Developing pharmaceuticals requires huge investments of time, human resources, and capital. The companies identified in the 2013 Science Careers Top Employers Survey ensure a higher return on those investments by catering to the whims of the scientist brain, which they view as their greatest economic driver. These employers give scientists the intellectual time and space to dream up novel ways of blocking, shutting down, or modifying disease targets. They marry the academic freedom found in the university hallway to powerhouse financial resources and technological platforms to get research done at a quicker pace. That combination results in researchers who are not only satisfied in their jobs, but also successful at creating new drugs. By Kendall Powell

Although the overall economic outlook of the biotechnology and pharmaceutical sectors has remained strong through the recent gloomy financial times, there remain significant challenges ahead for the industry. According to the Pharmaceutical Research and Manufacturers of America (PhRMA), companies need on average 10–15 years and more than $1.2 billion to develop a drug. And a coming wave of blockbuster drug patent expirations is expected to cost the industry tens of billions in lost revenues. PhRMA reports that 84 percent of all prescriptions are now for generic drugs, up from 49 percent in 2000.

How do top employers rise above these considerable hurdles? Above all, by placing science squarely at the center of their organizations and scientists at the top rungs of leadership. At these workplaces, the data drive decisions and project directions, which largely puts scientists in the drivers’ seats.

“The whole stream of innovation and the speed with which you can take an idea and get a drug candidate ready for the clinic gets people jazzed up about working here,” says Neil Stahl, senior vice president of research and development sciences at Regeneron Pharmaceuticals, Inc., which is #1 on the 2013 Science Careers Top Employers Survey for a second year in a row. Stahl notes that the biotechnology company took its monoclonal antibody alirocumab for lowering cholesterol from concept to clinical trials in just 19 months. The Tarrytown, New York-based biotechnology firm has made its reputation on innovations that bust the bottlenecks of drug discovery and development.

“By far, my favorite thing about working here is to get into a room with a glimmer of an idea, and by the time you leave, you have something that could turn into the next great technology,” says Stahl.

Even though tough economic realities face Eli Lilly and Company, Lilly’s commitment to long-term investment in research has given it the highest ranking among the largest, in terms of revenue, pharmaceutical firms, at #5. Other smaller companies like Genentech (#2, up from #3 in 2012), Regeneron, Biocon Limited (#6, up from #19), and Gilead Sciences (#15, up from #18) are also focused on the long-term, hiring research personnel and continuing to invest heavily in research and development.

The secrets to these companies’ success lie in giving employees the flexibility to manage their own time and schedules, listening to their good ideas, and letting go of the concept of “failure.” Top employers also hold a clear vision that keeps scientists motivated and working on the same page, even when they may have strong intellectual differences of opinion. That is aided by consistently strong scientific leadership at the top-most rungs of the organization. And finally, these corporations give their employees opportunities to take ample breaks from their intense work to regroup and return to their pursuits refreshed.

“We have a culture of recognition and celebration. We take a break and dance around,” says Ann Lee-Karlon, senior vice president of portfolio management and operations for Genentech Research and Early Development, based in South San Francisco, referring to celebrations like the annual Give Back concert for Genentech employees. Like other top employers, her firm provides a few unusual benefits designed to help employees focus on their work with minimal stress about daily life—such as on-site dry cleaning, car washes, haircuts, and concierge services. Other life-easing perks include company vans to commute across the notorious Bangalore traffic (Biocon), pet insurance and family flu shots (Regeneron), and backup day- or eldercare (Gilead).

An undercurrent of fun—being able to play hard alongside hard work—attracts top talent to Genentech, which has never dipped below a rank of #3 in the entire 12-year history of the survey. “There’s something really great about finding a place to do meaningful work and be recognized for it,” says Lee-Karlon. “That’s really joyful.”

How a Top Employer is Built

Each year, Science commissions a survey to identify the top employers in the biotechnology and pharmaceutical industry and to determine the characteristics upon which scientists base their rankings. This year, the results are based on 3,656 responses to a web-based survey deployed by e-mail (see Survey Methodology in chart, page 498).
The top 20 employers are:

1. Regeneron Pharmaceuticals, Inc. (Tarrytown, NY)
2. Genentech (South San Francisco, CA)
3. Vertex Pharmaceuticals Incorporated (Cambridge, MA)
4. AbbVie (North Chicago, IL)
5. Eli Lilly and Company (Indianapolis, IN)
6. Bioclinic Limited (Bangalore, Karnataka, India)
7. Millennium: The Takeda Oncology Company (Cambridge, MA)
8. Novartis (Basel, Switzerland)
9. Boehringer Ingelheim (Ingelheim, Germany)
10. Biogen Idec (Weston, MA)
11. Novo Nordisk (Bagsvaerd, Denmark)
12. DuPont (Wilmington, DE)
13. Syngenta (Basel, Switzerland)
14. Monsanto Company (Creve Coeur, MO)
15. Gilead Sciences (Foster City, CA)
16. Roche—excluding Genentech (Basel, Switzerland)
17. Celgene (Summit, NJ)
18. Abbott (Abbotts Park, IL)
19. Amgen (Thousand Oaks, CA)
20. Bayer (Leverkusen, Germany)

The vast majority of respondents (75 percent) report not yet reaching the peak of their career, but almost two-thirds (65 percent) have been in the workforce for at least 10 years. Basic researchers made up 19 percent of the survey respondents, while 25 percent work in development, and 10 percent are administrators or executives (see Survey Demographics box, page 500). This year, of the 21 percent of respondents who said they were likely to seek a different position in the next year, 41 percent indicated the primary reason for the change was career advancement, up from 32 percent in 2012.

As with almost every preceding survey, respondents ranked “innovative leader” as the most powerful driver in choosing the best companies. This year, that was followed by “treats employees with respect,” “socially responsible,” “loyal employees,” “clear vision,” and “quality research” (see Driving Characteristics table, page 502).

Three companies, Biocon Limited (from #19 to #6), Eli Lilly and Company (from #17 in 2011 to #5), and Novartis (from #11 to #8) jumped up to the top 10 list, after having spent previous years in the second tier of the top 20 rankings. Newcomer AbbVie, a biopharma company that spun off from Abbott Laboratories on January 1, came in at an impressive #4 (Abbott ranked #15 in 2012 and #18 this year). “We are a biopharmaceutical company, which our employees recognize combines leading-edge biotechnology with the expertise and long track record of a pharmaceutical leader,” says Jim Sullivan, vice president of pharmaceutical discovery for AbbVie in North Chicago.

Vertex Pharmaceuticals Incorporated (#3), Millennium: The Takeda Oncology Company (#7), Boehringer Ingelheim (#9), and Biogen Idec (#10) round out the top 10 employers (see chart above for full top 20 list).

Innovation Above All
Not surprisingly, scientists are happiest when drug development is driven forward by sound science and data, rather than the size of a potential drug’s market.

“Do we not look at markets and sales,” says Mark Fishman, president of the Novartis Institutes for BioMedical Research (NIBR), the R&D branch of Novartis. “I actually forbid review of any of those parameters in any document that I receive from my scien-
Lee-Karlon says the Perjeta project in particular took persistence on a level not often supported by other drug makers. “At Genentech, there is a willingness to dig deep and develop mastery [in a topic], which requires patience and iteration.”

Gilead Sciences has built a reputation as a leader in antiviral therapies, particularly with combination therapies for HIV and hepatitis C infections. In 2012, Gilead brought in almost $8 billion in revenue from its HIV drugs including its three single-tablet regimens Atripla, Complera, and Stribild, approved in 2012 in the United States. The Foster City, California-based company’s willingness to out-do its own HIV therapies before they go off patent draws scientists in, says Katie Watson, senior vice president for human resources.

“We’re already innovating what could be the next generation drug after Stribild. I’m not sure others in our industry are always doing that.” With only 5,600 total employees and 2,400 in the R&D force, Watson says the company gives eight company-wide updates each year to ensure that all employees understand the science behind their products and know how research is progressing.

Bill Lee, senior vice president of research, says there’s a palpable excitement that a cure for hepatitis C virus (HCV) may be around the corner. Gilead’s new HCV drug sofosbuvir, expected to be approved by the end of the year, works in a combination therapy to supplant current therapy—a 6– or 12-months–long regimen of weekly interferon injections that cause flu-like symptoms.

“We’re on the verge of oral treatments that have the potential to eliminate the hepatitis C virus from the world,” says Lee. “For scientists here, every day they have the potential to change medicine. What you do in the lab can make a big difference.”

Sullivan of AbbVie, which has a competing HCV program, says the potential to have a remarkable, transformative impact on millions of patients’ lives motivates the company’s scientists. “We are starting to see data that suggests we are significantly increasing cure rates. That effort started with scientists doing an experiment in the lab close to 20 years ago trying to understand the virus better.”

**Hitting a Research Stride**

At the #1 ranked top employer, Regeneron, the drive to bring new approaches to drug discovery—present since the company’s founding in 1988—has ripened into three marketed products, including the recently approved Eylea for wet, age-related macular degeneration and Zaltrap for metastatic colorectal cancer. Both are “decoy receptors” derived from the company’s Trap technology. Traps incorporate portions of human receptors to mop up overzealous signaling molecules in the body.

“[Our] overarching principle is to innovate around all the bottlenecks that occur in drug development,” says Stahl. “We have carefully examined that process to come up with ways to speed up the time-frames of all the pinch points.”

Technological platforms, such as the transgenic VelocImmune mouse, allow Regeneron to develop highly selective human monoclonal antibodies. As Stahl explains, the technology capitalizes on the ability of the mouse’s immune system to efficiently select, from among millions of antibodies generated, the ones that bind their target best, fold-up properly, persist in the blood, and have the best drug-like properties. And while other companies have mice that..."
generate human antibodies too, “our mice make more diverse antibodies.”

Stahl says the company was criticized early on for focusing too much on developing technologies instead of pushing a product to market quickly. “It took us awhile, but we are definitely hitting on all pistons now,” Stahl says. “All the investment we made in technology and research has put us in an enviable position—everything we’ve ever put into the clinic has been internally derived, and now we have more than we can possibly develop.”

Indeed, Regeneron’s formula appears to be paying off—every drug put into clinical trials in the last five years has been a monoclonal antibody from the VelocImmune mouse, including the LDL cholesterol-lowering drug that spent less than two years in preclinical development. Although the company has grown from 30 employees when Stahl started in 1991 to more than 2,100 today, it is still small enough that employees get the opportunity to work on multiple projects reaching the clinic—unlike many of their counterparts at larger companies.

Stahl says there’s a healthy sense of rigor among employees who don’t shy away from challenging each other’s data. “It’s a company that fosters creativity and tends to hire really smart people,” says Venus Lai, executive director, VelociGene operations and transgenic biology at Regeneron. “We may not always share the same opinions in the conference room, but we have in front of us one common goal.”

Regeneron has an “inverted pyramid” structure, says Paul Davies, vice president of human resources, which places the troops of scientists at the top, supported by everyone else within the organization because it recognizes that science creates the company’s value.

“That is a very different look and feel from the usual corporate structure,” Davies says. “We know our people are a real source of strategic advantage for us, so we try to create the kind of working environment where people are happy.”

**Work Hard, Play Hard, Work Some More**

In this year’s survey, 75 percent of respondents said they were not likely to seek a different job and at Regeneron turnover is a mere 4 percent. Making sure workers stay in their happy places means visits from the frozen yogurt truck on Thursdays, raffles for New York Yankees and Mets baseball tickets, and plenty of celebrations.

“It sounds silly, but there’s always an abundance of food here. If there’s an opportunity to celebrate, then we do it and we don’t have to ask permission,” says Davies. Lai confirms, warning new employees of the “Regeneron 15”—pounds they might gain attending events like the annual Cheesy Hawaiian Shirt Day.

Nothing captures the work-hard-play-hard ethic at Genentech better than the “Geeknam Style” video the IT team put together to show potential hires how much fun it is to work there. In the parody of the Korean pop hit Gangnam Style, Andy Wang, principal enterprise architect, leads Genentech employees in the crazy-pony dance around the campus that hugs the west side of the San Francisco Bay. In California casual attire, employees strut and shimmy among the computer servers, around the conference room, and in the elevators.

“It really illustrates how free-spirited and fun it is here. We’re not afraid to make fun of ourselves, especially our leaders,” says Elizabeth Majoch, senior staffing manager at Genentech.

Genentech’s sabbatical program is a unique recognition of hard work in which, after six years of service, employees are granted six weeks of paid time off to recharge however they wish. When they return, colleagues decorate their office with reminders of their exotic travels or pursuits.

Stepping away from the intensity of research is also encouraged on Lilly’s Indianapolis headquarters campus, which boasts a full-service fitness center, outdoor soccer field and track, and the REVeli eatery, with a pub and patio open for after-hours drinks.

“We all believe in taking a break, getting some exercise, and then coming back to work—it stimulates better thinking,” says Terri Grant, vice president for human resources for Lilly Research Laboratories.

**More Than a Little Respect**

Supporting employees at these top organizations means treating them with respect—the second most important driver of the 2013 survey rankings—and trusting them to manage their own time, schedules, and family commitments.

At Biocon, which debuted at #19 last year and leapt to #6 this year, more than a quarter of their R&D workforce of 500 are women. Ravi Dasgupta, group head of human resources in Bangalore, says the company extends a level of support to working mothers that is uncommon in India. Women can extend their maternity leave well beyond the statutory three months with other kinds of leave or even unpaid time and be assured of a position when they return. Upon their return, many women work a three-quarter–time schedule and there is on-site daycare.

Biocon has been particularly successful at recruiting ex-pat Indians back from the United States, with 70 such employees hired in the last decade. Abhijit Barve, president of R&D and regula—continued>
Making Failure an Outdated Concept

Trust people to make the right decisions is key, says Michael Fralish, a Regeneron staff neuroscientist. “There’s not a lot of blame that happens here. If a project legitimately doesn’t pan out, then let’s move on. That’s really unique.”

Abolishing the concept of failure and celebrating the data for what it is, whether positive or negative, is part of the scientific culture. “There’s not a lot of blame that happens here. If a project legitimately doesn’t pan out, then let’s move on. That’s really unique.”

Respect for individual ways of thinking makes it enjoyable to work at NIBR. “People appreciate when you think as far outside the box as you can. It’s better to suggest something crazy or on the edge of feasible and then bring it to something more realistic.”

NIBR has also gone to great lengths to respect the needs of some of its least outspoken employees, the introverts. “People appreciate when you think as far outside the box as you can. It’s better to suggest something crazy or on the edge of feasible and then bring it to something more realistic.”

Companies like Regeneron that place science at the center of operations come out ahead. Hard, challenging work is expected, but also rewarded and recognized—then balanced by activities like kayaking in Tarrytown’s nearby Hudson River, volunteering with tuberculosis education in South Africa (Lilly), or literally dancing in the Bay Area streets (Genentech). Most of all, these companies appreciate individual ways of thinking and pushing the boundaries of medical research.

“We have demands on our people. You are supposed to deliver,” says Stahl of Regeneron. The company’s founders, CEO Leonard Schleifer and CSO George Yancopoulos, both M.D./Ph.D.s, check in with their scientists at the bench. “We are ruthless about rigor and challenge,” because it results in better products, says Stahl. “The most senior people still participate in that process every single day.”