Letter to Director, National Cancer Institute,

() natpernickshealthblog.wordpress.com/2021/07/04/letter-to-director-national-cancer-institute/

July 4, 2021

4 July 2021

Hi Dr. Sharpless,

I read your April 2021 talk to the American Association for Cancer Research (AACR), see <u>http://www.natpernick.com/AACRSharplessApril2021.pdf</u>, and am distributing it to my network.

In my view, reducing the high number of US cancer deaths is primarily a management problem to be solved by creating a strategic plan that identifies necessary management and medical / scientific tasks:

1. Our goal should be to reduce annual US cancer deaths from 600,000 currently to 100,000 by 2030, as discussed in our strategic plan,

<u>http://www.natpernick.com/StrategicPlanCuringCancer.html</u>. Although your goal of reducing age-adjusted cancer death rates in half is rational, this is too abstract to resonate with the hundreds of millions of Americans who must feel compelled to act.

2. I believe that we can substantially increase survival for aggressive pancreatic, lung, colorectal and breast cancers by using large combinations of partially effective therapies targeting different malignant attributes. For each cancer histological type, we should identify 20-30 important malignant attributes and then identify or develop therapies with at least partial effectiveness for each attribute, see

http://natpernick.com/Pancreatic%20Cancer%20Treatment%20Targets.html. Then, our oncologists and pharmacologists can find combinations of 8-10 of these therapies that will be substantially effective, http://www.natpernick.com/CombinationsOfTherapy.html. This proposal is based on complexity science – the behavior of the whole is greater than the behavior of the sum of the parts. We should also reduce the number of clinical studies using only single agents (after initial trials establish their efficacy) – we know that single agents typically cannot be successful because they cannot adequately damage the weblike nature of the malignant process.

3. To determine the malignant attributes of each cancer histological type, we need to identify systemic network disturbances that nurture the cancer, such as microenvironmental factors, inflammation, unicellular-type programming, dysfunctional immune systems and hormones. We also have to better understand cancer cell stability ("cancer attractors",

https://pubmed.ncbi.nlm.nih.gov/19595782) and how to disrupt it with therapies that move tumor cells into less hazardous networks, https://pubmed.ncbi.nlm.nih.gov/31921665.

4. We need to investigate and reduce cancer deaths occurring within 30-60 days of diagnosis. These deaths, when due to infections, treatment side effects or disruption to vital physiologic networks, are often preventable,

<u>http://www.natpernick.com/CuringCancerPart9.html</u>. Some of these cases may be analogous to diabetic ketoacidosis – with proper management, the life threatening episode can be resolved and the underlying disease can then be managed.

5. Long term, we can reduce cancer deaths by 30-40% through prevention and improved screening. We must reduce tobacco use to 5% or less of the population, improve the American diet to be predominantly plant based, reduce excess weight from 60% to perhaps 10% of the population and ensure that all Americans get adequate medical care including regular examinations to promote prevention and detect early disease.

My training is in mathematics, computer science, pathology and law,

<u>http://www.natpernick.com/</u>, but my management experience is in creating a free online textbook in 2001, now used by most pathologists in the English speaking world, <u>https://www.pathologyoutlines.com/</u> and creating (last month) a worldwide directory of pathologists, <u>https://www.pathologyoutlines.com/directory</u>.

Please contact me or have one of your staff contact me regarding the next steps we can take together.

Nat Pernick, M.D.

Curing Cancer Network:

* Strategic Plan – http://www.natpernick.com/StrategicPlanCuringCancer.html

* American Code Against Cancer -

http://www.natpernick.com/AmericanCodeAgainstCancer.html

* Blog – https://natpernickshealthblog.wordpress.com/

- * Newsletter <u>https://lp.constantcontactpages.com/su/onz6IND</u>
- * Grants https://www.pathologyoutlines.com/grants.html