Informed

THE NEWSLETTER OF THE HEPATITIS B FOUNDATION

HepB.org

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Fall 2017

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Hepatitis B Foundation Releases *Roadmap for a Cure*

Baruch S. Blumberg Institute Discoveries Enter HBV Clinical Trials

In 2003, the Hepatitis B Foundation (HBF) established a research institute, renamed in 2013 as the *Baruch S. Blumberg Institute*, to accelerate the pace of research for a cure. The Blumberg Institute is focused on discovering new ways to eliminate the hepatitis B virus (HBV) and to discover curative therapies. Our researchers are committed to quickly bringing forth ideas for beneficial human use, to fulfill the mission of the HBF. *Most ambitiously, our goal is to hand off discoveries for human development within a three-year time frame.*

Today, the Blumberg Institute supports one of the the largest concentrations of nonprofit scientists working on the problem of HBV and related liver cancer. There is great excitement about the possibilities of new curative therapies for hepatitis B, and our recent progress is highlighted below.

Experimental Therapeutics, led by **Ju-Tao Guo, MD**, the *W. Thomas London Distinguished Professor*, working with **Jinhong Chang, MD, PhD**, professor, and **Timothy Block, PhD**, president of HBF and Blumberg Institute, has identified several HBV antivirals that have unique targets (*see Campagna, 2013; Guo & Guo, AVR, 2015; Cai, 2015; Cui, 2016; Liu, 2016*). Some of these are now entering human clinical trials, with Phase II studies expected by the end of 2017. Dr. Guo has been studying the compound's mechanism of activity in detail. For example, HBV cccDNA synthesis has been shown to depend upon cellular repair enzymes (*Cui, 2016; Qi, 2016*). Working with Dr. Chang, they have identified first-in-class 'agonists' of stimulator of interferon genes (*see Guo, 2015; Chang, 2015; Zhang, 2016*). The group also searches for new drugs, using our natural products collection, led by **Matt Todd, PhD** with **Jason Clement PhD** and **Sung Park, PhD**.

But most importantly, Blumberg Institute research discoveries are now in human clinical trials! In a license with Arbutus Biopharma, a biotech company dedicated to hepatitis B therapeutics, one HBV antiviral from our labs is in Phase I trials, and another that we have been working on collaboratively could be in human trials within the next 12 months. This is a huge milestone since our hope is that these drugs will contribute centrally to the management of, and hopefully cure for, hepatitis B.

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Ju-Tao Guo, MD

Jinhong Chang, MD, PhD

Timothy Block, PhD

Blumberg Institute Research Update

Continued from page 1

The Blumberg Institute research accomplishments even transcend hepatitis B and liver cancer. Some of the assays we design, and consequently drugs we find, have activity against other viruses. One important parallel line of work involves development of drugs active against hemorrhagic and other fever viruses of public health concern. This year, we reported new Yellow Fever virus and Ebola virus active drugs, with efficacy alone and in combination, in animal studies, carried out with collaborators at the National Institutes of Health (NIH) and the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID).

Early Detection Biomarkers is exciting work being conducted by our Translational Medical Research and Cancer Biomarker Discovery group, led by **Dr. Timothy Block** with **Ying-Hsiu Su, PhD.** They have focused on identification and development of liver cancer biomarkers to assist early detection and guide therapies, based on work with **Anand Mehta, DPhil**, now at Medical U. of South Carolina. One of the biomarkers, GOLPH 2 (GP73), has been studied in thousands of people (resulting in more than 150 publications from many institutions) and is in development by Abbott Labs for use in the U.S. (It is approved for use in China by the Chinese FDA). When used with other markers, in an algorithmic value, our biomarkers provide a very compelling non-invasive system to detect liver cancer early (*Wang, 2017*), and this is licensed to a spin-out company co-owned by the Blumberg Institute and inventors, called Glycotest.

Dr. Su took a genetic approach and determined that human urine contains small DNA fragments from the blood that come from virtually every organ. She has now developed a panel of tests to detect specific cancer associated mutations in DNA isolated from human urine, allowing for non-invasive detection of colorectal cancer, polyps, and of course, liver cancer. This is licensed to a company she created, called JBS.

New Cancer and Stem Cell Center, led by **Richard Pestell, MD, PhD**, world renowned cancer biologist, joined our faculty this year and has invigorated our cancer therapeutics and biology programs, establishing the Blumberg Institute's *Pennsylvania Center for Cancer and Regenerative Medicine Research*. They have now made a ground-breaking observation of a protein that appears to "suppress" prostate cancer. This information may be useful in developing new drugs, and in early cancer detection.

Photo courtesy of the Blumberg Institute.

Also, in the cancer research program, Blumberg Institute professors **Yanming Du, PhD**, and **John Kulp, PhD**, collaborated with doctors from Mt. Sinai Hospital in New York and found that the aminothiozole compound, found to be highly selective against liver cancer cells in our labs, retained excellent activity against primary liver cancers taken right out of patients. This is very encouraging and future study of these compounds is underway.

The Blumberg Institute is on a roll! The dream of discovering a curative therapeutic for hepatitis B, and seeing it in use to help people, is well on track, with drugs from or in collaboration with our labs, already being tested in people. Therefore, our model in which a nonprofit research institute accelerates translation of its discoveries into human use is working. But, we expect more of our discoveries, and discoveries we inspire, to reach human trials, soon. *Stay tuned!*

Ying-Hsiu Su, PhD

Richard Pestell, MD, PhD

Yanming Du, PhD

John Kulp, PhD

HEPATITIS B FOUNDATION

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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.

Hepatitis B Foundation Releases *Roadmap for a Cure*

FIRST NATIONAL CONSENSUS RESEARCH PLAN FOR THE ELIMINATION OF HEPATITIS B

The Hepatitis B Foundation has published a comprehensive research plan to find a cure for hepatitis B and related liver cancer. Based on consensus from 37 leading experts, our **Roadmap for a Cure** identifies six of the most promising areas of research into this deadly liver disease, as well as potential funding sources. The Roadmap will serve as the basis for focusing research and driving HBF's advocacy efforts to ensure sufficient public-private sector funding to eliminate hepatitis B by the year 2030.

The Roadmap is the cornerstone of our **Hep B Cure Campaign**, a national advocacy effort to double the federal research budget to find a cure for hepatitis B and related liver cancer. In preparing the Roadmap, we sought to build on reports from the World Health Organization, and the U.S. National Academies of Science, Engineering and Medicine, which concluded that hepatitis B could be eliminated by 2030 if a cure is found.

Our Roadmap defines specific areas of research to make this ambitious goal a reality: improved understanding of virology and viral therapeutics, and immunology; liver cancer and cirrhosis therapeutics and diagnostics; and developing research reagents and experimental models.

We convened a virtual workshop of 37 of the world's leading experts in hepatitis B and liver disease to identify the most promising avenues of research. Their consensus provided the basis of two papers: a white paper titled, *"A Roadmap for a Cure: Priority Areas for Chronic Hepatitis B and Liver Cancer,"* and a scientific manuscript titled, *"A Research Agenda for Curing Hepatitis B Virus Infection,"* which was accepted for publication in the journal *Hepatology*.

To create a professional judgement budget for the Roadmap, HBF asked a panel of five experts in health research funding to align the scientific projects with existing funding at the National Institutes of Health (NIH). Currently, the NIH spends an estimated $44 million each year on hepatitis B. The proposed budget calls for an additional $232 million of NIH support over the next six years (2018-2023) to support the science needed to eliminate hepatitis B.

"The time is right for an aggressive and rigorous research campaign to find a cure," said Dr. Timothy Block, president of the HBF and its Baruch S. Blumberg Institute. *"The almost 1 million deaths from hepatitis B worldwide is unacceptable, but recent advances in science make this a winnable battle. I am optimistic that a cure is possible and within reach."*

The HBF's Roadmap for a Cure is available at *www.hepb.org/roadmap.*

Hep B Cure Campaign Launched at Congressional Briefing

The Hepatitis B Foundation officially launched its **Hep B Cure Campaign** and unveiled the ***Roadmap for a Cure*** at the Congressional Briefing on May 24 in Washington, DC. The Briefing was hosted by HBF during May Hepatitis Awareness Month in collaboration with the *Congressional Hepatitis Caucus*, *Congressional Asian Pacific American Caucus*, **U.S. Senator Mazie Hirono** (D-HI) and **U.S. Rep. Barbara Lee** (D-CA), and with the support of National Viral Hepatitis Roundtable (NVHR) and the Association of Asian Pacific Community Health Organizations (AAPCHO).

Hepatitis B Foundation Congressional Briefing in Wash, DC, during May Hepatitis Awareness Month. *(May 24, 2017)*

Congresswoman Grace Meng (D-NY) gave a keynote address at the Congressional Briefing. "With over 40% of my constituents being Asian Americans, hepatitis B is a priority health issue since it disproportionately impacts these communities," said Meng. "This new *Roadmap for a Cure* is very exciting and reflects an increasing optimism among the scientific community that a cure for hepatitis B is within reach." **Congressmen Charles Dent** (R-PA) and **Brian Fitzpatrick** (R-PA) also supported the briefing, demonstrating bi-partisan concern for hepatitis B.

Family/Drug Name		Mechanism	Company	Website	USA Status
Interferons		Mimic naturally occurring infection-fighting immune substances produced in the body			
Intron A *(Interferon alfa-2b)*		Immunomodulator	Merck, USA	merck.com	Approved 1991
Pegasys *(PegInterferon alfa-2a)*		Immunomodulator	Genentech, USA	gene.com	Approved 2005
Nucleos(t)ide Analogues		Interfere with the viral DNA polymerase enzyme used for hepatitis B virus reproduction			
Epivir *(Lamivudine)*	*	Inhibits viral DNA polymerase	GlaxoSmithKline (GSK)	gsk.com	Approved 1998
Hepsera *(Adefovir Dipivoxil)*	*	Inhibits viral DNA polymerase	Gilead Sciences, USA	gilead.com	Approved 2002
Baraclude *(Entecavir)*	*	Inhibits viral DNA polymerase	Bristol-Myers Squibb, USA	bms.com	Approved 2005
Tyzeka *(Telbivudine)*	*	Inhibits viral DNA polymerase	Novartis, Switzerland	novartis.com	Approved 2006
Viread *(Tenofovir)*		Inhibits viral DNA polymerase	Gilead Sciences, USA	gilead.com	Approved 2008
Vemlidy *(TAF or tenofovir alafenamide)*		Prodrug of tenofovir	Gilead Sciences, USA	gilead.com	Approved 2016
Levovir *(Clevudine)*		Inhibits viral DNA polymerase	Bukwang, S. Korea	bukwang.co.kr	Approved 2006 in S. Korea
Besivo *(formerly ANA 380/LB80380)*		Inhibits viral DNA polymerase	Ildong Pharma, S. Korea	Ildong.com/en	Approved 2017 in S. Korea
Zadaxin		Immunomodulator	SciClone, USA	sciclone.com	Approved outside USA
DIRECT ACTING ANTIVIRALS		Targets the virus and interferes with specific steps in the HBV life cycle to prevent replication			
TDF Pro Drugs		Targets the virus and interferes with specific steps in the HBV life cycle to prevent replication			
TXL *(CMX 157)*		Prodrug of tenofovir	ContraVir, USA	contravir.com	Phase II
Silencing RNA's (siRNAs)		Interferes and destroys viral RNA			
ARB-1467		RNAi gene silencer (1.0)	Arbutus Biopharma, Canada	arbutusbio.com	Phase II
RG6004 *(HBV LNA)*		RNA targeted via Locked Nucleic Acid	Roche, Switzerland	Roche.com	Phase I/II
ALN-HBV		RNAi gene silencer	Alnylam, USA	alnylam.com	Preclinical
Hepbarna *(BB-HB-331)*		RNAi gene silencer	Benitec, Australia	benitec.com	Preclinical
Lunar-HBV		RNAi gene silencer	Arcturus, USA with Janssen	arcturusrx.com	Preclinical
ARO-HBV		RNAi gene silencer	Arrowhead Pharmaceuticals, USA	arrowheadpharma.com	Preclinical
Entry Inhibitors		Interferes with HBV getting into liver cells			
Myrcludex B		Entry inhibitor	Hepatera, Russia with MYR GmbH, Germany	myr-pharma.com	Phase II
Capsid Inhibitors		Interferes with the viral DNA protein shield			
Morphothiadin *(GLS4)*		Capsid inhibitor	HEC Pharma, PR China	pharm.hec.cn/en	Phase II
NVR 3-778		Capsid inhibitor	Janssen, USA	janssen.com	Phase II
AIC 649		Capsid inhibitor	AiCuris, Germany	aicuris.com	Phase I
JNJ56136379		Capsid inhibitor	Janssen, USA	janssen.com	Phase I
ABI-H0731		Capsid inhibitor	Assembly Biosciences, USA	assemblybio.com	Phase I
AB-423		Capsid inhibitor	Arbutus Biopharma, Canada	arbutusbio.com	Phase I
HBsAg Inhibitors		Interferes with production of HBV surface antigen (sAg)			
Rep 2139		sAg inhibitor	REPLICor, Canada	replicor.com	Phase II
Rep 2165		sAg inhibitor	REPLICor, Canada	replicor.com	Phase II
Antisense Molecules		Binds to the viral mRNA to prevent it from turning into viral protein			
IONIS-HBVRx *(GSK3228836)*		Viral protein inhibitor	Ionis Pharma with GSK, USA	ionispharma.com	Phase I
IONIS-HBVLRx *(GSK33389404)*		Viral protein inhibitor	Ionis Pharma with GSK, USA	ionispharma.com	Phase I
Ribonuclease H Inhibitor		Inhibit degradation of viral RNA			
RNaseH Inhibitor		Viral RNase inhibitor	Arbutus Biopharma, Canada	arbutusbio.com	Preclinical
INDIRECT ACTING ANTIVIRALS		Targets the human immune system to attack the HBV virus			
Therapeutic Vaccines		Vaccine technology used to stimulate the immune system as a treatment			
GS 4774		Therapeutic vaccine	GlobeImmune, USA	globeimmune.com	Phase II
INO-1800		Therapeutic vaccine	Inovio, USA	inovio.com	Phase I
HB-110		Therapeutic vaccine	Ichor Medical Systems with Janssen, USA	ichorms.com	Phase I
TG1050		Therapeutic vaccine	Transgene, France	transgene.com	Phase I
HepTcell		Therapeutic vaccine	Altimmune, USA	altimmune.com	Phase I
TomegaVax HBV		Therapeutic vaccine	TomegaVax, USA	tomegavax.com	Preclinical
Innate Immune Defense Pathway		Compounds that activate the innate immune system			
GS 9620		TLR-7 agonist	Gilead Sciences, USA	gilead.com	Phase II
RO6864018 *(RG7795/ANA773)*		TLR-7 agonist	Roche, Switzerland	roche.com	Phase II
Inarigivir *(SB9200)*		RIG -1 and NOD2 agonist	Spring Bank Pharmaceuticals, USA	springbankpharm.com	Phase II
GS9688		TLR-8 agonist	Gilead Sciences, USA	Gilead.com	Phase I
Host Acting Pathway		Compounds that induce programmed cell death (apoptosis)			
EYP001		FXR agonist	Enyo Pharma, France	enyopharma.com	Phase I
CRV 431 *(CPI 431-32)*		Ciclofillin inhibitor	ContraVir, USA	contravir.com	Preclinical
Other					
GC1102		sAg monoclonal antibody	Green Cross, S. Korea	globalgreencross.com	Phase II
LTCR-H2-1		T Cell immunotherapy	Lion TCR, Singapore	Liontcr.com	Preclinical
EBT106		Viral gene editing (CRISPR/Cas)	Excision Biotherapeutics, USA	Excisionbio.com	Preclinical
HEPATITIS DELTA VIRUS (HDV)					
Myrcludex B		Entry inhibitor	MYR-GmbH, Germany	myr-pharma.com	Phase II
Lonafarnib		Prenylation inhibitor	Eiger Biopharma, USA	eigerbio.com	Phase II
Lambda *(Pegylated interferon*		Immune response stimulator	Eiger Biopharma, USA	eigerbio.com	Phase II
Rep 2139		HBsAg inhibitor	REPLICor, Canada	replicor.com	Phase II
Ezetimibe		NTCP inhibitor	Ziauddin University Hospital, Pakistan	Zu.edu.pk	Phase II
ALN-HDV		RNAi gene silencer	Alnylam, USA	alnylam.com	Preclinical

* Generics Available

Empowering Hepatitis B Patients in Haimen City, China

***A Model Patient Empowerment Program* for Chronic Viral Hepatitis was a two-year collaboration between the HBF and Haimen City Center for Disease Control in China.**

The Patient Empowerment program built on the success of our three-year citywide education campaign from 2011-2013 that provided hepatitis B education to the 1.1 million residents, which included 280,000 households, 1,400 providers and free testing of 12,000 adults, as well as 5,400 pregnant women (whose newborns were vaccinated if the moms were infected).

The program focused on 1,500 chronically infected individuals, who were identified in the first phase, to empower them to take an active role in managing their disease. It involved training doctors from 52 villages about hepatitis B management and treatment, and how to support and guide the patients who were enrolled. During monthly visits and support group sessions, the doctors helped patients set their own management goals; discuss healthy choices and behaviors to prevent disease progression; identify barriers to taking care of themselves; and implement strategies for overcoming barriers.

A major goal of the empowerment program was for patients to understand the importance of regular medical check-ups, and motivate them to keep appointments. At the end of the two-year program, there was a dramatic decrease in smoking and drinking alcohol, especially among infected men. Additionally, over 90% of participants reported that it was important to receive regular check-ups regardless of how they felt or how busy they were. Of those who were referred for medical evaluation, 80% reported completing a doctor visit and 74% were recommended to begin treatment, with all but two successfully beginning HBV treatment.

The program had a substantial and meaningful impact on chronically HBV-infected residents in Haimen City, as reflected by lifestyle changes and improvements in hepatitis B knowledge and beliefs. The HBF hopes to expand this innovative program and use it as a model for other highly impacted communities to help reduce the enormous burden of hepatitis B worldwide.

Over 1,500 chronically infected patients were empowered to take an active role in managing their disease.

A Deadly Mix: Hepatitis Delta and HBV

Worldwide, the medical community is fully acknowledging a hidden threat to people with hepatitis B – the hepatitis D virus (Delta or HDV).

Hepatitis D, the most severe form of viral hepatitis, affects an estimated 15 to 20 million people worldwide and 20,000 people living with chronic hepatitis B in the U.S. Those who are coinfected with hepatitis B and D are at double the risk of developing cirrhosis and liver cancer, compared to those who are infected only with HBV.

Since its discovery in 1977, and decades of declining prevalence, U.S. health officials assumed hepatitis D did not pose a public health threat. Recent U.S. Centers for Disease Control and Prevention (CDC) studies, however, have found that 4-5% of Americans with chronic hepatitis B are also infected with hepatitis D.

As a result of these findings, researchers that include Hepatitis B Foundation's Medical Director **Robert Gish, MD**, are now urging medical organizations to establish hepatitis D screening and monitoring guidelines so doctors will start testing patients for this deadly virus. Educating both patients and providers about the dangers of hepatitis D coinfection is also the focus of the HBFs ***Hepatitis Delta Connect*** program (*hepdconnect.org*).

HEPATITIS DELTA CONNECT
hepdconnect.org

FAQS ABOUT HEPATITIS DELTA

- **How do people get infected with hepatitis D?** Only people already infected with hepatitis B, or those who acquire hepatitis B and D at the same time, can become infected. Hepatitis D can be contracted the same way as hepatitis B: direct contact with infected blood or bodily fluids. Unlike hepatitis B, mother to child transmission is uncommon.
- **Who is at risk of hepatitis D?** Anyone with chronic hepatitis B who has immigrated from Sub-Saharan Africa, China, Russia, Middle East, Mongolia, Romania, Georgia, Turkey, Pakistan and the Amazonian River Basin should be tested. Hepatitis D rates in some of these countries can reach up to 60 percent in people infected with chronic hepatitis B.
- **How is hepatitis D treated?** Although there are several promising new drugs in clinical trials, there is only one currently available treatment, pegylated interferon.

For more information about hepatitis D, promising drugs, and the HBF's Hepatitis Delta Connect program, visit www.hepdconnect.org and follow @hepdconnect on Facebook, Twitter and Instagram.

A Capitol Celebration

5th Annual Hep B United National Summit

The *5th Annual Hep B United National Summit and Advocacy Day* was held July 26-28 in Washington, DC, to commemorate World Hepatitis Day on July 28 and to celebrate five years as a national coalition dedicated to reducing the health disparities associated with hepatitis B. The summit is the largest gathering of hepatitis B community leaders from around the country with over 80 partners representing community-based hepatitis B coalitions, patient advocates, local and state health agencies, national organizations, and federal partners.

Meeting sessions focused on capacity building, sustainability, grant writing, partnering with local and state health agencies, collaborating on data collection, using storytelling to raise awareness, and leveraging the CDC's *Know Hepatitis B* campaign. At a Congressional reception during the summit, the Hepatitis B Foundation introduced its storytelling campaign, *#justB: Real People Sharing Their Stories of Hepatitis B*, which featured an exhibit of the 18 stories.

On Advocacy Day, *Hep B United* members met with over 35 Congressional offices to advocate for increased federal resources to eliminate hepatitis B. We especially thank our Congressional Champions **Senator Mazie Hirono**, and **Reps. Grace Meng**, **Judy Chu**, **Brian Fitzpatrick**, and **Charles Dent** for their support and for posing with HBF's liver mascot, O'Liver™, on World Hepatitis Day!

The ***2017 Hep B Champion Awards***, presented by *Hep B United* and CDC's **Dr. Cynthia Jorgensen**, were given to five individuals whose collaborative community initiatives were highly successful: **Cathy Phan**, Health Initiatives project manager at HOPE Clinic; **Vivian Huang, MD, MPH**, director of Adult Immunization and Emergency Preparedness at NYC Dept. of Health and Mental Hygiene; **Hong Liu, PhD**, executive director of Midwest Asian Health Association; **Dan-Tam Phan-Hoang, MSc**, program manager of HBI-Minnesota; and the **National Task Force for Hepatitis B: Focus on AAPIs.**

On World Hepatitis Day, HBF mascot O'Liver™ was joined by Congresswomen **Judy Chu** (left) and **Grace Meng** (right) on the Capitol steps during the *Hep B United Summit*. *(July 28, 2017)*

Established by the Hepatitis B Foundation and AAPCHO in 2012, *Hep B United* now has more than 30 local coalitions across 27 cities in 22 states and the District of Columbia, all with the goal of promoting screening, vaccination, and linkage to care to eliminate hepatitis B.

***Hep B United Philadelphia* Team Rows for Awareness!** To raise awareness about hepatitis B, Hep B United Philadelphia, sponsored by Arbutus Biopharma, participated in the Independence Dragon Boat Regatta in Philadelphia on June 3. The HBF team, along with medical and graduate school students from Drexel U., Philadelphia College of Osteopathic Medicine, Philadelphia Dept. of Health, and Geisinger Commonwealth School of Medicine spent the day socializing and rowing to increase hepatitis B awareness. *(June 3, 2017)*

We Have a New Look!

The HBF is proud to announce the launch of a new logo reflecting the growth of our organization. Since our founding in 1991, HBF now includes a research institute, the Baruch S. Blumberg Institute, and a life sciences incubator, the Pennsylvania Biotechnology Center, both of which are advancing our mission to find a cure. The new logo incorporates a bold "B" in blue and gold to demonstrate our focus on hepatitis B. The "B" is repeated in new logos for the Blumberg Institute and Biotech Center as well, to demonstrate the relationship between all three organizations. Our new look is rolling out this fall—we hope you like it as much as we do!

Hepatitis B Foundation

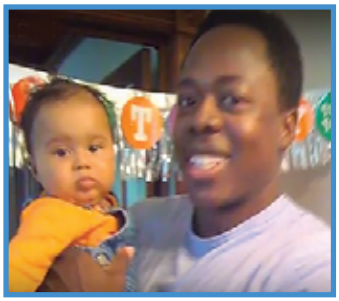
Baruch S. Blumberg Institute
Est. by the Hepatitis B Foundation

Pennsylvania Biotechnology Center
Est. by the Hepatitis B Foundation

"SPEAKING PERSONALLY"

World's Number One Dad

William's Story



I was 35, newly married, and looking forward to the birth of our first child. I was excited and ready to be the world's number one dad.

As a finance person, I wanted to get some planning in gear — a will, a rainy day fund, life insurance. I was going to check these off by the time baby came. The insurance application included a blood test.

One afternoon I got a call from the insurance company. The test results were in. The man asked, "Do you know when you contracted hepatitis B?" I was floored. I had no idea what he was really talking about. All I knew about hepatitis was that it was supposed to be something bad. That night, I told my wife. She was as surprised as I was.

The next day, I locked myself in my office and spent hours online. Roaming through the search engines was like walking through a thick forest. Some articles roared at me like monsters, telling me I was doomed and would be six feet under by age 45. Others told me I'd be OK and could have a normal and full life.

As I read on and on, I could not help wondering, "What did I do, to get this? Did it happen when I came here to the U.S. or was it way back home in Ghana, where I lived for a couple years, or in Tanzania, where I grew up?"

The next several months were a journey through fear, understanding, and reassurance.

After visits to a gastroenterologist, and a battery of tests, it was clear that I was going to survive. The doctor said that the virus was not replicating and was not currently causing any harm. He told me, "It's good that you found out, because with minor lifestyle changes, you will be Ok." Stop drinking? Check. More veggies? Check. More cardio classes? Check. Bring it on!

I understand now, that like all of us with this virus, I didn't do anything, to get hepatitis B. Knowing exactly where it came from isn't so important.

What matters is what I can do to take care of myself … so that I can still be the world's number one dad.

fear, understanding, and reassurance

William is a featured storyteller in the Hepatitis B Foundation's #justB storytelling program. To view his digital story, and the other stories in our program, visit www.hepb.org/justb. #justB

Do you have a hep B story to tell? *HBF is recruiting storytellers for our #justB storytelling campaign. For more information about applying for our next workshop, visit www.hepb.org/justb or contact Rhea Racho at rhea.racho@hepb.org.*

Your gift gives hope to millions affected by hepatitis B.

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In Memory:
Dr. W. Thomas London

PIONEERING HEPATITIS B PHYSICIAN-SCIENTIST
FOUNDING HBF BOARD MEMBER, MEDICAL ADVISOR AND MENTOR
EMERITUS, FOX CHASE CANCER CENTER

The Hepatitis B Foundation mourns the loss of **W. Thomas London, MD**, an internationally renowned physician-scientist dedicated to the study of hepatitis B, who passed away in June.

Dr. London was a key member of the research team that discovered the hepatitis B virus in the early 1960s, and founding member of the Board of the Hepatitis B Foundation and its research arm, the Baruch S. Blumberg Institute. He also served as a distinguished scientific and medical advisor to both organizations. Dr. London represented the very best in a doctor and scientist – sincere compassion, and successful achievement in advancing the cause and cure of hepatitis B.

Dr. London was part of the team of scientists, led by Dr. Baruch S. Blumberg, credited with the discovery of the hepatitis B virus. Dr. London devoted his entire career to research on the etiology, pathogenesis, and prevention of primary liver cancer (or hepatocellular carcinoma, HCC) with particular emphasis on the epidemiology of chronic hepatitis B infection.

In 2015, to recognize the extraordinary contributions of Dr. London, the Blumberg Institute created the ***W. Thomas London Distinguished Professorship***. At the ceremony to celebrate the named professorship, **Harvey Alter, MD**, eminent scientist at the NIH and co-discoverer of the hepatitis B virus (and C virus), described the seminal contributions of Dr. London as *"world changing in magnitude, but done quietly, and modestly."* Dr. London's wisdom and guidance will be greatly missed.

Calendar of Events

2017

Nov. 1-3
2nd World Hepatitis Summit
World Hepatitis Alliance
Sao Paulo, Brazil
worldhepatitissummit.org

Dec. 3-8
HepDart 2017
Virology Education
Co-Chairs: Drs. Raymond Schinazi and Charles Boucher
Kona, Hawaii
virology-education.com

2018

March 14-18
APASL 2018
Asian Pacific Association for the Study of the Liver
New Delhi, India
www.apasl2018.in

April 6
2018 Crystal Ball Gala
Hepatitis B Foundation
Doylestown, PA
hepb.org

April 11-15
International Liver Congress
European Association for the Study of the Liver
Paris, France
easl.eu

May 19
National Hepatitis Testing Day
United States CDC
Events around the country
cdc.gov/hepatitis

July 28
World Hepatitis Day
WHO and WHA
Events around the world
worldhepatitisday.org

October 3-7
2018 International HBV Meeting
Hepatitis B Foundation
Taormina, Sicily, Italy
HBVmeeting.org

Nov. 9-13
The Liver Disease Meeting
American Association for the Study of Liver Diseases
San Francisco, CA
aasld.org

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

For More Information About Hepatitis B Foundation Programs

- **HBV Info & Support List** ... HBList.net
- **HBV Clinical Trials** ... hepb.org/clinicaltrials
- **HBV Drug Watch** ... hepb.org/drugwatch
- **Hepatitis Delta Connect** ... hepDconnect.org
- **Liver Cancer Connect** ... livercancerconnect.org