
Time for
Answers


LOADING

1.

The term **X** appeared in literature in 1980 when it was used by Barbara Hobom to describe genetically manipulated bacteria using recombinant DNA technology.

In 2000, the term **X** was again introduced by Eric Kool at the annual meeting of American Chemical Society to describe synthesis of unnatural organic molecule that function in living system.

Tom Knight, who developed biobrick plasmid DNA part which forms the basis for the event Y, is known as the ‘father of **X**’.

Id **X** and **Y.**

X - SYNTHETIC BIOLOGY

Y - iGEM

2.

X is an adaptive immune response system used by prokaryotes to protect themselves from the attack of bacteriophages.

The first description of **X** is from Osaka University researcher Yoshizumi Ishino and his colleagues in 1987.

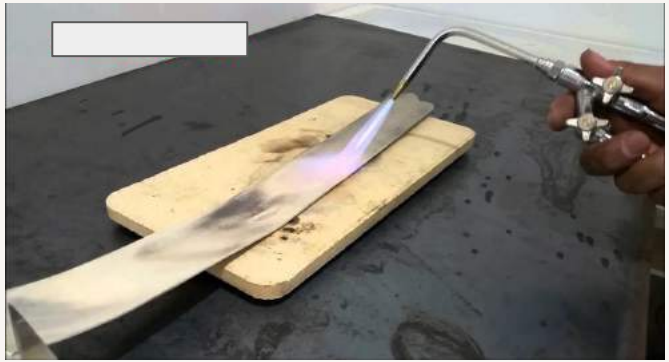
In 2020, the Nobel prize in Chemistry was awarded for the discovery of “Genetic Scissors” what we call as **X**.

Id **X**.

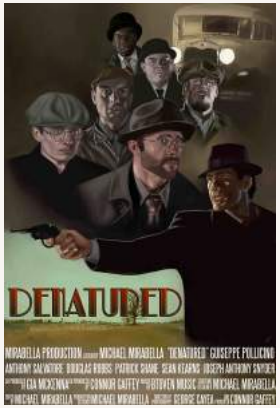
CRISPR

3.

CONNECT !



PCR



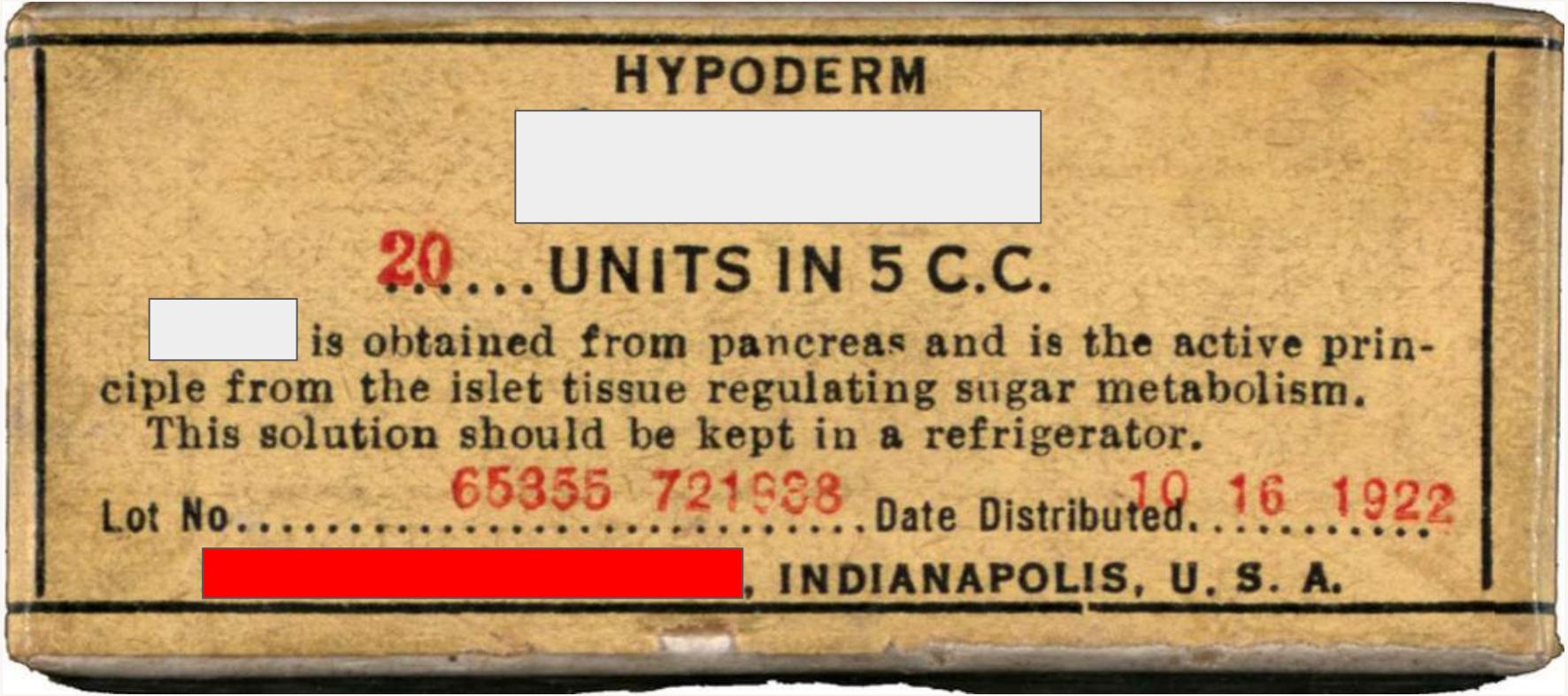
Denaturation

Annealing

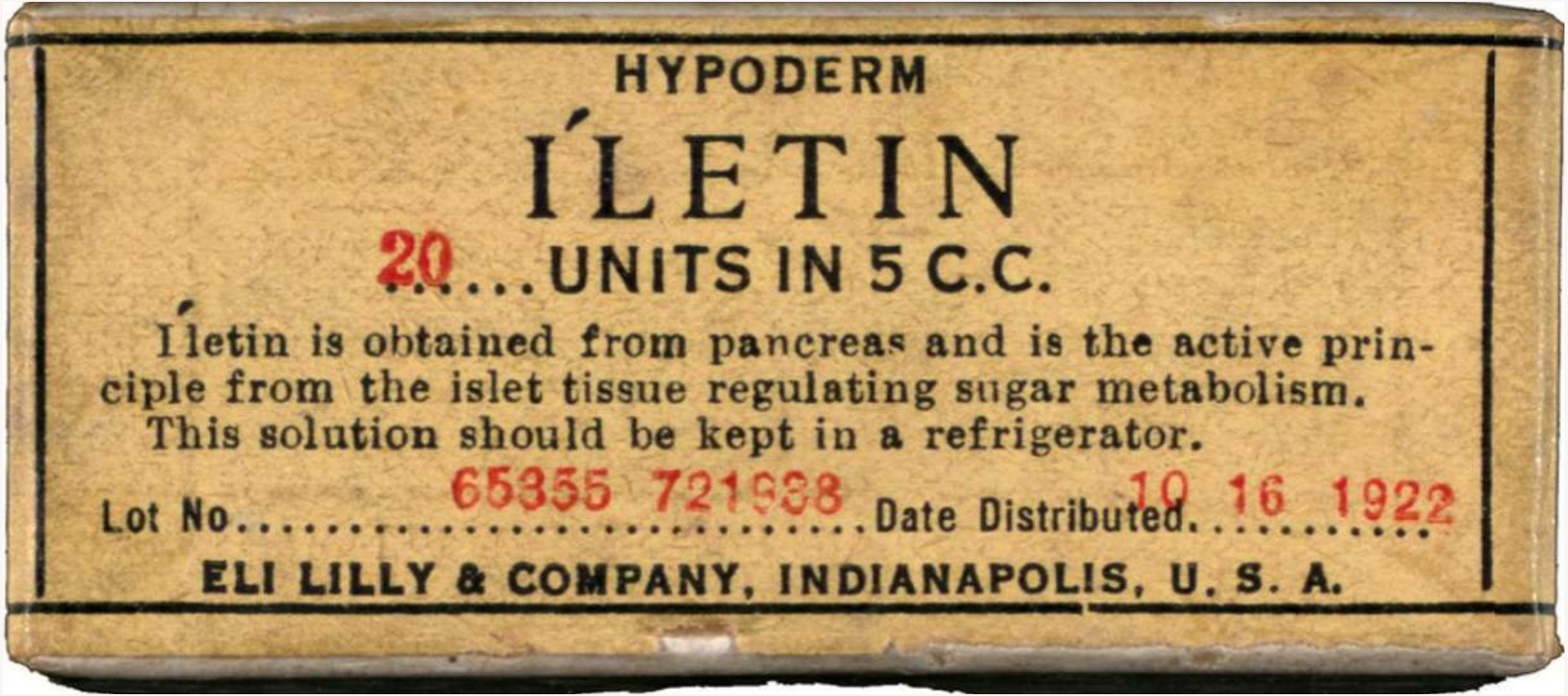
Extension

4.

What is being blanked out in Red? Put funda.



Eli Lilly; Patent for recombinant insulin production



5.

X O157 is a fast-paced, emotionally charged true-life medical drama which verges on science fiction depicting the story of a mother who fights to save her son from a deadly bacterium.

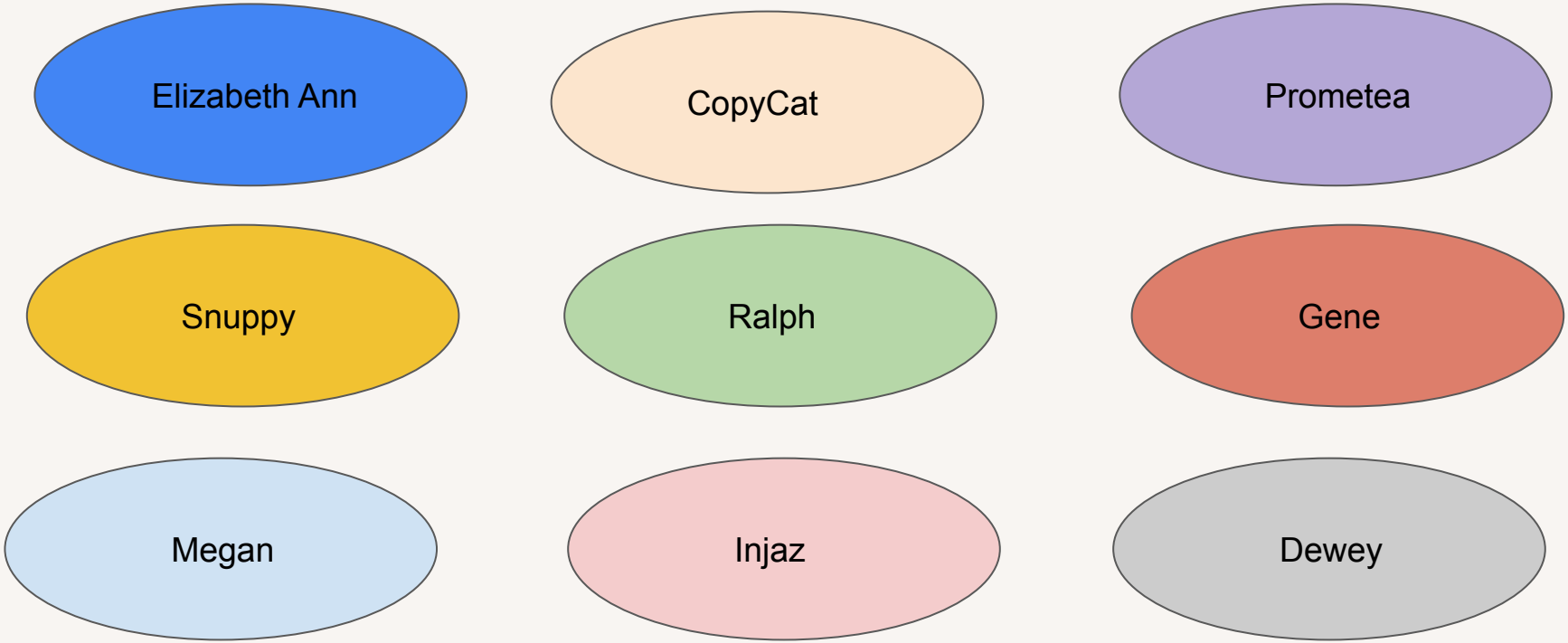
X O157 was the culprit of the hamburger epidemic of 1993 in California, Idaho, Washington, and Nevada, during which it nearly took the life of young Damion Heersink. Damion's mother describes in detail the six-week roller-coaster assault of Hemolytic Uremic syndrome and Thrombotic Thrombocytopenic Purpura that her son endured.

Id **X**.

E.coli

6.

Non exhaustive list of ?



Names of the different first cloned animals

7.

What is being talked about?

Genetically Modified Organisms(GMO)

8.

CONNECT!

Biological Warfare Movies

The Satan Bug

Unlocked

Agent Red

Dasavatharam

9.

The European Union funded project **Z** has issued reports on how to manage synthetic biology.The key security issues that **Z** identified involved engaging companies that sell synthetic DNA and the biohacking community of amateur biologists. Key ethical issues concerned the creation of new life forms.

To better communicate synthetic biology and its societal ramifications to a broader public, COSY(another EU initiative on controlled engineering of biological systems for synthetic biology applications) along with **Z** published a 38-minute documentary film in October 2009 named “**Z**” .

The first part of the name represents synthetic biology and the last part denotes safety.

Id **Z**.

SYNBIOSAFE

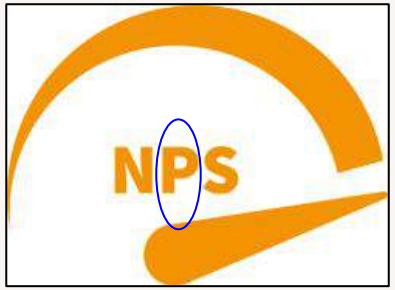
10.

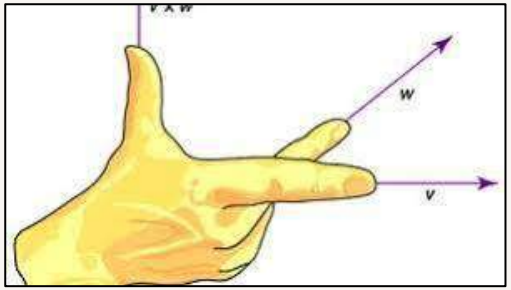
Put Funda!

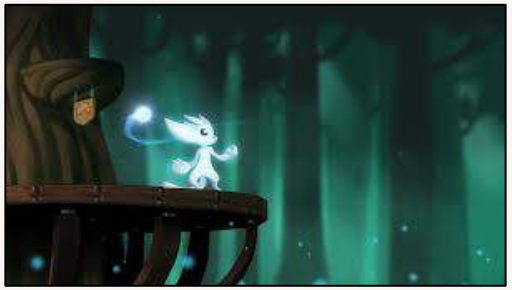
GFP derived from the jellyfish *Aequorea victoria*

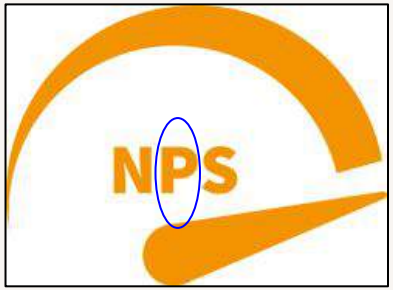
11.

CONNECT !

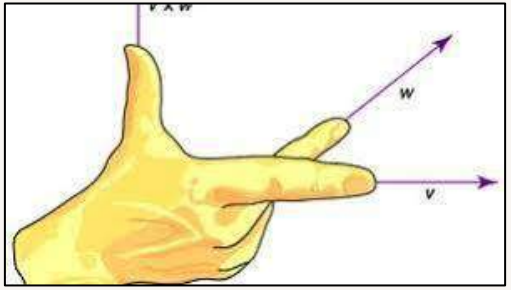








Net Promoter Score (The circle points to promoter)



Vector

Joshua Lederberg who discovered Plasmid

Answer : PLASMID

The video game Ori

12.

Missed it?

The X Foundation was formed in 2006 by engineers and scientists alike as a not-for-profit organization to standardize biological parts across the field.The Foundation focuses on improving in areas of Technology, Law, Education and the Global Community as they apply to synthetic biology.

X is typically a DNA sequence that comply with the standards of a restriction enzyme assembly.These building blocks are used to design and assemble larger synthetic biological circuits from individual parts and combinations of parts with defined functions, which would then be incorporated into living cells such as *Escherichia coli* cells to construct new biological systems.

 are some of the Synthetic Biology Open Language symbols used with X standards.

Id **X**.

BioBricks

13.

The term **- - - - - - -** is used to describe the protocols and molecular devices used in molecular biology and synthetic biology.

The first part of the term is a reference to the water found in living organisms.

The National Science Foundation (NSF) funded Wiki project Open - - - - - - - provides a resource for reagent, project and laboratory notebook sharing.

FITB.

WetWare

14.

X life is a hypothetical form of life, the possibility of which was first discussed by Louis Pasteur

In the 2017 Daniel Suarez novel "Change Agent", an antagonist, Otto, is revealed to be a genetically-engineered **X**-human.He views other humans with disdain and causes them to feel an inexplicable repulsion by his very presence.

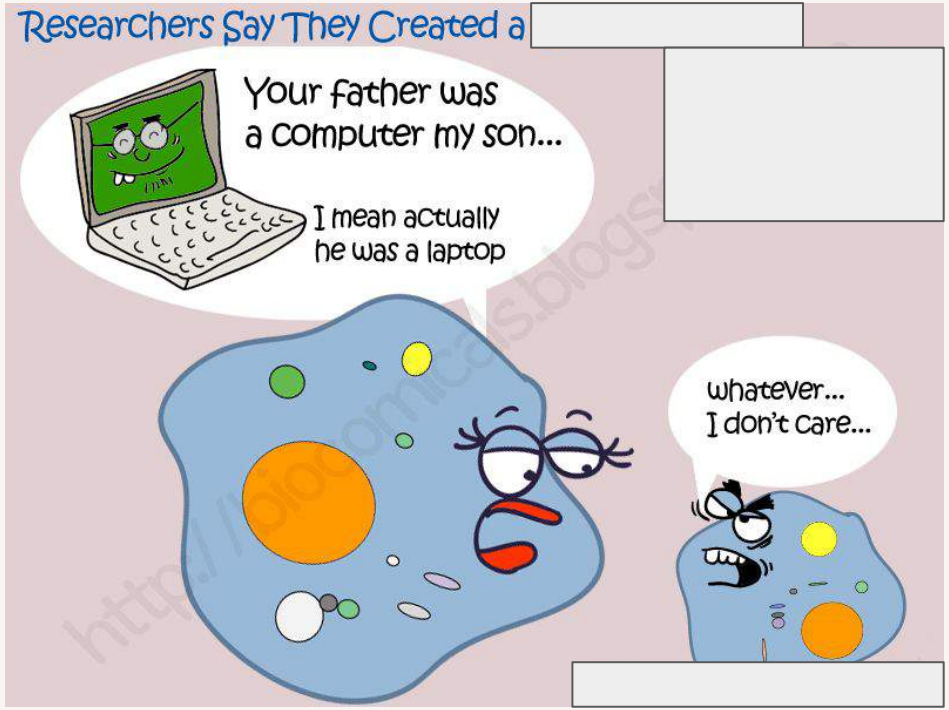
If proteins are exclusively composed of left-handed amino acids; RNA and DNA contain only right-handed sugars in normal life forms, it won’t be the case with **X**-life.

Id **X.**

Mirror Life

15.

Put Funda!


Researchers Say They Created a
Your father was a computer my son...
I mean actually he was a laptop
whatever... I don't care...

Synthetic life form or cell

Craig Venter and his team have built the genome of a bacterium from scratch and incorporated it into a cell to make what they call the world's first synthetic life form

16*.

Identify the famous discovery in the field of synthetic and molecular biology by the person talking in the video. (Extra points for identifying the person.)

RESTRICTION ENZYMES

Werner Arber

17*.

Put funda!

Who will be there?

Carlos Barbas III : Scripps Research Institute, Department of Molecular Biology
Frederick Blattner: University of Wisconsin Madison, Department of Genetics
Roger Brent: Molecular Science Institute & UCSF
James Collins: Boston University, Center for BioDynamics & Department of Biomedical Engineering
Michael Elowitz: California Institute of Technology, Departments of Biology & Applied Physics
Homme Hellinga: Duke University, Department of Biochemistry
Jay Keasling: University of California Berkeley, Chemical Engineering & LBL Synthetic Biology
Tom Knight: MIT Computer Science & Artificial Intelligence Laboratory
Wendell Lim: UCSF, Departments of Cellular & Molecular Pharmacology and Biochemistry & Biophysics
John Mulligan: Blue Heron Biotechnology
Radhika Nagpal: Harvard Department of Computer Science and Cell Biology
George Poste: Arizona Biodesign Institute
Paul Rabinow: University of California Berkeley, Department of Anthropology
Michael Savageau: University of California Davis, Department of Biomedical Engineering,
Pim Stemmer: Avidia Research Institute
Tara O'Toole: Center for Biosecurity, University of Pittsburgh Medical Center
Ron Weiss: Princeton University, Department of Electrical Engineering

Executive Committee

Drew Endy	Biology and Biological Engineering
Tom Knight	Computer Science and Artificial Intelligence Laboratory
Randy Rettberg	Computer Science and Artificial Intelligence Laboratory
Maya Said	Electrical Engineering and Computer Science
Samantha Sutton	Biological Engineering

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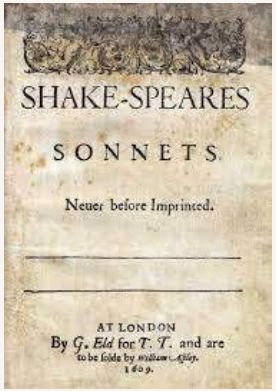
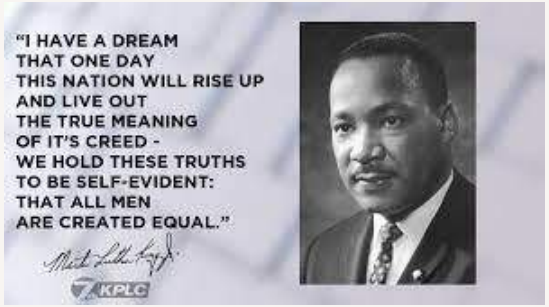
The First International Meeting on Synthetic Biology in 2004

18*.

Connect.


SHAKE-SPEARES
SONNETS
Neuer before Imprinted.
AT LONDON
By G. Eld for T. T. and are
to be solde by William Aspley.
1609.


MOLECULAR STRUCTURE OF
NUCLEIC ACIDS


"I HAVE A DREAM
THAT ONE DAY
THIS NATION WILL RISE UP
AND LIVE OUT
THE TRUE MEANING
OF IT'S CREED -
WE HOLD THESE TRUTHS
TO BE SELF-EVIDENT:
THAT ALL MEN
ARE CREATED EQUAL."
KPLC


EMBL-EBI
EUROPEAN
BIOINFORMATICS
INSTITUTE

Synthetic double-helix faithfully stores

Encoding the sonnets of Shakespeare, speech of M.Luther king,Watson and crick paper on structure of DNA and photo of European Bioinformatics institute in DNA

19*.

X is a synthetic biologist and Tenured Professor of bioengineering at Stanford University, California who is the founder and steering group member of the Build-a-Cell Initiative, an international collaboration investigating creation of synthetic live cells.

X led the team of researchers that had created the biological equivalent of a transistor, which they dubbed a "transcriptor". The invention was the final of the three components necessary to build a fully functional biocomputer - data storage, information transmission, and a basic system of logic.

In his 2009 book, *Denialism How Irrational Thinking Hinders Scientific Progress, Harms the Planet, and Threatens Our Lives*,Michael Specter called **X** ‘synthetic biology’s most compelling evangelist’ as he is persistent on discussing the prospects and dangers of synthetic biology on nearly any forum.

Id **X**.

SYNBIO CONCLAVE

Keynote speaker

DR. DREW ENDY

Associate Professor,
Bioengineering faculty at Stanford University
President of the BioBricks Foundation
Co-founder of the iGEM Competition

Synthetic biology in the context of biodiversity conservation

12:30 PM EDT / 04:30 PM GMT / 09:30 AM PDT

AUGUST 10 @ 10 PM IST

IISER TVM

An initiative by iGEM
IISER Thiruvananthapuram

@igem_iisertvm

20*.

Identify the film. What is it about?

Title of the quiz!!!!

Two scientists continue to carry out a controversial experiment involving hybrids, despite being asked to discontinue it. They eventually splice the human DNA and end up creating a dangerous creature.