Chilling Out in Germany

The last recourse you might consider for severe arthritis would be stepping half-naked into a freezer cold enough to bring on frostbite within minutes. But a growing number of Germans—not only arthritis patients, but also athletes and ordinary citizens—are spending time in so-called Kältekammer, or "cold chambers." Forget about jumping in the snow after a sauna. This is much, much colder—patients have to don gloves and face coverings and hop up and down to avoid frostbite at −110 degrees Celsius.

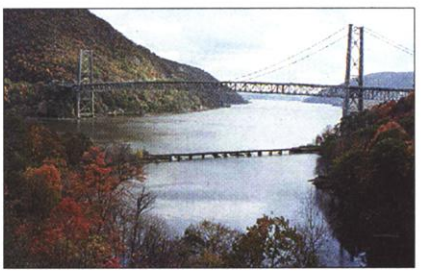
But 2 or 3 minutes in a Kältekammer provides temporary relief of arthritis pain, says Michael Hammer, head of the Rheumatology Clinic at St. Josef-Stift hospital in Sendenhorst. And, he says, numbed-out patients can better withstand physical therapy.

Cool customer.

Hammer and his colleagues are now making cold chambers a focus of an International Symposium on Cryotherapy to be held at the Weserland Clinic in Vlotho, near Hannover, on 5 February. There, about 60 researchers and physicians will present papers on using the therapy to treat skin diseases, infections, and immune disorders, says University of Münster professor of medicine Reinhard Fricke, who introduced Germany's first cold chamber in 1984. Attendees will also form a new association: The International Society for Cryotherapy.

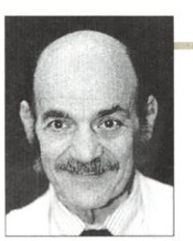
The Germans say cold therapy may work in part by boosting levels of endorphins, the body's natural painkillers. "American colleagues laugh when I tell them about the positive effects," says Hammer. But one skeptic, diving medicine expert Ernest Campbell of Orange Beach, Alabama, calls cold chambers a dangerous fad. The shock will boost endorphins as part of a stress response, he says, but it can also bring on heart attacks and kidney failure in vulnerable people. Hammer counters that patients are prescreened for heart conditions: "We have never had such a problem in 15 years of Kältekammer therapy."

Vision for the Hudson



A "Woods Hole on the Hudson"? That's what New York Governor George Pataki is proposing: a new research institute on his state's chief waterway. "Now is the time to make the Hudson a world center for the study of rivers and estuaries," said Pataki, who proposed a Hudson River Institute in his State of the State address earlier this month.

The Hudson, which runs through the country's largest metropolitan center, is particularly appropriate for such a center, says Dennis Suszkowski of the Hudson River Foundation, which supports scientific and public policy research. Thanks to 3 decades of improved management of sewage and industrial waste, bird and fish populations have been making a comeback, he says: "The river is a model of how we can screw things up and how things can get better." The governor is requesting $1 million in planning money this year. If the legislature cooperates, Pataki envisions a viable $50-million-a-year operation within a decade.



Alexander Rich.

Award to DNA Sleuth

James Watson and Francis Crick may have puzzled out the spiral shape of DNA in 1953, but they were not proved right until 1973, when Alexander Rich produced the first x-ray crystallographic structure of a double helix with atomic-level resolution. After seeing the results, Rich relates, Watson phoned to thank him, saying, "I've just had the first good night's sleep in 20 years."

Last week Rich, a professor at the Massachusetts Institute of Technology, grabbed another kind of honor for his half-century of probing the structures of DNA and RNA: the $250,000 Bower Award for Achievement in Science from the Franklin Institute in Philadelphia. Rich is one of 11 scientists to be honored—and the only one named for a cash award—at an April ceremony in Philadelphia. He says he doesn't have any particular plans for his newfound wealth: "Spending money is not what excites me; doing research is what excites me."

Building Boom at Yale

Long noted for its expertise in the humanities, Yale University last week announced a $500 million bid to become equally preeminent in science and engineering. At a time when a number of top schools are investing heavily in science, Yale's spree dwarfs Harvard's $200 million expansion plans (*Science*, 29 January 1999, p. 610).

The move, 5 years in preparation, is "in part in response to growing enrollments" in science and engineering, which now capture about a quarter of the university's undergrads, says Yale President Richard C. Levin. Playing a major role has been Dean of Engineering D. Allan Bromley, former science adviser to President George Bush. "There's always been a feeling that we're a liberal arts university, and science and technology are second place," says Bromley. "This is no longer Yale's policy."

Yale will turn one side of the university's Science Hill into an "environmental campus" and another part into a "molecular campus." So far, about 10% of the money is in hand—$25 million was pledged some years ago by Edward Bass (Yale '68) of Biosphere 2 fame; then in December, another alum, cable TV magnate John Malone ('63), kicked in $24 million. Yale intends to put up five new science buildings, beef up facilities, and hire additions to the 300-person science faculty.

The project is expected to take 6 to 8 years. If gifts don't cover the cost, says Levin, Yale will borrow the rest: "This is simply an indispensable investment."