

'HUMAN ENHANCEMENT

Humans have created and continue to create technologies that modify living substrate, manipulating existing functional performance or behavior. Many of these technologies are welcomed for their therapeutic potential to bring healing and restoration. However, such technologies have also been directed to the re-engineering of human life, which some refer to as "enhancement." They include, but are not limited to, genetic technologies, synthetic biology, nanotechnologies, pharmacology, and neurotechnologies. The purpose of this statement is to examine whether or not human re-engineering through technology is:

- Acceptable within our place as created beings charged with stewardship of our lives before our Creator God,
- Ethical within the historical norms of medical ethics, and
- Prudent and just within the context of limited medical resources in a world in which suffering due to poverty and absence or profound deficiency of even simple life-saving technology is the reality for over one-third of humanity (according to World Health Organization data).

A critical aspect of this question is how the relevant terms are defined. The reader is encouraged to review the appended glossary before proceeding with the remainder of this statement, and in interpreting this statement to respect CMDA's use of these terms.

CMDA Affirms:

- That the purpose of human life is defined by God, not by the sinful desires of human beings (Rom 9:20-21; 1 Cor 6:19-20; Eph 2:10; Gal 2:20; Mark 7:21-23)
- That, according to Scripture, the purpose of human life is fellowship with God and our fellow human beings within the confines of our created nature (Rom 8:22-30; Deu 6:4-5; Matt 22:37-40; John 17:3)
- That the model of human being and flourishing is the person of Jesus Christ (Rom 8:29)
- That no human re-engineering technologies are capable of attaining the model of Jesus Christ or are necessary for human flourishing (2 Cor 3:18)
- That immortality can be achieved only by the saving work of Jesus Christ (1 John 5:12); utopian false promises of re-engineered, matter-based, so-called technological immortality are an idolatrous illusion and a counterfeit salvation
- That human beings should commit to stewardship of their talents and gifts for the glory of God, the development of godly character, and service to one another (Micah 6:8; Matt 25:14-30; Rom 12:1-3; 1 Cor 10:23-24; 1 Peter 3:3-4)

CMDA Concludes:

- That the goals of medicine should remain healing, restoration, and palliation, never commodification of persons or purveying of narcissistic wish fulfillment
- That the pursuit of human re-engineering would, in contrast, sinfully distract from God's intentions for human flourishing and stewardship
- That the pursuit of non-healing or non-restorative endeavors for the purpose of human re-engineering is unjust; a deviation from the historical goals of medicine; and a misappropriation of medical knowledge, training and resources
- That the misuse of biomedical technology to address issues caused by social pathology is poor stewardship that aggravates rather than solves those issues and is ultimately futile, as it fails to legitimately or effectively address the true problems, which lie outside the domain of medicine

- That the human biomedical re-engineering project, which has the potential to radically alter or even eradicate dimensions of God-given human nature is, therefore, unacceptable, unethical, and imprudent
- That the refusal to support or perform human re-engineering technologies is not a violation of respect for patient autonomy, properly understood
- That coerced re-engineering of human beings by governments, military forces, insurers, or private enterprises for the condition of employment or service is contrary to human dignity and freedom; health care professionals should maintain the right of conscientious objection against complicity with such coercion (see CMDA Statement on Right of Conscience)
- That acceptance of some forms of cosmetic enhancement about which conscientious Christian health care professionals disagree should not imply tacit approval for biomedical enhancements in general or re-engineering specifically
- That every scientist, researcher, engineer, and medical professional should interrogate each biomedical technology and its use in specific situations with the following 10 questions¹ to assist in the determination whether the application is God-honoring, acceptable, ethical, prudent, and just:
 1. Does the technology treat our common, limited medical resources responsibly within the constraints of just stewardship before God?
 2. Has the technology been sufficiently evaluated in regard to its possible risks and benefits, short-term and long-term? What are the consequences, reversible and irreversible, of the technology for future generations?
 3. Does the technology diminish or exacerbate unjust social inequalities?
 4. Does the technology facilitate healing or restoration from disease or disability, or is it intended for human re-engineering? Is the technology being used to address biomedical pathology or social pathology?
 5. Does the technology enrich or impoverish human relationships?
 6. Does the technology truly ennoble, assisting virtue, or would it subvert authenticity, misrepresent and distort identity, or corrupt attitudes?
 7. Does the technology promote a community that values and accepts all individuals regardless of their attributes?
 8. Does the technology require or promote the commodification, exploitation, or destruction of human life?
 - Does it demean, debase, or degrade individuals?
 - Does it require or reinforce diminished views of human life, human value, and the human being?
 9. Does the technology primarily appeal to our basest inclinations?
 - Does it appeal to our pride?
 - Does it encourage materialism?
 - Does it promote narcissistic self-absorption?
 - Does it appeal to lust or promote sexual commodification?
 - Does it promote servitude or enslavement to fickle whims of fashion?
 - Does it support or perpetuate obsession with one's body image?
 10. Does the technology promote genuine human flourishing, or does it more likely promote technological or economic imperatives?

Approved by the House of Representatives

¹ Modified from Hook, 2007; and Cheshire, 2011.

Glossary of Terms as Understood by CMDA

- *Autonomy (as it relates to medical practice):* Autonomy, or more accurately, respect for patient autonomy, is the principle that articulates the reality that each person possesses his or her own beliefs, values, fears, and goals, which influence the understanding of what is good and harmful in regards to health care. Health care professionals should respect and integrate those elements in jointly making health care decisions. However, respect for patient autonomy is essentially a negative right, that is, it provides the patient with veto power over a proposed medical intervention that may be recommended by the patient's doctor. It is the ability to maintain bodily and personal integrity by respecting patient refusal from unwanted "touching" or interventions. It is not a positive right permitting a patient to request and receive any intervention he or she desires. Autonomy is, therefore, a limit or check upon medical professionals' primary ethical obligations of beneficence (to promote the good for a patient) and non-maleficence (to avoid as much as possible harm in the process of pursuing the good).
- *Disease and Disability:* Diseases are those states in which mental, anatomical or physiological functioning have decreased or deteriorated from baseline for an individual, or that operate outside of typical norms for the human species, producing a decreased ability for the person to function and survive compared to the majority of humanity. One definition of disability, as defined by the U. S. Americans With Disabilities Act of 1990, is "a physical or mental impairment that substantially limits one or more of the major life activities of the individual." Lacking in a biotechnological enhancement should not be considered a disease or disability.
- *Enhancement:* For the purposes of this statement, an enhancement is an intervention that seeks to improve upon species-typical norms. It is a modification of a medically defined normal human trait, while lacking disease, dysfunction or defacement by injury, or congenital abnormality. In other words, an enhancement is an intervention to change that which is not broken. Examples include medication to augment cognitive performance, medication to make sleep unnecessary, recombinant erythropoietin or anabolic steroids to increase muscular performance or endurance in competitive sports, or biotechnological interventions to the human body that would confer novel capabilities. The use of "enhancement" as a medical term is discouraged because it is value-laden and morally presumptuous. The use of "enhancement" presumes that the net change of the intervention is an improvement, when this may not be the case, either in the outcome achieved, or in the balance between intended improvements versus other consequences or side effects of the intervention. It is also discouraged because of its lack of specificity. Training to improve a certain level of performance within species-typical norms may also "enhance" that function or performance, more in keeping with the process of *Stewardship* (see below). "Re-engineering" is recommended as a more accurate and objective description of these interventions.
- *The Goals, or Telos, of Medicine:* The goals of medicine are to cure disease, restore lost function, palliate symptoms, enable living with disease or disability, and prevention of

disease through stewardship.² Human re-engineering, however, is not included in or compatible with the goals of medicine.

- *Healing and restoration*: Those interventions which seek to restore structure and function to an individual's baseline or species-typical norms. Healing and restoration are responses to injury or disease; they are not modification dictated solely by desire.
- *Re-engineering*: Efforts to alter the substrate, structure or function of a given genetic, anatomical or physiological state or function. Re-engineering technologies seek to "improve" upon traits that are within or supersede normal levels and make them "superhuman." Re-engineering efforts are not directed at healing or restoration but at change simply because change is desired. Re-engineering, a more objective term than "enhancement," is a repudiation of normal human life and its Creator.
- *Social Pathology*: In this context, aspects of the social milieu that impose sinful, vain, covetous, or degrading expectations upon individuals to meet another individual's, collective's, or the larger society's wishes or definitions for conformity, performance, or appearance. Social pathology either deliberately or unconsciously attempts to make individuals conform to an arbitrary, non-biblical, humanly-defined standard, or to feel guilty, a burden, inadequate, unacceptable or unlovable if one fails to so conform. Social pathology often leads to personal dissatisfaction or self-loathing. Examples of pathological social standards are found in fashion, advertising, media, and pornography, or anywhere there is excessive focus on one's appearance, cognition, or physical performance.
- *Stewardship*: Interventions that attempt to preserve and best utilize existing life and function within the scripturally articulated goals for human life as created by God. These elements are those that maintain normal function within the traits of the human species. Examples include rest, appropriate nutrition, education, training, physical exercise, prayer, hygiene, vaccinations and other appropriate medical treatment. All of these depend upon normal underlying mental, spiritual, and physiological processes, without a requirement for re-engineering their fundamental nature or operation.
- *Technology*: "A distinct human cultural activity in which humans exercise freedom and responsibility in response to God by forming and transforming the natural creation, with the aid of tools and procedures, for practical ends and purposes."³ A corollary of this definition is that all technology should be used in obedience to God's plans for His creation and our place in it. Biotechnology is a subset of technology which interacts with or modifies living cells and organisms.

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³ Stephen V. Monsma, *Responsible Technology: A Christian Perspective*. Eerdmans, 1986, p. 19, ISBN 978-0802801753

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