

VTCS-01

Rapid Small-Molecule Design for CBRN Medical Countermeasures

Challenge guide: the challenge, who can apply, every application question, and answers to common questions.

Intake window	12 to 30 October 2026. The portal closes at 11:59 p.m. Eastern on the last day.
Apply	dingusa.org/vedder/apply . One application per challenge; you may apply to both.
Program page	dingusa.org/vedder
Questions	questions@dingusa.org

The challenge

Accelerate the discovery and characterization of small-molecule medical countermeasures for chemical and biological threats. VEDDER is seeking platforms and teams that can move from target identification through de novo molecular design and multi-attribute optimization to in-silico characterization of safety, pharmacokinetics, and manufacturability, and can demonstrate results in cells against a known target.

In scope

- Target identification and validation
- De novo small-molecule design
- Multi-attribute optimization balancing sensitivity and specificity to the target binding site, ADMET, PK/PD, safety, and scalability
- In-silico characterization workflows that shorten the path to preclinical candidates
- Cell-based demonstration against a defined target

Out of scope

- Diagnostics and detection assays
- Radiopharmaceuticals
- Repurposing of approved drugs
- Biologics-only platforms
- Late-stage clinical programs

What a strong applicant looks like

A U.S. company with a working discovery platform, evidence of predictive performance, a credible plan for wet-lab demonstration (owned or through access), and a commercial thesis that does not depend on

government funding to survive.

Indicative funding: milestone-based prototype agreements sized to the work proposed. The indicative range for Cohort 1 will be published at intake open.

About VEDDER

VEDDER is a biotechnology accelerator for U.S. companies whose technologies can serve both commercial markets and the national-security mission. The Defense Innovation Networking Group (D!NG), a 501(c)(3) nonprofit, was selected by the U.S. Army to establish and operate VEDDER. D!NG connects selected companies with technical resources, business support, capital networks, government-acquisition expertise, and industry partners, with the aim of reducing the barriers between commercial innovation and national-security application.

VEDDER works differently from a grant program. Companies are selected against specific technical challenge statements, receive milestone-based prototype agreements, and are surrounded by the resources and relationships needed to prove their technology, strengthen their business, and reach the customers who need it. Commercial viability is a qualifying criterion, not a bonus: VEDDER exists to build companies that succeed on their own.

Who can apply

VEDDER is built for U.S. biotechnology and sensing companies with a working technology, a commercial strategy, and the ambition to serve the national-security mission. Startups, small businesses, university spin-outs, and nontraditional defense contractors are all welcome. You do not need prior government contracting experience; helping you gain it is part of the program.

Before you apply, confirm that:

- Your company is organized in the United States and majority U.S.-owned and controlled.
- You can disclose all sources of foreign investment or funding. Foreign ownership, control, or influence is evaluated during review and may be disqualifying.
- Personnel assigned to VEDDER work will meet program security requirements. U.S. citizenship is required for key personnel; restrictions on foreign-national participation apply.
- You have a demonstrable technology, not only a concept. Applicants self-rate technology readiness (a TRL reference is provided in the form).
- You are willing to team or partner where the challenge calls for it.
- You can describe how the technology succeeds commercially with or without government customers.

The eligibility screen

The application opens with four yes-or-no questions. You need to answer yes to each to continue:

- 1 Is your company organized in the United States and majority U.S.-owned and controlled?
- 2 Can you disclose all sources of foreign investment or funding? (Foreign ownership, control, or influence is evaluated during review and may be disqualifying.)

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- 3 Will personnel assigned to VEDDER work meet program security requirements, including U.S. citizenship for key personnel?
 - 4 Do you have a demonstrable technology, beyond a concept or a paper study?

What you will submit

- 1 The eligibility screen above.
- 2 Company information, shared across your applications in this cohort. Required: Legal company name, State of organization, Primary contact, Contact email, Contact phone number, How you found out about VEDDER. Also asked: Website, Year founded, Headcount, UEI, CAGE code, Prior federal awards.
- 3 Program details, asked once with the company information: non-traditional defense contractor, willing to team or partner with other companies, pre-negotiated agreement framework. Also asked: existing SBIR or STTR data rights.
- 4 Response details for this challenge: one yes-or-no question, "Are you responding with one discrete part of a discovery pipeline rather than the whole pipeline?" If yes, a short description of your component (up to 300 characters) and one follow-up yes-or-no question.
- 5 Answers to the 10 written questions in the next section, each with its own character limit, and a technology readiness self-rating.
- 6 A capability statement of 1 to 2 pages in any layout, uploaded as PDF, DOCX or PPTX, up to 10 MB.
- 7 Three confirmations at submission: (1) The information in this application is accurate and complete to the best of my knowledge. (2) I consent to D!NG sharing this application with reviewers under non-disclosure obligations. (3) I understand that VEDDER is a selective program and that submitting an application does not guarantee an award.

The company section also asks how you found out about VEDDER. The options are: LinkedIn post, Direct email, Referral from a colleague, Conference, Web search, Media report, Other.

Answer yes if your offer is a component, for example a design model, a property-prediction model, or a synthesis and testing capability, rather than an end-to-end platform. Some questions are then scored only where they apply.

Tips for strong answers

- Be specific. Name the systems, numbers, partners, and results behind each claim. Reviewers assess what your answer says, not what it implies.
- Each question lists what to include. Cover every item that applies to you, and say so plainly when one does not.
- Write plainly. Specific facts count for more than polish, and early-stage work is welcome when it is described honestly.
- The form saves as you type, and you can edit your answers until the deadline. Drafting offline first is fine.

The application questions

The VTCS-01 application has 10 written questions and a technology readiness self-rating. All are required. Character limits include spaces.

QUESTION 1

Up to 1,800 characters

Discovery pipeline and cycle time

Walk us through your discovery pipeline. Which stage of the discovery cycle does it speed up, and by how much?

Include: what you own versus partner; the stage's current and target duration, and whether those are measured on real campaigns; how test results feed the next design round and whether your models improve across rounds; how many candidates you cut at each gate and why; and what makes the time saving last. *Be specific, and name systems, numbers, partners, and results.*

QUESTION 2

Up to 1,800 characters

Molecular design and optimization

How does your system design new molecules, and which properties does it optimize at the same time?

Include: whether you generate molecules de novo or screen a library; the campaigns you have run, on how many targets, and what was synthesized and measured; how you show novelty; which properties you optimize together; one trade-off you have had to resolve; and how you validated the results against measured data. *Be specific, and name systems, numbers, partners, and results.*

QUESTION 3

Up to 1,600 characters

Prospective results and target range

What has your system achieved on targets it had never seen before?

Include: the targets; whether testing was blinded or run by a partner; hit rates and failures; which target classes you have covered; and how long it took to move to a new class. *Be specific, and name systems, numbers, partners, and results.*

QUESTION 4

Up to 2,000 characters

Safety and toxicity

What can your models predict about safety and toxicity, what can't they, and how do you know?

Include: the endpoints, organ systems, and off-target classes you cover, and what falls outside them; how your ADMET and PK/PD predictions compare with measured results; your applicability domain and model error; where the method fails; and any confirmation in named in vitro systems. A narrow, clearly bounded panel is preferred to broad coverage claims. *Be specific, and name systems, numbers, partners, and results.*

QUESTION 5

Up to 1,400 characters

Activity, selectivity, and developability**For the molecules you have designed, what has been measured, and how developable are they?**

Include: measured activity on the target and the conditions; whether off-target effects were measured or predicted; predicted stability, formulation feasibility, and regulatory and safety profile, with the data behind them; your model error; and how many candidates this covers.

Be specific, and name systems, numbers, partners, and results.

QUESTION 6

Up to 1,800 characters

Making and testing, and the demonstration**Who makes and tests your molecules, and how would you prove your capability in a first demonstration?**

Include: your wet-lab and in vitro access, whether owned, contracted, or planned, and which systems; whether testing is automated and tied back to design; who synthesizes, where, and whether routes, cost, and scale are assessed; and, for the demonstration, the target class, the cell system and why, the benchmark and success criteria, expected failure modes, and whether it fits an initial contract period. State any use of human-derived cells or animals.

Be specific, and name systems, numbers, partners, and results.

QUESTION 7

Up to 800 characters

Compute**Where does your pipeline run today, and what would it take to run it on a government system?**

Include: current environment and workload scale; high-performance computing (HPC) needs, meaning large shared compute clusters that run jobs through a scheduler, and their source; dependencies; and any experience running in batch-scheduled environments with no outbound internet.

Be specific, and name systems, numbers, partners, and results.

QUESTION 8

Up to 1,400 characters

Market and funding**What is your commercial path, and who is funding it?**

Include: your first market and why; named partners, pilots, letters of intent, customers, or revenue; whether the path works without government funding; any interest from major developers; your current investors; and whether they would co-invest alongside a B2B award.

Be specific, and name systems, numbers, partners, and results.

QUESTION 9

Up to 800 characters

Defense relevance

What defense application follows from the same capability?

Include: the specific target class, for example toxin inhibition, virulence-factor disruption, viral replication, or radioprotection; why your capability transfers to it; and any prior work on a defense-relevant target.

Be specific, and name systems, numbers, partners, and results.

QUESTION 10

Up to 1,200 characters

The gap to close and the regulatory path

Why hasn't a major developer funded or acquired you yet, and what would close the gap?

Include: the TRL or MRL gap; what closes it, and whether a B2B award would move you at least one level; where your output sits relative to an IND; what GLP data you do and do not produce; where you hand off to a developer; and any regulatory advisors or IND experience on the team.

Be specific, and name systems, numbers, partners, and results.

SELF-RATING

Technology readiness level

Rate your technology readiness level.

Self-rated on the standard 1 to 9 scale. Choose the level you can defend with evidence today, not the level you expect next year. The form shows a description of each level, from 1 (basic principles observed) to 9 (system proven in operational environment).

Process and timeline

Dates after intake closes are target windows, not commitments.

Intake opens	12 October 2026	Eligibility screen, then a challenge-specific application (10 questions with character limits and a technology readiness self-rating), plus a 1 to 2 page capability statement in any format. Progress saves automatically.
Intake closes	30 October 2026, 11:59 p.m. Eastern	Portal closes. Late submissions are not accepted; a general-interest signup remains open for future cohorts.
Initial review	First half of November 2026	D!NG and subject-matter experts screen all applications against the challenge criteria.
Invitation to propose	Mid-November 2026	Selected applicants are invited to submit a short proposal (5 to 10 pages on a provided template) and join a recorded Q&A session.
Expert panel review	Late November to December 2026	Each proposal is evaluated by at least two reviewers drawn from science and technology, military, commercialization, and investment backgrounds.

Frequently asked questions

Who can apply?

U.S.-organized, U.S.-owned and controlled companies with a demonstrable technology responsive to one of the current challenge statements. See the eligibility list on the program page.

Can I apply to both challenges?

Yes. Each challenge has its own question set and its own review panel. Submit one application per challenge.

How much funding is available per company?

Prototype agreements are milestone-based and sized to the work proposed. The indicative range for Cohort 1 agreements will be published at intake open.

Is this a grant?

No. Selected companies enter a prototype agreement with defined milestones and deliverables, and retain ownership of their technology subject to negotiated data rights.

Who owns the intellectual property?

Companies retain ownership of the background IP they bring and, in general, the foreground IP they create. Data-rights terms are negotiated in each agreement and explained during the proposal stage.

Do I need prior government experience?

No. Learning how the government defines needs, evaluates technology, and buys is part of what VEDDER provides.

Do I need a security clearance or a secure facility?

Not to apply. Program security requirements, including U.S. citizenship for key personnel, apply to selected companies and are explained before agreements are signed.

What if my company has foreign investors?

Disclose it in the application. Foreign ownership, control, or influence is reviewed and may be disqualifying depending on its nature and extent.

What does "dual-use" mean here?

A technology with a commercial market and a national-security application. VEDDER selects for companies that can succeed commercially, because commercial success is what sustains the capability.

Where is the program located?

D!NG is headquartered in Indiana; VEDDER is a national program. Applicants from any U.S. state are eligible, and most program activity is remote with periodic in-person events.

What happens after the prototype?

Successful prototypes may be eligible for follow-on production opportunities.

I missed the deadline. What now?

Join the general-interest list. New challenge statements and cohorts will be announced there first.

I am not a company. How can I get involved?

See Partner with VEDDER. States, investors, universities, and corporate sponsors all have a defined role.

Still have a question? Email questions@dingusa.org and someone from the program will reply.