Veritas In Silico
TYO: 130A

Bringing new hope with mRNA-targeted therapies

Introduction to Veritas In Silico

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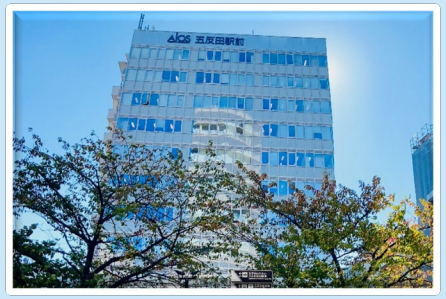
Chief Scientific Officer
BIO-Europe 2024

Forward-looking statements

This presentation may contain forward-looking statements as defined in the United States Private Securities Litigation Reform Act of 1995. The forward-looking statements do not mean that the Company's management guarantees its future performance. The Company may use expressions such as "aim", "predict", "believe", "continue", "attempt", "estimate", "expect", "plan", "intend", "possible", "plan", "potential", "probability", "project", "risk", "seek", "should", "make effort", "propose", "will", as well as other similar expressions to explain the forward-looking statements. Forward-looking statements may also be identified by discussions on strategies, plans or intentions. Forward-looking statements contained herein are based on the current assumption and judgement of the Company which are made based on currently available information. As such, these forward-looking statements include known and unknown risks, uncertainties and other factors. The Company's actual results or financial conditions could differ materially from those expressed in or suggested by the forward-looking statements due to such risks, uncertainties and other factors.

Veritas In Silico (VIS) at a glance

Japan-based biotech company focusing on mRNA-targeted therapies



Founded 2016
IPO 2024 (TSE Growth)

- Pioneer in mRNA targeting
- Technology based on decades of mRNA research

Our mission: Deliver life-changing therapies

- Informatics and biology to create effective and safe therapies
- Potential for application to most diseases

Strategic partnerships with pharma/biotech

- Multiple partnerships with global and Japanese companies
- EU: Oncodesign Services, Liverpool ChiroChem

Pipeline for diseases of unmet medical need

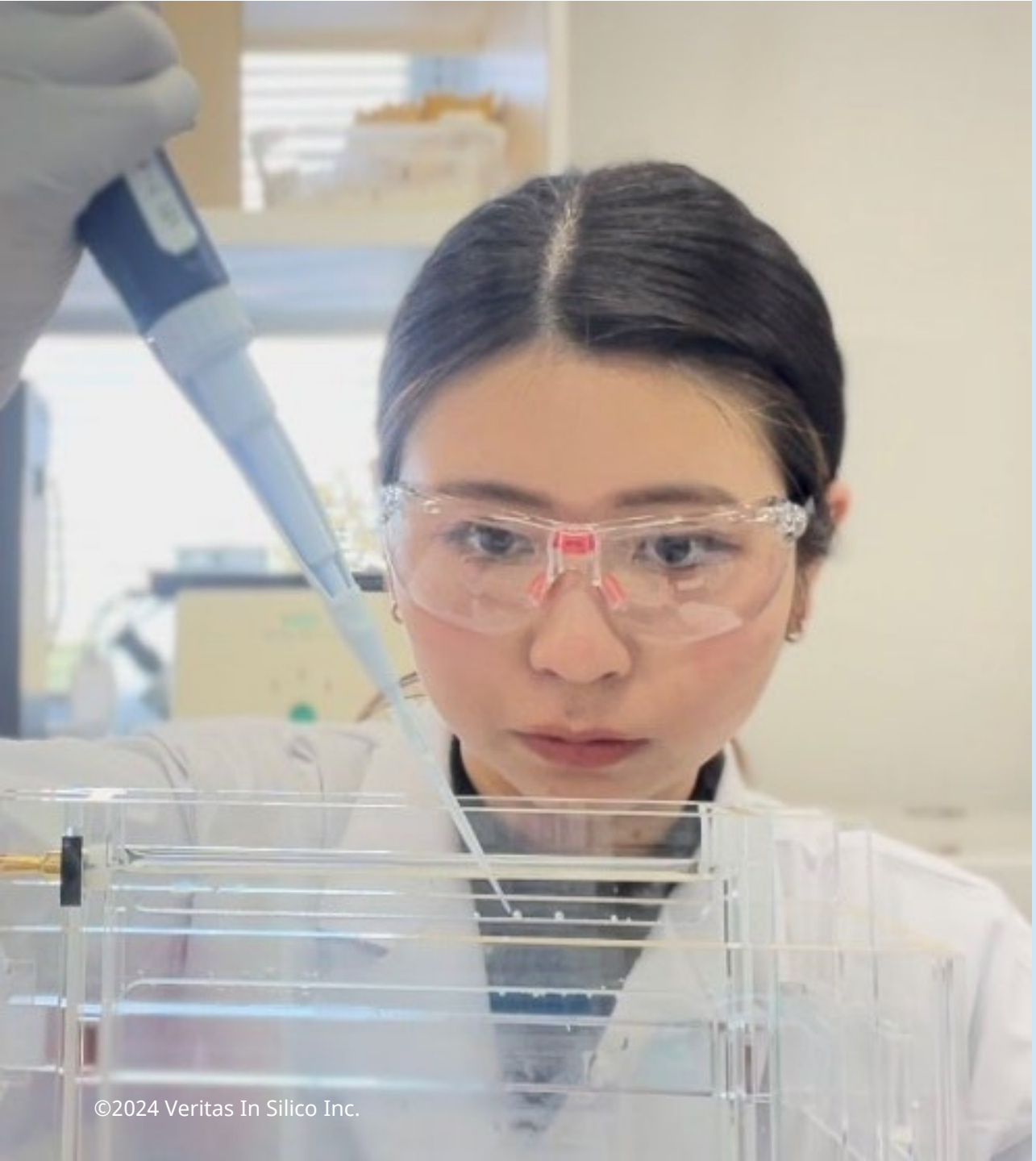
- Transition from platform to hybrid business
- Aiming for first- or best-in class opportunities

A VISionary’s journey in mRNA targeting

CEO and scientific founder
Shingo Nakamura, PhD

Statistical mechanics
+ Thermodynamics
+ Artificial intelligence (AI)
= mRNA structural analysis

World’s first business model patent for mRNA-targeted small molecule drug discovery in 2004



Our team

World-class scientists with expertise in:

Drug discovery

mRNA biology

Informatics

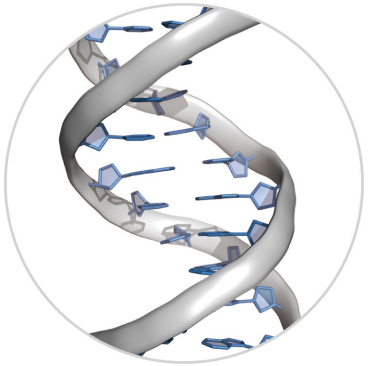
Leadership team with extensive experience in:

Pharmaceutical and biotech industries

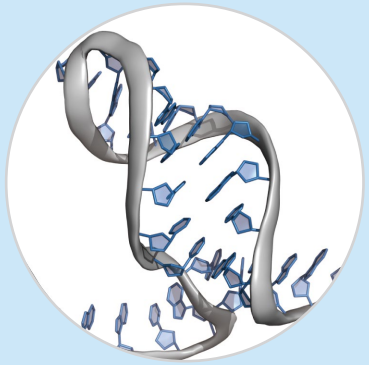
Why target mRNA?

Targeting mRNA allows us to reach the “undruggable” space and create new therapies

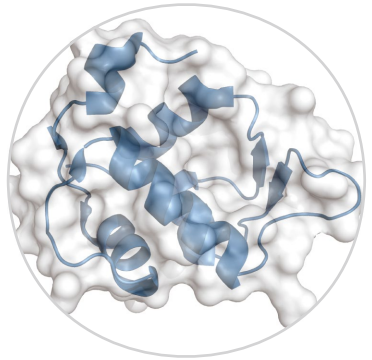
DNA



“Blueprint of proteins”
mRNA



Disease-related protein

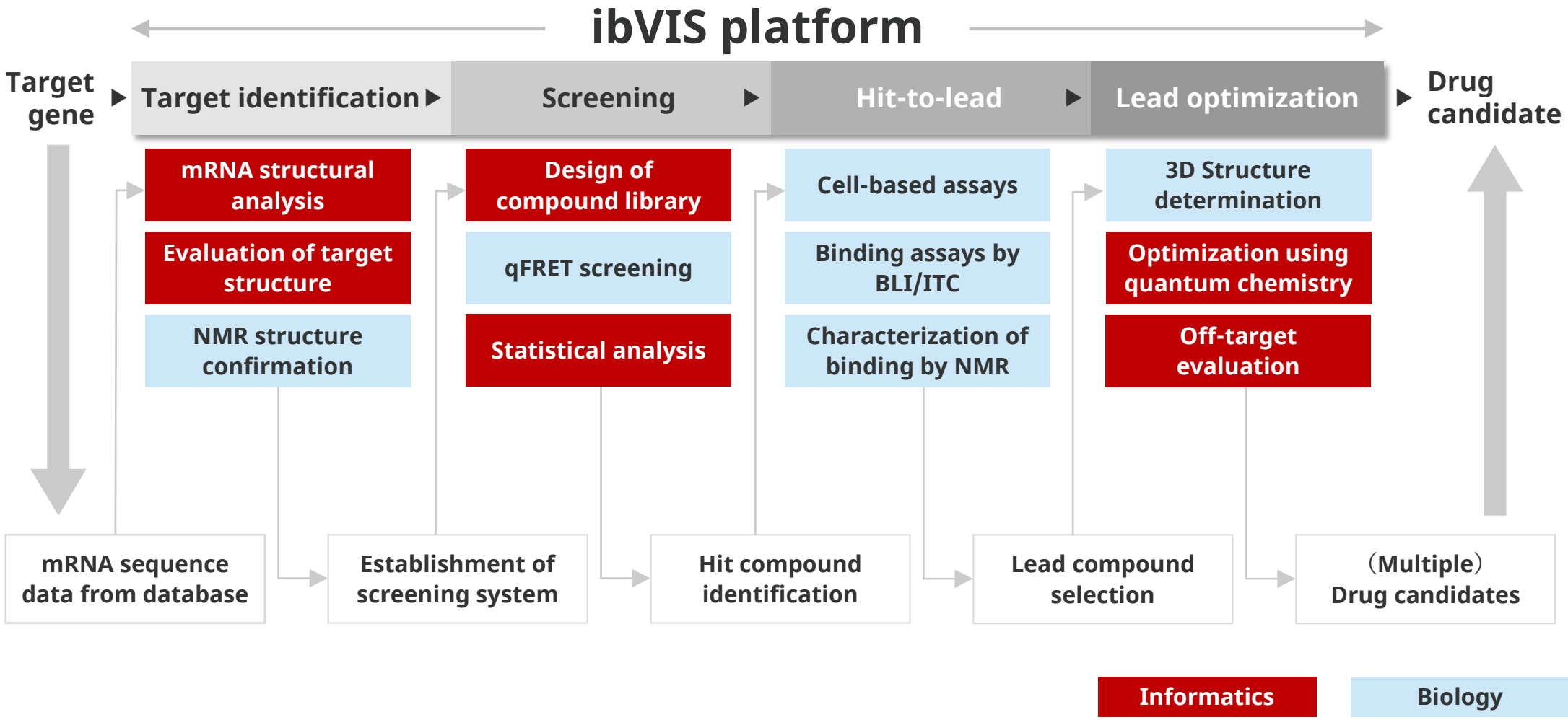


mRNA-targeted
small molecule drugs and antisense oligos

Protein-targeted
small molecule drugs, antibodies, peptides

ibVIS: mRNA-targeted drug discovery platform

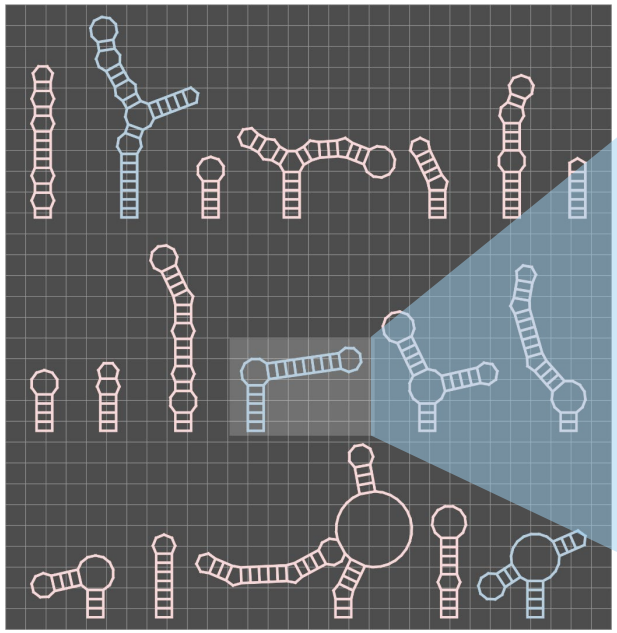
A one-stop solution that integrates informatics and biological tools for mRNA targeting



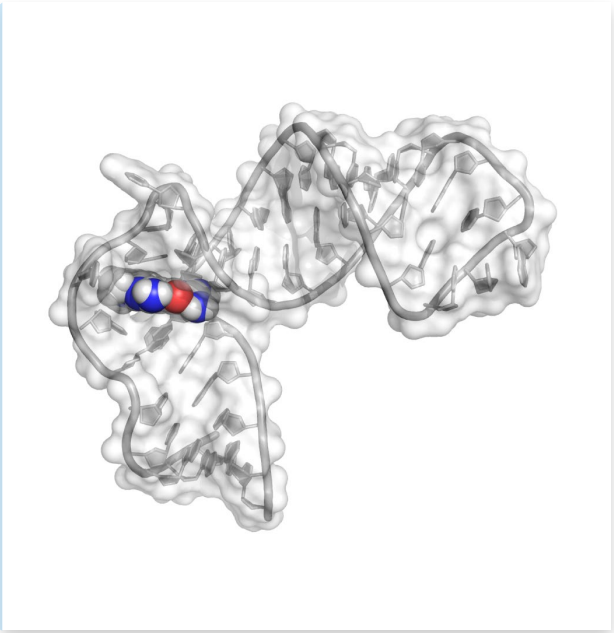
mRNA structural analysis technology

VIS' core strength that enables the identification of druggable structures on mRNAs

In silico mRNA structural analysis



Small molecule target structure on the mRNA



01 Fast

Target structures on mRNA can be identified in significantly less time than using experimental methods

02 Accurate

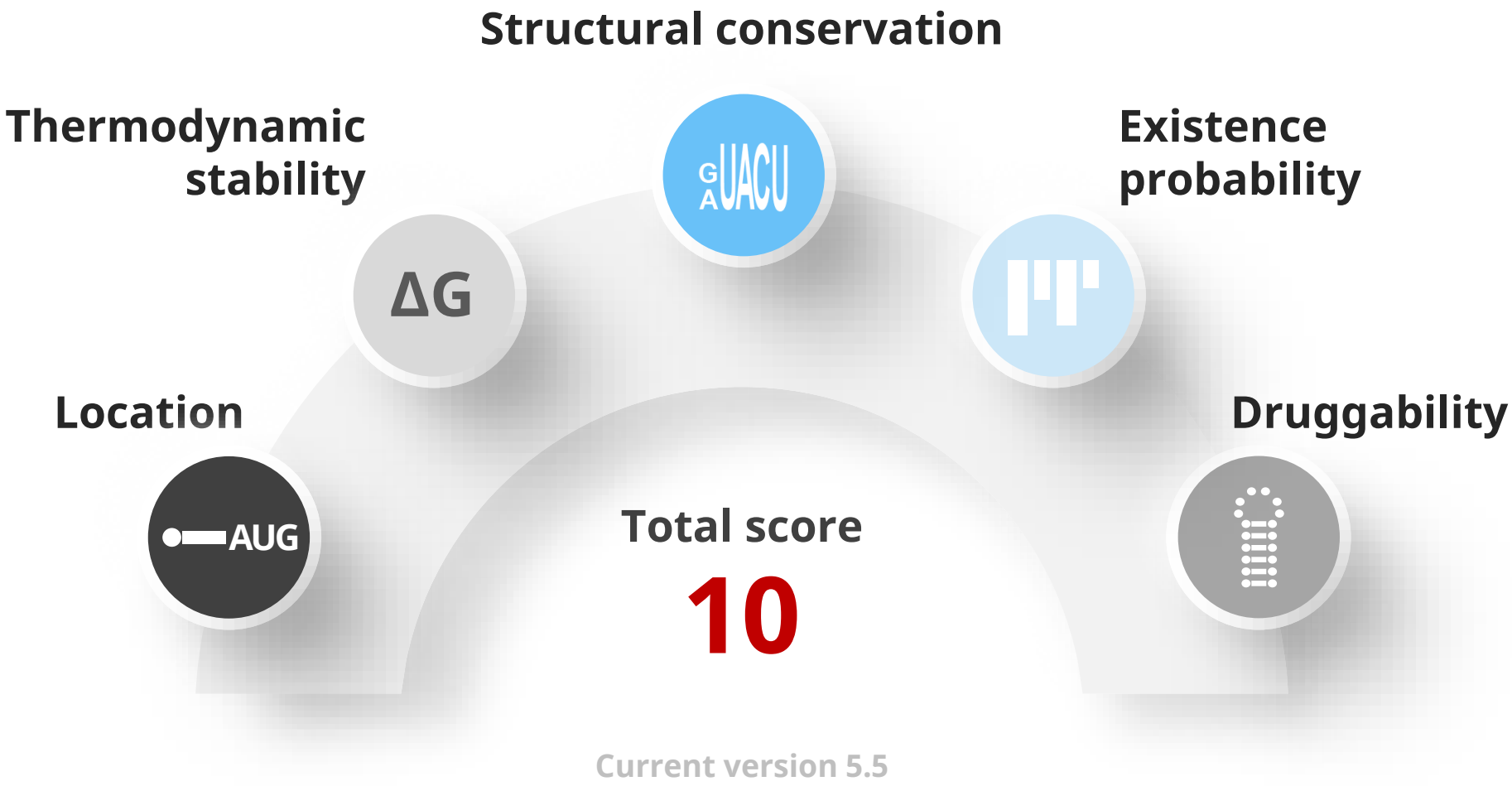
The target structures identified using our in silico technologies have an accuracy of >90%, while other computational methods have an accuracy of only 60–70% based on our evaluation

03 Well-validated targets

The target structures that we select are rigorously tested to ensure they are optimal targets for small molecule drug discovery

Scoring system for evaluating mRNA structures

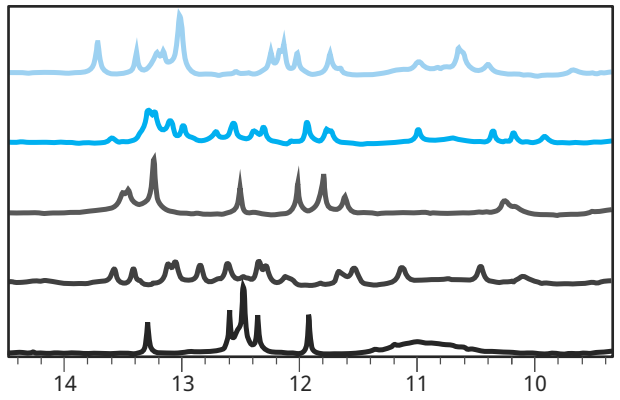
Based on results of over 50 screening programs, constantly updated



Rigorous validation of candidate mRNA targets

Conduct tests to check structure and suitability for screening

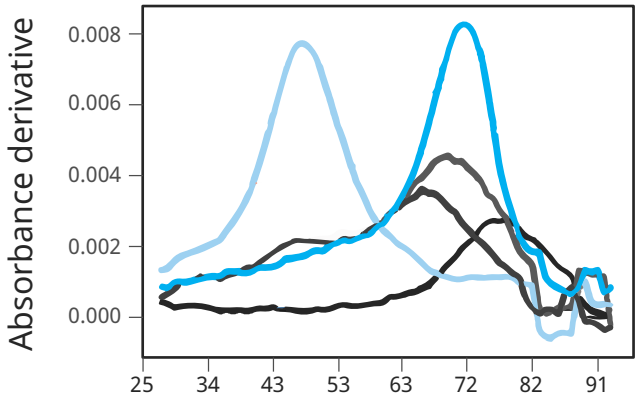
Verify target structure



^{1}H Chemical shift (ppm)

To verify that the mRNA sequences adopt the therapeutically relevant structure

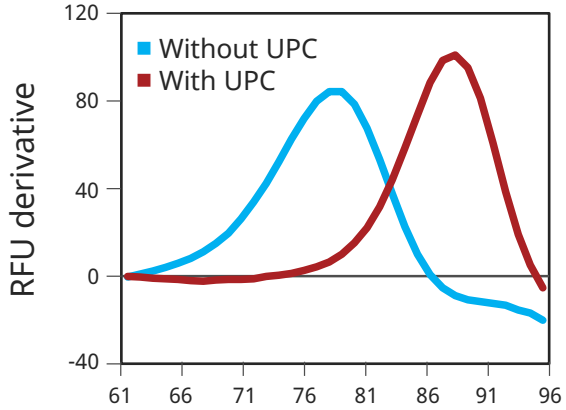
Determine assayability



Temperature (˚C)

To determine whether the melting temperature (Tm) of the mRNA sequence falls within the detection range

Confirm functionality



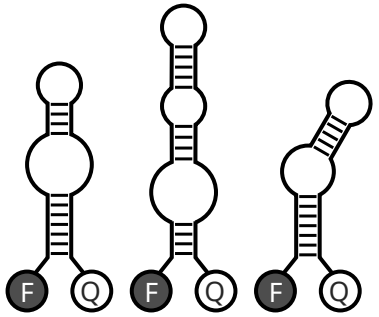
Temperature (˚C)

Tm of the screening probes in the presence and absence of a universal positive control (UPC) are measured to check functionality

High-throughput screening using qFRET

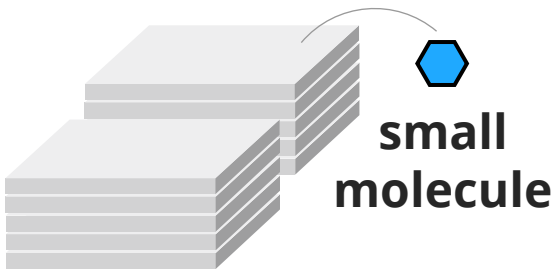
Identifies small molecules that bind to and stabilize mRNA structures

mRNA target (screening probes)

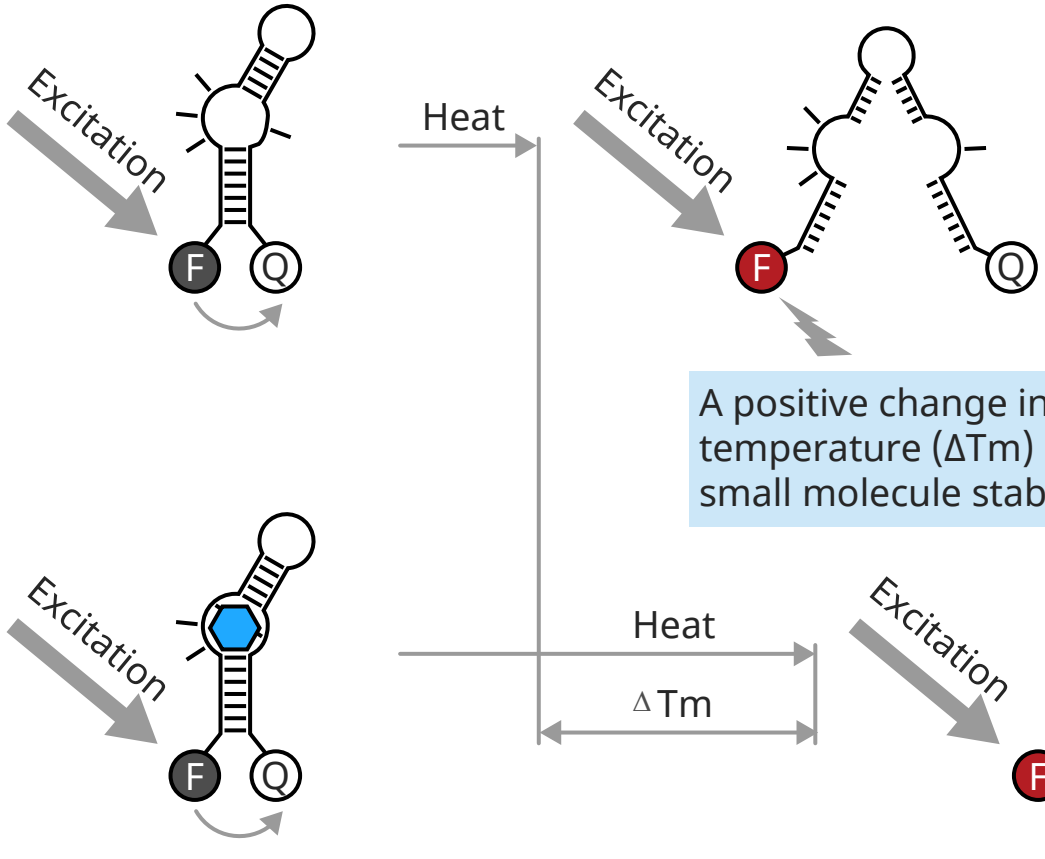


X

chemical library

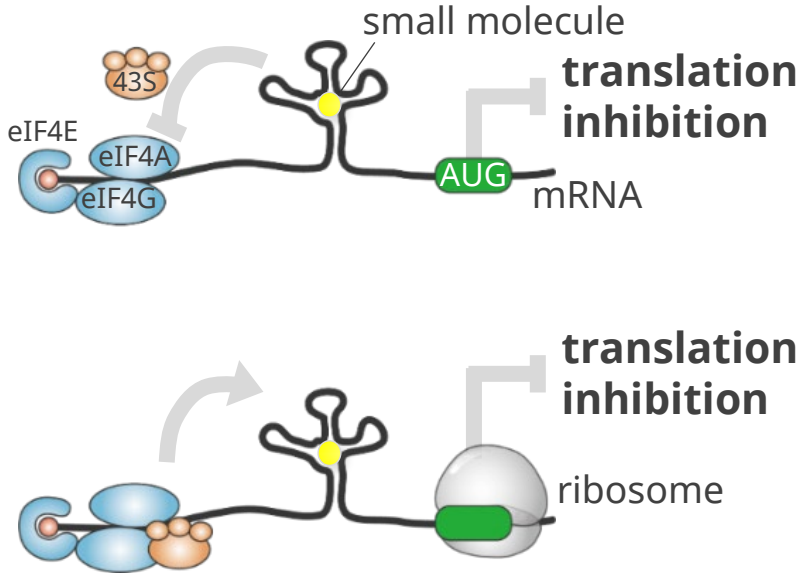


quantitative FRET (qFRET)



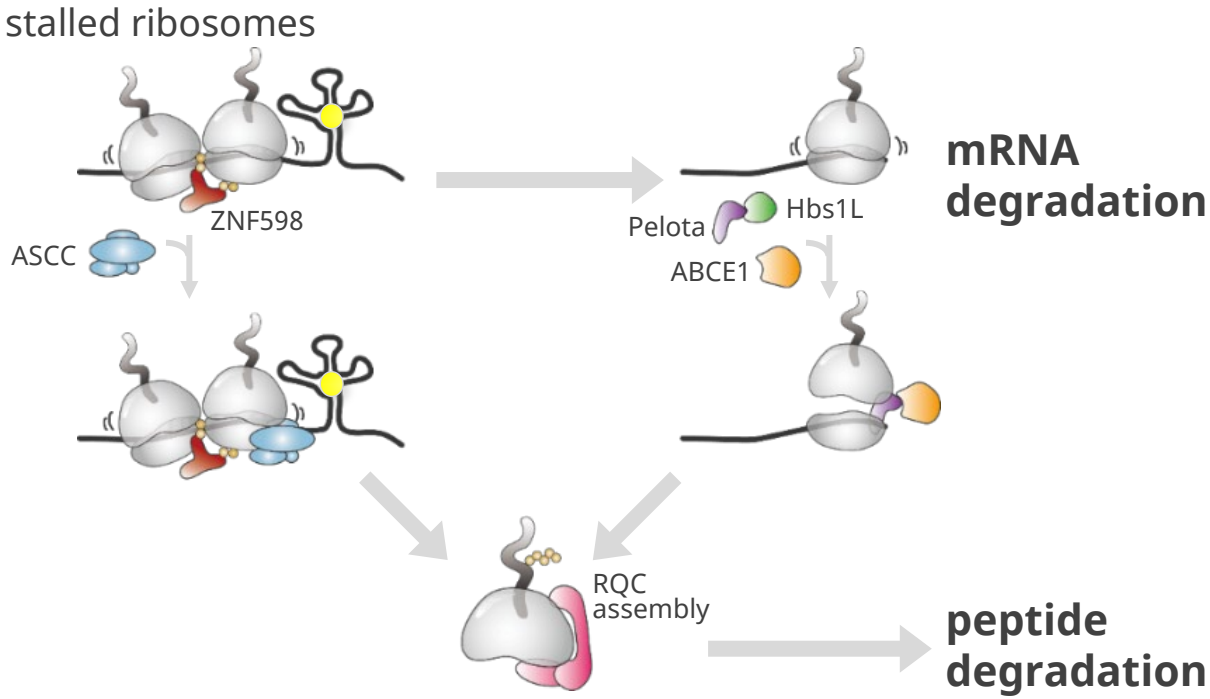
Stable mRNA structures inhibit protein production

Prevent the formation of the translation pre-initiation complex



Adapted from *Nat. Rev. Mol. Cell Biol.* **19**,158-174 (2018).

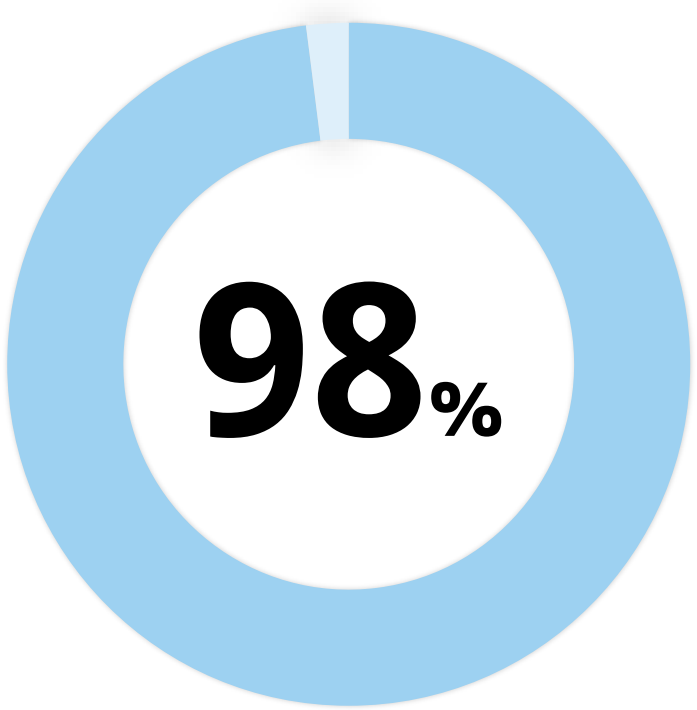
Promote ribosomal collision that signals peptide or mRNA degradation



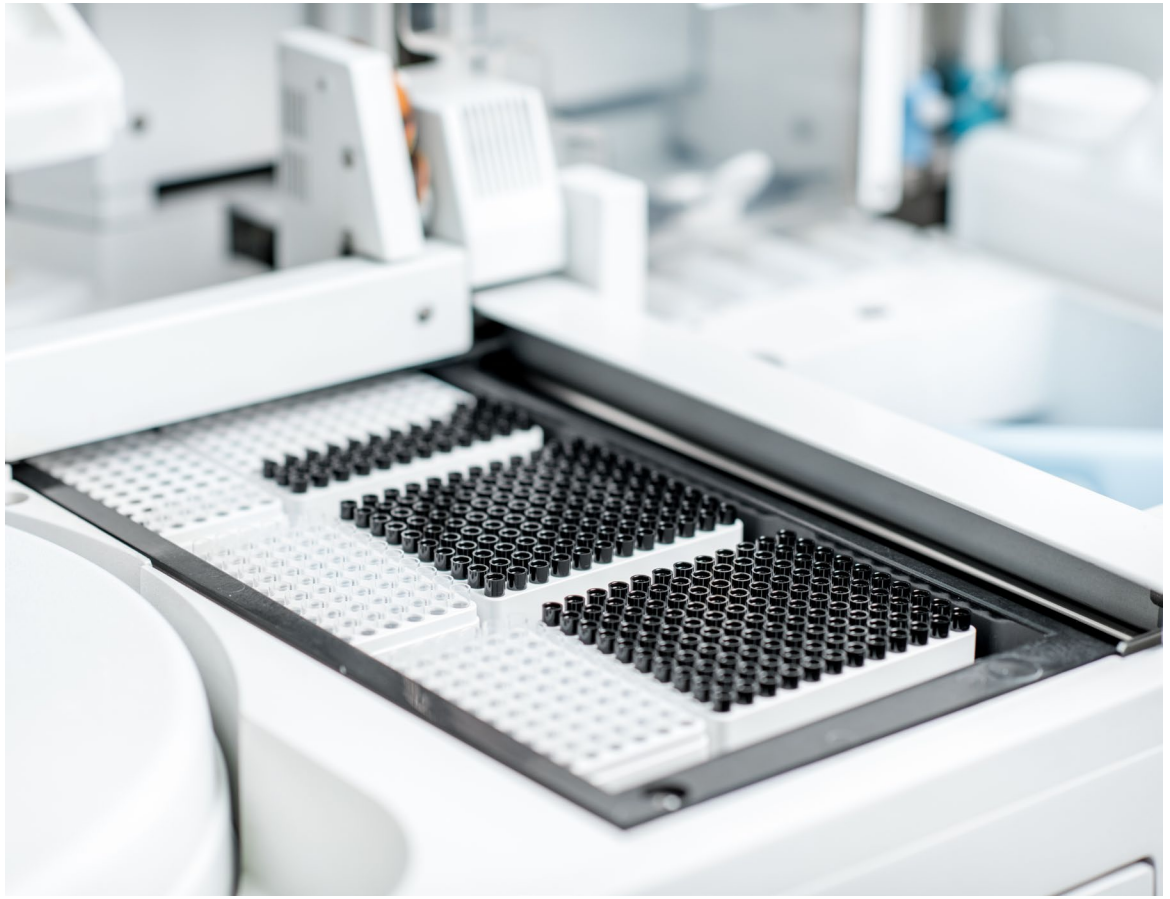
Adapted from *Mol. Cell* **79**, 603-614 (2020).

ibVIS screening technology with high success rate

Obtained small molecule hit compounds for

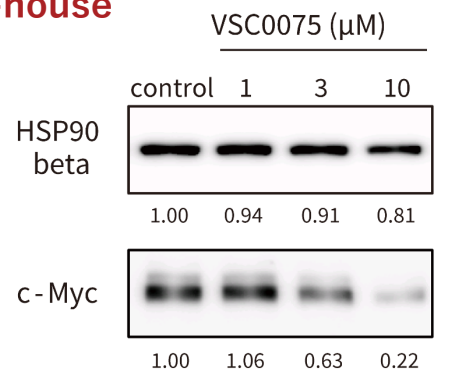


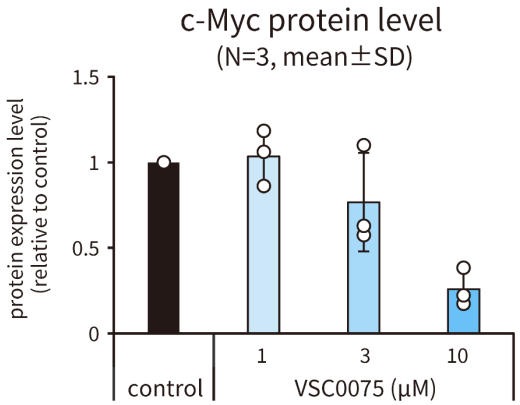
of the 50+ mRNA targets we screened



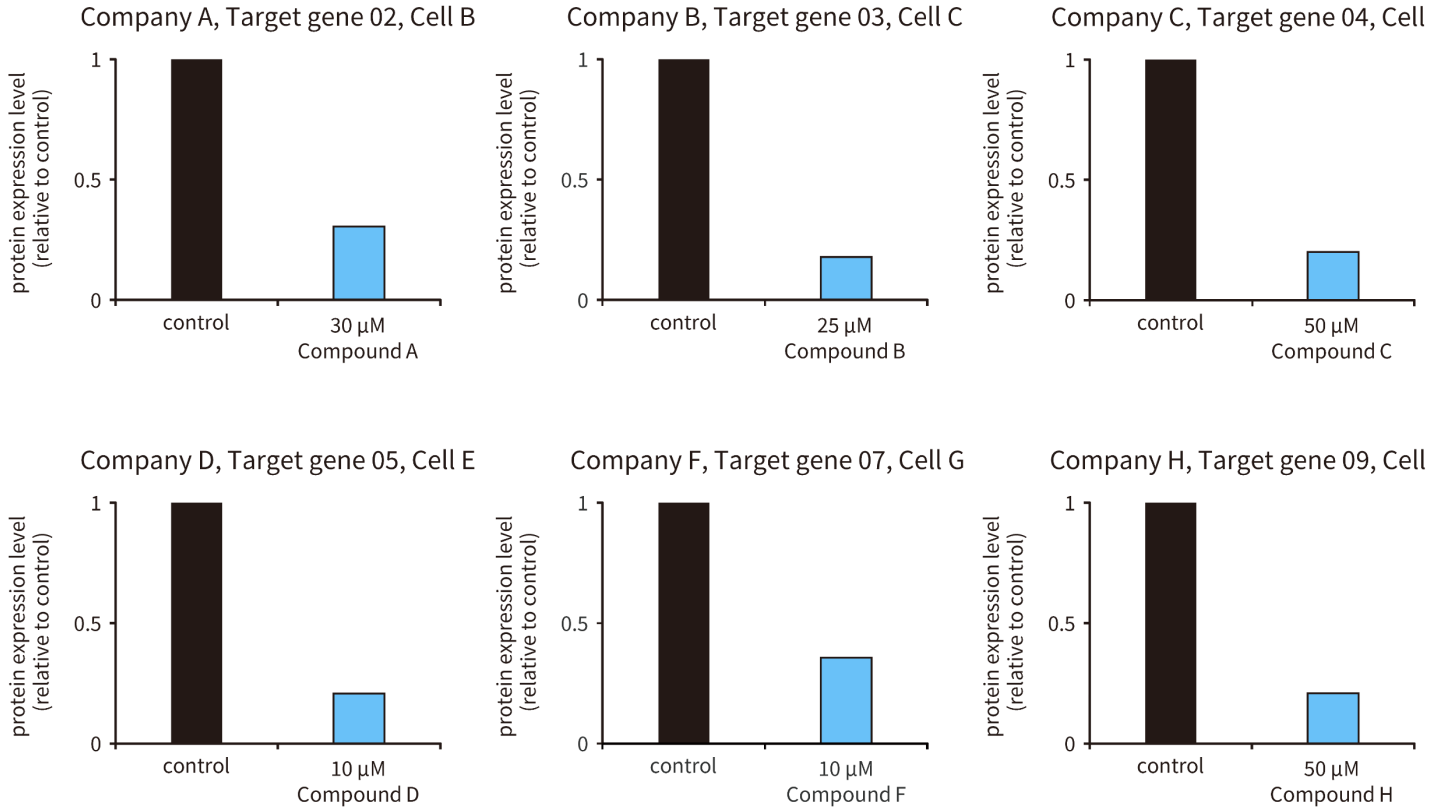
Hit compounds show cellular activity

In-house





With pharmaceutical companies

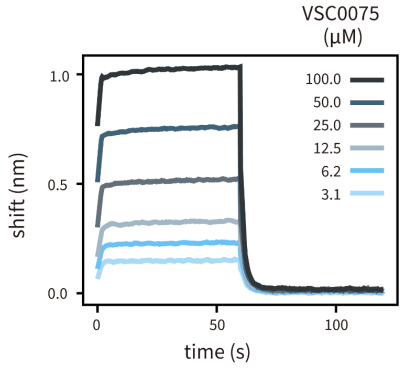


Left: Addition of the compound (VSC0075)—obtained in the screening against a target structure found on the mRNA of a disease-related protein (c-Myc)—to the cells resulted in a predominant decrease of the c-Myc protein. HSP90 beta, a representative of common proteins, was hardly affected.
Right: Cell-based assay results of the compounds (Compound A–H) obtained in the screening for six partners are shown, with one example for each.

Techniques to understand binding and identify leads

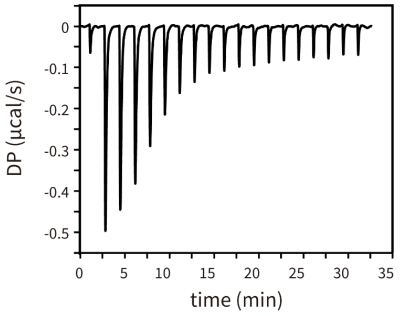
Biolayer interferometry (BLI)

Examine the binding rate between the RNA and the compounds



Isothermal titration calorimetry (ITC)

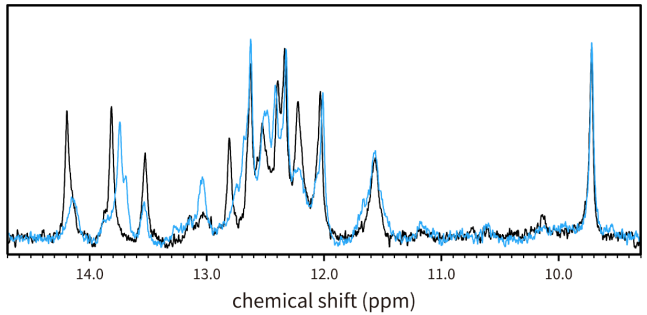
Precisely determine the binding strength of the compounds to the RNA

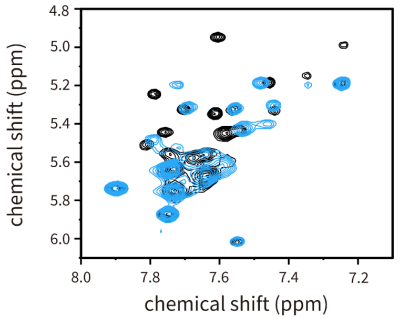


Nuclear magnetic resonance (NMR) measurement

Investigate the binding sites of the compounds on the RNA

--- With small molecule
--- Without small molecule



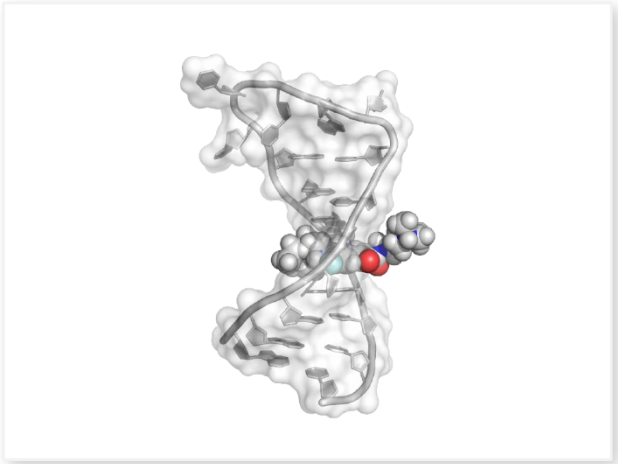


Synthesis of derivatives

SAR studies

RNA structure determination and quantum mechanics for lead optimization

RNA-tailored structure determination technology



We are uniquely equipped to perform RNA 3D structure determination, with our scientists having rare expertise in RNA X-ray crystallography and NMR spectroscopy

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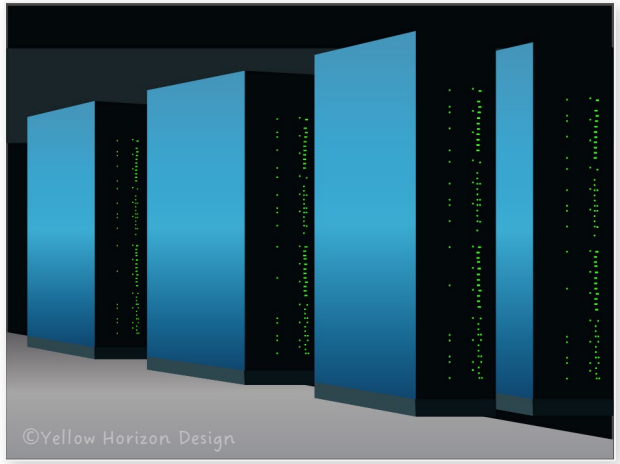
RNA –small molecule interaction analysis technology



We use Japan-made quantum mechanics methods and the Fugaku supercomputer to thoroughly analyze the interactions between mRNA targets and small molecule binders

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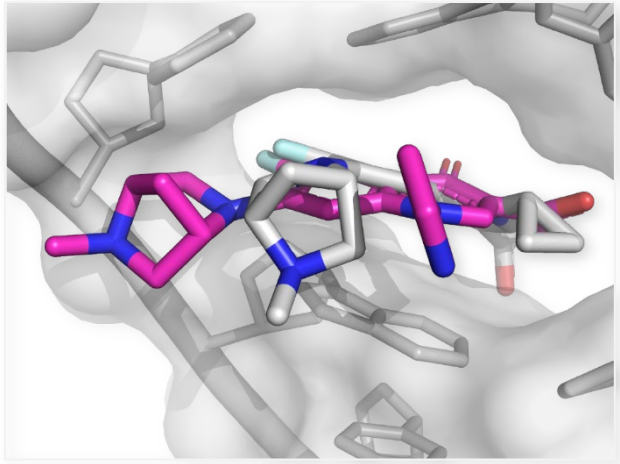
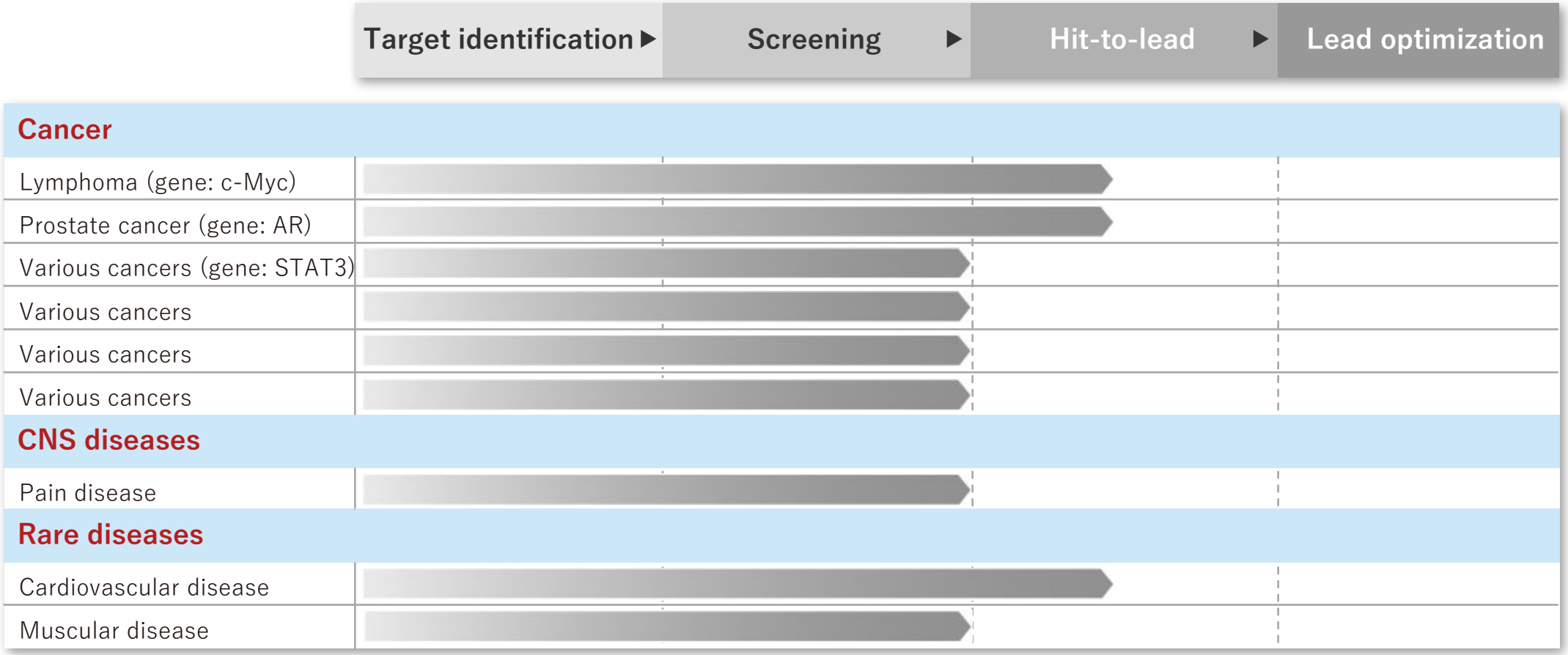
Rational optimization of mRNA-targeted small molecules



Our technologies enable us to rationally design small molecules with higher potency and selectivity for mRNA. As a result, we can optimize small molecules faster and more efficiently than traditional methods

Our pipeline of mRNA-targeted small molecules

We are developing an in-house pipeline to address diseases of unmet medical need



Milestone achievements in joint drug discovery

Research with **Takeda**, **Shionogi**, **RaQualia**, and **Toray** all progressing smoothly

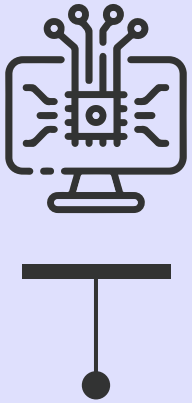
PRESS RELEASE in the past year

Takeda	2024.06.19 **Veritas In Silico announces milestone achievement in collaborative research with Takeda**
SHIONOGI	2024.09.24 **Notification regarding achievement of milestone in joint drug discovery research with Shionogi & Co., Ltd.**
RaQualia	2023.12.21 **RaQualia Pharma and Veritas In Silico announce that both companies have achieved the milestone in a joint research collaboration for mRNA-targeted small molecule drug discovery**

Why partner with Veritas In Silico?

When you collaborate with us, you gain access to:

ibVIS: a cutting-edge **mRNA-targeted drug discovery platform**



Computational and AI capabilities that accelerate innovation

World-class team that values collaboration & open communication

CONTACT US: contact@veritasinsilico.com