# ATGU TRIVIA

2023 edition Daniel Howrigan Jack Fu

## **ATGU TRIVIA!**

## Rules

- Looking on your phone is grounds for immediate team disqualification ☺
- IF YOU NEED to use your phone, walk outside and skip your involvement in the current question
- Answers will all be written on paper provided and using the sharpie that we provide!

## **Team names and instructions**

- **SELECT** one team member to write answers and turn in answer sheets
- Your first 10 points:
  - Write the first and last name of each team member on the part 1 answer sheet
- Your next 10 points:
  - Write the assigned team (gene) name on EVERY answer sheet

	SETD1A	EXTRA if more than 10 teams:
	CUL1	AKAP11
Team names:	XPO7	BRCA1
	-	CHD8
	TRIO	DEPDC5
	CACNA1G	EGFR
		FOXP1
	SP4	HERC1
	GRIA3	JAK2
	GRIN2A	KDM6B
	•••••	LAMA2
	HERC1	SCN2A
	RB1CC1	SYNGAP1

### **ATGU TRIVIA!**

## 4 parts

- Part 1: Life outside the lab
- Part 2: Markets, compute, or genetics?
- Part 3: Do you even Broad?
- Fill in the blank Finale

## **ATGU TRIVIA!**

2 points

Question 1: What was the name of the Weeknd/Drake "AI collab" song that went viral in April 2023?

- A) Ghost writer
- B) Heart on my sleeve
- C) Could've had the world
- D) Giving you my best
- E) Creepin'
- F) Search and rescue

### Part 1: Life outside the lab **ATGUTRIVA**

2 points

Question 2: When Queen Elizabeth died in 2022, she had reigned as **Queen of England for:** 

- A) 70 years
- B) 65 years
- **C**) 60 years
- D) 55 years
- **E)** 50 years
- **F)** 45 years

## **ATGU TRIVIA!**

2 points

Question 3: The US supreme court recently preserved patient access to this drug

- A) pembrolizumab
- B) molnupiravir
- C) paxlovid
- D) mifepristone
- E) adalimumab
- F) abortivab

## **ATGU TRIVIA!**

2 points

Question 4: Who has NOT announced their candidacy for the 2024 US presidential election?

- A) Donald Trump
- B) Mike Pompeo
- C) Robert F Kennedy Jr
- D) Vivek Ramaswamy
- E) Marianne Williamson
- F) Ron DeSantis
- G) Tim Scott

## **ATGU TRIVIA!**

2 points

Question 5: Which state recently signed legislation to ban Tik Tok from the Apple and Google app store?

- A) Montana
- B) Florida
- C) Texas
- D) Arizona
- E) New York
- F) Louisiana
- G) Alabama

### Part 1: Life outside the lab **ATGU TRIVIA**

### 2 points

**Question 6: Who is not a Kardashian?** 

- Khloe A)
- B) Kim
- Kourtney **C**)
- D) Kaitlin
- **E)** Kris
- Kendall **F)**
- Kylie **G**)



2 points

## Question 7: In 2023, this professional US sports team set the new league record for wins in a single season

Insert name on answer sheet

### Part 2: Markets, compute, or genetics?

### ATGU TRIVIA!

Mat	ch the description with the abbreviation (1 point each)	Abbreviation FTP
1)	Settled a \$787 million dollar lawsuit for defamation	SVB
2)	Network protocol invented in 1972 to move data	UBS
3)	Native crypto token of the bankrupt crypto derivates exchange	XVF
4)	Crypto exchange that went belly up in November 2022	FTT
5)	Genetic disorder on the X chromosome	SNV
6) Former crypto exchange CEO		USB
7)	Network Protocol to send text over mobile devices	VHS
8)	Nucleotide base change	SPF
9)	Victim of a 2023 bank run	ХВТ
10)	Adobe flash multimedia file format	FTX
11)	Unformatted ASCII character file extension	SMS
12) Bought Credit Suisse		VUS
13)	Interface for connecting compute devices	FXS
14)	One ACMG designation for a genetic variant	_
15)	Predominant Covid variant in US	SBF
16)	Crypto token in the middle of an SEC lawsuit starting in Dec 2020	XBB
17)	Unzipped tar file extraction	FOX
		SWF
		ТХТ
		XRP

### Part 3: Do you even Broad?

Match the technology/software name with the Broad Institute headline (2 points each)

- 1) New method improves accuracy of DNA sequencing 1000-fold to detect rare genetic mutations. XXX could help scientists find early-stage cancer from blood samples, other disease-causing mutations, and more.
- 2) How one lab uses machine learning to solve a key gene therapy problem. A bioengineer and a computer scientist team up to find better adeno-associated viruses for gene delivery.
- 3) Genomes from 240 mammalian species reveal what makes the human genome unique. Studies from the XXX Project pinpoint key parts of the human genome that have remained unchanged after millions of years of evolution and may shed light on disease and unusual traits.
- 4) Systematic study of free fatty acids reveals new roles in metabolic diseases. Researchers have developed a technology, XXX, to analyze the effects of free fatty acids in any cell type and found type 2 diabetes genes that may further boost diabetes risk when cells are in a high-fat environment.
- 5) New method tracks gene expression in single cells over space and time. XXX can follow thousands of newly made RNA molecules within a cell simultaneously, revealing new insight into how genes are controlled.

### <u>Name</u>

Micro-C CODEC Fit4Function Zoonomia FALCON TEMPOmap

## **ATGU TRIVIA!**

### Part 3.2: Do you even Broad? ATGU TRIVIA!

Match the technology/software name with the Broad Institute headline (2 points each)

- 1) New method identifies spatial biomarkers of Alzheimer's disease progression in animal model. XXX enables scientists to simultaneously analyze gene expression, cell nuclear structure, and cell location in tissue.
- 2) RNA-sensing system measures and controls protein expression in cells. A new technology called XXX allows scientists to detect and target specific cell types, opening up potential applications in diagnostics and therapeutics.
- 3) Researchers map brain cell changes in Alzheimer's disease. Study reveals key cell structures and gene expression changes near amyloid plaques and tau tangles in mouse brain tissue.
- 4) Gene-delivering viruses reach the brain in a step toward gene therapy for neurological diseases. Researchers have engineered a family of adeno-associated viral vectors that cross the blood-brain barrier in primate models.
- 5) Bacterial injection system delivers proteins in mice and human cells. With further development, the programmable system could be used in a range of applications including gene therapy and cancer therapy.

### <u>Name</u>

FusionInspector STACI RADARS STARmap PLUS DELIVER eCIS



## FINALE 4 questions – 5 pts each

## But first, lets go through the answers to part 1-3 using YOUR NEW RED SHARPIE!!!

## **ATGU TRIVIA!**

## **Team Names – 20 pts possible** Part 1 – 14 pts possible Part 2 – 17 pts possible Part 3 - 20 points possible Part 4 – 20 points possible **91 total points**

### Part 4: Finale



5 points each - 20 total points at stake!

## Question 1: Which country beat Argentina in the 2022 FIFA mens world cup?

Question 2: Which broadie co-authored the book "Viral: The Search for the Origin of COVID-19"?

**Question 3: Which African-born entrepreneur co-founded OpenAI?** 

Question 4: What is the brand name of the initial Pfizer-BioNTech vaccine?