



### Composing an Abstract

Abstracts are **NOT** summaries; they are concisely synthesized bodies of information extracted from a larger scientific article, lecture, experiment, etc.! Abstracts are created NOT "found", so they do not include direct quotes and are always completely in the author's (that would be you) own words. You will be composing a 50-word abstract for each of the sixteen chapters found within this video series. You must address the writing prompts found beneath each chapters heading when composing your abstracts. The abstracts must be **EXACTLY** 50 words and it may help to number either above or below the words. This is an opportunity to show off your literary prowess and your ability to manipulate the language of science.

#### 1. Instructions for a Human Being running time 09.06

- Explain the storybook metaphor
- DNA's 4 billion years of history
- DNA - describe structure, chemical makeup, and function

#### 2. Getting the Letters Out running time 05.52

- Goal of the Human Genome Project (HGP)
- "1000 letters a second"
- Explain the critical use of technology

#### 3. One Wrong Letter running time 08.57

- What is Tay Sachs?
- What makes it an "incurable" disease?
- Explain what it means to be a carrier for a rare condition and why is important to know if you are a carrier?

#### 4. The Sequencing Race Begins running time 06.29

- Introduce scientist, Craig Venter
- Discuss an automated DNA-reading process
- Role of Celera Genomics in the HGP

#### 5. Ramping up running time 07.48

- How government teams responded to Venter's announcement
- Use of the internet in the dissemination of laboratory data
- **Question:** Is the HGP a necessary public investment? Why or why not?

#### 6. Genetic Variation running time 06.33

- Whose code is it?
- How similar are humans?
- Sharing genes with a banana...**Explain?**

#### 7. Who Owns the Genome? running time 07.52

- Making history
- Discuss arguments for and against patenting the genomic code
- The effects of patenting on drug companies

#### 8. The Business of Science running time 04.06

- Who is "profiting" from the genome?
- Discuss Celera's business plan
- Describe recent changes in the viewpoints of members of the scientific community

#### 9. Finding Cures is Hard running time 08.07

- What is cystic fibrosis (CF)?
- Explain how genes determine proteins
- Function of proteins influenced by their 3-dimensional shapes

#### 10. Complexity in Proteins running time 07.44

- An atypical CF patient
- What is the proteome?
- Only twice as many genes as a fruit fly?

#### 11. The Finish Line running time 04.32

- All 3 billion letters
- The effects of the pressure of competition
- A new beginning and direction in science

## 12. Finding Disease Genes running time 04:06

- Scientific process involved in identifying the genes responsible traits like baldness
- Iceland and "all in the family"....**Explain?**
- Use of DeCODE's giant DNA database

## 13. DNA Databases running time 04:14

- DNA or genetic testing reveals passages written in our "*future diary*"...**describe how?**
- What is GATTACA?
- Gene chips + newborns?

## 14. A Family Disease running time 08:05

- Link between ovarian and breast cancer
- Discuss BRCA 1 and 2 mutations
- Explain the results of Lissa's & Lori's tests

## 15. Genetic Modification running time 04:27

- Enhancing your kids...Would **YOU??**
- Safety of genetically modified foods
- Explain what it means to take genetic modification too far

## 16. Contemplating the Message running time 07:58

- Again, who owns the genome?
- Genes are unevenly distributed
- **Conclusion:** All life is connected!! Cite information from this summer's reading and viewing to support your positions.