



Statement by Robert A. Hefner III on NWBO's DCVax-L Phase III Trial

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Our Northwest Biotherapeutics (NWBO) investee “partner” likely has just made one of the biggest breakthroughs in the history of cancer. We know that is a really big statement so why do we at GHK believe that is possible? Because we believe the doors through which major cancer breakthroughs must pass are the human immune system, immunotherapies and personalized vaccines and NWBO has just leaped through those doors with its personalized DCVax vaccine made from your own cells.

You can argue about trial statistics until the cows come home but to us the bottom line is 1) people living longer 2) quality of life during treatments and 3) the cost of treatments.

During NWBO's 16-year Phase III trial to treat glioblastoma (GBM), one the most difficult and lethal of all solid tumor cancers 1) *more people lived longer*ⁱ, 2) it is safe with virtually no side effects occurring and 3) NWBO estimates treatments will cost about half as much as Standard of Care chemotherapy and radiation treatments. So for the first time ever, GBM patients can have *hope!* And can hope like prayer increase the effectiveness and energy of the immune system? We think so.

We are aware we stuck our necks out when we said “possibly one of the biggest breakthroughs in the history of cancer”. So we have listed below our three principle reasons so you can decide for yourself:

- 1) After 417 failed GBM trials treating 31,952 patients over decades, DCVax-L is first treatment that gives GBM patients a meaningful chance to live longer, some now living 9 to as many as 19 years and counting.

- 2) DCVax was conceived and created not for glioblastoma alone but as a personalized tool of your own immune system to defeat all solid tumor cancers and that's 90% of all cancersⁱⁱ.
- 3) Since DCVax's creation NWBO has amassed an enormous rich databank containing masses of information on patients, treatments, and DCVax's use against 15 different solid tumor cancersⁱⁱⁱ that has not yet been analyzed by artificial intelligence (AI). We believe that in the near future when these vast amounts of data and information are teamed with AI and some of the world's leading scientists and doctors that future generations of DCVax vaccines and protocols will experience great leaps forward in effectiveness at lower and lower costs for 90% of all cancers.

So to sum up, we believe NWBO with its DCVax immunotherapy personalized vaccines has leaped through the doors and will play a vital role in humanities great drive to defeat cancer once and for all.

Trial Results

These tables reflect another way of showing the survival "tail" in nGBM and rGBM:

Landmark survival rate (%) in nGBM measured from the date of randomisation (3 months after surgery)			
	External (N=1366)	DCVax [®] -L (N=232)	Comparative increase
36 months	15.5%	20.2%	130%
48 months	9.9%	15.7%	159%
60 months	5.7%	13.0%	>228%

Landmark survival rate (%) in rGBM measured from the date of recurrence			
	External (N=640)	DCVax [®] -L (N=64)	Comparative increase
6 months	64.0%	90.6%	142%
12 months	30.8%	54.1%	175%
18 months	15.9%	31.8%	200%
24 months	9.6%	20.7%	215%
30 months	5.1%	11.1%	217%

ⁱ See trial results in chart above.

ⁱⁱ <https://www.thermofisher.com/us/en/home/life-science/cancer-research/solid-tumor-research.html#:~:text=Solid%20tumors%20represent%20approximately%2090%25%20of%20adult%20human%20cancers.>

ⁱⁱⁱ Among the 15 are Prostrate, Pancreatic, Breast.