

[Defense Advanced Research Projects Agency](#) Program Information [Autonomous Diagnostics to Enable Prevention and Therapeutics \(ADEPT\)](#)

# Autonomous Diagnostics to Enable Prevention and Therapeutics (ADEPT)

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The Department of Defense must be able to provide health care anywhere in the world at anytime. Autonomous Diagnostics to Enable Prevention and Therapeutics (ADEPT), is a five year program that seeks to provide Soldiers, Sailors, Airmen and Marines actionable information about their health, on-demand, by developing the following capabilities: diagnostics that can be carried on-person and self-administered, coupled with formats suitable for preservation of self-collected biospecimens for later expanded testing, if necessary; highly-multiplexed tests that can be performed outside of clinical laboratories; and, new methods to achieve effective immunity. These capabilities are being investigated through two efforts.

ADEPT - Diagnostics on Demand (DxOD): DxOD aims to enable in-vitro devices that address current clinical diagnostic needs and are reconfigurable to decrease the time to design, manufacture and rapidly distribute assays in response to an emerging diagnostic need. The program is addressing diagnostic technologies for use in two settings: diagnostics tailored for self-performed tests in limited resource settings and in point-of-care settings. These efforts will improve diagnostic capability and medical care in garrison, as well as in field, fleet, and air transport settings. An additional thrust of the DxOD effort includes capabilities to preserve, ship, archive and recover biomarkers from a self-collected biospecimen.

DARPA released a Request For Information related to this facet of the ADEPT program on November 14, 2011.

ADEPT - Controlling Cellular Machinery (CCM) includes two components and leverages advances to prevent, detect and treat disease using in-vivo and continuous monitoring methods.

Diagnostics and Therapeutics, launched in August 2011: advances the fundamental development and application of synthetic methods to detect, report and treat disease.

Vaccines, which began in September 2011: focuses on developing a non-integrating nucleic-acid based vaccine that has the potential to be safer and more effective than traditional vaccines.

| [Disease](#) | [Health](#) | [Therapy](#) |

## ASSOCIATED CONTENT

[THOR Aims to Help Future Patients “Weather the Storm” of Infection](#)  
[Battlefield Medicine](#)  
[Dialysis-Like Therapeutics \(DLT\)](#)  
[In Vivo Nanoplateforms \(IVN\)](#)  
[Pathogen Predators](#)

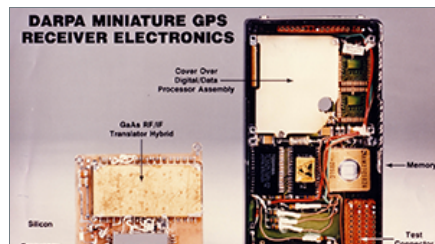
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## SELECTED DARPA ACHIEVEMENTS



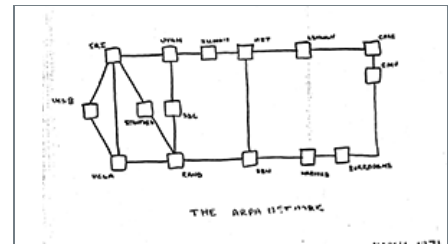
## DARPA's Stealth Revolution

Under a code-word program, "HAVE BLUE," two aircraft of unprecedented design were built and then, in April 1977, flown successfully.



## Navigation in the Palm of Your Hand

Early GPS receivers were bulky, heavy devices. In 1983, DARPA set out to miniaturize them, leading to a much broader adoption of GPS capability.



## Paving the Way to the Modern Internet

ARPA research played a central role in launching the Information Revolution. The agency developed and furthered much of the conceptual basis for the ARPANET—prototypical communications network launched nearly half a century ago—and invented the digital protocols that gave birth to the Internet.