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## East Coast Biotech Roundup: JP Morgan Edition



## Ben Fidler

The biotech world's official state of the industry lollapalooza—the JP Morgan Healthcare Conference in San Francisco—has come and gone, and taken along with it the sunny weather, the wall to wall investor meetings, the jam-packed presentations, and the late-night cocktail parties (back to the polar vortex for all of us East Coast folks). Xconomy's National Biotech Editor Luke Timmerman and I will be emptying the notebook over the coming weeks with some of the stories we found around Union Square. But for now, here's a recap of the biggest headlines while biotech was front and center in San Francisco this week:

—Sanofi's Genzyme unit plunked down \$700 million [to snag a 12 percent stake in Alnylam Pharmaceuticals](#) (NASDAQ: [ALNY](#)), the Cambridge, MA-based RNA interference drug developer. The two significantly expanded their ties as part of the investment, as Genzyme now has partial rights to a lot more RNAi drug candidates that are being developed from Alnylam's platform. Alnylam, however, made sure to keep rights to its RNAi drugs in the U.S. and Western Europe, for the most part. Alnylam's shares soared more than 40 percent on the news.

—Alnylam also snapped up what's left of one of the original movers in the RNAi field, Sirna Therapeutics. Merck paid \$1.1 billion for Sirna in 2006, but has since exited the RNAi field, opening the door for Alnylam to get ahold of more IP and delivery technology in the RNAi world. Alnylam [paid \\$175 million up front](#)—\$150 million in stock, and \$25 million in cash—for Sirna. Merck could also get up to \$105 million, per product, in milestone payments for each RNAi drug that comes out of Sirna going

forward.

—Dublin, Ireland and Waltham, MA-based Alkermes (NASDAQ: [ALKS](#)) also kicked off the JPM festivities with a big announcement. It raised \$250 million that, as Luke wrote, [the company didn't necessarily need](#). Alkermes is selling 5.9 million shares at \$42.25 apiece through a registered direct offering to a single shareholder—U.K.-based Invesco Perpetual. Alkermes made the move for a number of strategic reasons, like to help fend off takeovers. But it might also use the big cash haul to acquire or in-license assets.

—One of the other big East Coast movers this week was Cambridge-based Moderna Therapeutics. The messenger RNA specialist, which has corralled more than \$350 million through various deals over the past year, added another \$125 million to its bank account [by inking a partnership with Alexion Pharmaceuticals](#) (NASDAQ: [ALXN](#)). Through the deal, Alexion will get the right to develop and commercialize as many as 10 of Moderna's mRNA therapies for rare diseases .



The Westin St. Francis, site of the JP Morgan Healthcare Conference

—Moderna also started spending some of the dollars it's been saving up. It took \$20 million and used those dollars [to spin out a new company called Onkaido Therapeutics](#), which is starting up with 15 preclinical cancer drug candidates that Moderna had been testing. Stephen Hoge, Moderna's senior vice president of corporate development, is stepping in as CEO of the new venture. Moderna is the sole owner of Onkaido for now, though it will look at bringing more public or private investors in later on, Moderna CEO Stephane Bancel said.

—Cambridge-based Arteaus Therapeutics was created a few years ago essentially as a vehicle to grab the rights to a migraine drug candidate designed by Eli Lilly (NYSE: [LLY](#)), develop it through a proof-of-concept study (with Lilly's help), and eventually sell it back if things broke right. This week, they did: [Eli Lilly bought the drug](#)—an antibody that targets a brain protein called calcitonin gene-related peptide—from Arteaus after a mid-stage clinical trial it deemed a success. The Indianapolis pharma giant didn't disclose how much it paid for the drug candidate, but said it would take a 2013 pre-tax charge of about \$57.1 million as a result of the deal. Arteaus was formed with the help of an \$18 million round from Atlas Venture and OrbiMed Advisors. You can read [Atlas partner Bruce Booth's recap of the Arteaus story](#), from inception to sale, on Forbes.

—New York-based Intercept Pharmaceuticals (NASDAQ: [ICPT](#)) quickly became one of the most talked-about biotechs at the conference off of its [unexpected mid-stage trial results last week](#). But the company's stock price has fluctuated wildly since then as some concerns arose about the effect its drug on patients' cholesterol levels, and CEO Mark Pruzanski intimated that the company [might need to form a partnership to sell the drug](#), obeticholic acid (assuming it passes through Phase III trials and is approved by regulators).

—Another local biotech lined up an IPO during JP Morgan: Lexington, MA-based Concert Pharmaceuticals. The company, which adds deuterium to existing molecules

to boost their abilities, outlined plans [to raise up to \\$74.75 million](#) from public investors through an IPO. Concert plans to trade on the Nasdaq under the symbol “CNCE” if it completes the offering. Just last year, Concert inked a deal [with Summit, NJ-based Celgene](#) to make deuterium-boosted cancer and inflammation drugs. It also has partnerships in place with Jazz Pharmaceuticals and Avanir Pharmaceuticals.

— Lexington, MA-based Cubist Pharmaceuticals (NASDAQ: [CBST](#)) revealed this week that it decided [not to exercise its option to buy San Francisco-based Adynxx](#), which is developing a drug candidate for post-operative pain. Cubist paid \$20 million for the option [to acquire Domain Associates-backed Adynxx in 2011](#), and would’ve shelled out another \$40 million if it had exercised it. But Cubist didn’t like what it saw from a Phase II trial of Adynxx’s experimental drug, AYX1, according to a statement it released: “While AYX1 was well-tolerated in this trial and the observed clinical response may warrant continued exploration, the magnitude of the clinical response did not meet Cubist’s exercise criteria,” Cubist said in a statement.

—Celgene (NASDAQ: [CELG](#)) has teamed up with Patrick Soon-Shiong once again. The big cancer drug maker has paid \$75 million to cut a deal with Soon-Shiong’s Los Angeles-based NantBioscience, through which the two will work together [to develop nanoparticle albumin-bound cancer drugs](#). Celgene has licensed two such drug candidates over to NantBioscience as part of the deal, with an eye on potentially buying them back after some early clinical studies. The \$75 million consists of an upfront fee and an equity investment, though Celgene didn’t indicate how much each piece is worth. Soon-Shiong, of course, created [protein-bound paclitaxel](#) (Abraxane), the jewel of [Celgene’s \\$2.9 billion buyout of Abraxis Biosciences](#) in 2010.

—Cambridge-based Sarepta Therapeutics (NASDAQ: [SRPT](#)) provided the latest update to [the ongoing small mid-stage clinical trial its running for eteplirsen](#), its Duchenne Muscular Dystrophy drug, and the numbers continued to hold up. Though

Sarepta's path to regulatory approval still remains unclear, investors sent the company's shares up 40 percent after the data were released. Sarepta separately named Art Krieg—recently the CEO of RaNA Therapeutics—its new chief scientific officer.

—New Brunswick, NJ-based Johnson & Johnson (NYSE: [JNJ](#)) sold its Ortho-Clinical Diagnostics division [to private equity firm Carlyle Group for about \\$4.15 billion](#).

—Lexington-based Agenus agreed to acquire [privately-held European antibody discovery shop 4-Antibody](#). Agenus is paying \$10 million in stock up front, and potentially another \$40 million in either cash or shares tied to certain milestones. The deal is expected to close by the end of February.

—Tarrytown, NY-based Regeneron Pharmaceuticals (NASDAQ: [REGN](#)) and Bayer have cut another deal, this time to co-develop [an antibody that would be used in tandem with Regeneron's aflibercept](#) (Eylea) for patients with age-related macular degeneration. Bayer is paying Regeneron \$25.5 million up front and is sharing the costs with the New York company to develop the antibody. Regeneron could also see another \$40 million from Bayer if regulators approve the drug.

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## UNDERWRITERS AND PARTNERS



## MIT Sloan Students Meet Bay Area Innovators Tackling Huge Problems

**Thomas Iljic**

I'd heard a lot about Silicon Valley, but had lived and worked in Europe and Asia until I came to MIT Sloan School of Management. Passionate about bringing new technologies to market, I wanted to do an MBA program in the U.S. because, more than anywhere else, this is where taking risk is valued as a driver of change. That seems to be especially true in Silicon Valley, and I was eager to see it for myself.

Organizing our Technology Club's annual Tech Trek to Silicon Valley, I planned visits to a mixture of hardware and software companies. I also requested that we meet with people from different functions, including product management, which is an area many MIT Sloan students are interested in these days.

First up was eBay Inc., which was eye opening for us because it's so much more than just the site that everybody knows. From PayPal to eBay Now, the company has done an impressive job growing its different businesses. Its innovation group discussed the exciting work it's doing in major cities, such as interactive "window shopping" with top fashion and consumer electronics brands. With eBay Now, you can order anything from your mobile phone and someone will immediately buy it and deliver it to you. There are plenty of opportunities for MBAs to innovate and make a real impact there.

Next we went to Apple where we met with MIT alumni in operations positions. It was great to hear about their day-to-day work. An alum in charge of work production for iPhone accessories discussed managing the production of massive numbers of units in factories across the world so that Apple can meet its huge demand. You could literally hear his phone constantly ticking, which was an audible signal for the flow of

products being made.

He explained how any problem, technical or operational, would require their teams to fly over, assess the problem, and find counter-measures to ensure that consumer demand is met in time while respecting the company's ethics. The size of these challenges is mind-blowing, but that's why we're at MIT. We want to tackle these types of huge problems.

Our third visit was to Cisco where we met with people in corporate strategy. Cisco is a leader in more than 15 product categories related to wireless, networks, and infrastructure, and recently announced at CES that it's moving forward on the Internet of Things. An all-connected world is like a playground for Cisco. Our panelists were very excited to talk about how they are designing those future strategies. We signed confidentiality agreements, so I can't say too much about it, but it was cool to see how the company has a team of MBAs assigned to different challenges. A lot of Sloan MBA students also come from consulting backgrounds, so this was definitely appealing for the group.

We started the next day at LinkedIn. It was fascinating to learn about the company's strategy and how it leverages technology and data to serve its mission of creating economic opportunities worldwide. On top of a robust business model, it constantly integrates new functions and leverages data to gain insights on how to connect opportunities. It is now possible for the company to anticipate when someone will start looking for a job and make sure everything is aligned to maximize the matching of talent and skills. LinkedIn's expansion strategy worldwide also was very interesting, as there are big challenges in tackling the different cultural approaches to a job search. With its young, vibrant and energy-filled environment, LinkedIn is definitely worth considering further.

Then we visited SanDisk, where we met the most senior panel of the week, which included chief financial officer Judy Bruner. You might think the memory and storage



company is mainly focused on R&D and production, but there is so much more involved at all levels, from sales and product marketing to international operations and strategic partnerships. The panelists explained how the company leverages some of the teachings that MBAs learned in school by applying those methodologies to transform the company. The impressive track record from 2008 (\$1B loss) to now (\$1.5B profit in 2011) speaks for itself. Hardware companies are definitely still in the game, and SanDisk is an extremely well managed one. SanDisk felt like a great discovery.

Afterward, we headed to Facebook. The famous campus didn't disappoint with its shops and open work spaces. It felt very trendy and techie with a strong emphasis on engineers, who comprise about 90% of the staff. The alumni we spoke with discussed their role in delivering impact at the global scale. Weekly hackathons are held to stimulate ideas throughout campus. The company's strategy is strongly focused on growth, but there is room to take the lead on new ideas. The attitude seems to be: Do it, show it to your peers, and see if you can move it forward. While the company is big and has gone through an IPO, there is still room for innovators to add value.

On our final day, we visited Google and heard from a large panel of alumni. In an inspiring speech, MIT alumnus Jim Miller, VP of Operations, talked about the vision of Google for the decades to come, his insights on what he saw at CES this year, and the Google initiative on genomics. From artificial Intelligence to telecommunication infrastructures to robotics, the company is preparing the future. That surely makes it an exciting environment with unique possibilities to evolve and learn.

We concluded our trek back in San Francisco at Quantcast. I was impressed by how deeply the company has thought about the transformations of the advertisement industry and the technical means it has put behind that thinking. Its work is heavily

data intensive (petabytes of data are generated each day to be analyzed with machine learning algorithms), but quite attractive for quant-savvy Sloanies.

After our Trek, our group was more interested than ever in working in the Bay Area. Great opportunities exist within these larger tech companies and there's never been a better time to come to Silicon Valley.

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## 2013 VC Funding Tops \$29B, and Software Continues to Eat the World



**Bruce V. Bigelow**

A few years ago, the technology investor Marc Andreessen wrote an essay that explained [“Why Software is Eating the World”](#)—and in 2013 venture capital investors laid out a feast to match the industry’s voracious appetite.

Venture investments in both software and Internet-specific deals last year amounted to \$18.1 billion, or nearly 62 percent of the \$29.4 billion total that VCs invested in all industries nationwide, according to the end-of-year MoneyTree Report being released today. The report is prepared by PricewaterhouseCoopers and the National Venture Capital Association, based on data from Thomson Reuters.

Software investments alone accounted for more than a third of the year's total, as venture firms pumped \$10.9 billion into the sector—a 27 percent jump from the nearly \$8.6 billion that went into software in 2012. The deal count increased by about 10 percent (from 1,384 deals in 2012 to 1,523 last year), and software obviously continues to reign as the single biggest sector for venture activity.

At the same time, VC funding for Internet-specific companies hit a 12-year high in 2013, with investors sinking more than \$7.1 billion into 1,059 transactions nationwide, according to MoneyTree data. That represents a 7 percent increase in dollars (and a 6 percent increase in deals) compared with 2012, when VCs invested nearly \$6.7 billion in 995 Internet deals.

Altogether, the \$29.4 billion that VCs invested in 3,995 deals throughout the U.S. last year represented a 7 percent increase in dollars, and a 4 percent rise in deals, compared with 2012, when VCs put \$27.3 billion in 3,858 deals. (A list of the top 10 deals of 2013 is below)

“It is no surprise that more venture capital dollars are flowing into [... Next Page »](#)

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## Promentis's \$2.9M Series B Round to Fund Human Trials



**Jeff Engel**

Promentis Pharmaceuticals intends to move its novel compounds for treating central

nervous system disorders into the human testing phase, thanks to a \$2.9 million Series B round of financing just closed by the Milwaukee pharmaceutical startup.

[Promentis](#), founded in 2007, is developing molecules to modify brain chemistry to treat schizophrenia, Parkinson's disease, autism, and other disorders.

The [Series B money](#) allows it to hire staff—it grew from four to five employees this week—and move forward with securing approval from the FDA to advance two compounds into human clinical testing some time in the next two years, said Promentis president and CEO Chad Beyer.

The funding round was led by Black Horse Investments, which is based in Düsseldorf, Germany, and headed by Promentis board member Patrick Schwarz-Schuetz. Black Horse contributed \$2 million to the round. The rest was from private investors and Golden Angels Investors, a Milwaukee-area group that led Promentis' \$1.94 million Series A round in 2010.

Promentis has secured another \$2.6 million in grants and loans, Beyer said.

"The Series B round really gives us the bandwidth to take the science from the pre-clinical world into the clinic," Beyer said in a phone interview. "That's an exciting point for our company, to be able to take the science and see if there's a real value to patients."

Promentis compounds have shown promise in balancing levels of the neurotransmitter glutamate and preventing oxidative damage to brain cells, two key problems in central nervous system disorders, Beyer said.

Promentis' technology was licensed from Marquette University and the University of Wisconsin-Milwaukee. The company has also designed and synthesized its own proprietary molecules.

Promentis was co-founded by David Baker and John Mantsch, two biomedical sciences associate professors at Marquette. Baker serves on Promentis' board of directors and chairs its scientific advisory board. Mantsch remains a paid consultant, Beyer said.

The board includes three prominent executives from the former Schwarz Pharma: Schwarz-Schuetz, Klaus Veitinger, and Daniel Lawton, Promentis' CEO before Beyer took the helm last year. Schwarz Pharma was a German-based company that had U.S. headquarters in Mequon, WI, north of Milwaukee. UCB of Belgium acquired Schwarz Pharma in a \$6 billion deal in 2006.

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## WSU Student-Led SIB Medical Technologies Prepares Prototype for Market



### Sarah Schmid

Sagor Bhuiyan and Adham Aljahmi aren't your typical college seniors. In addition to being pre-med students, they've launched [SIB Medical Technologies](#), a startup that aims to commercialize at-home stool sample collection kits that they say are simpler and less likely to expose patients to toxic materials.

Bhuiyan learned of the device, which was invented by Wayne State University (WSU) Professor Jeffrey L. Ram, through the university's technology commercialization

department.

SIB Medical Technologies' device simplifies the stool sample collection process, which can typically get messy and involve multiple components. "It's a two-compartment device," he explains. "You pull the lever and there's no need to put the sample in separate vials, and there's no mixing."

Bhuiyan says he and Aljahmi were interested in founding a startup because they saw a way to solve a simple need that also has forensic applications. Bhuiyan and Aljami signed up for [WSU's Blackstone Launchpad program](#), which nurtures student-led startups, and they officially formed SIB Medical Technologies in January 2013.

Since that time, SIB has gone on to snag \$5,000 from [WSU's Warrior Fund](#), and mentoring plus a \$7,500 resident technology commercialization grant from the [TechTown business accelerator](#). In November, the company came in second place and won \$15,000 in the student portion of the annual [Accelerate Michigan business competition](#).

"We're working hard on our next iteration," Bhuiyan says. "The initial prototype lacks a few design elements before it goes commercial. But so far, we're getting pretty good and helpful doctor and patient feedback."

Bhuiyan hopes to have the device on the market by the summer. The company hasn't settled on a revenue model, but Bhuiyan says they'll either try to license the technology or sell it themselves. The company is also looking into a formal fundraising round in the near future.

Bhuiyan is quick to credit Blackstone for playing a big role in helping the company prepare to bring its device to market. In the past, he started a social networking site for young professionals and a mobile app, but they failed fairly quickly, so Blackstone helped usher him to the next startup opportunity.

“Being a student and also trying to start a company was an eye-opening experience,” Bhuiyan adds. “But I definitely encourage other students to pursue starting their own business.”

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## A Stroll through Eureka Park, a Wonderland for Startups at CES



[View the Slideshow](#)

**João-Pierre S. Ruth**

It would not be a tech show without a peek at ideas still in the workshop.

Flexible, printed circuitry, pet activity trackers, and magnetic data connections for smartphones turned Eureka Park into a gallery of emerging technology at last week's International CES (see slideshow).

The show space set aside for startups, and a few growth-stage companies, continued to expand in its third year. This time more than 200 exhibits, up 30 percent from CES 2013, populated Eureka Park. Just because startups turn up at this annual tradeshow in Las Vegas does not mean they will become big hits—or even go to market. But Eureka Park shows how the tech community is taking more interest in ideas that are still a bit raw.

Hailing from the Forest Hills section of Queens, NY, FitBark trotted out the latest

version of its [fitness tracker for pets](#). The device attaches to dogs' collars to let pet owners monitor how much exercise Fido gets.



FitBark co-founder Davide Rossi sought feedback at Eureka Park (photo by João-Pierre S. Ruth.)

Davide Rossi, co-founder of FitBark, made the trip with his sister and co-founder Sara to International CES for the first time. Since I last caught up with the Rossi siblings, FitBark reduced the size of its pet tracker a little bit and relaunched its Kickstarter campaign. Last August, FitBark raised about \$80,800, more than double its goal of \$35,000. The device has yet to hit the street, but FitBark continues to update its mobile app and other technology. “We spent most of 2013 testing the system, the Web server, and machine learning algorithms,” Davide Rossi said.

Coming to Eureka Park, he said, gave the FitBark team plenty of real-world input on the forthcoming device. “I have a feeling after Kickstarter, this is the next best place to get real feedback on the product, distribution, and visibility for opportunities,” he said.

That feedback may help, given how competitive fitness tracking for pets has become—even though some of these products have yet to get into consumers' hands. Other startups such as [Whistle are working on rival devices](#). Rossi said his



startup's technology has potential uses that could set it apart. FitBark's API (application programming interface), he said, can be used by retailers to recommend food and toys based on dogs' energy levels.

FitBark plans to ship its product at the end of March, first to its Kickstarter backers. Shortly after, companies with retail distribution agreements are expected to get the pet trackers, Rossi said. The FitBark pet tracker will sell for \$99; a bundle that includes a base station to capture data from the device is priced at \$149.

Startups from many cities brought their ideas to Eureka Park, including the team from MPOWERD in New York, who introduced new multicolor versions of its [inflatable solar-powered lights](#).

And Toronto, Canada-based Nano Magnetics demoed its concept, the "Nanoport," which uses magnetic connectors to synch data and power across multiple smartphones. Two or more smartphones equipped with Nanoports could, for example, snap together side-by-side to share their screens as one continuous unit (kind of like an improvised tablet). Other accessories such as batteries and speakers could also be attached. The Nanoport is still in development, though the company has had some talks with smartphone makers.

Nano Magnetics also makes Nanodots, a construction kit comprised of tiny magnetic spheres, and Nanodots Gyro, magnetically-responsive gyroscopes.

Technology being developed in academic circles also surfaced among the exhibits. A team from Columbia Technology Ventures, the tech transfer office at Columbia University, demoed their NimbleDroid optimization software. Junfeng Yang, an assistant professor in the department of computer science at Columbia, said NimbleDroid can make Android-based devices operate up to five times faster. "It also extends their battery life by one or two hours every day," he said.

Yang showed how the NimbleDroid software could make the default document viewer on Android devices run more smoothly, with improved rendering of fonts. NimbleDroid is currently in private beta, he said.

Another crew of academics displayed potential uses for nanomanufacturing techniques they have been working on. The folks from the University of Texas at Austin showed flexible photovoltaic cells that could be incorporated into new types of curved or flexible consumer gadgets. They also presented flexible plastic with nanoscopic features etched into the surface through imprint lithography.

The goal, said UT Austin's Larry Dunn, is to develop new nanomanufacturing tools for electronics. He is an industrial liaison officer with the NASCENT Center at the Cockrell School of Engineering. "The killer, future mobile device we're looking to enable would be a flexible, clear plastic cell phone," Dunn said.

That would require printable, flexible parts—such as batteries, displays, transceivers, and circuitry—he believes the UT organization can help develop. The center works on nanomanufacturing systems for mobile computing and mobile energy technologies. It is about one and a half years old and is backed by the National Science Foundation. Academic partners in the center, Dunn said, include the University of California, Berkley and the University of New Mexico.

NASCENT also gets help from the commercial world through a partnership program with companies such as Applied Materials, Tokyo Electron, 3M, Corning, Lockheed Martin, and Raytheon. "Our industrial partners, in exchange for annual membership dues, get preferential intellectual property licensing rights, can recruit from our student body, and visit us for meetings," Dunn said.

The crew from UT Austin came to CES, he said, to see how their ideas can fit into next-generation, commercial gadgets—and to get a feel for nurturing technology on their own. "We're also encouraging entrepreneurialism, looking to create startups,

and spin them out,” Dunn said.

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## Larry Smarr Says Quantified Self is Awakening, Despite Zeo's Failure



**Bruce V. Bigelow**

It's been over six years since Wired editors Kevin Kelly and Gary Wolf asked, [“What is the Quantified Self?”](#) and nearly four years since computer guru [Larry Smarr called attention to the concept](#) of keeping track of your own personal health data.

Smarr, who is founding director of the California Institute for Telecommunications and Information Technology (and a San Diego Xconomist), was among the first scientific leaders to demonstrate just how useful such data could be when he basically [self-diagnosed the onset of inflammatory bowel disease](#) before showing any symptoms. That was in 2011.

Now the Quantified Self movement is a global phenomenon, with 156 groups and nearly 28,000 active members. And as Smarr put it last night during a presentation at a regular meeting of the San Diego MIT Enterprise Forum, “I think we can basically say we’ve reached takeoff.”

Smarr drew a standing-room crowd of more than 360 people to the event, held at the UC San Diego Medical Education and Telemedicine Center, which included a panel

discussion with Rick Valencia of Qualcomm Life, Samir Damani of MD Revolution, and Kristian Rauhala of PEAR Sports. Aside from the buzz still lingering from last week's International Consumer Electronics Show, where scores of health- and fitness-tracking "wearables" were on display, Smarr cited these recent developments as signs the entire industry has reached an inflection point:

—**MyFitnessPal**, a San Francisco startup with technology that enables users to track their calories and share that information with friends, says it has 40 million users. Last August the company raised \$18 million in a first funding round that was led by Kleiner Perkins Caufield & Byers. "They're not exactly slouches," Smarr said.

—**Fitbit**, the San Francisco-based maker of activity and weight-tracking devices, has raised close to \$70 million in venture capital since it was founded in 2007. The dollar amount alone is indicative of the kind of investor exuberance that can be seen in the industry, Smarr said.

—San Francisco's Jawbone agreed to pay more than \$100 million last year to acquire **BodyMedia**, the Pittsburgh-based maker of health-monitoring armbands.

—**Zeo**, the Newton, MA-based maker of sleep monitoring and management technology, shut down last year after raising more than \$20 million in venture capital. So if Zeo is sleeping the big sleep, it might seem counter-intuitive that Smarr would interpret that as a sign the industry is awakening. But Zeo's demise amid big funding deals and mergers represents a healthy ecosystem to Smarr. In any event, Smarr said he was able to recover more than 700 nights of his own sleep data before Zeo turned out the lights.

The size of the BodyMedia acquisition and the Zeo 'shakeout' "are what tells me this is taking off," Smarr said. "We are going to see in our lifetime a complete revolution in healthcare and wellness."

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## Scratch Wireless Rolls Out on Photon Q, Looks to Reinvent Carriers



**Gregory T. Huang**

Scratch Wireless has a dream. That one day people will talk, text, and use apps on their smartphones without having to pay \$85 a month for wireless service. In fact, the Cambridge, MA-based startup believes it should be free—but good luck convincing the wireless carriers.

So here's the idea behind Scratch: build a new type of carrier from the ground up. Make voice and data services free whenever smartphone users have access to a Wi-Fi network (at home or the office, say). When users are away from Wi-Fi, make it pay-as-you-go for cellular voice and data, via a deal with a traditional carrier.

[Scratch Wireless](#) said today that its mobile service is now available on the Motorola Photon Q, an Android smartphone priced at \$269. It's an intriguing prospect for consumers—who doesn't want to lower their wireless bill?—but it seems like a challenge for Scratch to get distribution, since it's banking on people who might buy [that particular phone](#).

The two-year-old company has to start somewhere. "We're trying to disrupt the industry," co-founder and CEO Alan Berrey says. "Our biggest competitors are not

AT&T and Verizon. It's actually more the entry-level folks, for people who want a low-cost service."

Parents of teenagers looking to lower their monthly bills, for example, might be "a really compelling market for us," he says.

Berrey and his co-founder, Eric Giler—who's also the CEO of wireless-power startup WiTricity—first talked about the Scratch concept over lunch around 2008. Berrey was at SoundBite Communications, which had acquired his previous startup, Mobile Collect, and Giler was on SoundBite's board. The industry veterans were dreaming up ways to make a free wireless offering. Then Giler was tapped to run WiTricity.

"I kept noodling," Berrey says. "Finally, I said, 'I'm doing this.'"

Scratch saves money by not having to pay for cellular towers, wireless spectrum, retail phones, and the like. "The cost of supporting a smartphone user is almost nothing," says Jon Finegold, Scratch's vice president of marketing.

What Scratch had to do, though, was find a mobile operating system and a device maker that were willing to work with an upstart. Enter Google and Motorola. The Scratch team went into the Android OS and modified it so voice, texting, apps, and other services would work well on Wi-Fi and on a cellular network, for a specific device (the Photon Q).

"We don't expect to go beyond Google. They were open enough to get our changes onto" Android, says Berrey. Not surprisingly, he adds that Scratch would "love to partner with Apple or Microsoft" down the road.

The last piece of the rollout was a partnership with Sprint, to provide cellular service when Wi-Fi is unavailable, via passes instead of contracts. (Interesting to see Sprint and T-Mobile trying to shake things up in carrier land, while AT&T and Verizon are

nursing their lead in the market.)

And that's the rub that makes Scratch not actually free—but it's a necessary part of the company's strategy. "We considered being a Wi-Fi-only device," Berrey says. "But the feedback we got was the device would be more compelling to consumers if it has a cellular component."

Berrey acknowledges the "long list of dead companies," such as Helio, that got into the alternative-carrier market as what are called "mobile virtual network operators"—offering wireless services without owning the infrastructure. The successful ones, he says, had key relationships with carriers and pursued lower-cost plans (often prepaid).

For now, Scratch's goal is obvious: "Get out there and get more phones in the hands of consumers and prove this out," Finegold says.

The challenge is how to do that without a big carrier's billion-dollar marketing budget. Scratch raised \$5 million from CommonAngels and other investors last year. It's a pretty lean operation, with about 25 people working full-time.

To make a dent in the wireless world, Scratch will need help spreading the word about its offering to both consumers and industry leaders. It will need to get onto many more devices and score some big strategic partnerships to take off. And, probably most important, Scratch's users will need to see a big benefit—quality service at a lower cost—before they ditch their traditional carriers and tell others about it.

Berrey goes back to his and Giler's initial premise. As he puts it, consumers buy laptops, tablets, gaming consoles, all kinds of electronics, and "you don't have to pay every month to use the thing." Thanks to the Internet, he says, people can "talk all day for free and spend all day on social media, for nothing. Why is the mobile phone

so fundamentally different?”

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### **Angela Shah**

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