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Safe Passage on your Quest!:

Fc3TSR, a New Approach for the Treatment of Pancreatic Cancer

You finally pull up to the grocery store, you really need to get to the milk.

So you try to walk in but the doors locked?

That's weird but fine I guess, you and a bunch of other people, who also really need to get the milk squeeze through this really small opening between the doors.

You look around inside, and I mean, what a mess! Half the aisles have shelves completely collapsed into the aisles. There's carts left everywhere in the walk ways, some of the aisles come to complete dead ends. You have to maze your way through. I mean half the people didn't even make it, the milk is just too hard to get to.

But you, you finally made it through, navigating the maze left behind in the store. You look around, only a handful of you made it.

The milk you were fighting to get to? That you needed to get to? That's the tumor.

You and all the other people? You're the chemo, the immunotherapies, the immune cells, trying to navigate through these really messy and poorly formed vessels acting as the delivery system in, and out of the tumor.

Pancreatic cancer is in the top 5 causes of cancer related deaths in Canada with only a 10% 5-year survival rate, contributed by its dysfunctional vessels and pro-tumor environment. Angiogenesis, the process of vessels forming off of already existing vessels, is greatly skewed in pancreatic cancer, with an aggressive and rapid formation of blood vessels, so rapid that the last stage of maturation doesn't occur, leaving these leaky vessels limiting delivery of essential therapies and immune cells.

You know what though, I just feel so bad for this messy store situation, I'm going to call the cleaner. The cleaner named Fc3TSR, a new molecule made by our team using a naturally occurring protein that inhibits blood vessel formation.

I'm going to make sure that they clean this up BEFORE you come, so you all can get to the milk.

Using our in vivo mouse models, we initiated pancreatic cancer and began treatment with either Fc3TSR or a control before administering secondary therapies. Here we show that Fc3TSR remodels the tumor environment and vessels, enhancing delivery and efficiency of immunotherapies, and immune cell migration to tumors. Through this, Fc3TSR caused massive shrinkage of the tumor and elimination of many secondary tumors in the body. In addition, we treated different pancreatic cell lines with Fc3TSR and found direct toxic effects on tumor cells showing evidence of a multitude of effects of the Fc3TSR molecule.

The importance of this? I mean let's face it, how can you win a fight if you can't even get there to begin with.