

Cell-Generated Meat

What is cell-generated meat exactly? Cell-generated meat starts with the removal of muscle cells from a living animal. These cells are then placed in a bioreactor, and necessary nutrients are added to the cells, allowing them to grow and multiply, to produce real muscle tissue. Scientists then shape these muscle tissue into an edible base for the meat. The whole process is meant to mirror the actual way that cows and chickens grow. When it comes to Kashrus, there are plenty of questions that come up regarding cell-generated meat. For example- Is it even Kosher? What Bracha would one make on it? Is it considered Fleishigs, or is it Pareve?

Before we can make a claim of whether this cell-generated meat is Kosher or not, we need to look at some sources throughout the Torah. We have a Gemara in Sanhedrin on :טז which discusses meat that doesn't come from an animal, and its status regarding Kashrus. A story is brought there with Rav Shimon ben Chalafta, who was walking on the road when he was approached by some lions, who were roaring at him. Thinking they were trying to eat him, he said a line from Tehillim, טז:טק- "The young lions roar for prey and to beg their food from Hashem." Two big pieces of animal meat then descended down from the heavens, and they ate one and left the other. Rav Shimon ben Chalafta then brought this piece of meat to the Beis Medrash and asked "is this fit for food or not?" They answered him, "It must be Kosher, because something Tamei certainly wouldn't come down from Shemayim. The Gemara then goes on to discuss a related story- Rav Zeira asked Rav Abbahu, "What if something resembling a donkey were to descend from Shemayim? Would they still say it's kosher?" Rav Abbahu responded, "you fool, didn't they say nothing Tamei comes from Shemayim! Therefore it must be Kosher.

Later on in Sanhedrin on :הט, the Gemara again discusses meat that doesn't come from an animal- Rav Chanina and Rav Oshiyah would be sitting together on Shabbos studying Sefer Yetzira, and a calf would be created for them and they would eat it in honor of Shabbos. In relation to this, the Shelah comments on the story of Yosef catching his brothers eating Ever Min Hachai. He quotes this Gemara, saying that the meat Yosef saw them eating was actually similar to the meat in this Gemara, and he holds that such meat wouldn't require Shechita and wasn't an issue of Ever Min Hachai. However, some raise the issue of Maaras Eynayim, which is an Issur Drabanan.

How does all this fit into the topic of cell-generated meat? Well, seemingly the Gemara in Sanhedrin on :נב shouldn't be comparable at all, because unlike there, cell-generated meat isn't descending from the heavens, so we can't say that it's automatically Kosher. And further, cell-generated meat comes from a live animal, so it's not being Shechted, being checked for blemishes, etc. And possibly the biggest problem of all- this is literally Basar Min Hachai! We are taking a piece of a live animal and eating it! How can we possibly say that cell-generated meat is Kosher?! Not only that, but according to the Sheva Mitzvos Bnei Noach, Basar Min Hachai is a problem for everyone, not just people who keep Kosher!

There are a couple of possibilities of how it's possible for cell-generated meat to be Kosher. First things first, the issue of Basar Min Hachai can be sidestepped by taking the cells from the body of a dead animal instead of a live animal. Yes, it's true that the whole idea of cell-generated meat was to protect the lives of billions of animals consumed each year, and in turn, help protect the planet, however taking cells from a dead animal would still be effective in that sense. Less animals would need to be killed to produce the same amount of meat eaten each year, even if some still need to be slaughtered. So now, looking at it from this perspective, there

are still a few things that need to be done. There is an idea brought up in Bechorot, on :7, that says that “anything that comes from a non-Kosher animal is not Kosher, and anything that comes from a Kosher animal is Kosher.” This would mean that the cells used to create the meat would need to come from a fully Kosher source. This means that the body used to take the cells from would have to come from a Kosher animal that was Shechted properly, and checked for blemishes, etc. You would also have to make sure along the whole process that the meat remains in a Kosher environment, and that it doesn’t become contaminated or come in contact with non-kosher ingredients or tools from the time it’s taken from the animal until it is packaged for consumption.

In Parshas Vayera we have the story of Avraham preparing calves for his guests. It says something interesting there, that he served them milk and the calf. How can it be that Avraham would serve them meat and milk? The Malbim gave two answers on this. The first- that simply, Avraham served the milk while he prepared the meat, and then after they were done he served the meat. The Malbim gives another possibility- that when Avraham was going to grab the cow, it ran away, and Avraham had to use Sefer Yetzira to create his own calf. This calf wasn’t considered Fleishigs, and therefore it was able to be served with milk.

So we have two sources that discuss the creation of a cow using Sefer Yetzira, one teaching us that Shechita and Ever Min Hachai wouldn’t be issues, and the other teaching us that this “spontaneously created” meat can be eaten with dairy. We might be able to take this into consideration when looking into cell-generated meat, however, to be on the safer side we have to be Machmir and hold like the opinion that there are Maaras Eynayim issues and refrain from doing this, especially since it’s a brand new concept that poskim are still looking into.

Going back to the idea from Bechorot on:7, that “anything that comes from a non-Kosher animal is not Kosher, and anything that comes from a Kosher animal is Kosher,” we ruled out the possibility of using a non-Kosher animal, or a Kosher animal that wasn’t Shechted or properly checked for blemishes. One might think that since we have the rule of Batul Berov, that anything non-Kosher, as long as it’s less than 1/60th of the final batch, is completely nullified, then this would mean a microscopic amount of cells taken from an un-Shechted animal, or even a non-Kosher animal would be fine to use! However, this is not the case, because of the concept that Batul Berov doesn’t apply to a Davar Hamaamid, which is an ingredient that establishes the form of the final product. According to the Shulchan Aruch, this essential ingredient can’t be considered Batul Berov, no matter how small it is. So since the cells are essential to growing the meat, they would have to come from a Kosher source, and if they don’t, they can’t be nullified and the final product is not Kosher.

There is an Israeli company called Supermeat, that actually sidestepped the problem of Basar Min Hachai by taking their cells from eggs. This company is certified Kosher by the Orthodox Union, and they worked with Rav Hershel Shachter of YU, Halachic Judge Rav Asher Weiss, Rabbi Yosef Zvi Rimon from the Gush Etzion Regional Council, and the Jerusalem College of Technology in order to create their meat to the highest standard of Kashrus. What they did actually aligns with something Rabbi Fuerst once Paskened. He was asked if lab-made meat would be Fleishigs since it comes from the cell of a cow, or if we say פנים חדשות באו לכאן, that since it’s so different than it’s original state, it’s like a new thing entirely. Rabbi Fuerst clarified that since what they were actually using was פירשא בעלמא (which seemingly means cells from the womb) to make the meat, it would be Pareve. If it was really from the cells of the cow, then it would be Fleishigs, supposing that there weren’t any Kashrus problems until then. So it

then seems that Supermeat would be making Pareve meat, however, we should still be Machmir on this because nowadays we don't have a Gadol who can Paskin on this.

It is this same idea of פנים חדשות באו לכאן that makes some say this meat would need a Bracha other than Shehakol, but some people stick with the idea that since it comes from a Shehakol it should remain a Shehakol.

In conclusion, there are many different aspects as to how we should go about cell-generated meat, but there are a couple of Machmir ways we can go about it to make sure we are keeping all the possible laws of Kashrus. One way is we can take it from the body of a Kosher animal that was checked for blemishes and Shechted properly, in which case it would be Fleishigs and we would make a Shehakol on it. The other possible way is we could take the cells from the stomach lining of a cow (or from the eggs of a chicken), in which case it could possibly be considered Pareve, but to be Machmir we would say it's Fleishigs, and make a Shehakol on it.