

## STACY COOPER, MD '08

## Fighting Children's Cancer

As assistant professor of oncology and clinical director of the Pediatric Oncology Inpatient Program at Johns Hopkins University School of Medicine, Stacy Cooper, MD '08, helps families navigate their worst nightmare, treatment for a child with leukemia or lymphoma.

Dr. Cooper says she was drawn to the specialty for the same reasons others may avoid it: the patients are complex and often get quite sick. But it's the ability to dig in and develop those longitudinal relationships with patients that attracted her to the field.

At Hopkins, Cooper's service treats patients into young adulthood. "You get to know patients quite well," she says. "And I think the doctor that knows them the best can often help navigate something that is really unimaginable for most people."

In addition to patient care, Cooper is working to improve cure rates through research. Through the Children's Oncology Group, she is study chair of a national clinical trial for relapsed B acute lymphoblastic leukemia. "The goal is to try to use immunotherapy rather than conventional chemotherapy to improve cure rates, while also decreasing toxicity by targeting only cancer cells and sparing normal tissues," she says. "The project is attempting to build on the success of a previous trial, which showed that an agent called blinatumomab improved outcomes and decreased toxicity. We're adding another immunotherapy agent called nivolumab in an attempt to overcome resistance to the blinatumomab."

The trial is being conducted at 200 sites nationwide. "Because pediatric cancer is fortunately rare, we have to work together to gather information to make progress," she says.

Cooper came to Upstate Medical University planning to become a pediatric surgeon. But when she did her first clinical rotation—surgery—she was surprised to find that the experience of working in the operating room didn't resonate with her.

"I missed talking to patients. And I liked writing really long progress notes, which is not what happens in surgery," says Cooper, who was selected as a member of both the Alpha Omega Alpha and Gold Humanism honor societies.

Next up was pediatrics, which she loved, although it lacked the "adrenaline rush" that came with surgery. She found the perfect fit when she did an elective in pediatric oncology. "I knew this is what I was meant to do," she says.

Cooper went on to complete a residency in pediatrics at Johns Hopkins University School of Medicine, followed by a fellowship in pediatric hematology-oncology, a joint

program between Hopkins and the National Cancer Institute, which got her involved in bench research.

"I knew I was going to want to be involved in clinical trials so I thought having a better laboratory research foundation would be helpful," she says.

Cooper's research focused on C/EBPalpha, a protein that is decreased in more than half of all patients with acute myeloid leukemia (AML), working to understand the mechanisms for its reduction in leukemia and to develop strategies to target C/EBPalpha as a novel therapy for AML.

That research garnered Cooper young investigators awards from the Alex's Lemonade Stand Foundation and the Damon Runyon Cancer Research Institute, which were pivotal in advancing her career.

"I was really fortunate to join a training program that valued laboratory training and saw the benefit in training people who were relatively naive in terms of laboratory work," she says.

Cooper is now director of the Pediatric Hematology/Oncology Fellowship Program at Hopkins and says her research focus is two-pronged: clinical research in leukemia and in fellowship education. "In overseeing the educational initiatives of the division, I'm focusing on novel, innovative ways to train fellows the same way as we think about novel, innovative ways to treat cancer," she says.

She's particularly excited about a project through the American Board of Medical Specialties that looks at how fellows are evaluated and given feedback. "We're trying to eliminate numerical scoring instruments and use plain language," she explains. "The fellows seem to like it because it removes ambiguity—what does a four in this particular competency mean? We're in the process of analyzing two years of narrative data to try to automate this."

The goal is to better train practitioners for what Cooper says is a challenging and rewarding career.

"It's very easy to get out of bed in the morning to come to work," she says. "Getting to work with the team of people I do, to care for these patients, is pretty great."

—Renée Gearhart Levy



Stacy Cooper, MD '08, with one of her young patients