U.S. ARMY COMBAT CAPABILITIES DEVELOPMENT COMMAND – ARMY RESEARCH LABORATORY

Army Research Office (ARO) - Overview

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APPROVED FOR PUBLIC RELEASE

ARO'S MISSION

1

Build the Future

Create and direct scientific discoveries for revolutionary new Army capabilities

2

Solve Existing Problems

Drive science to develop solutions to existing Army technology needs

3

Accelerate

Accelerate transition of basic research

4

Educate

Educate and train future Army Scientists & Engineers workforce

5

Prepare

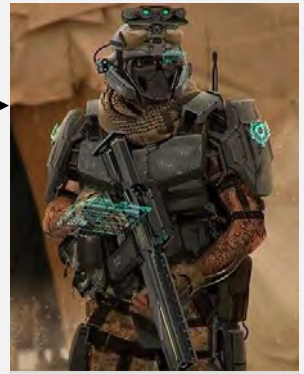
Create technological superiority for U.S. Forces, and prevent adversary technological surprises

Current Abilities

Scientific Discovery

Cross-Cutting Competencies

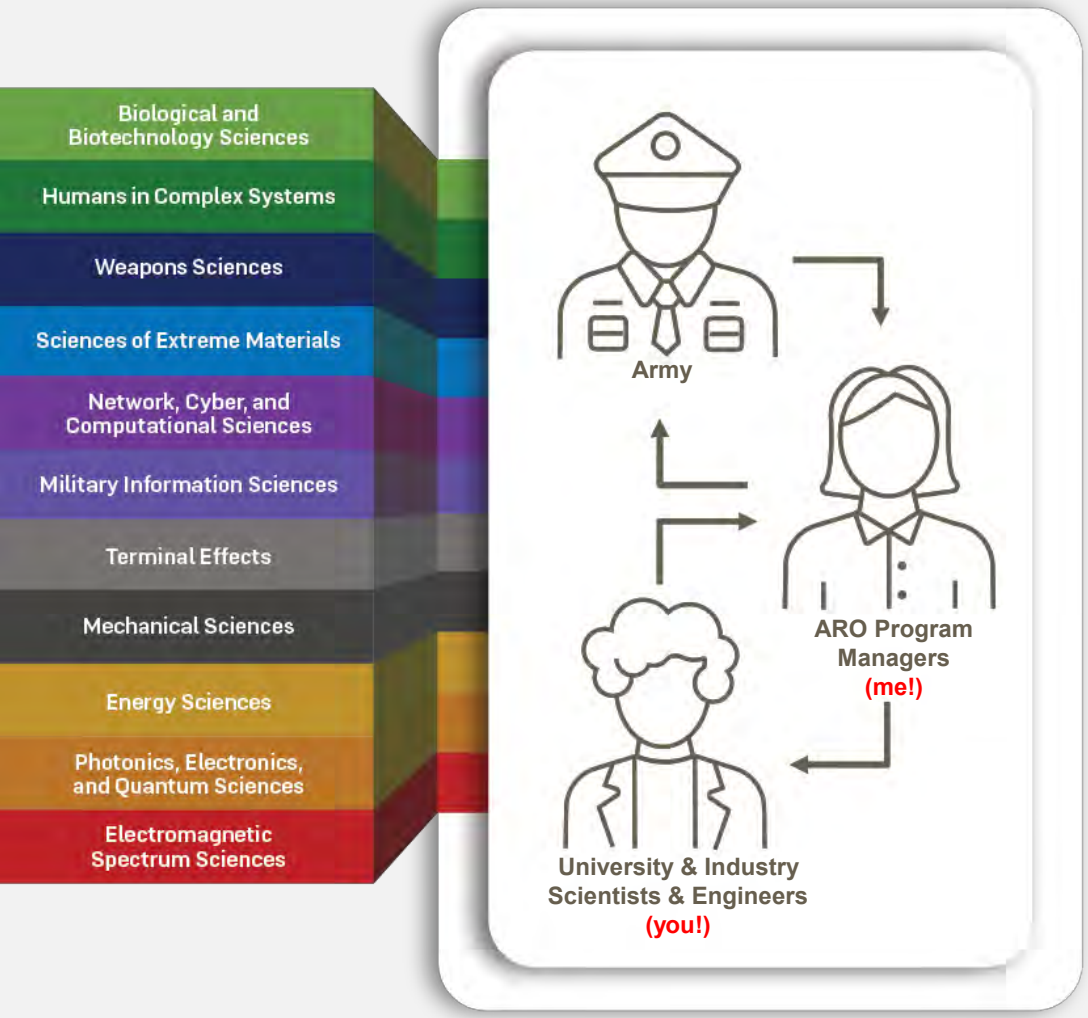
Informing Future Warfighting Concepts



Far Future >20 years

A component of DEVCOM ARL, the Army Research Office contributes to Army modernization by focusing on **basic scientific research.**

ARO CONNECTS THE ARMY TO EXTRAMURAL RESEARCH



ARO is the Army's primary face to the academic scientific community.

Program Managers translate between the future technology needs of the Army and scientific breakthroughs of academia.

They play an *active* role in creating and directing new science by brokering Army-academic relationships and collaborations.

Program Managers are subject matter experts who have funding authority.

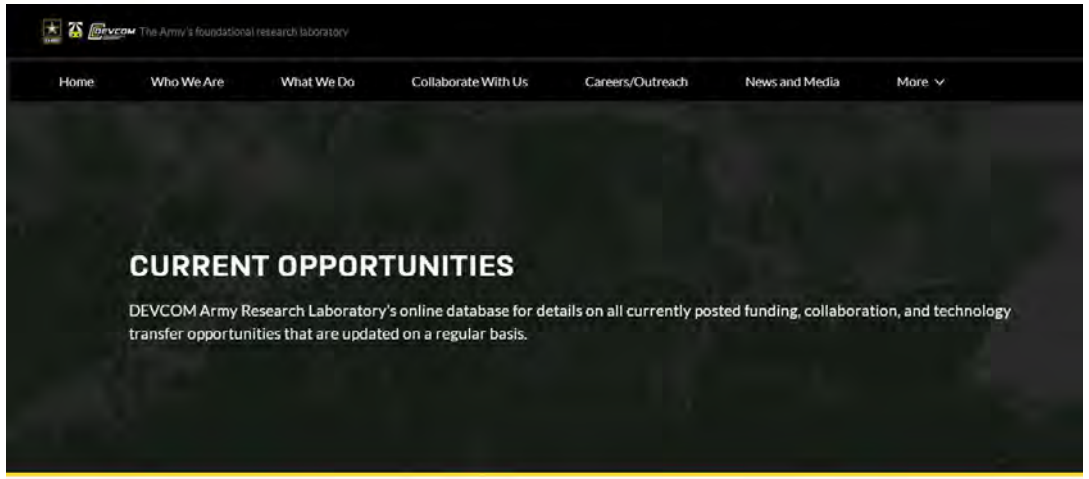
They want to fund the most cutting-edge science that may be otherwise unexplored, and can choose to fund *higher-risk, higher-reward proposals*.

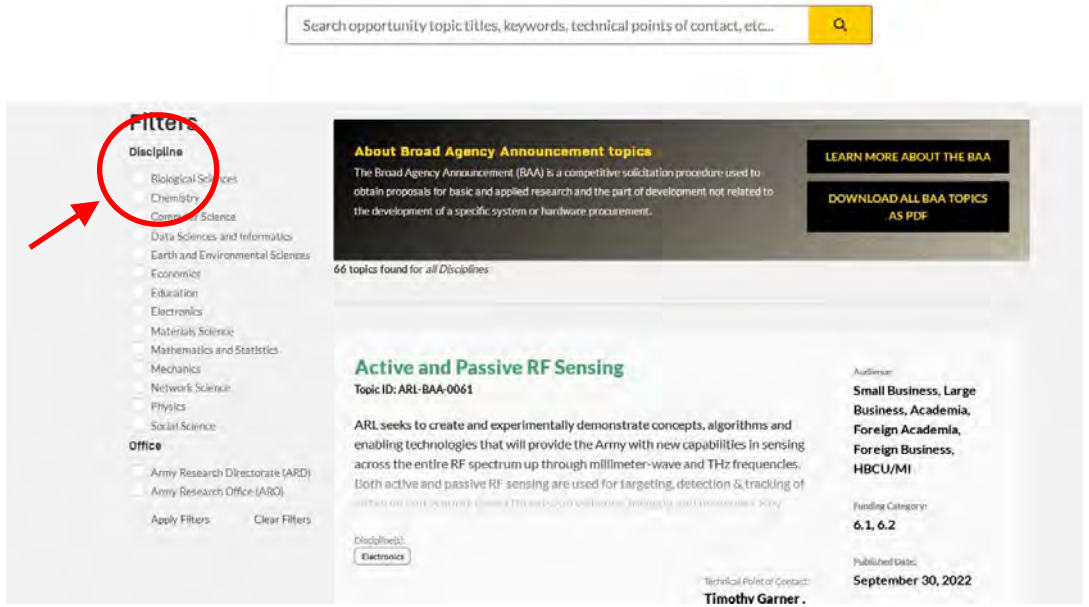
ARO's work with basic scientific research drives toward the Army's **far future capabilities** 20, 30, 40 years from now.

ARO AND OTHER BROAD AGENCY ANNOUNCEMENTS

Award Type	Target	Funding
Single Investigator (SI)	Single-laboratory projects	~$141K/year for ~3.4 years avg
Short Term Innovative Research (STIR)	Very high-risk pilot projects	$60K for 9 mo.
Early Career Awards (formerly Young Investigator Program)	Early-career PIs	$120K/year for 3 years
Conferences / Workshops / Symposia	Academic State of Science	$10K–$30K
Presidential Early Career Award for Scientists and Engineers (PECASE)	Promising future leaders	$200K/year for 5 years
Defense University Research Instrumentation Program (DURIP)	Instrumentation	~$200K/year average
Multidisciplinary University Research Initiative (MURI)	Large multidisciplinary programs	~$1.5M/year up to 5 years
Historically Black College/University and Minority Institution (HBCU/MI)	Minority serving institutions	~$140K/year for 3 years
Small Business Technology Transfer (STTR)	Multi-phase awards bridging academia & industry	$150K (6 mo.) to $1M (24 mo.)
Small Business Innovative Research (SBIR)	Multi-phase research for industry transition	$150K (6 mo.) to $1M (24 mo.)

CONNECTING WITH DEVCOM ARL - ARO





ARL/ARO BAA

https://www.arl.army.mil/collaborate-with-us/

ARO Disciplines

Biological Sciences	Economics	Mechanics
Chemistry	Education	Network Science
Computer Science	Electronics	Physics
Data Science and Informatics	Materials Science	Social Science
Earth and Environmental Sciences	Mathematics and Statistics	

Technical POC: Name, Email, Phone

QUESTIONS TO CONSIDER WHEN FORMULATING RESEARCH IDEAS

Is it basic research?

- What's the scientific question?
- What foundational knowledge is not currently available about the workings of the universe?
- Proposals focused on specific devices/components/technologies are beyond the scope of ARO's mission.

Is it hard?

- If an "old" question, why haven't we found an answer yet?
- If a "new" question, where's the sticky part?

Why you? Why now?

- What's been done before? Why wasn't it successful?
- What's novel about your skills/abilities/ approach that makes you think there's a shot at an answer?
- What new advance provides opportunity to make new progress?

So what? Who cares?

- What impact will the research make on the scientific community?
- What papers will be written because of your efforts? What papers will stop being written?
- What are the potential implications for the future of technology?

Where's the risk?

- How confident are you that you're asking the right question?
- How will you know when you have an answer? If you find a different answer, will you still learn something?

What will it take?

- What resources (time, money, infrastructure, personnel, partnerships) are required to pursue the research?

PROPOSAL PROCESS: FROM IDEA TO POST-AWARD

Idea Curation *(email/phone)*

- Research Menus
- Whitepapers
- Discussions

Proposal Submission *(grants.gov)*

- Detailed description of question(s), approach and potential impact
- Reviewed by external evaluators and Army/DoD SMEs

Proposal Selection

PM analyzes:

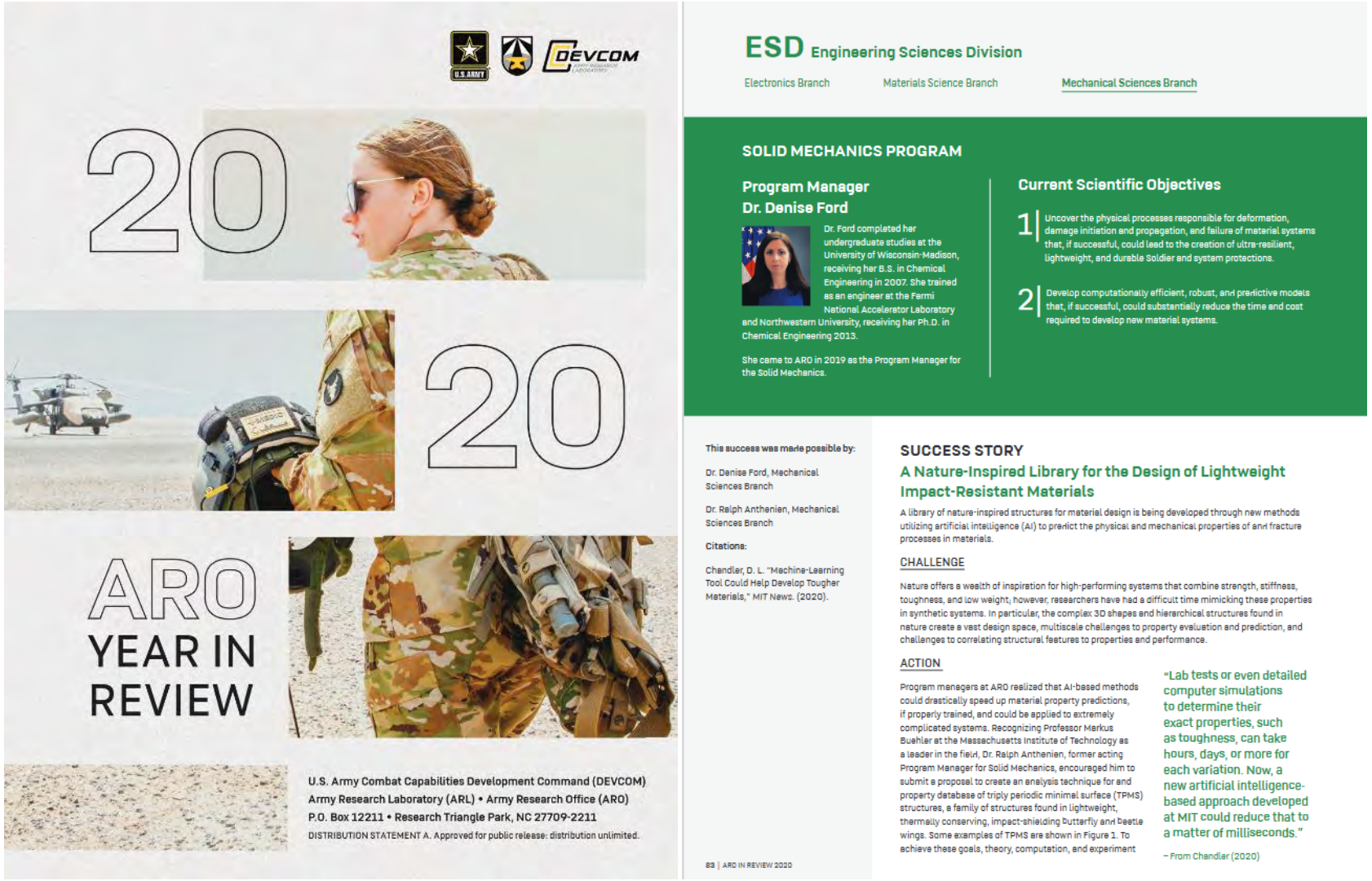
- Program fit
- Evaluator feedback
- Funds availability
- Potential for discovery
- Potential for transition

Proposal Award

- PM regularly engaged with research
- Site visits
- Conference attendance
- Relationship management
- Formal reporting

Program Managers may have different processes for how they handle idea curation. **I recommend reaching out to the PM first with an email introduction**.

ARO YEAR IN REVIEW



https://www.arl.army.mil/who-we-are/aro/

Thank you! Questions?