2026 Young Faculty Award (YFA) Research Announcement (RA)
DARPARA2502
Frequently Asked Questions (FAQs)
as of 12/15/25

Technical questions for TAs should be submitted to YFA2026@darpa.mil . All FAQs will be updated on a continual basis.

1. Coherence and Entanglement in Nuclear Processes

No FAQs for this topic. If you have a technical question, please email YFA2026@darpa.mil.

2. Relativistic Quantum Information Processing with Spacetime Diamonds

No FAQs for this topic. If you have a technical question, please email YFA2026@darpa.mil.

3. 3D Micromachined MEMS Microsystems

No FAQs for this topic. If you have a technical question, please email YFA2026@darpa.mil.

4. Biomarkers of Mild Psychological and Neural Damage

No FAQs for this topic. If you have a technical question, please email YFA2026@darpa.mil.

5. The Numerical Analysis of Agentic Artificial Intelligence (AI) Interactions

No FAQs for this topic. If you have a technical question, please email YFA2026@darpa.mil.

6. Calibrated Plasma Measurement with Traceable Uncertainty

No FAQs for this topic. If you have a technical question, please email YFA2026@darpa.mil.

7. Enhancing Underwater Communication and Detection

No FAQs for this topic. If you have a technical question, please email YFA2026@darpa.mil.

8. DNA Rapid Access Memory

No FAQs for this topic. If you have a technical question, please email YFA2026@darpa.mil.

9. Designer Biocondensates

1Q: The call mentions applications in crop protection or degradation of chemical and biological threats. Would a proposal focused on more fundamental mechanisms—such as the roles of condensates in genome regulation—still be considered within scope for this topic?

1A: This YFA topic is first and foremost focused on the mechanisms underlying formation and organization of biocondensates/ phase-separated domains. The application spaces listed in the topic description serve as examples, but proposers are not required to exclusively address crop protection and chemical degradation to be considered.

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10. Combat-Oriented Magnetic Physiological Assessment Sensor Systems (COMPASS)

No FAQs for this topic. If you have a technical question, please email YFA2026@darpa.mil.

11. Unlocking Next Generation Separations

1Q: For TA 11, Would DARPA prioritize (1) research that implements and designs novel materials to achieve enhanced/biomimetic separations or (2) research that studies the fundamentals of transport/selectivity related to such novel/biomimetic separation materials?

1A: DARPA is not interested in a fundamental paper study suggested by (2) or fundamental design studies that do not test on relevant inputs. DARPA is interested in research that develops novel materials for enhanced separations which may include biomimetic design and testing of these materials. These materials should offer benefits over traditional materials in fundamental areas such as mass transport and selectivity and experimentally demonstrate those advantages.

12. Bioprinted Living Meta-Materials (BioLiMMa)

No FAQs for this topic. If you have a technical question, please email YFA2026@darpa.mil.

13. Formal Assurance and Loss of Control Containment of AI

No FAQs for this topic. If you have a technical question, please email YFA2026@darpa.mil.

14. Control theory of Large Language Models (LLM)

No FAQs for this topic. If you have a technical question, please email YFA2026@darpa.mil.

15. AI and the Future of Work: Surfacing Task-Level Opportunities for AI Adoption

No FAQs for this topic. If you have a technical question, please email YFA2026@darpa.mil.

16. Formal foundations for Informal Math (FIM)

No FAQs for this topic. If you have a technical question, please email YFA2026@darpa.mil.

17. Grounding Symbolic Robotic Knowledge

No FAQs for this topic. If you have a technical question, please email YFA2026@darpa.mil.

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18. Compiler Infrastructure Beyond Traditional Compilation

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19. Molecular Machines for Advanced Materials

No FAQs for this topic. If you have a technical question, please email YFA2026@darpa.mil.

20. Energy Harvesting in Lunar Regolith

No FAQs for this topic. If you have a technical question, please email YFA2026@darpa.mil.

21. Visible and UV Photonic Integrated Circuits

No FAQs for this topic. If you have a technical question, please email YFA2026@darpa.mil.

22. Pliable Packaging for Polymorphic Power (PPPP)

1Q: In addition to focusing on protecting batteries from gas and moisture, I am interested to derive electromagnetic or thermal protection of the packaging materials. Would DARPA be interested in the multifunctionality of proposed materials?

1A: Yes, multifunctional protection is within scope of this topic area.

23. Optical Memory for Photonic Integrated Circuits

1Q: Could you clarify the difference between volatile and non-volatile memory storage?

1A: Volatile memory loses its data when power is off, while non-volatile memory retains

2Q: Should the roadmap include metrics that include quantum efficiency, photon conversation rates, and power density calculations?

2A: The "roadmap" refers to a manufacturing roadmap and should focus on compatibility of the approach with material platforms and foundry processes available in commercial photonic fabs.

3Q: Is fundamental research of interest to this call, or should the emphasis be on materials or device development? Is methods or spectroscopic instrumentation development within the scope?

3A: Fundamental research only. See Section IV: Special Considerations, "DARPA will not select proposals for negotiation of an award if the proposal is deemed to be Applied Research, or otherwise requires Controlled Unclassified Information (CUI) restrictions."

Development of instrumentation is outside of the scope of this effort.

4Q: What sorts of PIC applications is DARPA most interested in, or wanting to expand into?

4A: Representative application areas already suggested in the research topic are communications, signal processing, and computing.

24. Advancing Fully Integrated Microfluidic Systems

No FAQs for this topic. If you have a technical question, please email YFA2026@darpa.mil.