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<http://www.asianweek.com/2008/10/31/research-into-hepatitis-b-continues/>

## Research Into Hepatitis B Continues

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The research community is abuzz about hepatitis B, thanks in part to recent advances in treatment.

Treatment options were not a luxury afforded to infected individuals until very recently. Injectable drugs have been used since the early 1990s to slow or prevent hepatitis-B-induced liver damage. But the drugs were often not well tolerated, leaving infected individuals and their doctors short on options, hope and time.

Since 1998, however, five oral treatments — all of them with few reported side effects — have been approved for the treatment of hepatitis B. The effectiveness of these newer drugs prompted the San Francisco Hep B Free campaign, launched in April 2007, to develop a referral network linking chronically infected individuals to care. The growing number of treatment options, as well as their effectiveness in slowing or stopping liver damage, also inspired the Centers for Disease Control and Prevention (CDC) to include treatment in its recently revised hepatitis B guidelines for the first time.

And the excitement and hope generated by these accomplishments are fueling researchers to direct more resources to better understand hepatitis B and to find new and better ways to battle the disease.

“The Bay Area is one of the anchor locations worldwide for hepatitis B research,” says Matt Gardner, president of BayBio, a trade association representing life science companies in Northern California. “And that makes perfect sense. We have four of the top major research centers in the country within a ninety-mile stretch — Stanford University, UC Berkeley, UC Davis and UC San Francisco. That, combined with the philanthropic institutes in the region, creates an unparalleled scientific research environment.”

### **Tallying up hope**

According to Gardner, eleven companies in the Bay Area alone are either developing hepatitis B treatments or diagnostics or already have treatments or diagnostics on the market.

Some are moving full steam ahead on the development of new drugs. Others are trying to figure out why existing drugs work on some patients and not on others, and why the virus

develops a resistance to therapy quicker in some patients than in others. Still other companies are trying to outsmart the hepatitis B virus by combining drugs to increase effectiveness and/or slow or prevent resistance. And others are trying to figure out why some chronically infected patients develop liver cancer, and others do not.

Nearly two-dozen hepatitis-B-related clinical trials are currently under way in the United States alone. Researchers at Maimonides Medical Center in Brooklyn, N.Y., are looking at whether a low-dose steroid could be used to increase liver function and slow viral growth in chronically infected Asians, who are disproportionately affected by the disease. An estimated one out of ten Asian and Pacific Islander Americans is infected with chronic hepatitis B.

Dynavax Technologies based in Berkeley, Calif., and Merck & Co., Inc. out of New Jersey have been conducting clinical trials on a drug called Hepislay, which is intended to treat late-stage hepatitis B.

Dozens more clinical trials are being conducted in Canada, Europe and Asia. The University of British Columbia, for instance, is testing a “helper gel” that, when applied to the injection site at the time of vaccination, may enhance the body’s protective response. U.K.-headquartered PowderMed is conducting clinical trials in Asia to determine whether the hepatitis B vaccine, when administered to chronically infected patients, reduces viral load.

Gardner is particularly excited about tests being developed locally to determine whether a patient will respond well to a treatment, before the patient has even taken the first dose. Without such tests, doctors are forced to take a “try-and-see” approach.

“Not every therapy works for every patient, and these tests would take a lot of the guess work out of it,” Gardner explains. “Imagine the power of informed choice that gives to doctors and their patients. That’s among the most interesting trends in the industry — companion diagnostics.”

He adds: “There’s so much happening right now. We understand the human genome better, [and] we have better computing power. This is a really exciting time to be a part of this industry.”

Written by Bill Picture · Filed Under [Hep B Section](#)