Université Saint-Joseph de Beyrouth
Faculté de droit et des sciences politiques
Centre d'études des droits du monde arabe

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POSTHUMOUS BIOETHICS: HUBRIS UNRESTRAINED

Thalia ARAWI[1], PhD and Zeid FOUNOUNI (PhD Candidate)

> *Every act and every inquiry, and similarly every action and pursuit is thought to aim at some good and for this reason the good has rightly been declared to be that at which all things aim.*
>
> *Aristotle, Nicomachean Ethics, 1094a 1-3*[2]

Daniel McCormick, a test pilot whose girlfriend was about to die after an accident, was suddenly faced with the existential anguish of mortality and separation. He suggests to his scientist friend to be cryonically frozen for a year to avoid witnessing the horror and pain of her death. Through a series of unfortunate events, he was forgotten in the abandoned lab for 53 years until he was stumbled upon and defrosted. He woke up unchanged to a very different world. Daniel discovered that his girlfriend had survived her accident and was living in a remote place. Medicine is never a hundred percent correct in its prediction. he also realized that he was aging very rapidly, so his focus became to get to his girlfriend before his rapid aging process incapacitates him. This is the plot of Forever Young, a movie released in 1992 with high public reviews. The movie has raised awareness about the process of cryogenics and made moviegoers, scientists, physicians, ethicists and policy makers ponder cryopreservation from a different angle: that of humanism and ethics. In real life, when Stephen Hawking was diagnosed at the age of 21 with amyotrophic lateral sclerosis (ALS) back in 1963, physicians noted that he would not live more than a couple of years. However, he lived decades longer than the physicians predicted he would, and with an exceptional intellect that contributed greatly to the world of science.

1. Clinical bioethicist, Director of the Salim El-Hoss Bioethics and Professionalism Program (SHBPP) at the American University of Beirut Faculty of Medicine and Medical Center (AUB), and member of the National Consultative Committee on Bioethics in Lebanon.

2. Aristotle, *The Nicomachean Ethics* (Penguin Classics, 1974).

According to John Harris, because we have a moral obligation to save life, then we also have, by extension, a moral obligation to extend it indefinitely, basically calling for human immortality. Yet, he argues, "*better surely to accompany the scientific race to achieve immortality with commensurate work in ethics and social policy to ensure that we know how to cope with the transition to parallel populations of mortals and immortals as envisaged in mythology*"[3]. Cryonics is one such attempt at cheating death. In 2016, a 14-year-old girl from the UK with a serious disease who wanted her body to be preserved, just in case a cure was discovered and she could be healed, won a historic legal fight shortly before her death. The ruling of the judge was, as he noted, not about the rights or wrongs of cryonics but about a dispute between parents over the disposal of their daughter's body. The fact was that while her mother supported the girl's wish, the father did not. She was cryopreserved in the US[4].

Man has been preoccupied with the notion of immortality since time immemorial. In the Mesopotamian poem, "The Epic of Gilgamesh", the protagonist hero, after a long series of conquests and losses, seeks immortality as a last adventure and is met with devastating failure. His realization is final as represented in these lines:

"*What you seek you shall never find.*
For when the Gods made man,
They kept immortality to themselves"[5].

Greek mythology tells the tale of Chronos (Time), born from Earth and Heaven and the most terrible of all of their children. This myth is about demolition and bereavement as Time guides human beings (his children) to death. Every birth's destiny lies in death: afraid that one of his children would overthrow him, Chronos eats them and by that crushing immortality. Yet, the existential crisis of humans is that they are aware of the linearity of time mired by death. Posthumous medicine marks the rebirth or resurrection of Chronos' children and their attempt to cheat death and destroy time. Cryonics, this magic fountain, pours waters that will never be available except for the wealthy few, which, in and by itself,

3. J. Harris, "Immortal Ethics," *Annals of the New York Academy of Sciences* 1019 (2004): 527-534.
4. BBC, "Terminally ill teen won historic ruling to preserve body," November 18, 2016, https://www.bbc.com/news/health-38012267.
5. The Epic of Gilamesh (ca. 2200 BC).

creates a painful gap between those who can afford it and those who cannot, and this could be listed under the rubric of the disadvantaged being denied access to healthcare. Imagine if this process actually works, the end result is a society composed of only the rich elite. The cryonic process is well beyond the average person's financial capabilities, at least for now, not to mention that its scientific validity has not yet been proven, just like that of cord blood banking. Yet, the public, a prey to the media and scientific hypes, cling to anything that might give hope for a better, longer life. Mortality as a human condition has always haunted humans whose longing for immortality often pushes them to try morally dubious things and scientifically aberrant experiments.

The concept of immortality is also found in the Iliad, the Odyssey, Shakespeare's plays and many other works of literature. With the hurried development of emerging medical technologies, like regenerative medicine, gene therapy, stem cell research and telomere manipulation over the last few years, scientists, physicians, and ethicists have been battling through ethical issues related to life extension. We live in an age where we yearn for a science fiction life style, but one that is totally ignorant of what might lay ahead: "*The prospect of humans living forever is as unlikely today as it has always been, and discussions of such an impossible scenario have no place in a scientific discourse*"[6]. The possibility of a tremendously long life cannot but raise solemn questions about the true yearning for such a life without consideration of the quality this life might have as well as the relevance of such a leap on what it means to be finite humans. Nevertheless, we have entered the realm of posthumous medicine.

Posthumous medicine raises these questions amongst many others and brings forth a number of concerns that we cannot afford to brush aside any longer, simply because technology is evolving at a rapid pace and the leap from imagination to practice is becoming all too hurried. Scottish philosopher David Hume once remarked that whatever we can imagine is possible. The old Chimera (hybrid creature comprised of the parts of more than one animal usually portrayed as a lion, with the head of a goat ascending from its back, and a tail that ends with a snake's head) we find

6. J. Olhansky, L. Hayflick and B. A. Carnes, "The Truth about Human Aging," *Scientific American* (2002), http://www.scientificamerican.com/article.cfm?id=the-truth-abouthuman-agi.

in Homer's Illyad[7] is now a reality[8]. Put simply, a chimera is made up of cells from two or more "individuals", which is to say that it contains two sets of DNA, with the code to make two distinct organisms. Reminiscent of the creatures in Wells' The Island of Doctor Moreau[9], who transformed beasts into humans by sculpting their bodies and their brains into his own image, scientists tried to walk an untrodden path, perhaps too hastily, maybe a step too far: the hope is to implant human stem cells in an animal embryo in the hope that it will grow specific human organs, this experiment could, at least theoretically, provide a solution for organ shortage by providing a ready-made replacement for a diseased organ like a liver, a kidney or a heart. Ethically unrestrained experimentations have produced questionable results; thus, we now have Geeps: A goat-sheep chimera. The approach could, in theory, provide a ready-made replacement for a diseased heart or liver – eliminating the wait for a human donor and reducing the risk of organ rejection[10]. Newman, a cell biologist at New York Medical College, US remarks that he has been concerned about the course of this research ever since the making of the *Geep* in the 1980s. The UK has recently given green light for chimera experiments to proceed[11]. In August 2016 the US National Institutes of Health (NIH) announced its plan to lift its moratorium on funding chimera research, in place since 2015. The world awaits in hope and horror, many fearing a future that will distort the line between human and non-human animals, wondering whether the "product" should be given the rights of a human or an animal and whether scientists are playing God, whether this will mark the dehumanization of humans reminiscent of transgenic animals. As Newman noted: "*It's not that people are aspiring to create abominations* […] *but things just keep going, there's no natural stopping point*." Still, whatever deductions we attain, it is important for us to be cognizant of the

7. Homer, *The Illyad* (Penguin, 1985), Book 16.
8. H. Thurston Peck, *Harpers Dictionary of Classical Antiquities* (1898).
9. H. G. Wells, *The Island of Doctor Moreau* (Bantam Classics, 1994).
10. We also ponder whether we as humans imbue different organs with different levels of emotional quality/meaning? Is it easier to donate a loved one's kidney, liver, retina, heart, lungs, than to donate their face?
11. Daily Mail, "[UK] Fertility watchdog to allow use of human-animal chimera embryos for experiments," March 9, 2007, https://www.geneticsandsociety.org/article/uk-fertility-watchdog-allow-use-human-animal-chimera-embryos-experiments posted in Center for Genetics and Society.

fact that the aftermaths could extend far beyond the science at hand. "*How we talk about humans during this debate may inadvertently change how we look at ourselves*", writes Evans, a sociologist at the University of California San Diego, US. When Pendrick managed to flee from the island of Doctor Moreau, he goes back to a life of isolation in the English countryside. After having seen the shattered boundaries between species, he simply could not longer meet another human being without seeing inside him/her a beast which resides in everyone. He favored to spend the lonely nights watching the heavens.

Something in each and every human being, once away from the theoretical promises of science and having faced the atrocities that a science without conscience can lead too, feel the need to escape to an island where there is simple truth and embrace mortality with peace. One question that needs to be answered is what is our view of human nature? The mind-body dualism presented by French philosopher René Descartes in his *Discourse on Method*[12], which offers a view of the dead body as object, ignores a complex plurality of cultural and social perspectives on the body after one is deceased. One need to look at the emotionally charged encounter between physicians and patient family when the former suggests an autopsy precisely since existence is a social construct that is inextricable from the totality of the culture the individual belongs to, most importantly the community and family unit. While one might argue that an autopsy offers a distinctive medical practice from which a deceased patient does not benefit and that it still provides data for quality improvement, learning and evidence for criminal prosecution, the practice is not much welcomed practice in most Arab countries, particularly Muslim ones, which tend to believe that autopsy is a form of maiming which dishonors and violates the deceased who should be honored via immediate burial. Coronaries are often seen as culprits in adding to the pain of bereavement that families undergo. Indeed, coroners are not oblivious to this fact: They are quite aware of this in the context of suicide determinations (and perhaps in all contexts) and recognize that their findings are often

12. R. Descartes, *Discourse on Method* (Philosophical Library/Open Road, 2015).

informed by the distress of the family during an investigation or autopsy[13]. Various individuals judge that medicine ends (or should end) with death. Different stakeholders (police, physician, family, law, etc.) might have different competing interests with the deceased, yet, one can also argue that the end does not justify the means. Anatomy lessons become hardest on medical students when they reach the face and the hands of the cadaver precisely because these are a clear attestation of a person who lived, similar to many others they know. They carry souvenirs and proofs of a life once lived, of a person still, albeit in a strange way, present in the corpse which lies cold and lifeless on the dissection table. It is precisely because of that that many teaching hospitals actually hold a ceremony to honor the cadavers (the first patient) at the end of their anatomy class. As noted by Jones,

> *"When we turn to a cadaver's instrumental value, we recognize that it serves as a vital source of memories and responses [...] As we remember a person who has died, we respect the person who was. All that remains of the person is the cadaver, and yet our respect for that person, and for the memory of that person, leads to respect for the person's remains, a link that is not readily broken"*[14].

The same holds true when it comes to rehearsing procedures on the newly dead, an act that is deemed unethical, inhumane and morally objectionable. Yet, medical students and physicians look at this as an opportunity to learn and teach. Dead body simulation is performed on the dead before the onset of rigor mortis. While some argue that this technique has potential benefits for offering real-life in-situ experience for neophyte physicians, the practice remains laden with ethical and humane concerns.

However, consent for this is never sought because of the torment and agony this might cause and since most medics are quite aware that this consent will never be obtained. Here too, we are in the gambit of posthumous medicine, albeit in the field of medical education. Questions abound: As a living being, a patient's autonomy has to be respected, yet do the same laws apply (or should apply) after death?

13. G. Tait, B. Carpenter, "Suicide and the therapeutic coroner: Inquests, governance and the grieving family," *International Journal for Crime, Justice and Social Democracy 2*, no. 3 (2013): 92-104.

14. DG. Jones, *Speaking for the Dead: Cadavers in Biology and Medicine* (Farnham: Ashgate Publishing, 2000), 57.

Are family members to be told before (consent) and/or after (disclosure)? Is substituted judgement sought? And if yes, would it be considered true consent when given under such duress? Can one argue that by learning on the newly dead, medics are harming the dignity of the diseased by treating him/her as a tool, thus hurting the family and, perhaps quite importantly, is this not making the neophyte physicians callous and numbs their empathy via a horrific objectification of the dead, which all of a sudden shifts from being a person they have tried to save to a tool to practice on?

We argue that practicing procedures on the newly dead without authorization teaches trainees to put their own self-interest first. This is disrespectful of dead patients and their families and therefore quite harmful even in the context of professional formation.

MEDICINE AND THE LEAP INTO POSTHUMOUS MANAGEMENT

Sami (not his real name) was a 34 years old patient who was brought to the Emergency Department after a severe motor-vehicle accident.

After a lot of work, it turned out that the patient was practically brain dead (although that term needs to be reconsidered in modern medicine and bioethics). While awaiting confirmation based on the The Glasgow Coma Scale, the wife approaches the attending physician requesting postmortem sperm retrieval, on the account that she and her husband have always wanted a child. There were no advance directives to that effect, yet, the wife contended that her husband was trying to conceive with her and died unexpectedly, and she argued that her request should not be denied just on the basis that he did not have the farsightedness to make an advance written directive, particularly in a country where such directives are rarely considered binding as they do in the West and with no proof of any verbal expression on behalf of the patient prior to the accident. His parents, however, refused to consent to this procedure. This was a Pandora's box being open under dire circumstances. As noted by Jansen, "[m]*any dying patients take comfort in the fact that they have children, that it is not the end of the road genetically. On the other hand, among the causes of anguish adolescents have in facing death is unfulfillment of their procreative instincts*"[15].

15. R. P. Jansen, "Sperm and ova as property," *Journal of Medical Ethic* 11, no. 3 (1985): 123-126, at p. 123.

Several questions arise: Does the wish of the mother to give birth to an orphan has priority over the child's basic right to two living parents?[16] Noting that this was a form of "planned orphanhood", Landau argued that it should not be done under any circumstances. Even if this was a right and, perhaps, a religious obligation (according to some religions which view procreation as a duty among married couples), some argue that the psychological effect of such a birth will have tremendous future negative repercussions on the born child. The patient and his wife were Muslims, and according to Islam, the covenant of marriage is dissolved with death. While requests for posthumous sperm retrieval will most likely increase because of technological advances and with more people knowing about it, this alone does not make the case easy to solve as a number of relevant considerations will always need to be tackled, the most important of which is the prevailing lack of consent from the deceased while alive. The consent being absent, it is a clear violation of the reproductive autonomy of the deceased and could cause potential harm for the child to be. Indeed, Shiff noted that "*respect for individual autonomy and dignity requires that the deceased's body should not be used in a way that, in all probability, was never contemplated in life*"[17].

In the case above, and after a long clinical ethics workup, it was revealed that the wife and the parents of the patient were on very bad terms, and that the patient was a wealthy businessman and his wife wanted the child to be able to inherit. Sperm retrieval was not made. The patient passed away and life went on. Postmortem sperm retrieval is only one practice of posthumous medicine, generally defined as medical interventions that occur after death or with death. It also includes performing autopsies, post-mortem organ donation, cryopreservation, posthumous healthcare data (including medical records and genomic information), etc.

In this article, we will be looking at the posthumous medicine from a medical ethics perspective, highlighting important issues that we feel need to be addressed before scientists and medics can perform such complex and morally laden health or medical technological advanced processes, defined by the WHO as the application of organized knowledge and skills

16. R. Landau, "Planned orphanhood," *Social Science & Medicine* 49 (1999): 185-196.

17. A. R. Schiff, "Posthumous conception and the need for consent," *Medical Journal of Australia* 170, no. 2 (1999): 53-54.

in the form of devices, medicines, vaccines, procedures and systems developed to solve a health problem and improve the quality of life[18]. While we will not try addressing these complex ethical issues and finding solutions to them (as this would require a book on its own), we will shed light on these issues in the hope that our readers will ponder them and realize that posthumous medicine is not to be taken at face value. The most pressing question is whether a dead human body has rights attached to it. Do we cease to be dignified humans once we die? From this emanates a number of other important questions: do our rights as humans end when we die? What and who defines what a person is? Is this definition fixed or does it change with time and technological developments? When do we seize to exist as humans? When do we seize to exist as anything for that matter? Do we exist as non-humans after we seize to exist as humans with human rights? Does that state of existence bear with it any right of its own, or even, do any of our rights as humans trickle down to our state of "not existing as humans (not alive anymore)".

The answer to these questions is essential for any attempt at looking at the morality, or lack thereof, of posthumous medicine.

Frank Ostaseski, a leader in the field of end-of-life care and founding director of the Zen Hospice Project teaches that dying is not simply a medical event, and that we have to stop treating it as if it were. Medical practitioners who have to deal with death on a daily basis are impacted as human beings as much as the patients and their loved ones. Ostaseski gives the example of a physician that approached him at one of his workshops. "*Her training had exhausted her. Her training was designed to exhaust her, actually. Now she was working in a major city hospital. One of her jobs, on the night shift, was to declare people dead. She said it was very mechanical for her. She just felt as though she was losing her humanity. She hoped that I might be able to give her some Buddhist practice which could help. I usually go toward the individual's past experience, trusting that we can discover something that would be useful. I said to her that it might be possible to learn something about Buddhism in a short time, but instead maybe she should look to her own lineage, that of physicians, of healers. What could she*

18. World Health Organization, "World Health Assembly: resolutions and decision - Geneva, 9 November 2006," May 2007, https://apps.who.int/gb/ebwha/pdf_files/WHASSA_WHA60-Rec1/E/WHASS1_WHA60REC1-en.pdf.

find in her own lineage that might support her? I told her how we care for people after they die, how we bathe their bodies, how we treat them with as much respect after death as before.

Months later, a mutual friend who runs a support group for physicians asked me, "What did you say to this woman?" This physician was doing something very interesting. When she made her rounds, in addition to carrying her stethoscope, she carried a small bag with a special cloth, a candle, and a vial of sweet oil. She would make a small altar on the table next to the person who had died. She placed the candle on it, along with something that was special to the person who had died. If there were family members there, she would talk to them. She would anoint the person with the oil, and sometimes say a prayer. Every spiritual tradition has some way of anointing the dead. It was a radical step for her"[19]. The actions of this physician may not change anything for the deceased person but the attitude she assumes towards the dead, her posthumous regard and ethical stance towards the dead patient, benefits her as a medical practitioner and a human being. Posthumous harm is real and affects the living even if materialists deny that harm could be done to a deceased person.

According to physician and philosopher Edmund Pellegrino, medicine is about clinical encounters and it involves the scientific knowledge as well as the reasoning processes of the physician, personal relationship as well as consultations aimed at healing the ill person. According to him, "*this clinical, face-to-face encounter is the starting point for a philosophy of medicine and is the root of its internal morality*"[20]. Indeed, this medicine is "*the physician's* locus ethicus *whose end is a right and good healing action and decision*"[21] (Pellegrino, 1979). To those who would like to argue that posthumous medicine is not clinical medicine, we contend that any encounter between a patient and a doctor is clinical medicine and the deceased remains a patient. The internal morality of medicine revolves around a set of core values to which the profession of medicine is ordained. It is basically centered on caring, curing and when cure is not

19. J. Flower, "Excerpts from Conversations with Frank Ostaseski," https://www.mettainstitute.org/pdfs/Work-Life-Wisdom.pdf.
20. E. Pellegrino, *Humanism and the Physician* (University of Tennessee Press, 1979). Quoted in E. Pellegrino, "The Internal Morality of Clinical Medicine: A Paradigm for the Ethics of the Helping and Healing Profession," *Journal of Medicine and Philosophy* 26, no. 6 (2001): 559-579.
21. *Ibid*.

possible, to help the patient live with as much dignity as possible. Internal ends transcend the limits of the here and now precisely because they are a function of the clinical encounter and the existential nature of illness and what it brings about. They defy space and time because sickness is a universal plight and the patient has entrusted the physician with his health. This makes the practice of posthumous medicine as one that verges more towards the external ends, often a factor of cultural contexts, social constructions, as well as power and money. Thus, medicine is about *Recta Ratio Agibilium* and one cannot but wonder whether a virtuous physician will acquiesce to posthumous medicine blindly, without actually spending the time looking for the particulars of the specific case, which makes all the difference.

> "Recta Ratio Agibilium *is a Latin phrase articulated by Thomas Aquinas meaning "the right reasoning in acting" (Pellegrino E, Thomasma D. The virtues in medical practice. New York: Oxford University Press; 1993). The phrase encompasses Aquinas's notion of prudence, the capstone virtue, which provides order among the intellectual and moral virtues, while also providing for a right balance between means and good ends. With regards to clinical medicine, "the right reasoning in acting" applies to a physician's ability in ordering scientific facts, external goods, and moral virtues in a way that prioritizes the good of the patient. The virtuous physician will be one who habitually chooses the right thing in concrete clinical situations. The integrity of the physician patient relationship is, thus, rooted in the physician's ability to virtuously discern "the right reasoning in acting" in specific cases*"[22].

Thus, the question remains as to whether the internal ends of medicine (which are traditionally to cure, care and to help) are respected with posthumous medicine and if yes, how and when? It is incumbent on us to appreciate the fact that medicine and ethics cannot, and indeed, should not be separated. Indeed, ethics is part and parcel of medicine and by that we would like to argue that limiting one's arguments and deliberations around the four main principles of bioethics, as presented by Beauchamp and Childress, only beg the question and leave a lot of important particulars unaddressed and thus, possibly, leading to the morally wrong deliberations and recommendations.

22. H. M. Olivieri, "*Recta Ratio Agibilium* in a medical context: the role of virtue in the physician-patient relationship," *Philosophy, Ethics, and Humanities in Medicine* 13, no. 1 (2018): 9.

The case of Sami and the request of his young wife for post-mortem sperm retrieval might have looked simple and straightforward to the medical eye. Yet, the devil was in the details which ultimately meant that it was vital, in order to come up with a fair and moral recommendation, to look at the case from different angles: the law, religion, cultural dynamics, the psycho-social dimension, the financial situation, etc. In 2016, the world was perturbed by the story of Angel's 22-year-old mother Karla Perez who was taken to the hospital after vomiting caused by throbbing in her head. Physicians reported a massive brain bleed from a stroke the young mother had suffered. Notwithstanding, Karla was pregnant and a decision was made to keep her "alive" on life support for 54 days to give doctors enough time to deliver her baby whom she had named Angel, via C-section at 30 weeks and three days. This was yet another case where science interfered to redefine what life and death were, reminiscent of that of Marlise Munoz. Ethical issues that arise from this case are thorny: is it ethical to keep a brain dead pregnant woman alive to maintain a pregnancy? Should we consider the fact that several countries acknowledge the right to refuse treatment in advance, and the right for surrogate decisions makers (families, for example) to make decisions for loved ones who have lost decision-making capacity, be reformed because of the rights of the growing fetus? Yet, perhaps the most serious concern is that Angel will eventually realize that he has grown in the womb of his deceased mother who was reduced to a "*human incubator*". The plethora of psychological repercussions will remain to be seen as time passes by and as Angel becomes older to finally face the truth and communicate what it all means and feels.

To be spot on, posthumous bioethics will need to factor in a number of relevant considerations which include, but are not limited to, power, money, politics, medical technology, culture, law, religion, and of course all the stakeholders. As such, there are not sacred cows when it comes to deciding whether a certain procedure is morally acceptable or not. What is truly needed is prudence coupled with practical wisdom (Aristotle's *phronesis*).

Mary Shelley's *Frankenstein* is perhaps one of the earliest novels which took readers to the front of science as a means to create life. Victor, a flawed, obsessed student, zealously reads massive volumes and refines

his experiments to finally manage to tamper with life and death and create a creature out of body parts gathered from the deceased. After he succeeds in his labors, Frankenstein rejects his creation: As soon as the "monster" comes to life, Victor is filled with intense revulsion. He explains, "*the beauty of the dream vanished, and breathless horror and disgust filled my heart*"[23]. This rejection of the monster led to a torrent of misfortunes. The subtitle of the book, *The Modern Prometheus* reminds the readers of the hubris that led to Prometheus the titan being punished by the god of Mount Olympus by being chained to a rock with an eagle eating the titan's liver. It did not end there. Through a myth of eternal return, the liver re-grew every night and the eagle returned each day to unendingly torture Prometheus. Frankenstein, the modern Prometheus, addresses the ominous consequences of "playing God."

CONCLUSION

Posthumous medicine draws nigh. Some of its applications are already being experimented with. However, we argue that human nature being what it is, mainly governed by greed, the love of power, money and fame, we find ourselves in our excitement for scientific discovery, accolades, and financial rewards blinded towards the ethics of the natural order. Every action has reverberations in the natural order that could either enhance it or disturb it. Cryonics, as a posthumous intervention, has yet to prove its part in enhancing the natural order of things and its benefit for humanity. All arguments presented for the benefits of the process are speculative and pseudo-scientific, a process whose reversibility is based on theory and not on a single case of successful practice so far. This can be considered a curse or a blessing. All depending on where we come from and the premises we operate from. Analysing the legal status of individual with the tradition of the International Declaration of Human Rights, citizenship rights, will and testament reveal an admittance to the rights of the deceased and thus granting him/her, if only hypothetically, what we call "*Posthumous rights*".

23. M. Wollstonecraft Shelley, *Frankenstein, Or, The Modern Prometheus* (Wordsworth Classics, 1999), p. 454.

Greek mythology never ceases to fascinate us with its relevance thousands of years later. In addition to Chronos and Prometheus, we are reminded of Asclepius.

The story of Asclepius, usually personified as standing while dressed in a long cloak, holding a staff with a serpent coiled around it (the symbol of medicine) was a demi-god, a son of Apollo, who later became the god of medicine and healing in ancient Greece, is a cautionary tale well worth pondering. Though the gods celebrated Asclepius' many wonder cures for humanity, they drew the line at his practice of reviving the dead. A great healer, Asclepius transgressed by bringing one of his patients back form the dead. The angered Zeus killed him with a thunderbolt for disturbing the natural order of things and tampering with death by reviving a dead man. According to the Romans, Apollo entreated that Asclepius be positioned amongst the stars, which was permitted by Zeus who turned the former healer into the constellation Ophiuchus, the serpent-bearer visible to the naked eye on a clear summer night. Perhaps, a reminder to all of us that not everything we can do, we should do. Medical technology often offers us a chance to see things differently, yet, via a lens that can, oftentimes, cause moral myopia. As Leon Kass eloquently phrased it in his The Wisdom of Repugnance:

> "*Part of the blame for our complacency lies, sadly, with the field of bioethics itself, and its claim to expertise in these moral matters. Bioethics was founded by people who understood that the new biology touched and threatened the deepest matters of our humanity: bodily integrity, identity and individuality, lineage and kinship, freedom and self-command, eros and aspiration, and the relations and strivings of body and soul"*[24].

Further, Kass notes:

> "*Revulsion is not an argument; and some of yesterday's repugnancies are today calmly accepted - though, one must add, not always for the better. In crucial cases, however, repugnance is the emotional expression of deep wisdom, beyond reason's power fully to articulate it. Can anyone really give an argument fully adequate to the horror which is father-daughter incest (even with consent) or having sex with animals, or*

24. L. Kass, "Wisdom of Repugnance," *Valparaiso University Law Review* 32, no. 2 (1998): art. 12.

> *mutilating a corpse, or eating human flesh, or even just (just!) raping or murdering another human being? Would anybody's failure to give full rational justification for his or her revulsion at these practices make that revulsion ethically suspect? Not at all. On the contrary, we are suspicious of those who think that they can rationalize away our horror, say, by trying to explain the enormity of incest with arguments only about the genetic risks of inbreeding*"[25].

Had Daniel McCormick not undergone the cryogenic process he would have lived a full and happy life with his girlfriend. The hubris he committed was punished by a life of separation. We need to be weary of a hubris unrestrained. Ultimately, "*the good things that men do can be made complete only by the things they refuse to*"[26].

May 2019

25. *Ibid.*
26. P. Ramsey, *The Ethics of Genetic Control* (New Haven: CT, 1970), 122-123.