHEN NADA MUHIMMACI SOSAI, KANA TARE DANI?
EH AMMA...

YAUWA XT, INA NUFIN XUKURI.
NAGODE DA ABINCIN DA KA BANI
KITSO, SABODA BAKA KAI SHEKARU ASHIRIN DA DAYA BA, AUNTIE KA ZATA SA HANNU A WANNAN TAKARDAN.
ME YASA? AUNTIE BA ZATA SHIGA CIKIN WANNAN BINCIKEN BA.
SABODA HAR YANZUN BAKA GIRMA SOSAI BA, DOLE SAI BABBA YA BAMU UMURNI MAIMAKON KA. HAKA KUMA ZAKA BAMU UMURNI, KITSO, KA CIKA TAKARDAN BADA UMURNIN YARA.
AMMA ME ZAI FARU IDAN AUNTIE BATA AMINCE BA, NI KUMA NA AMINCE?
MUNA BUKATAN UMURNIN KU KAFIN KA SHIGA BINCIKEN. ME KA GANI NE, KITSO?
AMMA JINI NA FA? NA SAN A ASIBITI ANA AUNA KWAYOYIN DAKE BADA KARIYA DAGA CUTAR KANJAMAU, AMMA YANZUN ZAKUYI AMFANI DA JINI NA DOMIN GWAJI. KO DAI MASU ILMIN FASAHA ZASU CANJA MUN HALITTA NE?

A'A, BA HAKA BANE. BARI IN KARA MA BAYANI. A WANNAN BINCIKE MUNA AMFANI DA UMURNI NE DA YA KUNSHI ABUBUWA DA YAWA. WANNAN YANA NUFIN CEWA MASU ILMIN FASAHA ZASU IYA AMFANI DA JININ KA—WANDA ZA'A AJIYA A MUHALLI MAI KYAU—DOMIN BINCIKE ZUWA GABA DANGANE DA LAFIYA.
KILA NAN ZUWA GABA MASU ILMIN FASAHA ZASU IYA SAMAR DA MAGANI ME BADA KARIYA AKAN HIVDA TARIN HUHU. HAR YANZUN DAI BA'A SAMAR DA WADANNAN MAGUNGUNA BA, AMMA DAI JININ KA NA NAN DOMIN BINCIKE AKAN HAKA IDAN LOKACI YAYI.
WAI WAI, MASU ILMIN FASAHA ZASU IYA BANI KARFIN TUNANI IRIN NAKA KO?
A'A KITSO, BABBAN ANIYAR MU SHINE SAMAR MA MUTANE MAGANI. KUMA DUK MUN SAN CEWA TSAFI BA GASKIYA BANE.
ME KIKA CE, AUNTIE? ZAN NUNA AMINCEWA NA DA WANNAN BINCIKEN.
ZAN NUNA AMINCEWA NA NE DA WANNAN BINCIKEN KAWAI IDAN YANA DA AMFAN UMA BAIDA LAHANI.
MUNA TABBATAR MIKI DACEWA WANNAN BINCIKEN BAIDA LAHANI ZAMUYI DUK ABINDA MUKA SABA YI DUK LOKACIN DA YAKE ZUWA GWAJI, KUMA BA ZAMU BAYYANAR DA SIRRIN SHI BA. AMMA KUMA KECE ZAKI ZABA KO WANNAN BINCIKEN YANA DA AMFANI KO A'A.
INA TUNANIN WANNAN BINCIKEN YANA DA AMFANI. KUMA NA FAHIMCI DUK MATAKAN DA KUKA DAUKA DOMIN KARE MUTUNCIN WADANDA SUKA SHIGA. SABODA HAKA, AMINCE.
!?
MADALLA! YANZUN BARI IN KIRA WANDA ZAI DAUKI JININ KA.

ZWING!
!
BARKA, SUNA NA DOCTO MOSENODI, INASON IN GWADA KA, KITSO.
A'A, SUNAN KA DOCTO MABOKO. YANZUN NAGA KA KETA BANGO.
KAI WANNAN IRIN TUNANEN NAKA.
ZANYI AMFANI DA NA'URA DOMIN SAURAREN GUDUN ZUCIYA DA HUHUN KA. KA YI CIWON TARI KWANAKIN BAYA? KIRJI NA MA CIWO?
A'A, KA TUNAI NA SAMU TSIRA DAGA CUTAR SIKILA LOKACIN DA NA SHIGA JIJIYAN JINI.
KUMA BANJI CIWO BA KO KADAN.
MENENE WANNAN, KITSO? TOH, GWAJI YA NUNA KOMAI DAIDAI. LAFIYAN KA KALAU KAMAR DILA.
SUNA NA MMONI, ME DAUKAN JINI. KANA SANE DACEWA COKALI UKU NA JINI KAWAI MUKE BUKATA SABODA
WANNAN BINCIKEN? SAURAN ZAMUYI AMFANI DASHI DOMIN GWAJIN DA KA SABA YI.
OH, NA DAUKA ABINDA MASU SHAN JINI SUKEYI KENAN?

OUCH—BA ZAKA IYA RAGE GIRMAN ALLURA DA TSAFIN KI BA?
OH KITSO, BAN MA FARA BA....
OH...
GAMA KO
WOW. BA ZAFI.
MU SA WADANNAN KWALABEN JININ A CIKIN KOOLA SABODA MU KAISU A JAMI'AR MMADIKOLO! KITSO, KO ZAKA ZO MUJE SABODA KAGA YADDA DAKIN SANYI MU YAKE?
ZAMU IYA ZUWA, AUNTIE?
EH, SOSAI KO.
KITSO—WANNAN SHINE TSHEPO MAI AIKI DAKIN GWAJI. ZAI NUNA MA IRIN ABABEN DA MUKEYI DA JININ DA MUKA DAUKA. ZAN KOMA ASIBITI.
BARKA DA ZUWA UM, KITSO!
MARANYANE, INA RIGAN TSAFIN KA?
MUN FARA KENAN...
INA SON SA RIGA FARA A DAKIN GWAJI.


FARKO ZAMU DUBA KWALBAN JININ KA SABODA MU SAN I NDA MUKA AJE TA. SA'ANNAN MU DAN TAFASA JININ A CIKIN TUKUNYA.
YANZUN TUNDA JININ KA YAYI DAN ZAFI, ZAMU JUYA SHI A CIKIN WATA NA'URA SABODA MU RARRABE SASSAN JININ.
WANDA YAKE A CHAN KASA SHINE 'RED BLOOD CELLS', NA TSAKIYA KUMA....
KUMA 'WHITE BLOOD CELLS' SUNE SAMA, KO?
HAKANE KITSO, KUMA A NAN NE MUKE SAMUN DNA. MUNA KARA WASU SANADARAI NE KAWAI DA AKE KIRA 'REAGENTS' SABODA SAMUN DNA.KAFIN MU FARA BINCIKE AKAN DNA,
ZAMU SA DNA A CIKIN WANI NA'URA DA AKE KIRA FLUOROMETER MU MUKE BUKATA.
DUK KAI KE WANNAN A KO WANI MARAS LAFIYA?
AI ABIN KAMAR TSAFI, KO BA HAKA BA?
YANZUN KUMA GA ABIN SHA'AWA, KITSO: 'DNA SEQUENCING'!
ZAMU SA DNA A CIKIN WANNAN NA'URAN DOMIN TA BAMU DUK ABINDA DNA YA KUNSA.
KANA NUFIN NA'URAN ZATA IYA KARANTA DUK ABINDA KE CIKIN DNA?
EH, KITSO! KAFIN YANZUN YAKAN DAUKI WATANNI KAFIN NA'URAN TA KARANTA DNA, AMMA SABODA CIGABA DA AKA SAMU YANZUN, CIKIN AWOWI KADAN ZATA IYA KARANTA DNA.
WOW!

DAGA MUN GAMA KARANTA DNA MARAS SA LAFIYA, ZAMU IYA DANGANTA KWAYOYIN HALITTAN SU DOMIN KIRKIRO MAGUNGUNA. DAGA MUNYI HAKA SHIKENAN.
ABIN NADA BAN MAMAKI AMMA YA KAMATA MU TAFI ASIBITI YANZUN.
NAGODE, MARANYANE!
INA MAMAKI SOSAI IRIN KOKARIN DA AKAYI A WANNAN BINCIKEN.
ABINDA SHA'AWA. INA MA ACE ZAN IYA BADA GUDUMMAWA NA.
EH INA TUNANIN WANI ABU, AMMA ZO MUJE.
WANNAN NE MASU BA KUNGIYAR MU SHAWARA, SUN HADU A BABBAN DAKIN SHAWARA A ASIBITI.
WANNAN NE BATHOENG, BABBAN MALAMIN MAKARANTA NA! SHIMA ZAI SHIGA WANNAN BINCIKEN NE?
EH SHINE, AMMA BA ZAI SHIGA WANNAN BINCIKE BANE. MUTANE DA YAWA SUN SHIGA WANNAN KUNGI-YA DOMIN SU WAKILCI SASSA DABAN-DABAN NA WANNAN GARIN, SU TABBATAR DA CEWA BINCIKEN NAN NA KALAHARI YA SAMU KARBUWA. WADANNAN MUTANEN, WADANDA SUKA ZO DAGA SASSA DABAN-DABAN NA GARIN NAN, SUNA WAKILTAN KUNGIYOYIN 'YAN JARIDU, DA ADDINAI, MASU KARE 'YANCIN YAN ADAM DA KUNGIYAR KIWON LAFIYA—DA SAURANSU. AMMA KUMA BABU MASU WAKILTAN MASU BADA GUDUNMAWAN KUDI.

KANA NUFIN INA IYA SHIGA KUNGIYAR MASU BADA SHAWARA?
IDAN ZAKI SHIGA ZAMUYI FARIN CIKI SOSAI.
KWARAI KO ZAN SHIGA.
MU FA YARA KANANA, AKWAI KUNGIYA IRIN NAMU?
DUBA DAGA WAJE, KITSO.
SU WAYE YARAN CHAN?
KUNGIYAR YARA KANANA KENAN—SUNA HADUWA SAU DAYA A WATA DOMIN FAHIMTAR ILMIN FASAHA, KOYON AIKI, DA KUMA HADA KAN WADANDA KE ZUWA WANNAN ASIBITIN.
YAUSHE ZAN IYA SHIGA?
BARI IN GANI... YANZUN FA?
ZAN IYA, AUNTIE?
SOSAI KO.

KAJI DADIN TARON KU NA YARA, KITSO?
EH! MUN KOYI YADDA AKE TAMBAYOYIN NEMAN AIKI, KUMA NA HADU DA YARA DA YAWA DAGA GABORONE, INDA SUKA KARA MUNA ILMI AKAN DNA—AMMA DUK NA RIGA NASAN ABINDA SUKA KOYA MANA.
TAU, DAGA ABINDA AKA KOYA MAKA A MAKARANTA?
A'A, AUNTIE! NA SHA FADA MIKI—DAGA MUTANE MASU ILIMI SOSAI.
YAUWA, KITSO, SU WAYE MASU ILIMI SOSAI?
KAMAR YADDA NA FADA MIKI, DUK MUTANEN DA MUKA HADU DASU YAU MASU ILIMI SOSAI NE.
DOCTO MOSENODI SHINE DOCTO MABOKO. DUKKAN SU SUNA DA ILIMI SOSAI.
INA TUNANIN KAYI DAIDAI DUKKAN SU SUNA DA ILIMI SOSAI A BANGAREN SU, KAMAR YADDA SUKE KULA DAMU DA KUMA KULA DA KIWON LAFIA.
HADDA KAI KITSO, SHIGAN DA KAYI WANNAN BINCIKEN.

KAMUS

KIMIYANCE

AUTOSOMAL RECESSIVE- GADO WANDA YAKE DOLE SAI AN GAJI KWAYOYIN CUTA GUDA BIYU SA'ANNAN CUTAR TA NUNA.

CD4 CELLS- KWAYOYIN HALITTAN DAKE GADIN JIKIN DAN ADAM DOMIN FADA DA CUTUTTUKA. WADANNAN KWAYOYIN HALITTA NE CUTAR KANJAMAU KE ADDABA IDAN TA SHIGA JIKIN DAN ADAM.

CCR5- KWAYAN HALITTAN DAKE BA CUTAR KANJAMAU MAKWANCIYA A JIKIN DAN ADAM. CUTAR KANJAMAU BATA IYA SHIGA JIKIN DAN ADAM IDAN KWAYAR CCR5 TA CANJA.

ZAZZABIN CIZON SAURO- CUTAR CIZON SAURO. MUTANEN DA SUKAYI GADON KWAYA DAYA DAGA WURIN UWA KO UBA NA SIKILA BASU KAMU DA CUTAR CIZON SAURO.

ZABIN- WANNAN YANA BAYANIN CEWA HALITTUN DAKE IYA JURE MA YANAYIN CANJI A MUHALL-INSU NE KAWAI KE IYA RAYUWA A WURIN KUMA SU HAYAYYAFA.CHALES DARWIN NE YAYI BAY-ANIN WANNAN.

RABE- NA'URORIN DAKE JIKIN KWAYAN HALITTA INDA WASU KWAYOYIN ZASU IYA MAKALEWA.

SIKILA- KWAYAN HALITTA ME KAMA DA LAUJE WADDA BATA IYA RARRABA ISKAN SHAKA ISASS-HE A CIKIN JIKI. WADANNAN KWAYOYIN HALITTAN MASU KAMA DA LAUJE KE JAWO CUTAR SIKILA.

BLACK MUTUWA -WANDA AKE KIRA 'BUBONIC PLAGUE', BAKAR CUTAR DAKE HALAKA AL'UMMA GABA DAYA. KWAYAR CUTAR YERSINIA PESTIS KE JAWO SHI.

AMINCEWA-BA DA HADIN KAI DA BABBA ZAIYI A MADADIN YARO DOMIN SHI YARON YA SHIGA BINCIKE

M YARDA-BA DA HADIN KAI DA BABBA ZAIYI DOMIN AYI AMFANI DA JININ SHI WURIN KO WANI IRIN BINCIKE.

YARA-NA'URAN DA AKE AMFANI DA ITA A DAKIN GWAJI DOMIN RARRABE SASSA DABAN-DABAN NA JINI.

YARDA-BA DA HADIN KAI DA BABBA ZAIYI DOMIN AYI AMFANI DA JININ SHI WURIN BINCIKE.

DNA JERAWA- YADDA AKE GANO TSARIN KWAYOYIN HALITTAN DNA.

FLUOROMETER- NA'URAN DA AKE AMFANI DA ITA DOMIN GANO YAWAN SANADARI

LONG-TERM PROGRESSOR—MUTANE MASU DAUKE DA KWAYAR CUTAN KANJAMAU KAFIN YA ZAMA CIWON KANJAMAU.

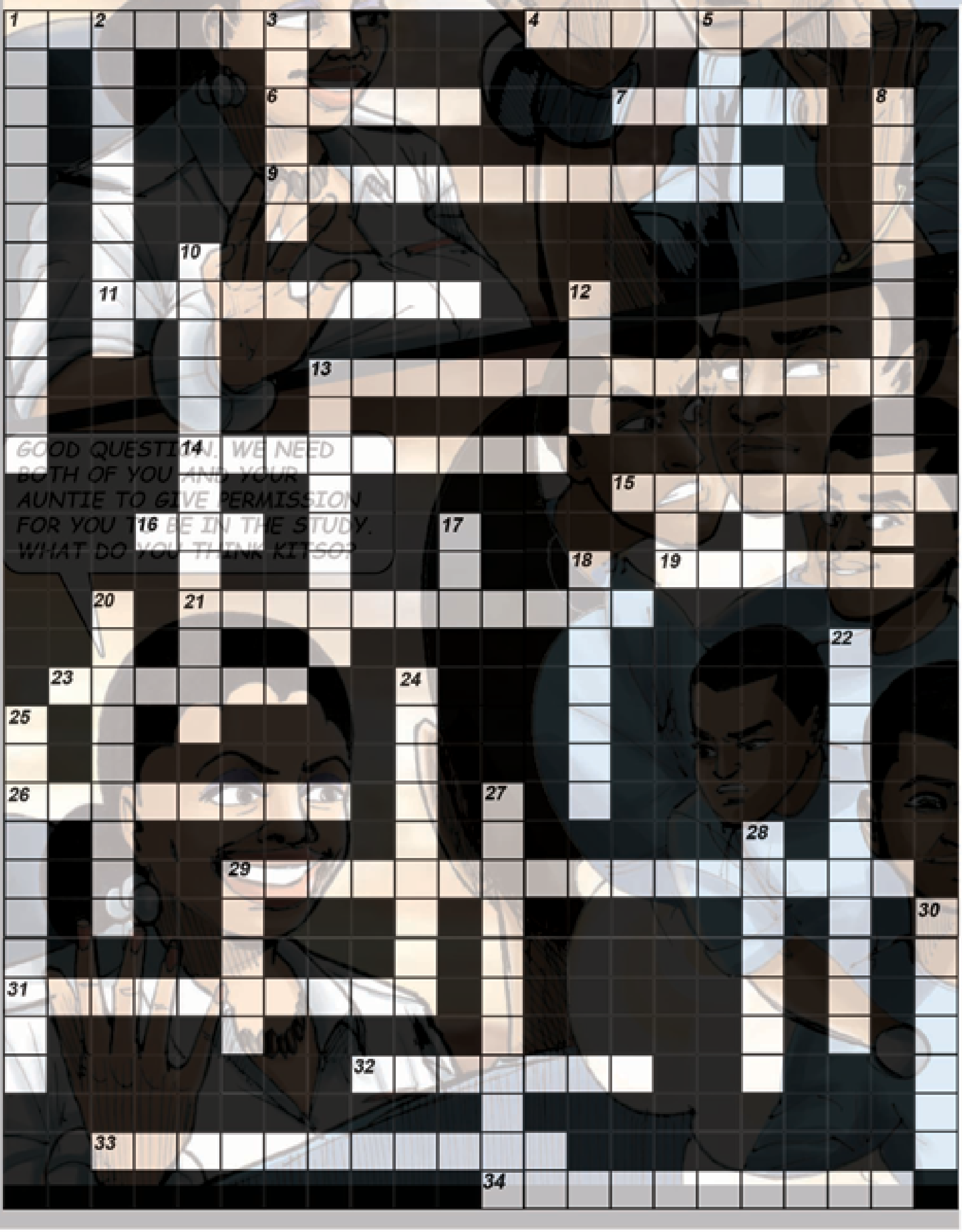
PHLEBOTOMIST—MUTANEN DA SUKA GOGE WURIN DAUKAN JINI.

RAPID PROGRESSOR—MUTANE MASU DAUKE DA KWAYAR CUTAN KANJAMAU WADDA KE ZAMA CIWON KANJAMAU CIKIN LOKACI KADAN.

REAGENTS—ABUBUWAN DA AKE KARA WA CIKIN JINI DOMIN A CIRE DNA.

STETHOSCOPE—NA'URAN DA AKE AMFANI DA ITA DOMIN SAURAREN MOTSI A CIKIN JIKIN DAN ADAM, MISALI BUGUN ZUCIYA.

CROSSWORD PUZZLE



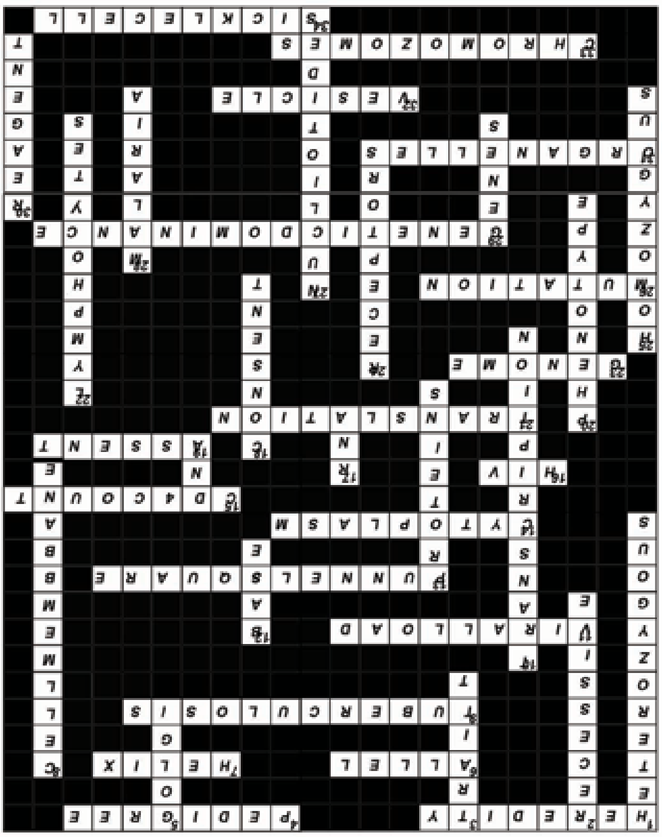
ACROSSS

1. The process of passing traits and genetic characteristics from parents to their offspring.
4. A list of ancestors, a family tree.
6. One of two copies of each gene.
7. A coiled structure of DNA.
9. an infectious bacterial disease that can affect almost any tissue in the body, especially the lungs.
11. A measure of the number of viral particles present in an organism.
13. A diagram that is used to predict an outcome of a particular breeding experiment.
14. A jelly-like fluid that fills each cell and is enclosed by the cell membrane.
15. A lab test that measures the amount of CD4 cells.
16. A type of virus that infects and destroys the body's immune system.
19. An agreement by an individual not competent to give legally valid, informed consent.
21. The process at which proteins are created at ribosomes.
23. All the collective DNA contained in the chromozomes of an organism.
26. A change in the DNA code, an addition, a deletion or a substitution resulting in a different protein being produced.
29. When a certain trait is stronger than its opposite.
31. several membrane-bound compartments with specialized functions that are present in the cell cytoplasm.
32. A membrane-bound sac in plant or animal cells that is involved in storage or transport of the products of metabolism.
33. Linear strands of DNA found in the nucleus of most living cells, carrying genetic information in the form of genes.
34. An abnormal, cresent shaped red blood cell containing defective haemoglobin, caused by a heredity disease called sicke cell anaemia.

DOWN

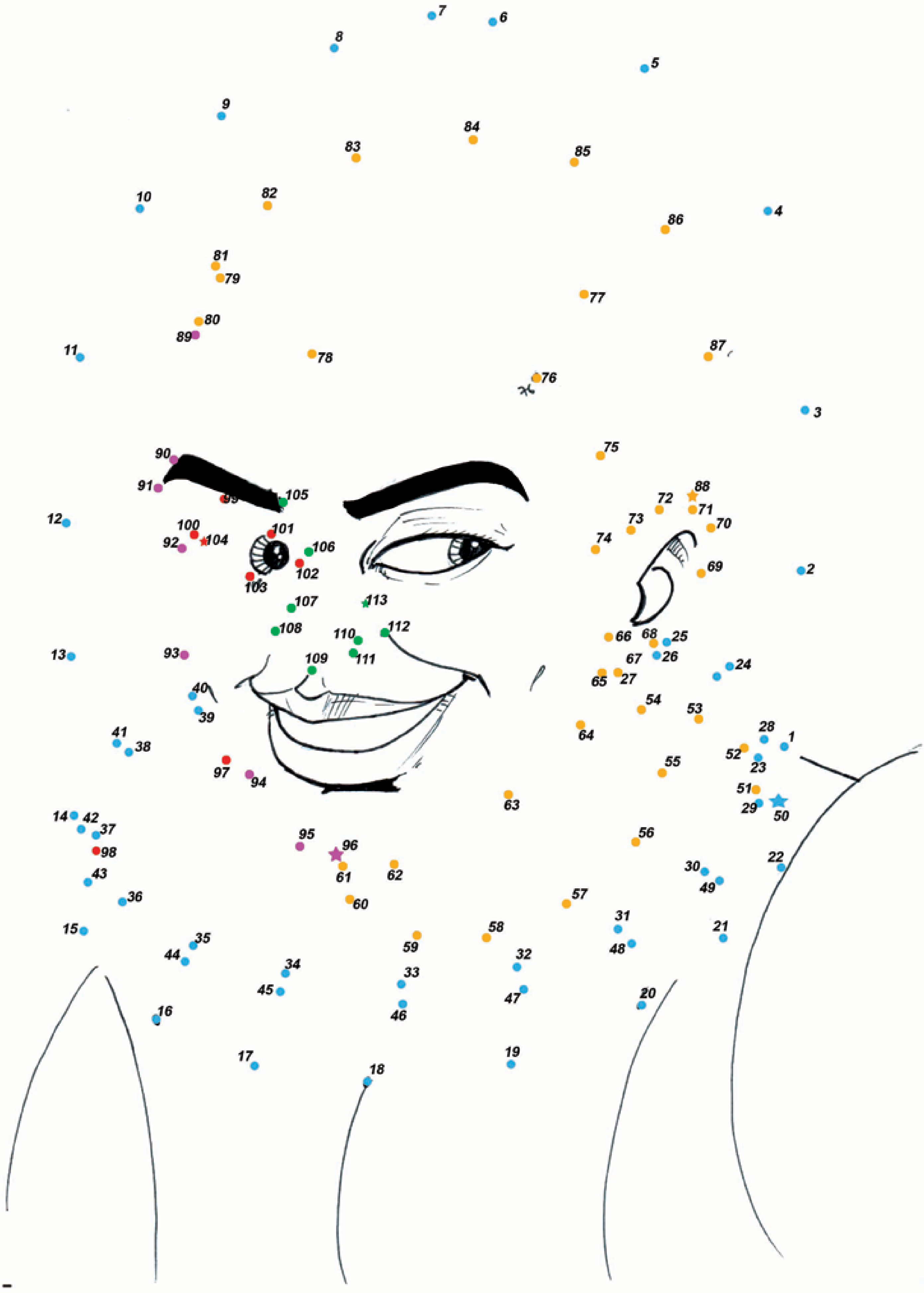
1. Two different forms of a gene.
2. An allel/gene copy most likely to stay hidden in offspring.
3. Specific physical characteristics of organisms that make them unique.
5. An organelle consisting of a stack of flattened sacs that is involved in the modification and sorting out of proteins.
8. A thin biological membrane that seperates the contents of the cell with the external environment.
10. A process involved with the synthesis of proteins where a DNA template is used to make RNA.
12. A building block of DNA.
13. Molecules composed of one or more chains of amino acids.
17. Ribonucleic acid.
18. An agreement by an individualthat is competent to give legally valid, informed consent.
20. The set of observable characteristics of an individual resulting from the interaction of its genotype with the environment.
22. Small leucocytes (white blood cells) with a single round nucleus, occurring especially in the lymphatic system.
24. Protein molecules on the surface of cells to which complementary molecules such as hormones or antibodies recognize and bind.
25. An individual having two identical alleles of a particular gene or genes and so breeding true for the corresponding characteristic.
27. The building blocks of nucleic acids, RNA and DNA.
28. An infectious disease caused by parasites such as mosquitoes.
29. Part of every cell that carries information that determines the features or characteristics inherited from parents.
30. Extra ingredients added to blood to break up cells and isolate DNA.

ANSWERS



GENOM
ADVENTURES

CONNECT THE DOTS...



FATATTAKA DA CODE: BINCIKEN DA KITSO KEYI AKAN DNA DA 'YAN' KWAYOYIN HALITTA
BUGU MAI LAMBA 1.0, FARKON BUGAWA A SHEKARA 2015
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DABARUN JAGORANCI DA AKA BAYAR DA BOTSWANA CAFGEN TAWAGAR: GABRIEL ANABWANI, S.W. MPOLOKA, MOGOMOTSI MATSHABA, OLEKANTSE MOLATLHEGI, KEOFETSE MATHUBA, ABHILASH SATHYAMOORTHI, JOHN FARIRAI, LEANO PHETOGO, CLINS MMUNYNE, NICHOLAS MURIITHI, KENNEDY SICHONE, KOKETSO MAPLANKA, PINKIE GOBUAMANG, AND LETOYA CYNTHIA BALEBETSE

GARGADI

DOMIN MUN YI} O} ARIN TABBATAR DA AMINCIN KIMIYYA ABINDA KE CIKI NA WANNAN LITTAFIN, DA BAY-ANIN KUNSHE A CIKIN WANCAN BA DOLE BA NE YA NUFIN CEWA A MAIMAKON LIKITA SHAWARA. JAMA'A A KARKASHIN DOKOKIN, MARUBUTA DA KUMA WALLAFA WANNAN LITTAFI DA SU JAMIÁI, BA ZA M, DA LISSAFI DA KUMA YARDA, KO KUMA RAUNIN DA YA FARU, ASARA KO LALACEWAR ABIN DA YA TASO A AMINCI DA BAYANAI A CIKIN WANNAN LITTAFI.

DUK HAKKOKI

BA NA WANNAN KABA'AR IYA REPRODUCED, ADANA A CIKIN GYARA TSARIN, KO DAUKAR KWAYAR A KOWACE TSARI KO TA KOWANE HANYA, LANTARKI, INJI, PHOTOCOPYING, RIKODI, KO BA HAKA BA, BA TARE DA NA DA IZINI A RUBUCE DAGA BOTSWANA-BAYLOR YARA CLINICAL CENTRE NA KYAU, PLOT 1836, ASIBITIN WAY, PRINCESS MARINA HOSPITAL, PRIVATE BAG

CAfGEN H3

GENOME ADVENTURES

GKUNGIYAR BINCIKE AKAN KWAYOYIN HALITTA KUNGIYA CE WADDA WELLCOME TRUST TA DAUKI NAUYI, TARE DA COLLABORATIVE AFRICAN GENOMICS NETWORK (CAFGEN). CAFGEN MEMBA NE NA KUNGIYAR BINCIKE AKAN KWAYOYIN HALITTA DA LAFIYA NA AFRICA, KUMA BOTSWANA-BAYLOR CHILDREN'S CLINICAL CENTRE OF EXCELLENCE (COE) KE KULA DA SHI. KUNGIYAR BINCIKE AKAN KWAYAR HALITTA YANA AMFANI DA GAYYATA, LABARAI MASU IL-MANTARWA DA KUMA YANAR GIZO DOMIN ILMANTAR DA KUNGIYOYI, LAUYOYI, DA KUMA KUNGIYOYI GABA DAYA, MUSAMMAN MA MATASA, A BINCIKEN KWAYOYIN HALITTA. KUNGIYAR BINCIKEN KWAYOYIN HALITTA TANA KOKARIN ILMANTAR DA MUTANE A KAN TARI-HIN ILIMIN KWAYOYIN HALITTA, YADDA KWAYAN HALITTA TA KE, DA KUMA AIKIN SU, DAN-GANTAKA TSAKANIN KWAYAN HALITTA DA LAFIYA, DA KUMA YADDA AKE SHIGA BINCIKEN KWAYOYIN HALITTA; WANDA YA HADA DA TAKARDAN AMINCE WA, AIKAWA DA ABINDA AKA DAUKA A JIKIN MUTUM DA KUMA ADANAWA, DA HALARTAN GARI GABA DAYA.

DOMIN NEMAN KARIN BAYANI KO NEMAN SHAFIN MU, A TUNTUBI:

- *GENOMEADVENTURES.WEEBLY.COM*
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