

Title	Organization	PI	PI E-mail	Program Manager Mentor	DARPA Office
Brain Chemical Signaling: A New Input Signal for Brain-Computer Interfaces	University of California, Berkeley	Markita Landry	landry@berkeley.edu	Al Emondi	BTO
Acoustic Metamaterial for Ultrasound Transmission at 10 MHz Through the Skull for High Resolution Neural Modulation and Brain Imaging	University of California, San Diego	Oscar Vazquez Mena	ovmena@ucsd.edu	Al Emondi	BTO
Engineering a Plant Chassis for Rapid and Scalable Production of Small Molecule Therapeutics	Stanford University	Elizabeth Sattely	sattely@stanford.edu	Blake Bextine	BTO
Rational Design of Hierarchically Structured Anti-Fouling Surfaces	University of Michigan	Neil Dasgupta	ndasgupt@umich.edu	Lori Adornato	BTO
Replicating Neurotransmission Using 3-D Nanofluidic Devices with Nanoparticle-Blockage-Enabled Voltage-Gated Nanopore Arrays	Boston University	Chuanhua Duan	duan@bu.edu	Paul Sheehan	BTO
Genome-wide CRISPR Approaches for High-efficiency Homologous Recombination	New York University	Neville Sanjana	nsanjana@nyu.edu	Renee Wegrzyn	BTO
Agent-based Anti-gaming Platform for Wholesale Electricity Market Monitoring and Rule Design Using Big Data Analytics and Computational Intelligence	Missouri University of Science and Technology	Rui Bo	rbo@mst.edu	Adam Russell	DSO
Adaptive-focus topological features for machine-learning-driven discovery of 2D coordination polymers	Massachusetts Institute of Technology	Heather Kulik	hjkulik@mit.edu	Anne Fischer	DSO
Nanocrystalline Semiconductors for Radiation Detection	Oregon State University	Haori Yang	Haori.Yang@oregonstate.edu	Michael Fiddy	DSO
Engineering the Quantum Vacuum	University of Maryland	Jeremy Munday	jnmunday@umd.edu	Michael Fiddy	DSO

Probing the Limits and Implications of Ultra-high Electric Field Concentrations in Graphene Plasmonic Resonators	University of Wisconsin, Madison	Victor Brar	vbrar@wisc.edu	Michael Fiddy	DSO
Topological Phenomena in Active Photonic Platforms	University of Central Florida	Mercedeh Khajavikhan	mercedeh@creol.ucf.edu	Rosa Lukaszew	DSO
Compiler-assisted Software Specialization against Vulnerability Exploitation	Stony Brook University	Michalis Polychronakis	mikepo@cs.stonybrook.edu	Angelos D. Keromytis	I2O
Dynamo: Dynamic Multichannel Modeling of Misinformation	University of California, Santa Barbara	William Wang	william@cs.ucsb.edu	Boyan Onyshkevych	I2O
Adversarial Machine Learning through the Cryptographic Lens	Massachusetts Institute of Technology	Vinod Valikuntanathan	vinodv@mit.edu	Hava Siegelmann	I2O
TASER-FENTADET: Terahertz Handheld Detector Array Using Reflectance Spectroscopy for Remote FENTAnyl DETection	University of Central Florida	Subith Vasu	subith@ucf.edu	Hava Siegelmann	I2O
Polymer based replicated multi-modal fiber Bragg grating (FBG) for Fentanyl detection	Howard University	Hyung Bae	hyung.bae@howard.edu	Hava Siegelmann	I2O
Self-assessing network models for big data summarization	University of Maryland	Tom Goldstein	tomg@cs.umd.edu	Jennifer Roberts	I2O
RAISS: Robust, Adaptive, Interactive and Scalable Summarization for Big Data	Northeastern University	Ehsan Elhamifar	eelhami@ccs.neu.edu	Jennifer Roberts	I2O
Attojoule Sources for Photonic Integrated Circuits (ASPIC)	University of California, Santa Barbara	Jonathan Klamkin	klamkin@ece.ucsb.edu	Gordon Keeler	MTO
Reconfigurable Energy-efficient Chip-scale Optical Network: Beyond the Classical Figure-of-merit (RECONFig)	Massachusetts Institute of Technology	Juejun Hu	hujuejun@mit.edu	Gordon Keeler	MTO
Nanophotonics for Telecom Quantum Networks Based on Neutral Silicon Vacancy Centers in Diamond	Princeton University	Nathalie de Leon	npdeleon@princeton.edu	Gordon Keeler	MTO

Integrated Magnetic BEC Formation and Loading of an Optical Waveguide Trap for Atomic Inertial Sensing	SRI International	Seth Caliga	seth.caliga@sri.com	John Burke	MTO
Increasing Spacetime Area Enclosed in Compact, High Quality Trapped Matter Wave Interferometers	University of California, Los Angeles	Paul Hamilton	paul.hamilton@ucla.edu	John Burke	MTO
Rapid, High Force Actuators through Mechanically 'Invisible' Heat Sinks	Iowa State University	Michael Bartlett	mbartlet@iastate.edu	Ronald Polcawich	MTO
Functional Small Scale Actuation with Origami Inspired Assemblages	University of Michigan	Evgueni Filipov	filipov@umich.edu	Ronald Polcawich	MTO
MAXIMA: Multi-Mode Hybrid Power Amplifier with EXTreme Instantaneous Bandwidth and Recursive Scalable Marchand-Doherty Load Modulation Network	Georgia Institute of Technology	Hua Wang	hua.wang@ece.gatech.edu	Timothy Hancock	MTO
Generalized Assymetrical Multi-port mm-Wave Power Amplifier Architecture for Simultaneous Frequency and Back-off Re-configurability	Princeton University	Kaushik Sengupta	Kaushiks@princeton.edu	Timothy Hancock	MTO
Decentralized Tactical Modular Teaming for Real-World UAS Networks	Stanford University	Mac Schwager	schwager@stanford.edu	Craig Lawrence	STO
Horizontal Coordination in Disaster Relief Operations: Incentives and Mechanisms	Arizona State University	Mahyar Eftekhari	Eftekhari@asu.edu	Fotis Barlos	STO
RETICLE: Energy Harvesting IoT Devices for Situational Awareness	Arizona State University	Umit Ogras	umit@asu.edu	Neil Fox	STO
Hyper-Dimensional Modulation for Robust Low-Latency Low-Power IoT Networks	University of Michigan	Hun-Seok Kim	hunseok@umich.edu	Neil Fox	STO
A bio-inspired approach to fly undetected in cluttered environments	University of Oklahoma	Andrea L'Afflitto	a.lafflitto@ou.edu	Jean-Charles Ledé	TTO
Unified Bayesian Networks for Uncertain Inputs and Partial Model Ensembles	University of Notre Dame	Daniele Schiavazzi	dschiavazzi@nd.edu	Peter Erbland	TTO

Identification and Estimation of Swarm Intent via Partitions of System Dynamics	Arizona State University	Sze Zheng Yong	szyong@asu.edu	Timothy Chung	TTO
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