

PRECISION MEDICINE

One size fits all *does not work* within childhood cancer.

Attack the *cancer,* not the whole body.

The standard of care in cancer treatment for decades has been 'one size fits all'. If a child has neuroblastoma, they follow down the same treatment course as others before. If something goes wrong, something wrong, try something else. Moving away from kitchen-sink chemo to individualized, targeted therapies is one way we will beat childhood cancer

Precision medicine changes that. Science has been working to understand what genomic mutations and changes cause a disease – including cancer. Precision medicine, *not covered under insurance*, creates personalized treatment plans for each child, treating each child's tumor specifically, like an IEP in school or a custom-tailored suit.

Our goal is to grant \$200,000 to fund precision medicine for 130+ patients at Atrium Health Levine Children's Hospital. Every **\$1,500 raised** provides Precision Medicine for one Isabella Santos Foundation rare and solid tumor patients, which gives doctors and researchers the ability to:

- **UNDERSTAND**: Sequence and analyze a child's tumor. Understand what mutations are driving that unique tumor to be cancer. The more that is understood about cancer, the cleaner, and more effective treatments become.
- **TARGETED TREATMENT:** Doctors use the information learned about each tumor's genetic makeup to add targeted drugs onto the standard of care. As they continue to gain a better understanding and have more data of what is beating cancer for kids, they hope to leave "kitchen sink chemo" behind and eventually move to treatment regimens that attack cancer alone - not the rest of the body.
- DISCOVER: understanding tumors and which mutations are causing cancers to continue growing helps discover targets to treat based on.
 Researchers can work from already-FDA-approved drugs which target those markers to discover new treatments. For instance, maybe a drug that was developed for osteoporosis, or Alzheimer's, could actually shrink a child's tumor.

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