

according to the Distilled Spirits Council of the United States. (South Carolina forbids the sale of alcohol on federal and state election days; this in contrast to the practice of George Washington — yes, that George Washington — who plied voters with beer and wine on Election Day when he was running for the House of Burgesses.)

And then there's the drinking age, which did not gain widespread adherence until after Prohibition was repealed. "Effectively, with the 21 drinking age, we have created a prohibition culture among college students," says Peck. Alcohol, denied to teens, becomes a forbidden fruit that they partake of in secret and without supervision, learning both their limits and how not to reach them the hard way. Is it any wonder so many teens and young adults binge drink? "We continue to demonize alcohol and infantilize drinking and that really breeds a very unhealthy drinking culture," Ogle says. "We teach them how to drive a car, we teach them how to shoot guns, but we don't teach them how to drink."

That raises a corollary: There's an unbridgeable intellectual inconsisten-

cy for a country to say that 18-year-olds are mature enough to drive a car, govern (through the ballot), kill or be killed for their country (in the armed forces) and be prosecuted as an adult, but that they are not yet old enough to take a drink. It doesn't add up.

Overall, the lingering effects of Prohibition are dissipating, but it's a slow process. The drinking age isn't going down any time soon, but blue laws are getting rolled back (16 states since 2002 have repealed their bans on Sunday liquor sales, according to the Distilled Spirits Council), and last year Washington became the first "control" state to privatize. The next frontier in the holdover Prohibition fight figures to be on the Web, says Ogle. "There's a real push to try to alter these old laws that place middlemen, the distributors, at the core of the relationship," she says. Cut out the middleman, in other words, and order your favorite craft brew or small batch bourbon online, straight from the producer.

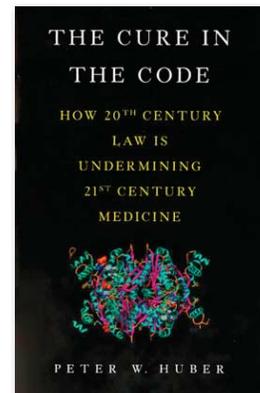
Who knows, maybe the last battles of Prohibition will be settled by 2033 — just in time for us all to raise a glass to the repeal's centenary. ●

Should the drinking age be lowered? Weigh in at editor@usnews.com.

The Washington **BOOK CLUB**

Keeping Up With Medical Advances

By Kira Zalan



Medicine is always evolving. But the synergy between the scientific and technological revolutions of the past decade have propelled medical knowledge into the future at an explosive speed. Diseases and drugs are now understood on a molecular level, promising the advance of personalized diagnostics and treatments. In *"The Cure in the Code: How 20th Century Law Is Undermining 21st Century Medicine,"* Peter Huber, senior fellow at the Manhattan Institute for Policy Research, explains the possibilities and argues that public policy needs to be updated to keep up with growing capabilities. Huber spoke with U.S. News about recent discoveries and why Washington hasn't adapted. Excerpts:

How is this era of medical science different?

We can now see diseases and their causes right down to the molecular level. And that's really important because it's down in that level that drugs operate, and we now have very good tools for designing drugs precisely targeted to specific molecules. That gives us a completely new perspective on what the diseases are, whether they're spawned by our own chemistry or by infectious microbes. And it gives us a very systematic way of designing drugs to control those diseases molecule by molecule.

When did this revolution begin?

You can pick your dates, but the [Food and Drug Administration] licensed the first drug that was designed specifically to target a molecule in the late 1970s. It's much more recently, however, that we developed this explosive power to really read all the code. The sequencing of the first human genome was completed 10 years ago. The cost

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of technologies for reading all the genetic code has been plummeting, the power increasing very rapidly. We're getting very good at designing diagnostic sniffers, if you will. The kind of stuff we have in the pregnancy dip stick we can now do for essentially any protein that's found in our body.

What's one example of technology and science working together?

Breast cancer used to be viewed pretty much as a single disease – it's got a set of clinical symptoms, and it would be diagnosed that way. [There were] various untargeted drugs, and success rates weren't particularly high. We now know that breast cancer is at least 10 distinct diseases. They're characterized by different molecular profiles, and we've got a bunch of targeted drugs. Some breast cancers are treated with estrogen; the majority are actually treated with estrogen blockers, the exact opposite drug. One of those drugs, tamoxifen, depends on how it's metabolized by the patient's liver – and we have genetic markers on who's got the right liver to metabolize that drug. It's a precision medicine now, and you actually understand what you're doing and why you're doing it.

How close are we to personalized medicine?

We are getting better and better at precisely profiling the molecular structure of a disease. Do we have all the biomarkers for all the diseases? No, but we're close. If we find the specific molecular profile for one type of cancer, can we actually hit the particular molecules that define the different varieties of that cancer? No, [but]

We now know that breast cancer is at least 10 distinct diseases ... characterized by different molecular profiles.

we're close. And that's one of the reasons I have a book out because we could have many more drugs, [and] we could be getting them out there faster.

Are existing laws hindering this process?

It's implementation that's been the challenge. The FDA is still largely stuck in trial protocols that do not let us exploit fully our ability to tailor drugs precisely to the patient's molecular profiles. The only way you can find out how a drug is going to interact with different profiles is actually to prescribe it to the patients. The FDA is still very much anchored in what are called randomized blind protocols. There's no

learn-as-you-go process in the early trials, where you learn about the different ways that different patients can respond to the same drug and then refine the way you prescribe that drug. That's one obstacle.

What would an alternative process be?

When you do things wrong with drugs you can do real harm, and we don't want to walk down that road either. The challenge is to make full use of the most powerful scientific tools, which now make possible this amazingly promising and powerful form of molecular medicine. You want to integrate this into every level of your analysis. We want comprehensive molecular data during the diagnostic stages. We want to encourage drug companies to develop targeted drugs, and we want to have an FDA approval process which assumes that molecular tracking is possible and in the trials themselves takes full advantage of this and develops these precision prescription protocols.

What are the obstacles to change?

The FDA has some very good people. I quote some of them in my book. [But] the protocols these institutions are using, they're now 50 years old. I think agencies develop some inertia. They get very good at doing something they've done for a long time and, when revolutionary change occurs, it's difficult to adapt. ●



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Answers to Quiz

1. C. Minesweeper
2. C. 21
3. True.
4. A. Less than 2
5. True.
6. A. Ammunition
7. True.
8. D. Franklin Roosevelt

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