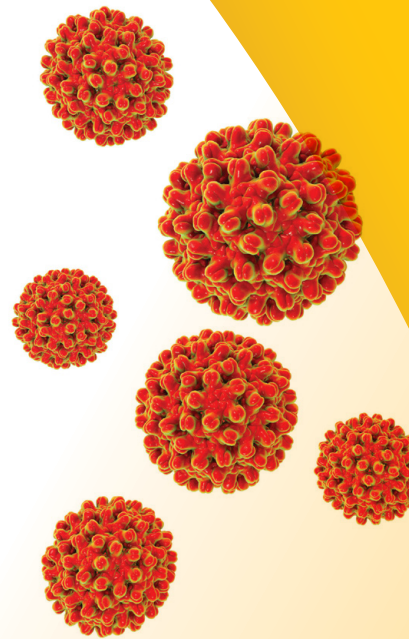


# **PROGRESS:** *A Year of Reflection and New Beginnings*



## CONTENTS

- Challenge, change and progress! (President's letter)
- The Bloomberg Institute: Research toward a cure
- Expanding treatment access
- Diving into the world of podcasts
- Dr. Chari Cohen to succeed Dr. Timothy Block as President
- The first global registry of hepatitis B discrimination
- Hep B United: Increasing our grassroots footprint, making an impact
- A growing reach for our outreach efforts
- Major successes in Washington, D.C.
- Addressing disparities in liver cancer
- COVID-19 impacting people living with hepatitis B in the U.S.
- Expanding our home and research facilities
- Two major gifts to support our programs
- Thank you to our Donors
- Financial Report
- Our leadership

## Challenge, change and progress!

Despite the challenges, to put it mildly, of the COVID-19 pandemic, which continued to “dog” us all, again, this year, the Hepatitis B Foundation (Foundation) and its Baruch S. Blumberg Institute (Blumberg) and Pennsylvania Biotechnology Center (PABC) still achieved amazing growth and progress. Details are here within, but I am eager to offer brief summary.

**One of the biggest wins came in November (2021).** After years of advocacy led by the Foundation, the CDC’s Advisory Committee on Immunization Practices voted to recommend universal hepatitis B vaccination for all adults ages 19 to 59 in the U.S. And we eagerly anticipate, after two decades of advocacy, that the CDC will soon publish new recommendations to screen all adults in the U.S. for hepatitis B. These are game changers! These are milestones!

**The Foundation’s research arm, Blumberg has had some nice wins, too.** As described in this report, the Blumberg Institute’s scientists identified new strategies to target the virus and expect those discoveries to lead to new drug targets and new drugs. We are definitely onto something! And others in the field agree! We asked 23 leading scientists to identify the most important HBV and liver cancer research, and our work was consistently rated in the top. Blumberg scientists’ scholarly publications are in the top 1% most “cited,” according to scientific ratings, an indication of impact!

**We are building, too. Literally!** This year, we opened a new \$20 million building on our PABC campus, providing new laboratory, office and meeting space for Foundation staff, Blumberg scientists and PABC-member companies. The building also benefits our academic programs, which have helped educate more than 200 high school, college and post-baccalaureate students.

Other big changes: I am “transitioning,” as we euphemistically describe my “semi”-retirement! In July 2022, I will be stepping away from fulltime leadership of the Hepatitis B Foundation, Blumberg Institute and PABC, beginning with a year in New Haven, Conn., with **Joan**, at Yale University on a research sabbatical. But our three organizations will be in very good hands. **Chari Cohen, DrPH, MPH**, our current SVP, will become president of the Foundation. The new president of the Blumberg Institute will be announced in June, that person is well-known in the community and I know will excite the field. **Lou Kassa**, our current COO, will become president of the PABC, as well as interim CEO of all three organizations. Dr. Cohen and Mr. Kassa have been a big part of our success, so we can be confident about our future. Dr. Cohen has been at the Foundation for more than 20 years and is now one of the nation’s authorities on HBV outreach, advocacy and public health. She is literally a household name in the field! Mr. Kassa has been here for seven years, helping lead the PABC to its status as one of the nation’s leading life science incubators. By the way, Kolabtree Bio listed PABC as one of the nation’s top 10 incubators in 2021.

And, after more than a decade, **Joel Rosen, Esq.** will step down from Board chair, handing that job to me. Fortunately, Joel will remain on the Board as vice chair, so I will be able to continue to be able to lean on him!

So, a “**thank you**” from me to all of our donors, funding organizations and advocates. I never forget how much we depend on you, and I hope you can all take pride in what has been accomplished by our organizations, the progress which is reflected in this report.

Sincerely,

**Timothy M. Block, PhD** ▶

*President of the Hepatitis B Foundation and its research organizations, Baruch S. Blumberg Institute and Pennsylvania Biotechnology Center*



# The Blumberg Institute Research toward a Cure

Started in 2003 by the Hepatitis B Foundation as its research arm, the Blumberg Institute is doing work that is among the most impactful hepatitis B research in the world. That's according to a survey of 23 top scientists conducted by our organization. Those who responded specifically cited work by Blumberg Institute scientists in cccDNA and new HBV antiviral target pathways as among the most impactful HBV research over the past five years.

The Blumberg Institute makes critical contributions to the goals of finding a cure for hepatitis B and liver cancer by exploring new approaches, less likely to be taken by traditional research institutions and pharma.



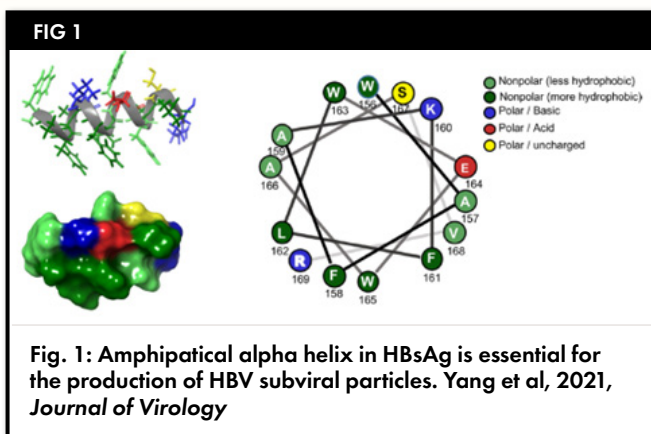
▲  
**Ju-Tao Guo, MD**  
photographed at work  
in his laboratory

Some of the highlights of the past year, alone,  
include important advances:

## New ways of treating chronic hepatitis B

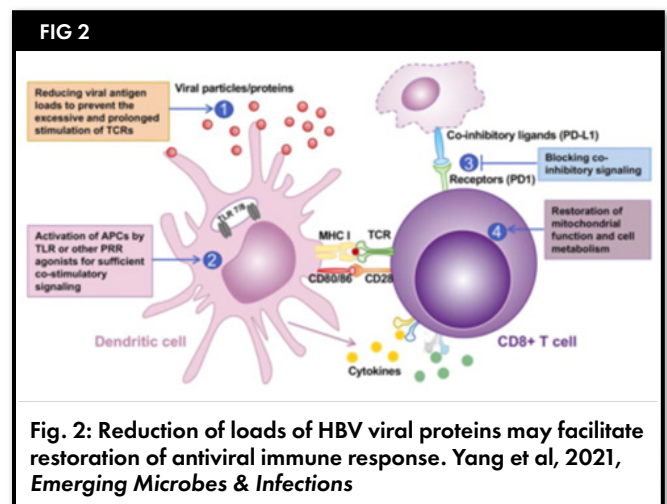
### Elimination of HBsAg

**Ju-Tao Guo, MD**, professor and senior vice president for research, in collaboration with **Jimin Zhang, MD, PhD**, at Huashan Hospital, Fudan University in Shanghai, China, identified a key structure motif in HBV surface antigen (HBsAg) essential for subviral particle (SVP) assembly (Fig 1).



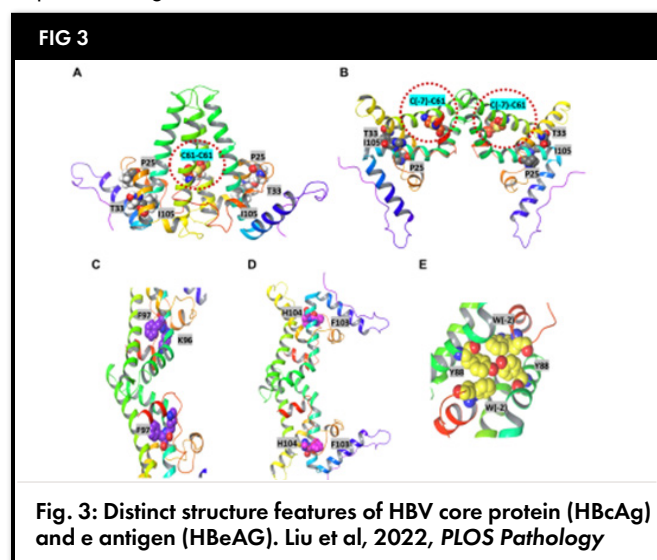
SVPs are the primary form of circulating HBsAg and elimination of HBsAg has been considered as essential for the restoration of antiviral immune response against HBV and functional cure of chronic hepatitis B (Fig 2).

Accordingly, a high throughput assay for the discovery of drug candidates to target the structure motif and suppress the production of subviral particles (SVP) had been established and implemented for screening our compound library. In collaboration with **Jinhong Chang, MD, PhD**, professor and **Yanming Du, PhD**, professor, several new compounds that reduce SVP (HBsAg) production have been identified for further preclinical development.



## Disruption of capsid assembly and disassembly and suppression of HBeAg secretion

One of the prototype HBV capsid assembly modulators (CAMs) discovered in Dr. Guo's laboratory has been advanced into clinical trial for the treatment of chronic hepatitis B. In collaboration with **Dr. Du** and **Dr. Chang**, new CAMs with improved antiviral potency and pharmacological properties have been identified. The work reported from Dr. Guo's laboratory in the last few years showed that CAMs not only disrupt the assembly of HBV nucleocapsids and suppress HBV DNA replication, but also induce the disassembly of mature nucleocapsids to modulate cccDNA formation. Recently, **Hui Liu**, a graduate student in Dr. Guo's laboratory, with help of **Usha Viswanathan, PhD**, a structure biologist and assistant professor at Blumberg Institute, discovered that the CAMs also inhibit the secretion of HBeAg by reducing the level of intracellular precursor of HBeAg, i.e., (Fig 3). This finding led to a new direction for anti-HBV drug discovery, identification of drugs candidates that can cause rapid degradation of HBV core protein and HBeAg precursor, which may facilitate the immune control of chronic HBV infection and cure of chronic hepatitis B (Fig 2).

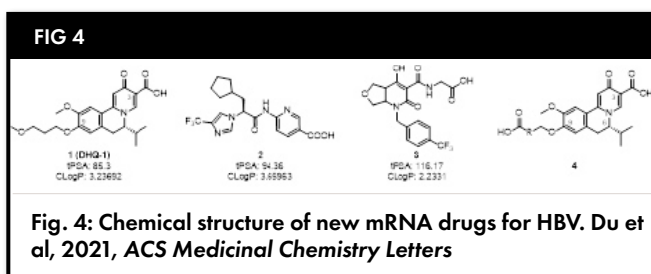


## mRNA drugs for treatment of chronic hepatitis B and liver cancer

Using a new approach to messenger RNA (mRNA) therapeutics that was made famous by the COVID-19 mRNA vaccines, **Dr. Block**, in collaboration with **Dr. Guo**, have produced experimental mRNAs that produce modified proteins intended to induce an anti-HBV immune response.

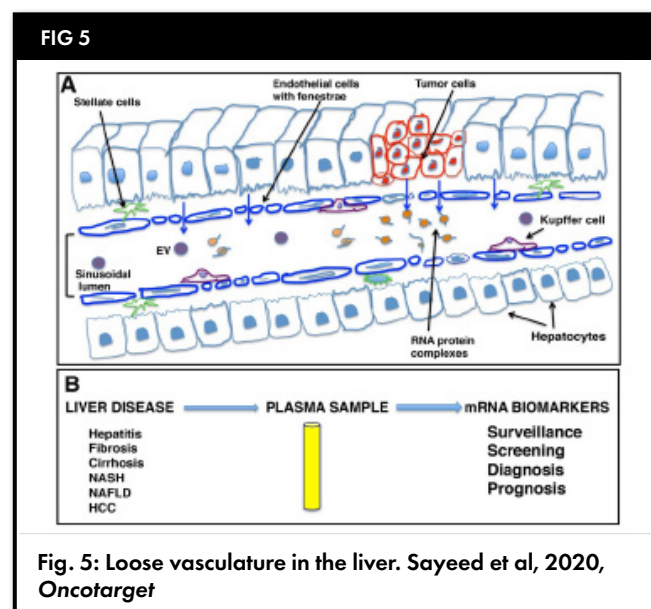
## Targeting HBV RNA

**Dr. Du** and **Dr. Block** have produced modified RNA targeting drugs that are liver selective and have reduced toxicity. They also screened for completely new HBV targeting drugs using a system based on their and other's previous discovery that HBV RNA has a unique sequence that makes it vulnerable to new drugs.



## New ways to detect and treat cancer and liver cirrhosis

**Aejaz Sayeed, PhD**, associate professor, and **Dr. Block** have determined that the blood of people with liver cirrhosis and liver cancer have heavily mutated messenger RNA (mRNA). Using mRNA in the blood as a non-invasive assay for disease is a completely new concept in early disease detection and testing, and it could provide a "liquid biopsy" of the liver to detect and guide treatments.

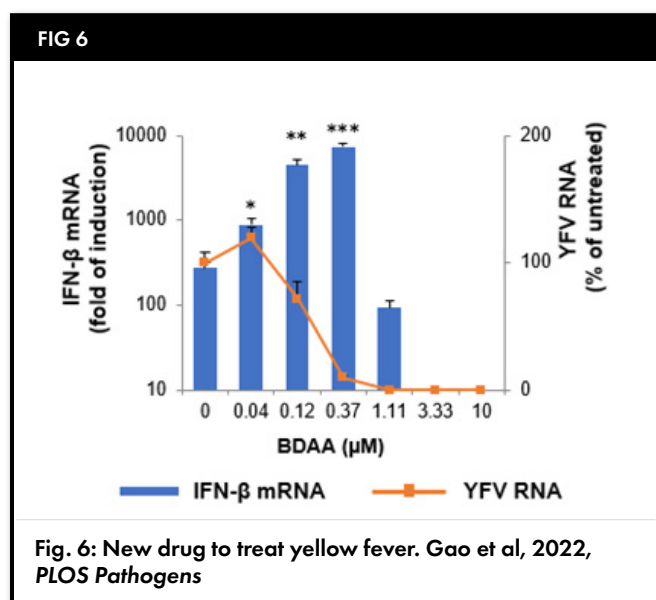


## Measuring the amount of HBV “integration” by sampling urine

**Ying-Hsiu Su, PhD**, professor, and colleagues have developed assays that can detect hepatitis B integrated viral-host DNA junctions in the urine of patients with HBV infection, and cancer-associated DNA in patients’ urine as biomarkers for liver cancer screening. These assays detect 30% more HCC than the currently most-used biomarker, serum AFP and detection of minimal residual disease after liver cancer resection. This groundbreaking technique can save lives by allowing treatment of liver cancer to start at the earliest stages.

## Opportunistically discovering drugs that treat other diseases

**Dr. Chang** and colleagues unexpectedly discovered a promising new drug to control Yellow Fever virus (YFV) and unraveled the drug’s mechanism of action, revealing new facts about the virus. The scientists found that the YFV inhibitor, which would be a first-in-class drug to treat yellow fever virus, not only suppresses viral replication, but also enhances the virus activation of an innate immune response.



## Treating breast and prostate cancer

Blumberg Institute Distinguished Professor **Richard Pestell, MD, PhD**, and colleagues, using a precision-medicine genetics approach, identified the utility of a candidate tumor suppressor called “DACH1,” the abundance of which is lost in breast, prostate and other cancers, to predict response to particular cancer therapies. Pestell’s group previously demonstrated the effectiveness of repurposing an FDA-approved drug used for HIV, in reducing breast cancer growth and metastasis in preclinical studies in mice. Pestell led the initiation of a Phase 1b/II clinical trial, obtaining fast-track designation in 2019. Preliminary findings showed responses in 8/10 patients who had been progressing on available therapies. Dr. Pestell, is ranked 4<sup>th</sup> in the world by Google scholar for prostate cancer and 1<sup>st</sup> for cell-cycle with an H index of 148.

## Activating our bodies’ innate defenses to kill cancer and HBV infected cells

**Dr. Chang** and colleagues (Dr. Guo, Dr. Du, Dr. Viswanathan and others) have developed new drugs and an entirely new gene-based approach to activate Stimulator of Interferon Genes (STING), selectively in cancer and HBV infected cells.

## Responding to the need for COVID Research

**Dr. Du, Dr. Block and Susan Weiss, PhD**, a University of Pennsylvania professor, reported that imino sugars can be used in combination, in tissue culture, to treat SARS-2. Dr. Guo and colleagues reported about how SARS-2 uses the ACE 2 receptor, which is in and of itself, they reported, sensitive to imino sugar drugs.

# Expanding treatment access and medicines availability



**Around the world, millions of people living with hepatitis B face challenges in accessing necessary treatment. Few have access to affordable medical treatment, including in the U.S., where the complex drug pricing system results in high out-of-pocket costs.**

To address these challenges, the **Hepatitis B Foundation** has a program to create improved access through partnerships, policy and advocacy, and education. In 2021, we developed a partnership with **RxOutreach**, an online discount pharmacy, to provide \$10,000 of treatment scholarships to people in the U.S. The Hepatitis B Foundation also has partnered with several other patient assistance programs to provide first-line hepatitis B treatments at an affordable price.

We held a webinar in October of 2021 with **64** attendees (another **106** watched the recording on YouTube) to raise awareness of the issue. The husband of one patient spoke about how the high cost of hepatitis B medications took a financial and emotional toll on his family. Patient

navigators shared tools and resources to access affordable hepatitis B treatment and steps that patients can take to decrease the burden of adverse drug tiering.

Also in 2021, the Foundation launched a new section of the **B the Voice Story Bank** for people to share how they have faced treatment access issues. The new treatment access story bank serves as a way for us to monitor the different types of drug pricing issues that are affecting people living with hepatitis B and where they are occurring.

**While we have a long way to go in ensuring treatment for hepatitis B is available and affordable to all who need it, these are positive steps forward toward improving treatment access.**

[rxoutreach.org/hepb](https://rxoutreach.org/hepb)

**Please contact Rx Outreach directly with questions.**



# Diving into the world of podcasts

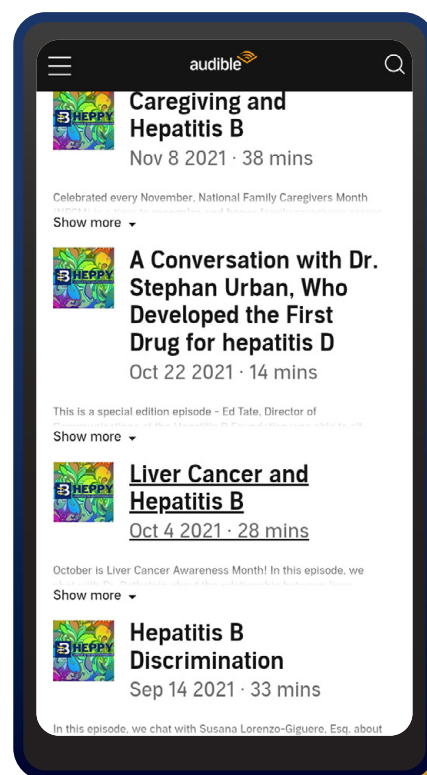
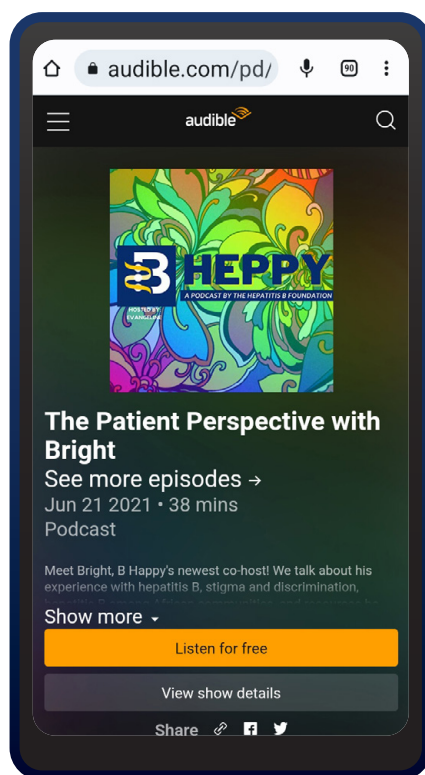
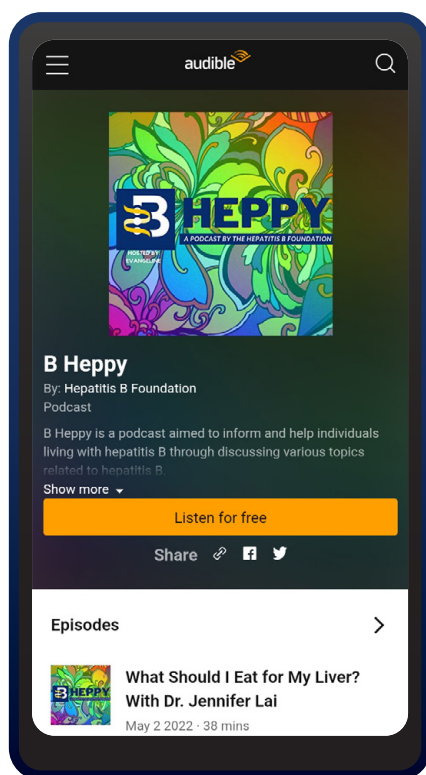
A podcast launched in 2021 by the Hepatitis B Foundation, **B Heppy** aims to inform people living with hepatitis B and the wider public about all things associated with hepatitis B.

The podcasts share hepatitis B information in a casual medium to share knowledge and create awareness for its listeners.

**B Heppy** has become very popular and connected us with a new global audience. We have produced 20 episodes since March 2021, and listeners in more than 700 cities and over 100 countries – mostly the U.S., Ghana, Germany and Canada – have downloaded it about 2,800 times.

Topics addressed on **B Heppy** include COVID-19, caretaking, discrimination and adoption of children with hepatitis B. The most popular **B Heppy** episodes include *Progress on the Cure with Dr. Timothy Block*, liver cancer, the history of the Hepatitis B Foundation and caregiving for hepatitis B. We've had diverse guests from public health professionals, hepatologists, storytellers, scientists and advocates to capture the many issues associated with living with hepatitis B.

You can listen to **B Heppy** on Spotify, Apple Podcasts, Audible, Amazon Music and anywhere you get your podcasts. It's also accessible through [www.hepb.org](http://www.hepb.org) in the News and Events section.





## **Dr. Chari Cohen to succeed Dr. Timothy Block as president**

**Dr. Block will continue his involvement as executive chair of our Board of Directors.**

One of the first public health professionals hired by the Hepatitis B Foundation, **Chari A. Cohen, DrPH, MPH**, currently the nonprofit's senior vice president, will become president of the Foundation, effective July 2022.

**Timothy M. Block, PhD**, president, CEO and co-founder, made the announcement last fall at the International HBV meeting in Toronto, an annual event that is organized by our team.

**"Stepping away from the presidency of the Foundation is much easier for me knowing that Chari will be my successor,"** Dr. Block said. **"She brings amazing passion and commitment to our mission. Her energy and enthusiasm make her a natural leader and a global authority on hepatitis B, hepatitis D and liver cancer public health research, policy and advocacy."**

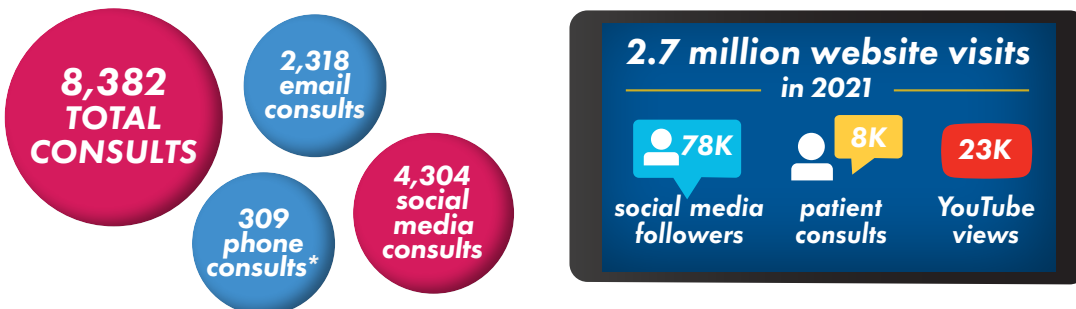
**"The programs she has led and launched at the Foundation have done enormous good for our organization and the people we serve. The Hepatitis B Foundation and people affected by viral hepatitis and liver cancer will be in good hands."**

Dr. Block has been president since launching the organization in 1991 with his wife, Joan Block, and Janine and Paul Witte. In July he will become executive chair of the Foundation's Board of Directors and begin a sabbatical to continue his research and to teach at Yale University.

**Lou Kassa**, who is executive vice president and chief operating officer of the Foundation, the Pennsylvania Biotechnology Center (PABC) and the Baruch S. Blumberg Institute, will become president of the PABC in July 2022 and acting chief executive officer of all three entities.

## A growing reach for our outreach efforts

Hepatitis B can be an overwhelming and confusing diagnosis. Our trained staff answer questions about test results, transmission, vaccinations and care, and help patients to understand what their diagnosis means for their health and their future. We guide people with hepatitis B as they face their diagnosis and provide guidance for telling loved ones, finding care, starting a family and hope for a bright future ahead.



▲ Phone consult callers were mostly patients (65%). Of those we had information on, 26% were ages 19-34. Callers were from 18 states (plus D.C.) and three countries. Most common call topics were test results, vaccine, transmission, newly diagnosed, medication access help, finding a doctor, possible exposure and treatment options.

## Major successes in Washington D.C.

**The Foundation played a leading role in 2021 advocacy wins.**



We launched **B the Change**, our grassroots advocacy initiative through Hep B United, to engage and mobilize patient, provider and community advocates in raising awareness and increasing support for hepatitis B among policymakers. With our **1,200** subscribers, we sent **169** messages to Congress last year.

In July, we received more than **100** entries for our **B the Change Advocacy Challenge** virtual week of action and conducted **76** virtual Hill Visits. We coordinated with **Congressional Champions** on two sign-on letters that helped lead to an increase of \$5 million for hepatitis programs at CDC. Our work with the House Appropriations secured Congressional funding to create a Center of Public Health Excellence that will build a sustainable model for hepatitis B elimination.

And in a landmark year of successes, the Foundation led months of advocacy in support of the new ACIP and CDC recommendation for all adults ages 19-59 to receive the hepatitis B vaccine. Our online petition in support of this recommendation had more than **300** signatures and we had over **150** organizations sign on to a letter submitted to ACIP in advance of their November 2021 vote.



## The first global registry of hepatitis B discrimination



The online survey's results will be shared with policymakers, scholars and community advocates.

The Hepatitis B Foundation last spring launched the world's first **Hepatitis B Discrimination Registry**, an initiative to track and analyze discrimination against people living with hepatitis B on a global scale. Well over 300 people so far have submitted documentation of their experiences, which include being fired from their jobs and denied educational opportunities because of their hepatitis B status.

The Discrimination Registry's data will be used to inform policy and advocacy efforts intended to eliminate hepatitis B-related discrimination in the future. The Foundation will share the data through reports that include high-level information (country-level, type of discrimination, etc.) on what is learned through the registry. The Foundation's public health staff, which regularly publishes articles in scholarly journals, will publish data analyses and develop widespread communication to bring attention to this issue.

Discrimination against people living with hepatitis B has been documented in the U.S. and a few other countries and anecdotally reported through the Foundation's social media channels and consultation lines with more

frequency. Since 2016 the Foundation has seen an increase in individuals reporting discrimination related to hepatitis B. Individuals reportedly face deportation, immigration and employment restrictions because of their hepatitis B status. Some have even reported getting tested unknowingly by an employer and losing their jobs after testing positive. A more significant number of discrimination reports may not mean the incidence is rising, according to **Catherine Freeland, MPH**, public health program director at the Hepatitis B Foundation, who is leading the Registry project.

**"The increase could be because more people are coming out and talking about hepatitis B, and the challenges associated with discrimination impact their quality of life," Ms. Freeland said. "Individuals also might have improved access to technology—more people worldwide have access to the internet, social media, and email—making it easier for people to find us and share their stories. We hope the discrimination registry will help us document discrimination worldwide, target our efforts, and learn more from people directly impacted."**



## Hep B United: Increasing our grassroots footprint, making an impact

Hep B United focused on expanding the coalition's reach during 2021, addressing hepatitis B through a health equity lens and via intersections with other epidemics that impact similar communities. We continued to strengthen our hepatitis B grassroots advocacy movement and build capacity of organizations to improve hepatitis B policy and advocacy from a state/regional perspective.

The coalition's membership expanded to **50** national organizations and local hepatitis B coalitions in **29** cities, **22** states and Washington, D.C., including more than **1,000** organizations in our local partner networks. Hep B United hosted 11 training and technical assistance webinars reaching over **600** attendees live and nearly **2,000** YouTube recording views. We collaborated with the **TB Elimination Alliance (TEA)** to host the first joint Hep B United/TEA Summit on Nov. 2-4, 2021. With the theme of **"Centering Community to Advance Health Equity,"** the summit brought together **245** attendees, including hepatitis B and TB community, federal, and local/state public health partners, as well as individuals having lived experience with TB or hepatitis B experience or both. Sessions



focused on collaborative opportunities to prevent and treat hepatitis B and TB among communities disproportionately impacted.

The hepatitis B advocacy network has grown through the Hep B United coalition. We partnered with local HBU coalition partners to host regional advocacy trainings titled **"B the Change: Getting Started in State Advocacy."** The regional advocacy trainings focused on preparing advocates for 2022 state legislative sessions and providing a forum for hepatitis B partners to share efforts, mobilize and grow their local hepatitis B advocacy coalitions.

**In 2021, Hep B United held four trainings, including two student and youth-led hepatitis B advocacy discussions with 72 participants.**

# Addressing disparities in liver cancer

The Hepatitis B Foundation set out in 2021 to more clearly identify and better understand disparities in awareness, knowledge and screening rates for both **hepatitis B** and **liver cancer** among communities most heavily impacted by these two diseases in the U.S.

Funded by a health equity grant from **Bristol Myers Squibb**, we formed an advisory committee of public health experts and community representatives from around the country, which in turn helped convene and conduct 13 focus groups and two key informant interviews with individuals from some of these communities.

Focus groups were held in a wide range of locations, from **Seattle's Somali community** and the **Ethiopian community in suburban Philadelphia** to the **Hmong community in Minneapolis** and **Honolulu's Micronesia community**. From these groups, we learned more about current levels of awareness and understanding about hepatitis B, liver cancer and the connection between the two. We also collected ideas about important strategies and messages to include and avoid in a communications campaign, which we will be designing to address some of these knowledge gaps and misperceptions. Thoughts on appropriate delivery methods for such a campaign were also collected. Our team has analyzed the data and publications are in progress.

The next steps in this project are creating a communication campaign for each community, guided by the input from our focus groups, and then moving forward with dissemination. A webinar for the general public summarizing initial project findings and discussion among advisory committee members and focus group leaders was held recently. The project has been accepted for poster presentations at the **World Hepatitis Alliance's 2022 annual conference** and two academic meetings.



# COVID-19 impacted people living with hepatitis B in the U.S.

Kate Moraras, MPH, our deputy director for public health, wrote a guest blog for the National Foundation for Infectious Diseases last year highlighting the impact of the COVID-19 pandemic on people with hepatitis B in the U.S. She included data from a project that the Foundation co-led to assess the impact of COVID-19 on viral hepatitis services in the U.S.

Many faced increased challenges in accessing medical care and treatment due to delayed appointments and de-prioritization of routine hepatitis or primary care services, Ms. Moraras wrote. Not only did patients need to adjust to telemedicine, but they also experienced difficulty getting antiviral refills and disruptions in mail-order delivery. Others had trouble finding information specifically about COVID-19 for people with liver disease and concerns related to the safety and efficacy of COVID-19 vaccines for that population.

---

*"Infectious diseases and public health threats, including hepatitis B, do not disappear during pandemics, but instead are exacerbated..."*

---

Last year also was challenging for community-based organizations (CBOs) providing hepatitis B education, screening, vaccination and direct public health services. Our survey found that nearly two-thirds received inadequate or no funding to adapt during the pandemic. Many CBOs were unable to offer hepatitis testing, vaccination or community outreach, and more than half had to reduce staff.

Despite these challenges, organizations adapted resources and programs to the new reality. Creative strategies, which the Foundation implemented through our own **Hep B United Philadelphia** program, included an increased social media presence for hepatitis B awareness, contactless hepatitis B lab testing, client outreach and follow-up via phone calls and email, distribution of hepatitis B materials alongside COVID-19 education and hosting drive-through educational events, among others.

If the COVID-19 pandemic has shown us anything, it is the dedication, passion and resilience of under-resourced CBOs to persevere in the most challenging times and continue their mission to eliminate viral hepatitis.

Read it here: [The Impact of COVID-19 on People Living with Hepatitis B: https://www.nfid.org/2021/05/20/the-impact-of-covid-19-on-people-living-with-hepatitis-b](https://www.nfid.org/2021/05/20/the-impact-of-covid-19-on-people-living-with-hepatitis-b)

▲ Drive-through educational events and mobile-screening opportunities ▼



# Thank You to Our Donors



The Hepatitis B Foundation's valuable research and programs are made possible by the commitment of our donors. We are grateful to every individual and organization that has generously supported our mission to find a cure and improve the quality of life for those affected by hepatitis B.

## Our Donor Honor Roll

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- All gifts without a symbol have been made to the Hepatitis B Foundation

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Vicki Ostrom  
Meg Oviit  
Shantanu Pabalkar  
Pearl Park  
Dominic Pasquarosa

## Two major gifts to support our programs

**A very generous Florida couple who wishes to remain anonymous contributed \$500,000 in 2021 to the Bloomberg Institute to advance research toward a cure for hepatitis B.**



▲  
**Ju-Tao Guo, MD**  
Courtesy of Baruch S.  
Blumberg Institute

The gift, which is the largest in the Institute's history, will enable its scientists, led by **Ju-Tao Guo, MD**, senior vice president for research and W. Thomas London Professor, to pursue new strategies to cure hepatitis B.

When the donors first contacted the Hepatitis B Foundation last summer, their phone call to the Foundation's Helpline went, simply by chance, to **Chari Cohen, DrPH, MPH**, the Foundation's senior vice president. Their conversation was the first of many leading up to the record-setting contribution.

"This couple's generosity is a powerful vote of confidence in our work, one that they hope will spark the interest of others interested in helping to fund the cure," said **Jean Holmes**, vice president of Institutional Advancement.

The donors expressed interest in progress toward a cure for hepatitis B. After learning details about the Bloomberg Institute's research program, they concluded that the Institute is the best place to invest in scientific efforts focused on curing the disease.

**The CTC Foundation of Princeton, N.J., last year pledged to donate \$100,000 over five years to the Hepatitis B Foundation.**

Dr. Cohen said: "We are very appreciative of this generous support and the continued commitment of the CTC Foundation. This donation will help support our unique patient engagement program, so that we can continue to improve the quality of life of people living with hepatitis B, and ensure that their voices play a meaningful role in drug and clinical trial development."

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#### **DONOR ADVISED FUNDS**

*The Hepatitis B Foundation and Baruch S. Blumberg Institute accept grants from Donor Advised Funds, and have received distributions from the following organizations in 2021:*

Bank of America Charitable Gift Fund ●  
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 U.S. Food and Drug Administration  
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*Thank you*

**TO OUR MANY IN-KIND DONORS WHO ARE TOO NUMEROUS TO MENTION.**

.....

*We apologize in advance for any errors or omissions in our Donor List despite our best efforts to be as accurate as possible. Please email [editor@hepb.org](mailto:editor@hepb.org) or call (215) 489-4900 so that we can print corrections in our next newsletter. Thank you for understanding.*



## *Expanding our home and research facilities*

**Construction was completed late in 2021 on a new building on the Pennsylvania Biotechnology Center (PABC) campus, which is home to the Hepatitis B Foundation and Baruch S. Blumberg Institute.**

The project provides new laboratories, conference rooms, offices and an event space.

To help cover the nearly \$20 million cost, the PABC received more than \$9 million in grants from federal and state agencies.

The Blumberg Institute manages the PABC, which is one of America's most successful life sciences incubators.



# Year in Review

## Financial Information\*

COMBINED HEPATITIS B FOUNDATION  
& BARUCH S. BLUMBERG INSTITUTE\*\*\*\*

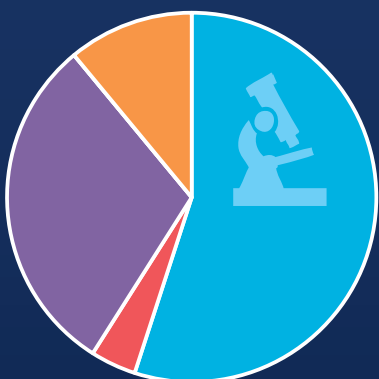
FOR THE FISCAL YEAR ENDED JUNE 30, 2021

### Source of Funds



<b>57%</b>	<b>Grants</b>	<b>\$5,076,627</b>
<b>16%</b>	Charitable contributions***	1,432,504
<b>0%</b>	Natural Products Institute	4,908
<b>6%</b>	Management fees	516,000
<b>1%</b>	Special events	147,152
<b>0%</b>	Research Meeting	2,260
<b>9%</b>	Other Revenue	827,119
<b>1%</b>	Gain on Sale of Investment	78,132
<b>10%</b>	Investment income**	857,112
<b>Total Revenue</b>		<b>\$8,941,814</b>

### Use of Funds



<b>55%</b>	<b>Research</b>	<b>\$ 4,379,085</b>
<b>4%</b>	Outreach and Education	337,415
<b>30%</b>	Support services	2,467,695
<b>11%</b>	Rent and Depreciation	848,753
<b>Total Expenses</b>		<b>\$8,032,948</b>

\*\* The financial information presented above excludes unrealized investment related activities.

\*\*\* Excludes in-kind donations

\*\*\*\* Baruch S. Blumberg Institute is the research institute established by the Hepatitis B Foundation in 2004

The financial information in this report was prepared by management and presented in condensed form from the financial statements of the Hepatitis B Foundation and the Baruch S. Blumberg Institute audited by EisnerAmper, LLP for the year ended June 30, 2021. A copy of each financial statement is available upon request.

**The Hepatitis B Foundation (HBF)** was established in 1991 and remains the nation's only nonprofit organization solely dedicated to finding a cure for hepatitis B and improving the quality of life for those affected worldwide through research, education and patient advocacy. The HBF established the **Baruch S. Blumberg Institute** in 2003 as an independent, nonprofit research institute to fulfill its research mission. It was named to honor our Co-founder Dr. Baruch S. Blumberg who won the Nobel Prize for his discovery of the hepatitis B virus.

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