This record is presented in recognition of contributions to Eterna, the internet-scale molecular design platform.
Verify authenticity of this record at: https://eternagame.org/certificate/35741

ISSUED	February 10, 2026

PLAYER DETAILS

PERSONAL NAME	Max Goff
PLAYER NAME	Max Goff
REGISTRATION DATE	January 2012
GLOBAL RANK	54 of 431,680
PUZZLES CLEARED	5,455
PUZZLES CREATED	188
TUTORIALS CLEARED	3/5
ADVANCED TUTORIALS CLEARED	10/10

Eterna puzzles are created by the Eterna team or players. They invite players to devise effective procedures for pairing nucleotides in hypothetical or biologically-inspired RNA strands.

Learn more on Max Goff's player profile: https://eternagame.org/players/35741

PUBLICATION CONTRIBUTIONS

Contributions towards pre-print or peer-reviewed scientific publications.

1. EVIDENCE OF AN UNUSUAL POLY(A) RNA SIGNATURE DETECTED BY HIGH-THROUGHPUT CHEMICAL MAPPING

May 2020 Biochemistry *Gameplay Contributor*

2. PRINCIPLES FOR PREDICTING RNA SECONDARY STRUCTURE DESIGN DIFFICULTY

February 2016 Journal of Molecular Biology *Gameplay Contributor*

3. RNA DESIGN RULES FROM A MASSIVE OPEN LABORATORY

February 2014 Proceedings of the National Academy of Sciences *Gameplay Contributor*

4. ETERNABRAIN: AUTOMATED RNA DESIGN THROUGH MOVE SETS FROM AN INTERNET-SCALE RNA VIDEOGAME

June 2019 PLOS Computational Biology *Gameplay Contributor*

5. RNA SECONDARY STRUCTURE PACKAGES EVALUATED AND IMPROVED BY HIGH-THROUGHPUT EXPERIMENTS

October 2022 Nature Methods *Gameplay Contributor*

6. SENTRNA: IMPROVING COMPUTATIONAL RNA DESIGN BY INCORPORATING A PRIOR OF HUMAN DESIGN STRATEGIES

March 2018 Preprint *Gameplay Contributor*

7. THEORETICAL BASIS FOR STABILIZING MESSENGER RNA THROUGH SECONDARY STRUCTURE DESIGN

September 2021 Nucleic Acids Research *Gameplay Contributor*

8. CROWDSOURCED RNA DESIGN DISCOVERS DIVERSE, REVERSIBLE, EFFICIENT, SELF-CONTAINED MOLECULAR SENSORS

April 2022 Proceedings of the National Academy of Sciences *Gameplay Contributor*

9. COMBINATORIAL OPTIMIZATION OF MRNA STRUCTURE, STABILITY, AND TRANSLATION FOR RNA-BASED THERAPEUTICS

March 2022 Nature Communications *Gameplay Contributor*

10. DEEP LEARNING MODELS FOR PREDICTING RNA DEGRADATION VIA DUAL CROWDSOURCING

December 2022 Nature Machine Intelligence *Gameplay Contributor*

11. COMMUNITY SCIENCE DESIGNED RIBOSOMES WITH BENEFICIAL PHENOTYPES

February 2023 Nature Communications *Gameplay Contributor*

12. OPENASO: RNA RESCUE — DESIGNING SPLICE-MODULATING ANTISENSE OLIGONUCLEOTIDES THROUGH COMMUNITY SCIENCE

July 2025 RNA *Gameplay Contributor*

DESIGN SUBMISSIONS

Contributions towards Eterna biomedical challenges experimentally tested through in-vitro synthesis and structure mapping measurements.

	TOTAL (#)	TESTED	BEST (%)
FMN aptamers	4	0	91

First Player Project	17	16	90
Repeatability - Multibranch Loop Protection	3	1	51
The Revolutionary	5	4	74
Kissing Loop Lab - Round 2	3	3	84
FMN Riboswitch Targets: FMNsanity	17	5	97
MS2 Riboswitches On Chip - Round 2	1	1	60
Next Generation Riboswitches On Chip	3	3	46
FMN/MS2 Riboswitch Structure: the Paper	1	1	60
Small Loop Next Generation Riboswitches	1	1	60
Logic Gates	5	5	56
OpenTB - Getting started	2	2	72
OpenTB - Getting started Round 3	2	2	72
OpenTB - Getting started Round 4	60	0	-
OpenTB Round 4	690	0	-
Single-input Switches (Round 2)	500	0	-
‘Light-up’ Switches (Round 1)	1,200	0	-
Directed Evolution vs. Rational Design (ATP Light-Up Switches)	55	0	-
OpenRibosome Pilot Challenge	5	0	50
Testing Lab mgotrik	3	0	-
OpenRibosome Pilot Challenge Warm-up	23	0	-
OpenVaccine: "Roll Your Own Structure", RNA backbone stability in aqueous solution	60	60	93
OpenVaccine: [Round 3-extended] Lightning Round Design + Vote of Nanoluciferase	20	0	55
OpenRibosome Challenge Round 2	8	0	40
OpenRibosome Challenge Round 3	15	0	-
OpenVaccine: "Roll Your Own Structure" Round 2	7	7	84
OpenVaccine: [Round 5] mRNA designs (Sandbox for RYOS Round 2)	16	0	-

OpenRibosome Challenge Round 4	4	0	-
OpenVaccine - Covid-19 Delta Variant Spike mRNA	1	0	-
OpenVaccine: Nanoluciferase revisited	4	0	-
OpenVaccine Omicron	7	0	-
T-box Switch Pilot	20	0	31
T-box Switch Round 1	20	0	-
OpenASO: RNA Rescue Round 1	18	0	100
OpenKnot Round 1	22	22	54
OpenKnot Round 3	20	0	-
Train the neural net: T-loop pilot	20	0	-

TOTAL (#): The total number of design submissions made to an Eterna challenge.
TESTED: The total number of design submissions made to an Eterna challenge that were experimentally tested.
BEST (%): Player's best score (as a percentage) for experimentally tested design submissions made to an Eterna challenge