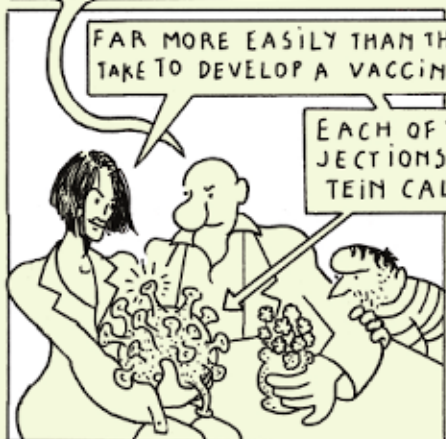




a way in

ACE2
ANGIOTENSIN-
CONVERTING
ENZYME

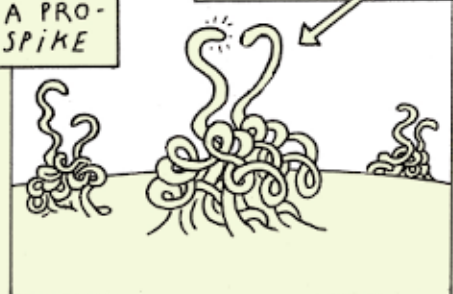
IT GOT IN EASILY,
CORONATHING!



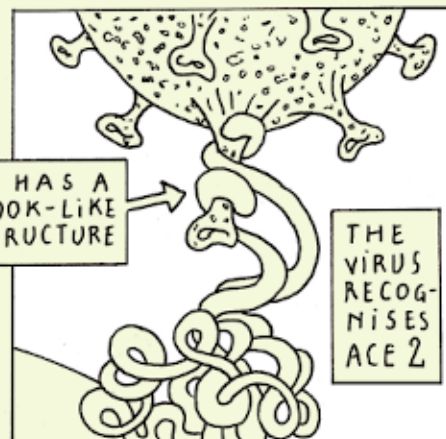
FAR MORE EASILY THAN THE TIME IT WILL
TAKE TO DEVELOP A VACCINE! HERE'S WHY

EACH OF THESE PRO-
JECTIONS IS A PRO-
TEIN CALLED SPIKE

A PROTEIN
KNOWN AS ACE 2
IS FOUND ON OUR
LUNG CELLS - BUT
ALSO ON OTHER
CELLS - AND
WORKS IN PAIRS



IT HAS A
HOOK-LIKE
STRUCTURE



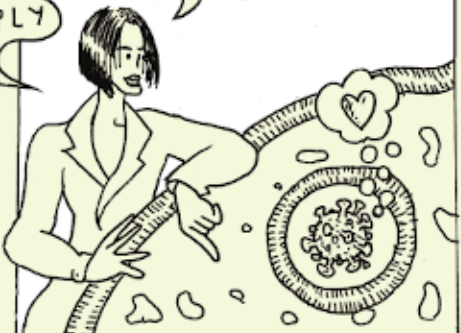
THE
VIRUS
RECOG-
NISES
ACE 2

DOCKS TO THE PAIR,
THEN FINDS A WAY INTO
THE CELL TO HIJACK IT



AND MULTIPLY

THE CORO-
NAVIRUS DOESN'T
MEAN ANY HARM,
REALLY



IT JUST WANTS
A LITTLE FUN,
AND TO GIVE
BIRTH TO LOTS
OF VIRIONS...

WHO, LIKE THEIR
MOTHER, WILL GO
AND VISIT OTHER
CELLS

IT'S
SO NATU-
RAL...

I CAN SYM-
PATHISE



INFECTED CELLS PRODUCE HUNDREDS OF VIRIONS THAT BUD FROM THE CELL MEMBRANE

THE CELLS END UP DYING OF EXHAUSTION OR ELSE ARE KILLED BY THE IMMUNE SYSTEM

MULTIPLIED MILLIONS OF TIMES, THIS IS WHAT CREATES THE SYMPTOMS OF AN INFECTION

AND IT'S WHAT IS HAPPENING TO YOUR FRIEND

A CRUDE REPRESENTATION OF THE IMMUNE SYSTEM

SEVERAL FAMOUS VIRUSES



ROTA VIRUS



ADENOVIRUS



BACTERIOPHAGE X



PAPILLOMA VIRUS



EBOLAVIRUS

ALL THESE FRISKY YOUNG VIRIONS WILL SPREAD TO INFECT OTHER CELLS

AND SINCE NEW GENERATIONS ARE PRODUCED WITHIN ONLY A FEW HOURS

THE PROGENY IS USUALLY SMARTER THAN ITS PARENTS THANKS TO PROFESSOR DARWIN'S LAW OF NATURAL SELECTION

AND THEY WILL INVENT NEW WAYS OF INTERACTING EVEN BETTER WITH ACE2

A PERSON YOU ADMIRE IN PARTICULAR...

HOWEVER... LISTEN TO THIS

CERTAIN VIRUSES ACTUALLY TURN OUT TO BE USEFUL!

TAKE, FOR INSTANCE, THE PLACENTA AND THE UTERUS: THEIR FUSION IS VITAL FOR MOTHER-FOETUS EXCHANGES AND, GUESS WHAT... IT'S THANKS TO A VIRUS!

INTERESTING BUT...

BACK TO OUR VACCINE: ALL WE NEED IS TO GET RID OF THE ENTRY POINTS

LET'S STIFLE ACE2

ANNIHILATE IT!

HELP

NO

WE MUSTN'T DAMAGE ACE2!

AND WHY NOT, MADAME?

BECAUSE, ALTHOUGH ACE2 IS RECOGNISED BY THE VIRUS, ITS PRIMARY ROLE IS TO REGULATE BLOOD PRESSURE

DOO!

BY ACTING UPON ANGIOTENSIN, A HORMONE, AND ORCHESTRATING BLOOD VESSEL DILATATION

WITHOUT ACE2 YOUR FRIEND WOULD DIE ON THE SPOT!

THIS SAID, UNDERSTANDING HOW SPIKE PROTEIN BINDS TO ACE2 WILL HELP US...

... NOT ONLY FIND A VACCINE BUT ALSO A TREATMENT

LET'S START IMMEDIATELY AND FIND SOMETHING AGAINST COVID 25!

HOP TO WORK!

HOW DID I DO?

WAS I GOOD?

WELL?

WELL!