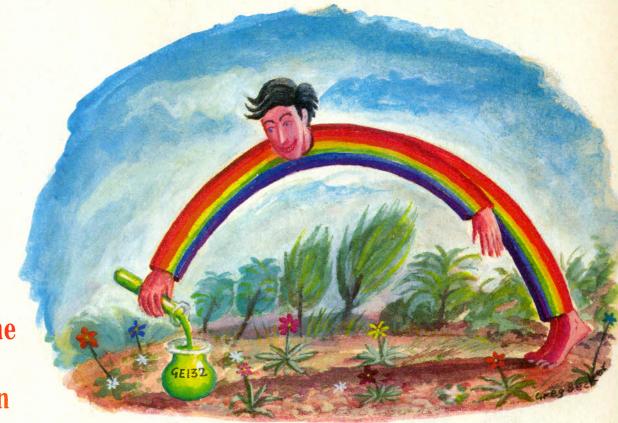
LWSTATESMA OCIETY



Lynne Segal on the peast in man; Edward Pearce on Peregrine

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Cownship realities: R W Johnson eports from South frica



Pretty poison

Nature is good for us. Its name also nets fat profits for the health industry, whose organi products may have nothing natural about them. Duncan Campbell and Nigel Townson report on a cure that poisons

Pretty poison

he natural health market has a benign image. But it's as open to abuse as any other market. Duncan Campbell and Nigel Townson report on the boom in "organic germanium": a nutritionally valueless poison, sold for huge profits



In Japan, a man took a 130mg dose of germanium a day—and died.

eople suffering from ME, the postviral syndrome, and other chronic illnesses have increasingly been turning to a newly fashionable, and very expensive, "miracle cure"—"organic germanium". The fad for swallowing germanium pills began in Japan in the 1970s, but the germanium boom really took off in the late 1980s, when distributors in West Germany and California began promoting their own brands of germanium compound, using trade names like GeOxy-132 and Sanumgerman.

But the treatment is potentially lethal. The fad has been followed by clinical reports from Japan of death and sickness from germanium poisoning. In the past year, medical journals have described two cases of death and a dozen cases of chronic and irreversible kidney damage. All resulted from people having taken germanium as a "health product"—and most of the victims had not been ill in the first place.

In one case, doctors in Osaka National Hospital tried for five days to save the life of a previously healthy man of 25 who suddenly developed acute kidney failure after taking germanium capsules for only seven months simply to recover from overwork. The destruction of his kidneys had caused his heart to swell in size, and lethally damaged his heart muscle before he got to hospital.

Yet organic germanium pills and potions are being imported or manufactured by an increasing number of British pill manufacturers. Traders and practitioners, initially attracted by the high profits which can be made from selling the expensive germanium-based chemicals, have actively promoted dangerously heavy consumption of the substances by chronically ill people. Patients with ME (myalgic encephalomyelitis), Aids or HIV infection have been major targets of the germanium promotion campaign, but sufferers from arthritis, bone disease and allergies have also been targeted.

A Brighton businesswoman, Monica Bryant, gave the germanium boom its send-off in Britain in 1987. Her company, Symbiogenesis Ltd, began to import German-made germanium Sanumgerman potions and pills via Lichtenstein. Bryant also set up an "International Institute of Symbiotic Studies" which promotes sales of germanium and other alternative remedies.

By the time of the 1988 vitamin pill trade show, HEALTHEX, last March, most of Britain's dozen or so vitamin pill companies were scrambling to get their own-name brands of germanium onto the market. There are now at least 15 different brands of germanium pills and potions being sold in Britain. The mark-ups are considerable. Raw Ge-Oxy 132 can be purchased from the US for about £1.20 a gram, and is typically sold in packets of 30 or 60 tablets at a cost of £12 a gram.

From spring 1987 onwards, Bryant and her collaborators published a series of articles in vitamin and "health" magazines intended to draw attention to their new germanium drugs. This promotional activity has increased as other

producers and suppliers have entered the market. What could be described as a "vitaminindustrial complex" has through seemingly expert and well-meaning advice in books, articles and advertisements encouraged chronically-ill, and therefore vulnerable, people that swallowing germanium compounds in large doses will strengthen an impaired immune system, provide oxygen and energy, and relieve fatigue.

A typical pitch at Aids and ME patients—made by Earthdust Products of Crawley—is that its "Germanium Complex" pills are "the ultimate aid to rebuilding [a] compromised immune system". Natural Flow Ltd, of Sussex, claims that "the main benefit of Ge132 (a germanium drug) is in the maintenance of the immune system". Other manufacturers market their products as "Germanium Immunoforte" and "Maximmune".

Leading British specialists are now worried that thousands of people may have been induced to swallow sufficient tablets or elixir silently to damage their kidneys, and may be slowly killing themselves. Germanium, says Professor Vincent Marks, a clinical biochemist at Surrey University, is just a "worthless and dangerous poison".

None of the traders we approached could produce any scientific evidence that taking their germanium drugs had any beneficial effect on the human immune system. This is not surprising, as none of their claims are based on any

High-dose germanium can give a boost to recorrect patients to their "inner will"

—Monica Bryant

recognised scientific tests on human beings. Some couldn't (or wouldn't) even identify the germanium formula they were using. They all admitted that they had never tested their products for human safety or efficacy, but claimed that this had been done by the suppliers of the raw material. We asked them and the suppliers to supply copies of any independent human safety and toxicity reports on any of the germanium products they were selling. No reports were produced.

Germanium is actually a metallic element normally used to make transistors and electronic equipment. It has no role in human nutrition. Its use in "health" elixirs and pills began when the late Dr Kasuhiko Asai in Japan developed a mystical theory about germanium, which was based on its properties as an electronic semiconductor and its supposed presence in the Holy Water of Lourdes. Asai later set up an "Organic Germanium Clinic" in central Tokyo. But Asai was a mining engineer with no medical training. He never published rec-

ognised medical research on the subject. Instead, he wrote *Organic Germanium—Miracle Cure*, a book which even ardent supporters call "wild" and "unscientific".

Most London health food shops we inspected this week had germanium packs on their shelves. Some packs cost as much as £165 each. The fashionable Sloane Health Shop, in Sloane Square, which is patronised by Princess Diana and other royalty, had no fewer than ten different brands of germanium pills on its shelves. But other European countries—including West Germany, an early source of germanium imports to Britain—ban its sale to the public.

The campaign to make organic germanium a fashionable health fad is particularly perverse, since the products now on sale are all completely non-natural: drugs, in fact. "Organic" doesn't mean "natural", let alone "good", but merely signifies that the compounds are made of carbon as well as germanium. Global Marketing Associates, the San Francisco-based makers of GeOxy-132, informed us that it is synthesised at a US chemical plant from ingredients which include cyanide compounds and the output of mines in southern Africa. The products have been extensively tested on animals.

Fortunately, germanium has been on sale in Britain on a large scale for less than 18 months. Medical studies from Japan show that germanium poisoning is insidious, yet can lead to sudden illness or death from kidney failure. Normally, doctors would expect to notice early warning signs of kidney damage before it was too late. But the case of the 25-year-old victim in Japan we mention above illustrates the dangers. The dose he had taken-about 130 milligrams a day—is less than that sold or recommended to ME and Aids patients by some companies in Britain. Another 36-year-old germanium victim swallowed a lower average daily dose of 100mg and suffered kidney failure after a year of "treatment". He didn't die, but two years later his kidneys had not recovered. Others suffering from kidney failure had taken only about 50mg a day of germanium compounds.

Typical brands of germanium pills on sale in Britain are said to contain 25mg of germanium compounds. But there are no warnings about the danger of taking more than the recommended dosage, and many germanium enthusiasts have advocated taking much larger doses; and some brands, Natural Flow's "Germanium plus", for instance, contain ten times as much, (250mg)

The latest scientific reports from Japan stress that "the human kidney is probably highly sensitive to germanium toxicity" and warn that "long-term use of germanium preparations at high dosage can cause severe renal damage". Most of the Japanese germanium poisoning reports refer to damage caused by a germanium dioxide, which may be mixed in the original pill, or be formed inside the body after people have swallowed germanium compounds. Two reports implicate a mixture of different germanium oxides, including germanium sesequoxide or "Ge-132", the very same mixture which is

Advice leaflets recommend larger doses to ME and Aids sufferers

under similar names.

Dr Parris Kidd, an American specialist who pioneered trying germanium compounds for use against Aids, cancer and other diseases, told us that he has changed his views. A few years ago, he set up and ran the Germanium Institute of North America (GINA) in Berkeley, California. But GINA is now being disbanded, Dr Kidd said this week. Why? "Because toxicity is a major problem." Organic germanium, he says, "is very clearly a drug. It has no proven nutritional essentiality. It has not been fully clinically tested— the proper development work has not been done.

Dr Kidd said that he could not testify to the safety of the products now reaching Britain. The growing evidence of kidney damage in Japan is "probably the end of the product", he says. "The potential toxicity will remain considerable." He has broken off contact with US distributors of Ge-132 because he doesn't want to be associated "with something that may be hurting people". He adds that none of the germanium products now being sold to the public has been properly tested for safety or toxicity.

Some of the companies selling germanium pills claim that their germanium is safe because it is "organic". They mix the germanium with alcohol-related molecules, or citric acid, which is found in fruit, to make it more "bioavailable". But this may make the poisonous effects worse, says Professor Marks. He points out that "organic tin and organic lead are exceptionally poisonous", precisely because they are organic. Mixing or compounding germanium with organic substances would "enhance its toxicity precisely because it would be absorbed by the body more effectively; it's the worst way to have to take it. On the basis of what we know about other metals, kidney tubular damage is exactly what we would expect from germanium."

Professor Marks adds that selling germanium as a health cure is "thoroughly outrageous quackery". "I am aware of no evidence that it has any nutritional role.

Bryant's promotion and marketing of germanium shows how the vitamin-industrial complex operates. Advice leaflets advocated taking "therapeutic" doses of 180 to 360 milligrams "elemental germanium" a day, and suggest that such doses "may be repeated" for periods of 40 days, three times a year. The leaflets claims that "taking germanium ... is important in the treatment of chronic diseases". Such a course of treatment would also mean buying £1,600 worth of capsules from her company.

The International Institute of Symbiotic Studies is simply a sales front for Symbiogenesis. It employs no staff and has no academic standing. Its office at 5 Fairlight Place, Brighton, is the office of Symbiogenesis Ltd, as well as Bryant's own home. Customers are not alerted to the fact that the company selling germanium is the same as the "Institute", since, in 1987, Bryant moved her company's address to a box number in London. Bryant has admitted that she and others have written articles and leaflets from the "Institute", promoting the products her that the chemical his and Bryant's company

now widely sold in Britain as "GeOxy-132" and company sells, without saying that the company and Institute are one and the same. It's a tactic frequently used by small companies selling unlicensed drugs and so-called "supplements".

Ms Bryant refused to answer any questions about her products or safety tests. But Simon Martin, the former company secretary of Symbiogenesis Ltd and an alternative health writer, said this week that he was not interested in defending germanium. "I think the price is completely over the top. The colossal mark-up is just out of order." Martin said he had resigned from Symbiogenesis in June after the NSS (16 June) disclosed the company's involvement with French con-man Yves Delatte.

Last year, Sandra Goodman published a book, Germanium—the health and life enhancer. In the book, Goodman refers to an "ongoing symbiosis that has transpired between Monica Bryant and myself in giving birth to this work", but claims that she (Goodman) does not "have an interest in sales, patents or profits from germanium". In fact, though Goodman may not have benefited directly from germanium sales, Bryant admitted three months ago that the "ongoing symbiosis" involved the transmission of cash. "I've paid her on a number of occasions, personally and on my business," admitted Bryant. The total sum of money involved was "of the order of hundreds of pounds". (Ms Goodman has now moved to Seattle, Washington and has not responded to a request for

On the basis of what we know, tubular kidney damage is exactly what we would expect

—Prof Victor Marks

comment made to her publishers.)

Between September 1987 and May 1988, according to former Symbiogenesis business consultant, Mike Smith, the company sold over £104,000 of germanium and other products; the profit margins were "bloody enormous". Bryant instructed him to send the proceeds of germanium sales direct to a bank account in Lichtenstein.

ME sufferers have become the latest target of the germanium pushers. This April, in a magazine published by Natural Flow Ltd, Bryant claimed that germanium was a "breakthrough for ME sufferers". "Germanium," she says, "plays a vital role in the body's metabolic processes... high-dose germanium can give that immediate boost to help them reconnect with the 'inner will'." Her article also stressed that liquid germanium (which only she and they currently sell) was the "ideal way" to take germanium. But Natural Flow manager Graham Miller was unable to provide any scientific evidence

sells, Sanumgerman, was of any value in use in ME. The only reported test on the product in a reputable scientific journal involved Albino mice in Poland in 1986. Miller also refused to disclose the chemical composition and formula of Sanumgerman.

Dr Belinda Dawes, a medical doctor specialising in ME, has also been actively promoting the use of germanium. Dr Dawes, who now runs private ME clinics in Harley Street and Chelsea, has advised patients that the smaller doses of germanium available in most commercial pills is, in her view, "fairly ineffective". She recommended tablets she herself imports from California, each of which contain 150mg of GeOxy-132. Patients are told to take one or two such germanium tablets each day.

Organisations concerned with the chronically ill are beginning to respond to the promotion of germanium. Dr Charles Shepherd, a medical consultant to the ME Association, says that he is "gravely concerned that patients with ME have been persuaded to take germanium. I would strongly advise patients to stop taking this material immediately, and if they have any kidney symptoms to ask to be referred to a specialist or to contact a medical adviser via one of the ME associations."

Shepherd is among the specialists now worried that death or injury from germanium poisoning could already have gone undetected. "People are going into renal failure for all sorts of unsuspected reasons." Professor Marks agrees, noting that "this is exactly what happened with cadmium and some other drugs. They were killing people by the thousands from kidney failure, and no one realised the cause.' He asks: "Until now, who would dream of asking a patient with kidney damage if they'd been eating germanium?'

Warned of the poisoning risk, several germanium manufacturers have already suspended sales. Among them are Biocare Labs, Birmingham, G&G Food Supplies of East Grinstead, and Earthdust Products, Crawley. But others are continuing to produce, market and sell germanium products. The recently-launched Campaign Against Health Fraud is to press the Department of Health for a ban on germanium sales.

The natural health market often assumes a moral superiority over orthodox pharmaceutical manufacturers, and many of the companies and practitiohers involved are sincere in their belief about the intrinsic merits of "natural" (hence safer), "holistic" (hence better) and "organic" (hence healthier) products. The germanium scandal has torn the clothing from this comforting fantasy. Germanium pills are unnatural, nutritionally valueless drugs, sold for huge profits.

Orthodox medicine is strictly regulated for the safety of the public. The activities of the vitamin-industrial complex make it necessary to demand real safeguards for chronically ill people made all the more vulnerable by their willingness to trust in the benign image of the natural health market.

Additional research by Maria Manning