Christianity and the New Biotechnologies

In vitro fertilisation (IVF) has opened the door to embryo experimentation, egg and sperm donation, surrogacy, embryo selection, pre-implantation genetic diagnosis, embryonic cloning, animal human hybrids, mitochondrial replacement, and now, gene editing. Nanotechnology opens the possibility of 'engineering' minute biochemical systems at an atomic level. Cybernetics merges human tissue with mechanical or electrical devices in order to restore lost function or enhance human abilities. With retinal implants, cyborgs – part human, part machine – may be just around the corner. New drug treatments and enhancements are taking human performance to new levels, such as viagra to enhance sexual performance and modafanil to heighten concentration and memory. Humanoid Japanese robots can blink, smile, walk, talk, express anger, sing, and provide healthcare. Most of these so-called 'advances' have been justified on the grounds that they will prevent human suffering or lead to new treatments. What principles should we use to evaluate them from a Christian perspective?

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- I. New Biotechnologies
 - A. Robotics
 - B. Artificial Intelligence
 - C. Artificial Reproduction and Associated Technologies
 - 1. IVF and GIFT
 - 2. Embryo experimentation
 - 3. Gamete Donation
 - 4. Surrogacy
 - 5. Embryo Selection
 - 6. Saviour Siblings
 - 7. Preimplantation diagnosis
 - 8. Animal-Human Hybrids
 - 9. Three parent embryos
 - 10. Gene Editing
 - D. Stem Cell Research
 - E. Nanotechnology
 - F. Cybernetics and Transhumanism
 - G. Performance-enhancing drugs

- II. Moral Challenges of the Baconian Project
 - A. Mixed consequences
 - B. Discerning good and bad
 - C. A Pandora's Box?
- III. Science and the Christian Faith
 - A. The Faith Presuppositions of Science
 - B. Many great scientists were Christians (eg Sir Francis Bacon, Kepler, Mendel)
 - C. Many great doctors were Christians (eg Paré, Jenner, Simpson)
- IV. Biblical Foundations
 - A. Divine Stewardship (Genesis 1:26-28)
 - B. The Fall and its effects (Genesis 3)
 - C. Biblical technologists
 - 1. Jabal tents and livestock (Genesis 4:20)
 - 2. Jubal musical instruments (Genesis 4:21)
 - 3. Tubal-Cain bronze and iron tools (Genesis 4:22)
 - 4. Nimrod cities (Genesis 10:8-10)
 - 5. Bezalel and Huram Abi (Exodus 31:3-5; 1 Kings 7:14)
 - D. Good and bad uses of technology two case studies
 - 1. Noah's Ark (Genesis 6-8)
 - 2. Tower of Babel (Genesis 11)
- V. Principles into Practice
 - A. Be like the men of Issachar (1 Chronicles 12:32)
 - 1. Double-listening
 - 2. Hard thinking
 - B. Don't rely on the world's principles
 - 1. Deontology and the Georgetown mantra
 - 2. Consequentialism
 - 3. Virtue Ethics
 - C. Hold on to truth and unity (John 17:17, 22)
 - D. Embrace a biblical view of humanity (Genesis 1:27)

- 1. Creation
- 2. Fall
- 3. Redemption
- 4. Consummation
- E. Recognise the limits for 'flawed masterpieces'
- F. Keep an eternal perspective
- G. Embrace a wider love ('Who is my neighbour? Luke 10:29)
 - 1. All human beings are neighbours
 - 2. The status of the human embryo
- H. Don't let ends justify means (Romans 3:8, 6:1-2)
- I. Focus on the cross (Philippians 2:5-11)
 - 1. Costly service
 - 2. Willingness to speak the truth
- VI. Summary
 - A. Good Stewardship
 - B. Carrying the Cross

Suggested Readings:

Barratt H. Transhumanism. CMF File No 31. 2006. CMF.

Cameron C. The Robots are Coming: Us, Them and God. 2017. CARE.

Saunders P. The Human Journey: Thinking biblically about health. 2014. CMF.

Taylor P. Three-parent embryos for mitochondrial disorders. CMF File No 51. 2013. CMF.

Wyatt J. The machine will see you now. Triple Helix 2007; Summer: 12-14. CMF

Wyatt J, Taylor P. Emerging Medical Technologies: Ethical Issues. CMF File No 49. 2012. CMF.