The Specificity Of The Rules Of The Right To The Infallibility Of The Body Within The Scope Of Stem Cell Research

Sadkhan Madhloom Bahedh Alabid

College of Law, University of Thi Qar, Thi Qar, Iraq - Postcode: - Nasiriya - 64001 Email: lawp1e27@utq.edu.iq

Abstract

The pattern of civil life growth, arising from the ever-increasing diversity of human wants and requirements in all parts of life, required his choices at various levels to keep pace in their variables with those demands and to always demand to satisfy them and accomplish the best in their scope. For two reasons, medical sciences lie at the heart of this notion. Using a person's life to heal and correct physical, psychological, and emotional harm caused by illnesses, immune weakness, or injury to one of his organs and The second reason is that progress has made medical science a fertile field for implementing these options, beginning with plastic surgery and orthodontics as a starting point related to the human body, and progressing to his desires classified as luxury in determining the most beautiful of appearance and the most appropriate form and stature, and achieving the same phase at the most accurate and deep levels represented The legal world witnessed a debate between those who opposed it, clinging to the body's protection and infallibility, and those who supported it, claiming that stem cell research and regenerative treatments are the ones that perpetuate and enhance the body's infallibility and supreme human value, which must be directed toward achieving all capabilities. And stem cell studies with readable and scientifically proven benefits are a basic requirement and an important resource in achieving a practical concept of this infallibility in the human body and its needs, represented by opening a broad horizon in studies, research, and regenerative medicine that can determine a better life for the human being by treating his diseases and compulsive behaviors. As a result, this study uses the contradictory concept of the body's infallibility, which is represented by the idea of the body's infallibility, to establish that infallibility and man's love for his life in his body, as well as all of his mental and psychological components, is what calls for adherence to all medical sciences directed to his service, and among those sciences and there

Methods: The research methodology was based on the analysis of scientific concepts in the context of stem cells, as well as the study of the balance between benefits and harms, as well as their approach with the idea of scientific research freedom, in order to determine the specific features of the effects of the right to infallibility of the body, as well as the dimensions of those legal effects in their present, present, and future dimensions.

Findings: I depended on my own money to pay the study, and some unknown persons have mailed me a lot of materials relevant to the issue of stem cells, for which I am grateful.

Conclusions

The study intends to achieve the following objectives in this research Understanding the idea of the body's infallibility in the context of medical research in general, and then allocating it according to the stem cell's perspective on the same concept (the infallibility of

The body)

- 1- Treating the idea of scientific research freedom within the context of allowing research and forms of regenerative treatment in stem cells as an idea that can be relied on within the scope of research in any scientific field as long as it is based on the realization of benefit for the human being and the needs of his life that arise from time to time.
- 2- Investigating the legal ramifications of the idea of infallibility in the context of stem cells.
- 3- Predicting these controllers' future vision in order to get at the finest organizational alternatives in general medical sciences, based on stem cell research and its practical advantages.
- 4- Development of research stages that lead to conclusions and suggestions. A suggested legal system as a regulatory framework for stem cells in their research, therapeutic role, and future possibilities, based on a textual legislative formulation.

Keywords: stem cell, Regenerative medicine, Cell culture, Therapeutic guidance

A Right to Infallibility of the Body between Scientific Research Freedom and a Commitment to a Result.

The constant renewal of special needs related to the treatment of fatal diseases, such as cancer, which affects many parts of the body and often leads to death, and chronic diseases, such as diabetes or permanent disabilities, and others, always coincides with steady progress and development in the medical field.

-That coincidence – causes medical progress in our field of stem cells and human genome research, such as cloning and others, to be mired in controversy associated with fear or panic from society and institutions, to countries that meet human hope for thousands of injured and sick people in saving them from diseases that have ravaged their lives and family ties, or impairments that have squandered the pleasure of living and the love of life. Anxiety, fear, hope, and desire are represented in the phrases accepting and rejecting, norms, defenses, reasons, and debates between the two themes discussed. The phrase (infallibility of the body) was given as a declaration opposing the beginning of stem studies and research to achieve its experimental applications or therapeutic uses, or at least caution and avoidance of it (Caines, D. E. 2007).

In general, this topic has been studied from the legal standpoint and from the perspective of what is meant by the infallibility of the body to constitute an urgent need bearing a legal nature that remains positive from research that supports human life in the treatment of diseases within the scope of what is known as regenerative medicine for stem cells (Stevens, L. C. 1954) .At the same time, it is prudent not to overlook research into the causes and justifications for concern about the effects of stem cells based on potential risks, whether the premises are harming the scientific and practical concept of stem cell research or those theoretical conversations about ethical standards and religious orientations, so that we can stand on the objective from a legal standpoint, which is the realistic perception of scientific damage .

To accomplish this, we must first define stem cells and determine the differentiation between them and what is similar to them in composition and structure in the first requirement, then discuss the controls of the body's infallibility in the second requirement, and finally demonstrate those controls with descriptions of the nature and therapeutic effects of stem cells in the third requirement of this topic (Stevens, L. C. 1964).

The Origins of the Stem Cell and the Limits of Research Freedom

The human mind is distinguished by its dialectical nature, which, according to medical imaging, benefits the love of delving into the secrets of the human component and its functions, as well as the rest of the living organisms that are close to its formation, so that the person experiences the challenge of scientific discovery and the pleasure of probing the depths of this being that appears from time to time within the scope of studies and scientific research Perhaps at the forefront of the literature of that research and study movement in medical sciences and various other sciences is the concept of freedom of scientific research, which in its most basic form refers to the space open to specialists in conducting scientific research in order to achieve results that provide a solid foundation in medical knowledge to know the component, function, link, and role of this member. The notion of stem cells has shown to be a useful field in research and medical studies (**Kleinsmith**, **L. J. & Pierce**, **G. B. 1964**). One of the most accurate aspects of medicine and medical sciences is that the freedom of research is within the framework of discovery, study, and access to concepts, experiments, and laboratory performances, that is, it is within the scope of introductions and curricula without the final results that can be classified as beneficial, beneficial on the one hand, and fatal harmful on the other As a result, it is absolutely not permissible - during the research stage - in the scope of research in medical sciences and in general pure sciences such as physics to present a claim for the results as an argument for preventing the movement of scientific research, but rather that

the research should be free while awaiting its results. Extensive study was conducted in order to get the scientific results of his investigation

Here, we stand on the concept of the stem cell, which, despite its many definitions, all agree is (non-specialized cells capable of regeneration and division), and this means that the cell is described as an all-encompassing component for the cell to specialize later, so that it becomes specialized cells in blood or bones, among other things.

So the stem cell can renew itself and divide to generate new cells, knowing that their types are based on the direction of obtaining a name, so they are embryonic cells if they are taken from embryos in the early stages of 2-3 months and stem cells are adults and are taken from children and adults at older age stages, and the difference between them is that embryonic stem cells have a greater ability to specialize than stem cells taken from adults, as the embryonic stem cells (**Solter, D., Skreb, N. & Damjanov, I. 1970**).

Fetal stem cells are isolated from the so-called stem vesicle, which represents the inner cell mass and is capable of generating every type of human cell save the placenta and the membranes that surround the fetus Adult stem cells are spread throughout the bodies of children and adults, and their quantity declines with age in general. From a scientific standpoint, these cells are frequently directed to cure cells that die naturally at the end of their age stage.

There is a method known as reverse differentiation in which differentiated blood cells are returned to their origin as stem cells via a method that induces them to return as stem cells (re redifferentiation), so that the induced stem cell is known as an induced stem cell with an abundant capacity for regeneration and division (Stevens, L. C. 1970).

Stem cells can be derived from the following sources in general:

- 1- The placenta, spinal cord, and amniotic fluid are the first three organs
- 2- Adults and children.
- 3- Fetuses who have been terminated and those that have not been aborted (blastocyst).
- 4- An excess of IVF vaccinations.

Treatment cloning.

The non-specialized stem cell is distinguished by the fact that it is not functionally orientated to a certain kind of cell, such as bone cells, and so is regenerative, proliferating, and capable of producing new specialized cells. In terms of the distinction between the human genome or genome and the stem cell, the former is described as the full genetic information stored in the deoxyribonucleic acid (DNA), whilst the latter is comprised of 23 pairs of chromosomes or chromosomes. (Stevens, L. C. 1973) Within the chromosomes, there are three billion partial components in the egg or male sperm, which are doubled in the somatic or animal cell once the sperm and egg fuse to produce the fertilized egg As a result, the most precise composite genome and comprises the structural predecessor to the unspecialized stem cell, or to transfer before designating a specific cell that performs a specific function such as a blood cell, bone, or tissue cell (Youngren, K. K. 2005).

5-

Noting that the genome is coded for the chromosomes (XY) for the male model and (XX) for the female model, noting that the sex is masculine by a different fusion, that is, the male (Y) with one of the females (X), and femininity is accomplished by merging the male (X) with the fixed (X) in the female.

The Human Genome Project achieved the full sequencing of the human genome in 2003 using the next generation sequencing method. It is important to note that the genome comprises chromosomes in the haploid genome with the 23 chromosomes inside the cell nucleus, DNA inside the mitochondria, encoded proteins (coded) and form 1.5 percent of the human genome, and ignored (non-coding) or non-coding proteins. It refers to the genetic code or coding, which is the remaining portion of the genome. Despite what has been mentioned regarding the decoding of genetic sequences, a large amount of genetic information remains unknown, particularly the biochemical processes in the cell regulating gene expression, the shape of one chromosome, and the signals governing genomic inheritance (Stevens, L. C. 1974).

There are so-called gaps within the genome for the heterogeneous sections of the genome that are difficult to dismantle owing to the recurrence of the so-called intractable heterogeneous characteristics or the intractable gap (Pierce, G. B1957).

Human cloning is associated with the entire animal cell, comprised of 46 chromosomes, which developed to be a virtually exact duplicate of the source from which it was obtained.

Perhaps the focus on the potential of stem cells in many cells of the body, as well as the statement of the multiple manifestations and many medical goals within its scope, is what frames the positive dimension of scientific freedom within its scope, which is of course based on the wonderful advantages in its medical and therapeutic results in the scope of regenerative medicine (Sherman, M. I. 1975).

No one, in our opinion, has since demonstrated these effects and the total benefits of including three scientific schemes that we move from the statement of stem cells and their results, with an appendix of each scheme with a brief explanation explaining the seriousness and process of opening freedom of research and scientific work within the scope of stem cells, as follows:

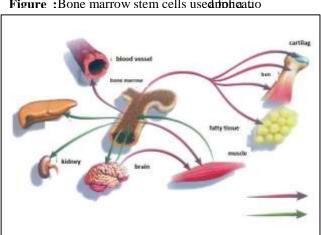


Figure: Bone marrow stem cells usedifolioatio

The extent of the diversity of roles provided by stem cells is shown in the following figure in two routes, the first in red, which has been confirmed in humans, and the second in other animals in laboratory tests. Getting rid of a condition like diabetes, or overcoming the prospect of imminent death in cancer, is the most likely to succeed of all medical treatments (**Papaioannou**, **V. E.1975**).

It is no secret that individual success in treating a particular medical problem makes these capabilities a reality based on its medical advantages and positive impacts, and it is the best and most accurate approach to cure a variety of illnesses, deformities, and physical inadequacies utilizing stem cells (**Pierce, G. B. & Verney, and E. L1961**).

The diagram depicts the amount of cell branching into lipid components, precursor cells, and lymphocytes linked with regeneration in stem cells, with the specific features of repairing damage to the membranes of numerous cells in the body as a result of sickness or accidents.

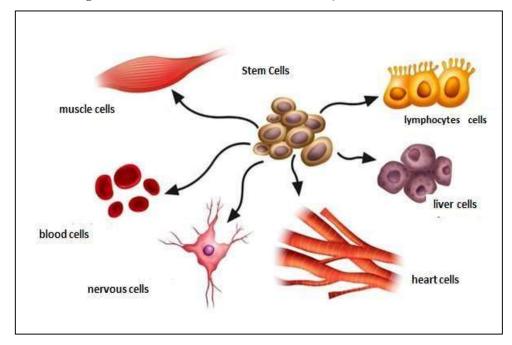


Figure 3 Shows How stem cells work in a variety of Cells.

The normative guideline will be with controls for freedom of study by highlighting the significant role of the structural regenerative change of stem cells, as illustrated in the preceding diagram. These study objectives are

regenerated stem cell lymphocytes lymphocytes

moderate lymphocytes

basic contents

blood vessel bone marrow dense bone

myeloid precursor cell

red ball

red ball

platelets

Figure 2 Depicts the roles of pluripotent stem cells derived from bone Marrow.

oriented at helping the human being and his life; therefore, the beginning points were, at the very least, his allocation to early diagnosis or treatment of diseases such as cancer, diabetes, and others (**Rosenthal, M. D., 1970**).

Without canceling research from its inception in a way that deprives the human mind, civilization, and existence of great opportunities from scientific benefits, as well as opening the door to secrecy and law violation to parties and centers that are not convinced of the justifications for institutional legal prohibition. Eager for the unusual new undiscovered other than what is adopted by the norms and foundations of character theory by the man of law, religious jurist, sociologist, and other men and academics of humanities character.

Controls of the Body's Infallibility and the Congenital Nature of Stem Research Linguistics

The subject of fluctuation between the arrival of colors of treatment in the field of diseases and surgical operations, or those medical activities within the scope of plastic surgery and reconstructive surgery, is always realized - that frequency - with ethical concepts and religious controls, up to the names of instinct and change in creation within the scope of theoretical paths of man's natural rights in safety. And the upkeep of this body is in his hands.

To be matched, on the other hand, by the qualities provided in so-called alternative medicine in preventing and curing illnesses, and cell regeneration in malignant diseases, and obtaining practical advantages with acceptable foundations from a purely scientific standpoint.

In the balance of the two controversies, the dispute persisted at the doctrinal level, and the tension between permit and prohibition, and between restriction and release in the name of freedom of research and medical results, so that the prohibition side adheres to the infallibility of the body as a term, and the idea of existing or potential damages to research and patterns of stem cell therapy, so that the restriction side adheres to the infallibility of the body as a term, and the idea of existing or potential damages(Kahan, B. W. & Ephrussi, B1970).

And we will offer the pro- and contra-direction in order to eventually acquire a set of controls for the notion of the body's and nature's infallibility committed to the ethics of research and treatment roles within the scope of stem cells.

First, the trend in favor of stem cell research:

The supportive trend is based on the advantages offered by research and treatment in stem cells, under the protection of the freedom of scientific research and the right to treatment as a general framework for presenting those features or reasons, which are as follows:

Because the diseases that are authorized to be treated with stem cells preceded the investigation and existence of stem research studies and the claims for treatment with them, it is not prudent to state the causality of those researches in realizing those harms, because the latter is logical and scientific, and it is not correct to be the cause of the previous matter.

The ill person's survival owing to lack or sickness, or his exposure to death in malignant diseases, is the end of his painful life. As a result, prohibiting the treatment of these illnesses and deficiencies ignores the human right to health care and treatment, which is a natural right that comes before positive legislation.

Medical research has not always been a reliable source of information. All diseases have been taken in the human understanding of them and the development of treatment methods from the naive primitive to the reliable scientific, and this is the case with all diseases and human conditions related to his physical, mental, and psychological structure, so why is stem cell research different? In terms of the remaining diseases and symptoms from this perspective, the goal is to provide the most appropriate area for inquiry and study within its scope, comparable to the previous diseases and inadequacies in the human body and its psychological and mental components.

The legislative policy of the legislator and the legal competences completely cancel the voluntary role of the person requesting treatment and waste the importance of his life and the possibility of treating what he suffers from, even if the treatment is of a probabilistic nature, it is not considered a sufficient reason from the standpoint of the right to treatment to cancel it by the project's will.

One of the means and methods that have been worked on in proving scientific relationships, effects of chemical elements, physical relationships, organ functions, and methods of plant, animal, and human tests is the orbit of the scientific assumption in all pure sciences and sciences related to medical life As a result, access to the topic of stem cell research cannot be wasted, including the elimination of the topic of scientific assumption or laboratory phenomenon under induction or laboratory observation as examination, inspection, and approach between phenomena, conditions, conditions, elements under experiment, and the research objective (**Evans, M. J. 1972**)

In general, the additional justifications stated are thought to be part of the broader framework of the aforementioned reasons or are connected to them in some manner.

Second, there is a growing resistance to stem cell research:

This tendency provides a variety of grounds for research and stem cell therapy claims, which we will discuss in turn:

This tendency contends that because the human body is not the goal of scientific studies, the worth of the human being should make it superior to experiments and tests that are not known to be correct or incorrect.

Because the body has a moral infallibility derived from the worth of life, and the risk of death in the performance of stem cell treatment is recognized, it is not prudent to allow life to be wasted under the demands of scientific study.

Many cases of congenital deformity happened medically and practically as a result of the use of genetically heterogeneous (**distorted**) cells, which resulted in cases of failure in stem cell treatment, and this is a key reason that such research should be avoided.

Religions have stopped God's creation from changing, and stem cells are a pattern of change and interfering with God's creation, and it is illogical to give the creature's viewpoint precedence over the Creator's judgments.

Because stem cell research and therapy cannot give a scientific model that is steady and successful enough to be considered medically, we reject legalizing it (according to the expression of this jurisprudential trend).

Two-way debate: In truth, all of the arguments in favor of stem cell research and therapy rely around what is said about the good effects of this talk, in its breadth, is not beneficial from a scientific standpoint as long as the orbit is one. In terms of the opposite tendency, we will go over the arguments in depth (**Jakob, H.1973**).

The first point is that talking about the human body as a value is a two-sided coin. Simply said, it's worth must be protected by addressing physical deficiencies or malignant diseases. This argument contains duality, and then it discusses the moral significance of the human body. We distinguish between the destructive and the useful, and we distinguish between the damages and the advantages. As a result, focusing on the nominal worth of the body is insufficient to demonstrate the practical issue of stem research rejection.

The

second point is that discussing the right to life and the prospect of death is accomplished in a variety of medical elements, such as heart, brain, spine, and other procedures. It is a basis for rejecting stem research and treatment with it not only because of the risk of death or injury, but also because death is allowed within its scope, just as it was in previous works and medical operations (**Nicolas, J. F., Dubois, P., Jakob, H., Gaillard,**

J. & Jacob, 1975).

The final point is that medical mistakes in harvesting stem cells with altered genetic composition are insufficient to justify their use. The mistake, even if discovered, does not prohibit it. Medical mistakes occur for a variety of causes, including human ones connected to negligence and others, while some are due to reasons specific to a unique treatment instance, and they vary from person to person (Martin, G. R. & Evans, M. J.1974). The fourth argument is that saying God's creation has been changed is incorrect because diseases, physical deficiencies, and early detection of diagnosed diseases and those targeted with stem cell therapy are matters that demand perfection in the creation of human beings defined by the perfection of the human element and the realization of its interests From this vantage point, it is not regarded an alteration in God's creation (Martin, G.

R. & Evans, M. J.1975).

Furthermore, discussing religious issues is not regarded persuasive from a practical standpoint, which centers on the dangers and advantages from a practical standpoint. Cancer patients seek treatment in a variety of ways. (Martin, G. R. & Evans, M. J1975), Is it ethical to squander his attempt to avoid death by talking about altering God's creation? If altering God's creation is an argument for religious individuals, what about those who do not believe in a religious way of thinking or acting?

Fifth Argument: Because submission of the perfect or full model is not done in all medical practices, it is not proper to prohibit research or treatment studies on this basis. (Martin, G. R1975). Furthermore, the advantages of stem therapy are medically frequent, and the results are observable, thus prohibiting it in terms of the ideal or full model is not seen to be adequate to prevent it (Fogh, J. & Trempe, G.) (Papaioannou, V. E. 1978).

Descriptions of the Impact of the Stem Cell Component in the Therapeutic Direction

The descriptions of stem cell therapeutic effects are divided into three categories:

The first are what are known as therapeutic directions using stem cells.

Second, distinguish between the external cause and the idea of intractable vacuoles in stem cells (**Hogan, B., Fellous, M., Avner, P. & Jacob, F.1977**).

Third, the significance of willpower in obtaining successful therapy against stem cell inherent characteristics is emphasized by methods (Andrews, P. W. 1980).

Discussing the permissibility or restriction of stem cell research and work in order to scientifically relate it to the declaration of harms and advantages as a broad heading from which we continue to the comprehensive discussion of the impacts in a detailed form. Stem cell research and medicinal applications.

The first topic is therapeutic applications of stem cells.

At this point, we'd want to point out that the stem cell, because of its prior plurality of characteristics, can be guided in a certain path to generate what's known as multiple differentiation in addition (Andrews, P. W., 1982).

In general, stem cells can regress from many roles to many owing to so-called regressive differentiation (Dedifferentiation), and there are two interpretations of this. The first states that embryonic stem cells can stay under tissues for an advanced age stage (Stewart, T. A. & Mintz, B. 1982).

voluntary component of differentiation here is so that it is feasible to articulate and express the role of the will for the one who directs that differentiation to the stem cell according to two sayings:

The first technique - regressive differentiation (Dedifferentiation): the functions of the stem cell are defined by a regression from multiplicity to abundance, which some refer to as regenerative regression. Aquaculture is organized in cellular farms. Thirty.

The second technique - complete Tran's differentiations. Within the framework of this technique, stem cell generative differentiation is used in the treatment of damaged tissues and organ repair in a way that accomplishes the so-called ideal part ten modeling of stem cell structural transitional culture.

The second subject. Distinguish the foreign cause from the idea of stem cell intractable vacuoles

Following this premise, we can establish a link between the two therapeutic approaches in stem cells and the will, on the one hand, and the concept of intractability or cellular gaps in stem cells, on the other hand, in order to establish the hadith of the report because it can be considered as something that can be placed within the scope of commitment to a result (aim) or to say that it remains within the scope of commitment to a means (Take care).

In general, photographic works are distinguished by legal accuracy; nevertheless, it is required to show that access to this is accomplished by stating three elements:

- 1- Defining the will and its subjective boundaries in the context of stem cell treatment.
- 2- The scientific possibility of diagnosing insurmountable gaps in stem cells role of volition and stem cell autonomy in overcoming therapeutic failure or success.

The first component is: In medical terms, the will is based on a criterion that is included in the human's potential and capabilities that fall within the scope of its support, and its role is dominated by all medical technologies, including materials, elements, and conditions cultured outside the living body referred to as cultured outside the living body (Ex Vivo). The stem here serves as the so-called non-self-external elements connected with cell characteristics, as well as connecting this to the (Marqueurs), which signifies diversion of the cell's course during transitional differentiation (Andrews, P. W.1984).

The second element is the possibility of scientifically identifying intractability gaps in stem cells, which are those minute gaps that remain outside due to their accuracy over the possibility of controlling them during the therapeutic direction of differentiation in the cell, thus forming structural defects in a single cell, which may be large or small, so that the final result is a circle between the capabilities of medical technologies from Digital devices and a single cell .

It is necessary to mention here what is known as (the genome predisposition to deformation), which is that specific genetic information within the readings of the genetic map caused by the presence of a structural protrusion in the genome that later forms cases of deficiencies or mental retardation in the child with a biological minor, which was dubbed "Malgae" or Mongolian brand (Lee, V. M.-Y. & Andrews, P. W.1986). The third aspect is the space of the will and the subjectivity of the cell: the competent will, as a consequence of the experiences and procedures that support it, is the deciding factor in assigning precedence to the will and determining the feasibility of defining commitment as a result (Andrews, P. W. 1983).

The third subject is

the function of willpower strengthened by methods in attaining therapeutic success against stem cell inherent characteristics.

The Iraqi civil law terminates the contractual relationship by stating that he bears the responsibility for nonperformance of an obligation if this is due to a foreign reason such as force majeure, whereas the culture options differ because they represent the specific circumstances and the preliminary framework for therapeutic guidance with stem cells. Is it feasible to consider the persistent gaps an obligatory cause that absolves responsibility for the failure of stem cell treatment for an external reason?

The obvious answer is no, for the simple reason that the foundation for this makes the diagnosis, which is the intractable gaps, an excuse to cancel the feature of unpredictability in the foreign cause, so that it is considered a probable circumstance that entered human expectation and a foreign cause if it is not, and this is all from the perspective of one case of stem cell therapy rather than a lack of stem cell therapy. Expectation is a lack of knowledge in a person's understanding and perceptions as a result of his facts and circumstances prior to treatment

(Andrews, P. W.2002).

In the end, all of the elements and conditions of culture can be considered as having the potential to be marked as the report prize because they can be included within the scope of commitment to a result, with the exception of the idea of insolvency resulting from gaps, the effect of which reaches the level of failure in the result

(Bernstine, E. G.1973).

In general, the predicted constant growth in the spectrum of methods may bring us to the point of irreversibility of the potential of therapeutic differentiation. It establishes a full severance by incorporating it into a commitment

to a result and an end, rather than being limited to exerting effort and care without attaining the objective and the intended consequence of that work.

The Path of Favorable Scientific Results in Stem Cell Work

Talking about positive results is accomplished by researching the reserve policy in the field of stem cell therapy, as well as the positive dimension in the future perspectives of stem cell research in the next dimension of time, leading to the negation of the estimated harm by criteria of comparison and comparison between the beneficial stem cell research and treatments and the corresponding benefits Damage As a result, it was necessary to investigate those three aspects of dividing the topic into three demands, (Benham, F. J., Andrews, P. W., Knowles, B. B.1981). the first of which we devote to the precautionary feature in stem cell research, the second of which we take as a place to determine the future idea of stem cells, and the third of which we look at the nature of the risks and the extent to which the differential is achieved, increasing and decreasing between the perceived harm and the long-term benefit of research and treatment.

In Stem Cell Research, Backup Features Are Used

Because dealing with cells is addressed to the person trying to execute the therapy in a way that accomplishes recovery or raises the rates of damage from the worst to the acceptable if total recovery is not accomplished, the precaution is:

- 1-Conducting laboratory research on animal models comparable to the human component and connected to cell research in a laboratory form, with the findings approaching in terms of similarities and differences from the human component that is related to therapy.
- 2-Examine the preventive measures of medical materials or alternatives to repair any harm within the calculation of medical possibilities, which vary from one medical condition to the next
- 3-In this stage of stem cell therapy, there is a stage related to the human component called the state of the vegetative stage of the human body, in which the framework of the biological body is similar to the plant within the stage of the biological work of the organs, so the status of the stem cell is connected in a way that is not different in the medical system from the performance of the functions of the organs.

In addition to the advanced points, the graph of increasing the medical reliability of stem cell therapy is on an ascending line in front of reaching the therapeutic cases, the number of thousands of medical experiments, so the level of medical performance is determined that the practical feasibility is steadily achieved whenever the therapeutic operations with stem cells increase in quantity and are guided by the images that develop from their methods and treatment models(Stern, P. L. et al.1978).

And advancements in medical technology will strengthen this advanced viewpoint, especially because we know That performance in the fields of stem cell preparation, component fertilization, and chromosome counting has Reached the level of automation from a technological standpoint (**Solter, D. & Knowles, B. B. 1978**).

As a result, the reserve's scope is separated into three parts.

The first stage consists of a laboratory experiment.

The second step consists of therapeutic applications.

The third step involves medical procedures.

The levels of confidence in stem cells have reached a much deeper level in relation to those readings of the genetic map to know the indicators of future disease or disability, and this will discuss the second requirement, and thus the reserve policy will transcend voluntary choice in order to reach the established scientific facts.

The Nature of Business Results in Stem Cells In The Future

For two reasons, the expanding horizon of the linkages of stem cells with various types of current and future diseases in the genetic component of the human genetic map made the assertions determined to open the broadest scope the most acceptable. It progressed from tissues to organs and culminated in chronic diseases like diabetes, deadly diseases like cancer, and nerve-related disorders like neurodegeneration in the brain (**Gooi, H. C.1981**).

It is worthwhile to note the resources of future advantages associated with effective scientific introductions:

- 1- The immune system: stem cell treatment employs the generation of modified autogenous cells via red blood cells, denoted as (gm-hspc), which have changed immune system features by improving disease resistance. The immune system fails not respond to therapy, or the patient swiftly relapses due to a lack of immunological resistance over a lengthy period of time.
- 2- Obtaining cell culture, which entails supplying stem cells with the following characteristics.
 - a. Proliferation of stem cell models in the form of induced or direct cells.
 - b. A description of the scientific procedures of addition and transfer.
 - c. Determining therapeutic characteristics in cultured cells by evaluating the possible benefit and damage of the alternatives.

d. Investigating the acceptability of the transplant recipient for the risk of the recipient rejecting the transplant.

- e. Readjusting the cells using the inserted periphery idea.
- f. A description of the distinct tissues in their analytical, chemical, or physical relationships following the stem cell transplant stage.
- 3-Achieving experiments for the treatment of uterine fibrosis with stem cells in pigs, which results in new cells in the uterine fibrosis internal structure.
- 4-The development of heart muscle cells stimulating the formation of new blood vessels in order to repair injured tissues.
- 6-6-Increases the efficiency of dead tissues that make up the target glands of the tissue regenerating stem cell, resulting in the secretion of a variety of growth-related enzymes.
- 7-Kangaroo University has made wonderful research introductions to the culture of teeth in laboratory mice called (**coaxed**), which is a scientific leap in the possibility of implanting a viable root in humans with the possibility of gradual integration with the tissues and nerves surrounding the teeth.
- 8-Cultivation of stem cells that produce red blood cells alongside stromal cells in an environment similar to bone marrow in terms of biological parameters and tissues.
- 9-A statement that nervous behavior in mice is modified by internal drug activation of neural stem cells, which resulted in a noticeable modification in the usual behavior of mice in laboratory observation, resulting in a withdrawal in self-treatment of the same nerves in cases of epilepsy, paralysis, or other cases of nerve damage. The human body's peripheral or periphery as a result of different illnesses (**Shevinsky, L. H.1982**).

The Concept of Risk Minimization in the Realm of Stem Cell Medical Work

Potential risks in stem cell research are referred to as green risks, which refer to the specificity of the perception of danger in their scope, such as transplanting them into muscle tissue near the bone marrow, or transplants of developed dental root with stem cell, or blood in blood diseases such as (leukemia) and cancer, and others, which are all located within the scientifically safe area, so that the certainty of the absence of harm has reached the full percentage.

Some dubbed it the "green peril" because of its lack of effect, (**Kannagi, R. 1983**). or more precisely, its absence in the conventional sense of harm in the sense of scarcity, destruction, or job loss. As a precaution, the criteria for evaluating damage have evolved into a comparison form between the amount of harm and the associated advantages, as well as including quantitative and personal values. (**Fenderson, B. A.1987**). The first is based on statistical data related to the type of A specific form of regenerative or therapeutic medicine with stem cells, and the second is based on personal experiences of medical cadres such as doctors and their assistants, medical technology experts, and others working in the field of medical medical technologies.

In general, the concept of danger in the context of stem cells is based on the traditional medical understanding of the possibility of death or serious harm achieved in the therapeutic case, and here it falls as a general understanding within the context of harm in the civil concept with its material and moral aspects, dangers or damages

(Henderson, J. K. 2002).

The first criteria are the benefit against the damage.

In this case, the treatment resulting from the use of stem cells reaches a proportion of benefit that outweighs the remainder of the damage. For example, if the proportion of handicap caused by cancer was 58 percent, the measure of cure was assessed to be 30 percent, thus the remaining -28 - percent of the harm, and therefore the majority of interest in healing, was more than the initial injury achieved. Previously, it was not the consequence of treatment and its adverse effects, while types of physical rehabilitation required complete recovery (Strickland, S. &

Mahdavi, V. 1978).

And the problem can be resolved if the harms from stem cell treatment are smaller than the quantity of medical success. For example, if pushing cancer with stem cell treatment causes some harm to the outward look of the body or skin, or a failure in the operation of an organ, in addition to surviving death from a malignant lesion in a specific organ, such as the lung pharynx.

The second criteria are the balance between benefits and harms (Jakob, H., Dubois, P., Eisen, H. & Jacob, F. 1978).

Parallelism, in the medical sense, refers to a situation connected to the doctor's or therapists medical experience in such a way that the doctor's knowledge and the quantity of his experience are directly tied to the percentage of effective performance in stem cell therapy (Rossant, J. & McBurney, M. W. 1982).

The parallelism is also achieved by the pace of regeneration and ability to divide, which is accomplished through the efficiency of the stem cells utilized. The cells taken from embryos in the first month are more effective than the cells taken from adults, and thus the amount of regeneration and division differs, and thus division is linked to regeneration with the therapeutic result within the scope of the disease for which the treatment is directed stem cells.

The third criteria are the likelihood of risks outweighing benefits (Andrews, P. W. 1984).

In the event that the desired results are not obtained, stem cell therapy comes within the scope of cautious treatment regions, since it stays in the area of infection with the same disease for which the stem cell treatment was intended. Outweighing the risks, which is almost never seen in the field of regenerative and therapeutic medicine employing stem cells (Simeone, A. 1990).

Conclusion

We arrived at a number of results and proposals accompanied by legal texts that adopt their formulation in the form of an organized legal system on legal articles that reveal the fundamental methodology of research, patterns and methods of treatment and regenerative medicine related to stem cells during the course of the research distributed on three demands within the scope of two sections (**Brinster, R. L. 1974**)..

Results

- 1- The store in stem cell research is not based on the element of trading in the sale of the product of stem cell cellular culture, but on the service of using stem cells in the treatment of diseases and physical or mental deficiencies in order to improve human health and his right to a fuller life physically, mentally, and psychologically.
- 2- The right to stem cells is unique in that it is based on both the human right to life and the societal right to the greatest health and treatment choices. This necessitates the search for and provision of medicinal, therapeutic, and other methods to compensate for and heal the structural defects and illnesses that afflict human existence.
- 3- The center of the individual right in the field of stem cells withdraws from the nature of the special effect of relying on stem treatment, and thus the level of saying the authenticity of the right is established, its specificity in stem cells in terms of the right's origin and its positive therapeutic effects is proven.
- 4- The multiplicity of stem cells throughout the therapeutic direction achieves stem differentiation, and the latter defines the amount of multiplication and multiplication of stem cells prior to the allocation stage.
- 5- The numerous applications of stem cells in the treatment of illnesses such as dementia in the brain, cardiac fibrosis, uterine fibrosis, non-benign malignant tumors, lymphocyte morbidity and inflammation, and regeneration of all damaged tissues. Because of the breadth of stem cell therapy's applications, it is an excellent choice in the health and medical fields.
- 6- In the study and use of stem cell therapy techniques, a safe level has been reached in order to accelerate the speed of work in its general scope and bypass laboratory phases in order to establish strong scientific stability.
- 7- The concept of the body's infallibility was transferred to the second level, which was represented by disease treatment and the pursuit of human integration in its health aspect, which was a reason to adhere to a broad horizon for research and treatment with stem cells and leave clinging to the claim of the body's infallibility to say that research and stem treatment methods are prohibited.
- 8- Establishing the right to stem treatments and regenerative medicine, as well as their research, arose from the intellectual principle of freedom of scientific research, and was founded on the concept of the right to life of a special character and public impact as an individual and social legal center.
- 9- The voluntary participation in stem cell therapy approval is part of the assurance of nodal acceptance of the stem cell-based medical care contract.
- 10-The right to insight in the medical field, which is required to inform the patient about the side effects of treatment, the possibility of failure, and possible alternatives, in a language appropriate to the patient's understanding and level of awareness all of this duty is secondary in stem treatment for the great practical benefits and the safe risk-to-benefit ratio to the extent of zero possibilities of damage.
- 11-The specificity of the right to stem cells is divided into two elements: one subjective and objective, represented by the features and characteristics of a single stem cell and its ability to divide, and one external and objective, related to the specifications and mechanisms of scientific work in cell culture and the level of techniques used in preparing stem cells and preparing them for receiving.
- 12-The extent to which the anomaly is achieved in stem cells by virtue of the first structure of the genetic map and the presence of information indicating that, so resorting to map readings became part of the commitment as a result of the commitment to preparing the cells in the cell culture in a typical manner.
- 13-Commitment to the outcome of stem cell therapy due to the accuracy of scientific premises and practical data within the scope of its applications, such that it is not acceptable to invoke effort and diligence to pay civil liability for treatment failure, except for the foreign cause that deviates from the capabilities achieved in stem cell techniques and treatment.

Suggestions

The following five recommendations emerge from the study and the aforementioned results that we believe should be addressed in the legal and jurisprudential considerations linked to adjusting the circumstances and effects of stem cells in the preparation or therapy stage:

- 1-In all stem cell treatment activities, we recommend preparing what we term the (technical department), The department is well-versed in all technical aspects of cell culture.
- 2-Making the stem cell-related technological system task-specific in terms of technical approaches and digital procedures.
- 3-Giving the subject of the technical department and cell culture a description of the introduction so that the therapeutic result is the final outcome (as a result) of that presented to divide the responsibility between the two parties when the failure in the introduction does not bear the responsibility of the failure and the total opposite is achieved by not charging the introduction staff for the failure of treatment in stem treatment.
- 4-The right to stem cell therapy is based on the authority of the treatment requester as a personal center that has opted to allow stem cell treatment.
- 5-Stem cell treatment is associated with the notion of a guarantee in the reserve policy in stem cell therapeutic procedures.

The Study Topic's Suggested Legal System

The results and proposals may be created with legislative texts that serve as a nucleus that defines the regulatory descriptions in stem cells and the medical work closely related to them in the stage of research and treatment, thus the term (Regulatory Descriptions in Stem and Gene Therapy):

Article One: Stem cell treatment and gene therapy are based on a nominal value connected to the provision of stem cell indications, with no mention of trafficking or profit-making enterprises

First, the problem of denial of the commercial nature of stem cell research and therapy does not connect with the incurring of therapeutic expenditures, as it occurs in the rest of the medical industry (Mintz, B. & 1975). Second, the description of stem cell treatment is subject to the description of the service without the shop in order to increase the potential of financial transactions in line with the profit idea and to retain the same nominal value in a way that prevails over the financial element (Ilmensee, K. & Mintz, B. 1976).

Article Two: The genesis of the right to treatment is based on the recipient's personal right to stem culture, but its broad framework is based on the right to life (**Stewart, T. A. & Mintz, and B.1981**).

First, the personal right is founded on the theological scope of the will.

Second, the right to life is an important factor in broadening the scope of stem cell treatment and research. Article three: Therapeutic security in the context of stem cells precludes the concept of assurances prior to treatment.

First and foremost, the dedication to preparing stem cells in the technical sector and cell culture is based on a desire for a certain outcome.

Second, in situations of cultural rejection, the concept of accepting responsibility is limited to the idea of failure to receive owing to subjective factors connected to the recipient's genetic composition

Article 4 - Stem cell-related legal requirements and descriptions apply to related concepts such as gene therapy or genetic sequencing of the map and reading for it.

Sadkhan Madhloom Bahedh Alabid.

Professor of Civil and Private Law at the University of Dhi Qar's College of Law. He is involved in environmental protection and the fight against pollution in all kinds, including radioactive and nuclear waste, as well as other forms of environmental damage. He specializes in adding wetlands to the World World Heritage List and handling private contracts for biological component and heritage conservation. The moral heritage linked with lifestyles, and its relationship to state policies for safeguarding the natural environment in wetlands, as well as the legal conditions surrounding wetlands management, particularly since they were included to the World Heritage List. In addition, he is a worldwide specialist in sustainable development, resource management, and time investment by balancing core strategic goals with unproductive partial wants in regard to financial ties.

References

- [1] Andrews, P. W. et al. Pluripotent embryonal carcinoma clones derived from the human teratocarcinoma cell line tera-2. Lab. Invest. 50, 147–162 (1984), p45.
- [2] Andrews, P. W. From teratocarcinomas to embryonic stem cells. Phil. Trans. R. Soc. Lond B 357, 405–417 (2002).
- [3] Andrews, P. W. Retinoic acid induces neuronal differentiation of a cloned human embryonal carcinoma cell line in vitro. Dev. Biol. 103, 285–293 (1984).
- [4] Andrews, P. W., Bronson, D. L., Benham, F., Strickland, S. & Knowles, B. B. A comparative study of eight cell lines derived from human testicular teratocarcinoma. Int. J. Cancer 26, 269–280 (1980).
- [5] Andrews, P. W., Good fellow, P. N. & Damjanov, I. Human teratocarcinoma cells in culture. Cancer Surv. 2, 41–73 (1983).
- [6] Andrews, P. W., Good fellow, P. N., Shevinsky, L. H., Bronson, D. L. & Knowles, B. B. Cell-surface antigens of a clonal human embryonal carcinoma cell line: morphological and antigenic differentiation in culture. Int. J. Cancer 29, 523–531 (1982), p97.

- [7] Benham, F. J., Andrews, P. W., Knowles, B. B., Bronson, D. L. & Harris, H. Alkaline phosphatase isozymes as possible markers of differentiation in human testicular teratocarcinoma cell lines. Dev. Biol. 88, 279–287 (1981).
- [8] Bernstine, E. G., Hooper, M. L., Grandchamp, S. & Ephrussi, B. Alkaline phosphatase activity in mouse teratoma. Proc. Natl Acad. Sci. USA 70, 3899–3903 (1973).
- [9] Brinster, R. L. The effect of cells transferred into the mouse blastocyst on subsequent development. J. Exp. Med. 140, 1049–1056 (1974).
- [10] Evans, M. J. The isolation and properties of a clonal tissue culture strain of pluripotent mouse teratoma cells. J. Embryol. Exp. Morph. 28, 163–176 (1972).
- [11] Fenderson, B. A., Andrews, P. W., Nudelman, E., Clausen, H. & Hakomori, S.-I. Glycolipid core structure switching from globo- to lacto- and ganglio-series during retinoic acid-induced differentiation of TERA-2-derived human embryonal carcinoma cells. Dev. Biol. 122, 21–34 (1987).
- [12] Fogh, J. & Trempe, G. in Human Tumor Cells In Vitro (ed. Fogh, J.) 115–159 (Plenum, New York, 1975, p 59.
- [13] Gooi, H. C. et al. Stage-specific embryonic antigen involves $\alpha 1 \rightarrow 3$ fucosylated type 2 blood group chains. Nature 292, 156–158 (1981), p78.
- [14] Henderson, J. K. et al. Preimplantation human embryos and embryonic stem cells show comparable expression of stage-specific embryonic antigens. Stem Cells 20, 329–337 (2002).
- [15] Hogan, B., Fellous, M., Avner, P. & Jacob, F. Isolation of a human teratoma cell line which expresses F9 antigen. Nature 270, 515–518 (1977).
- [16] Jakob, H., Boon, T., Gaillard, J., Nicolas, J.-F. & Jacob, F. Tératocarcinome de la souris Isolement, culture et propriétés de cellules à potentialités multiples. Ann. Microbiol. (Paris) 124, 269–282 (1973) (in French).
- [17] Jakob, H., Dubois, P., Eisen, H. & Jacob, F. Effets de l'hexaméthylènebisacétamide sur la différenciation de cellules de carcinome embryonnaire. C. R. Acad. Sci. Hebd. Seances Acad. Sci. D 286, 109–111 (1978) (in French).
- [18] Kahan, B. W. & Ephrussi, B. Developmental potentialities of clonal in vitro cultures of mouse testicular teratoma. J. Natl Cancer Inst. 44, 1015–1029 (1970), p 67.
- [19] Kannagi, R. et al. New globoseries glycosphingolipids in human teratocarcinoma reactive with the monoclonal antibody directed to a developmentally regulated antigen, stage-specific embryonic antigen 3. J. Biol. Chem. 258, 8934–8942 (1983).
- [20] Kannagi, R. et al. Stage-specific embryonic antigens (SSEA-3 and -4) are epitopes of a unique globoseries ganglioside isolated from human teratocarcinoma cells. EMBO J. 2, 2355–2361 (1983).
- [21] Kleinsmith, L. J. & Pierce, G. B. Jr. Multipotentiality of single embryonal carcinoma cells. Cancer Res. 24, 1544–1551 (1964).
- [22] Lee, V. M.-Y. & Andrews, P. W. Differentiation of NTERA-2 clonal human embryonal carcinoma cells into neurons involves the induction of all three neurofilament proteins. J. Neurosci. 6, 514–521 (1986).
- [23] Ilmensee, K. & Mintz, B. Totipotency and normal differentiation of single teratocarcinoma cells cloned by injection into blastocysts. Proc. Natl Acad. Sci. USA 73, 549–553 (1976).
- [24] Martin, G. R. & Evans, M. J. Differentiation of clonal lines of teratocarcinoma cells: Formation of embryoid bodies in vitro. Proc. Natl Acad. Sci. USA 72, 1441–1445 (1975)
- [25] Martin, G. R. & Evans, M. J. Multiple differentiation of clonal teratocarcinoma stem cells following embryoid body formation in vitro. Cell 6, 467–474 (1975).
- [26] Martin, G. R. & Evans, M. J. The morphology and growth of a pluripotent teratocarcinoma cell line and its derivatives in tissue culture. Cell 2, 163–172 (1974).
- [27] Martin, G. R. Teratocarcinomas as a model system for the study of embryogenesis and neoplasia. Cell 5, 229–243 (1975).
- [28] Mintz, B. & Illmensee, and K. Normal genetically mosaic mice produced from malignant teratocarcinoma cells. Proc. Natl Acad. Sci. USA 72, 3585–3589 (1975).
- [29] Nicolas, J. F., Dubois, P., Jakob, H., Gaillard, J. & Jacob, F. Tératocarcinome de la souris:
- [30] Differentiations en culture d'une lignée de cellules primitives à potentialités multiples. Ann. Microbiol. (Paris) 126, 3–22 (1975) (in French).
- [31] Papaioannou, V. E., McBurney, M. W., Gardner, R. L. & Evans, M. J. Fate of teratocarcinoma cells injected into early mouse embryos. Nature 258, 70–73 (1975). 49- Papaioannou, V. E., Gardner, R. L., McBurney, M. W., Babinet, C. & Evans, M. J. Participation of cultured teratocarcinoma cells in mouse embryogenesis. J. Embryol. Exp. Morph. 44, 93–104 (1978).
- [32] Pierce, G. B. & Verney, E. L. An in vitro and in vivo study of differentiation in teratocarcinomas. Cancer 14, 1017–1029 (1961), p 43.
- [33] Pierce, G. B., Verney, E. L. & Dixon, F. J. The biology of testicular cancer. I. Behavior after transplantation. Cancer Res. 17, 134–138 (1957).

- [34] Rosenthal, M. D., Wishnow, R. M. & Sato, G. H. In vitro growth and differentiation of clonal populations of multipotential mouse cells derived from a transplantable testicular teratocarcinoma. J. Natl Cancer Inst. 44, 1001–1014 (1970), p98.
- [35] Rossant, J. & McBurney, M. W. The developmental potential of a euploid male teratocarcinoma cell line after blastocyst injection. J. Embryol. Exp. Morph. 70, 99–112 (1982).
- [36] Sherman, M. I. & Solter, D. (eds) Teratomas and Differentiation (Academic Press, New York, 1975), p
- [37] Shevinsky, L. H., Knowles, B. B., Damjanov, I. & Solter, D. Monoclonal antibody to murine embryos defines a stage-specific embryonic antigen expressed on mouse embryos and human teratocarcinoma cells. Cell 30, 697–705 (1982).
- [38] Simeone, A. et al. Sequential activation of HOX2 homeobox genes by retinoic acid in human embryonal corcinoma cells. Nature 346, 763–66 (1990).
- [39] Solter, D. & Knowles, B. B. Monoclonal antibody defining a stage-specific mouse embryonic antigen (SSEA-1). Proc. Natl Acad. Sci. USA 75, 5565–5569 (1978).
- [40] Solter, D., Skreb, N. & Damjanov, I. Extrauterine growth of mouse egg-cylinders results in malignant teratoma. Nature 227, 503–504 (1970).
- [41] Stern, P. L. et al. Monoclonal antibodies as probes for differentiation and tumor-associated antigens: a Forssman specificity on teratocarcinoma stem cells. Cell 14, 775–783 (1978).
- [42] Stevens, L. C. & Varnum, D. S. The development of teratomas from parthenogenetically activated ovarian mouse eggs. Dev. Biol. 37, 369–380 (1974).
- [43] Stevens, L. C. A new inbred subline of mice (129/terSv) with a high incidence of spontaneous congenital testicular teratomas. J. Natl Cancer Inst. 50, 235–242 (1973).
- [44] Stevens, L. C. Experimental production of testicular teratomas in mice. Proc. Natl Acad. Sci. USA 52, 654–661 (1964).
- [45] Stevens, L. C. Jr & Little, C. C. Spontaneous testicular teratomas in an inbred strain of mice. Proc. Natl Acad. Sci. USA 40, 1080–1087 (1954).
- [46] Stevens, L. C. The development of transplantable teratocarcinomas from intratesticular grafts of preand postimplantation mouse embryos. Dev. Biol. 21, 364–382 (1970).
- [47] Stewart, T. A. & Mintz, B. Recurrent germ-line transmission of the teratocarcinoma genome from the METT-1 culture line to progeny in vivo. J. Exp. Zool. 224, 465–469 (1982).
- [48] Stewart, T. A. & Mintz, B. Successive generations of mice produced from an established culture line of euploid teratocarcinoma cells. Proc. Natl Acad. Sci. USA 78, 6314–6318 (1981).
- [49] Strickland, S. & Mahdavi, V. The induction of differentiation in teratocarcinoma stem cells by retinoic acid. Cell 15, 393–403 (1978).
- [50] Youngren, K. K. et al. The Ter mutation in the dead-end gene causes germ cell loss and testicular germ cell tumours. Nature 435, 360–364 (2005).