

LIFE

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A bottle of pills to kick the bottle

Does this sound like anyone you know? Darryl is 35, has a steady job, a stable home and good marriage, enjoys a few beers in front of the TV most nights — doesn't have what most people would call a drink problem.

In the US alone there are probably around 36 million Darryls, according to the National Institute on Alcohol Abuse and Alcoholism, which created the character, played by an actor on its Web site to help train doctors.

He doesn't exercise as much as maybe he should so he's a little overweight. At an average of four drinks a day, he is no alcoholic: but some experts now see him as a high-risk drinker and say he could succumb to "alcohol use disorder."

Millions more people across the developed world — who drink a few glasses of wine every night after work or look forward to three nights of repeated shots on the weekends — may today be adding up to a major health and social problem.

Could there be a pill to help them?

A reassessment of the nature of addiction, particularly to alcohol, is starting to pique Big Pharma's interest. For years the industry has been lukewarm, assuming either that finding a cure for alcoholism is impossible, or else that the target market — homeless drop-outs, jobless bums and convicted drink drivers — would not make for great returns.

Now changing Western attitudes and cheap supermarket-supplied alcohol have made excessive drinking normal, including among the middle classes. Some experts predict the arrival soon of a new generation of drugs to help everyday drinkers.

"The potential market for medications that can be prescribed for these functional alcoholics is huge," said Mark Willenbring, an addiction expert and psychiatrist in the US.

Just as with depression treatment 30 years ago, he says alcoholism research could be approaching a "Prozac moment" when it will become more natural, and more acceptable, for doctors to prescribe a pill to help people through a bad patch.

There are already drugs available to treat alcoholism, but their effects vary widely. As scientists' understanding of what alcohol does to our brain functions deepens, so, potentially, does the range of possible treatments.

Data from Thomson Pharma, a ThomsonReuters company that monitors the drug industry, show there are 24 drugs in development for alcoholism, including around 10 or more in mid-stage trials.

BIG BOOZERS ATTRACT BIG PHARMA

US drug giants Merck and Eli Lilly are the biggest hitters stepping up to the plate at the moment: each is pursuing two possible drugs through mid-stage human trials for treating alcoholism.

Biotech firm Alkermes is also very active in this area, with three drugs in development — two new compounds, and the third a new format of an existing medicine.

As is often the case when drugmakers show renewed interest in an expanding concern, critics may accuse the firms of seeking to create a "new disease" to generate a market for otherwise unnecessary medicines.

But others argue the outcome could prove a lifeline to millions whose drinking presents a risk to their health, and a big bill to society.

"They don't need the intensity of treatment that more severe cases do," said Willenbring. "They don't need to go to alcoholics anonymous for the rest of their lives, they can respond well to some medication and brief behavioral support."

Alcohol and its consequences kill 2.3 million people a year around the world, according to the WHO: that amounts to 3.8 percent of all deaths, ranking drink just below unsafe sex and just above malnutrition in the top 10 causes of death.

When it comes to the burden of disease caused by alcohol, the evidence against drink really stacks up.

As well as contributing to traumatic death and injury in car crashes and other accidents, alcohol is associated with chronic liver disease, many cancers, acute alcohol

Rise in dedicated drinkers prompts pharmaceutical giants to renew search for alcoholism drugs

BY KATE KELLAND
REUTERS, LONDON



Top: A bartender prepares a beer in a bar in central Sydney.

Above: Manchester United supporters drink beer in Rome.

PHOTOS: AGENCIES



poisoning, fetal alcohol syndrome and heart disease, which is itself the number one killer of men and women in industrialized nations.

"Here in the US we have at least 18 million adults who suffer from alcohol use disorder, and probably twice that many who are high-risk drinkers who don't have a diagnosis. We also have roughly 7.5 million adolescents who are binge drinkers, and at least a 1.5 million who are alcohol dependent," said Raye Litten, the institute's chief of medications development.

"That's quite a market — and it is intriguing to large pharmaceutical companies."

In Britain and other parts of Europe, the need may even be greater. Almost a quarter of Britons — 33 percent of men and 16 percent of women — are hazardous drinkers, and binge-drinking and its consequences are daily fare for newspaper headline writers and the politicians who must respond to them.

"The toll of alcohol-abuse-fueled aberrant behaviors,

from intrafamilial violence to slaughter on the highways, wreaks havoc in a scope and intensity that is leagues ahead of all illegal drugs put together," wrote Harry Tracy, a psychologist and publisher of *NeuroInvestment*, a monthly publication specializing in central nervous system disorders, in a recent report.

DRUGS: THE OLD AND THE NEW

The race to find more effective drugs is among the hottest areas in alcoholism research, according to the institute's Litten. Of those available so far, none comes close to being a "magic pill" for drunks, or even high-risk drinkers.

Naltrexone, which cuts the desire to drink by blocking the brain's opioid receptors, has been around for years. Disulphiram works on the enzymes that metabolize alcohol to make users feel awful if they drink, while acamprostate is thought to ease withdrawal symptoms such as anxiety and insomnia.

The problem is that one drug can work well in some people, yet have virtually no effect on others. Some make people feel so bad they stop taking them and go back to the bottle.

Of the potential new drugs tracked by Thomson Pharma, many are in very early experimental stages, and given the slow and uncertain pace of drug development it could be a decade or more before something — if anything — comes of them.

Those in clinical trials have a 30 percent likelihood of approval rating on BioMedTracker, an analysis tool from Sagient Research, which also works in partnership with Thomson Pharma. That's average for a drug at that stage.

Yet addiction experts are encouraged — not least by

progress in what scientists know about alcohol what it does to the brain.

"In the alcohol field over the past 10 years, what we've found is that it's not just one neurotransmitter system, it's multiple neurotransmitter systems that are involved in alcohol-seeking and drinking behavior," said Litten.

"Because of that, researchers are looking at a variety of sites in the brain and coming up with new types of medications to be tested."

Eli Lilly's OpRA II drug targets the brain's opioid receptors, as does Naltrexone, but neither Lilly nor Merck has disclosed the targets for their other experimental drugs. Alkermes' three projects are all aimed at opioid receptors.

A couple of firms, AstraZeneca and Transcept Pharma, are looking at compounds that hit dopamine receptors — the "reward" pathway in the brain.

Another possibility showing early promise is topiramate, a medicine that hits multiple sites in the brain and is used in epilepsy and migraine treatment. It has shown some ability to cut alcohol intake in heavy drinkers in a small clinical trial.

And other scientists, like Colin Drummond at the National Addiction Center and Britain's Institute of Psychiatry in London, are focusing on the brain's stress pathways.

He is about to start a small experiment with mifepristone, which researchers hope may be able to reduce the extreme levels of the stress hormone cortisol released in the brain when alcoholics quit drinking.

"We're going to start a trial where we will give it to alcoholic patients who come in for detox, with a view to reducing the brain effects of withdrawal," he said.

