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Dear Bill and Michael:

I thought a great deal yesterday about matching your RFID tag technology with our cell phone platform technology and the market applications are in fact much larger than we first realized. I am very excited by the prospects.

While food testing is a huge market in itself there is an even bigger market which is medical diagnostics.

The issue that I see with a tag that is dipped into a liquid is shorting or saturation of the polymer or doped ink electrodes. There are ways around this but it will take some time and R&D to sort this out. On the other hand I thought yesterday of a much simpler way to get started in an area that I know well. The area is biomarkers and the application I envisioned yesterday is the following. You could easily create a skin stick on "patch" that includes your tag combined with proprietary receptors that will measure specific chemicals that are exuded from the skin as a result of applying the patch. The environment is not wet but semi wet and the patch could include an external color change indicating when the proper vapor saturation level has occurred. Testing excreta from the skin is a new and powerful area in medical diagnostics. Since it is non-invasive and very cheap this is a worldwide market. Furthermore FDA oversight may be very limited in this case. People could self-test themselves for pretty much anything including for tests that need to be done daily (diabetes, etc.). The medical and biomedical range goes from real time temperature monitoring of patients to sophisticated multiple disposable biomedical tests. As you know medical diagnostics is a multi-billion dollar market and cutting diagnostics costs is a top international priority.

I published two books on biomarkers with the National Academy of Sciences and have an excellent network of top scientists we can tap into immediately. For example people like the former White House physician would immediately join the team.

ABBOTT-2005
Abbott Labs, Inc. v. Altivera LLC
IPR2024-00425

I consider the “patch” biomedical application a new technology. We could include it in the joint food testing patent we are presently contemplating or alternatively I will file yet another patent describing very specific biomedical applications and chemistries for this given technology. Again a key to the success of this given technology is to be able to use cell phones as the basic platform to do the calculations, to provide the power and to allow remote or local (on person) monitoring and surveillance.

The technology is really impressive because you can activate the cell phone and check on sensor values remotely or locally for pretty much any medical, biomedical or biotechnology application. What needs to be changed simply are the receptor chemistries on the disposable tag. The tag may include all the necessary IDs or alternatively that could be put into the matching “swappable module” on the cell phone. That is you could buy a “diabetes” cell phone kit, etc. The basic cell phone platform remains always the same. A key advantage of the technology is that it allows the electronic collection of “hard” data on patients. Other ultra low cost disposable technologies do not allow that.

This electronic letter serves as a record for this invention and this disclosure is made under our executed NDA. Please let me know how you want to proceed and if the medical diagnostics area is of interest to Matrics. I would be delighted to work with you to jointly get this technology and what we already discussed previously to market.

John P. Peeters, Ph.D.

MEDICAL DIAGNOSTICS APPLICATIONS

