THE NEWSLETTER OF THE HEPATITIS B FOUNDATION FALL 2014

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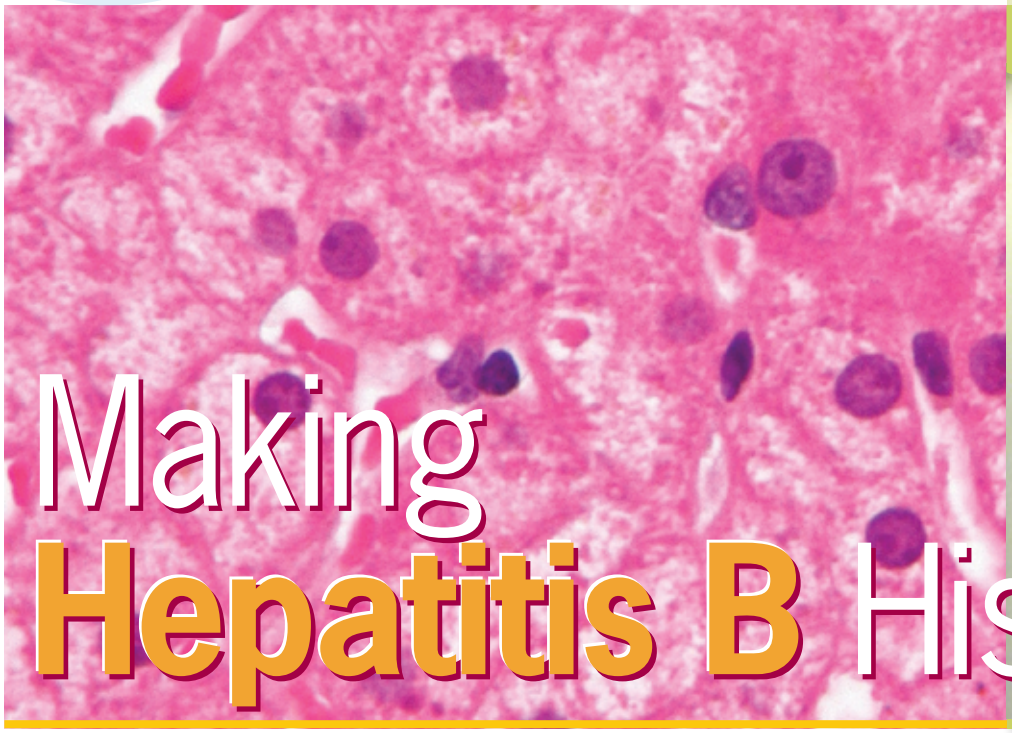

Making Hepatitis B History:

Research at the HBF's Baruch S. Blumberg Institute

Hepatitis C is now declared curable. Hepatitis B is still not, despite having been discovered nearly 50 years ago.

Perhaps this should not be a surprise, thinks **Timothy Block, PhD**, president and co-founder of the Hepatitis B Foundation (HBF) and its research arm, the Baruch S. Blumberg Institute. According to Block, there are two main reasons for the "cure deficit" between hepatitis B and C — funding and physiology.

He points out that commercial and federal investment in hepatitis C have been far greater than in hepatitis B. And that has clearly paid off in terms of finding a hepatitis C cure. "You get what you pay for," he observes.

Physiologically, hepatitis B also presents unique challenges not found with hepatitis C — most notably cccDNA (or covalently closed circular DNA), the "mini-chromosome" produced by the hepatitis B virus. The cccDNA persists in the nucleus of the liver cell, where it can hide amidst the host's own chromosomes, apparently out of reach of the cell's own defense systems.

"The Hepatitis B Foundation and its Blumberg Institute… continue to be at the forefront in developing a promising pipeline for hepatitis B drug discovery."

Acting like "an indestructible template," cccDNA continues to produce virus particles throughout the life of the infected liver cell, even in people being treated with antiviral agents.

Hepatitis C, on the other hand, doesn't enter the cell's nucleus, so it's possible to cure a person by stopping this virus from replicating long enough for the liver cells to regenerate.

"But remember that people who have been "cured" of hepatitis C can still get re-infected," Block cautions. The hepatitis C drugs apparently do not trigger an immune response that protects against re-infection.

In contrast, some people can be cured of hepatitis B, either naturally or through drug therapy. These individuals do seem to have long-term protective immunity. "And that's what we are aiming for," he declares.

Continued on page 3

High magnification micrograph of ground glass hepatocytes, as seen in a chronic hepatitis B infection with a high viral load. Liver biopsy. H&E stain. Lipofuscin (fine brown/yellow granular pigment) is seen in several of the hepatocytes. By Nephron; CC BY-SA 3.0

Cause for a Cure

The Hepatitis B Foundation is a national nonprofit organization dedicated to finding a cure and improving the quality of life for those affected by hepatitis B worldwide through research, education and patient advocacy.

From the Editor's Desk

Seizing the Moment

Joan M. Block, Co-Founder and Executive Director

With hepatitis C now curable, the world's focus is returning to hepatitis B, and the Hepatitis B Foundation is ready to seize the moment. Our scientists at the Baruch S. Blumberg Institute are gaining momentum in the search for a cure (front page). Equally energized, our outreach and public health group is building on its successes both nationally and internationally.

The HBF's Baruch S. Blumberg Institute has arguably one of the largest nonprofit research groups that is dedicated to the problem of hepatitis B and liver cancer. In the U.S., our *Hep B United* national coalition held its second annual summit in Washington, DC, to update its strategic action plan to increase screening and linkage to care at the community level. This plan was given a tremendous boost by the U.S. Preventive Services Task Force that approved new recommendations for hepatitis B screening in high-risk groups (page 5). In China, our 3-year Haimen City Project was a great success and the first of several articles about our results has been published (page 6). In addition, we just received a new grant from the BMS Foundation to conduct more work in Haimen City.

Our efforts to keep the spotlight on hepatitis B is taking on a new urgency. By pursuing cutting-edge research in pursuit of a cure (pages 1, 3), helping the WHO develop new hepatitis B guidelines for resource-constrained countries (page 2), working with our federal partners to increase national awareness (page 5), and educating our policy decision-makers (pages 5, 6), the Hepatitis B Foundation is poised to truly help make hepatitis B history…at this moment.

Please give generously to our 2014 Annual Fund!

Your donation helps us continue our valuable research, outreach, and patient advocacy programs. Thank you in advance for your support of our mission to find a cure for hepatitis B and to improve the lives of those affected worldwide. Thank you!

IN THE NEWS

Liver Cancer the 3rd Deadliest Cancer in U.S. by 2030

By 2030, U.S. cancer incidence and deaths are projected to dramatically shift, according to a recent study by the Pancreatic Cancer Action Network and MD Anderson Cancer Center. Although breast, prostate, and lung cancers will remain the most common cancers for the next 20 years, the incidence rate for breast cancer is not changing significantly, and the incidence rates for lung and prostate cancers are decreasing by 1 - 2% per year.

Liver cancer, by contrast, shows a remarkable increase of 3% or more in incidence rate each year. Most strikingly, by 2030, the top cancer killers will be lung, pancreas, and liver cancers, surpassing breast, prostate and colorectal cancers.

Greater investment in prevention and early detection, as well as effective therapies, can significantly change the death rates for many cancers. The dramatic increase in the projected number of deaths due to liver and pancreatic cancers should serve as a wake-up call to the U.S. research and healthcare systems, the study authors warn.

WHO Invites Hepatitis B Foundation to Help Develop Their HBV Management Guidelines

The World Health Organization (WHO) will release their first management guidelines for hepatitis B by the end of this year. The overall scope of the guidelines will include prevention, screening, and treatment of chronic hepatitis B infection that is geared towards resource-constrained countries. Most of the currently available HBV guidelines are for high-income countries. Thus, WHO's guidelines will be valuable for countries where the disease burden is high but resources are lacking.

The WHO Global Hepatitis Programme established a Guideline Development Group of external experts in 2013, which includes HBF executive director **Joan Block**, and is co-chaired by **Dr. Brian McMahon**, who also serves on the HBF Scientific and Medical Advisory Board.

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Making Hepatitis B History:

Research at the HBF's Baruch S. Blumberg Institute

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Why We Need a Cure for Hepatitis B

It can be argued that the approved antiviral agents are very successful in keeping the virus under control. So do we really need a cure? Definitely yes, Block replies emphatically.

Current antiviral drugs are effective, but need to be taken lifelong and are recommended for use in only about half of the infected population. And even after 10 years of use, the antivirals reduce HBV-related diseases by only about 50 to 60 percent. The drugs can also lead to the development of resistant hepatitis B strains (drug resistance).

For those who benefit from treatment, the antiviral drugs have been transformational and prove that medical intervention can be effective. However, there are millions who do not benefit and are still left vulnerable.

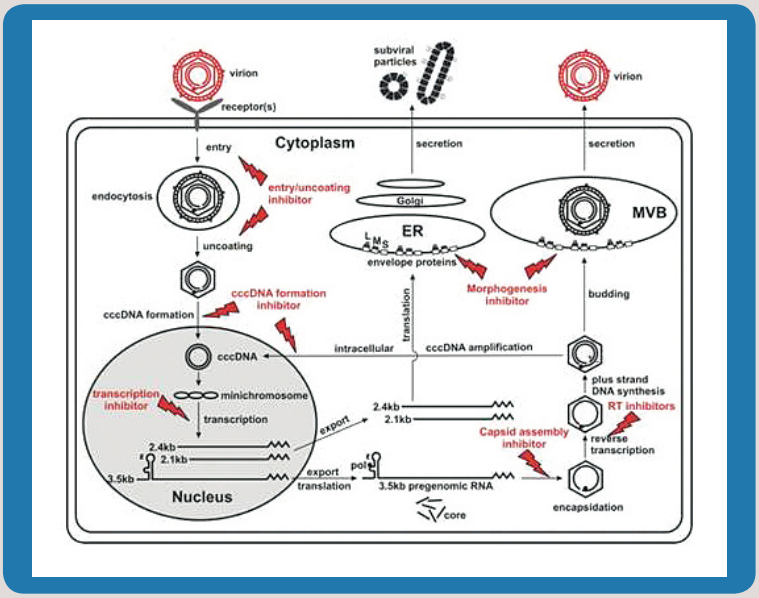
Clearly, new approaches to a "functional cure" are needed, which Block defines as "returning the risk of death due to hepatitis B to the level of someone who has a resolved infection." And the person should not need to take any drugs to stay at this low-risk level.

Targeted Strategy for a Cure

The HBF/Blumberg Institute scientists, with their research partners from Drexel University College of Medicine, both located in the HBF's Pennsylvania Biotechnology Center, are developing two types of therapies: direct-acting antivirals and innate host defense activators. The first type inhibits virus-host interactions and viral gene products; the second recruits the host's immune system to attack and eliminate cccDNA and infected liver cells.

For each of these approaches, the researchers have identified key steps to target in the hepatitis B infection cycle, from virus entry into the liver cell, to cccDNA replication, to formation of virus particles.

For many of these steps, "Our scientists have developed assays that can be used to screen for new drugs. We are a recognized leader in designing and developing these assays and, for a time, had the only cccDNA-dependent cell lines," notes Block. Almost 100 different cell lines for assays have been developed that can be used to screen for drugs that activate the innate host defense pathways.



Possible drug targets being developed by researchers from the Hepatitis B Foundation's Baruch S. Blumberg Institute and their Drexel University partners.

For drug screening, cell lines are incubated with potential drug candidates from the Foundation's own library of almost 90,000 compounds and the natural products collection that it received as a donation from Merck & Co. in 2011.

The strategic goal is to discover new drugs that complement existing therapies, but also enable the immune system to provide long-lasting antiviral protection, even when the person is no longer on drug therapy.

Several compounds in development already show some effectiveness in animal models. "We have a *capsid inhibitor, a pregenomic RNA capsid inhibitor* (JT Guo), an *HBsAg inhibitor* (A Cuconati), a *cccDNA repressor* (H Guo, A Cuconati, JT Guo), and an *activator of innate host defense pathways* (J Chang and JT Guo)," Block reports.

He is particularly excited about their *stimulator of interferon genes* (STING) agonist, which was very effective in mouse models. The research group is now working on a human STING agonist, although an appropriate assay for this compound still needs to be developed.

What the Future Holds

"The Hepatitis B Foundation and its Blumberg Institute have contributed to some of the most important work in studying the phases of the virus life cycle that has led to the currently available drugs. Our researchers continue to be at the forefront in developing a promising pipeline for hepatitis B drug discovery," says Block.

"I am absolutely confident that a cure is possible" he asserts. "After all, enough people with hepatitis B resolve their infections, either medically or spontaneously — even some people with chronic infections. So we know it's possible."

HBF DRUG WATCH

FALL 2014

HBV Compounds in Development

www.hepb.org/drugwatch

FAMILY/DRUG NAME	MECHANISM	COMPANY	WEBSITE	STATUS, USA
INTERFERONS Mimic naturally occurring infection-fighting immune substances produced in the body				
Intron A (Interferon alfa-2b)	Immunomodulator	Merck, Whitehouse Station, NJ	merck.com	FDA Approved 1991
Pegasys (PegInterferon alfa-2a)	Immunomodulator	Genentech, South San Francisco, CA	gene.com	FDA Approved 2005
NUCLEOSIDE ANALOGUES Interfere with the viral DNA polymerase enzyme used for hepatitis B virus reproduction				
Epivir-HBV (Lamivudine)	Inhibits viral DNA polymerase	GlaxoSmithKline, Phila., PA	gsk.com	FDA Approved 1998
Hepsera (Adefovir Dipivoxil)	Inhibits viral DNA polymerase	Gilead Sciences, Foster City, CA	gilead.com	FDA Approved 2002
Baraclude (Entecavir)	Inhibits viral DNA polymerase	Bristol-Myers Squibb, Princeton, NJ	bms.com	FDA Approved 2005
Tyzeka (Telbivudine)	Inhibits viral DNA polymerase	Novartis, Switzerland	novartis.com	FDA Approved 2006
Viread (Tenofovir)	Inhibits viral DNA polymerase	Gilead Sciences, Foster City, CA	gilead.com	FDA Approved 2008
Clevudine (L-FMAU)	Inhibits viral DNA polymerase	Bukwang, Seoul, Korea, Eisai, Japan	bukwang.co.kr	Approved in S. Korea 2006 (Levovir)
NEW! Tenofovir alafenamide (TAF)	Pro-drug of tenofovir	Gilead, Foster City, CA	gilead.com	Phase III
AG X-1009	Pro-drug of tenofovir	Agenix, Australia	agenix.com	Phase I, China
NON-NUCLEOSIDE ANTIVIRALS Interfere with proteins involved in viral reproduction				
Myrcludex B	Blocks viral entry	Hepatera, Russia with Myr-GmbH, Germany	hepatera.ru	Phase IIa, Russia
ARC520	RNAi gene silencer	Arrowhead Research, Pasadena, CA	arrowheadresearch.com	Phase IIa
NVR-1221	Capsid inhibitor	Novira Therapeutics, Doylestown, PA	noviratherapeutics.com	Phase IIa
HAP Compound (Bay 41-4109)	Inhibits viral nucleocapsid	AiCuris, Germany	aicuris.com	Phase I
REP 9AC	HBsAg release inhibitor	REPLICor Inc., Montreal, Canada	replicor.com	Phase I
Alinia (Nitazoxanide)	Small molecule	Romark Labs, Tampa, FL	romark.com	Preclinical
dd-RNAi compound	Gene silencing	Benitec, Australia, Biomics, China	benitec.com	Preclinical
BSBI-25	ccc-DNA inhibitor	Baruch S. Blumberg Institute, Doylestown, PA	blumberginstitute.org	Preclinical
TKM-HBV	HBsAg inhibition	Tekmira, Vancouver, Canada	tekmira.com	Preclinical
NEW! ALN-HBV	RNAi gene silencer	Alnylam, Cambridge, MA	alnylam.com	Preclinical
NEW! Birinapant (TL32711)	SMAC inhibitor	TetraLogic, Malvern, PA	tetralogicpharma.com	Preclinical
NON-INTERFERON IMMUNE ENHANCERS Boost T-cell infection-fighting immune cells and natural interferon production				
Zadaxin (Thymosin alpha-1)	Immune stimulator	SciClone, San Mateo, CA	sciclone.com	Orphan drug approval in U.S. for liver cancer
GS-4774	Therapeutic vaccine	Gilead Sciences with GlobeImmune, Louisville, CO	gilead.com	Phase II
DV-601	Therapeutic vaccine	Dynavax, Berkeley, CA	dynavax.com	Phase 1B
HBV Core Antigen Vaccine	Therapeutic HBV vaccine	Emergent Europe, UK	ebse.com	Phase I
GS-9620	TLR-7 agonist	Gilead Sciences, Foster City, CA	gilead.com	Phase I
POST-EXPOSURE AND/OR POST-LIVER TRANSPLANT TREATMENT				
HyperHEP B S/D	HBV immuneglobulin	Grifols, RTP, NC	grifolsusa.com	FDA Approved 1977
Nabi-HB	HBV immuneglobulin	Biotest, Boca Raton, FL	biotestpharma.com	FDA Approved 1999
Hepa Gam B	HBV immuneglobulin	Cangene, Ontario, Canada	cangene.com	FDA Approved 2006

*Thank you to **Timothy Block, PhD** (HBF President), **Brent Korba, PhD** (Georgetown U) and **Raymond Schinazi, PhD** (Emory U and RFS Pharma) for their regular review of the HBF Drug Watch.*

For More Information...

- **HBV Clinical Trials** hepb.org/clinicaltrials
- **HBV Info & Support List** (adults) HBList.net
- **Resource Round-Up** hepb.org/resources
- **HBV Adoption List** (parents) groups.yahoo.com/group/hbv-adoption/info

Hep B United 2nd Annual Summit Travels to Washington, DC

Arriving from all corners of the country, 40 partners convened in Washington, DC, for the 2nd *Hep B United* Annual Summit on May 21-23, 2014. The purpose was to review and update its 2012 community strategic plan to advance the HHS Viral Hepatitis Action Plan. In addition, participants visited Congressional offices on the final day to increase awareness about hepatitis B.

From community coalitions and health centers to national nonprofit and federal partners, attendees engaged in lively panel and roundtable discussions about community-based hepatitis B screening and linkage to care, as well as data collection and management, and how to leverage existing federal resources that include CDC's *"Know Hepatitis B"* campaign materials.

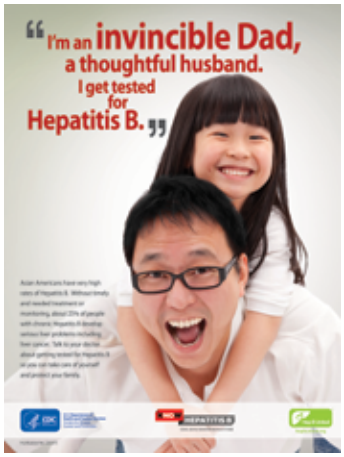
With the newly approved U.S. Preventive Services Task Force (USPSTF) recommendations for hepatitis B screening in high-risk ethnic groups, *Hep B United* coalition partners anticipate improved screening and educational opportunities in their local communities. In addition, surveillance efforts will be strengthened by standardizing data collection and sharing data among *Hep B United* partners to develop a more complete picture of chronic hepatitis B infection in the U.S.

The 2014 *Hep B United* Annual Summit was held May 21-23 in Washington, DC. From community coalitions and health centers to national nonprofit and federal partners, more than 40 attendees focused on how to improve hepatitis B screening and linkage to care rates in the U.S.

Federal Support for *Hep B United*

Leaders from the federal government joined the two-day Summit to show their support for *Hep B United* and share their national priorities. **Dr. Cynthia Jorgensen** and her colleague **Ms. Sherry Chen**, CDC Division of Viral Hepatitis (DVH), presented new materials from the *Know Hepatitis B* campaign, which is co-branded with the name *"Hep B United."*

Dr. Ron Valdiserri, HHS deputy assistant secretary, and his colleague **Ms. Corinna Dan**, reviewed the update of the HHS Viral Hepatitis Action Plan that was released in May 2014. **Ms. Christine Harley**, White House Initiative on Asian American and Pacific Islanders, spoke about the Administration's efforts to address health disparities, and **Dr. John Ward**, CDC/DVH director, closed the Summit with high praise for *Hep B United* and spoke about global initiatives that reflect the growing momentum around viral hepatitis worldwide.



Updated HHS Viral Hepatitis Action Plan Released

On April 3, 2014, Secretary of Health and Human Services (HHS) **Kathleen Sebelius** released a three-year update of the HHS Viral Hepatitis Action Plan (2014-2016). The updated Plan builds on the momentum generated by the original Action Plan of 2011, which was led by Assistant Secretary for Health **Dr. Howard Koh**.

The goal is to strengthen the nation's response to viral hepatitis and improve the coordination of viral hepatitis activities nationwide.

Six Priority Areas (2014-2016)

1: Educate providers and communities to reduce viral hepatitis-related health disparities
2: Improve testing, care, and treatment to prevent liver disease and cancer
3: Strengthen surveillance to detect viral hepatitis transmission and disease
4: Eliminate transmission of vaccine-preventable viral hepatitis
5: Reduce viral hepatitis caused by drug-use behaviors
6: Protect patients and workers from healthcare-associated viral hepatitis

HBF Executive Director Joan Block Honored at White House Event

Joan Block *(left)*, HHS Assistant Secretary **Dr. Howard Koh**, HBF senior program manager **Kate Moraras** *(center)*, and HBF director of public health **Chari Cohen** *(right)* at the White House on World Hepatitis Day. (July 30, 2014)

World Hepatitis Day is celebrated annually on July 28, the birthday of HBF co-founder **Dr. Baruch S. Blumberg**, who won the Nobel Prize for his discovery of the hepatitis B virus. To commemorate the day, the Office of National Drug Control Policy and Office of National AIDS Policy sponsored a White House briefing to honor national and international efforts to address the "silent epidemic" of viral hepatitis.

Dr. Howard Koh, Assistant secretary for Health, HHS, was the keynote speaker and gave special recognition to individuals, including the Hepatitis B Foundation's co-founder and executive director **Ms. Joan Block**, who have demonstrated "exemplary leadership" in furthering the goals of the HHS Viral Hepatitis Action Plan.

In particular, Ms. Block led the effort to end hepatitis B-related discrimination by working with the U.S. Centers for Disease Control to update their recommendations for infected health care workers and students (2012). The updated recommendations became the cornerstone of the U.S. Department of Justice's settlement with a New Jersey medical school that barred infected students from entering their program. As a result of the settlement, hepatitis B is now a protected condition under the Americans with Disabilities Act (as of March 2013).

HBF at the Forefront

HBF's Haimen City Project in China a Success

BMS Foundation president **Mr. John Damonti** *(right)* and program director **Ms. Phangi Mtshali** *(2nd from left)* visit Haimen City with **Dr. Gang Chen**, HBF director of China Programs *(middle)*, and **Dr. Wenyao Lin**, Haimen City CDC.

The Hepatitis B Foundation published the first of several planned papers on the success of its comprehensive public health campaign launched in 2011 in Haimen City, China. The city has one of the highest incidences of liver cancer and mortality in China — and the world — due to chronic hepatitis B virus (HBV) infection.

Reaching one million residents, the three-year citywide campaign is the first of its kind in China and was funded by a competitive grant from the Bristol-Myers Squibb Foundation. All 280,000 households in Haimen City received educational literature about hepatitis B over three years, and 90% of healthcare providers (1,441) and 80% of community leaders and local officials (1,883) attended the educational seminars.

During one year, 100% of pregnant women in the city (5,407) were registered and screened for HBV, with 5% testing positive. The infected mothers were monitored throughout pregnancy and their infants received one dose of hepatitis B immunoglobulin and the first dose of HBV vaccine at birth.

The campaign was successful, project leaders report, because local stakeholders were involved at the start of the campaign, and onsite project management was provided by a local, trusted public health expert.

Read the entire journal article: *Gateway to Care campaign: a public health initiative to reduce the burden of hepatitis B in Haimen City, China (Aug 2014). Chen G, Block J, Evans A, Huang P, Cohen C. BMC Public Health 2014; 14:754. Download @ www.biomedcentral.com/1471-2458/14/754*

HBF Receives $313,000 Grant from BMS Foundation for New Program in Haimen City, China

The Hepatitis B Foundation has been awarded a new grant for a patient empowerment health program in Haimen City, China. **Dr. Gang Chen**, HBF director of China Programs, will create a community-based program over the next two years to empower 1,500 chronic hepatitis patients to become active partners with their providers in managing their health. The program's goal is to prevent the fatal consequences of chronic hepatitis by providing educational materials and motivational strategies to help patients make decisions that will extend their health and save lives.

HBF's Clinical Algorithm for Hepatitis B Published in 5 Primary Care Journals

Primary care providers should play a key role in the early diagnosis and monitoring of chronic hepatitis B infection, but many have limited understanding about who to screen and what to do when a patient tests positive for hepatitis B. In 2010, the Hepatitis B Foundation convened a small panel of experts in family medicine, internal medicine, maternal and fetal medicine, and nurse practitioners and physician assistants that was led by **Drs. Brian McMahon** and **W. Thomas London**, both HBF medical advisors. Over two days, the group developed a simple algorithm and clear recommendations for hepatitis B screening, evaluation, and monitoring in the primary care setting, which has now been in published in five major journals for primary care providers *(sidebar)*.

Hep B United Philadelphia Storms City Hall!

Led by the Hepatitis B Foundation, more than 60 *Hep B United* members, including HepCap and the Philadelphia County Medical Center, stormed Philadelphia's City Hall to demand an end to the silence around viral hepatitis. Wearing t-shirts emblazoned with "Don't Let Hepatitis Sneak Up On You – Get Tested," they gave enthusiastic support to **City Councilman David Oh** as he called for increased hepatitis B testing, vaccination and care.

Hepatitis B Foundation Publications

HBV Screening and Monitoring Algorithm for Primary Care Providers

Download articles at *www.hepb.org*

Physician Assistants

The role of primary care physician assistants in managing chronic hepatitis B (2014), *Beckett, GA, Block, JM, Cohen, C, McMahon, B. J of the American Academy of Physician Assistants 27(3):51-54.*

Nurse Practitioners

Screening and Management Algorithm for Hepatitis B in Primary Care (2013), *Tarrant D, Block JM, McMahon B. J Nurse Practitioners;9 (4): 233-237.*

OB/GYN Physicians

Chronic Hepatitis B In Pregnancy: A Workshop Consensus Statement on Screening, Evaluation & Management, Part 1 (April 2012). *Apuzzio J, Block JM, Cohen C, Cullison S, Leong SL, London WT, McHugh JA, McNellis RJ, Perrillo R, Squires R, Tarrant D, McMahon BJ. The Female Patient;37(4):22-27.*

Chronic Hepatitis B Infection: A Workshop Consensus Statement on Screening, Evaluation & Management, Part 2 (May 2012). *Apuzzio et al. The Female Patient;37(5):30-4.*

Internal Medicine

Internist Diagnosis and Management of Chronic Hepatitis B Virus Infection (2012). *McMahon B, et al. American J of Medicine; 125, 1063-1067.*

Family Medicine

Chronic Hepatitis B Infection: A Workshop Consensus Statement and Algorithm (Sept 2011). *McHugh JA, Cullison A, Apuzzio J, Block JM, Cohen C, Leong SL, London WT, McNellis RJ, Neubauer RL, Perrillo R, Squires R, Tarrant D, McMahon BJ. J Fam Practice;60(9):E1-8.*

SPEAKING PERSONALLY

The Public Health Popularity Contest: Why You've Never Heard of Hepatitis B

By Charlotte Lee

On the first day of my internship, I was ready to take on what I thought were the major public health crises of the world – malaria, AIDS, avian flu. Instead, my supervisor gave me a hefty stack of literature on hepatitis B.

Sure, as a premed student I knew that hepatitis had something to do with the liver.

But I was shocked to learn that hepatitis B was the most common serious liver infection in the world and chronically infects over 400 million people worldwide, including 1 in 12 Asian Americans. And I had barely heard of it.

As a 21-year-old Asian American who is passionate about global health, I felt cheated to only now discover that there is an infectious disease disproportionately affecting my community. Somebody should have told me about this!

To then find out that it is completely vaccine-preventable – somebody should have told ***everyone*** about this!

About halfway through my internship, I found out that my grandfather had died of viral hepatitis that he had contracted through a blood transfusion. Suddenly the disease had a face, and it was a smiling man with wide rimmed glasses who used to sit me on his lap and feed me popcorn.

It now feels like my duty to spread the word.

Hepatitis B is transmitted through blood or body fluids and causes deadly liver disease, including liver cancer, which affects 1 in 4 chronically infected people (or 25%). Meanwhile, the famous West Nile virus causes serious illness in less than 1% of infected people.

Easy to Ignore

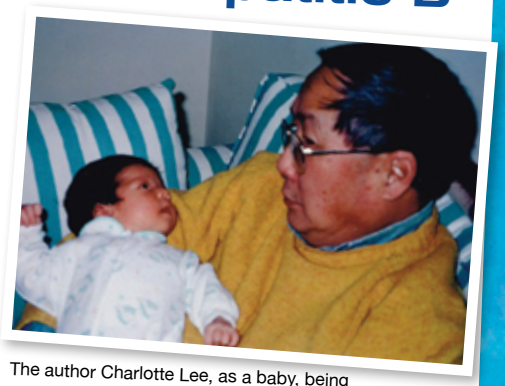
So, what makes hepatitis B so easy to ignore? Unfortunately it's an invisible killer. It can take decades before symptoms appear, by which time cirrhosis or liver cancer may have already developed.

Its symptomless nature also makes it hard to visualize. While other diseases invoke graphic images of illness, hepatitis B silently devastates the liver, which continues to function even when severely damaged.

Hepatitis B affects a population invisible to the media. Two thirds of affected people are unaware they are infected. While anyone can get the disease, Asian Americans account for more than half of hepatitis B cases in the US. Most get the disease at birth from their infected mothers.

It's possible that the lack of awareness about hepatitis B is due to an attitude of "it won't happen to me, so I don't care." But most Americans don't consider themselves at risk for AIDS, malaria, or tuberculosis, yet those diseases have plenty of name recognition.

One thing that AIDS, malaria, and tuberculosis all have in common is their deadliness. AIDS killed 1.47 million people in 2010. But did you know that viral hepatitis (hepatitis B and C combined) killed 1.44 million that same year?



The author Charlotte Lee, as a baby, being held by her grandfather Henry Lee.

What frustrates me most is that hepatitis B is preventable, a disease that we can eradicate. The hepatitis B vaccine is one of the safest and most effective immunizations available, and it protects you for life. The CDC recommends all babies receive the vaccination at birth, yet many major hospitals in New York City are not immunizing newborns, with some vaccination rates as low as 20%.

Hepatitis B needs public health champions to get it into the spotlight. Policies need to be passed to fund much-needed education, surveillance, vaccination, and treatment programs. This system doesn't yet exist, but thankfully there are people working tirelessly towards it.

My internship will soon end, but advocacy never rests. There is always more to be done.

Editor's Note: Charlotte Lee is a senior premed student at Duke University, where she is studying Public Policy with minors in Global Health and Chemistry. This summer, she worked on hepatitis B policy issues at the Charles B. Wang Community Health Center in New York City.

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Africa's Growing Hepatitis B Crisis

According to the WHO Global Hepatitis Survey 2013, the prevalence of chronic hepatitis B virus (HBV) infection on the African continent is up to 8% of the general population, and 75% of the population may have had prior exposure to the virus.

Yet, only two of the African member states that responded to the WHO Survey have a written national strategy to prevent and control viral hepatitis.

Theobald Hepatitis B Foundation sponsors World Hepatitis Day in Ghana. *(July 28, 2014)*

In Ghana, where the incidence of viral hepatitis is increasing, the sero-prevalence rate is high among blood donors (6.7%), pregnant women (6.5%) and school-aged children (15.6%), according to **Mr. Theobald Owusu-Ansah**, president of the Theobald Hepatitis B Foundation and the Hepatitis B Coalition in Ghana.

Compounding the lack of public health plans and national investment are factors common in many low-resource countries: limited awareness of hepatitis B among the public and providers, poor access to care, expensive therapies, and few liver specialists.

Global agencies are beginning to recognize the urgency of the situation. The World Health Assembly adopted a second resolution on viral hepatitis in May 2014 that advises governments on how to prioritize and coordinate public health efforts. And the World Health Organization will publish its first guidelines for HBV management in low-resource countries by the end of the year.

But governments cannot tackle these problems alone, Mr. Owusu-Ansah believes. He urges governments to partner with commercial and nonprofit organizations to mobilize much-needed expertise and resources.

Find HBF on your favorite social media networks and join the conversation…

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/company/hepatitis-b-foundation

/hepbfoundation **wp.hepb.org**

B Informed **and all back issues are available online at www.hepb.org/newsletters**

Calendar of Events 2014-2015

October is Liver Cancer Awareness Month

For more information, visit our comprehensive liver cancer website at *LiverCancerConnect.org*

LIVER CANCER CONNECT

2015

March 12-15, 2015
APASL Conference
Asian Pacific Association for the Study of the Liver
Istanbul, Turkey
apasl2015.org

April 17, 2015
Crystal Ball
Hepatitis B Foundation
Warrington, PA
hepb.org

April 22-26, 2015
EASL Liver Congress
European Association for the Study of the Liver
Vienna, Austria
easl.eu

July 28, 2015
World Hepatitis Day
worldhepatitisalliance.org

Sept 2-4, 2015
World Hepatitis Summit
World Hepatitis Alliance
Glasgow, Scotland
worldhepatitisalliance.org

Oct. 4-8, 2015
International HBV Meeting
Coordinated by Hepatitis B Foundation
Dolce Bad Nauheim, Germany
HBVMeeting.org

Nov. 13-17, 2015
The Liver Meeting 2015
AASLD
San Francisco, CA
aasld.org