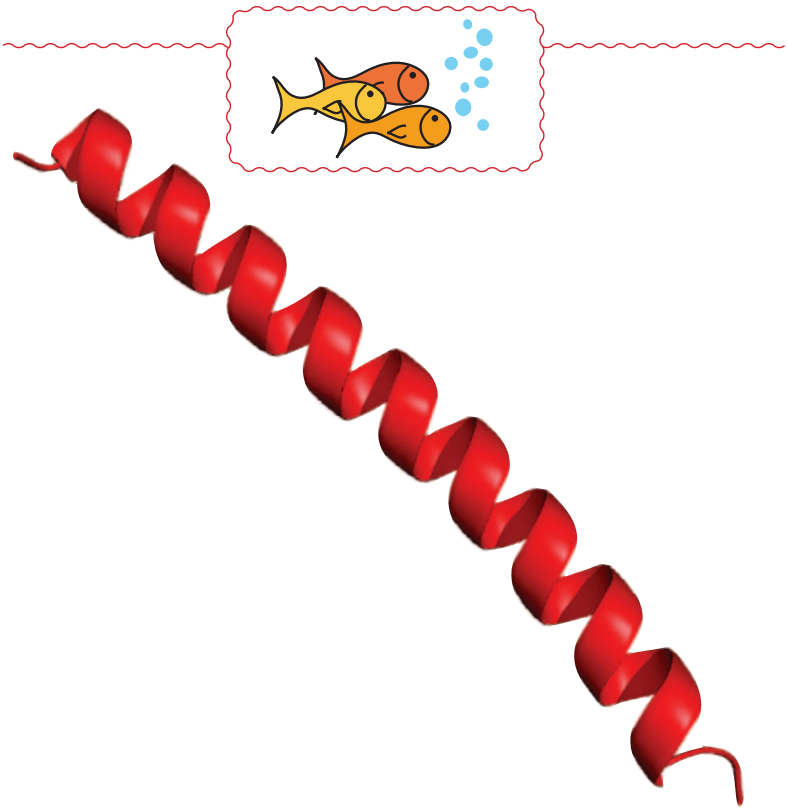
A B C

My Little ALPHABET BOOK of

Chu Wai Liew

A a

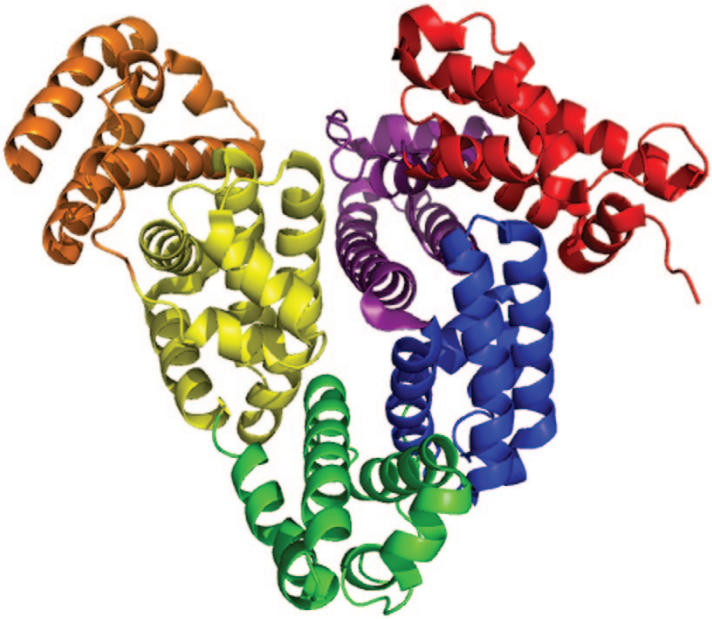
Antifreeze



In strange fishes living in deep, dark seas,
we find proteins, we call them antifreeze
Down below at -20, it's chilly
With antifreeze these fish can swim happily

B b

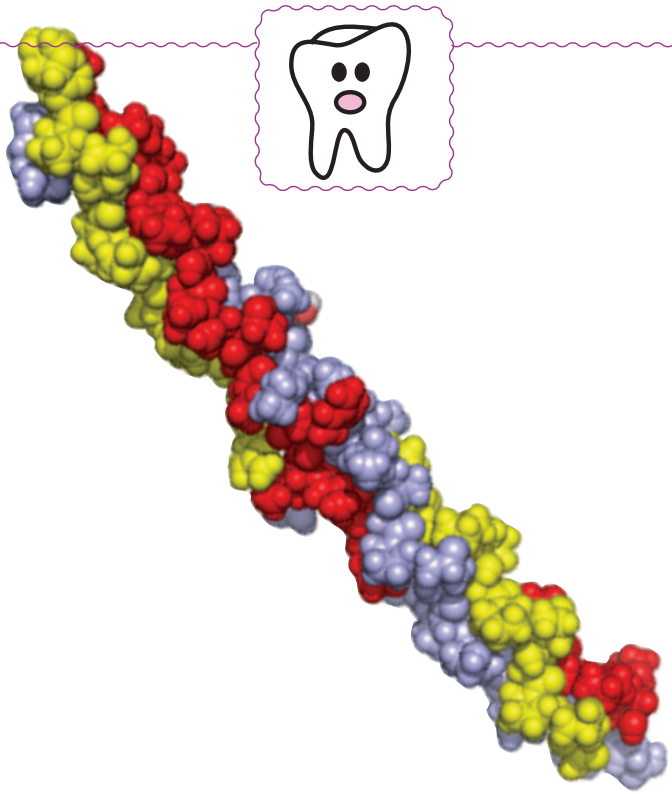
Bovine Serum Albumin



Bovine serum albumin
It's cows that it's found in
It's a protein that's energy giving
to keep cows chewing and mooing

C c

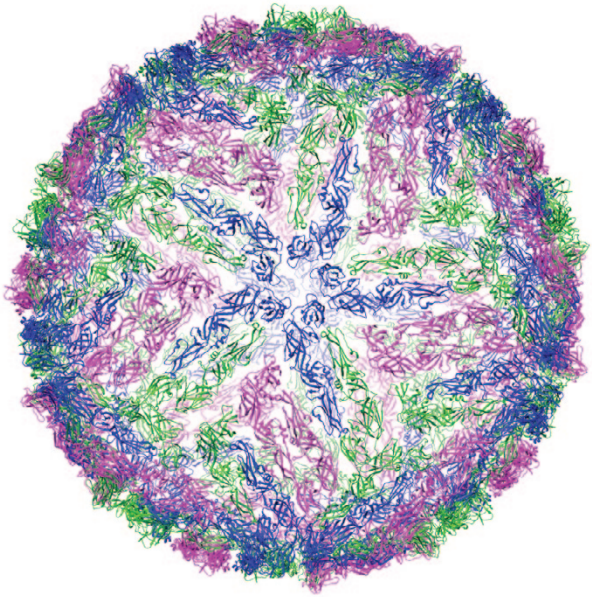
Collagen



Found in our skin so smooth and stretchy
Also in bones and teeth white and shiny
Even in muscles so strong and tough
It's collagen, a protein curiously enough

D d

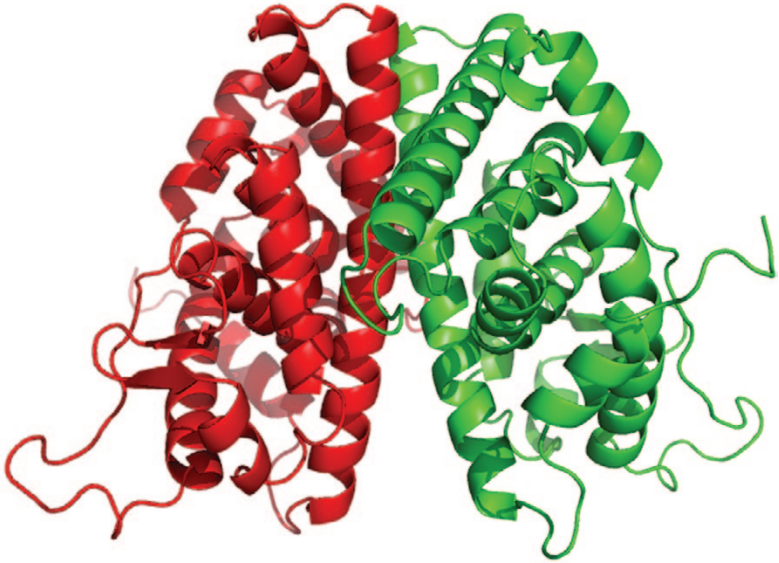
Dengue Virus



Malaysia, Africa, India, even Fiji
mosquitoes like it hot and sweaty
Carrying a virus that's called dengue
one bite makes you feel achey and itchy

E e

Estrogen Receptor



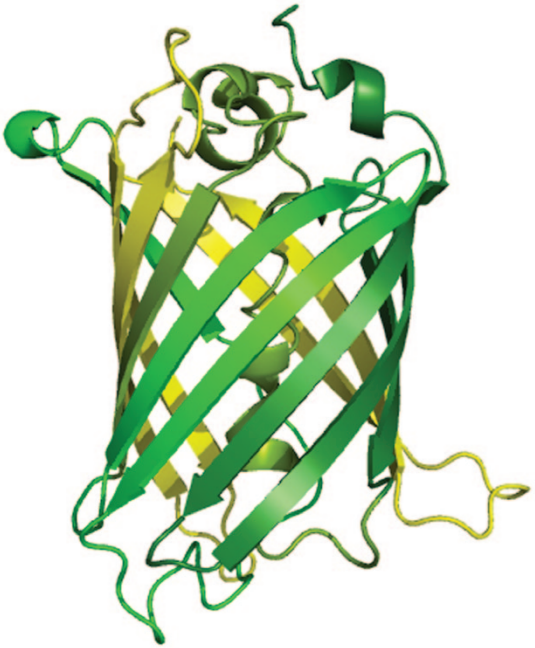
Who in the world has estrogen receptors
It's found in all mums, aunts, grandmas and daughters
These useful receptors help all girls to grow
from little ladies today to women tomorrow

Fibrinogen

All kids they run, jump, climb and then fall
Home they come crying, I'm bleeding they call
Fibrinogen inside them helps blood stop oozing
leaving a scab that they just can't help picking

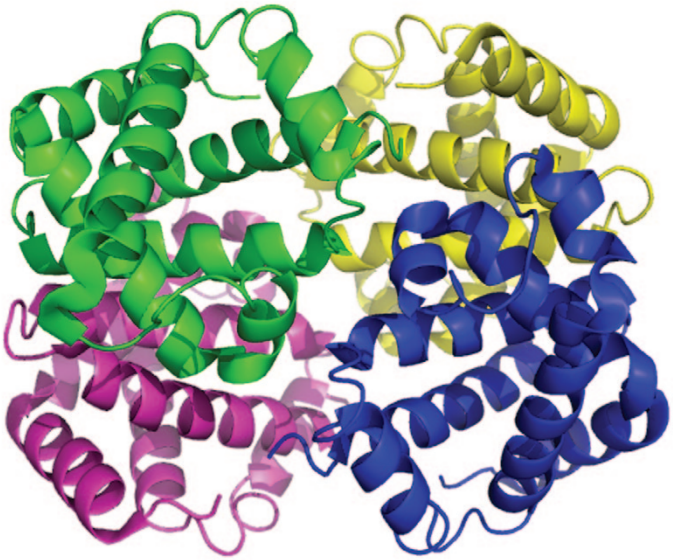
G g

Green Fluorescent Protein



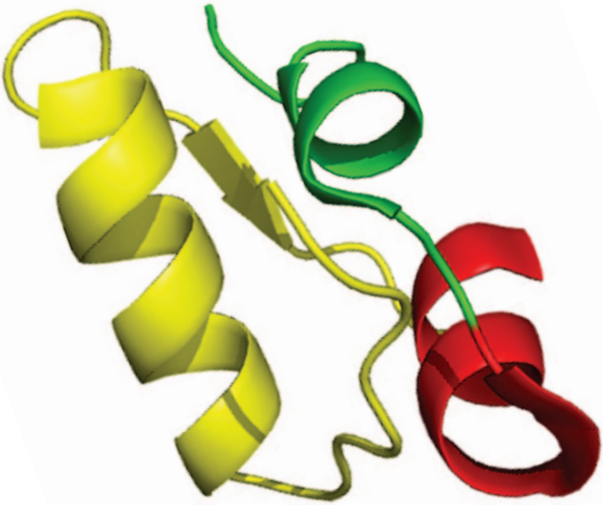
Green fluorescent protein, it's so green that it glows
Found in jellyfish carried by pacific undertows
Attach this green glow to an infectious virus
and see it spread widely in cells from inside us

Haemoglobin



Oxygen, we breathe it, it's really essential
Needed to continue every life cycle
Carried within us by haemoglobin
delivered from lungs to every organ

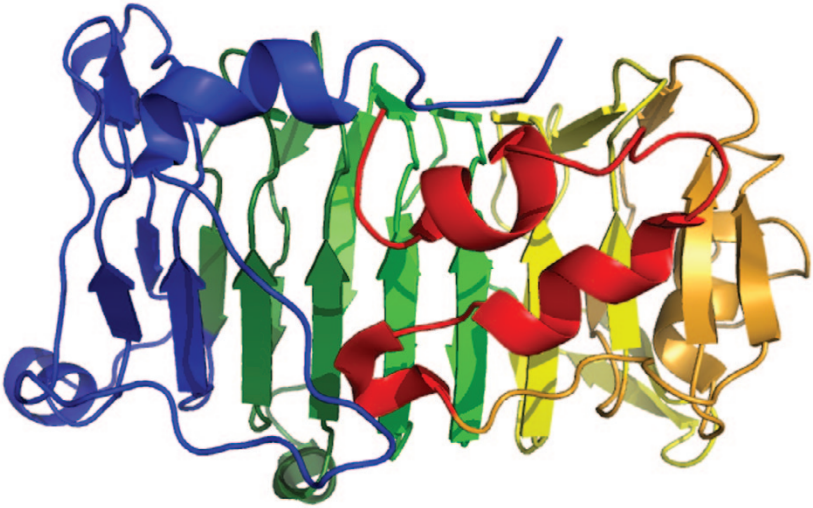
Insulin



Insulin, it's carried on a blood red river
straight from pancreas to muscles and liver
After a meal when we're filled up with sugar
insulin helps us to store it for later

J j

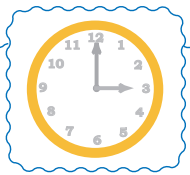
Jun a 1

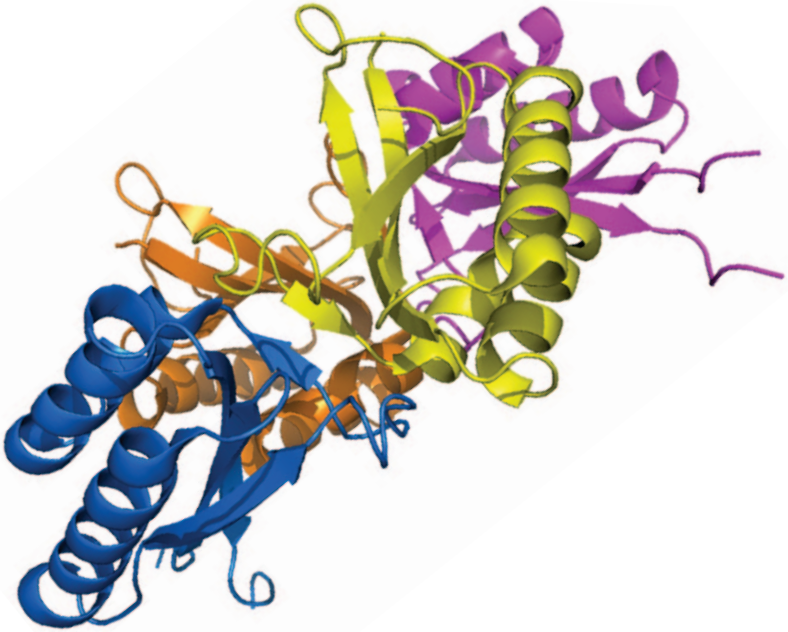


Spring flowers in bloom and birds singing in trees
Yellow puffs of pollen are sprinkled by bees
Jun a 1, that's found in cedar tree pollen
can make some sneezy, eyes itchy and swollen

K k

KaiB

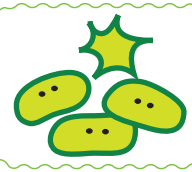




A clock is tick, tick, ticking inside us
In bacteria, KaiB helps to count the hours
Morning, wake up and by noon we're hungry
Soon comes night time when we all feel sleepy

L l

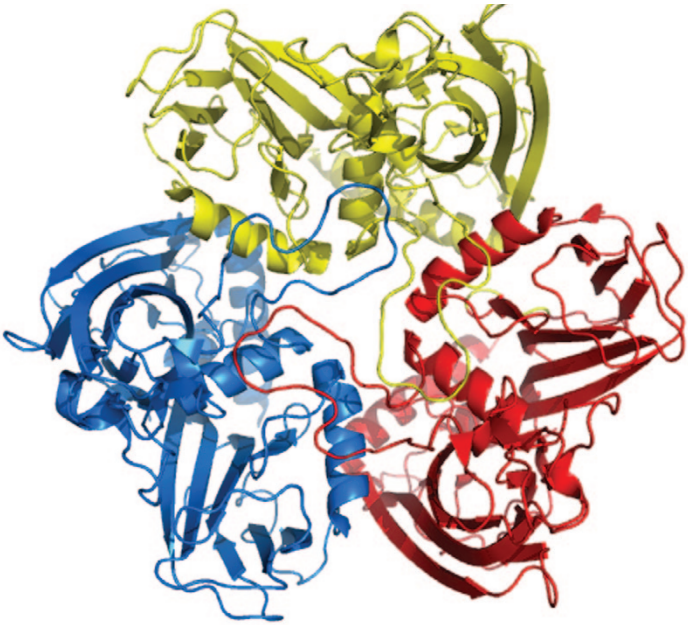
Lysozyme



Bacteria within us lie in wait to attack
But with lysozyme near they pop and they crack
Lysozyme's found in our blood, sweat and tears
It's clear it protects against germy fears

M m

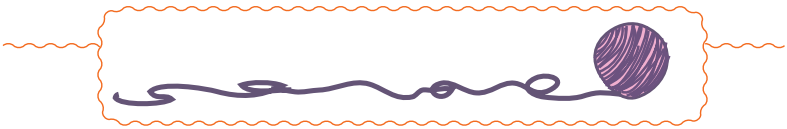
Major Coat Protein

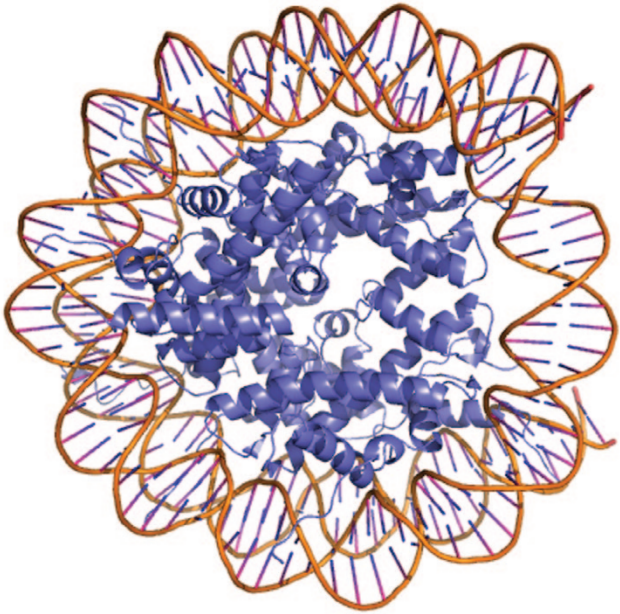


When you catch cold, you sniff and you snuffle
It's a virus inside you that's causing you trouble
It lies in a bubble, made of major coat protein
a small round package that's nasty and mean

N n

Nucleosome





Girl or boy, dark or fair, DNA makes us who we are
Carrying all our information, it stretches long and far
So just like a string wound around a ball
DNA is bundled into a nucleosome so small

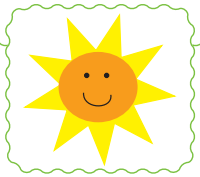
O o

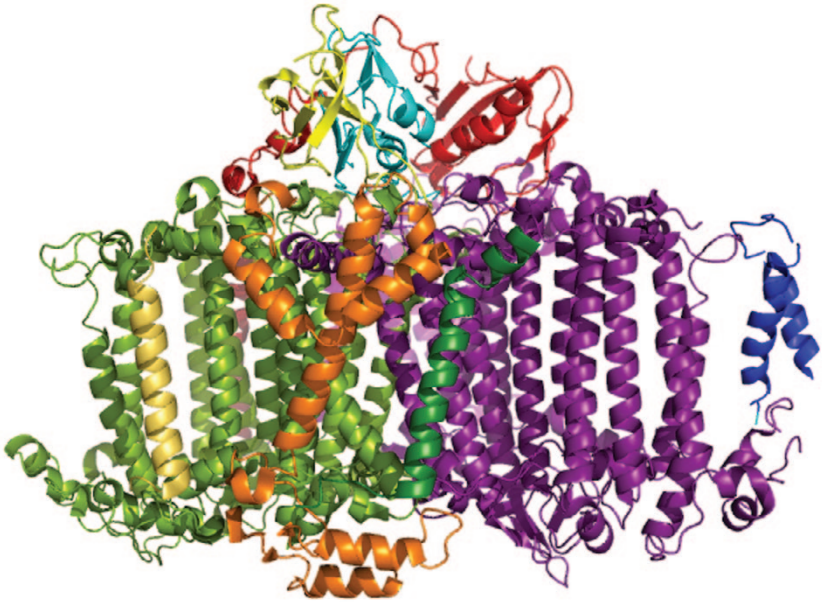
Ovocleidin-17

Ovocleidin-17, it makes eggshells hard and tough
When an egg is ready & it's waited long enough
there's a tap, tap, crack, then a small beak appears
a little chick hatches with soft golden feathers

P p

Photosystem 1

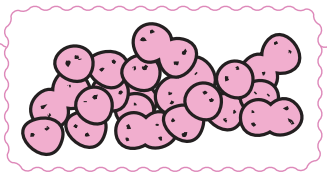


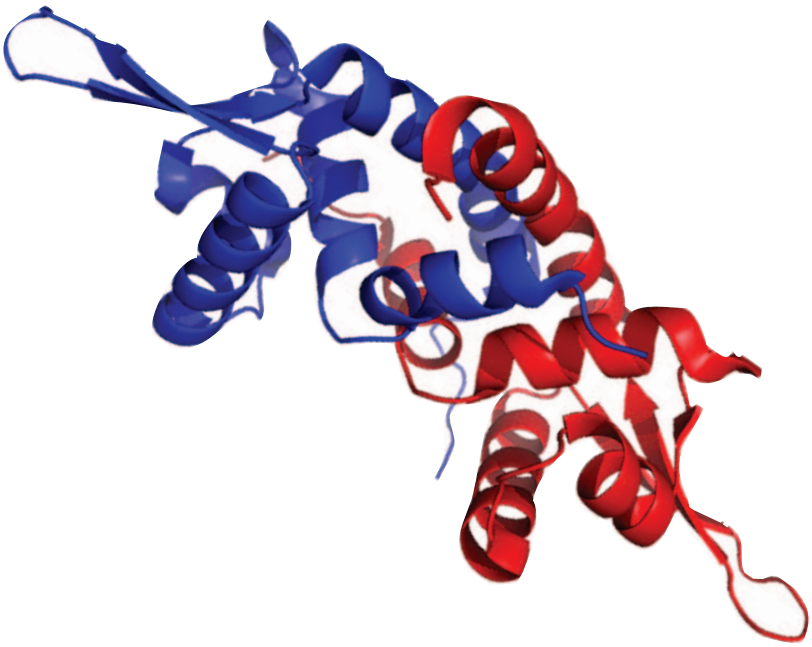


Sunshine so bright, gives life to us all
From bacteria so tiny to trees far too tall
Photosystem 1, used by all plants we see
helps them trap sunlight to turn into energy

Q q

QsrR

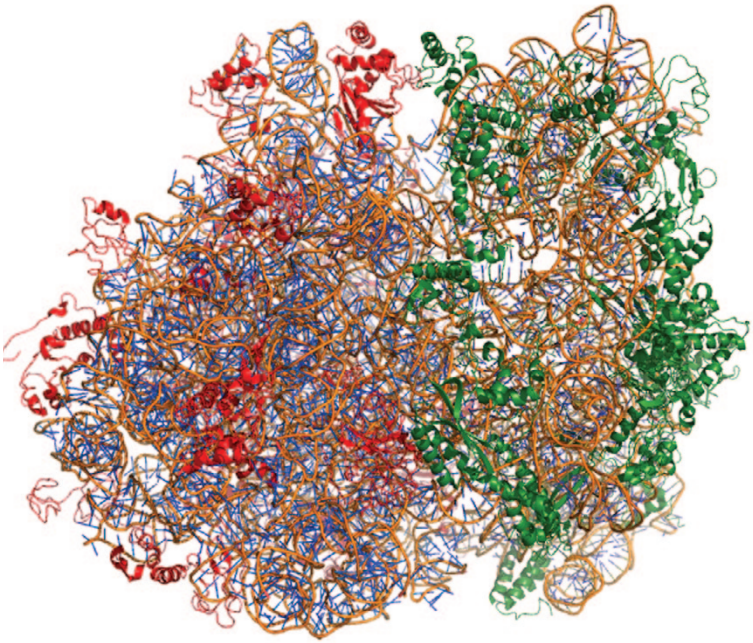




In the world of bacteria lives S. aureaus
When there's hundreds of them they can gang up on us
With QsrR in them they're strong at their peak
But a good dose of quinone can make them feel weak

R r

Ribosome



Proteins, they keep us running smoothly from the inside
Ribosomes our protein builders are scattered far and wide
When ribosomes meet mRNA, the building begins
tRNA lends a helping hand & together they make proteins

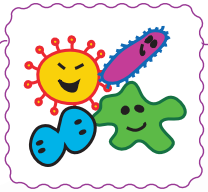
S s

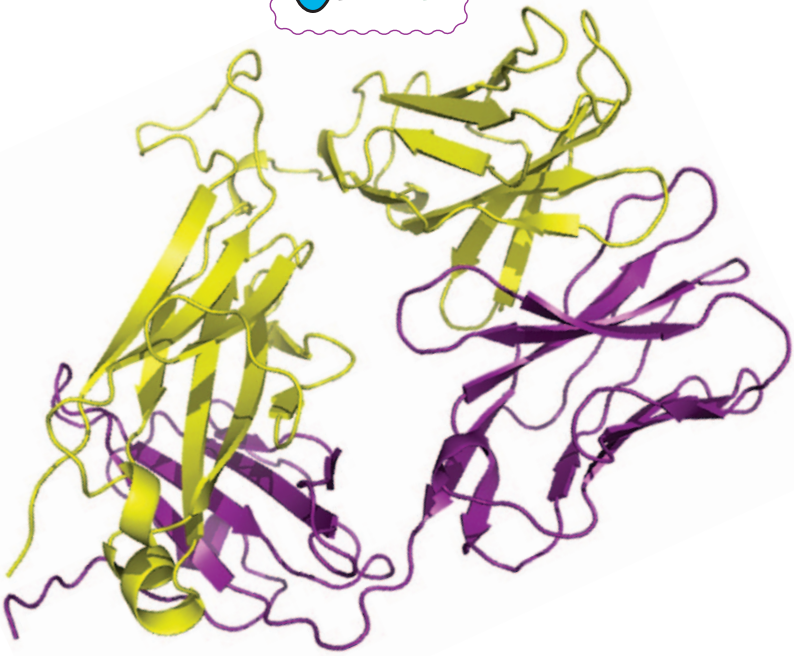
Sticholysin 1

Sea anemones may seem soft, shy and still
But their arms sway with the waves, waiting to kill
Carrying sticholysin 1, a poison to others
it helps them catch food or scare away predators

T t

T-cell Receptor





With viruses near they make you feel sick
So call in the T cells, just make it quick
T cell receptors finding cells all infected
destroys them until they're done and dusted

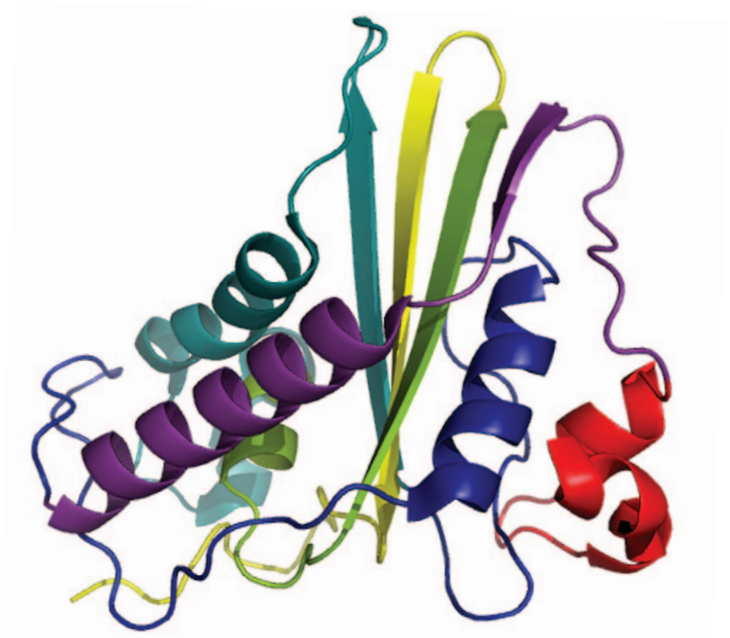
U u

Ubiquitin

Ubiquitin, it's found almost everywhere
From yeast to plant leaves, even our hair
Proteins no longer needed their duties done
ubiquitin tags then sends for destruction

V v

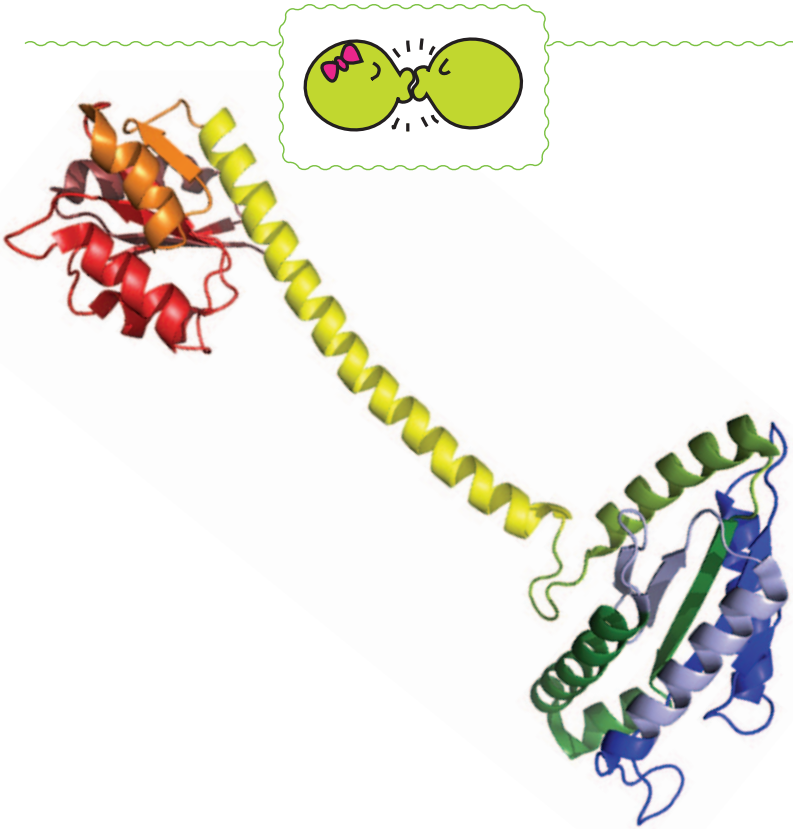
Ves V 5



It's not only bees that are black & bright yellow
but yellow-jacket wasps just so that you know
A Ves V 5 allergen found in their sting
can make you cry 'OUCH' & cause painful swelling

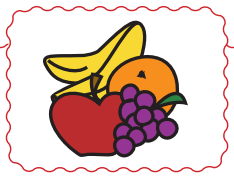
W w

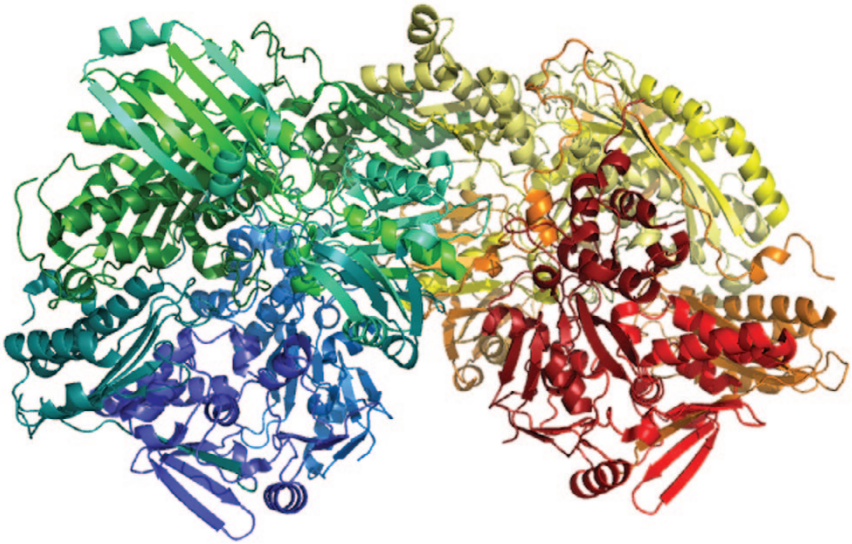
WpsR



What's in a biofilm, look closely to see
Crowds of pseudomonas, bugs oh so tiny
There's a protein inside them called WpsR
Makes bugs move in close till they're sticking together

Xanthine Oxidoreductase

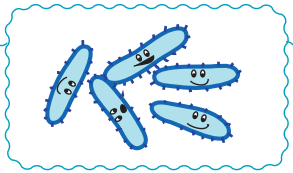


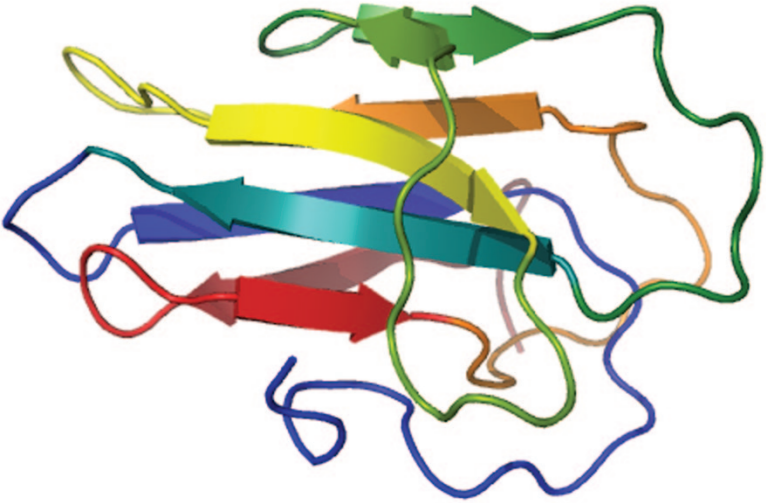


Breakfast, lunch and dinner it's food
broken to pieces as soon as it's chewed
Once in our tummies it breaks down in time
By a xanthine oxidoreductase enzyme

Y y

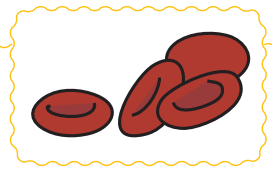
YPM

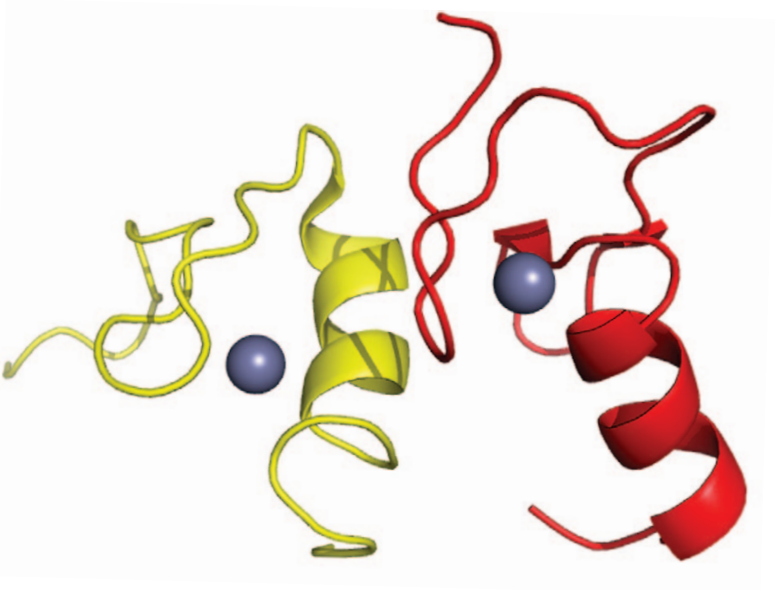




Yersinia, saying it sure is a mouthful
It's a bug that can make you quite sick to be truthful.
YPM it produces, a toxic superantigen
Quite how Yersinia infects still remains uncertain

Zinc Fingers





Zinc fingers as proteins are truly very tiny
You find them in plants, animals, even you & me
Found in all shapes & sizes they do different jobs
like making sure blood cells form red-shaped blobs

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