

## GATTACA Activities

### *Discussion Questions and Activities:*

- 1.) During a scene in Gattaca, Vincent's parents visited a doctor who specialized in child conception to select for the best traits for his future brother. They hoped that his brother would have the best possible chances for a successful life. Some of the traits mentioned in GATTACA included intelligence, height and any possibility of inheritable diseases.

If you decide to have a child one day and are given the opportunity to select for special traits, would you do so? Why or why not?

- 2.) Molecular biology scientists have developed a technique which enables parents to select the sex of their future child. This technique simply separates the X carrying sperms from the Y carrying sperms, and then inseminating females with the preferred sex chromosomes. This procedure is currently banned in Canada except for medical reasons. Potential parents with sex-linked diseases may choose to have a girl, avoiding the possibility of having a boy with hemophilia, for example.

Should sex selection for medical and non-medical reasons be available for parents in Canada? In the rest of the world? What do you think are some implications of this technique?

- 3.) Divide the class into two groups.  
Group 1 – You are representing an interview panel. Justify why you think the use of DNA screens is sufficient for determining whether someone is suitable and qualifies for a job.  
Group 2 – You are representing a job applicant. Justify why a hiring committee should look beyond your genes as an indication of your future job performance.
- 4.) Imagine that you are in your late 30s or early 40s and decide that you want a child. You realize that you're at greater risk of having a child with Down's Syndrome. What sorts of genetic screening are available today? If you find out that this child has this condition, do you think it's appropriate to have an abortion? Why or why not?
- 5.) During a gala party scene in GATTACA, a woman submits a saliva sample from a recent kiss to screen her potential boyfriend/husband's DNA. Is she violating his rights by doing this without his knowledge? Is this in anyway similar to performing a background check? How much would a DNA screen reveal about someone's personality and intelligence?
- 6.) Knowledge of one's genetic screen could profoundly affect the price of insurance. Insurance companies operate on a risk assessment basis, where individuals with a greater potential of developing health complications are charged more than individuals who are deemed healthy. Actuarialists look at statistics to determine how

much their clients should be charged. With current advancements in genetic testing, there is the potential to discriminate those with “bad genes.” It is quite possible that individuals classified as high risk individuals may be denied the opportunity to purchase insurance. However, insurance companies must operate as a business, looking out for themselves and their clients’ best interests.

Divide into two groups:

Group 1 – You are representing an individual who has obtained a genetic screen and would like to purchase some insurance. Results show that you’re at extremely high risk for developing cancer and hypertension. However, you are currently a healthy individual who doesn’t smoke and exercise on a regular basis. Explain why you should be given the opportunity to purchase insurance at a reasonable price.

Group 2 – You are representing an insurance company. A potential client approached your company about the possibility of purchasing insurance. After reviewing her file, including a gene scan, you realize that she falls into a high risk category. Explain to her why you need to charge her considerably more for insurance.

- 7.) Each character in GATTACA faced ethical dilemmas due, in part, to a society that emphasizes genetic perfection. To gain a better understanding of each dilemma, think about the goals, rights and duties of each of the characters listed. Proceed to fill in the chart below:

<b>Person</b>	<b>Goals</b>	<b>Rights</b>	<b>Duties</b>
Vincent			
Vincent’s parents			
Eugene			
Irene			
Space Company			

- 8.) Sperm and egg donation service agencies offer hope to infertile parents who hope to conceive their own children in the future. Sperm donation is a relatively easy process, requiring no more than an hour’s time. However, donating eggs is a rather complicated task, requiring months of hormone therapy and minor surgical procedures to retrieve the harvested eggs. In addition, drugs injected into women

cause their ovaries to ovulate several eggs at once, greatly increasing the odds of developing cancer. To compensate for the 'inconvenience', women are given a large sum of money. Often, young, female college students are targeted for egg donations since they are considered more educated and healthier than their older female counterparts.

Do you think females should be compensated for donating their eggs? Why or why not? Is it appropriate for egg donation agencies to advertise for potential egg donors on college campuses?