

IIT Boeing Scholars Academy – Ethics Bowl Case Studies 2013

Case 1: Synthetic Meat

Sustaining Academy is a high school whose mission is to “promote lifelong learning and help students contribute to creating a fair and sustainable future.” Sustaining Academy has always prided itself on its social responsibility and encourages its students to think about how their decisions affect the larger world. In a recent class election, students had turned down the proposal that the cafeteria only serve vegetarian options. But when they heard about a proposal from school administration to begin serving synthetic meat in the cafeteria, some students began wondering if tofu might have been the better option.

Scientists around the world have begun to engineer rudimentary forms of meat without producing animals at all, merely growing the meat in a nutrient bath.¹ Muscle cells from various animals are isolated and then placed in a nutrient-rich mixture to divide. After a suitable number of cells are present, they are attached to a structure to grow in a “bioreactor.”² Currently the synthetically grown meat is not considered ready for human consumption. It is slimy, visually unappealing, and lacks the familiar texture of meat grown on animals. However, Sustaining Academy’s administration argues that when synthetically produced meat becomes cheap and tasty enough, it will help create solutions to some of the world’s hunger problems. The cells of one animal could be used to create the meat of a million animals, feeding huge numbers of people. Finally, because synthetic meat production does not require large amounts of land for feeding animals or produce large levels of pollution, it may be able to feed huge numbers of people while at the same time dodging the problems faced by large-scale factory farms of today.

Some teachers at Sustaining Academy counter by pointing out that if synthetically produced meat becomes widely available, ranchers and farmers in the U.S. and elsewhere may lose important sources of income. Also, millennia of eating animal-grown meat have shown meat to be largely safe for human consumption. No such data exists on meat grown in nutrient baths. As another teacher points out, synthetic meat could also be genetically engineered to bring out desirable traits, such as growing at a quick rate or being higher in protein than unmodified meat, so it may also pose similar worries as other genetically modified foods.

The Animal Rights Club at Sustaining Academy is split on the potential benefits and costs associated with synthetic meat production. Some students argue that since synthetically produced meat does not harm any animals, it is ethically preferable to animal-grown meat. Others argue that the long term benefits of moving to a more vegetarian diet may be much better for human health and the environment than simply finding more substitutes for meat.

Assuming that someday synthetic meat is approved for sale in the United States, should Sustaining Academy begin serving synthetic meat in its school cafeteria? If so, why? If not, why not?

¹ Specter, M. “Test Tube Burgers.” *New Yorker* (May 23, 2011). Vol. 87, Issue 14 pp. 32-38.

² Siegelbaum, D. J. *Time* (Apr. 23, 2008). “In Search of a Test-Tube Hamburger.”

<http://www.time.com/time/health/article/0,8599,1734630,00.html>

Case 2: Need Some Cold Meds? Show Me Your ID.

Many over-the-counter cough medications contain dextromethorphan, or DXM, a cough suppressant often used in cold medications. When taken at recommended doses, these kinds of medications are generally safe and effective. Some teens these days use these products for an entirely different purpose. When consumed in high doses, cough medication containing DXM causes euphoria and hallucinations, making it an attractive over-the-counter medication to abuse. This “robo-tripping” is a popular way to get high because – unlike street drugs – there is minimal stigma associated with its use, it is relatively inexpensive and easily available in states without laws prohibiting its sale to minors, and it is not routinely tested for in drug screen testing.³

However, individuals taking too high a dose of DXM can also end up in the emergency room. It can cause seizures, comas and, in severe cases, death. And abuse of DXM is on the rise. In 2009, the National Institute on Drug Abuses’ *Monitoring in the Future* Survey found that 5.9% of high school seniors interviewed had at one time abused DXM.⁴ In response to this rise, California passed a law in 2011 that requires individuals wishing to purchase cough syrup containing DXM to show identification that proves she or he is over the age of 18.⁵ In Illinois, it is still legal to buy products containing DXM without showing ID, though other over-the-counter products such as medications containing pseudoephedrine, a drug used in making methamphetamine, are heavily regulated. To purchase these products, customers must show ID and sign a form that they plan to only use the medication as directed.

A new drugstore chain, UrDrug, has plans to open 20 new stores in the Chicago area. Because the headquarters of the drugstore is in Los Angeles, the chain has a corporate policy that no employee of UrDrug may sell any DXM-containing product to anyone under the age of 18. Customers must show ID to purchase any of these products. When this policy became known in Chicago, the company received letters from annoyed younger customers, who asked why they should have to cough their way through biology class just because of the bad decisions of a handful of their peers.

Should UrDrug have the right to refuse to sell cough medicines and other products containing DXM to individuals under the age of 18, even if no law in Illinois requires them to do so? If yes, why? If not, why not?

³ Miller, S.C. “Dextromethorphan to Dextrorphan: A pathway towards Abuse Liability” *Human Psychopharmacology*. 2011 (26): 89-90.

⁴ Johnston, L.D., O’ Malley, P.M., Bachman, J.G., Schulenberg, J.E., et al. “Monitoring the Future National Survey Results on Drug Use, 1975 – 2009” Volume I. Secondary School Students, 2009. Bethesda, MD: National Institutes of Health/National Institute on Drug Abuse: 2010.

http://monitoringthefuture.org/pubs/monographs/vol1_2009.pdf

⁵ National Alliance For Model State Drug Laws. “State Control of Dextromethorphan (a.k.a.DXM) Statutory Text.” 2011. <http://www.namsdl.org/documents/StateControlofDXMProductsStatutoryText.pdf>