By far, the major thrust of pharmaceutical research at this time is aimed at cancer. In 2012, a record eleven oncology drugs were approved by the FDA. Unfortunately, most advances have been incremental, and cures for most previously incurable cancers remain elusive. This is unlikely to change, says ACSH’s Dr. Josh Bloom, whose May, 2013 op-ed in the New York Post argued that too much cancer research is being done, partly at the expense of more critical problems, such as the development of new antibiotics.

Quoted in that op-ed is Derek Lowe, cancer researcher and creator of In the Pipeline, the premier blog in the world of pharmaceutical research. Lowe explains, It’s not like we’re trying to find something that just extends a cancer patient’s life by four months. We try all these mechanisms that look, biologically, like they might really work. It’s just that cancers are too heterogeneous and unstable they mutate their way around a lot of our good ideas, and the cells that remain roar back in an untreatable form.

Indeed like with antibiotic research resistance is a major problem in oncology research, and one of the reasons is that, despite the enormous research campaign, progress is typically measured in increased survival time sometimes only a few months rather than cures.

But, two recent reports indicate that two of the worst cancers, lung and melanoma, have yielded a bit to new therapies.

Non-small-cell lung cancer the most common form has always had a terrible prognosis. The median 5-year survival rate for Stage 3 disease (metastasis to lymph nodes) is only about 5 percent, and that of Stage 4 (additional metastases) is about one percent. Pretty grim. Now, an experimental drug from Roche called MPDL3280A is being tested in patients with non-small cell lung cancer (NSCLC) and initial results indicated that it improves survival markedly.

At the European Cancer Congress 2013, Jean-Charles Soria, MD, of the Institut Gustave Roussy in Villejuif, France, said "Our results so far demonstrate that the compound is capable of producing striking and durable responses in non-small cell lung cancer patients with metastatic disease who have failed to respond to previous chemotherapy."

The Roche drug an antibody which diminishes the ability of cancer cells to escape the immune system produced a 26 percent response rate in smokers with NSCLC. Although these data are
based on a Phase 1 trial, with a small number of patients, it still represents an improvement over chemotherapy, for which only ten percent of patients respond.

**Another development** [4] from the conference is more impressive.

Bristol-Myers Squibb reported last week that their melanoma drug, Yervoy, is working better than expected in some cases extending the life of patients with metastatic melanoma by as much as ten years.

Lead author F. Stephen Hodi said, [these findings are] encouraging, particularly when considering that metastatic melanoma is one of the most aggressive forms of cancer and historically, average survival was just six to nine months. The data "provide a benchmark for future medicines for advanced melanoma," he added.

Dr. Bloom adds, Unfortunately, the magic bullet for cancer may never be found, but when significant responses to formerly-intractable cancers are discovered, it is at least somewhat encouraging.

Dr. Bloom previously discussed some of the reasons that cancer is such a tough nut to crack in his 2012 op-ed [5] entitled Two Faces of Cancer.