

# Deep Tech

THE FUTURE BEGINS TODAY

BY RIK MYSLEWSKI



## GET READY FOR THE iPILL

It's a Monday morning in 2018, and you feel like crap. It can't be your allergies, because those robot pills that you've been taking—the ones patented by Philips way back in 2007—automatically adjust your Claritin dosage based on pollen-level readings wirelessly beamed to them from the Web as they slip 'n' slide through your gastrointestinal tract. So you plug your USB-powered biosensor into your Mac, let it nip your fingertip, and read your pulse and blood pressure. In a flash, Dose Manager Mac Gold Edition II displays its diagnosis: a mild intestinal infection—nothing serious. Dose Manager instructs you to take pill A3 from your Philips RoboDoc PillPack™. Using a radio-frequency scanner, Dose Manager will monitor that pill until it passes your sensitive tummy and arrives in your intestines, then beam it a signal to begin releasing the precise amount of medication you need based on your age, weight, and other biometric factors.

Yes, we're on the verge of a brave new world of medication delivery. [Philips has recently applied for a patent for a remote-controlled pill that contains compartments for medicines, electronically controlled release valves, a timer and radio-controlled circuitry to operate the valves, and an RFID chip for tracking and inventory.](#) The amount and mixture of medicines released can be predetermined and managed by the timer, or it can be managed in real time, with instructions sent either through radio signals or in response to ultrasonic vibrations that are picked up by piezoelectric sensors inside the pill. Sorta makes Contac's "time-release pills" (or "tiny time pills," depending on your vintage) seem a wee bit archaic, eh?

The genius in these pills is that they can respond to outside influences. Is it cold and damp today? Well, then your daily dose of arthritis medicine will be able to get that information from your Mac's Internet connection, match it up to your location as determined by your personal GPS, then distribute the right amount of Celebrex for your aching knees throughout the day. If it's bright and sunny tomorrow, it'll cut back the dose as appropriate. And don't worry about having to hang around your Mac—when it's bombs-away time, your Mac will call your mobile phone, which will relay the instructions to the smart pill happily traversing your gut.

Also, when you're stuck in a hospital, you'll never need to be awakened by some grumpy Nurse Ratched every four hours to take another handful of pills—you'll just take one set of pills in the morning, and they'll dispense each of your meds at exactly the right time over the next 24 hours.

And finally, Philips plans to make these RoboPills so inexpensive that you won't have to...uh...*search* for them when they've done their duty. I thought that little detail would make the whole idea seem a bit more palatable.

**Rik likes to think he would have taken the red pill rather than the blue pill.**