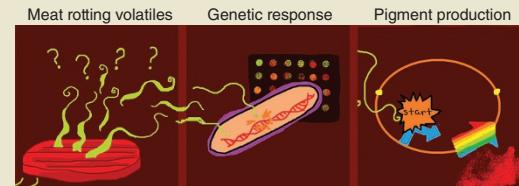


Costs and pricing are another looming issue for anti-infective mAbs, says Stover's colleague, Steve Projan, senior vice president for R&D at MedImmune. "If it costs \$300 million to do a clinical trial, we won't have narrow-spectrum agents. If a trial costs \$70 million, that changes the investment profile."

But even with lowered costs for clinical trials, anti-infective mAbs are going to cost more than conventional antibiotics, whose pricing is relatively low compared to treatments for cancer or other life-threatening diseases, but still a matter of contention, according to Projan. "Pricing is a challenge," he says. If such products could be administered prophylactically before infections become full blown, costs would likely be lower than if their use were reserved purely for therapy, he adds. "We have to think differently about paying for anti-infectives. We are willing to pay lots of money for [anti-cancer treatments] that prolong life for two months, but complain about spending \$1,000 for an antimicrobial drug that can keep you alive for 40 years."

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iGEM glow nose 'smells' meat rot

At the beginning of this month, the International Genetically Engineered Machine competition (iGEM) 2013 convened at the Massachusetts Institute of Technology in Cambridge, Mass. Last year's winners designed a device that can detect spoiled meat (2012.igem.org/Team:Groningen). Team Groningen 2012 developed a biosensor that can judge whether meat is still fresh based on its odor. The researchers used a Gram-positive model bacterium generally regarded as safe, *Bacillus subtilis*, as a 'chassis' for their invention called the Food Warden. With standardized synthetic biology building blocks—BioBricks—they assembled a construct which encodes a chromogenic readout whose expression is controlled by a promoter that is activated in response to volatiles released by rotting meat. When expressed in the bacteria, in the presence of volatiles from spoiled meat, the reporter-strain produces yellow or violet pigments that are visible to the naked human eye. The team proposes that spores of the biosensor-containing *B. subtilis*, or engineered psychrotrophic *Bacillus*, be added to meat packaging systems.

Around the world in a month

