



Diagnostics For All
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About DFA

DFA is a non-profit enterprise fusing biotechnology and microfluidics, dedicated to creating low-cost, easy-to-use, point-of-care diagnostics designed specifically for the 60% of the developing world that lives beyond the reach of urban hospitals and medical infrastructures. Our elegantly simple and inexpensive devices require minimal training to use, practically no sample preparation, and no electricity or additional equipment to process a sample. Results are displayed quickly in an easy-to-read format and all devices are compatible with telemedicine networks. Over the past several years, Professor George Whitesides and his team at Harvard University have pioneered the technology underlying our devices; and DFA holds an exclusive worldwide license for medical and other applications.

History

December 2007	Incorporated in Delaware
April 2008	Wins Harvard Business School 12th Annual Business Plan Contest
May 2008	Wins MIT \$100K Entrepreneurship Competition, the competitions first non-profit winner
June 2008	Receives confirmation of 501(c)(3) status from IRS
November 2008	Harvard University wins 5 year grant from the Gates Foundation, with DFA designated as subcontractor for the development of a Critical Organ Function Test for the liver
January 2009	Establishes research and development laboratory in Cambridge, MA; launches program to develop Critical Organ Function Tests
July 2009	Agreement signed with Harvard University giving DFA exclusive licensing rights for diagnostics technologies developed in the laboratories of George Whitesides

Frequently Asked Questions

1. What is Diagnostics For All (DFA)?

Diagnostics For All is a 501(c)(3) non-profit enterprise established to create and deploy low-cost, easy-to-use, point-of-care diagnostic devices designed specifically for the developing world. DFA is neither an aid-organization nor a for-profit biotech firm, and it relies on strategic partnerships, grant-giving organizations, and individual donors to support its mission.

2. What is DFA's mission?

DFA's mission is to save lives and improve health in the developing world using elegantly simple technology to create diagnostic devices meeting the needs of those living in resource poor regions.

3. Why has DFA been established as a non-profit enterprise?

DFA has been established as a non-profit enterprise so that it can maintain its focus on saving and improving the lives of people in resource-poor settings. For-profit firms are obligated to deploy resources to maximize returns to their shareholders, and this obligation would inevitably pull DFA away from its mission. But we are as purposeful and goal-driven as any for-profit firm.

4. How does DFA support its activities?

DFA benefits from a broad spectrum of financial donations and pro-bono contributions that help to support everything from our technology development to our regular organizational operations. We rely on strategic partnerships, grant-giving organizations, and individual donors to support our work. For example, DFA is a designated subcontractor in a 5-year grant

from the Bill and Melinda Gates Foundation awarded to Harvard University. DFA also holds the exclusive license to diagnostic technologies relevant to resource-poor settings that have been developed in the Harvard University laboratories of George Whitesides. We intend to generate revenue through licensing of this technology for use in the developed world to supplement our philanthropic support.

5. How will DFA know if it has been successful?

Our success will be measured in how broadly we can make a difference in how healthcare is delivered in the developing world and in how many lives we can save and improve through our diagnostic devices.

6. Why diagnostic devices?

Diagnostics are critical to improving global health. As broader ranges of treatments for infectious and parasitic diseases are extended to larger numbers of people in the developing world, the ability to accurately diagnose diseases and monitor the effects of these treatments becomes increasingly important. While 60% of the population in the developing world lives in rural areas beyond the reach of well-equipped urban hospitals, there are few diagnostic devices available that are affordable and adequately sensitive and reliable in these settings.

7. What technologies does DFA use?

DFA has exclusive license from Harvard University to a technology platform developed by Professor George Whitesides and his researchers at Harvard University. And we are always alert to opportunities to expand the range of technologies that we can bring to bear to create inexpensive diagnostic devices specifically tailored to the needs of resource-poor regions of the world.

8. Will DFA's devices be useful outside the developing world?

While DFA's devices are being designed with the developing world in mind, we believe that there will be many situations in the developed world where low cost, rapid, semi-quantitative, point-of-care devices will be useful, particularly in pediatrics, emergency response, public health screening, environmental control, veterinary medicine, and for the military.

9. What sets DFA's diagnostic devices apart?

DFA's diagnostic devices are designed specifically for use in resource-poor settings. Our point-of-care devices are inexpensive to manufacture, and they are self-contained so that they can be used independently of existing medical infrastructure. They are lightweight, durable, and require no auxiliary equipment or electricity to function or to process a sample. They are also user friendly and require minimal training, are minimally invasive, and can be safely disposed of through incineration, with practically no environmental impact.

10. Will DFA's devices be compatible with the emerging use of telemedicine?

Yes! DFA's diagnostic devices will provide output in forms readily interfaced with cell phones and other telemetric devices.

11. How will DFA manufacture and distribute its diagnostic devices?

DFA envisions establishing a network of partnerships and relationships, through licensing and direct contractual arrangements, to manufacture and distribute its devices throughout resource-poor regions of the developing world.

12. What is DFA working on now?

DFA's first project is a rapid, low-cost, point-of-care diagnostic device used to monitor liver function – which is critical in the developing world for monitoring the adverse side effects of the powerful drugs used to treat HIV/AIDS and TB, and for managing the treatment of viral hepatitis. From a single drop of whole blood, DFA's device will allow the semi-quantitative determination of two key liver enzymes that are routinely used to measure liver toxicity among patients receiving antiretroviral medications. The test will determine whether blood levels of these two enzymes are baseline/normal, greater than 2x baseline/normal, and greater than 5x baseline/normal, important ranges for clinical decisions.

13. What is in DFA's future?

In time, we will develop devices for broader assessments of patient health and for a range of important diseases such as TB, malaria, HIV/AIDS, and diabetes. For example, we plan to extend the functionality of the liver diagnostic device to detect kidney disease as well. And we will remain alert to other technological innovations that would extend our ability to create low cost diagnostic devices suitable for the developing world.

14. Who is behind DFA?

Beyond its full-time staff, DFA benefits from the efforts of a large number of individuals and organizations that share in its mission to improve global health through new diagnostics. Founded by a group of scientists, entrepreneurs, and students, DFA owes much of its progress to George Whitesides and his research group at Harvard University, who continue to be a rich source of technical innovation from which DFA can draw and build upon.

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