

The Placenta as Sacred Interface: Integrating Contemporary Science, Ancient Mythology, and Embodied Theology to Reimagine the Doctor-Patient Relationship

Julian Ungar-Sargon MD PhD*

Borra College of Health Sciences, Dominican University, River Forest, Illinois, USA

***Corresponding Author:** Julian Ungar-Sargon MD PhD, Borra College of Health Sciences, Dominican University, River Forest, Illinois, USA.

Received: October 13, 2025; **Published:** October 28, 2025

Abstract

The placenta represents a profound convergence of biological, mythological, and theological significance that remains largely unexplored in contemporary medical practice. Recent advances in placental research (2023-2025) reveal this organ as a dynamic neuroendocrine, immunological, and metabolic interface that governs maternal-fetal communication and shapes lifelong health trajectories. Concurrently, cross-cultural anthropological evidence demonstrates that diverse ancient civilizations recognized the placenta as a living entity worthy of reverence, conceptualizing it variously as twin soul, guardian angel, and cosmic creative force. This discursive essay synthesizes cutting-edge placental science with ancient mythological wisdom and the embodied theological framework of *tzimtzum* (divine contraction) to propose a transformative model for clinical practice.

The historical trajectory of placental understanding—from Galenic errors through Renaissance anatomical discoveries to contemporary molecular insights—itself demonstrates the placental principle: knowledge emerges at interfaces, through encounter between different ways of knowing. By examining the placenta as both biological reality and sacred archetype, this work argues that the doctor-patient relationship itself functions as a liminal interface where healing occurs through embodied presence rather than technical intervention alone. The integration of these three domains—empirical science, mythological intuition, and theological reflection—offers a paradigmatic shift from mechanistic medicine toward what may be termed “placental medicine”: a relational, adaptive, reverent approach that honors the sacred dimensions of embodied existence while maintaining scientific rigor. This synthesis has immediate clinical applications for maternal-fetal medicine, pain management, and the broader therapeutic encounter, suggesting that authentic healing requires physicians to practice a form of *tzimtzum*—creating space through self-limitation that allows the patient’s inherent wisdom to emerge.

Keywords: *Placenta; Embodied Theology; Tzimtzum; Doctor-Patient Relationship; Maternal-Fetal Medicine; Sacred Healing; Medical Anthropology; Neuroendocrine Interface; Embodied Cognition; Therapeutic Presence; Medical History; Comparative Placentology*



Figure: The human fetus as depicted by Leonardo da Vinci, circa 1510. Shown is the gravid uterus with its blood vessels, fetus in the breech position, fetal membranes, and umbilical cord with vessels. Although Leonardo depicted a single placental disc beneath the fetus, he mistakenly showed the placental attachment as being cotyledonary, interdigitating with maternal crypts as in a ruminant (upper right portion of drawing).

Introduction

Modern medicine operates within an increasingly narrow ontological framework, treating the human body as a complex biological machine requiring technical intervention when malfunction occurs [1]. This reductionist paradigm, while generating remarkable technological advances, simultaneously impoverishes the healing encounter by dismissing dimensions of human experience that resist quantification [2]. The placenta—an organ routinely discarded as medical waste in contemporary Western obstetrics—serves as a powerful case study illuminating what is lost when medicine forgets its roots in both empirical observation and sacred tradition [3].

The placenta has captivated human imagination since earliest times, recognized across cultures as being of great importance and at the same time quite mysterious—even mystical [4]. In many cultures the placenta has been held as an alter ego, a symbol for the preservation of health and good fortune, and as a talisman in case of danger [5]. This cross-cultural reverence suggests that traditional societies recognized something profound about the placenta that modern Western medicine has forgotten: it is a being worthy of honor, a bridge between worlds, a keeper of destinies [6].

Recent scientific investigations have dramatically revised our understanding of placental function. Far from a passive exchange organ, the placenta emerges from contemporary research as a sophisticated regulatory system integrating genetic, hormonal, immune, and epigenetic functions to shape not merely fetal development but lifelong health trajectories and even consciousness itself [7,8]. These

findings resonate remarkably with ancient cultural intuitions that recognized the placenta as a living being, a companion soul, and a bridge between realms [9,10].

The historical journey to this understanding itself embodies the placental principle. From Aristotle's early observations through Galen's influential errors, from Leonardo da Vinci's anatomical artistry through William Harvey's revolutionary insights about circulation, from William Hunter's definitive demonstrations through contemporary molecular biology, knowledge of the placenta has emerged at interfaces-between disciplines, between observation scales, between mechanistic and holistic frameworks [4,11].

This discursive essay argues that integrating three distinct knowledge systems-contemporary placental science, cross-cultural mythological wisdom, and embodied theology-can fundamentally transform how we conceptualize and practice medicine. Specifically, drawing upon the Kabbalistic concept of *tzimtzum* (divine contraction or self-limitation) [12,13], I propose that the doctor-patient relationship itself functions as a placental interface: a liminal space where healing occurs through the physician's capacity to create room for the patient's own agency rather than through the imposition of expertise alone.



Figure A

Historical foundations: From passive organ to dynamic interface

The Greeks recognized the importance of the placenta in fetal nutrition and named the outermost embryonic membranes chorion and the innermost membrane encompassing the fetus amnion [14]. The Greek philosopher-biologist Aristotle may have been the first to use the term chorion, stating that umbilical vessels “join on the uterus like the roots of plants and through them the embryo receives its nourishment” [14]. Because Aristotle based many of his ideas on findings in ruminants and other animals, considerable confusion about placental anatomy was perpetuated for centuries.

The Greek physician Galen maintained that uterine vessels opened their mouths and united with fetal vessels in the chorionic membranes, establishing direct communication between mother and fetus [15]. This was concordant with his view that arteries supplied “vital spirits” while veins supplied “alimentary blood”. Galen’s views on this subject were held as dogma until the discovery of blood circulation in the early seventeenth century. The theological implications are striking: what Galen described as direct vascular continuity mirrors mythological concepts of the placenta as a site of merging identities. Both the scientific error and the mythological truth pointed toward the same insight-that the placenta creates profound intimacy between distinct beings.

Leonardo da Vinci prepared magnificent anatomical illustrations circa 1510, depicting the gravid uterus with blood vessels, fetal membranes, and umbilical cord [16]. Though he correctly showed a single placental disc, he mistakenly depicted the attachment as cotyledonary, with fetal cotyledons interdigitating with maternal crypts. Yet Leonardo’s anatomical error contained poetic truth. His description of how “the fleshy villi of these little sponges are interwoven like burrs, one half with the other” captures the essential placental reality: intimate interdigitation without fusion, profound connection without loss of distinction-the biological substrate for tzimtzum [17].

Andreas Vesalius, in his monumental 1543 work “De humani corporis fabrica,” described the human uterus and its rich vasculature while upholding the Galenic doctrine of anastomosis between maternal and fetal vessels [18]. He initially illustrated the placenta incorrectly as zonary or girdle-like, as in dogs, but corrected this error in the 1555 second edition [19].

The seventeenth-century debate over maternal-fetal vascular continuity captivated anatomists. Giulio Cesare Aranzi contradicted Galen’s claim of major vessels directly connecting mother and child, maintaining that maternal and fetal vasculature were separate-an issue only definitively settled two centuries later [20]. Aranzi also conceived of the placenta as a hepar uterinum (liver of the uterus) functioning to purify blood for fetal nutrition, presciently recognizing metabolic functions that contemporary research continues to elaborate.

William Harvey, who unraveled the mystery of blood circulation and was the first to apply scientific method to biological problems [21], stated regarding placental circulation that “the Extremities of the Umbilical vessels, are no way conjoined to the Uterine vessels by an Anastomosis” [22]. By logic based on his knowledge of circulation, he held the maternal and fetal circulations to be separate, each flowing in opposite directions to the placenta by way of arteries and returning by veins. Harvey also raised a question of fundamental importance: How does the fetus survive in utero without breathing air, yet die within an hour if deprived of breath after birth? Without knowledge of oxygen-not discovered for another century-Harvey could only speculate. His question embodies the mystery that the placenta represents: How does separated life sustain itself? How does withdrawal (tzimtzum) enable rather than diminish existence? [23].

John Mayow, identifying what would later be called oxygen as essential for both candle-burning and animal respiration, asked how the fetus could live “imprisoned in the straits of the womb and completely destitute of air”.(24) He concluded that “the blood of the embryo, conveyed by the umbilical arteries to the placenta, brings not only nutritious juice, but along with this a portion of nitro-aërial particles to the foetus for its support”. Therefore, Mayow argued, “the placenta should no longer be called a uterine liver but rather a uterine lung” [24].

In 1734, Alexander Monro primus, examining five pregnant women who had died, stated clearly that there was no vascular continuity between uterus and placenta [25]. William Hunter, in his magnificent 1774 obstetric atlas “The Gravid Uterus,” provided definitive anatomical description of the human placenta and associated membranes [26]. His copper-plate engravings illustrated the opened uterus at various gestational stages, with uterine arteries and veins injected with colored wax, demonstrating the separate circulation of mother and fetus. Hunter concluded: “From all these experiments and observations it seems incontestable that the human placenta is composed of two distinct parts, though blended together, viz, an umbilical, which may be considered as part of the foetus, and an uterine, which belongs to the mother” [27]. This anatomical discovery—two distinct yet blended parts, separate circulations in intimate proximity—provides the biological foundation for understanding the placenta as a living icon of *tzimtzum*.

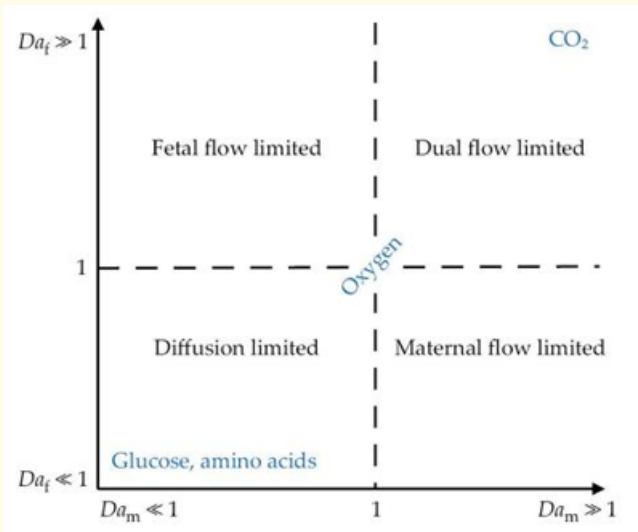


Figure B

Contemporary molecular and functional insights

The placenta’s reconceptualization from passive barrier to dynamic interface represents one of the most significant shifts in perinatal medicine over recent decades [28,29]. Single-cell RNA sequencing and spatial transcriptomics have generated comprehensive atlases charting trophoblast differentiation, spiral artery remodeling, and the intricate architecture of the maternal-fetal interface [7]. These technologies reveal the placenta as a living system of extraordinary complexity and responsiveness.

Recent studies demonstrate that the placenta functions as a neuroendocrine conductor; regulating fetal brain development through synthesis and secretion of neurosteroids such as allopregnanolone and hormones including human chorionic gonadotropin [30,31]. Deficiencies in placental neurosteroid production alter fetal myelination patterns and correlate with later neurobehavioral outcomes, suggesting that the placenta literally shapes the architecture of consciousness [30]. This finding transforms our understanding of the placenta from a nutritive organ to an active participant in neurodevelopment, mediating between maternal physiology and fetal neural organization.

This neuroendocrine function resonates with ancient intuitions. When Egyptian pharaohs carried their placentas in royal processions as “secret helpers” or “external souls,” they recognized-in mythological language-what molecular biology now confirms: the placenta shapes not merely physical development but the very substrate of consciousness and identity [32,33]. The placenta’s role in brain development provides biological grounding for understanding it as a “twin soul” or “guardian angel” that accompanies the person through life [34].

From the perspective of embodied theology, the placenta’s shaping of fetal neurodevelopment demonstrates divine creativity operating through material processes. The notion that spiritual realities like consciousness emerge through placental hormone secretion does not diminish their sacred significance but rather reveals the incarnational character of human existence. As I have argued elsewhere, the therapeutic space itself becomes a site where neurobiological and spiritual realities interpenetrate, where the physician’s embodied presence affects not merely the patient’s psychology but potentially their neurobiology [35].

Immunological diplomacy: Teaching tolerance for otherness

The placenta’s immunological function represents perhaps its most philosophically provocative capacity. Through secretion of extracellular vesicles carrying fetal antigens, the placenta regulates maternal immune adaptation, enhancing regulatory T-cell populations and teaching the maternal immune system to recognize the genetically foreign fetus as self rather than invader [36]. This process constitutes a form of biological hospitality-the placenta negotiates tolerance for otherness, creating space for radical difference to coexist within intimate proximity. Disruption of this signaling contributes to pregnancy complications including preeclampsia and recurrent miscarriage [29].

This immunological negotiation provides a biological parallel to the theological concept of *tzimtzum*. Just as God contracts to make space for creation while remaining present, the maternal immune system must withdraw its normal response to foreign tissue while remaining vigilant. The placenta mediates this delicate balance, teaching the mother’s body a form of biological *tzimtzum*-making space for the radically other without losing protective capacity [12].

In clinical practice, this immunological function has profound implications. Recurrent pregnancy loss often involves immune dysregulation where the maternal system fails to achieve appropriate tolerance [29]. From a therapeutic standpoint informed by embodied theology, supporting this immune accommodation becomes a form of biological accompaniment-helping the maternal system learn to make space for new life. The physician practicing *tzimtzum* mirrors the placenta’s immunological function: creating conditions where the foreign (the patient’s unique experience, the body’s inherent healing wisdom) can be recognized and honored rather than attacked or suppressed [37].



Figure c

Environmental sensing and epigenetic mediation

Emerging research documents the placenta's capacity to sense and respond to environmental conditions including maternal stress, pollutant exposure, nutritional status, and psychosocial factors [38]. These exposures alter placental gene expression and hormone secretion through epigenetic mechanisms including DNA methylation and chromatin remodeling [38]. The placenta thus functions as an environmental interpreter, translating maternal experience into molecular signals that shape fetal development. Placental methylation profiles are emerging as biomarkers for later-life neuropsychiatric and metabolic disorders, establishing the placenta as a mediator of intergenerational transmission of adversity [38].

This environmental responsiveness demonstrates that the placenta is not merely a passive filter but an active sense organ, constantly reading and responding to the maternal milieu. When ancient cultures spoke of the placenta protecting the baby's soul from evil spirits, they expressed in mythological terms what epigenetics now describes in molecular language: the placenta mediates between environmental adversity and fetal development, buffering harm while transmitting necessary information [39].

From the perspective of embodied medicine, this epigenetic function reveals why addressing maternal stress, social support, and environmental exposures constitutes essential prenatal care [35]. The placenta's epigenetic responsiveness demonstrates that pregnancy is not merely a biological process but a psychosocial and spiritual process where maternal experience literally inscribes itself into fetal development. The physician attending to pregnant women must therefore attend to the whole ecology of maternal life, recognizing that supporting maternal wellbeing directly supports placental function [37].

Embracing instability: Chromosomal mosaicism and adaptive tolerance

One of the most surprising recent discoveries involves chromosomal instability within trophoblast cells. Placental tissue exhibits mosaicism-variable chromosomal composition across cell populations-suggesting adaptive tolerance for aneuploidy that may facilitate rapid differentiation and functional plasticity [40]. Rather than representing pure pathology, this chromosomal heterogeneity appears to serve placental function. The placenta, it seems, embraces imperfection as a strategy for growth and adaptation.

This tolerance for chromosomal instability provides a biological model for therapeutic approaches that honor imperfection rather than demanding flawless function. In my work on the tzimtzum model of therapeutic practice, I have argued that the physician must develop capacity to tolerate ambiguity, to work with incomplete information, to accompany patients through processes that cannot be perfected or fully controlled [12]. The placenta's chromosomal mosaicism demonstrates that biological success often requires accepting rather than eliminating irregularities. Healing, like placental function, may depend on creative instability rather than rigid homeostasis.

These converging lines of investigation establish the placenta as a sensing, responding, communicating, protecting entity-a being, in the deepest sense, with agency. It is neither purely maternal nor fetal but exists in the liminal space between, mediating exchange while maintaining necessary boundaries [29]. This scientific understanding remarkably parallels ancient mythological intuitions about placental nature and function. The history of placental science provides more than interesting background-it demonstrates that the placental principle operates in the realm of knowledge itself. Just as the placenta mediates between distinct biological beings, scientific understanding emerges at interfaces between ways of knowing.

Cross-cultural reverence and the recognition of placental agency

Anthropological investigation reveals striking cross-cultural consistency in how traditional societies conceptualize and ritualize the placenta [3,9]. While specific practices vary, a common pattern emerges: the placenta is not waste but a being deserving careful handling, thanksgiving, and proper farewell. Its treatment is believed to shape not merely physical health but spiritual destiny [41]. This consistency

across geographically and temporally distinct cultures suggests these practices reflect genuine intuition about biological and spiritual reality rather than mere superstition [3].

For many Indigenous cultures, the placenta is a living being [34]. The Yoruba of Western Nigeria bury the placenta near the entrance to the home, so that the child “will always look back to its father” [42]. This practice recognizes the placenta’s ongoing influence on the child’s sense of belonging and orientation—an intuition that contemporary attachment theory and neurodevelopmental research increasingly validates. The umbilical connection, even after physical separation, continues to shape psychological and spiritual development.

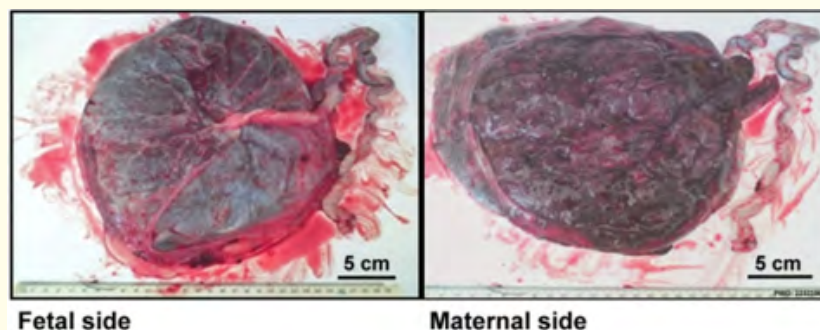


Figure D

The placenta as twin, guardian, and secret helper

In Ancient Egypt, the placenta held such profound sacred status that pharaohs led royal processions preceded by their actual placenta, mounted on a pole with dangling umbilical cord [10,32]. Egyptians believed in dual souls—one inhabiting the body, the other the placenta. The placenta possessed its own hieroglyph, depicting a crosscut section of human placenta with remarkable anatomical accuracy [10]. Archaeological evidence suggests that secondary tombs may have housed royal placentas, granting them architectural space equivalent to the pharaoh’s body itself [10]. This practice recognized what contemporary neuroscience is beginning to understand: the placenta shapes consciousness and identity in ways that persist throughout life.

The Baganda people of Uganda similarly recognize the placenta as a second child—the baby’s double possessing its own spirit residing in the umbilical cord [10]. Royal placentas receive ritual preservation and processional honor, a practice remarkably parallel to Egyptian tradition despite geographic and temporal separation, suggesting convergent cultural evolution toward recognizing placental significance. This concept of the placenta as a twin or double corresponds to its biological role as genetic sibling—derived from the same zygote, sharing identical DNA, yet differentiated in function and fate.

Cambodian tradition locates the origin of the baby’s soul within the placenta [33]. Its burial place is surrounded with protective spiked plants to guard this vulnerable soul-source from malevolent spirits. This recognition of the placenta as seat of soul or consciousness aligns with contemporary research on placental neurosteroid production and its role in shaping fetal brain development. What traditional cultures understood mythologically, molecular biology now describes mechanistically: the placenta is indeed the origin of crucial aspects of neural development and therefore, in a real sense, of the developing person’s psyche.

Balinese and Icelandic cultures conceptualize the placenta as the child’s guardian angel, a protective presence accompanying the person throughout life [33,34]. In Bali, placentas are enclosed in coconut shells and suspended in village graveyards, where hundreds of

placentas hanging from trees create a remarkable landscape of honored afterbirths, recently designated a national heritage site [33]. This practice of preserving placentas in communal space acknowledges their ongoing protective function—a recognition that the placenta’s influence extends beyond pregnancy into postnatal development and beyond.

From the perspective of embodied theology, these traditions recognize what I have termed the “dialectical presence” of the placenta—simultaneously present through its formative influence and absent through its physical separation [43]. The placenta exemplifies *tzimtzum* at the biological level: its withdrawal (through birth and separation) enables the child’s independent life, yet its influence remains inscribed in the child’s neurobiology, immune system, and metabolic functioning.



Figure E

The placenta as cosmic creative force

Perhaps most remarkably, several creation mythologies position placental matter as the primordial substance from which reality itself emerged. In Dogon cosmology from Burkina Faso, the creator deity Amma existed initially as an egg divided into four elements [44]. Within this cosmic egg developed two placentas, each containing twin spirits. When one twin broke free prematurely, Amma transformed a fragment of placenta into Earth itself [44]. The world we inhabit is, in this cosmology, placental tissue made solid—we dwell perpetually within the womb-space of creation.

This mythological vision captures a profound truth: the placenta is indeed world-creating. For each developing human, the placenta is the first environment, the primordial space within which consciousness emerges. Its hormones shape brain architecture, its immune negotiations teach the body tolerance and defense, its metabolic functions establish lifelong patterns of cellular communication. The placenta creates not merely a body but a world—the embodied self that will engage with all subsequent environments.

Celtic mythology describes the primordial mare Eiocha, born “white and made of sea-foam” at the place where ocean meets land [45]. Mythologists identify this sea-foam as symbolically equivalent to placental waters, the amniotic creative fluid from which life emerges. This archetype appears across multiple traditions: the Greek Aphrodite born from sea-foam (Aphros); the Andean creator deity Viracocha, whose name translates as “foam of the sea”; and numerous other traditions positioning creative emergence at aqueous, liminal, placental spaces [46].

The association of creation with sea-foam and placental waters recognizes the marine origins of terrestrial life and the amniotic ocean that still surrounds each developing human. The placenta maintains this connection to primordial waters, creating a space where the ancient evolutionary past continues to shape individual development. Every pregnancy recapitulates not merely phylogeny but cosmogony-the emergence of ordered life from primordial chaos.

Ritual practices: Honoring the placental interface

These mythological frameworks manifested in elaborate ritual practices for placental handling. Australian Aboriginal traditions involve twisting the umbilical cord into a necklace placed around the newborn's throat, symbolizing "a spiritual connection that will enable the child to learn the language of the sacred knowledge that reaches back like a spiralling cord to the great Ancestors and the beginning of time" [47]. This practice beautifully captures the placenta's role as connector across temporal and spiritual dimensions-linking individual life to ancestral lineage, present existence to primordial origins.

Turkish parents traditionally bury the placenta in locations aligned with aspirations for the child-a mosque courtyard for devotion, a stable for connection with animals-understanding burial site as shaping destiny [48]. Malaysian practice involves burying the placenta with books and pencils beneath the doorway, ensuring the child will develop scholarly diligence [49]. These practices recognize the placenta's ongoing influence on child development, expressing through ritual what contemporary research on fetal programming describes through epigenetics: early influences establish trajectories that shape lifelong patterns.

Hmong people believe the placenta maintains spiritual connection with the person throughout life; upon death, the soul must journey back to recover its placenta before proceeding to the ancestral realm [41]. This recognition of lifelong placental connection corresponds to contemporary understanding of fetal programming-the ways that placental function during gestation establishes metabolic, immunological, and neurological patterns that persist throughout the lifespan. The placenta remains present through its formative influence, even after physical separation-a biological form of *tzimtzum*.

Traditional wisdom and contemporary science

The remarkable consistency of placental reverence across cultures suggests these practices reflect genuine intuition about biological and spiritual reality [3]. Traditional societies, lacking microscopes and molecular biology, nevertheless recognized something profound that modern Western medicine has forgotten: the placenta is a being worthy of honor, a bridge between worlds, a keeper of destinies. This recognition finds validation in contemporary scientific understanding of placental functions-neuroendocrine regulation, immune education, epigenetic programming, metabolic orchestration.

From the perspective of embodied theology, these traditional practices demonstrate what I have elsewhere called "embodied wisdom"-knowledge that emerges not from abstract theorizing but from attentive engagement with lived experience [50]. Traditional birth attendants, observing thousands of births over generations, recognized patterns that scientific medicine is only now beginning to articulate: the placenta's condition predicts child outcomes, its treatment influences maternal recovery, its proper disposal honors the sacred character of life's emergence. This embodied wisdom deserves not dismissal as superstition but integration with scientific knowledge as complementary ways of understanding placental significance.

An embodied theology of the healing relationship

To bridge contemporary science and ancient wisdom, we require a theological framework capable of honoring embodied reality while acknowledging sacred dimensions of healing. The Kabbalistic concept of *tzimtzum*-divine contraction or self-limitation-offers such a framework [51,52].

According to Lurianic Kabbalah, before creation, infinite divine light (Ein Sof) filled all existence [53]. To allow for finite worlds and genuine free will, God contracted, withdrawing divine presence to create a “vacant void” (chalal panui) where independent being could emerge [53]. This primordial tzimtzum was not absence but a different mode of presence—one that makes space rather than filling it. The paradox at the heart of tzimtzum is that God’s withdrawal enables rather than diminishes creation. By contracting, God creates the condition for finite beings to exist as genuinely other, capable of relationship rather than absorption into undifferentiated divine unity.

Rabbi Menachem Mendel Schneerson, the seventh Lubavitcher Rebbe, radically reinterpreted tzimtzum, positioning divine contraction as enabling rather than limiting creation [54]. In Schneerson’s theology, God’s withdrawal creates the conditions for authentic relationship by establishing genuine otherness. Without tzimtzum, all would be absorbed into undifferentiated divine unity; with tzimtzum, the space for love, choice, and transformation emerges [55]. This theological vision finds biological expression in the placenta: two distinct beings maintained in intimate relationship through an organ that both separates and connects, that withdraws maternal presence while maintaining maternal support.

The therapeutic space as vacant void

Recent theological-clinical work has explored applying tzimtzum to therapeutic relationships [12,56]. In this framework, the physician must practice a form of divine contraction—temporarily withdrawing medical authority, expertise, and the impulse to fix in order to create space where the patient’s own wisdom, agency, and healing capacity can manifest. This withdrawal is not abandonment. Like God’s tzimtzum, which creates space while remaining intimately present, the physician’s contraction establishes a different quality of presence—one characterized by deep listening, patient accompaniment, and trust in the body’s inherent healing wisdom [57].

The therapeutic space becomes a “vacant void” pregnant with possibility, where transformation occurs in the liminal zone between healer and patient rather than through unilateral expert intervention. This model transforms medical practice from a paradigm of expert intervention to one of skilled accompaniment, from technical control to artful collaboration, from fixing to facilitating [37]. As I have argued in my work on therapeutic presence, the physician’s capacity to create space paradoxically increases therapeutic effectiveness by allowing the patient’s own healing capacities to emerge [58].

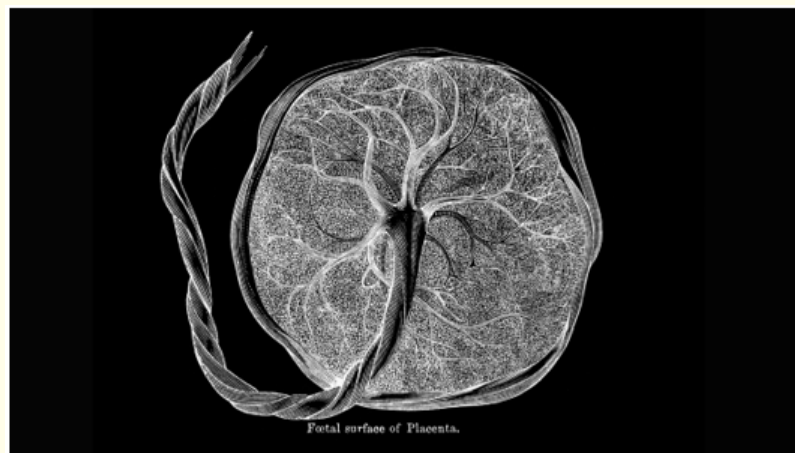


Figure F

The physician as placental presence

The placenta offers a biological model for this theological concept. Neither purely maternal nor fetal, the placenta exists in liminal space, mediating exchange while maintaining necessary boundaries [29]. It facilitates without controlling, responds without imposing, protects while preparing for separation. The physician practicing *tzimtzum* similarly positions themselves as interface rather than authority, creating conditions for healing rather than attempting to directly produce it [37].

This placental model suggests the healer's role involves several key functions, each paralleling placental biology:

- **Sensing and responding:** Sensing and responding to the patient's environment, stress, and needs with the adaptive plasticity the placenta demonstrates in adjusting hormone production to maternal conditions [30]. Just as the placenta responds to maternal cortisol levels by altering neurosteroid production, the physician must develop sensitivity to subtle cues about patient wellbeing that extend beyond conventional vital signs and laboratory values. This requires what I have elsewhere termed "embodied clinical practice"-an attunement to the patient's somatic presentation that incorporates interoceptive awareness alongside objective measurement [35].
- **Facilitating exchange:** Facilitating exchange of beneficial resources (information, care, presence) while filtering potentially harmful elements (unnecessary intervention, reductionist diagnosis, depersonalization) as the placenta selectively permits and restricts molecular traffic [29]. The physician must develop discernment about what to offer and what to withhold, recognizing that too much intervention can harm as surely as too little. This selective permeability requires wisdom about timing, dosage, and appropriateness of therapeutic offerings [59].
- **Providing immunological tolerance:** Providing immunological tolerance, teaching the healthcare system to recognize and honor the patient's uniqueness rather than rejecting what doesn't conform to standardized protocols, mirroring the placenta's negotiation of maternal tolerance for fetal foreignness [36]. In my work on healthcare system transformation, I have argued that organizational change requires developing institutional capacity for honoring patient particularity rather than forcing conformity to rigid protocols [60]. The placenta's immune function provides a biological model for this systemic flexibility.
- **Maintaining connection while facilitating independence:** Maintaining connection while facilitating independence like the placenta that sustains throughout gestation while preparing for natural separation at term [31]. The therapeutic relationship must balance support with autonomy-promotion, recognizing that the goal is not perpetual dependence but the patient's capacity for self-care. This mirrors the placenta's developmental trajectory: increasingly sophisticated support followed by relinquishment.
- **Accepting necessary imperfection:** Accepting necessary imperfection recognizing that healing, like placental function, often requires embracing rather than eliminating all irregularities-a lesson from the chromosomally unstable yet highly functional placenta [40]. The physician must develop tolerance for ambiguity and incompleteness, resisting medicine's drive toward perfect standardization. As I have argued in my work on the nature of healing, clinical perfectionism can paradoxically impede recovery by demanding levels of homeostatic stability that biological systems rarely achieve [61].

Therapeutic encounter with mystery

The concept of "NOT-God"-a space where divine absence is palpably felt without complete abandonment of faith-offers additional resources for medical practice [62]. Developed in post-Holocaust Jewish theology, this framework acknowledges suffering that exceeds explanation while maintaining commitment to healing that doesn't depend on understanding ultimate causes [63]. This theological position transforms medical practice by establishing the physician-patient relationship as "dialectical presence"-a space where healer and patient encounter mystery together, abandoning the illusion of medical omniscience in favor of shared vulnerability [43].

Both parties acknowledge limits while fully engaging with suffering, holding scientific rigor and spiritual humility without requiring their intellectual reconciliation. This approach proves particularly relevant in obstetrics and maternal-fetal medicine. We cannot fully explain why some pregnancies fail, why certain placentas become dysfunctional, why specific births result in trauma despite optimal care [29]. The placenta itself, with its tolerance for chromosomal instability and creative imperfection, models acceptance of what cannot be perfected or controlled—a biological *zimzum* that makes space for life despite inevitable imperfection.

In my clinical work with patients experiencing pregnancy loss and complicated births, I have found that the capacity to remain present to suffering without requiring explanation or resolution constitutes essential therapeutic skill [64]. The physician who can acknowledge medical limits while maintaining commitment to accompaniment mirrors the placenta's function: providing support within constraints, facilitating what can be facilitated while accepting what cannot be controlled, making space for grief and uncertainty while maintaining presence.

Reimagining doctor-patient relationships through placental medicine

Integrating placental science, ancient wisdom, and embodied theology suggests moving from hierarchical medical models toward what might be termed “placental medicine”—an approach characterized by bidirectional communication, adaptive responsiveness, and reverence for the sacred dimensions of embodied existence [37]. This transformation requires concrete changes in clinical practice that honor the placental principle across multiple domains of medical care.

Just as the placenta engages in constant bidirectional communication—maternal signals influencing placental function, placental hormones influencing maternal physiology—medicine must move from hierarchical transmission of expertise to genuine dialogue. This requires deep listening to what the patient's body, story, and intuition reveal, recognizing these as epistemologically valid alongside laboratory data and imaging studies [35]. As I have argued in my work on the patient history, the patient's narrative constitutes a form of embodied knowledge that cannot be reduced to objective findings but must be honored as complementary and equally essential [65].

Honoring placental agency

In prenatal care, the placenta should be discussed not merely as an organ of clinical interest but as the baby's companion and the mother's co-creator [7]. Placental ultrasound examinations can become opportunities to acknowledge this relationship, helping parents recognize the placenta's active role in shaping their child's development. Rather than presenting the placenta as a passive support system requiring only monitoring for dysfunction, clinicians can educate parents about the placenta's extraordinary capacities—its sensing of maternal wellbeing, its production of neurosteroids that shape fetal brain development, its immune negotiations that protect the pregnancy.

When placental complications arise—intrauterine growth restriction, preeclampsia, placental insufficiency—framing these conditions as the placenta's adaptive responses to difficult conditions rather than simple mechanical failures opens therapeutic possibilities [29]. Inquiry shifts from “what is wrong with the placenta?” to “what environmental, nutritional, or relational factors might be addressed to support placental function?” This reframing recognizes the placenta as agent rather than object, as responsive system rather than passive structure.

At delivery, whenever medically appropriate, honoring natural timing of placental separation rather than rushing cord clamping recognizes this final act of placental service [66]. Delayed cord clamping, now increasingly evidence-based practice, aligns with traditional wisdom about allowing natural completion of the placental relationship. The rush to separate mother and baby, to cut the cord immediately, reflects modern medicine's discomfort with liminal states and transitional processes—a discomfort that may not serve biological or psychological wellbeing [61].

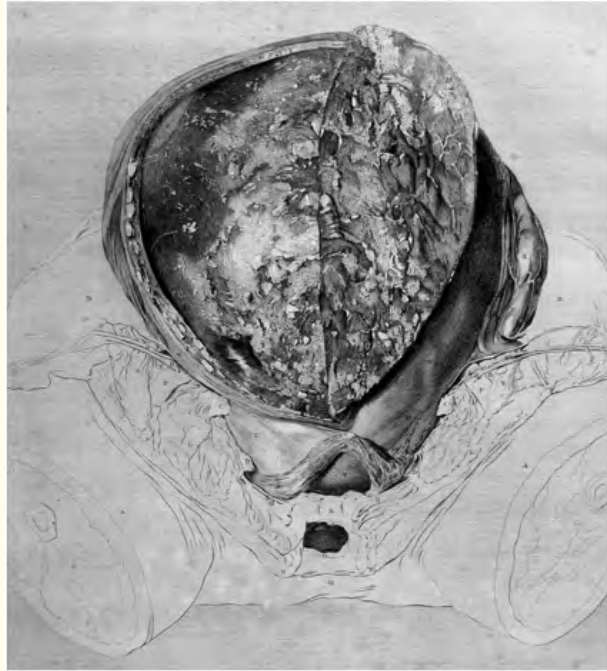


Figure 1: *The human placenta as depicted in William Hunter's The Gravid Uterus of 1774. Plate V shows an opened uterus at full-term, with the placenta folded to the right and decidua attached to the uterine wall on the left.*

Placental pathology and loss: Creating space for ritual and grief

When pregnancy loss or complications require placental pathological examination, offering parents the opportunity to learn about, see, or ritualize their relationship with the placenta honors both scientific investigation and emotional-spiritual needs [67]. Many parents find meaning in understanding what the placenta reveals about their pregnancy while also needing acknowledgment of loss that extends beyond the embryo or fetus to include the placental companion. Creating space for ritual—whether religious, cultural, or personally meaningful—around placental disposal after pregnancy loss or complication provides opportunity for grief processing that contemporary Western medicine typically fails to accommodate [34].

In my clinical work with bereaved parents, I have found that including the placenta in mourning rituals allows for recognition of the full scope of loss [64]. The placenta's presence makes tangible the life that was developing, the relationship that existed, the potential that remains unrealized. Traditional practices of honoring the placenta after loss demonstrate wisdom that scientific medicine often overlooks: that ritual acknowledgment facilitates healing in ways that purely biomedical interventions cannot achieve.

Broader therapeutic applications

The placental-tzimtzum model extends beyond obstetrics to general therapeutic relationships. Physicians practicing this approach cultivate several key capacities:

- **Deep listening:** Deep listening to what the patient's body, narrative, and intuition reveal, recognizing these as epistemologically valid alongside laboratory data and imaging studies [35]. This requires setting aside the physician's own diagnostic hypotheses long enough to truly hear what the patient knows about their own condition. As I have argued in my work on clinical epistemology, the patient possesses forms of knowledge about their illness that the physician cannot access through examination or testing-embodied knowledge that must be honored as authoritative rather than dismissed as merely subjective [12].
- **Allowing convalescence and integration:** Allowing convalescence and integration resisting contemporary medicine's rush toward next intervention by honoring the necessity of in-between time when healing consolidates-a practice largely lost in modern healthcare [61]. The body's healing processes operate on biological timescales that often exceed the artificial deadlines imposed by insurance authorization periods or clinical protocols. Placental medicine recognizes that forcing premature resolution often impedes rather than facilitates recovery.
- **Recognizing the sacred in ordinary encounters:** Recognizing the sacred in ordinary encounters understanding that routine office visits can become sites of transformation when approached with reverence and full presence [58]. Every clinical encounter constitutes a potential threshold moment where healing-understood broadly as movement toward wholeness-can occur. This requires the physician to bring meditative attention to even mundane interactions, recognizing that presence itself constitutes therapeutic intervention [56].
- **Honoring embodied wisdom:** Honoring embodied wisdom trusting that the body knows how to heal much as it knows how to grow a placenta or birth a child. The physician's role becomes creating conditions where this innate wisdom functions rather than imposing external control [50]. This requires profound faith in biological self-organizing capacities-faith often eroded by medical training that emphasizes intervention over observation, control over collaboration.

Healing as justice

Drawing upon liberation medicine and accompaniment frameworks developed by Paul Farmer and others, placental medicine recognizes that healing occurs through sustained presence across time rather than isolated interventions [68]. Like the placenta that remains connected throughout gestation, authentic healing relationships require commitment to walking alongside patients through uncertainty. This proves particularly crucial for marginalized communities experiencing healthcare disparities rooted in structural violence and systemic racism [69].

The placenta protects the fetus from maternal stress and toxins but cannot overcome all environmental harms; its capacity for protection has limits set by external conditions [38]. Similarly, even the most devoted physician cannot eliminate structural injustice, but can practice "embodied witnessing"-a form of presence that acknowledges suffering and advocates for systemic change while providing maximal care within existing constraints [70]. As I have argued in my work on healing as justice, individual clinical excellence cannot substitute for structural reform, yet individual therapeutic relationships remain essential sites where dignity is honored and personhood affirmed despite dehumanizing systems [37].

The placental model suggests that healthcare justice requires attention to the conditions that support or undermine the "maternal-patient system". Just as placental function depends on adequate maternal nutrition, rest, and freedom from toxic stress, patient healing depends on social determinants of health-housing, food security, safety, community support [71]. Physicians committed to placental medicine must therefore engage in advocacy and system change alongside individual patient care, recognizing that the therapeutic relationship exists within broader ecologies of support or harm.

Conclusion

This essay's integration of empirical science, mythological wisdom, and theological reflection exemplifies what might be termed epistemological pluralism-the recognition that different knowledge systems illuminate different dimensions of reality, and that synthetic approaches generate insights unavailable to any single methodology [59]. Contemporary placental science reveals biological mechanisms with remarkable precision, yet remained until recently blind to the placenta's full functional complexity. Ancient mythologies, lacking molecular biology, nevertheless intuited the placenta's significance and developed practices that may have genuine protective effects currently dismissed as superstition. Embodied theology offers frameworks for holding paradox-presence within absence, connection amid separation, perfection through imperfection-that prove essential for navigating the irreducible mysteries of healing.

Medical education typically treats these domains as mutually exclusive: empirical science belongs to medicine, mythology to anthropology, theology to religious studies. This disciplinary segregation impoverishes all three fields and, more consequentially, limits medical practice to a truncated vision of human possibility [72]. The history of placental science itself demonstrates that knowledge emerges at interfaces-between anatomical study and physiological insight, between clinical observation and molecular analysis, between mechanistic understanding and holistic comprehension.

Limitations and Future Directions

Several potential objections to this integrative approach merit consideration. First, critics may argue that introducing mythological and theological frameworks into medical practice risks regressing toward pre-scientific mysticism, potentially undermining evidence-based medicine's legitimate achievements. This concern deserves serious engagement. The proposal here is not to replace scientific methodology with mythological thinking, but rather to contextualize scientific findings within broader frameworks of meaning that honor dimensions of human experience resistant to quantification. Placental medicine maintains scientific rigor while acknowledging that human flourishing involves more than optimal biomarkers.

Second, the application of Kabbalistic concepts to clinical practice may seem culturally specific, raising questions about applicability across diverse patient populations. However, *tzimtzum* functions here as one instantiation of a broader principle-self-limitation creating space for otherness-that appears across multiple wisdom traditions. The specific theological language matters less than the relational structure it describes. Buddhist concepts of emptiness, Taoist notions of *Wu Wei*, Christian kenotic theology-all describe similar dynamics of creative withdrawal and space-making presence.

Third, skeptics may question whether placental reverence represents genuine wisdom or merely reflects pre-scientific misunderstanding of biology. The cross-cultural consistency of placental honor, however, combined with contemporary science's validation of placental complexity, suggests these traditions recognized something real that mechanistic medicine temporarily forgot. Traditional practices deserve not uncritical adoption but respectful consideration as potentially encoding embodied wisdom that complements scientific knowledge.

Several research directions emerge from this synthesis: Empirical investigation of whether integrating mythological-theological frameworks into prenatal education affects maternal attachment, birth outcomes, or postpartum mental health. Do parents who conceptualize the placenta as living companion experience pregnancy differently than those taught purely mechanistic models? Anthropological documentation of traditional placental practices among contemporary traditional communities, with particular attention to potential health effects and possibilities for cultural preservation. Theological-clinical studies exploring how *tzimtzum*-informed therapeutic relationships affect patient outcomes, physician satisfaction, and healthcare system efficiency. Does creating space for patient agency paradoxically improve clinical results? Philosophical investigation of how embodied theology might address contemporary bioethical challenges including reproductive justice, end-of-life care, and healthcare resource allocation.

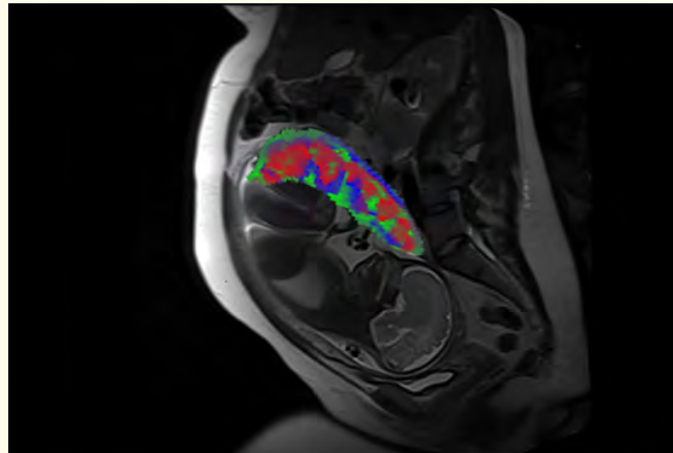


Figure 2: MRI scan showing the fetus and placental compartments-intervillous space (red), placental vessels (green), and placental tissue (blue). Credit: Wang Lab, Washington University in St. Louis.

The placenta's enduring lessons

Several potential objections to this integrative approach merit consideration. First, critics may argue that introducing mythological and theological frameworks into medical practice risks regressing toward pre-scientific mysticism, potentially undermining evidence-based medicine's legitimate achievements. This concern deserves serious engagement. The proposal here is not to replace scientific methodology with mythological thinking, but rather to contextualize scientific findings within broader frameworks of meaning that honor dimensions of human experience resistant to quantification. Placental medicine maintains scientific rigor while acknowledging that human flourishing involves more than optimal biomarkers.

Second, the application of Kabbalistic concepts to clinical practice may seem culturally specific, raising questions about applicability across diverse patient populations. However, *tzimtzum* functions here as one instantiation of a broader principle-self-limitation creating space for otherness-that appears across multiple wisdom traditions. The specific theological language matters less than the relational structure it describes. Buddhist concepts of emptiness, Taoist notions of *Wu Wei*, Christian kenotic theology-all describe similar dynamics of creative withdrawal and space-making presence [73].

Third, skeptics may question whether placental reverence represents genuine wisdom or merely reflects pre-scientific misunderstanding of biology. The cross-cultural consistency of placental honor, however, combined with contemporary science's validation of placental complexity, suggests these traditions recognized something real that mechanistic medicine temporarily forgot. Traditional practices deserve not uncritical adoption but respectful consideration as potentially encoding embodied wisdom that complements scientific knowledge.

Several research directions emerge from this synthesis: Empirical investigation of whether integrating mythological-theological frameworks into prenatal education affects maternal attachment, birth outcomes, or postpartum mental health. Do parents who conceptualize the placenta as living companion experience pregnancy differently than those taught purely mechanistic models? Anthropological documentation of traditional placental practices among contemporary traditional communities, with particular attention to potential health effects and possibilities for cultural preservation. Theological-clinical studies exploring how *tzimtzum*-informed

therapeutic relationships affect patient outcomes, physician satisfaction, and healthcare system efficiency. Does creating space for patient agency paradoxically improve clinical results? Philosophical investigation of how embodied theology might address contemporary bioethical challenges including reproductive justice, end-of-life care, and healthcare resource allocation [34].

Toward placental medicine: An invitation

Contemporary medicine stands at a crossroads. One path continues deepening technical sophistication while further impoverishing the healing encounter's relational and spiritual dimensions. The other path integrates scientific rigor with mythological wisdom and theological depth, moving toward what this essay terms placental medicine-an approach that honors both empirical reality and sacred meaning, both biological mechanism and embodied experience.

The placenta, that humble organ routinely discarded as medical waste, offers a map for this second path. In recognizing its full nature-biological, mythological, theological-we glimpse what healthcare might become: an embodied practice honoring the sacred in flesh, the divine in the clinical, the eternal in the ephemeral dance of cells and souls meeting in the space between.

Just as the placenta sustains life while preparing for separation, authentic medical practice sustains patients while fostering their independence. Just as ancient cultures ritualized placental disposal to honor its service, modern medicine must develop new rituals that acknowledge the sacred dimensions of healing encounters. Just as the placenta mediates between distinct beings through adaptive responsiveness rather than rigid control, physicians must learn to practice at interfaces-between knowing and not-knowing, between intervention and accompaniment, between fixing and facilitating.

The placenta is a 1-pound mass of tissue and also a cosmic egg, a guardian angel, a divine contraction making space for new life. In recognizing its full nature we may glimpse what we ourselves are called to become: living interfaces where different worlds meet, where the infinite embraces the finite, where life emerges through the creative space between presence and absence, connection and separation, science and spirit.

Note

This article integrates research from "Latest Research on the Function of the Placenta (2023-2025)" and "Some Historical Aspects of Understanding Placental Development, Structure and Function" (Longo & Reynolds, 2009) with cross-cultural anthropological studies of placental mythology and the embodied theological framework developed by Julian Ungar-Sargon, MD, PhD, available at www.jyungar.com. It represents an attempt to reunify what modernity has separated: body and spirit, science and meaning, clinical practice and sacred encounter.

Bibliography

1. Ungar-Sargon J. "Worn out philosophical ideas still pervade the practice of medicine: the Cartesian split lives on". *International Journal of Physical Medication and Rehabilitation* 1.3 (2024): 1-10.
2. Ungar-Sargon J. "Beyond chemical reductionism: how new depression research supports embodied medicine". *American Journal of Medical and Clinical Research and Reviews* 4.8 (2025): 1-17.
3. Young SM and Benyshek DC. "In search of human placentophagy: a cross-cultural survey of human placenta consumption, disposal practices, and cultural beliefs". *Ecology of Food and Nutrition* 49.6 (2010): 467-484.

4. Longo LD and Reynolds LP. "Some historical aspects of understanding placental development, structure and function". *International Journal of Developmental Biology* 54.2-3 (2010): 237-255.
5. Ploss HH., *et al.* "Woman: an historical, gynaecological and anthropological compendium". (Ed. EJ Dingwall). London: W Heinemann (1935).
6. Stirrat GM. "The bundle of life - the placenta in ancient history and modern science". In: *The Yearbook of Obstetrics and Gynaecology*. (Ed. PM Shaughn O'Brien). Volume 6. London: Royal College of Obstetricians and Gynaecologists (1998): 1-14.
7. Pique-Regi R., *et al.* "A single-cell atlas of the maternal-fetal interface". *Nature* (2024).
8. Burton GJ and Charnock-Jones DS. "Placental vascular remodeling and disease". *Placenta* (2023).
9. Guthrie P. "Many cultures revere placenta, byproduct of childbirth". Cox News Service (1999).
10. Long CE. "The placenta in lore and legend". *Bulletin of The Medical Library Association* 51.2 (1963): 233-241.
11. Corner GW. "Exploring the placental maze. The development of our knowledge of the relation between the bloodstreams of mother and infant in utero". *American Journal of Obstetrics and Gynecology* 86 (1963): 408-418.
12. Ungar-Sargon J. "Epistemology versus ontology in therapeutic practice: the tzimtzum model and doctor-patient relationships". *Advanced Medical and Clinical Research* 6.1 (2025): 94-101.
13. Ungar-Sargon J. "Divine presence and concealment in the therapeutic space". *EC Neurology* 17.5 (2025): 01-13.
14. Aristotle. "Opera, edidit Academia Regia Borussica". 5 volumes. Berlin: Reimer (1831-1870).
15. Galenus C. "Opera Omnia. Corpus Medicorum Graecorum V". Berlin: Akademie-Verlag (1914).
16. Da Vinci L. "Quaderni D'anatomia". Volume III. Fogli della Royal Library di Windsor, Organi della Generazione, Embrione. (Eds. CL Vangensten, AM Fonahn, H Hopstock). Christiania: J Dybwad (1913).
17. O'Malley CD and Saunders CM. "Leonardo da Vinci on the human body". New York: Henry Schuman (1952).
18. Vesalius A. "De humani corporis fabrica libri septum". Basel: ex officina Ioannis Oporini (1543).
19. Vesalius A. "De humani corporis fabrica libri septum". Basel: J Oporinus (1555).
20. Aranzi GC. *De humano foetu libellus*. Bologna: Ex officina Joannis Rubrii (1564).
21. Harvey W. "Exercitatio anatomica de motu cordis et sanguinis in animalibus". Frankfurt: sumpt Guilielmi Fitzeri (1628).
22. Harvey W. "Anatomical exercitations, concerning the generation of living creatures". London: Printed by James Young (1653).
23. Barron DH. "A history of fetal respiration: From Harvey's Question (1651) to Zweifel's Answer (1876)". In: *Fetal and Newborn Cardiovascular Physiology*. Volume 1, Developmental aspects. (Eds. LD Longo, DD Reneau). New York: Garland STPM Press (1978): 1-32.
24. Mayow J. "Tractatus quinque medico-physici". Oxford: E Theatro Sheldoniano (1674).
25. Monro A. "An essay on the nutrition of foetuses". *Edinburgh Medical Ess Observed* 2 (1734): 121-224.
26. Hunter W. "Anatomia uteri humani gravidi tabulis illustrata". London: Prostant apud S Baker, T Cadell, D Wilson, T Nicol, and J Murray (1774).

27. Hunter W. "An anatomical description of the human gravid uterus, and its contents". (Ed. M Baillie). London: J Johnson and G Nicol (1794).
28. Kaufmann P and Frank H-G. "Placental development". In: Fetal and Neonatal Physiology. Volume 1, 3rd Edition. (Eds. RA Polin, WW Fox, SH Abman). Philadelphia: Saunders Co. (2004): 85-97.
29. Burton GJ and Charnock-Jones DS. "Placental vascular remodeling and disease". *Placenta* (2023).
30. St-Pierre J., *et al.* "Endocrine pathways linking placenta and fetal brain development". *Cell Metabolism* (2024).
31. Exton AE, *et al.* "Artificial placenta systems and fetal physiology". *American Journal of Obstetrics and Gynecology* (2025).
32. Seligmann CG and Murray MA. "Note upon an early Egyptian standard". Man. Volume 11. London: Royal Anthropological Society of Great Britain and Ireland (1911): 165-171.
33. Ben-Senior L. "Cultural beliefs honor placenta [Internet]". Parents Guide Cord Blood (2020).
34. Cassidy T. "The rebirth of placenta rituals". Sapiens (2023).
35. Ungar-Sargon J. "The science of interoception and unconscious bias in healthcare: a call for embodied clinical practice". *Neurology and Neuroscience* 6.6 (2025): 026.
36. Southcombe JH., *et al.* "Extracellular vesicle signaling at the maternal-fetal interface". *Frontiers in Immunology* (2024).
37. Ungar-Sargon J. "A framework for transformative healthcare practice". *American Journal of Medical and Clinical Research and Reviews* 4.7 (2025): 1-40.
38. Marsit CJ. "Placental epigenome as a mediator of environmental programming". *Nature Reviews Endocrinology* (2025).
39. Ben-Senior L. "Cultural beliefs honor placenta". Parents Guide Cord Blood (2020).
40. Turco MY and Moffett A. "Placental organoids and early human development". *Developmental Cell* (2025).
41. Helsel DG and Mochel M. "Afterbirths in the afterlife: cultural meaning of placental disposal in a Hmong American community". *Journal of Transcultural Nursing* 13.4 (2002): 282-286.
42. Longo LD. "Socio-cultural practices relating to obstetrics and gynecology in a community of West Africa". *American Journal of Obstetrics and Gynecology* 89.4 (1964): 470-475.
43. Ungar-Sargon J. "Divine presence and concealment in the therapeutic space". *EC Neurology* 17.5 (2025): 01-13.
44. Griaule M and Dieterlen G. "The Dogon". In: African worlds: studies in the cosmological ideas and social values of African peoples. London: Oxford University Press (1954).
45. Mackenzie DA. "Scottish wonder tales from myth and legend". New York: Dover Publications (1997).
46. Andrews T. "Dictionary of nature myths: legends of the earth, sea, and sky". Oxford: Oxford University Press (2000).
47. Lawlor R. "Voices of the first day: awakening in the Aboriginal dreamtime". Rochester: Inner Traditions (1991).
48. Republic of Turkey Ministry of Culture and Tourism. Birth traditions [Internet]. Ankara: Ministry of Culture and Tourism (2025).
49. Official Website of the National Department for Culture and Arts, Ministry of Tourism Malaysia. Malay community [Internet]. Kuala Lumpur: Ministry of Tourism (2025).

50. Ungar-Sargon J. "Archetypal and embodied approaches to medical practice: a critical analysis of challenges to biomedical orthodoxy". *Journal of Psychology and Neuroscience* 7.3 (2025): 1-16.
51. Scholem G. "Major trends in Jewish mysticism". New York: Schocken Books (1995).
52. Scholem G. "Kabbalah". Jerusalem: Keter Publishing House (1974).
53. Luzzatto MC. "Derech Hashem (The way of God)". Jerusalem: Feldheim Publishers (1997).
54. Schneerson MM. "Hemshech Samech Vav". Brooklyn: Kehot Publication Society (1906).
55. Loewenthal N. "Communicating the infinite: the emergence of the Habad school". Chicago: University of Chicago Press (1990).
56. Ungar-Sargon J. "Primordial silence and therapeutic presence: theodicy and the paradox of divine concealment in clinical practice". *Biomedical Science and Clinical Research* 4.2 (2025): 01-10.
57. Ungar-Sargon J. "Insubstantial language and the space between healer and patient". *International Journal of Psychiatry Research* 8.2 (2025): 1-13.
58. Ungar-Sargon J. "Sacred utterances: terminal utterances and the embodied theology of medical practice". *Journal of Clinical Review and Case Reports* 10.8 (2025): 1-7.
59. Ungar-Sargon J. "From medical orthodoxy to dialogical practice: applying theological models of creative engagement to contemporary healthcare". *Advance Medical and Clinical Research* 5.4 (2024): 1-18.
60. Ungar-Sargon J. "Transforming healthcare hierarchical systems through token economy interventions: a behavioral approach to organizational change". *Trends in General Medicine* 3.2 (2025): 1-9.
61. Ungar-Sargon J. "Between illness and health: what happened to convalescence?" Dominican University (2024).
62. Ungar-Sargon J. "Beyond theodicy: the physician's existential crisis". *Advance Medical and Clinical Research* 6.1 (2025): 102-105.
63. Ungar-Sargon J. "The dialectical divine: tzimtzum and the parabolic theology of human suffering". *Journal of Religion and Theology* 7.2 (2024): 1-45.
64. Ungar-Sargon J. "Prolonged grief disorder: treatment approaches and the spiritual dimensions of healing". *Addiction Research* 9.1 (2025): 1-7.
65. Ungar-Sargon J. "The patient history-reimagining the body in illness". Dominican University (2024).
66. McDonald SJ, et al. "Effect of timing of umbilical cord clamping of term infants on maternal and neonatal outcomes". *Cochrane Database of Systematic Reviews* 7 (2013): CD004074.
67. Heazell AE, et al. "Research priorities for stillbirth: process overview and results from UK Stillbirth Priority Setting Partnership". *Ultrasound in Obstetrics and Gynecology* 46.6 (2015): 641-647.
68. Farmer P. "Pathologies of power: health, human rights, and the new war on the poor". Berkeley: University of California Press (2003).
69. Bailey ZD, et al. "Structural racism and health inequities in the USA: evidence and interventions". *Lancet* 389.10077 (2017): 1453-1463.
70. Scheper-Hughes N. "The primacy of the ethical: propositions for a militant anthropology". *Current Anthropology* 36.3 (1995): 409-440.

71. Ungar-Sargon J. "Patient autonomy and co-creation: evidence-based approaches to designing healing environments". *Journal of Psychology and Neuroscience* 7.1 (2025): 1-12.
72. Ungar-Sargon J. "Reclaiming the sacred in medicine: toward an integration of ancient wisdom and modern science in healthcare". *Journal of Behavioral Health* 13.3 (2024): 1-15.
73. Ungar-Sargon J. "Chesed and Gevurah and the Tzimtzum-between mercy and judgment in the theology of healing". *Journal of Psychology and Neuroscience* 7.3 (2025): 1-12.

Volume 17 Issue 11 November 2025

©All rights reserved by Julian Ungar-Sargon MD PhD.