The Association for Prenatal and Perinatal Psychology and Health
Journal of Prenatal & Perinatal Psychology & Health
ISSN: 1097-8003
Winter 2024, Vol. 38, No. 3
http://doi.org/10.62858/apph241204

The Primary Cell Model: Linking Prenatal Development and Intracellular Biology to Psychology and Consciousness

Kirsten Lykkegaard, DVM, PhD, Mary Pellicer, MD, Grant McFetridge, PhD

In this paper, we introduce an entirely new model of psychobiology. Unexpected discoveries are often made by combining different fields of knowledge. Here, prenatal psychology was combined with developmental and cell biology to yield a surprisingly simple yet profoundly important intracellular (subcellular) psychobiology theory. Like many discoveries, this one took us completely by surprise. It explained many puzzling observations in psychology and medicine and has led to effective therapeutic applications.

Our breakthrough was realizing that the sensations, feelings, and perceptions inside a single, unique totipotent cell are superimposed on our everyday bodily experience. We have called this unique cell the *primary cell*. It forms at the fourth cell division after conception and remains with us our entire life. Thus, this cell links psychology to intracellular biology, and its existence has profound implications in both evolutionary biology and understanding the intracellular biology of consciousness itself.

This paper presents part one of a three-part series, sharing real-life experiences that ultimately resulted in the development of the primary cell model. By utilizing various viewpoints and techniques from different fields, some of which are not widely known, we aim to provide insight into the key

The Institute for the Study of Peak States was founded in Canada in 1998 by Grant McFetridge, PhD (ORCID: 0000-0002-8917-6613). This privately funded international research, training, and clinical institute focused on understanding the psychobiology behind exceptional mental and physical wellness. Kirsten Lykkegaard, DVM, PhD (ORCID: 0000-0001-7602-1578) directs the fundamental research team, and Mary Pellicer, MD (ORCID: 0000-0002-5335-7957) directs the psychoimmunology applications team. We have published five textbooks so far; in particular, the *Subcellular Psychobiology Diagnosis Handbook* (2014) for trauma therapists covers diagnosis and treatment for several intracellular diseases. Many talented volunteers did this work without funding as part of the research efforts of the Institute. This paper is dedicated to our inspiring research colleague and close friend, Adam Waisel MD (Israel), who died of a heart attack in 2006. Please address all correspondence to kirsten@peakstates.com and learn more at PeakStates.com.

moments that shaped our decade-long journey of discovery. These stories will help you understand how we made our observations and conclusions.

In the next issue of *JOPPPAH,* part two will show how a broader theory of subcellular psychobiology is built from the primary cell model. Extraordinary claims require extraordinary proof, and the best proof is empirical. Thus, in part three, we will explain how the subcellular psychobiology theory is used to derive disease treatments. We recognize that this theory will be controversial. Because of its novelty, we are unaware of any preexisting peer-reviewed publications. Our hope for this paper is that you will be inspired to explore its ramifications and profound implications.

The Primary Cell: Puzzling Observations

It all started with a suicide. In 1997, one of Dr. McFetridge's closest friends unexpectedly hung herself. I (Grant) was devastated. Along with my feelings of loss, grief, and regret, I found myself deeply drawn to the question, "What is death?" If this had happened decades earlier, there would have been no story to tell. Instead, in the 1980s and 1990s, the fields of humanistic and transpersonal psychology flourished, and one of the drivers of this was the Holotropic Breathwork technique, developed by Stanislav Grof, MD. This technique, involving music and long hyperventilation, was routinely used to explore the unconscious psyche, so I tried it (Grof & Grof, 2023).

If you have not been exposed to the extensive literature on regression therapy, the phenomenon of prenatal cellular memory, and developmental psychobiology, we kindly direct your attention to the references at the end of this paper (Farrant, 1986; Farrant & Larimore, 1995; Gabriel & Gabriel, 1992; Janov, 1991; Linn et al., 1999; Noble, 1993; Verny & Kelly, 1982).

My therapist picked the right piece of music by talent or luck. I suddenly found myself caught in an experience of death and dying as I dramatically relived the splitting of my sperm head inside the egg during conception. As he continued to replay the music, I remember thinking, "Oh no, not again!" as new intense feelings of death and dying arose, pulling me into reliving my fourth cell division compaction event (Iwata et al., 2014). All the cells of my zygote body felt like they were dying as my awareness consolidated into just one of those 16 cells. At this point, my therapist had enough of my screaming and turned off the music to end our session. It felt like being repeatedly run over by a bus. However, this compaction experience would be a key piece of the puzzle.

The next key event happened in a sweat lodge. In the summer of 2002, Dr. McFetridge attended a First Nations sweat lodge ceremony led by J. C. Lucas at Kakawis on Meares Island, BC. To increase his chances of having something significant happen, he asked Dr. Willo Walker to give him acupuncture just before the sweat. Later, Willo would say he had chosen spiritual points to needle. For those who have never attended a sweat lodge, there are rounds of chanting; it is pitch black inside, and you are packed together like sardines in a claustrophobic space. The heat, lack of outside air, and smoke from burning herbs can make one feel suffocated, with red hot rocks glowing in a pit in the dirt. As a participant, you find sweat running off your body in streams, bent over with your nose in the dirt, trying to find some cooler air to breathe.

However, this time was different. About halfway through, I (Grant) suddenly felt like I had a lot of room around me. Above me were stars, and in the distance were Stonehenge-like stone monoliths. After the ceremony, I still saw things superimposed on my normal surroundings. I felt perfectly fine (still feeling like there was lots of room around me), and I found it all very intriguing. I assumed I had entered a strange spiritual state and immediately contacted my colleagues at the Institute, Adam Waisel, MD (Israel), and Mary Pellicer, MD (USA). With some experimentation, we discovered that they could also duplicate this state in themselves. This state would prove to be permanent.

So, what were we all observing? By simply shifting our attention, our default viewpoint became one of being suspended in lightly fogged air. With some experimentation, we could move, expand, or contract our viewpoint to look more closely at objects in this space. The most obvious features were crumpled bags linked by a thin string. Pulling back to get an overview, we saw the sea floor with many strings sticking out. We spent time trying to find uses for this state; we soon found that we could pull out a string, and an emotionally traumatic feeling would vanish out of our everyday awareness. However, pulling out these strings ended up being a very bad idea.

Building the Primary Cell Model

After several months of steady work, we (Dr. Waisel, Dr. McFetridge, and Dr. Pellicer) finally realized that we were seeing the inside of a cell. The gray fog was the cytoplasm; the sea floor was the nuclear membrane, and the crumpled bags were ribosomes linked by mRNA. We were so slow in making

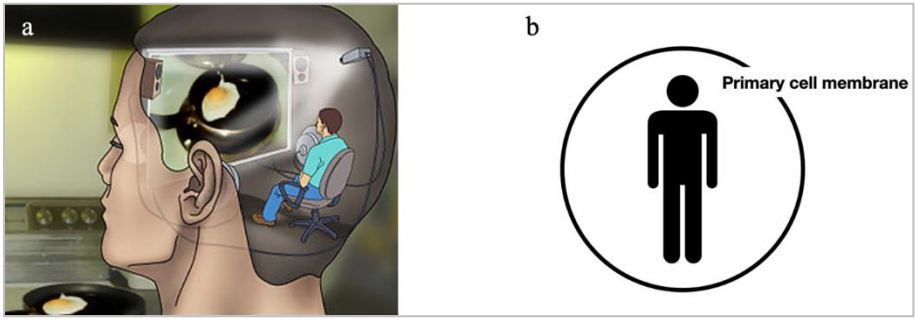
the connection because what we saw in 3D was very different from the flat, thinly sliced electron microscope images with which we were familiar.

If true, the key question was, “Which cell are we in? Were we each in a different, random cell in our body, a brain cell, or something else?” After experimentation using regression therapy, we realized we were all finding ourselves in that same cell that experienced compaction at the fourth cell division. As far as we could tell, the cell stayed relatively unchanged from its compaction event until adulthood.

The next key question was, “What is so special about this cell?” Here is where biology and consciousness research intersect. That consolidation of conscious awareness at the fourth cell division compaction event was not some odd, momentary effect of compaction but rather a life-long change in the location of consciousness itself. To give this model a visual image, you could think of this cell as the medieval idea of a tiny homunculus inside our head that runs our body (Figure 1a). This means that our everyday consciousness is not some emergent property of interconnecting brain cells but already exists inside this single cell. Our new state was no breakthrough—our consciousness had always been inside this cell; we just had not realized it (Figure 1b).

Figure 1

Primary Cell Model Visual Analogies



Note. a. A cartoon homunculus suggests the primary cell model. CC image by Jennifer Montes. https://creativecommons.org/licenses/by-sa/2.5/deed.en.
b. Illustration of the primary cell being superimposed on our experience of our body. Our perception is a combination of that of our body and our primary cell simultaneously.

From a therapeutic treatment perspective, an even more important question is, “How does this cell biologically interact with all the other cells in the body?” We soon realized this cell was a template for all cells in the body. Thus, any changes in this cell instantly echo outwards into all relevant body cells (e.g., muscle, skin, heart, liver). As clinicians, we only need to fix relevant damage in the primary cell, and the organs and other tissues will follow suit and repair themselves (within obvious limitations - you still need a cast when you break your arm!). This is why we called this unique, totipotent cell the primary cell.

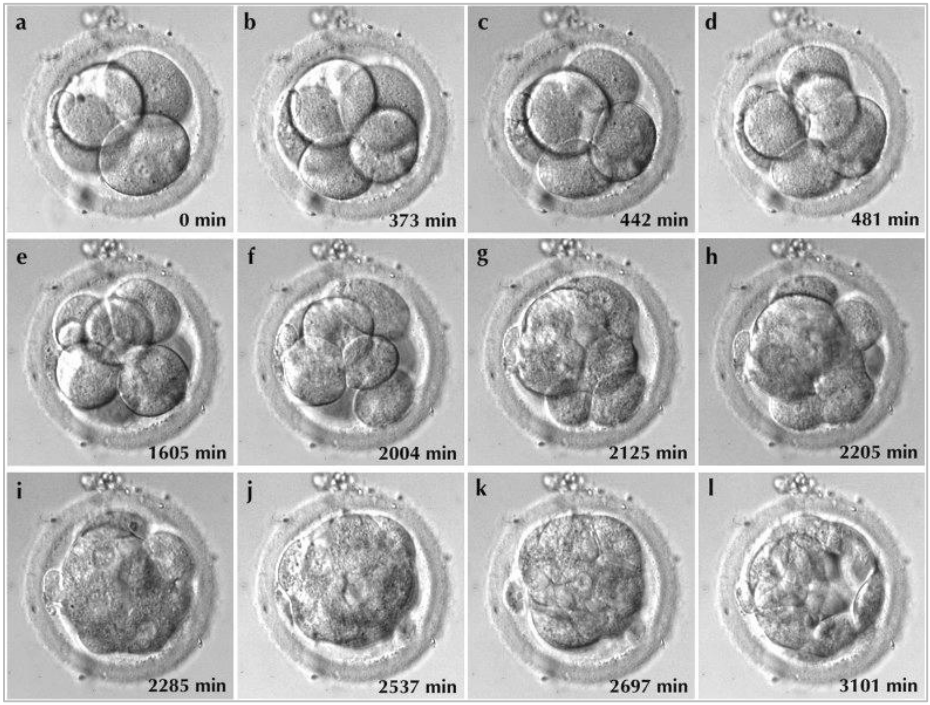
The implications of the primary cell model were profound and, over time, reshaped our worldview. This model posits that we inhabit a cell-centric world, wherein the billions of cells in our body serve as a medium for pre- and post-processing for the single cell where our consciousness resides. By analogy, this singular cell functions as the CPU of our computer, with all the rest akin to the camera, hard drive, and other peripherals.

Regressing to the Primary Cell Formation

When working with students, we generally start the regression just after fertilization. Surprisingly, it will feel like you have your normal adult body superimposed on a round cell. Soon, it feels like suddenly a crack appears between the left and right sides of your body. This is quite strange, as your body still feels intact, now with a thin membrane splitting you down the middle. For many, this splitting is an uncomfortable, even painful experience. The top and bottom split at the second cell division, although you still feel like your body is intact. These splits continue to the fourth cell division, dividing your body into 16 equal partitions (Figure 2).

Figure 2

Compaction in the Human Embryo



Note. After several cell divisions (a–e), the blastomeres became flattened (f), and the intercellular boundaries became obscured (g–i) until they finally unified in one cluster (j, k). These morphological changes are called compaction, and blastulation occurs only after the complete compaction of the embryo (l) (Iwata et al., 2014). CC Image exposure was modified to be lighter. https://creativecommons.org/licenses/by/4.0/.

At this point, compaction occurs. Experientially, you feel like you start to die (often with feelings of shock and pain), and this is accompanied by the bizarre feeling that your body parts start flowing into one spot in your head. Many need to look for the dying feeling deliberately, or else they unconsciously avoid compaction altogether. At completion, your body image is more like a homunculus, living inside one cell with the other cells surrounding it.

This cellular arrangement stays present, with the primary cell surrounded by 14 other cells in a ball or bundle. We call these secondary cells, which act as communication relays from the primary cell to specific parts of the body, with each secondary cell responsible for its own set of organs and tissues. The

16th cell dissolves in some people, while others have two places where their awareness can reside. We call this 16th cell the *shadow primary cell*; experientially, it feels like it has one's opposite gender. Fortunately, trauma therapies can ignore this second duplicate cell, as people's conscious awareness tends to stay in just one of them.

Although the biology literature says compaction occurs at the third cell division in some mammals and perhaps in some people (Nikas et al., 1996; Iwata et al., 2014), our students all had it occur at the fourth cell division. We likely have survivor bias here—all our students survived gestation.

C. elegans and the Primary Cell

To be considered valid, a model must also agree with known science (in this case, early development and stem cell biology) - or be able to explain any discrepancies. From a practical viewpoint, we already know the primary cell model works extremely well to create new, effective disease treatments. However, regression, not dissection, obtained evidence for the primary cell's existence. This section suggests some biological experiments and observations to support and expand the model. These basic experiments might also uncover more unexpected biology and have implications in research on stem cells, epigenetics, drug development, and other fields.

If the primary cell physically exists, why has it not been discovered and described in the literature? First, no one has ever looked for or tested for it since no one suspects it could even exist. Second, it is unlikely that researchers would stumble upon it by accident because, after cell compaction, it becomes very difficult to see individual cells in the cell mass. It would be easy to miss if one were not specifically looking for a primary cell.

How can we biologically verify the existence of a primary cell? Of course, studying a mammal with visible compaction (such as mice) would be a good experimental choice. Perhaps one could follow the compaction cells through early development to see if the primary cell(s) and secondary bundle cell structure exist and where they end up in the adult body. Alternatively, one could remove the possible primary cell candidate (or pair, if mice have two) from the zygote and observe if that cell is central to survival or post-birth behavior. We suspect there are probably many ways to prove, disprove, or find potential evidence that such cells exist.

However, studying and operating on living mice (or any other mammal) blastocysts or embryos is difficult. As it is likely that the human primary cell has arisen from earlier evolutionary ancestors, a study to verify the existence of the primary cell or a primary cell analog could perhaps be performed in a simpler organism, such as the well-studied worm *C. elegans* (which has only 558 cells in a newly hatched larva). Could we use the worm to settle the question about a primary cell? The answer is a conditional maybe.

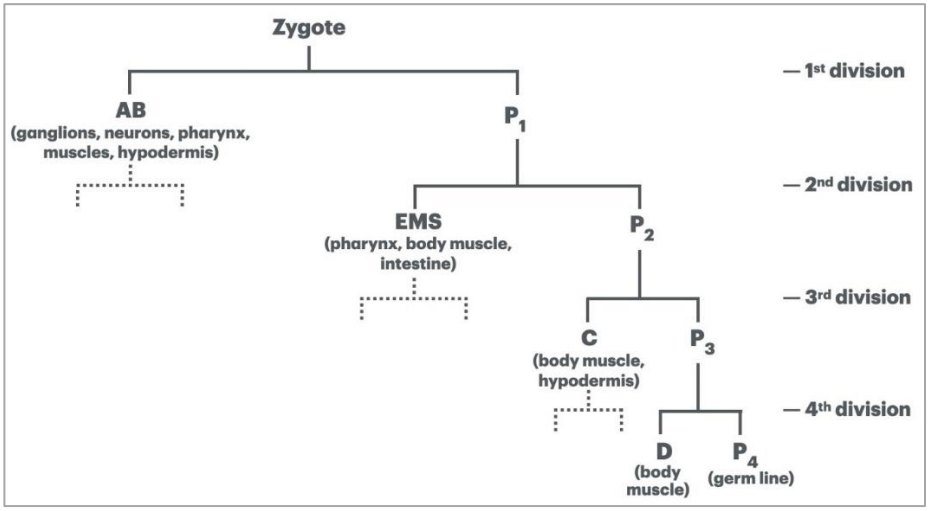
One problem is in the compaction stage. Only mammals have a visually obvious compaction of cells at the third to fourth cell division, forming a morula (Burns & Matzuk, 2006). The worm's cells also undergo compaction at their fourth cell division, albeit their compaction is of chromatin within the nucleus rather than compaction of the cells. In other words, the worm's cells do not pack together like in a mammal. Moreover, does it even form secondary bundle cells around the primary cell? Unfortunately, these queries make the worm a less ideal candidate for testing, as primary cell-to-somatic-cell communication might only arise due to tight cell proximity.

On the positive side, from a stem cell perspective, humans and worms share similar characteristics. In mammals, the cells lose their totipotence and become pluripotent at compaction. Likewise, the worm has a multipotency-to-commitment transition (MCT) occurring at compaction that reduces the cell's ability to form other cell types (Spickard et al., 2018). However, some cell or cells in humans and worms retain the ability to form germ-line cells. In regression, the primary cell releases primordial germ cell precursors as if sending out vesicles (without cell division). This suggests that the primary cell can be identified by finding and following the cell that buds off germ cells, be it a mammal or a worm.

In *C. elegans*, the P4 cell exhibits some characteristics we associate with a primary cell. First, P4 forms at the fourth cell division after the egg is fertilized and goes through chromatin compaction (Figure 3). Second, P4 retains the ability to form germ-line cells. However, after this stage, observations of what is happening become difficult and have yet to be well studied (Joshi et al., 2010).

Figure 3

C. elegans Cell Lineage for the Germ Line



Note. Cell P4 forms at the fourth cell division (Sulston et al., 1983).

Since P4 is only supposed to be involved with reproduction, any other effects from removing this cell after compaction would point to it being a primary cell analog. Would its removal *in vivo* cause development to become chaotic because we have removed its guiding pattern? Or would its removal kill the organism outright? Or if it survives this, does the organism stop behaving with "conscious" actions after the worm is hatched? Any of these results would be surprising and support the primary cell model.

Safety Issues in Primary Cell Exploration

If everyone is already inside their primary cell, one might think it should be perfectly safe to consciously see and feel its interior. After all, you live there already and continuously interact with it. However, this assumption caused many injuries in the early days of our primary cell research. Once we realized how risky it was, we quickly stopped teaching how to consciously interact with the primary cell. Part two of this paper will show how this primary cell model can be used safely to create effective treatments for various problems.

What, specifically, can go wrong? The first thing to realize is that you can mechanically damage your cell accidentally. Unfortunately, ripping out mRNA

strings (the strings in our initial observations that, when ripped out, got rid of trauma feelings) leaves the nuclear pores damaged. Ignoring our warnings not to, a colleague decided to pull out many of these strings ("like pulling out potato plants," as he called it), and it caused migraines that persisted for 15 years until we found a solution.

However, the biggest and most dangerous problem is from subcellular pathogen interactions. To our surprise, the interior of the primary cell is teeming with viral, bacterial, fungal, amebic, and prionoid pathogens. When we consciously interact with the primary cell, any pathogen we encounter becomes aware of our attention and generally responds like a wild animal—freezing, hiding, or attacking. They might contract and cause pain, tear into our cell membranes and cause pain, or release toxic caustic acid at us, causing pain. The list of damaging pathogen interactions is extensive.

Interestingly, this problem can occur accidentally when using almost any psychological therapy or mindfulness technique, but it is guaranteed when we intentionally interact with the primary cell. Incidentally, it may come as a surprise that the primary cell can even feel pain and injury, just like our normal body does. Regressing to sperm, egg, and early zygote trauma quickly demonstrates how painfully true this can be.

Worse, many of the pathogens in a typical person are psychoactive. These pathogens can drive the person's behavior, emotions, or actions. In daily life, since so many people are infected by these pathogens, we consider these behaviors relatively normal - but doing research can trigger far more dramatic experiences. For example, there is a pathogen that, when disturbed, causes a person to permanently lose their memories from the previous 20 or 30 minutes when it sprays the nuclear membrane with a particular caustic fluid. Another pathogen can trigger rage in a susceptible person; the list continues. Researching in this environment is like walking through an African jungle.

Due to these safety concerns, we have yet to publish information on how to look into the primary cell. In the last 22 years, we have mapped out most problems and their solutions but still encounter unexpected findings. Due to the risks involved, new colleagues must be taught how to navigate safely in the primary cell. Those trained are required to sign confidentiality, informed consent, and liability agreements and undergo extensive training in handling the most common problems. If you want to learn more about these safety issues, refer to *Subcellular Psychobiology Diagnosis Handbook* (McFetridge, 2014).

Summary of the Primary Cell Model

The primary cell model describes the properties of a previously unsuspected totipotent stem cell in the body. It is a very useful cell model that forms the basis of subcellular psychobiology and its applications.

- Every person has a primary cell, where our consciousness is located. It acts like a homunculus.
- The source of behavior and mental phenomena is inside the primary cell.
- The primary cell forms at the fourth cell division. Many people have a duplicate primary cell.
- In regression, the primary cell is the source of all primordial germ cell precursors.
- This cell controls the pattern and function of all cells in the body.
- Organelles in the primary cell map experientially and functionally to organs in the body.
- The primary cell feels pain from internal damage.
- The primary cell holds many internal pathogens: viral, bacterial, fungal, amebic, and prionoid.
- Damage or infection in the primary cell mirrors the corresponding cells of the body. For example, if you have an injury to your nucleus, you might experience it as an injury to your physical head.
- Many primary cell pathogens are psychoactive and influence our thoughts, feelings, and behaviors.
- Observing the inside of the primary cell can be hazardous: mechanical damage, pathogens causing injury, and psychoactive pathogens can induce extreme emotions and sensations.

Although this paper derived the primary cell model using visual perceptions of its interior, this ability is unnecessary for using and understanding the model (since we all already experience its interior, even if this is unrecognized). Like radio waves, an inability to see them does not stop us from utilizing their theory.

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