Hypo-Critics of Gilead Now Need Its Help with Wuhan Coronavirus

By Josh Bloom — March 10, 2020

As the coronavirus continues to terrorize the world, people are pinning their hopes on companies that are doing vaccine and drug research to -- maybe -- get us out of this mess. Yet, many of the companies doing the work, especially Gilead Science, are "the bad guys." Except when we need them. Gilead's drug, remdesivir, is now in clinical trials in China so they're OK for now. Hypocrisy at its finest.

The chemical structure of Gilead's remdesivir.

If there is a single company that tops the "no good deed goes unpunished" contest I would pick Gilead Sciences. By a mile.

One could argue that no other company has had a greater impact in saving lives around the world. One could also argue that no other company has taken more cheap shots from politicians (both parties) looking to score points by demonizing the pharmaceutical industry.

But now we need the company's expertise in developing antiviral drugs, so maybe Gilead is not so bad after all. For now. The hypocrisy is appalling. The company's experimental antiviral drug remdesivir, which was first developed as a treatment for Ebola (it didn't work very well) is in multiple clinical trials in China with the first results expected in April. If remdesivir is effective it will
be the first and only therapy to make a dent in the virus that is throwing much of the world into chaos. Remdesivir (Figure 1) has been used a few times on a "compassionate use" basis, but it is impossible to tell whether the drug is really effective until it is tested in many more patients in controlled clinical trials.

![Remdesivir](image1.png)  ![GS-441524](image2.png)  ![Adenosine](image3.png)

Figure 1. (Left) Remdesvir, an inactive pro-drug. (Center) GS-441524, the active drug, is an analog of adenosine, (Right). The red hatch line shows the bond that is broken to release the active drug.

Although Gilead is described as a biotech company (these are seen as "good") in reality it is just as much a drug company (these are seen as "bad"). Talk about the power of language. Has any politician criticized biotechs? Has any politician not criticized drug companies?

But in the real world, there is no longer much difference between the two, especially with large companies; they can be both. Gilead, which was named the most innovative drug company [1] in 2019 (1) became such a powerhouse because of the ability of its antiviral drugs to tame HIV/AIDS and to cure hepatitis C. In this sense, it is a drug company. Conversely, Sanofi, by any measure a drug company, is one of the most successful vaccine makers, so it wouldn't be completely unreasonable to call it a biotech. In reality, it doesn't matter. It is a distinction without a difference.

The attack against the Wuhan coronavirus is two-pronged – vaccine development and drug discovery. Remdesivir (a drug) is a nucleotide analog that inhibits viral replication by inhibiting the ability of the virus to make RNA within the host cell. There are a number of other antiviral drugs under study, but based on historical precedent alone I wouldn't bet against Gilead, which is donating its product and expertise to China for free.

It is, of course, preferable to prevent an infection rather than treat it, which means vaccine development is hugely important. Although different types of vaccines are being pursued by a number of companies, both small and large, it is not a given that a vaccine will be developed. Despite years of research, there are no vaccines for the common cold, norovirus, hepatitis C, HIV/AIDS, Lyme, West Nile, Zika, or respiratory syncytial virus (RSV) (2). In the absence of a vaccine, an antiviral drug becomes critical.

This is what Gilead does best. But, no matter what the company accomplishes, the criticism will be back quickly. In fact, it's already started. The following [2] was published yesterday on the Motley
Will Gilead Sciences Make a Fortune Off Its Coronavirus Drug?

This is nothing new. Gilead's came under fire for Sovaldi, the first successful direct-acting antiviral drug to cure hepatitis C. The "thousand dollar pill" headlines dominated news headlines despite the fact that the previous therapy, interferon plus ribavirin wasn't much cheaper but was highly toxic and far less effective. Nonetheless, this was a typical reaction:


Which wasn't terribly different from the reaction to HIV/AIDS drugs (3):
Protest against the price of AIDS drugs. Photo: STAT [4]

Consider the following:

<table>
<thead>
<tr>
<th>Company</th>
<th>2018 Sales (in billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walmart</td>
<td>500.3</td>
</tr>
<tr>
<td>Apple</td>
<td>266</td>
</tr>
<tr>
<td>Coca Cola</td>
<td>34.3</td>
</tr>
<tr>
<td>Amazon</td>
<td>260</td>
</tr>
<tr>
<td>Whole Foods</td>
<td>19</td>
</tr>
<tr>
<td>Gilead</td>
<td>16.2</td>
</tr>
<tr>
<td>Netflix</td>
<td>15.8</td>
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In 2018 Gilead earned $16.2 billion for saving a bunch of lives. Whole Foods earned about $19 billion for selling a bunch of overpriced (and over-hyped) food and saved no lives. Where are the protests against Whole Foods? Or Netflix, Amazon (4), Coke, or Apple?

If Gilead didn't earn a bunch of money for its AIDS drugs there is no way on earth it could have developed Sovaldi, which also earned a bunch of money, some of which is now being used to go after coronavirus. Good for them.
Maybe all the politicians, both Democrats, and Republicans, ought to shut up for a while and let the most innovative drug company in the world try to save the world from the scariest pathogen in decades.

NOTES:
(1) The company was #2 in 2018. Not bad.

(2) RSV is a serious disease with no good treatment, The WHO estimated [5] that RSV causes around 33 million serious respiratory infections, 3 million hospitalizations and nearly 60,000 deaths in children under 5 years of age annually.

(3) AIDS drugs are now so good that they can knock down the amount of virus in the blood to the point where it is undetectable. Once this happens the immune systems of people who are HIV-positive are restored and they can no longer transmit the disease. People who are HIV-negative won't catch it. And pregnant women who are HIV+ won't transmit the virus to their babies. Not bad for what used to be the most terrifying pathogen since polio.


Disclaimer: Gilead does not donate to ACSH.