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ART

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SCIENCE

A Painter Who

Rarely Uses

Paint? Let's

Just Say He's

a Chemist Whose

Experiments

Aren't Confined

to the Lab.

By JENNY

SULLIVAN

IN THE FREEZER OF RÜDIGER HAUGWITZ'S BETHESDA HOME, wrapped in black paper, is a vial containing what looks like crystallized gold. It's gold chloride, a light-sensitive metal salt that sells for \$70 a gram.

Haugwitz, a medicinal chemist at the National Cancer Institute, dilutes a few granules of the chemical in water, fills a pipette, and drops snakelike blobs onto a sheet of copper foil. The gold solution turns black. He furrows his brow and makes notes in a journal.

Over the weekend, he'll conduct similar tests, this time reacting copper sulfate with dimethyldithiocarbamate to yield a puddle of turquoise and amber hues.

Nodding toward a countertop cluttered with bottles, forceps, spatulas, surgical scissors, foil scraps, and Styrofoam cups, he says: "It's my version of *Cooking With Julia*."

UNLIKE THE EXPERIMENTS HAUGWITZ CONDUCTS IN HIS day job, these won't lead to clinical trials for cancer drugs. But some will grace the walls of a Dupont Circle art gallery.

Among the works on display at Gallery A—where he's been represented for the past year—are "Vitrine #1" and "Vitrine #2," glass panels rendered with kinetic tangles of red acrylic and gold leaf to suggest an exuberant storefront window. Other works—amalgams of acrylic, silica, and oxidized copper—pay homage to artists Wassily Kandinsky and Paul Klee.

Although Haugwitz occasionally uses acrylic paints, his artwork is more often the result of chemical experiments. Like clouds on a breezy day, chemical reactions often yield interesting shapes that evoke meaning.

"My images are intended to spark curiosity and elicit associations," he says. "The title is one key to unlocking the meaning of the picture. Titles should always be decipherable."

A scientific or mathematical background helps. One painting, "Fibonacci's Dream," shows dominolike panels containing multiplying dots. It's an interpretation of the Fibonacci sequence, a series of numbers in which each number is the sum of the previous two.

Other works, bearing such names as "Compare Negative" and "Shooting DNA," recast processes that take place under a microscope.

Sometimes the artist's sense of humor is evident: A

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canvas called "Egg Hunt" shows a sea of black and brown ink populated by small shapes resembling sperm.

BORN IN GERMANY IN 1932, HAUGWITZ EMIGRATED TO THE United States in 1956 and received a PhD in organic chemistry and microbiology from Indiana University.

While working in the cardiovascular and animal-health divisions of E.R. Squibb—now Bristol-Myers Squibb—in Princeton, he began to view lab research as a form of inadvertent alchemy. The tests used to analyze chemicals yielded rich colors, tactile surfaces, and visceral forms.

While most researchers would sigh in defeat upon spraying a chemical compound with sulfuric acid and watching it erupt into a symphony of purple, yellow, and green spots—indicating impurities—Haugwitz found such setbacks compelling.

He began experimenting in chemography, a word he coined to describe the creation of pigments and dyes by combining metal salts with agents such as nitrogen, sulphur, and oxygen.

Validation came in 1969, when a Manhattan gallery exhibited his work alongside lithographs by Marc Chagall and Joan Miró.

HAUGWITZ MOVED TO WASHINGTON IN 1982 TO WORK FOR the National Cancer Institute, a division of the National Institutes of Health. In 2001, he met gallery owner Victor Gaetan and landed his first one-man show. By that time, his palette included iron, cobalt, nickel, platinum, palladium, silver, and gold. He began exploring unconventional surfaces, venturing beyond paper and canvas to asphalt, glass, foil, and rubber.

Recent studio experiments—for a series entitled "Fish Circus"—produced an array of feathered striations and complex moiré patterns. But don't expect much explanation about how these effects were achieved.

"This is, shall we say, a matter of intellectual property," he says.

At NCI, Haugwitz served on the team that developed Taxol derivatives, a treatment for ovarian and other cancers. But for every drug discovery that makes the cut, hundreds don't. Among his other projects was tetraplatin, a platinum complex that showed cancer-fighting promise but failed in Phase I clinical trials.

Art experiments yield a higher success rate, Haugwitz admits, but he doesn't pursue painting as an escape from the rigors of science. He says the compulsion is the same in each.

"Probably fewer than 5 percent of my art experiments yield something interesting," Haugwitz says, "but that's how science works—you keep trying until you hit upon something promising." ■

Photograph for The Washingtonian by CHRIS USHER/APIX