

Handheld Diagnostic Device Delivers Quick Medical Readings



Glenn Research Center

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NASA Technology

- ◆ In preparing for a manned mission to Mars, NASA was looking for a reliable, durable handheld device that could quickly deliver health readings
- ◆ With a single drop of blood, they wanted the device to display white and red blood cell counts and also measure for biomarkers like electrolytes



Technology Transfer

- ◆ Through Small Business Innovation Research (SBIR) funding, DNA Medicine Institute developed such a device in the rHEALTH
- ◆ rHEALTH has the added capability of registering readings for several biomarkers in a single blood sample using nanostrip technology

Benefits

- ◆ The rHEALTH delivers readings in a matter of minutes, cutting the waiting time drastically when compared to samples sent to labs for analysis
- ◆ Patients can measure their own insulin, thyroid hormone, and cholesterol levels from home
- ◆ Unlike conventional blood test cartridges, the device's sensor units are reusable