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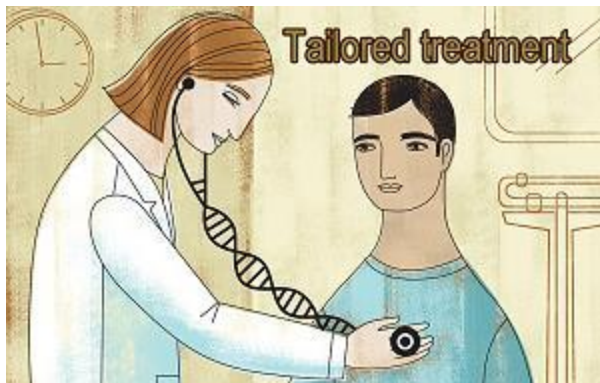
## Biotech: Five things you need to know

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**Business focus: Biotech**



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If you're one of those science-averse people, the very term biotech can be daunting. And no doubt about it — the work done at San Diego's hundreds of biotech companies is daunting, complex and as potentially lucrative as it is life-changing. Want to sound in the know about this major local business? Read on:

**1. We're No. 3.** There are three big biotech clusters in the United States, and [San Diego](#), along with [Boston](#) and the Bay Area, is one the big boys. According to Biocom, a local industry group, there are more than 504 life-sciences companies here. By way of comparison, MassBio, that region's industry group, says it has more than 600 companies. BayBio, which says it represents all of Northern [California](#), says it has the largest U.S. cluster with some 1,377.

**2. Sizing it up.** Like the rest of San Diego's business scene, the biotech industry is more about small companies than behemoths — although some big names such as [Pfizer](#) and [Biogen Idec](#) do have important outposts here. Still, San Diego is traditionally known for startups with targeted drugs that make tasty acquisition bait. So it should be no surprise that San Diego lags behind its other biotech brethren when it comes to public companies. According to a recent report by [Ernst & Young](#), New England has 45 public life-science companies, which had combined sales of more than \$11.8 billion in 2009. The Bay Area has 62 public companies with combined sales of almost \$11.8 billion. How does San Diego stack up? We've got 35 public companies and sales of just around \$5.8 billion in 2009. (Caveat: The list doesn't include biotechs headquartered elsewhere and might have left off a few of our local companies.)

**3. Specialties.** We're big in diagnostics — you know, things that help you diagnose diseases — with companies such as [Gen-Probe](#) and Quidel. [Cancer](#) is another important area. Pfizer has its U.S. cancer headquarters here, and Biogen Idec, which makes the well-known cancer drug Rituxan, has operations here, too. There's also the John Moores Cancer Center and lots of startups in the space. [Diabetes](#) and weight loss is another strong suit of ours, with companies such as Amylin, Arena and Orexigen. Genomics — the study of genes — and [stem cell](#) research are also important parts of San Diego's life-science cluster. Life Technologies, one of the largest biotech tool suppliers in the world, has its headquarters in Carlsbad.

**4. Drug roll, please.** So how's San Diego doing on the life-changing drug scene? According to Biocom, local companies have some 28 so-called therapeutics — anything that treats a disease — on the market with another 242 in the pipeline.

**5. Risky business.** The biotech business is notorious for being a high-risk venture with blockbuster drugs few and far between. For instance, Ernst & Young estimates it takes between \$1 billion and \$2 billion to get a life-science company from the startup stage to sustainability. (Yup, that's billion with a B.) In fact, Ernst & Young said last year was the first time established biotech centers around the world combined to have a profitable year. Woo-hoo, that only took some 30 years. San Diego's public companies, however, haven't yet hit that in-the-black milestone. Collectively, they lost some \$589 million last year. Still, there has been some improvement. In 2008, San Diego's public biotech companies (there were 40 then) lost \$945 million. It's something.