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In machina: A cursory consideration of artificial wombs and the South African ethico-legal landscape

S Soni, PhD, LLB, LLM

School of Law, University of KwaZulu-Natal, Pietermaritzburg, South Africa

Corresponding author: *S Soni (sonish@ukzn.ac.za)*

Preterm birth, defined by the World Health Organization as any birth occurring before 37 weeks of gestation, remains a significant global health challenge, contributing to high rates of neonatal mortality and long-term complications. In this context, artificial womb technology – or **ectogenesis** – offers a transformative intervention capable of sustaining extra-uterine gestation and improving outcomes for extremely preterm infants. This article explores the legal, ethical and societal implications of introducing artificial wombs in South Africa, where existing laws regulating pregnancy, birth and personhood are ill-equipped to address this technological shift. In particular, the definitional limits of the Choice on Termination of Pregnancy Act, the conditional nature of the nasciturus fiction, and the ambiguity surrounding parental authority and legal guardianship over gestatelings, is analysed. I argue for the development of a bespoke legal framework to regulate ectogenesis, rather than amending existing pregnancy or birth legislation, and propose a set of principles to guide future regulation. Additionally, I highlight how access to artificial wombs may reinforce healthcare inequality if limited to private medical settings. By proactively addressing the legal and policy challenges posed by ectogenesis, South Africa can advance a rights-based approach to reproductive healthcare while preparing for the ethical and legal complexities of this emerging technology.

This article utilised a qualitative, doctrinal research methodology based on desktop analysis. The research involved the critical examination of primary legal sources such as constitutional provisions, statutes and relevant South African case law. Secondary sources included scholarly articles in medical law, bioethics and reproductive justice, particularly those addressing emerging technologies, e.g. ectogenesis. Comparative perspectives from jurisdictions such as the United Kingdom, the Netherlands, and the United States were also consulted to contextualise the legal challenges within broader international debates. Sources were selected using targeted searches of legal databases and peer-reviewed journals, with priority given to academic work that engages directly with the ethical, legal and regulatory dimensions of artificial womb technology.

Keywords. Ectogenesis, reproductive rights, legal personhood, artificial womb technology, bioethics.

S Afr J Bioethics Law 2025;18(2):e2818. https://doi.org/10.7196/SAJBL.2025.v18i2.2818

The World Health Organization (WHO) defines preterm birth as any birth that occurs before the completion of 37 weeks of pregnancy.[1] This classification is crucial for understanding the varying degrees of prematurity, which the WHO further categorises as follows: extreme prematurity refers to births taking place at less than 28 weeks of gestation; very preterm describes births that occur between 28 weeks and less than 32 weeks; and moderate to late preterm encompasses births from 32 weeks to 37 weeks of gestation. The implications of these definitions are profound, particularly when considering the alarming global statistics. Complications arising from preterm birth have emerged as the leading cause of death among children under the age of five.[2] A staggering 152 million babies were born prematurely over the last decade, with the COVID-19 pandemic further exacerbating this crisis. In 2020 alone, approximately 13.4 million preterm births were recorded, signifying that preterm birth affects one in 10 pregnancies worldwide.[3] Alarmingly, the vast majority of preterm infants do not survive beyond 28 days of life, in particular in healthcare settings that are ill-equipped with necessary resources such as neonatal intensive care units (NICUs).[4] For countries grappling with resource limitations, the advent of artificial womb technology represents a ground-breaking intervention that could significantly alter survival outcomes for preterm neonates. This technology warrants immediate attention, particularly regarding its ethico-legal implications in South Africa and other resource-limited nations.

Artificial wombs: A new era in neonatal care

Artificial wombs symbolise a remarkable advance in neonatal care, and closely replicate the key physiological and environmental aspects of the intra-uterine setting. Unlike traditional NICU incubators, which primarily provide thermal and respiratory support without simulating the womb's environment, artificial wombs integrate artificial amniotic fluid and an artificial placenta.[4] This innovative approach enables neonates delivered as early as 23 to 24 weeks of gestation to continue their development until they approach full-term gestation, typically around 40 weeks. The potential of this technology to save lives and mitigate the long-term health complications often associated with extreme prematurity is profound.

This method of continuing gestation in an artificial womb, referred to as **ectogenesis**, is currently in development by various research teams worldwide. Notable research includes the pioneering work

of the Children's Hospital of Philadelphia and Vitara Biomedical, that have developed the Extrauterine Environment for Newborn Development (EXTEND) device. Similar research initiatives are also making significant strides in countries such as Japan, Canada and Australia.[5] While South African law has not yet engaged formally with ectogenesis, scholars and policy bodies in other jurisdictions have begun to consider its legal implications. In the United Kingdom, Romanis has argued for the development of legal frameworks recognising **gestatelings** as distinct from both fetuses and neonates, and for regulatory guidance on parental rights and personhood.[6] The Netherlands has seen formal public engagement on the ethical boundaries of artificial womb research through its national health council, which recommended further legal and ethical exploration before clinical application.[7] In the United States, some scholars have explored the constitutional implications of ectogenesis for abortion law, especially in relation to *Roe v. Wade* and its overturning.[8] These emerging responses reflect growing international awareness that ectogenesis may require bespoke legal innovation, rather than piecemeal adaptation of existing laws.

Recognising the implications of the technology and the need to ensure its safety and efficacy, as well as ethical research, the United States Food and Drug Administration (FDA) Pediatric Advisory Committee convened a special meeting in September 2023 to examine the requirements for clinical trials.[9] This meeting focused on reviewing safety considerations, nutritional needs and ethical questions unique to paediatric applications. As these advancements progress, the transition to clinical trials of the technology appears to be imminent, and this underscores the urgent need for a thorough examination of the ethical and legal considerations that accompany this innovative technology.[10] I undertake a cursory examination of the implications of this technology for the existing legal framework in South Africa in the context of legal personhood and the significance of birth, parental rights and decision-making, access and equity issues. I then suggest a set of principles to guide the future deployment of this technology in the South African context.

Between worlds – not a fetus, not a child

It is necessary to consider the legal position of a fetus that is placed in an artificial womb, in order to determine the manner in which the law would apply to that fetus. In this context, we can distinguish between a neonate that is *in machina*, or inside the machine (the artificial womb), and one that is *ex machina*, or outside the machine. If legal personhood is assigned upon removal from the maternal womb, what specific rights and protections would apply to this unique developmental stage in the artificial womb? The term of fetus would be unsuitable, and terms such as gestateling and fetonate have been proposed to encapsulate this distinct state of being – thereby acknowledging its unique position between the conventional definitions of *in-utero* and *ex-utero* existence.[11] For clarity of the discussion, I use the term gestateling when referring to the occupant of an artificial womb. Gestateling refers to a developing human entity that is gestated partially or entirely in an artificial womb, rather than in the uterus of a pregnant person. It is a proposed term used to distinguish this entity from both a fetus (*in utero*) and a neonate (post birth), recognising its unique ontological and legal position.[6] The gestateling, which is an entity developing in an artificial womb, presents an ontologically and legally novel figure. It is neither a fetus *in utero* nor a neonate *ex utero*, and exists in a liminal space that disrupts traditional legal categories. Romanis proposes the term of gestateling to distinguish this entity from both fetus and child, noting that its development within a technological, rather than biological, gestational environment raises unprecedented legal and ethical questions.[6] While South African law has not yet recognised the gestateling as a legal subject, it has shown a willingness to consider the interests of children not yet born in analogous reproductive contexts. In *AB v Minister of Social Development*, the court evaluated the constitutionality of requiring a genetic link in surrogacy agreements and acknowledged that the legal framework must be responsive to the prospective child's best interests.[12] The judgment confirmed that legal mechanisms should not deny recognition or protection to **future children** simply because they are conceived through non-traditional means.[12] This reasoning provides a potential jurisprudential foundation for extending similar protections to gestatelings, whose existence and development likewise challenge prevailing reproductive and legal norms.

Alternatively, if the transfer from the maternal womb does **not** constitute the moment of birth, and therefore does not confer personhood, could the artificial womb be legally viewed as an extension of the mother's body, so preserving her decision-making authority? This perspective poses significant ethical dilemmas, given the physical and biological separation from the mother. It is also worth noting that this technology is currently being developed as a means to allow a fetus to complete its gestation outside a maternal womb (which is partial ectogenesis). It is conceivable that, in the future, it may be possible for a fetus to be gestated fully inside an artificial womb, from the moment of conception. Section 12(2)(a) of the Constitution of the Republic of South Africa, 1996, guarantees everyone the right 'to make decisions concerning reproduction.' This right has been upheld in case law as central to bodily autonomy and human dignity, particularly in *Christian Lawyers Association v Minister of Health*, where the court affirmed that reproductive decisions rest solely with the pregnant individual.[13] Any future regulation of ectogenesis must respect this foundational constitutional guarantee. As was argued in the case of *AB & Another v Minister of Social Development & Another*, South African law embraces a wide interpretation of reproductive autonomy, as is evident by the means of reproduction permitted by law, which includes gamete donation and surrogacy.[12] The ethical and legal implications of complete ectogenesis are even more considerable and complex (and, unfortunately, outside the scope of this article).

The implications for legal personhood and the significance of birth

From a South African legal perspective, the introduction of artificial wombs raises several significant challenges regarding the concepts of fetal personhood and parental rights. Traditionally, South African law defines personhood as beginning at the moment of birth, a principle that was affirmed in the case of *Christian Lawyers Association v Minister of Health*.[14] In this landmark ruling, the court determined that a fetus does not possess independent legal rights under the Choice on Termination of Pregnancy legislation, and affirmed a woman's autonomous right to terminate a pregnancy within the established legal framework created by the legislation. Moreover, South Africa's Constitution guarantees the right to life exclusively to legal persons,

and these are only individuals who are born and physically separated from their mothers and in a living state.[15] South African law does not accord legal personhood to the fetus prior to birth; however, the nasciturus fiction allows for a fetus to be considered a legal subject, provided it is later born alive.[16] The development of artificial wombs complicates this principle, particularly in relation to viability. Traditionally, viability refers to the ability of a fetus to survive outside the womb with or without neonatal assistance.[17] Ectogenesis redefines the boundaries of viability by enabling gestation outside the human body, challenging the existing legal frameworks that link viability, personhood, and protection. In South African law, the nasciturus fiction permits a fetus to acquire certain rights – such as inheritance or delictual claims – on condition that it is subsequently born alive. This conditional legal recognition is rooted in the understanding that the fetus remains part of the pregnant person's body until birth.[18] Ectogenesis complicates this doctrine: a gestateling is neither *in utero* nor born, yet exists as a separate physiological entity. If a gestateling is removed from the maternal body and continues to develop independently in an artificial womb, it is unclear whether the nasciturus fiction applies, especially if it is later born alive via artificial means. This raises a novel legal question, whether the fiction should be extended to gestatelings, or whether a new legal principle is needed to govern their interests during *ex utero* gestation. The conditional nature of the nasciturus fiction therefore highlights a significant doctrinal gap in existing legal protections for gestatelings. The fiction is further reinforced by the Births and Deaths Registration Act (1992), which stipulates that a death certificate may be issued only for fetuses delivered prematurely after 26 weeks, so establishing a clear threshold of viability for the recognition of personhood.[19]

The introduction of artificial wombs fundamentally disrupts this established legal framework by creating a new gestational environment outside the maternal body. A pivotal question arises: if a preterm fetus is removed from the mother and placed into an artificial womb, does this transfer grant personhood at the moment of removal, or only upon what might be considered as birth from the artificial womb? The act of birth is a central focus in many legal contexts. For example, the Births and Deaths Registration Act circularly stipulates that the word 'birth' means the birth of a child who is born alive. From a medical perspective, indicators such as breathing, heartbeat, pulsation of the umbilical cord, or voluntary muscle movement are evidence of a live birth.[20] A live birth therefore triggers the requirement for registration of the birth within 30 days in terms of the Act.

Whether removal of a fetus from a human uterus and relocating it into an artificial womb constitutes birth for the purposes of legal registration is open to debate. While a gestateling **is** physically separated from the pregnant person, it does not transition into independent life but rather continues gestation in an artificial, womb-like environment. This situation differs materially from a neonate in a neonatal intensive care unit (NICU), who has been born and is receiving postnatal care. Given this distinction, it is arguable that gestatelings do not meet the legal criteria for live birth at the point of transfer into an artificial womb. As such, their legal status under South African law remains uncertain and reinforces the need for bespoke legal recognition of ectogenetic gestation.[21] As the law currently stands, there is no legal provision for the registration of extra-uterine gestation that continues post transfer, which demonstrates a significant gap in the regulatory framework.

Parental rights and medical decision-making

The ambiguities associated with personhood lead to critical practical concerns, in particular with respect to medical decision-making authority. For instance, who would hold the legal right to consent to medical treatments for a fetus gestating in an artificial womb? Intrauterine surgery is a healthcare intervention that is used to treat a medical condition in a fetus that requires surgical intervention. Similar surgical intervention may be necessary while a fetus is *in machina*. The legal status of gestatelings presents a significant challenge to determining who holds decision-making authority during extra-uterine gestation. Scholars such as Romanis have argued that gestatelings constitute a distinct legal and ontological category that does not fit neatly within current frameworks of fetal or child status.[6] If the gestateling is treated as a child under South African law, then both legal parents would typically share the authority to make medical decisions on its behalf. However, if the gestateling has not yet acquired full personhood under existing law, questions arise as to whether such authority remains with the birthing parent (from whose body the fetus was removed) or is shared equally, or whether new legal principles must be developed to allocate responsibility. Romanis and others have suggested that legal guardianship in cases of ectogenesis may need to be specifically defined, especially in situations where gestational surrogacy or embryo donation complicates the parental relationship.[22] In the South African context, it is arguable that, in the absence of clear legislative guidance, courts would likely rely on the best interests of the child standard, and the High Court could be approached as the upper guardian to resolve conflicts or gaps in authority. This approach would provide a constitutionally grounded framework for protecting the gestateling's welfare while recognising the unprecedented nature of gestation outside the human body. In terms of section 30 of the Children's Act 38 of 2005, holders of parental responsibilities and rights must consult one another before making decisions of significant importance, including medical decisions affecting a child. In the absence of express statutory regulation for gestatelings, it is likely that courts would default to applying this standard.[23] This discussion demonstrates that establishing legal protections for the occupant of an artificial womb is a pressing challenge. It carries significant implications for parental rights, medical decision-making, and the legal status of gestatelings *in machina* which must be clarified before this transformative technology reaches the clinical trial stage.

Termination of pregnancy and the artificial womb

An additional question which arises is whether a parent would be able to request a termination if a serious abnormality is identified later in the gestation process inside an artificial womb. Under South African law, such decisions traditionally fall within the purview of the pregnant woman, and are grounded in her constitutional right to reproductive autonomy. However, this rationale becomes contentious when gestation occurs or completes **outside** the woman's body. The Choice on Termination of Pregnancy Act 92 of 1996 defines a termination of pregnancy as 'the separation and expulsion, by medical or other means, of the contents of the uterus of a pregnant woman'.[24] Consequently, it envisages pregnancy **as an experience**

that is contained within a female body. This definition clearly confines the procedure to intra-uterine pregnancies and reflects the original legislative purpose of regulating reproductive interventions within the maternal body. Ectogenesis challenges this definition. The act of transferring a fetus to an extra-uterine environment is not intended to terminate gestation but to continue it in a technologically assisted form. Consequently, it is arguable that such a procedure does not fall within the legal meaning of a 'termination,' as defined in the Act. This points to the need for legislative clarity to ensure that life-saving reproductive interventions such as ectogenesis are not impeded by outdated legal definitions.[18] From the definition of a termination under the statute, we can conclude that the Choice Act would not apply to a gestation in an artificial womb. However, this creates another legal gap in South African law where a serious abnormality is detected in the occupant of an artificial womb which, ordinarily, would warrant consideration of a termination. As the Choice Act would not apply to this gestation, it is uncertain whether a termination would be legally possible, how this could practically be carried out, and whether one or both biological parents would hold the right to authorise such a termination.

While it may be tempting to amend the Choice Act to include or exclude ectogenesis explicitly, such an approach would be conceptually inappropriate. The Act was designed to regulate pregnancies within the maternal body and is grounded in constitutional values such as bodily autonomy and reproductive choice. Rather than attempting to stretch the Choice to apply to situations for which it was never designed, a more coherent approach would be to develop a parallel legal framework specific to ectogenesis. Such a bespoke regulatory regime would allow for tailored provisions that address the unique medico-legal and ethical challenges posed by artificial wombs, while preserving the integrity of the existing legal regime governing *in utero* pregnancies. This approach would offer clarity, reduce interpretive tension, and ensure that legal protections evolve in step with technological change. A further helpful analogy may be drawn from the legal and medical treatment of ectopic pregnancies – where a fertilised ovum implants outside the uterus, commonly in the fallopian tube or abdominal cavity. These pregnancies are non-viable and pose significant risks to maternal health. In such cases, termination is not only permitted but medically necessary, and is typically not governed by the provisions of the Choice Act, as the pregnancy does not involve the intra-uterine environment to which the statute refers. This reinforces the interpretation that the Choice Act applies specifically to uterine pregnancies. The example of ectopic pregnancies illustrates that South African law already **implicitly** distinguishes between *in utero* and extra-uterine gestation. Accordingly, this supports the argument that gestation in an artificial womb will also fall outside the legislative scope of the Choice Act and ought to be addressed in a distinct legal framework tailored to its unique nature and implications.

Access and equity issues in South Africa

In addition to the legal complexities, ethical questions about healthcare accessibility and equity warrant critical scrutiny. In South Africa, as in many developing countries, the disparity between private and public healthcare is significant, with inequities not only in the availability of care but also in the quality of services provided. Public healthcare settings often suffer from constrained resources, inadequate infrastructure, and insufficient personnel. Should artificial wombs be implemented, it is likely that initial access would be limited to private facilities, thereby exacerbating existing healthcare disparities related to financial means. This could result in financial resources becoming a determining factor in survival and health outcomes for preterm infants, thereby intensifying the inequities that already characterise neonatal care. In addition, the advent of artificial wombs could influence social and gender roles significantly, as the gestational responsibilities traditionally borne by mothers would shift to technological devices, thereby altering the societal perception of reproductive labour.[25] While artificial wombs represent a progressive extension of assisted reproductive technology, their profound implications for gestational and parental roles raise novel ethical concerns about the mechanisation of reproduction and the potential societal shifts in gender roles they may orchestrate.[26]

A path forward

It is clear that the contemporary South African legal framework does not adequately accommodate this new technology. Based on the considerations outlined above, this article proposes a set of six core principles that should guide the future legal regulation of ectogenesis:

1. **Clarification of legal status and personhood in the context of artificial wombs**
   As ectogenesis challenges the binary concept of 'born' and 'unborn,' legal personhood cannot be assumed based on gestational age or physical independence alone. It is therefore crucial to consider whether gestatelings should be recognised as a novel legal category, with specific rights and protections, distinct from those applicable to either fetuses or neonates.
2. **Affirmation of constitutional values in reproductive decision-making**
   The introduction of ectogenesis must not undermine the constitutional rights to bodily integrity, dignity and reproductive autonomy. Particularly where ectogenesis is proposed as a partial substitute for gestation, legal reform must ensure that the pregnant individual retains full control over decisions affecting the fetus prior to and during transfer to an artificial womb, in line with section 12(2)(a) of the Constitution.
3. **Recognition of the unique ethical and legal position of gestatelings**
   Gestatelings are dependent on artificial support yet are physiologically distinct from both traditional fetuses and neonates. Ethical and legal frameworks must evolve to reflect this reality, recognising the gestateling as a unique entity whose interests must be considered in decisions around continuation or termination of extra-uterine gestation. This also invites new reflections on parental duties.
4. **Establishment of clear decision-making authority during ectogenesis**
   The law must determine who holds the right to make decisions about the gestateling, particularly in cases of dispute or where gestational carriers are not genetically related to the fetus. Drawing from constitutional jurisprudence and bioethics literature, it is proposed that shared parental decision-making be the starting point, with the High Court retaining its supervisory jurisdiction as the upper guardian of all minors.

5. **Re-evaluation of viability in a context of technological change**
   As artificial wombs advance, traditional definitions of fetal viability, which is central to both law and bioethics, must be reconsidered. Viability can no longer be understood solely as the ability to survive *ex utero* with neonatal care, but may include sustained development in an artificial environment. Legal definitions must evolve to reflect this shift without creating inconsistencies in reproductive health regulation.
6. **Development of a bespoke legal framework for ectogenesis**
   Rather than amending existing legislation such as the Choice on Termination of Pregnancy Act, which was designed for *in utero* gestation, South Africa should develop a parallel statutory framework specifically for ectogenesis. This would ensure clear, coherent regulation of gestational rights, medical decision-making, parental obligations, and legal status, consistent with constitutional values and scientific reality.

These principles will create a balanced approach to the implementation of artificial womb technology in South Africa, which will ensure that its benefits are maximised while protecting the rights and welfare of all parties involved. The principles will also ensure that the four core principles of bioethics – autonomy, beneficence, non-maleficence and justice – are respected.

Conclusion

Ectogenesis presents a profound challenge to South African legal frameworks that have historically drawn clear distinctions between pregnancy, birth and personhood. The emergence of the gestateling – a being that is neither *in utero* nor born – disrupts established legal categories and exposes doctrinal gaps in statutes such as the Choice on Termination of Pregnancy Act and the Births and Deaths Registration Act. As the present article has shown, existing laws are ill-equipped to regulate the ethical, parental and jurisdictional complexities of artificial gestation. Attempts to apply traditional concepts such as the nasciturus fiction or statutory definitions of live birth reveal both the limits of our current legal imagination and the need for thoughtful, forward-looking reform. Rather than retrofitting outdated legislation, South Africa has an opportunity to lead in developing a bespoke legal framework for ectogenesis – one that upholds constitutional values, respects reproductive autonomy, and ensures legal clarity in the face of technological transformation. Preliminary research indicates that South African law currently lacks clear precedents or regulations that specifically address the use of artificial wombs. While children gain rights and protections under the Children's Act upon birth, a legal grey area persists concerning the transitional phase between removal from the maternal womb and subsequent exit from the artificial womb. This gap in the legal framework underscores the urgent need to formulate clear principles and regulations which are aligned with constitutional values and healthcare realities that can effectively manage the implications of ectogenesis. By establishing these frameworks, South Africa can proactively engage with the transformative potential of artificial wombs, and aim to reduce neonatal mortality rates and foster a rights-based approach to prenatal care. As artificial wombs move closer to clinical application, South Africa, alongside the global community, faces the dual challenge of harnessing the remarkable potential of this technology while safeguarding against the exacerbation of healthcare inequities. A proactive, ethical and equitable legal approach is imperative for ensuring that artificial wombs realise their full potential in benefiting all preterm infants.

Declaration. None.
Acknowledgements. None.
Author contributions. Sole author.
Funding. None.
Conflicts of interest. None.
Data availability statement. None.

1. World Health Organization. Preterm birth – key facts. Geneva: WHO, 2023. https://www.who.int/news-room/fact-sheets/detail/preterm-birth (accessed 22 November 2023).
2. World Health Organization, UNICEF, London School of Hygiene & Tropical Medicine. Born too soon: Decade of action on preterm birth. Geneva: WHO, 2023. https://www.who.int/publications/i/item/9789240073890 (accessed 1 September 2024).
3. Lawn JE, Blencowe H, Oza S, et al. Every newborn: Progress, priorities, and potential beyond survival. Lancet 2014;384(9938):189-205.
4. Romanis EC. Artificial womb technology and the frontiers of human reproduction: Conceptual differences and potential implications. J Med Ethics 2018;44:751-755.
5. Willyard C. Everything you need to know about artificial wombs. MIT Technol Rev 29 September 2023. https://www.technologyreview.com/2023/09/29/1080538/everything-you-need-to-know-about-artificial-wombs/ (accessed 1 September 2024).
6. Romanis EC. Artificial womb technology and the frontiers of human reproduction: Conceptual differences and legal consequences. Medical Law Review 2020;28(4):738-753.
7. Dutch Health Council. Ectogenesis: Artificial wombs and the future of neonatal care. The Hague, 2019.
8. Kipnis K. Does ectogenesis spell the end of abortion? Theoretical Medicine and Bioethics 2003;24(1):45-63.
9. United States Food and Drug Administration. Pediatric Advisory Committee Meeting: Artificial placenta support technology – first-in-human protocol considerations. 19 September 2023. https://www.fda.gov/advisory-committees/pediatric-advisory-committee/presentations-september-19-2023-meeting-pediatric-advisory-committee (accessed 1 September 2024).
10. Kozlov M. Human trials of artificial wombs could start soon: Here's what you need to know. Nature 14 September 2023. https://www.nature.com/articles/d41586-023-02901-1 (accessed 22 November 2024).
11. Romanis EC. The ethical and legal status of 'fetonates' or 'gestatelings'. Am J Bioeth 2023;23(5):90-92.
12. AB & Another v Minister of Social Development & Another [2016] ZACC 43.
13. Christian Lawyers Association v Minister of Health 1998 (4) SA 1113 (T).
14. Christian Lawyers Association of South Africa & Others v Minister of Health & Others 1998 (11) BCLR 1434 (T).
15. McQuoid-Mason DJ. Terminating the pregnancy of a brain-dead mother: Does a fetus have a right to life? The law in South Africa. S Afr J Bioeth Law 2014;7(2):44-56.
16. Ex parte Boedel Steenkamp 1962 (3) SA 954 (O).
17. De Bie FR, Chervenak FA, McCullough LB, et al. Ethics considerations regarding artificial womb technology for the fetonate. Am J Bioeth 2023;23(5):67-78.
18. Pickles C. Termination-of-pregnancy rights and foetal interests in continued existence in South Africa: The Choice on Termination of Pregnancy Act 92 of 1996. PER 2012;15(5).
19. SA government. Births and Deaths Registration Act No. 51 of 1992.
20. World Health Organization. International statistical classification of diseases and related health problems, 10th rev (ICD-10). Vol. 2. Geneva: WHO; 2010.
21. Romanis EC. Challenging the 'born alive' threshold: Fetal surgery, artificial wombs, and the English approach to legal personhood. Med Law Rev 2020;28(1):93-123.
22. Romanis EC. Partial ectogenesis: Freedom, equality and political perspective. J Med Ethics 2020;46(2):89-90.
23. Fraser v Children's Court, Pretoria North 1997 (2) SA 261 (CC).
24. SA government. Choice on Termination of Pregnancy Act No. 92 of 1996.
25. Kendal E. Equal opportunity and the case for state-supported ectogenesis. J Med Ethics 2017;43(11):710-714.
26. Cavaliere G. Gestation, equality and freedom: Ectogenesis as a political perspective. J Med Ethics 2020;46(2):76-82.

Received 8 November 2024; accepted 19 May 2025.