

Funding Opportunity:

Phase I Clinical Trial- Immunotherapy

Tumor Infiltrating Lymphocytes



Dr. Jonathan Metts

When a patient is diagnosed with cancer, they have many treatment options and locations available to them. However, **what do you do when these treatments aren't working?** In partnership with Moffitt Cancer Center, Dr. Metts is the first to implement a promising adult trial in a pediatric setting, bringing hope to families where there were once plans to move their child into palliative care.

Each year, we diagnose almost **170 new cancer patients** and facilitate over **7,500 appointments** with over **2,500 patients** total. Here's how Dr. Metts' research helps:

Broadly stated, immunotherapy uses the **body's immune system** to fight foreign pathogens such as bacteria, viruses, cancer cells, COVID-19 and more. It takes white blood cells, or lymphocytes, and floods the area to rid the body of this perceived enemy. Applying that, this study uses tumor infiltrating lymphocytes (TILs) to do exactly the same thing within a tumor. But cancer cells don't stop replicating, so many times the body's immune system doesn't cut it. Traditionally that's where chemotherapy and radiation come in, but **with immunotherapy we are helping those lymphocytes** do their job better.

This Phase I clinical study seeks to surgically remove the tumor, sort through and very specifically extract all of the tumor infiltrating lymphocytes, then bring them to a cellular therapy lab. This lab will then use all sorts of aggravators to make those TILs angry. As a result they will begin to **grow and multiply by the millions**. Once we've created these millions of TILs, we can then put them back into the patient's body. Following the surgical procedure, the goal is for these angry TILs to hunt down all of the remaining cancer cells, **resulting ideally in remission**.

Dr. Metts' study **has shined in every way** thus far and in all age groups it has been implemented in. With only 4% of NIH funding dedicated to pediatric cancer research, help us bridge the gap.

Your investment in pediatric cancer research helps doctors like Dr. Metts improve the lives of all children.

Thank you for your consideration of this lifesaving support for the children in our community and their families.

Please contact Julie Riddle at (727)767-2957 or jriddle@jhmi.edu for more information.