

# Torah and Tech Week Four

*By Benji Tusk*

## Prohibited Sources (i) – The Status of the Stem Cells

### 1. Mere Water (מיא בעלמא):

- Rabbi Zvi Ryzman, in his essay, argues that stem cells used in cultured meat should be considered as "mere water" and not actual meat.
- He bases this argument on the Talmudic concept that within the first forty days of gestation, a fetus is not considered a viable human life, akin to "mere water."
- The rationale is that until forty days, the fetus lacks sufficient development to be considered meat, and therefore, stem cells before this period might be viewed similarly.

### 2. Objections to the 'Mere Water' Concept:

- Rabbi Yaakov Ariel objects to this perspective. He argues that the growth of microscopic entities doesn't exempt them from being considered meat. While they may not be fit for consumption due to their size, their essence remains meat-like.
- Another objection suggests that the 'mere water' concept is only applicable when the forbidden substance is not present within the growing entity. Stem cells, on the other hand, maintain the imprint of their origin, potentially containing DNA from a non-kosher source.

### 3. Comparison to Agricultural Produce:

- Some suggest a comparison to "outgrowths of teruma," where the halachic status of a seed does not necessarily transfer to its produce. This principle is found in Mishna Terumot.
- The Mishna distinguishes between seeds that rot and disintegrate, nullifying the prohibition, and corms where the core remains for the next season, making their outgrowths prohibited.

#### **4. Rambam's Perspective on Growth:**

- Rambam's view is introduced, suggesting that the growth process changes the halachic status of the plant, even if the root does not disintegrate. This is relevant to the laws of teruma and untithed produce.
- Rabbi Ariel, however, contends that stem cells maintain the forbidden substance within their structure, potentially through the DNA code.

#### **5. The 'Mere Water' Concept and Abortion:**

- The concept of "mere water" is brought into the discussion of abortion. Some poskim debate whether a human fetus is considered 'mere water' up to forty days from conception, potentially allowing abortion up to that point or under special circumstances.
- Various poskim, such as Rabbi Yair Chayim Bacharach and Rabbi Moshe Feinstein, present differing views on the permissibility of abortion based on this concept.

### **Conclusion:**

- The application of the 'mere water' concept to stem cells in the context of cultured meat is met with various objections. The presence of the

forbidden substance and the potential impact of growth on the halachic status of the cells are central issues in this debate.

- The comparison to agricultural produce, Rambam's perspective on growth, and the application of 'mere water' to abortion further complicate the discussion, highlighting the intricate nature of applying Halacha to emerging technologies and ethical dilemmas.