

JOHN CHISHOLM:
INTO THE SPOTLIGHT
BY ERIK GUNN

FARM LIFE AFTER
THE DROUGHT
BY CORRINNE HESS

TURBULENCE AT MITCHELL
INTERNATIONAL AIRPORT
BY RICH ROVITO

AN IMPASSIONED PUSH
FOR GUN CONTROL
BY ERIK GUNN

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MAGAZINE

10 MEDICAL BREAKTHROUGHS

MILWAUKEEANS ARE CHANGING THE FACE OF HEALTH CARE. AND THE DEVELOPMENTS COULD SAVE YOUR LIFE.

BY CAROLYN BUCIOR

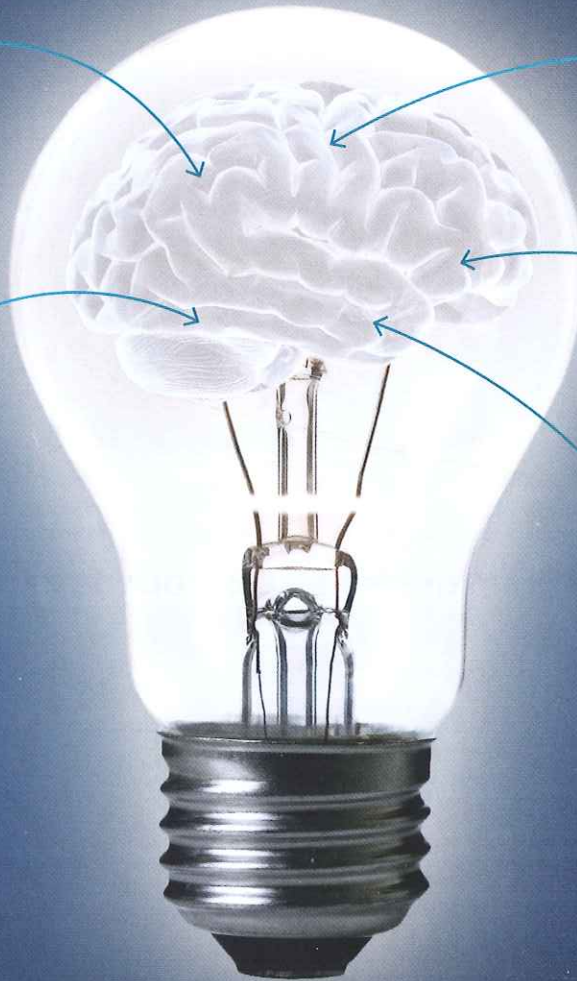
THE END OF
OPEN-HEART
SURGERY

A WAND
THAT
DETECTS
CANCER

A BLANKET
THAT PUTS
THE BRAIN
ON ICE


A POD
FOR SAFE
CO-SLEEPING

A BANK
THAT COULD
PERSONALIZE
MEDICINE

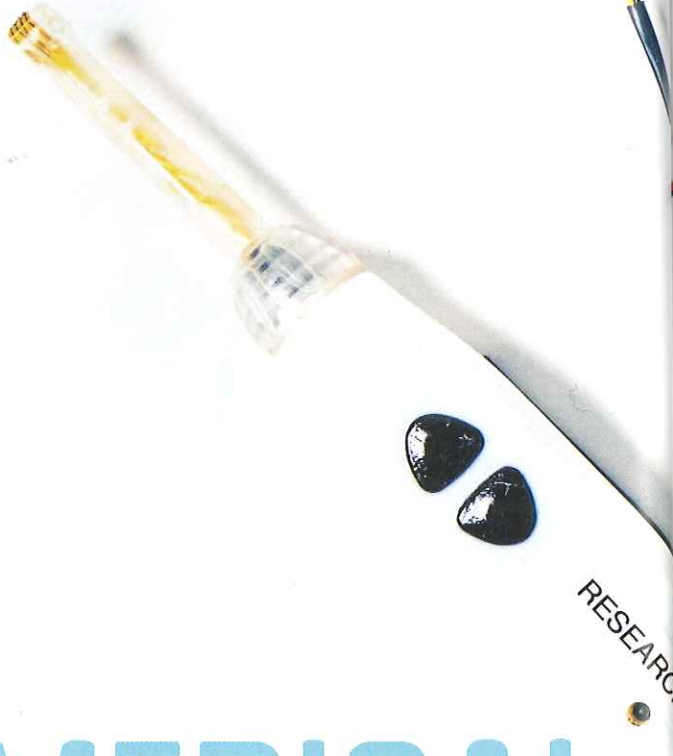


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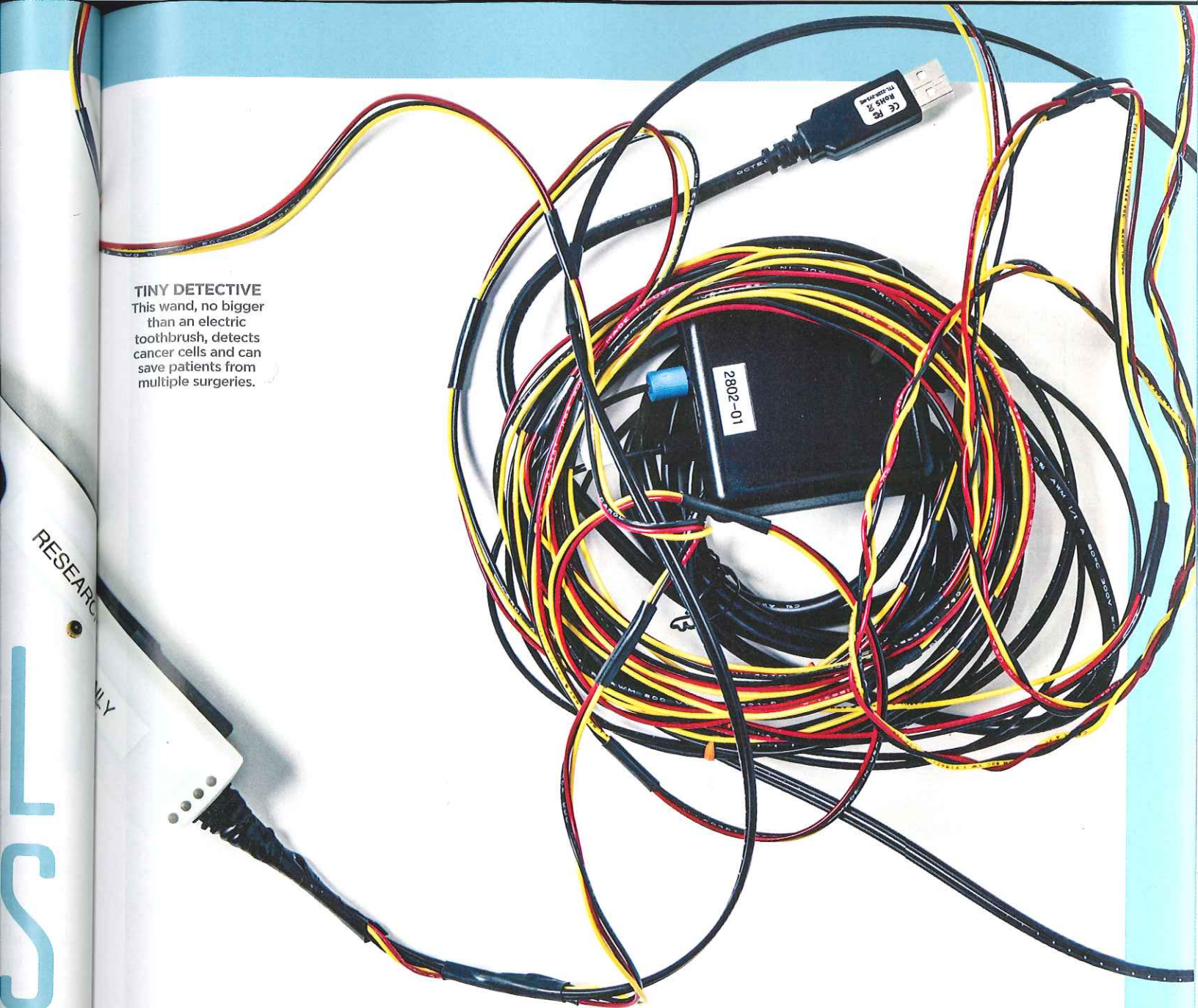
MEDICAL
BREAKTHROUGHS

**FROM CANCER-DETECTING
WANDS TO CO-SLEEPING PODS
AND LIFELIKE MANNEQUINS,
MILWAUKEE IS FORGING A
NEW WAVE OF MEDICAL
MARVELS. THE FUTURE OF
HEALTH CARE STARTS NOW.**

BY CAROLYN BUCIOR

**PHOTOS BY ADAM RYAN MORRIS
ILLUSTRATIONS BY MICHAEL HIRSHON**

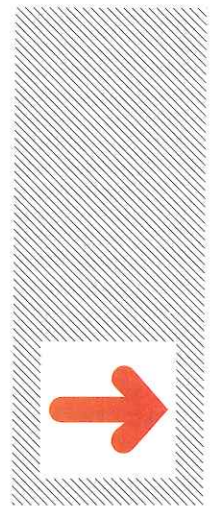
TINY DETECTIVE
This wand, no bigger than an electric toothbrush, detects cancer cells and can save patients from multiple surgeries.

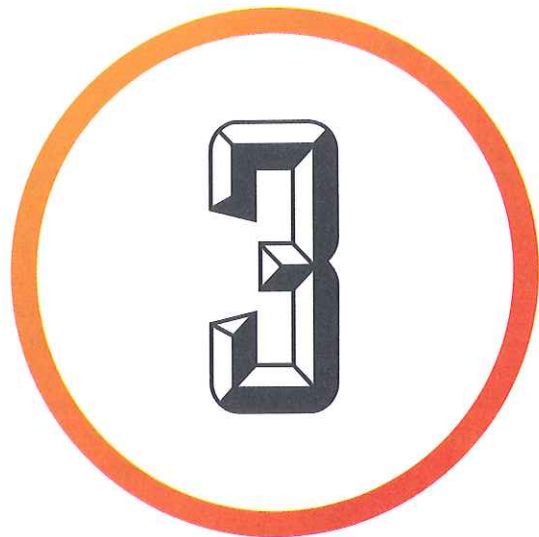


A small wand instantly detects straggling cancer cells during surgery. A person with a chronic disease, living far from a hospital, sends his avatar to the doctor's office. The general public becomes trained in providing first aid for those with mental health problems.

Pioneering Milwaukeeans are working on making these – and other – breakthroughs a reality. For their enterprising work, they are prepared to be hated (for creating a co-sleeping device for babies), ignored (for improving the city's public health) or loved (for keeping older heart patients alive with a new treatment).

What will be their legacy? Only time will tell. But this much is already known: The men and women in these 10 stories reflect the spirit of the likes of Jonas Salk (who developed the polio vaccine in 1952) and Florence Nightingale (who founded the world's first secular nursing school in 1860). They are smart, driven, ambitious. And in the world of health care, they are breaking new ground.





THE POD FOR SAFE CO-SLEEPING

On average, about two babies die each month in Milwaukee while co-sleeping with adults. Wisconsin state Rep. Samantha Kerkman (R-Randall) has sought to criminalize co-sleeping while impaired, but a nurse researcher is going at the problem in another – rather controversial – direction: Make co-sleeping safer for those who insist on it.

Jennifer Doering's device, the I-SleepPod, is a portable bassi-

net outfitted with face protection (to prevent suffocation) and a battery-operated alarm (to alert an adult if the device tips). It's designed for placement on several sleeping surfaces.

"People have told me to get ready for hate mail and being called a baby killer," says Doering, associate professor at UWM's College of Nursing. "But criminalizing co-sleeping is not the answer. The consequence will be that the practice will just go underground. More babies will die."

Doering says at least 20 percent of babies who die of sudden infant death syndrome nationwide do so in unsafe sleep environments: sleeping on a recliner with dad, a couch with mom, a shared family bed with pillows, blankets and large, heavy bodies capable of blocking an infant's airway. "Many parents feel that anywhere outside the bed is more dangerous," Doering says. "They are worried about bullets, dogs, cats, other children, other adults."

Working with the national organization Cribs for Kids, four local hospitals and the Milwaukee Health Department distribute free Pack 'n Plays to parents unable to afford cribs. But during home health visits with new parents, Doering says she's often witnessed a little-known downside of the popular, portable crib that measures about 18 cubic feet. "Parents who don't have storage space in their homes use them to store baby supplies – diapers, clothes, baby gifts," she says. "The I-SleepPod is my response to that."

As she developed the device, Doering tracked the *Milwaukee Journal Sentinel's* reports on co-sleeping deaths for two years, including one about a baby who was electrocuted after falling from an adult mattress onto a baseboard heater and several

about babies who died of suffocation from parents' bodies, blankets and pillows. "As I accumulated the stories, I'd ask myself, 'Would my device have saved this baby?' The answer was always, 'Yes.'"

A prototype of the I-SleepPod, funded by a \$35,000 grant from the UWM Research Foundation, is being created at UWM's College of Engineering and Applied Science. Three versions are in the works: one very low-cost model for use in third-world countries, one with a sales price of \$50 and a "Cadillac" version for higher-income clientele. Testing on sensor dummies begins this month, and Doering hopes the final product will be on the market within a year. Meanwhile, she's bracing for controversy.

"I'm ready to defend it." ✦

