

## Bioethics vaccine business vignette instructor's note

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### ABSTRACT

This 'mini-case' or role playing vignette provides an example that can be used in one or two class periods to illustrate ethical concerns in a cross cultural context. In the case the student is asked to play the role of a business manager who unexpectedly ends up in charge of the business side of an AIDS clinical trial of a new vaccine in Botswana, Africa. The student must decide what to do when faced with circumstances that violate the company's ethical policy on bribery and when faced with procedures that appear to violate basic business, scientific and ethical practices employed in medical clinical trials.

Keywords: Ethics, role-playing cases, international operations, cross-cultural management, bribes, corruption, clinical trials, AIDS testing



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## INTRODUCTION AND CASE BACKGROUND

The case has been administered multiple times in a one credit MBA short course titled, “Maintaining Ethics in a Profit Maximization World.”<sup>1</sup> The course in which this case has been used consists of 15 contact hours over one weekend (Friday evening, Saturday and Sunday) and consists of lecture and case applications. The case discussed here is the final case application of the course and is administered on Sunday morning over a two to two and a half hour period. Students play the role of a manager and engage in three decisions. They answer questions in writing about each decision and then engage in a class discussion directed by the instructor before moving on to the next decision. A suggested chronological timeline for case administration is provided in Exhibit 1 and the case is appended at the end of this note. If the instructor does not wish to have students answer the questions in writing then the case time could be shortened considerably. The instructor may wish to give students the background information on the science and the clinical trials ahead of the class period as well as the handout, I. Case Introduction and Background (a). The handout, I. Case Introduction and Background (b), should be given to the students only at the start of the case class period. This case was one of three graded cases and was worth about 24% of the total grade. Class participation was also a major component of the student’s course grade.

The course lecture material covers utilitarian, deontological and virtue ethics. Students will have already applied these concepts to in class scenarios. Utilitarian thinking is based on a cost benefit analysis of the decision. Deontological decision making involves identifying the underlying principles and duties that apply in deciding the right choice. Students are asked to consider the ‘generalizeability’ of the decision they are making and to apply the ‘reversibility’ test. The former is an application of Kant’s categorical imperative and may be illustrated by asking a simple question such as, “Can this decision be generalized as always correct?” The reversibility test is an application of Rawl’s veil (Trevino and Nelson 2007). In this test, if the roles were reversed, would you consider the same decision to be acceptable or right? Both of these should be modified by Donaldson’s (1996) suggestions of considering relative development issues (see below). Virtue ethics recognizes the internal benefits of acting in a virtuous manner and is applied in light of a peer group’s expectations of how one should behave in a given situation. In this class students are asked to consider how decisions both reflect and shape their personal and professional character. Students are also exposed to Kohlberg’s levels of ethical development (Trevino and Nelson 2007).

A key reference for this case is Donaldson’s (1996) article on properly applying ethics when operating in other cultures. Donaldson defines and criticizes two extremes, cultural relativism and cultural imperialism. In cultural relativism one assumes that no one’s culture or behaviors are any better than another, so ‘when in Rome,’ do as the Romans do. The basis of this approach is moral relativism, which while it has some proponents (Gowans 2010), has serious problems. Moral relativism rejects absolute standards of human rights and human dignity that should transcend different time periods and cultures, and is not now considered a tenable philosophy (Trevino and Nelson 2007). To take a simple example, even if it is acceptable within Chinese culture for Chinese firms to pollute, this does not mean that it is right for U.S. firms operating in China to also pollute. The other extreme, cultural imperialism, insists that all things must be done in the foreign country as they are done at home. For instance, if gift giving

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<sup>1</sup> This case was developed with funding provided by CIBER at the University of Washington under a grant from the U.S. Department of Education.

is not acceptable in the home country because it is perceived as a bribe or intent to influence, then it is 'wrong' to give gifts when operating in a foreign culture. However, gift giving may have a different meaning and intention in different cultures. Donaldson also points out that some differences are due to different stages of development in different countries, so that practices that would not be acceptable in a developed country may be acceptable in a less developed country. This calls for discernment on the part of a manager. For instance a human rights violation is wrong anywhere. The manager must ask him or herself whether the practice violates a core value or a specific company policy. Utilitarian thinking would suggest the manager also weigh the costs and benefits of the decision for the primary stakeholders. Is the action required to do business in the country? Are the benefits for the people of the country sufficiently large to warrant engaging in the activity? Donaldson (1996) provides a useful example in the practice of nepotism in hiring. Nepotism practices are common in developing countries but are illegal in many developed economies. If engaging in nepotism is necessary to do business in a country, and the business is profitable and benefits the local community, should the manager refuse to operate there? He also notes that managers should recognize some basic core values regardless of where the firm operates. First, all persons have value and we should have respect for human dignity. Second, all interactions and relationships, both business and personal, must respect basic human rights. Third, members of a community have an obligation to work together for a common good. More detail on principles for ethical business practices around the world can be found in the Principles for Business (2010) promulgated by the Caux Round Table.

## **BACKGROUND ON THE GLOBAL HIV VIRUS AND AIDS PANDEMIC**

The Human Immunodeficiency Virus (HIV) causes the disease known as Acquired Immune Deficiency Syndrome (AIDS). The HIV virus eventually leads to AIDS when the immune system is sufficiently impaired. This may take up to ten years. Since scientists identified the HIV virus almost thirty years ago over twenty-five million people have died from HIV or AIDS related diseases (Why a Vaccine: The Pandemic 2010). Current estimates indicate that over thirty-four million people worldwide are currently infected with HIV (McKay 2012). Even with global distribution of anti-retroviral drugs that can slow the pace of the disease, AIDS remains the fourth leading cause of death worldwide. Moreover, every day more than 7400 people become newly infected with HIV. Africa has been particularly hard hit with almost two-thirds of people infected with HIV found in Sub-Saharan Africa, including two million children. Recently HIV incidence is also increasing in parts of Asia (Why a Vaccine: The Pandemic 2010).

The HIV virus is primarily transmitted through sexual contact with someone who already has the HIV virus. The virus is transmitted through contact with mucosal tissue. Mucosal tissues are found in male and female genitals, anus, nose and mouth so most forms of sexual contact are at risk of viral transference. HIV/AIDS prevention programs are multi-faceted including anti-retroviral drugs as well as training and education to modify high risk activities, encouraging the use of condoms, male circumcision, and safe injection methods for users of intravenous drugs. (VAX Primer December 2005).

Developing and testing new drugs such as an HIV vaccine may require utilizing methods that some may find objectionable, including animal experimentation and working with volunteers who may choose to participate in drug trials because of a lack of financial resources or other health care opportunities. Testing procedures are supposed to employ a high standard of

ethics including both volunteer and community education. Typically prevalence of HIV infections drops in areas where HIV testing occurs. The decline in HIV goes beyond test subjects because word of mouth education about HIV/AIDS reduces at risk behaviors.

The HIV virus disproportionately affects women. This is in part because many women in high incidence areas lack basic human rights. For instance a female may not be able to insist on use of a condom or reject at risk partners without risking her own personal safety (UNAIDS 2009). Developing a viable AIDS vaccine would greatly reduce human suffering of many millions of current and future human beings, many of them disadvantaged and discriminated against (VAX Primers May 2008 and June 2005).

## **An Introduction to the Science of HIV/AIDS**

The human immune system is designed to fight pathogens, which are disease causing bacteria or viruses. The immune system is very complex, but in simple terms the system has two types of defenses that may be called 'innate' and 'adaptive' (Diagram: The Immune System and AIDS Vaccine Strategies 2010). Innate defenses begin to operate almost immediately after a pathogen is introduced into the organism. These generate reactions in the body designed to eliminate the infection. The response is not typically specific to the pathogen, but is a general response to a foreign substance. The purpose is presumably to either eliminate the pathogens or to limit their effects until the adaptive immune response occurs later. The adaptive response consists of two different methods of defense utilizing what are termed B cells and T cells. B cells generate antibodies which are specific to the pathogen identified. Antibodies are Y shaped proteins that bond to the pathogen and neutralize them so they cannot reproduce or infect the organism. Most viruses must enter cells to reproduce. Other cells circulate throughout the body and attach themselves to pathogens. These cells carry the pathogens to lymph nodes where T cells reside. In the nodes, the circulating cells bring the pathogen to CD4+ T cells which assist CD8+ T cells in killing the cells that have been infected by the pathogen. HIV attacks CD4+ T cells and helps circumvent the immune system response. Unfortunately the human immune system cannot succeed at eliminating the HIV infected cells. Eventually the HIV virus simply wears out the immune system and the person becomes susceptible to many diseases. Anti-retroviral (ARV) drugs have been successfully used to limit reproduction of HIV cells in many infected people. Use of ARVs helps protect the immune system so that it can continue to fight off other infections, prolonging the lives of AIDS sufferers, but these drugs cannot eliminate the HIV virus which remains in the infected host (VAX Primers February 2004, March 2010 and May 2010).

## **HIV and Vaccines**

The immune system works very well and can eliminate most pathogens that enter the human body. When an infection is eliminated most of the antibody and eliminator cells disappear, but a few remain. These are termed 'memory' cells. The memory cells are designed to fight that specific pathogen. If the person becomes exposed to the same pathogen a second time, the body can quickly attack and control that pathogen so that the person does not become infected again. Vaccines work by creating memory cells that can quickly destroy a pathogen that enters the body. An effective vaccine introduces a dead, weakened or genetically altered pathogen called an "immunogen" to the system that resembles the pathogen that causes the

disease. As a result the immune system develops the appropriate memory cells which remain. In this way if the person is ever exposed to the real disease they will not contract it. Measles, chicken pox, polio and smallpox vaccines are examples. AIDS vaccines typically usually employ incomplete fragments of the HIV virus as opposed to dead or weakened versions of HIV as an immunogen. Although these fragments cannot cause an HIV infection, they are similar enough to create the appropriate memory cells. In theory, if a person is subsequently exposed to HIV, they will not become infected (VAX Primer February 2004). No completely or even highly effective HIV vaccine currently exists. The most successful vaccine trial, RV144, conducted in Thailand had a success rate of about 31% (Kresge 2010 and VAX Primer September 2009). This means that the vaccine prevented about 31% of patients who were exposed to HIV after vaccination from contracting the virus. The sample size was actually small even though the trial used over 16,000 volunteers, so even these results may be overstated.<sup>2</sup> HIV is a rapidly mutating virus. The RV144 vaccine was developed specifically for strains found in Thailand and may not be effective at all for strains found in other countries. A truly effective vaccine will probably have to induce what are termed 'broadly neutralizing' antibodies because so many variants of HIV exist (VAX Primer March 2010). The RV 144 results have led to more breakthroughs in recent years. A new vaccine, SAV001, which is a genetically modified whole virus which has been killed, has shown promise in preventing HIV infection. The SAV001 vaccine was developed by scientists at the University of Western Ontario and is now undergoing human clinical trials (CBC News Health 2011). Recently a South African study discovered a link between mutations of the HIV virus and the development of broadly neutralizing antibodies in two women in the study. A part of the virus' outer coating termed the V2 Loop is thought to be associated with the rate of infection of those exposed to the HIV virus. The V2 Loop mutates rapidly which makes it difficult to develop a vaccine. Recent research has found that upon exposure to the virus some people develop antibodies to the V2 Loop that forces the virus to mutate and reduces its ability to infect the host (Bennett 2012).

The active ingredients of a vaccine, which are usually parts of the HIV virus, typically require a carrier such as another virus or a bacterium. The carrier is called a 'vector' (VAX Primer 2006). If the carrier is a virus it is termed a 'viral vector.' If a person has already contracted the same or a sufficiently similar virus to the viral vector then the body's memory cells may significantly limit the effectiveness of the HIV vaccine. Consequently, viral vectors may have to be developed for different locales if the populace has previously been exposed to a specific viral vector. For instance, Merck is developing an HIV vaccine that uses a common cold virus, Ad5, as a vector. In tests of the efficacy of the vaccine, Merck must prescreen all vaccine candidates for prior exposure to Ad5 otherwise the patient's body may not allow the vaccine to work properly. Different vectors would have to be developed and tested for populations that had wholesale exposure to Ad5 (VAX Primer September 2010). Some diseases such as smallpox that have been eradicated or nearly so may provide useful viral vectors since many young people have never been exposed to smallpox (Kresge 2005).

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<sup>2</sup>This appears to be a large sample but the prevalence of HIV in the population dropped during the lengthy trial period reducing the power of the test. It is not known how significant the results would have been without this decline and the results may be better than indicated. It also appears that in the near term the protection rate was higher than over the long term, with the effectiveness dropping after six to twelve months. Follow up work with booster vaccinations is now ongoing. The development of RV144 was a breakthrough in the science of HIV and a major step forward in developing a vaccine.



A vaccine candidate is usually administered as a series of injections, but vaccines can also be given orally or applied to mucosal tissue. Oral versions may not be as effective at limiting infections of external mucosal tissue. Although there may be unknown risks and side effects, vaccines inhaled through the nose are believed to have potentially greater effectiveness at preventing infections of vaginal and other mucosal tissue. This area of research appears to be in early stages (VAX Primer December 2005).

Once a person is infected with HIV, the virus begins to rapidly mutate within the host. This makes the task of finding a cure for HIV very difficult; however, there is some evidence that only one or at most a few versions of HIV are transferable during sexual contact. Most vaccine development works with cells from infected patients. This means that early detection of an infection may help in the development of a vaccine because fewer versions of HIV are present soon after infection. Obtaining cells from people recently infected may make it easier to develop a vaccine that will prevent infection of another person. The International AIDS Vaccine Institute (IAVI) has engaged in research with discordant couples (couples where one partner has HIV and the other does not) because there is a higher incidence of recent infections in this group (VAX Primer April 2009).

### **Vaccines and Clinical Trials**

A clinical trial is a study to develop a new drug and to test its safety and efficacy (*Glossary of Terms: Clinical Trials.gov* 2011). There is a well developed procedure designed to produce sound scientific results and maintain high ethical standards. Trials are very expensive and time consuming. Development of the RV144 vaccine cost over \$100 million and took place over 6 years (VAX Primer November 2003, Kresge 2010).

Vaccines are developed in various stages or “Phases.” The trials may proceed in four phases. Phase I trials usually consist of lab work and testing on animals for effectiveness and likely side effects in humans. The test subjects are usually rhesus macaques. This presents its own challenges because nonhuman primates cannot be infected by HIV. Vaccines have to be developed for a similar virus, Simian Immunodeficiency Virus (SIV), rather than HIV. Late stage Phase I trials may involve a small number of human subjects. Phase II trials involve a larger number of human subjects, sometimes several hundred, and are designed to determine efficacy and safety at different dosages under controlled circumstances. The controls usually specify strict criteria for inclusion in the study and detailed follow up care with the patients. Phase III trials are large scale involving thousands of people in the general populace to determine final efficacy and safety prior to applying for licensure of the drug for usage. Risks and benefits of the drug should be well established at this point. Phase III trials may have to be conducted in areas with a high prevalence of HIV to help maintain the statistical power of the tests. Phase IV involves follow up work to include longer term analysis and better establish the track record of benefits and risks (VAX Primer August 2003).<sup>3</sup>

Clinical trials are supposed to follow a well-developed procedure to ensure ethical standards are maintained and that valid scientific results are generated. The trial will follow a set protocol that will specify criteria defining who can and cannot participate in the trial called the inclusion/exclusion criteria. Part of the inclusion/exclusion criteria for a GlaxoSmithKline test of an anti-retroviral drug is found in Exhibits 2a and 2b respectively (*Inclusion and Exclusion*

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<sup>3</sup>These phases may not be strictly followed. For instance the RV144 trial involved over 16,000 volunteers. The trial was labeled a Phase IIb concept trial even though most Phase II trials only involve a small number of volunteers.

*Criteria Clinical Trials.gov*). A recent trial in Kenya screened 281 volunteers and accepted 59% of applicants (Omosa-Manyonyi, et.al. 2011). The protocol will also include all medical procedures, dosages, after care, etc, that volunteers will undergo during the trial. Trials employ high standards of volunteer and community education. This is critically important for ethical reasons. Volunteers must completely understand the risks involved, including risks of potential side effects and availability and cost of follow up medical care. Each volunteer must sign an informed consent document prior to receiving treatment. After signing the consent document the participant may withdraw from the study at any time (VAX Primer November 2003 and June 2005).

In most trials some volunteers will receive a placebo rather than the vaccine. Trials are typically double blind meaning that neither the medical staff nor the volunteers know whether the volunteer receives the vaccine or the placebo. Participants are warned that they may not be protected from HIV and that they should not engage in high risk activities. Clinicians assume that some participants will still be exposed to HIV. At the end of the study period researchers then compare the percentage of the participants that received the vaccine that became infected with HIV with those who received the placebo. Side effects or a lack of efficacy of the drug may result in termination of the trial. Clinical trials employ an institutional review board that includes leading scientists and government officials. The institutional review board evaluates the procedures and protocol to ensure that high ethical and scientific standards are employed. Most trials also include a community review board consisting of local community members that review the procedures and ensure that the volunteers are appropriately educated in the risks and benefits of participating in the trial (VAX Primer November 2003 and June 2005).

After large scale tests are shown to be effective and have limited or controllable side effects the researching firm may apply for licensure of the drug in a given country. Because the risk return benefits of a drug may differ from country to country, a drug may be deemed acceptable in one country but not in another. For example an emerging country with a scarcity of medical treatment and high prevalence of malaria may accept an anti-malarial drug that has serious side effects whereas a developed country with widespread medical treatment and a lower prevalence of malaria may reject usage of the same drug. Universal standards for licensure do not yet exist. The FDA will normally require two Phase III trials, although exceptions have been made. Other countries may not have as rigorous approval process (VAX Primer December 2009). There have only been three widespread late stage clinical trials of AIDS vaccines because of the high costs involved and scarcity of successful vaccine drugs (VAX Primer September 2010).

## **USING THE CASE IN THE CLASSROOM**

The handout I. Case Introduction and Background (a) should be given to students one class period prior to the case class period along with Section B above containing the scientific background of the HIV virus and AIDS vaccine clinical trials. The instructor may also wish to provide students with copies of Exhibits 2a and 2b which contain inclusion and exclusion criteria for a GlaxoSmithKline ARV drug trial. The case introduction explains that the student will take on the role of Assistant Product Manager for a biotech firm working on HIV vaccines. The student has a personal interest in the disease because they lost a relative to AIDS. The firm has a new HIV vaccine candidate called Vium101. The Phase I work is nearing completion (see the science section above for phase definitions). The firm wishes to move and expand the clinical

trials in Botswana, Africa. The reason for the move is a point of concern for many students. The company's rationale is that it is less risky and costly for the firm to conduct the trials in Africa. For instance, according to Glickman, et.al. 2009, an Indian medical center may charge only 10% as much as a comparable U.S. medical facility to conduct the same trial, not to mention the reduced bureaucratic and regulatory issues. It is increasingly common for drugs to be tested overseas rather than in the U.S. and the U.S. FDA has accepted foreign trials as evidence of drug safety and efficacy. Some studies require a high prevalence of the AIDS virus and because the version of the HIV virus found in Asia differs from the version in Africa, etc. This may require local development of a vaccine.

The number of countries is growing that now adhere to the International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use Good Clinical Practice (ICH-GCP) guidelines and promise intellectual property protection to pharmaceutical companies (Glickman, et. al. 2009). According to the National Institute of Health (NIH) there were 4989 AIDS clinical trials completed or ongoing in 2011. About two-thirds of the trials were located in the U.S so about one-third were overseas. The NIH listed 31 HIV related trials in Botswana. Globally there were 557 AIDS vaccines trials either completed or ongoing (Search for Clinical Trials 2011). Overseas, more study participants can be found who have less exposure to other drugs that may impair the efficacy of the vaccine. It is also simply easier to recruit candidates. Risk of litigation from unfavorable side effects is also greatly reduced (Barlett and Steele 2011).

The practice of locating drug trials overseas in less developed economics raises ethical concerns and some students will be bothered by this aspect of the case. Patients may feel that entering a clinical trial will provide them with more health care than they would receive otherwise. In this sense they may feel pressured to participate. Local doctors and other health care practitioners are typically underpaid in these countries and even small fees to locate volunteers can represent substantial income. This could encourage them to understate the risks and overstate the benefits of participation to locals. Even what would be considered minor payments by developed country standards may represent very large wages to locals, again encouraging them to participate without considering the risks. Although the World Medical Association Declaration of Helsinki requires that at the end of the trial, participants should receive the best therapy that resulted from the trial, there is no guarantee that this will happen, and little regulation exists to ensure that it will (Glickman, et.al. 2009, World Medical Association Declaration of Helsinki 2004). Moreover although there are standard procedures to ensure that clinical trials are both scientifically sound and ethical, these procedures are not always followed. Glickman, et.al. 2009 report that less than two-thirds of studies in developing countries were actually reviewed by a local institutional review board or health ministry. There is thus a potential for unethical clinical trial procedures to be employed which exploit locals. It is not clear whether there is even sufficient oversight of clinical trials in the U.S. In 2008 the FDA inspected only about 1% of U.S. clinical trials and it inspects even fewer overseas trials. Institutional review boards are supposed to review and approve procedures employed at every trial, but increasingly the review procedure is outsourced to private firms and lacks government authority (Glickman, et.al. 2009).

After a brief discussion of the situation, the handout, I. Case Introduction and Background (b), is given to the students at the beginning of the case class period. The student learns they must take the vaccine to Africa without their boss. The vaccine must be maintained at given temperature range or it will spoil. The student is carrying a major portion of the existing



stock of the vaccine. All of the necessary paperwork has been approved and a local employee is scheduled to meet the plane on arrival in Botswana. The student has been given ample company funds for contingencies.

### **Decision 1**

Students are given the handout titled II. Decision 1. The context of Decision 1 deals with customs problems at the airport in Botswana (see the case Decision 1 sheet). The local employee contact is not yet there. The vaccine is seized by armed guards and the student is asked to pay a nominal fee for a ‘presidential seal of approval.’ We don’t know whether such a paper even exists, nor whether if the fee is paid the vaccine will be returned. The role requires a time pressure decision because the vaccine will spoil if it is not recovered quickly and removed to the medical storage facilities. The case indicates that bribery is illegal in Botswana and offering a bribe may make the person subject to arrest. The local contact person arrives and suggests the student pay the customs official.

Prior class lecture covers the problems with bribery and identifies the prohibitions under the Foreign Corrupt Practices Act (FCPA). The FCPA prohibits payments to foreign officials in order to influence decisions. One also cannot hire an intermediary to pay the bribe. The penalties include a corporate fine of up to \$2 million, \$100,000 for the individual and up to 5 years in jail with civil penalties up to \$10,000. The FCPA includes an exception for certain types of payments. Firms are allowed to make “facilitation” or “grease” payments to government officials to expedite nondiscretionary actions including obtaining permits, licenses, documents, police protection, mail, utilities, going through customs, handling perishable products, etc. (See Foreign Corrupt Practices Act: An Overview and Foreign Corrupt Practices Act: Antibribery Provisions, A Lay Persons Guide.) However, from an ethics standpoint, the Business Principles for Countering Bribery (2009) identifies facilitation payments as bribes and indicates these should be treated as such.

Bribery and corruption are pervasive problems in many overseas operations. Companies and governments recognize the problems associated with bribes and corruption. Many have increased enforcement and fines, even imposing criminal penalties for those involved (Business Principles for Countering Bribery 2009). All G7 countries are also signatories of the OECD Convention on Combating Bribery of Foreign Public Officials. However, according to the Bribe Payers Index of Transparency International (2008), 67% of survey respondents in Africa and the Middle East indicate that government efforts to fight corruption in their country were very ineffective or ineffective. Similarly, 83% of respondents in the same region said they were either not at all or only slightly familiar with the OECD Anti-Bribery convention. This would seem to imply it is up to firms to uphold ethical standards when operating in areas where corruption is endemic.

Students have to decide whether the payment to the customs official is a bribe or a facilitation payment. It could be argued either way but most students will view it as a facilitation payment.<sup>4</sup> Assuming they are right they would not be subject to the FCPA. However students

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<sup>4</sup>The case material has been significantly updated since the last time it was used the case to incorporate material from the background science and the clinical trials, so the students’ responses are not completely relevant to the new version of the case presented here. Consequently student responses are not discussed in detail in this note. In summary, in prior runs the majority of students did not pay the official in Decision 1. In Decision 2, students generally recommend cancelling the press conference and continuing the trials only after an investigation into the

are also told they work for an ethical company. Part of the company's code of ethics clearly stipulates that company employees are not allowed to engage in 'corrupt payments of any kind.'<sup>5</sup>

The role playing student must then make an individual decision about whether to pay the customs official or not. They then must answer the following in writing:

1. Please tell why you made the decision you did.
2. Is this an ethical decision or a business decision? Please explain your reasoning.
3. Would you have made the same decision if this situation occurred in the U.S.? Why or why not?
4. What other alternatives would you have chosen in this situation?

Because of the students' prior training they were expected to consider utilitarian, principle and virtue based decision methods. This should probably be explicitly added to question 1. The most often cited reason for not paying is personal risk related to the illegality of the payment, although many students also mention the company's code of ethics that prohibits corrupt payments and some added that it violated their core values. Some of the more thoughtful written responses came from those who decided to pay the official. They recognized that the payment was probably not illegal under the FCPA, although it appears to be illegal in Botswana. It is certainly risky to pay the official, who never directly asks for a payment. Utilitarian thinking would probably lead one to pay the official the small sum required to (hopefully) safeguard the very valuable vaccine. Some who paid considered that because the company had given them contingency funds they were expected to pay the official.

Most students considered the decision to be both an ethical and a business decision. However, students who chose to pay the official were more likely to see it as predominantly or solely a business decision. Most students re-evaluated the risk of paying the official if the situation occurred in the U.S. and would not pay. Many students indicated they would vociferously protest the treatment had it occurred in the U.S. The most commonly suggested alternative was to contact their boss in the U.S. which the case does not allow. They also wanted to contact the U.S. Ambassador, find another customs agent to deal with or try to pay someone to refrigerate the vaccine. Others wanted to have the local employee pay the customs official. Several wanted to explain the importance of the vaccine to local people and even ask the customs official if he had friends or relatives suffering from AIDS.

Class discussions surrounding Decision 1 have been very active with both sides vocally defending their positions. In one class it was very close to a shouting match between participants. The instructor should encourage thinking about operating in other cultures where 'normal' practices differ. The successful business person cannot expect to find U.S. culture, business and living conditions when operating in third world countries. Many students felt there was a lack of preparation on the company's part in preparing the student to deal with these situations. This is intentional because one of the teaching points of the case is to understand how your firm expects you to respond in ambiguous situations. A complete answer to these questions must deal with various points including:

- the different points of relative development in the two countries,

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bribery issues and ascertaining whether the volunteers were coerced or not. In Decision 3 most opted to not accept the transfer and either investigate further or to turn whistleblower.

<sup>5</sup>This statement is from Motorola Mobility's Code of Business Conduct (2011), page 19.

- the high value of the vaccine in both dollar and in the potential to alleviate human suffering versus the nominal cost of paying the official,
- the risks of violating the law in a foreign country where you have limited knowledge and little access to immediate assistance
- the principles involved, including the company's code of ethics and your own personal values. Is the decision generalizable? Does it meet the reversibility criterion?
- how making the decision reflects on your company and on yourself.

There are no right or wrong answers, only ones that are well reasoned or not.

## Decision 2

At this point in the case, students receive the sheet titled III. Decision 2. The student is told that either they or the local employee, Maurice Odumbe, paid the official. The vaccine was then retrieved and safely transported to the medical facility. Testing proceeds with paid volunteers. After about two weeks the facility is 'shaken down' by an official and it appears that the operation is paying protection money to what appears to be a government official. Upon checking the books it becomes apparent that substantial payments have been occurring for some time. Coworkers tell the student this is common practice in the country and to ignore it. There is also a suggestion that the volunteers will no longer be available if the payments stop. The student then has to fly back to the states and make a report to their superiors. The student must decide whether to recommend expanding the trial, and advise the company whether or not to proceed with a planned press conference because early results are good. Secondly the student must explain why they included or excluded items from the report and explain their ethical reasoning. Finally they are asked if they have any other alternatives they might have chosen.

The company wants to do a press release touting the positive nature of the early results because the stock price has been seriously depressed and the firm is concerned it is becoming a takeover target. The aforementioned recent advances in AIDS research have intensified the competition to create a viable vaccine. The firm that wins this race will reap huge financial rewards. The student's boss, Jim Johnson, is pushing hard for a favorable report to the company executives and to hold a press conference. Students should realize from the background material on the science of AIDS and clinical trials that the study may be seriously flawed ethically and scientifically. We don't know whether the volunteers are in fact volunteers and whether they have been properly screened for inclusion and exclusion criterion and whether they really are informed consenters to the study. This could invalidate any positive results found and worse, it could seriously jeopardize the company's reputation. A scandal could also set back other clinical trials being conducted or proposed worldwide and could make patients suspicious about the safety of the company's other drugs.

A strict utilitarian viewpoint may allow a student to recommend expanding the trial because of the positive results and the pressing need for a vaccine, although it is really very early for this as most vaccine trials actually run for many years and this one is just getting started. However one could justify not recommending expanding the trial because of the risks of exposure of the irregular practices witnessed by the student. From a deontological perspective, it is hard to justify recommending the study continue as is because that decision fails the generalizability and reversibility criteria. Similarly, it would be difficult to justify continuing the study as is from a virtue perspective because it does not appear to fit with the character of the company and most people's personal values. Legally the payments to the 'police' official appear

to be in violation of the FCPA. Under U.S. law this could create large liabilities for the company and the company officials involved. However this does not mean that the study should be abandoned. If the firm is truly on the verge of creating a viable AIDS vaccine, then the enormous value to human life warrants a continuation of the trials based on the evidence currently at hand. So it seems that the reasoned response is to recommend an immediate investigation into the subsidiary's practices towards the end of cleaning up the irregular practices and then continuing the study. If this cannot be done in Botswana then the trial site should be moved to another country or at least a different subsidiary should be chosen (assuming that there are others in Botswana). This may be time consuming and expensive, and it may require the development of a different viral vector that does not have widespread exposure in the local populace. The trial is also not necessarily ready to expand to include a much larger group of volunteers. It would be very unsafe because not enough is known about the potential side effects of the vaccine in the general populace.

Regardless of Johnson's desires, it would seem to be both dangerous and unethical to withhold evidence of the corrupt practices in Botswana from the company executives. It is also risky to go against your boss' wishes, and the student will have to weigh the consequences of the choices. Holding a press conference and bringing international attention to what may be an ethically and scientifically flawed trial is very risky and will almost certainly involve withholding material information from the public; thus the information provided would have to be considered deceptive if the full facts were made public. The legal and reputational effects of holding the press conference at this time would seem to be very high. In this situation the student is faced with pressures from their boss to engage in activities that may boost short term profit expectations and share price, but at high risk to the company and the person. This can provide the instructor with an opportunity to discuss aspects of long term value creation and maintaining rights of stakeholders other than shareholders.

There are also financial implications involved. The subsidiary is making substantial payments that appear to be bribes. This will add significantly to the cost of the trial and will establish a bad precedent for other trials in Botswana and perhaps elsewhere. It may also leave the firm vulnerable to additional costs such as increased payments or other forms of blackmail. From a financial perspective the trial's costs need to be audited to ascertain the extent of the irregularities and the cost to the firm. These payments violate the parent company's stated code of ethics and appear to violate the corporate culture. Even though these violations are occurring at a subsidiary, the parent company should still be concerned about these practices.

As to alternative actions students may wish to pursue an investigation on their own before returning to the States and may wish to seek legal counsel upon their return. It is reasonable to try and get Gall and Odumbe to make written statements about what they know or at least obtain a promise to support the student. A serious talk with Johnson is definitely in order. Some may wish to inform the FDA, but it is probably too early for that and that could jeopardize the student's career as well as their current job.

The instructor should elicit a discussion of the risks involved and the need to follow correct procedures in a situation where it is very important to follow the highest ethical and scientific standards. In the public view an overseas clinical trial is likely to be perceived as an ethically charged scenario to begin with. A scandal is likely to set back research in this critical area. Nevertheless, if unethical practices are occurring they must be resolved. Deciding how to deal with the immediate boss Johnson should be another major area of discussion. How will the student try to convince Johnson to support their position? What kind of tone should the student

take in that discussion? What is a proper response if Johnson still wants you to provide only a favorable report? Should they appeal to one of Johnson's superiors? We don't know the efficacy of such a strategy and it can definitely be risky. Is quitting a reasonable option at this point? It is very easy for students to say that they will quit in an ethics case when the decisions they face become uncomfortable, but in real life it is much more difficult to suddenly quit. On the other hand, starting to look for another job or a transfer within the company may be a very reasonable strategy at this point. Class discussions typically stress the need to document all suspicious activity in writing when possible, even if it is only through a personal written record of events.

### Decision 3

Students now receive handout IV. Decision 3. Decision 3 presents a possible whistleblower scenario and presents a good application of decision making under uncertainty.<sup>6</sup> The student learns from a discussion with a coworker (Bob Gall) that some of the volunteers were coerced and may not have met the proper inclusion/exclusion criteria. Some harmful side effects are also showing up. After questioning the procedures, Gall was transferred to another job in Europe. When asked, Johnson gives a different story and indicates Gall was unhappy in Africa and wanted to return to Europe. The student is told that Johnson is not forthcoming with details or offers to investigate. The African contact, Odumbe, cannot be reached. The student is then offered a transfer to another division at a substantially higher salary. They must then decide whether to accept the transfer, have a confrontation with their boss, quit, or notify the FDA of possible irregularities in the Botswana clinical trial. Students may also choose another alternative of their own. Regardless of their choice it is useful to identify the different stakeholders involved. This encourages students to think about some of the major parties involved including the test subjects in Africa, the employees, management, the stockholders, and the future potential recipients of the vaccine and will help facilitate discussion.

As in any whistleblower scenario the participants must weigh the personal and professional risks of informing the government or the media of a potential legal or ethical violation. Informing is likely to change the company from a strong supporter of the individual to an antagonist. If students do not mention it first, the instructor should stress the need to seek legal counsel before any public action is taken. The new Dodd-Frank Act brings improved whistleblower protections, including specific provisions for dealing with employer retaliations against firms that improperly sanction whistleblowers. The act also creates a whistleblower bounty program where anyone who provides the SEC with new information concerning fraud may receive cash payments of between 10% and 30% of all SEC imposed sanctions (Advisory: Dodd-Frank Act 2010). This act is already increasing the number of whistleblower cases and some law firms are aggressively seeking whistleblower clients. The National Whistleblower Center provides information and support for those who seek to turn in companies engaging in wrongdoing (Javers 2011b). Javers 2011a notes that the health care industry has been involved in the top twenty largest False Claims Act lawsuits so the industry participants apparently have a history of ethical lapses with large monetary consequences..

The instructor should encourage the students to think through the consequences of contacting the FDA with the currently available information. We don't know the truthfulness of

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<sup>6</sup>The elements of a potential whistleblower scenario are found in the Decision 2 scenario although more detail is added in Decision 3. The instructor may wish to exclude the last decision and end the case after Decision 2.



Gall's statements and we really can't verify them either way. The offer of a transfer and a pay increase is suspicious, but there is little that the student can actually prove. The student witnessed enough while in Africa to make Gall's statements appear reasonable but they don't have much evidence. Confronting Johnson risks the student's job; going to the FDA probably risks their entire career in the industry.

A cost benefit analysis is utilitarian based thinking. Students must also consider the principles involved and ask themselves whether their choice meets the generalizability and reversibility criteria. Simply accepting the transfer would not seem to meet these criteria. The instructor may also wish to lead students in a discussion of the ethics involved in quitting without attempting any follow up. If there is wrongdoing occurring this choice allows it to continue. A person of character and integrity would not find this alternative very palatable, nor consistent with their own and the stated company's core values (ala virtue ethics).

There are several considerations students should assess. First, the vaccine may be viable and the side effects may be contained with slightly different version of the vaccine. In this case the company should take steps to ensure the highest levels of ethical and scientific standards are met because the benefits of a successful vaccine will surely far outweigh the costs. If the vaccine is not safe and effective then the firm is engaging in highly risky behavior with some short term rewards, including improving the stock's price (and perhaps preserving managements' jobs). These actions are likely to result in very large long term costs to the firm's reputation and the possibility of exposure to both civil and criminal charges if the firm's practices are exposed.

Students are likely to choose more than one of the stated choices. Alternative actions by students may include attempting to go over Johnson's head and/or inform the firm's ethical or human resource officers. Both are viable alternatives that deserve serious consideration. Most corporate ethics programs would stress this as the next step in the process.<sup>7</sup> The case does not provide enough information for students to understand the likely effectiveness of these alternatives. The stated high ethical standards of the company and their record of philanthropic giving do indicate that the student may receive serious consideration and follow-up. The instructor should indicate that this step may not satisfactorily resolve the issue. If no investigation takes place or the response is unsatisfactory the student is then left with basically the same decision choices. Before turning whistleblower the individual should discuss the ramifications with their family if they have one. Although recent laws provide better whistleblower protections and the possibility of compensation eventually, the informant may face formal or informal retaliation and they may find themselves unemployed for a significant time period. The family members should be informed and agree with the decision to turn whistleblower (Trevino and Nelson 2007).

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<sup>7</sup> An obvious criticism of this outcome is that the case does not list reporting these problems internally as an alternative. This choice was purposefully omitted so that the students cannot put the responsibility to 'blow the whistle' on someone else. The instructor should ensure that internal reporting is discussed. Depending on the outcome and whether the student believes the allegations are fairly investigated, taking this step may not abrogate the student's decision to blow the whistle or not. Nevertheless the instructor should stress that reporting the violation to the firm's ethics or human resource personnel is a common next step and probably should be attempted before going to the FDA. According to the National Whistleblowers Report (2011) only about 2% of employees who witness misconduct will file a complaint with the government and almost 90% of those who do file report their concerns internally first.

## CONCLUSION

The instructor may wish to debrief the students in a subsequent class period. The main teaching points of the case include the following:

1. Helping students understand the difficulties in operating in a foreign culture and to give them exposure to a morally ambiguous situation where they don't have a lot of resources to rely on other than their own judgment. Students should also grasp Donaldson's (1996) thesis that operating in other cultures requires careful thought about what is culturally different and what truly violates ethical principles.
2. The need to understand how the company expects its employees to behave along with how their own personal beliefs and values should inform their behavior. The first decision would be much easier if the student manager knew what the company expected with respect to facilitation payments. If the student's own values precluded them from following company procedure they could recuse themselves ahead of time.
3. When irregularities in corporate practice are apparent one should document, seek help and plan a response, including an exit strategy or even the possibility of becoming a whistleblower. The decision to turn whistleblower is not to be made lightly. The risks are high both personally and professionally. You have to be sure of your facts if you are going to take on the company. Nevertheless acting ethically can require moral courage, and the instructor should encourage students to think about when a situation requires more than simply quitting.
4. Encouraging students to move beyond utilitarian thinking. Utilitarian thinking is necessary but is not sufficient when faced with conflicting values and the need to consider various stakeholders, some with little empowerment. Principled thinking and consideration of personal and professional character and values are necessary components in satisfactorily resolving morally ambiguous situations.

Student feedback about the case has been good. The setup for Decision 1 is somewhat contrived to create a time pressure setting and participants recognized that limitation. Some students had moral objections to being involved in medical testing of any kind, and especially in overseas medical testing. Once they got into the role however virtually all students participated without reservation. One of the primary benefits of role playing exercises is that they tend to generate good discussion. Students enjoyed hearing the viewpoints of others, which they felt broadened their own thinking. Some students who primarily employed a utilitarian decision process were encouraged to consider the underlying principles. Others who were taking a stand on principles were challenged to consider the costs and benefits of their decision to various stakeholders. The instructor should prevent anyone taking a high moral tone that implies their decisions were the only correct choices. There is enough ambiguity in the scenarios that the various alternatives are reasonable. The case is useful to encourage business students to consider the ethical ramifications of their decisions alongside the normal business decision methodologies.

Action	Suggested Time
Handout I. Case Introduction and Background (a):	Prior class period
Handout I. Case Introduction and Background (b):	Start of class period when case is administered
<b> </b>	
Preliminary Discussion	10 minutes
<b> </b>	
Handout II. Decision 1	
Students Write Answers	30 minutes
Discuss Decision 1	20-25 minutes
<b> </b>	
Handout III. Decision 2	
Students Write Answers	30 minutes
Discuss Decision 2	20-25 minutes
<b> </b>	
Handout IV. Decision 3	
Students Write Answers	15-20 minutes
Discuss Decision 3	15-20 minutes
<b> </b>	
Final Wrap Up	5-10 minutes

Exhibit 1: Suggested Timeline for Case Administration

**Efficacy and Safety of GSK Biologicals HIV Vaccine in Antiretroviral Therapy (ART)-naïve HIV-1 Infected Persons**

This study is currently recruiting participants.

Verified by GlaxoSmithKline, January 2011

First Received: October 7, 2010 Last Updated: January 22, 2011 History of Changes

Sponsor:	GlaxoSmithKline
Information provided by:	GlaxoSmithKline
ClinicalTrials.gov Identifier:	NCT01218113

 **Purpose**

This study is designed to determine whether administration of the GSK Biologicals HIV vaccine 732462 can lead to a reduction in viral load, and impact on the course of human immunodeficiency virus type 1 (HIV-1) infection. In HIV-1 infected persons who have not yet started antiretroviral therapy (ART), such a vaccine would potentially lead to a delay in the initiation of treatment.

**Criteria**

Inclusion Criteria:

All subjects must satisfy ALL the following criteria at study entry:

- I. Subjects who the investigator believes can and will comply with the requirements of the protocol.
- II. Written informed consent obtained from the subject prior to any study procedure.
- III. A male or female between and including 18-55 years at the time of first vaccination.
- IV. Known to be HIV-1 infected and under the care of an HIV physician for a minimum of 6 months. However, subjects who initially presented with a clinical diagnosis of primary HIV infection need to have been diagnosed and under care for at least 12 months.
- V. ART-naïve. Individuals must never have received ART after HIV diagnosis, including lamivudine used for chronic hepatitis B infection, with the exception of short-term ART for prevention of mother-to-child transmission (PMTCT) at least 12 months prior to enrolment.
- VI. Commencement of ART is not expected, based on current assessment, within the next 12 months.
- VII. Viral load level of 2,000-80,000 copies/mL at screening.
- VIII. CD4 count  $\geq$  500 cells per mm<sup>3</sup> at screening.
- IX. If the subject is female, she must be of non-childbearing potential, i.e. have a current tubal ligation, hysterectomy, ovariectomy or be post-menopausal. Female subjects of childbearing potential may be enrolled in the study, if the subject:
  - A. has practiced adequate contraception for 30 days prior to vaccination, and
  - B. has a negative pregnancy test at screening, and
  - C. has agreed to continue adequate contraception during the entire study period.

**Exhibit 2a: Inclusion Criteria for GlaxoSmithKline test of an antiretroviral therapy drug**

Source: Inclusion and Exclusion Criteria GlaxoSmithKline Trial # NCT01218113 at [clinicaltrials.gov](http://clinicaltrials.gov)

Exclusion Criteria:

The following criteria should be checked at the time of screening and before vaccination. If ANY exclusion criterion applies, the subject must not be included in the study:

- I. Infection with HIV-2. This includes patients with dual infection with HIV-1/HIV-2.
- II. Had an Acquired Immune Deficiency Syndrome (AIDS) defining clinical illness.
- III. Use of any investigational or non-registered product within 4 weeks preceding the first dose of study vaccine/placebo, or planned use of any investigational or non-registered product other than the study vaccine during the study period.
- IV. Drug therapy with immunomodulators or steroids within the 12 weeks preceding the first dose of study vaccine/placebo or planned administration during the study period. Acute use of steroids up to 4 weeks preceding the first dose for treatment of hypersensitivity reactions is not an exclusion criterion. Inhaled and topical steroids are allowed.
- V. Administration of immunoglobulins and/ or any blood products within the 12 weeks preceding the first dose of study vaccine/placebo or planned administration during the study period.
- VI. Planned administration of a vaccine not foreseen by the study protocol during
  - A. the period starting 2 weeks before the first dose of study vaccine/placebo and ending at Visit 3 (Week 6) (after blood sampling),
  - B. the period starting from 2 weeks prior to Visit 5 (Week 28) and ending at Visit 6 (Week 30) (after blood sampling)
  - C. the period starting from 2 weeks prior to Visit 8 (Week 48) and ending at Visit 8 (Week 48) (after blood sampling), with the exception of non-adjuvanted influenza vaccine.
- VII. Concurrently participating in another clinical study, at any time during the study period, in which the subject has been or will be exposed to an investigational or a non-investigational product.
- VIII. Any previous vaccination or immunotherapy against HIV.
- IX. A family history of hereditary immunodeficiency.
- X. History of allergic disease or reactions likely to be exacerbated by any component of the vaccine.
- XI. Acute or chronic infective hepatitis.
- XII. Acute or chronic, clinically relevant pulmonary, cardiovascular, hepatic or renal functional abnormality, as determined by physical examination and/or medical history at screening.
- XIII. Grade 3 or grade 4 laboratory abnormality, as defined by Division of AIDS (DAIDS) grading table, at screening
- XIV. Pregnant or lactating female.
- XV. Any condition which, in the opinion of the investigator, could compromise the subject's safety or adherence to the study protocol.
- XVI. History of medically confirmed autoimmune disease.
- XVII. History of malignancy, other than squamous cell or basal cell skin cancer, unless there has been surgical excision that is considered to have achieved cure.
- XVIII. Unstable asthma
- XIX. Food or wine induced asthma.
- XX. Known sensitivity to sulfites or aspirin.
- XXI. Known sensitivity to aminoglycoside antibiotics.
- XXII. Contraindication to intramuscular injection

**Exhibit 2b: Exclusion Criteria for GlaxoSmithKline test of an antiretroviral therapy drug**

Source: Inclusion and Exclusion Criteria GlaxoSmithKline Trial # NCT01218113 at [clinicaltrials.gov](http://clinicaltrials.gov)



## REFERENCES

- Advisory: Dodd-Frank Act Enhanced Protection for Whistleblowers Against Employer Retaliation. (2010). *Covington and Burling LLP*. Retrieved from [www.cov.com](http://www.cov.com).
- Barlett, D. and Steele, J. (2011, January). Deadly Medicine. *Vanity Fair: Politics*. Retrieved from <http://www.vanityfair.com/politics/features/2011/01/deadly-medicine-201101>.
- Barton-Knott, S. and Henry, M. (2009, September). Largest ever HIV Vaccine Trial Results Very Encouraging. Retrieved from <http://www.unaids.org/en/Resources/PressCentre/Featurestories/2009/September/20090924vaccine/>.
- Bennett, Simon. (2012, September 10). AIDS Vaccine Sleuths Find New Clues as 30-Year Hunt Continues. Retrieved from <http://www.bloomberg.com/news/2012-09-10/aids-vaccine-sleuths-find-new-clues-as-30-year-hunt-continues.html>
- Bribe Payers Index 2008. (2008). *Transparency International*. Retrieved from <http://www.transparency.org>.
- Business Principles for Countering Bribery. (2009). Business Principles for Countering Bribery. *Transparency International*. Retrieved from [tstats.transparency.org/index.php/content/download/43008/687420](http://tstats.transparency.org/index.php/content/download/43008/687420).
- CBC News Health. (2011, Dec 20). HIV Vaccine Trial Approved by FDA: Canadian-developed vaccine to start human clinical trials in January 2012. Retrieved from <http://www.cbc.ca/news/health/story/2011/12/20/hiv-vaccine-western.html>
- Corruption Perceptions Index 2010 Results. (2010). *Transparency International*. Retrieved from [http://www.transparency.org/policy\\_research/surveys\\_indices/cpi/2010/results](http://www.transparency.org/policy_research/surveys_indices/cpi/2010/results).
- Caux Round Table, Moral Capitalism at Work. (2010). *Principles for Business*. Retrieved from <http://www.cauxroundtable.org/index.cfm?menuid=8>.
- Diagram: The Immune System and Aids Vaccine Strategies. *International AIDS Vaccine Institute*. IAVI. Retrieved in 2010 from <http://www.iavi.org/publications-and-graphics/Pages/immune-system-and-aids-vaccine-strategies.aspx>.
- Donaldson, T. (1996, September-October). Values in Tension, Ethics Away from Home. *Harvard Business Review*.
- Foreign Corrupt Practices Act: An Overview. *U.S. Department of Justice*. Retrieved February 3, 2011, from <http://www.justice.gov/criminal/fraud/fcpa/>.
- Foreign Corrupt Practices Act: Antibribery Provisions, A Lay Persons Guide. Retrieved February 4, 2011, from <http://www.justice.gov/criminal/fraud/fcpa/docs/lay-persons-guide.pdf>.
- Glickman, S. J. McHutchison, Peterson E., Cairns C., Harrington R., Califf R., & Schulman K. (2009, February). Ethical and Scientific Implications of the Globalization of Clinical Research: *New England Journal of Medicine*. 360:816-823.
- Global Campaign for Microbicides (2011). *Global Campaign for Microbicides*. Retrieved from [http://www.global-campaign.org/about\\_microbicides.htm](http://www.global-campaign.org/about_microbicides.htm).
- Glossary of Terms at Clinical Trials.gov (2011). *National Institute of Health, Clinical Trials.gov*. Retrieved from <http://clinicaltrials.gov/ct2/info/glossary#icd>.
- Gowans, Chris, Moral Relativism, *The Stanford Encyclopedia of Philosophy* (2010, Fall Edition), Edward N. Zalta (ed.), Retrieved from <http://plato.stanford.edu/archives/fall2010/entries/moral-relativism/>.

- Inclusion and Exclusion Criteria GlaxoSmithKline Trial # NCT01218113. *Clinical Trials.gov*. Retrieved from <http://clinicaltrials.gov/ct2/show/NCT01218113?cond=%22Acquired+Immunodeficiency+Syndrome%22&rank=1>.
- Javers, E. (2011a). Exposing Fraud and Corruption in Drug Industry. *CNBC*. Retrieved from <http://www.cnbc.com>.
- Javers, E. (2011b). Using Greed-and Lots of Cash-To Fight Greed. *CNBC*. Retrieved from <http://www.cnbc.com>.
- Johnson, K. (2010). 100% Prevention and Cure for HIV/AIDS: On the Horizon? Retrieved from <http://commonhealth.wbur.or/so10/11/aids-prevention-and-cure>.
- Kresge, K.J. (2010). Special Report: Results from RV144 Send Scientists in Search of Clues. *IAVI*. Retrieved from <http://www.iavireport.org/publications-and-graphics/Pages/SpecialReportThaiTrialResults.aspx>.
- Kresge, K.J. (2005, December). Understanding Mucosal Immunity: How Could the Need to Assess Mucosal Immunity Affect AIDS Vaccine Trials? Retrieved from [www.iavireport.org](http://www.iavireport.org).
- Kresge, K.J. (2005, February). Understanding Pre-Existing Immunity: What is Pre-Existing Immunity to a Vaccine Vector? Retrieved from [www.iavireport.org](http://www.iavireport.org).
- McKay, Betsy. (2012, October 21). Fresh Lead Emerges in AIDS-Vaccine Hunt, *Wall Street Journal Online*, Retrieved from <http://online.wsj.com/article/SB10001424052970203400604578070861813226462.html?KEYWORDS=AIDS>
- Motorola Mobility Code of Business Conduct: Our Ethics. Our Culture. Our Commitment. (2011). Retrieved from <http://responsibility.motorola.com/images/uploads/cr-code-english.pdf>.
- National Whistleblowers Center Report: Impact of the Dodd-Frank Qui Tam Laws on Compliance: Formal Rule Making Comments to the Commodity Futures Trade Commission. (2011). *National Whistleblowers Center*. Retrieved from <http://www.whistleblowers.org>.
- Omosa-Manyonyi GS., Jaoko W., Anzala O., Ogutu H., Wakasiaka S., et al. (2011). Reasons for Ineligibility in Phase 1 and 2A HIV Vaccine Clinical Trials at Kenya Aids Vaccine Initiative. (*KAVI*), Kenya. *PLoS ONE* 6(1): e14580. doi:10.1371/journal.pone.0014580.
- Richardson, J. (2005). *Annual Edition Business Ethics*. McGraw-Hill/Dushkin, (05/06, 7<sup>th</sup> ed.), Articles 4, 5, 23, 31, & 46.
- Search for Clinical Trials. (2011). *National Institute of Health, Clinical Trials.gov*. Retrieved from <http://www.clinicaltrials.gov/ct2/search>.
- Trevino. L. & Nelson K. (2007). *Managing Business Ethics, Straight Talk About How to do it Right*, (4<sup>th</sup> ed.). *Wiley Publishing*.
- Understanding Adaptive Clinical Trial Designs: Researchers are looking at new methodologies to make late-stage efficacy trials more flexible and faster. (November 2010). *VAX Primer IAVI*. Retrieved from <http://www.iavireport.org/vax-primers/clinical-trials/Pages/VAX-Primer-Adaptive-Clinical-Trial-Designs.aspx>.

- Understanding Advances in the Search for Antibodies Against HIV: What are some of the recent developments that are helping researchers identify new targets for HIV vaccine design? (2010, March). *VAX Primer IAVI*. Retrieved from <http://www.iavireport.org/vax-primers/scienceofAIDSvaccines/Pages/VAX-Primer-Understanding-Advances-in-the-Search-for-Antibodies.aspx>.
- Understanding AIDS Vaccine Pre-clinical Development: How are AIDS vaccine candidates tested for safety and immunogenicity before they enter clinical trials? (2006, October). *VAX Primer IAVI*. Retrieved from <http://www.iavireport.org/vax-primers/scienceofAIDSvaccines/Pages/VAX-primer-AIDS-vaccine-pre-clinical-development.aspx>.
- Understanding if Broadly Neutralizing Antibodies are the Answer: Researchers are pursuing multiple paths to determine if antibodies can block HIV infection. (2010, May). *VAX Primer IAVI*. Retrieved from <http://www.iavireport.org/vax-primers/scienceofAIDSvaccines/Pages/VAX-Primer-Understanding-if-Broadly-Neutralizing-Antibodies-are-the-Answer.aspx>.
- Understanding Informed Consent: How Does the Informed Consent Process Work in Vaccine Trials? (June 2005). *VAX Primer IAVI*. Retrieved from <http://www.iavireport.org/vax-primers/clinical-trials/Pages/VAX-primer-informed-consent.aspx>.
- Understanding Research Voluntary Counseling and Testing: How is Voluntary Counseling and Testing Provided to Volunteers in Clinical Research or Vaccine Trials? (2005 April). *VAX Primer IAVI*. Retrieved from <http://www.iavireport.org/vax-primers/clinical-trials/Pages/VAX-primer-research-voluntary-counseling-testing.aspx>.
- Understanding the Costs and Benefits of AIDS Vaccine Efficacy Trials: Why are late-stage trials so expensive and why is it important to invest in them? (2010, September). *VAX Primer IAVI*. Retrieved from <http://www.iavireport.org/vax-primers/clinical-trials/Pages/VAX-Primer-Costs-and-Benefits-of-AIDS-Vaccine-Clinical-Trials.aspx>.
- Understanding the Hunt for Immune Correlates of Protection from RV144: How can the recently conducted AIDS vaccine trial in Thailand help inform researchers about the types of immune responses that can provide protection against HIV? (2009, November). *VAX Primer IAVI*. Retrieved from <http://www.iavireport.org/vaxprimers/scienceofAIDSvaccines/Pages/VAX-Primer-Hunt-for-Immune-Correlates.aspx>.
- Understanding the Immune System, Part I International AIDS Vaccine Initiative (IAVI) How do vaccines interact with the immune system? (2004, February) *VAX Primer IAVI*. Retrieved from <http://www.iavireport.org/vax-primers/scienceofAIDSvaccines/Pages/VAX-primer-immune-system-I.aspx>.
- Understanding the Recruitment of Volunteers at Risk of HIV Infection: Why are volunteers who are at high risk of HIV infection necessary participants in late-stage AIDS vaccine trials? (2008, May). *VAX Primer IAVI*. Retrieved from <http://www.iavireport.org/vax-primers/clinical-trials/Pages/VAX-primer-recruitment-volunteers.aspx>.
- Understanding the Transmitted Virus: What are researchers learning about the enemy that a preventive AIDS vaccine would need to block—the virus that is transmitted and establishes infection? (2009, April). *VAX Primer IAVI*. Retrieved from <http://www.iavireport.org/vax-primers/scienceofAIDSvaccines/Pages/VAX-primer-the-transmitted-virus.aspx>.

- Understanding Trial Approval: How Does an Aids Vaccine Trial Gain Official Approval and Community Support? (2003, November). *VAX Primer IAVI*. Retrieved from <http://www.iavireport.org/vax-primers/clinical-trials/Pages/VAX-primer-trial-approval.aspx>.
- Understanding Vaccine Licensure: What factors do regulatory bodies consider before licensing vaccine for public use? (2009, December). *VAX Primer IAVI*. Retrieved from <http://www.iavireport.org/vax-primers/clinical-trials/Pages/VAX-Primer-Vaccine-Licensure.aspx>.
- Understanding Vaccine Trials: How are AIDS vaccines tested? (2003, August). *VAX Primer IAVI*. Retrieved from <http://www.iavireport.org/vax-primers/clinical-trials/Pages/VAXPrimerVAX-primer-vaccine-trials.aspx>.
- Watkins, T. (2010). Researchers Report Possible HIV Infection Cure; Others Cite Dangers. Retrieved from <http://www.cnn.com/2010/HEALTH/12/14/hiv.infection.cure/index.html>.
- Why a Vaccine: About AIDS Vaccines (2010). *International AIDS Vaccine Initiative. IAVI*. Retrieved from <http://www.iavi.org/why-a-vaccine/Pages/about-AIDS-vaccine.aspx>.
- Why a Vaccine: The Pandemic (2010). *International AIDS Vaccine Initiative. IAVI*. Retrieved from <http://www.iavi.org/why-a-vaccine/Pages/the-pandemic.aspx>.
- World Medical Association Declaration of Helsinki (2004). *National Institutes of Health, Office of Human Subjects Research*. Retrieved from <http://ohsr.od.nih.gov/guidelines/helsinki.html>.

## Bioethics Vaccine Business Vignette

BioEthics Vignette:

Student Name: \_\_\_\_\_

**Development of Vaccine****I. Case Introduction and Background (a):**

You are in your second year of working for BioEthics as Assistant Product Manager at one of their research plants in Charlotte, NC. The firm is a subsidiary of Meretek, a large pharmaceutical firm with operations or sales in over 50 countries. You have spent most of the two years learning the technical aspects of the business. Your strengths are in cost management, supply procurement and generating operating efficiencies. You are happy with your job, and you believe that working for a large pharmaceutical firm will give you a strong footing to continue your professional career. You have a personal interest in the development of an AIDS vaccine since your uncle died of an AIDS related illness and this is why you chose this career. Lately, Bioethics has been creating a stir in the health industry with the development of a promising AIDS vaccine called Vium101 that may have success in preventing healthy people from becoming infected. Over the last two years, lab tests of Vium101 have been completed, and the firm is ready to begin clinical trials. There were some serious side effects in lab trials involving animals with an earlier version of the drug; moderate to severe kidney and liver damage were observed in a significant proportion of lab rats and primates. The newer version of the drug has not had as severe problems, but the firm believes that clinical trials on people in the U.S. would be too risky because of litigation risk and too costly because HIV prevalence is too low in the general population.<sup>8</sup> The upper management of BioEthics and Meretek believe that the vaccine is however ready for human testing and their scientists believe the side effects from this version will be not be as prevalent nor as severe in humans. They are ready to put together a long term study. Optimism at the firm has been growing that this vaccine may provide the long awaited breakthrough in preventing the spread of the devastating AIDS virus. Management knows that other firms are also making progress in their own research, and the first firm to generate a viable vaccine will make huge profits, even if the drug is sold below cost in developing areas. The profits are needed to support product R&D, which has less than a 20% success rate, and to continue the firm's substantial efforts at improving health care in developing areas. BioEthics has contacted a regional subsidiary of Meretek in Botswana, Africa. The Botswanan subsidiary has reported that the Botswanan Institutional Review Board has approved the protocol for the clinical trials. The informed consent procedure is in place and HIV/AIDS risk educational seminars have been well attended. The final hurdle, approval by the Botswanan government, has now been received and vaccine tests on local volunteers can now proceed. Your firm leaps at the opportunity and immediately finalizes the deal.

Your boss, Jim Johnson, has been asked to personally take the vaccine to Botswana and oversee the clinical trials. As his assistant you are to accompany him to Botswana. You are both given a crash course in Botswanan culture to give you some idea of what to expect. You learn

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<sup>8</sup> With a low incidence rate in the general population an extremely large sample size of volunteers would be necessary to generate statistical power in the results. Trials in the U.S. are also more expensive and the cost would be prohibitive.



that Botswana has recently been a model of development in an African republic. In particular, corruption has been reduced dramatically and local laws prohibit giving or receiving bribes and extortion. Penalties include personal and corporate fines as well as jail time. You recall that your own firm's code of ethics prohibits making any 'corrupt' payment to government officials. BioEthics has worked hard to protect its image by being a good corporate citizen wherever it operates. The firm has always paid above average wages to its employees and has been at the forefront of supplying medicines below cost in disadvantaged areas in Latin America. The firm is a major financial supporter of the charity group, Doctors Without Borders, and it invests heavily in health care education and training among various underprivileged groups in the U.S. and overseas. At first you had qualms about testing drugs on any live creatures but you came to realize that the benefits in alleviating human suffering can be extremely valuable to mankind. Your firm has also upheld the highest ethical standards and has always actively cooperating with institutional review boards and informed consent procedures for all clinical trials. BioEthics has also been at the forefront in assisting local governments in providing education on the risks and treatments of HIV. Over time you have become proud of working for a company that has helped so many people. Lately the firm has come under greater profit pressures as patents on several of the firm's major drugs are set to expire over the next two years. This new opportunity may provide large benefits to people and restore the company's fortunes.

#### **I. Case Introduction and Background (b):**

Special precautions have to be taken in transporting the vaccine. There is currently only a limited supply available, and you are scheduled to take about half the existing supply to Botswana. This vaccine is different from most others which are injected because it is administered by inhalation through the nose. This application method represents the first successful one of its kind and is likely to result in much higher effectiveness of the vaccine. The vaccine stimulates the production of several broadly neutralizing antibodies that are thought to disinfect the versions of HIV that normally result in transference of the virus during sexual activity. The vaccine is combined with a smallpox viral vector, which is useful since smallpox is not prevalent among young people that are most at risk from HIV. Prior presence of the viral vector can limit a vaccine's effectiveness. However, the vaccine is highly unstable and its environment must be strictly maintained within a narrow range before administration to humans.

The vaccine is produced by combining various natural elements in short supply, including some rare live bacteria that have been genetically engineered. Your engineers have not yet been able to synthesize the ingredients to produce large quantities. The vaccine is stored in liquid form and must be kept at a specific temperature and pressure to prevent spoilage. The vaccine must be maintained at 35° F to 38° F; if the temperature rises above that level the vaccine will be ruined within 15-20 minutes. A company front person has gone ahead to Botswana to ensure that you have all the necessary paperwork so that customs should not be a problem. You are also given several thousand dollars to cover any emergency expenses that may arise. The firm has established a credit line at the local branch of Citicorp, Citi-Botswana, for several hundred thousand dollars.

At the airport you personally oversee loading of the vaccine into the cargo space into the chartered airplane, and ensure the proper temperature controlled environment is in place. The

vaccine is stored in a double sealed container with an alarm that will sound if the temperature or pressure varies. The equipment has a battery pack that can maintain the temperature on its own for 6 hours in normal temperature conditions, give or take, which should be plenty of time because the plane's power can be used to maintain the proper temperature while the equipment is on board.

You are worried because Johnson is nowhere to be seen and you know he would want to personally oversee the preparations. In fact, you are astonished that he is not there as he is one of the most punctual and reliable people you know. As time passes you become more and more anxious and repeatedly try to contact him via your cell phone, but you get no answer. You delay the plane's takeoff, but you begin to worry about getting off schedule. After an hour and a half wait you get a phone call from Johnson telling you that his wife went into premature labor and he is at the hospital and he cannot get away. He tells you to take off without him and not to worry as everything has already been arranged at Botswana, and you should be met by the local manager there "who will take care of everything." Although the airport of course has power, it has no refrigeration facilities that are suitable. The local manager has the necessary setup at their labs near the airport, only about an hour away in normal traffic from where you land. In the meantime Johnson says that he will arrange to send another person to help you in Botswana as soon as possible. You try to reassure him that you are up to the job, but you can't help thinking that you are off to a bad start. Nevertheless, you sit back to enjoy the scheduled 10 hour flight to Botswana.

## **II. Decision 1:**

The plane journey is long but uneventful. You land about forty five minutes behind schedule because the plane took longer to refuel in London than expected. Once there you are happy to reach your destination and determined to justify Johnson's faith in you. Airport officials seem very friendly and you hurriedly ask where to find the customs office. Once you have this information, with the proper papers in your hand, you approach the customs official. The official is not friendly at all, although you are relieved to learn he speaks passable English. After perusing your papers he informs you that the papers are incomplete because the paper with the Presidential Seal of Approval is missing. You are dumbfounded. You were told that all the necessary papers were complete and that everything would be in order after a cursory inspection. You ask the customs officer to look at the papers again. Without looking he says, "I have examined them and they are incomplete; you must have the approval, otherwise I cannot allow the shipment to pass." As you are debating the issue with the customs officer you see from his window that the vaccine has been unloaded from the plane by local personnel and is sitting on the tarmac in the 100<sup>0</sup> heat. You don't really begin to feel desperate until you notice that your plane has taken off. The official tells you once again that he cannot allow the shipment to be moved and advises you to come back tomorrow with the proper paperwork. You attempt to explain that the equipment must have access to power to avoid spoilage, but the official states that all items are immediately warehoused for security purposes in a building without power. He abruptly turns away, dismissing you. For the moment, you have no idea what to do as you watch armed men move your equipment into the corner of a large warehouse. You have now been on the ground for about an hour.

About 30 minutes later, the local manager, Maurice Odumbe, arrives and to your great relief Odumbe seems both competent and friendly. You quickly explain the situation to him, emphasizing the need to act expeditiously. Odumbe informs you that it will probably take about an hour and a half to two hours to reach the refrigerated lab facilities unless there is a traffic accident or the like. He then asks whether or not you have some contingency funds with you. You explain that you do and he tells you that if you offer the customs official several hundred dollars, the official will approve your papers. You remember from your indoctrination course that bribery is illegal in Botswana, and offering a payment could technically make you subject to arrest. By now though you are beginning to feel somewhat desperate; you realize that you have to make a decision before you run the risk of having the vaccine be destroyed by the heat. What do you do?

Please choose either a. or b.

- a. Refuse to pay the official, continue to argue with the customs officer and hope that he yields.
  - b. Do what Odumbe suggests, give the customs official a few hundred dollars and hope he lets you transport the vaccine.
1. Please tell why you made the decision you did. Think through utilitarian, principle and virtue reasoning processes in framing your answer.
  2. Is this an ethical decision or a business decision? Please explain your reasoning.
  3. Would you have made the same decision if this situation occurred in the U.S.? Why or why not?
  4. What other alternatives would you have chosen in this situation?

### **III. Decision 2:**

Either you or Odumbe pays the official and the vaccine is retrieved. You and the vaccine arrive safely at the research facility. After ensuring the vaccine is still viable you take a break and go to your hotel to get some rest. The next day another manager, Bob Gall, arrives to help you. Although you have never met Gall you know that he has extensive international experience in Western Europe. You and Odumbe pick him up from the airport and all three head back to the research lab. There you give all the necessary paperwork to the researchers, most of whom are either European or American. They have a few questions for you and Gall, but on the whole things go smoothly. Odumbe has arranged for an ample supply of volunteers willing to be tested with the vaccine for a small payment. Odumbe assures you that the volunteers have been informed of the risks, but they don't seem to be deterred by them and none demur. They have all signed informed consent documents which are on file.

About two weeks into your stay, you, Gall and Odumbe are reviewing the preliminary test results in Odumbe's office, results which have so far been very promising. You are all very excited that there have been no serious side effects reported although your sample size and time period are still too small to be definitive. At this point a middle-aged man in some sort of uniform you don't recognize suddenly barges into the office and loudly demands the office be shut down immediately as it is operating illegally. While you are still trying to figure out if this is a joke or not, Odumbe opens the drawer to his desk and hands the man a large bundle of local

currency notes. The uniformed official then leaves without another word. You couldn't tell how much the man was given, but it appeared to be a substantial sum of money. Apparently the person was a police officer and for the firm's own 'protection' the firm pays the police a 'security' fee once a month. The two incidents intrigue you, and the next day you check the firm's books and find that apparently almost 15% of expenses are labeled "Miscellaneous & Facilitation Payments." You approach Odumbe who explains that much of these "miscellaneous payments" are used for incidents like the ones you saw yesterday and at the airport. You discuss the situation with Gall. He is not concerned at all, and says that it's the local custom, and it is best that "we stayed out of it". He also mentions that, "HQ probably knows about all this" and "understands the situation here." Odumbe also quietly informs you that if they stopped making the payments, the steady supply of volunteers may dry up. When pressed, Odumbe will say no more and you begin to wonder about where those volunteers actually come from.

The next day you take a flight home to the States to report how the research efforts are proceeding and whether the efforts there should be expanded. Your recommendation about whether to proceed will be critical to management's decision to continue or not. In fact senior management is very excited and is even hoping to hold a press conference if your report is favorable. Management is under pressure to improve profitability very quickly. The stock price has sunk to the point where the firm may make a tempting takeover target and rumors are starting to circulate. A press conference could lead to an immediate stock price boost and make it easier to convince shareholders not to accept any tender offers that might be proffered. On the way you are contemplating the situation at the Gaborone office. You have to write a report on your visit and present it to the top brass of both Bioethics and Meretek. You know that your performance will reflect on your friend and boss Jim Johnson as well as yourself and you want to get this right. This is probably a once in a lifetime profit opportunity for the firm and it could make or break your career with this company. You are thinking about what you are going to recommend in your report. What are you going to recommend? You decide.

1. Write your report, deciding whether to recommend expanding the project or not. Be specific. Advise management whether to hold the press conference or not as well and what to say to them if it is held.
2. Please explain why you chose to write what you did, especially if you left anything out. What was your ethical reasoning process? How did you arrive at a decision?
3. Is there another alternative you might have chosen? Please explain.

#### **IV. Decision 3:**

The firm did hold a press conference even though you expressed your concerns in your report and to Johnson. The stock price rose significantly and takeover rumors have subsided. You were assured that an investigation will take place and the clinical trial is still ongoing. Several months later you learn that Bob Gall has taken another job running a company subsidiary in Europe. You call to congratulate him but you quickly get that sinking feeling as Gall explains to you that he left after he learned that about a third of the patients were not volunteers but were people from the local jails, and some were even political dissidents that had been encouraging

greater economic reform and fighting corruption in the local government. Now you are not even sure if they met the proper inclusion/exclusion criteria necessary to validate the testing results. Moreover as testing progressed a small number of subjects (between 1% and 2%) began to experience extended periods of severe nausea, vomiting and dehydration. Although no one had died several were still hospitalized and under treatment and were not doing well according to Gall. When he reported the results to his superiors he was told they would investigate and shortly thereafter he received the offer of a transfer and promotion to the European subsidiary. He quickly accepted the offer. Bob tactfully but firmly lets you know that this episode of his life is over and he doesn't want to talk about this anymore. You ask your boss about this but he denies knowing anything about what Gall is talking about and he tells you that Gall was anxious to get back to Europe where he was from. He says he thinks he was just disgruntled with the living conditions in Botswana and was making excuses. You ask who had taken over from him and Johnson tells you that somebody from senior management that you didn't know was now in charge. Johnson is patient with your questions but you get the feeling it is time to drop the issue. Worried, you try to contact Odumbe but he doesn't return your calls. About a week later Johnson calls you in to his office and tells you to pack your bags because you are being immediately transferred out of his division and into cost management at a strictly U.S. facility working on production of several of the firm's headline drugs. The new job entails a substantial pay raise. He gives you the pep talk about what a great job you have done for the company and how he will miss you, but he knows his department's loss will be somebody else's gain. You wonder about the timing but it doesn't appear that you have any choice about this decision.

What will you do now?

- a. Accept the transfer and get on with your life.
- b. Force the issue with your boss and insist on a full investigation.
- c. Notify the U.S. Food and Drug Administration of possible violations and keep digging.
- d. Quit your job (before or after looking for another job).

Choose one of the above or suggest another alternative. Fully explain your choice and your decision rationale and please include a discussion of the relevant stakeholders.