

RESEARCH ARTICLE

# Legal Drugs that Consistently Kill Advanced Cancer and Cardiovascular Patients are Worse than Illegal Drugs that Occasionally Kill Abusers

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## Abstract

Illegal drugs are addictive or psychedelic drugs against social norm which are condemned. Abusers and traffickers of illegal drugs are severely punished by laws, particularly the traffickers who can be summarily arrested or executed. Legal drugs are put up by health authorities to cure diseases. On the solution of diseases, there are disputes whether to base on the elimination of causes or symptoms of diseases. Oriental medicine stresses the importance on the elimination of causes, whereas western medicine prefers the drugs to eliminate symptoms to produce immediate therapeutic effects which may or may not be long lasting. Legal drugs that cannot produce long lasting therapeutic effects often result in the progression of disease to end in fatality. Legal drugs consistently kill advanced cancer and cardiovascular patients are not restricted by laws. The objective of this article is to call for the enactment of legislations to restrict the use of legal drugs to kill advanced cancer or cardiovascular patients. Cytotoxic agents can kill cancer cells (CCs) but cannot affect cancer stem cells (CSCs). Cytotoxic agents create wounds to contribute to the damage of chemo-surveillance, which is a natural defense mechanism to prevent the evolution of diseases due to wounds unhealing such as cancer and cardiovascular diseases (CVDs). The ineffectiveness of cytotoxic cancer drugs against CSCs and the contribution to the damage of chemo-surveillance are the reasons to contribute to the failure of cytotoxic cancer therapies to win the war on cancer declared by President Nixon during 1971-1976. The failure to win the war on cancer was a definitive verdict that cancer therapies based on the killing of CCs was incorrect. But the cancer establishments were so inappropriate to insist on the failed approach to pursue cancer therapies. The arrogant display of insisting on the failed approach to pursue cancer therapy is a bad tradition shared by authoritarian organizations. That bad tradition is the reason to damage the reputation of health profession as a dumb profession unable to solve an easy presidential project to win the war on cancer which did not require difficult technology and to hurt cancer patients. President Trump ought to enforce administrative measures to restrict health establishments from using legal drugs to kill advanced cancer and cardiovascular patients as he did to arrest Venezuela President Marudo for the trafficking of illegal drugs to the USA. His arrest of Marudo was applauded as a great achievement of his administration. His enforcement of administrative measures to restrict health establishments the use of legal drugs to kill advanced cancer and cardiovascular patients will also be applauded as a great achievement of his administration.

**Keywords:** Cancer and Cardiovascular Drugs, Illegal Drugs, Drug Regulations, President Trump.

## 1. Introduction

Illegal drugs are addictive or psychedelic drugs against social norm that are condemned. Abusers and traffickers of illegal drugs are severely punished by

laws, particularly the traffickers who can be summarily arrested or executed. Recently, President Trump sent in military personnel to Venezuela to arrest President of Venezuela Marudo who was actively involved in

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the trafficking of illegal drugs into the USA. The arrest of Marudo was applauded as a great achievement of his administration. He should also take actions on health profession to restrict the use of legal drugs to kill patients, which are contributing more damages than illegal drugs that prompted his action to arrest Marudo.

Legal drugs are put up by health authorities to cure diseases. There are three categories of drugs on the solution of diseases: the drugs to prevent the diseases from taking place, the drugs to focus on the elimination of causes and the drugs to focus on the elimination of symptoms [1]. The oriental medicine considers drugs that can prevent diseases from taking place as the best drugs, the drugs to target on the causes of diseases as the next to the best drugs, and the drugs to target on the symptoms as the worst kind which happen to be the most favored drugs of western medicine. Western medicine also values the preventive drugs. Vaccination is the creation of western medicine. So, there are disputes on the choice of drugs to treat diseases. Oriental medicine likes the drugs to target on the causes of diseases, whereas western medicine prefers the drugs to target on the symptoms of diseases. It is debatable to target on the cause or to target on the symptom. On some diseases drugs to target on the causes are the only options to solve the diseases such as cancer and CVDs, whereas on other diseases drugs to target on the symptoms offer immediate relief such as pain, fever or cough. Both cancer and CVDs are caused due to wound unhealing [2]. The proliferation of CCs is the symptom of cancer and the hypertension is the symptom of CVDs. Cancer establishments put up cytotoxic agents to kill CCs and CVDs establishments put up hypotensive agents to reduce hypertension. Both were incorrect to stir up cancer and CVDs as the top killers of humans to claim 10 million cancer mortality and 20.5 million CVDs mortality annually around the world [2-4]. Perfection of wound healing is the only intelligent solution to win the wars on cancer, on CVDs and on a series of fatal diseases evolving due to wound unhealing [5, 6]. Obviously, health establishments made mistakes to put up legal drugs to cause deaths of advanced cancer patients and CVDs. Health profession is an authoritarian profession like communist regimes that mistaken policies adopted by the top authorities are not allowed to be challenged. President Trump and the Secretary of Health Kennedy have authorities higher than those of health establishments to challenge their mistakes. President Trump was very concerned of

illegal drugs to initiate a very drastic action to arrest Marudo in Venezuela to stop trafficking of illegal drugs into the USA. Legal drugs put up by health establishments to result in the deaths of patients are far worse than illegal drugs to cause enormous casualties, 0.61 million cancer mortality and 0.92 million CVDs mortality annually in the USA [4]. He should initiate administrative actions to hold health establishments accountable for the enormous casualties of advanced cancer and CVDs patients like he did to arrest Marudo. There is a need to enact regulations to restrict the use of legal drugs to cause the deaths of patients.

## **2. Legal Drugs that Consistently Kill Advanced Cancer and Cardiovascular Patients are Worse than Illegal Drugs that Occasionally Kill Abusers and Discussion**

### **2.1 Illegal Drugs and Legal Drugs that Cause Deaths Should be Condemned**

Illegal drugs are addictive and psychedelic drugs which are very destructive and antisocial norm. Illegal drugs are strictly prohibited by laws. Abusers and traffickers are severely punished, particularly the traffickers who can be summarily arrested or executed. President Marudo of Venezuela was actively involved in the trafficking of illegal drugs into the USA, who was recently arrested in Venezuela by President Trump through an extraordinary military operation. The arrest of Marudo was applauded as a great achievement of his administration to halt illegal drugs into the USA. Illegal drugs are rightly prohibited and aggressively prosecuted in most countries. Illegal drugs are well under control in most countries. Legal drugs that cause the deaths of patients are a big problem, because there is no law to convict the use of legal drugs to result in the deaths of patients. It will take an unconventional president like President Trump and presidents with strong will to save cancer patients like Presidents Nixon and Biden to initiate legislations to restrict the use of legal drugs to kill patients [7-9]. Legislations to restrict the use of legal drugs to kill patients may not be President Trump's style, he definitely prefers to send in FBI agents to arrest responsible health authorities to stand trials for trafficking legal drugs to kill patients

### **2.2 On the Origin of Cancer and CVDs**

To successfully solve cancer and CVDs, it is necessary to learn how these diseases become established. Cancer evolving due to wound unhealing was a valid concept introduced by Virchow in 1858 [10]. Virchow

was extremely talented to comprehend the logic of wound unhealing to the evolution of cancer at a time neither cancer nor wound healing was completely known. He did not produce experimental data to advance his excellent concept. We pursued cancer therapy unknowingly following his guidance to discover abnormal methylation enzymes (MEs) [11-13], chemo-surveillance [14-16], and the mechanism of wound healing [17-20]. Our studies in essence independently produced experimental data to support the validity of the concept of cancer evolving due to wound unhealing. Thus, we were also extremely talented to decode the logic of wound unhealing to the evolution of cancer.

Abnormal MEs are the most critical issue of cancer [21]. MEs are a ternary enzyme complex consisting of methionine adenosyltransferase (MAT)-methyltransferase (MT)-S-adenosyl-homocysteine hydrolase (SAHH) which play a pivotal role on the regulation of cell replication and differentiation by virtue of the fact that DNA MEs control the expression of genes to dictate the function of cells [22], and rRNA MEs control the production of ribosome [23] which in turn dictates the cell to initiate cell cycle [24]. If the enhanced production of ribosome is locked in place that become a forced to drive carcinogenesis [25]. Because of this important role on the regulation of cell replication and differentiation, MEs are exceptionally subjected to double allosteric regulations [26]. Enzymes involved in important biological regulation are subjected to delicate biological regulations. Allosteric regulation is a pervasive biological regulation. Single regulation is very common. Double regulations are exceptional. On the individual enzymes, MEs are allosterically regulated by steroid hormone. SAHH is the receptor of steroid hormone [27]. In steroid hormone targeted organs and tissues, the growth and function are strictly under the regulation of steroid hormones. In other organs and tissues, the growth and function are under the regulation of factors closely related to steroid hormones. SAHH is an unstable molecule which requires a stabilizing factor such as steroid hormone to assume a configuration in order to form MT-SAHH dimer to become stable. MT-SAHH has a mass similar to that of MAT to form a more stable and functional ternary MEs [27]. In telomerase expressing cells, MEs become associated with telomerase. Telomerase is a much larger molecule than SAHH which should be a stable molecule. But telomerase needs to associate with RNA or proteins to become stable. MEs have a

good affinity to form complex with telomerase [13]. Telomerase also has affinity to form complex with heat shock protein 90 and NF-kB [13]. Telomerase is an important enzyme to promote eternal life of cell. The discoverers of telomerase were awarded Nobel prizes. It is also a well known oncogenic protein. The association with MEs to block differentiation is the most important factor to contribute telomerase as an oncogenic protein. The association with heat shock protein 90 and NF-kB may also have important contribution. The association of MEs with telomerase changes kinetic properties of MEs and the regulation greatly in favor of promoting cell growth, which is needed for the development of fetus, healing of wound and tumor growth.  $K_m$  values of telomerase associated  $MAT^{LT}$ - $SAHH^{LT}$  isozyme pair are 7-fold higher than those of normal  $MAT^L$ - $SAHH^L$  isozyme pair [11-13]. The higher  $K_m$  values are an indication that abnormal MEs are far more stable than normal MEs since the study of Prudova et al. indicated that the association of protein with S-adenosylmethionine (AdoMet) could protect the protein against protease digestion [28]. The higher  $K_m$  values are also an indication that larger pool sizes of AdoMet and S-adenosylhomocysteine (AdoHcy) are needed for the promotion of the growth of cells expressing abnormal MEs, since the study of Chiva et al. indicated that when HL-60 cancer cells were induced to undergo terminal differentiation (TD), the pool sizes of AdoMet and AdoHcy shrank greatly [29]. Thus, larger pool sizes of AdoMet and AdoHcy are required for the promotion of growth of cells expressing abnormal MEs that include pluripotent stem cells and CSCs derived from progenitor stem cells (PSCs) and CCs derived from CSCs. SAHH is an enzyme to carry out reversible reaction. A large pool size of AdoHcy is also a large pool size of homocysteine (Hcy). High plasma Hcy is a risk factor of CVDs [30], which is a strong evidence of CVDs evolving due to wound unhealing.

Cancer is basically a problem of the growth regulation going awry. MEs becoming abnormal and chromosomal abnormalities to cause the activation of oncogenes or inactivation of suppressor genes are most critically related to the growth regulation going awry, abnormal MEs to block differentiation and activation of oncogenes or inactivation of suppressor genes to speed up replication of cells. Chromosomal abnormalities such as translocations to activate oncogenes or deletions to inactivate suppressor genes attracted the most attention and the endorsement of many Nobel prizes. Cancer establishments even

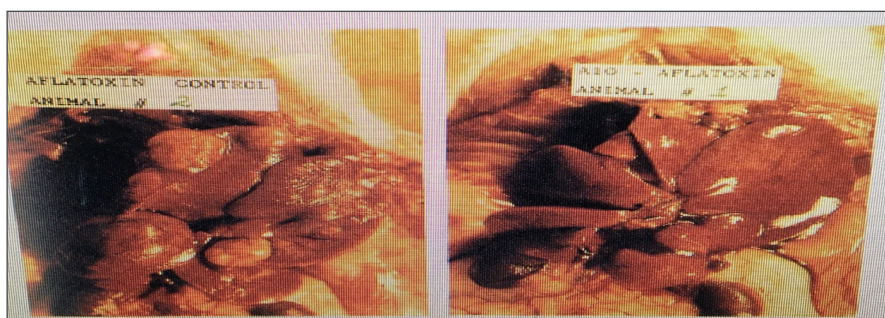
designated development of gene therapy as the first choice to replace failed cytotoxic cancer therapy during 1976-1996 [31]. They were unsuccessful to develop gene therapy simply because it was too difficult to correct chromosomal abnormalities. Good thing, they were unsuccessful. If they were successful, we would be trapped in a very difficult approach of cancer therapy like we are now trapped in the unattainable cytotoxic cancer therapy. Actually, it is not feasible to pursue gene therapy. One difficult gene therapy if achieved, there may soon pop up another chromosomal abnormality to negate the previous effort. We will be struggling to solve one gene abnormality after another gene abnormality. Targeting abnormal MEs is a better approach to solve chromosomal abnormalities [32]. After all, oncogenes and suppressor genes are cell cycle regulatory genes. These genes have important roles to play when cells are in cell cycle replicating. But if cells exist cell cycle to undergo TD, these genes have no roles to play. Therefore, destabilization of abnormal MEs is a very intelligent approach of cancer therapy [2, 21, 33-35], and is the only option for the solution of CSCs which are critically linked to wound unhealing [36]. Induction of TD of CSCs is the only option to put out the issue of CSCs. Solution of CSCs is an extremely important issue. The success of cancer therapy is critically dependent on the eradication of CSCs [36, 37]. Of course, cancer establishments knew the importance of eradication of CSCs to the success of cancer therapy. Approximately 19 years ago the pharmaceutical giant GSK put up 1.4 billion to develop monoclonal antibodies against CSCs invented by the scientists of Stanford University, which was not successful because killing of CSCs was not an option. Cancer establishments do not have a solution of CSCs, and therefore do not have a successful solution of cancer. It was obvious that abnormal MEs were the most critical issue of cancer [21]. During our studies of abnormal RNA MEs of cancer cells, we became involved in the arguments of the arrangement of 18S and 28S rRNA in the 45S precursor. Methylated dinucleotides profiles of 18S and 28S rRNA are distinctly different. Methylation of rRNA takes place right after the nascent chain is generated. Analyses of H<sup>3</sup>- dinucleotides profiles of shorter and longer nascent pre-rRNA chains labeled with (H<sup>3</sup>-methyl) from (H<sup>3</sup>-methyl-S-AdoMet) in isolated nucleoli in the RNA synthesizing medium revealed that H<sup>3</sup>-methylated dinucleotides of the shorter nascent chains resembled the profile of 18S rRNA and H<sup>3</sup>-methylated dinucleotides of the longer

nascent chains resembled the profile of 28S rRNA [38]. Our experimental data convincingly showed that 18S rRNA was located at the 5'-end of 45S precursor. The president of American Cancer Society assigned 28 rRNA at the 5'-end of 45S precursor just opposite to our data. We were accused of trying to create controversy and the grant to professor Hurlbert from American Cancer Society was terminated, which was a lifetime grant to award his contribution on the establishment of pyrimidine pathway. The accusation of trying to create controversy was wrong, because the controversy was already existing. There were reports placing 18S rRNA at the 5'-end of the 45S precursor same as the data we produced. We were trying to solve the controversy, not to create controversy. Our data were more straight forward and convincing. We won the arguments, but lost the livelihood. Without grant support, professor Hurlbert was forced to retire early and his associate Liau was dismissed from MD Anderson Cancer Center. The arrangement of 18S and 28S rRNA in the 45S precursor molecule was not an important issue. The big cancer establishments could not tolerate challenge even on an unimportant issue. They destroyed the careers of challengers who were exploring on abnormal MEs which were the most critical issue of cancer [21]. So, they also destroyed the only smart brains able to put cancer and CVDs away [6]. By destroying the only smart brains to put cancer and CVDs away, they also lost the opportunity to claim the victory to win the wars on cancer and on CVDs to let these diseases continuing as top killers of humans [2]. The punishment of fellow scientists for doing the right thing was a blatant violation of justice a dignified organization would not do. American Cancer Society owes an apology to punish Professor Hurlbert for doing the right thing to terminate his lifetime grant award. Blatant violation of justice happens all the time in communist regimes. On June 4, 1989, Chinese communist regime sent in tanks to kill unarmed college students gathering at Tiananmen Square of Beijing to demand democracy.

Intolerance to challenges is a bad tradition of authoritarian health organization to damage the reputation of health profession as a dumb profession unable to solve easy diseases evolving due to wound unhealing. Wound healing comes naturally without having to put up any effort, because the nature puts up chemo-surveillance an immuno-surveillance to ensure for the perfection of wound healing, chemo-surveillance to heal wounds created by toxic chemicals or physical means and immuno-surveillance to heal

wounds created by infectious agents. Immuno-surveillance and chemo-surveillance can act synergistically to heal wounds to prevent diseases from taking place due to wound unhealing. But immuno-surveillance can also act antagonistically by promoting the production of TNF to damage chemo-surveillance. TNF is another well known oncogenic protein. The creation of blood vessel hyperpermeability [39-40] to result in the excessive excretion of low molecular weight metabolites is the contributing factor of TNF as an oncogenic protein. Wound healing metabolites are among the low molecular metabolites excreted resulting in the collapse of chemo-surveillance to heal wounds. Wound unhealing can lead to fatal symptoms such as the white lung of COVID-19 infection [41], heart attack or stroke of CVDs [30] to end in fatality. If the symptoms are not fatal, there is a good possibility that wound unhealing can result in the evolution of cancer [10]. Perfection of wound healing by keep the function of chemo-surveillance intact is an effective measure to prevent cancer from

taking place [14, 42-44]. Phenylacetylglutamine is a major metabolite in the plasma and urine. It is a major chemical component of Antineoplaston preparations [14, 45, 46] and CDA-2 [47-49] purified from urine for cancer therapy. Phenylacetylglutamine is biologically inactive chemical, but it is very effective to antagonize TNF to keep the function of chemo-surveillance intact. By keeping the function of chemo-surveillance intact, it was found very effective to prevent hepatocarcinogenesis induced by potent carcinogen aflatoxin B<sub>1</sub> as shown in Fig. 1, which is reproduced from the reference [50]. Antineoplaston A10 is the code name of phenylacetylglutamine by Burzynski. It is remarkable that a biologically inactive chemical can have such impressive effect to prevent carcinogenesis induced by a potent carcinogen. Disease preventive drugs are valued by orient al and western medicines. Phenylacetylglutamine should be an acceptable cancer preventive drug.



**Figure 1.** Effective Prevention of Hepatocarcinogenesis by Antineoplaston A10

The figure on the left is the control liver receiving aflatoxin B1 only, and the figure on the right is the liver receiving Antineoplaston A10 after the administration of aflatoxin B1.

### 2.3 Chemo-surveillance Selectively Destroyed in Cancer Patients

Chemo-surveillance was a terminology we created to describe an observation that healthy people were able to maintain a steady level of metabolites active as differentiation inducers (DIs) and differentiation

helper inducers (DHIs), whereas cancer patients tended to show deficiency of such metabolites as shown in Table 1, which is reproduced from the reference [14]. DIs are metabolites capable of eliminating telomerase from abnormal MEs and DHIs are inhibitors of MEs capable of potentiating the activity of DIs.

**Table 1.** Chemo-surveillance Selectively Destroyed in Cancer Patients

Plasma/Urine Peptide Ratios	CDA Levels	Number of Patients	% Distribution
0.83 – 0.80 (Normal)	5.0	2	1.8
0.80 – 0.60	4.3	7	6.5
0.60 – 0.40 (Responsive)	3.1	18	16.7
0.40 – 0.20	1.8	38	35.2
0.20 – 0.10	0.9	24	22.2
0.10 – 0.02 (Unresponsive)	0.37	19	17.6

Plasma Peptides : nmoles/ml ; Urinary Peptides : nmoles/mg creatinine

Chemo-surveillance is the creation of the nature for the perfection of wound healing. Wound healing requires the proliferation and the TD of PSCs, which is an extension of the embryonic program of organ or tissue development. PSCs are the most primitive embryonic stem cells to initiate the development of organ or tissue. The development of organ or tissue and wound healing requires the production of enough stem cells and the completion of TD of stem cells. Interruption on the production of stem cells and completion of TD are detrimental for the development of fetus and wound healing. Maternal wound healing metabolites are prohibitive on the replication of fetal stem cells expressing abnormal MEs. Placenta must have a role to prevent the entry of maternal wound healing metabolites, which are hydrophobic, into the fetal blood circulation to interfere with the development of fetus. Placenta cannot prevent hydrophilic chemicals to pass through which are needed for the development of fetus. Thalidomide is a hydrophilic chemical that can pass through placenta to inhibit abnormal MEs to interfere the development of fetus. Malformation of limbs is frequently observed which is not fatal. But malformation of vital organs such as brain or heart can also take place to result in still birth. It is evident that the interference on the growth and TD of stem cells is detrimental for the development of fetus and wound healing. In most instances, collapse of chemo-surveillance is the reason to cause wound unhealing to result in the appearance of CSCs, which are critically linked to wound unhealing. Therefore, induction of TD through destabilization of abnormal MEs is the only option to solve the issue of CSCs [18, 32, 34, 36]. Wound unhealing will invite immunological response that produce TNF to further damage chemo-surveillance. CDA level will keep on decreasing. CDA level of 2.5 is a very likely threshold to dictate the responsiveness of cancer patients to cytotoxic therapy. Above CDA level 2.5, patients can respond to cytotoxic therapy, relying on the restoration of the function of chemo-surveillance to subdue surviving CSCs which are not responding to cytotoxic agents because these cells are protected by drug resistant and anti-apoptosis mechanisms [51-57]. The therapeutic effect of cytotoxic agents on early stage cancer patients is not entirely the credit of cytotoxic agents. The restoration of chemo-surveillance plays a decisive role on the elimination of CSCs to achieve cancer therapy. There is no chance for CDA to restore to the functional level, if it has decline to the level below 2.5. Cytotoxic cancer therapy can only cause the

deaths of patients with CDA level below 2.5. It has been established that cancer patients with distant metastasis are not eligible for surgical treatment, because surgery tends to cause the dissemination of metastasis to cause the deaths of cancer patients. Likewise, cancer patients with CDA level below 2.5 are not eligible for the treatment with cytotoxic cancer therapies. Cytotoxic cancer therapies can only benefit early stage cancer patients that include stage I and II cancer patients without evidence of distant metastasis and CDA level above 2.5. There are other restrictions. According to Thon et al., CSCs counts of astrocytoma are below 1%, which are responsive to cytotoxic cancer therapies, but CSCs counts of glioma are above 3%, which are not responsive to cytotoxic cancer therapies [58]. Obviously, the amounts of CSCs in the tumor are an important factor to dictate the responsiveness of the tumor to cytotoxic cancer therapies. Brain compartment is protected by blood brain barrier. So, it is enriched with hydrophobic wound healing metabolites. Only malignant tumors with CSCs above 3% can prevail in the brain compartment. Glioma and glioblastoma with CSCs counts above 3% are the most common malignant tumors found in the brain. Brain compartment is also enriched in growth hormone which is produced in the pituitary gland located in the brain. Growth hormone can promote the growth of benign brain tumors and malignant astrocytoma with very low CSCs counts. The responsiveness of cancer cells to cytotoxic agents has a very narrow range. Determination of CSCs counts to select eligible patients is very important to avoid the loss of cancer patients to cytotoxic drugs, which is not regularly done to avoid the killing of ineligible cancer patients by legal cytotoxic drugs. There is a need of legislations to prevent the killing of ineligible cancer patients by legal cancer drugs. Drugs based on the elimination of symptoms are not good for the therapy of diseases evolving due to wound unhealing. The use of toxic chemicals or radiation to alter the structure of DNA is particularly bad, which should be abandoned in 1976 when these agents failed to win the war on cancer. To keep these agents in use was a grave mistake of cancer establishments. Cancer establishments have consistently failed to solve cancer. They failed the war on cancer during 1971-1996. Failed to develop gene therapy during 1976-1996. Failed to develop anti-angiogenesis therapy during 1996-2016. Actually, they succeeded in the development anti-angiogenesis therapy. But the success of anti-angiogenesis therapy ended up to

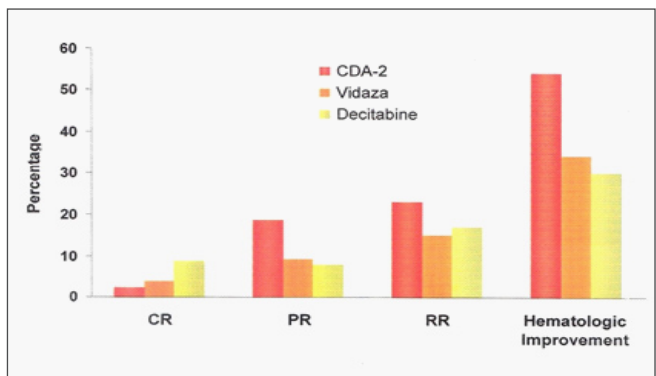
cause the death of cancer patients due to internal bleeding, that echoed the failure of cytotoxic cancer therapy. The success of cytotoxic cancer therapy ended up causing the deaths of cancer patients due to adverse effects or recurrence. Radiotherapy of nasopharyngeal carcinoma is excellent, almost reaching 100% complete remission. But most cured patients succumb to stroke within a short period. Cytotoxic cancer therapies have good short term therapeutic records, but cured patients often succumb to adverse effects or recurrence. We considered creation of wounds inaccurate for cancer therapy [3]. Healing wounds was the correct approach of cancer therapy [5, 19, 20, 31, 42-44, 59-62]. Burzynski initiated a correct approach of cancer therapy by the employment of Antineoplastons cancer which were wound healing metabolites purified from urine to display excellent therapeutic results during 1976-1990 that caught the attention of 20/20 news report, a popular nationwide news report in the USA. Antineoplastons were blocked, because these preparations were not toxic to cause tumor to disappear. Cancer establishments put up a rule of tumor shrinkage to evaluate the success of cancer therapy, that was the most damaging mistake of cancer establishments. It blocked the only cancer drugs able to eliminate CSCs to win the war on cancer. By blocking Antineoplastons, cancer establishments also blocked their opportunity to win the war on cancer. Cancer establishments were not only unable to solve cancer, but they also blocked intelligent scientists such as Professor Hurlbert, Liao and Burzynski who were able to provide the solution. The most critical issue of cancer is wound unhealing due to the collapse of chemo-surveillance unable to achieve TD of PSCs, which are forced to become CSCs. The only option to solve cancer is to enforce TD of PSCs and CSCs [5, 19, 20, 31, 42-44, 59-62]. But cancer establishments preferred to kill CCs to solve cancer which could not put away CSCs. Wound unhealing is also the primary cause of CVDs [30]. The buildup of PSCs causes blood vessels to become hardened to loss elasticity. The hardened blood vessels are easy to break. The buildup of PSCs also triggers infiltration of leukocytes and deposit of light density lipoprotein to build up the plaques in the unhealed wound area to result in hypertension to break the hardened blood vessels. The correct solution of CVDs is to promote TD of PSCs to restore the elasticity of blood vessels. The secondary buildup of plaques will disappear following the completion of wound healing. Focusing on the solution of secondary buildup of plaques is not very

effective as the mortality of CVDs keeps on increasing.

#### **2.4 CDA-2 as the Best Drug for the Solution of CSCs**

CSCs were the most important issue of cancer [63, 64]. Obviously, cancer establishments agreed with our assessments to put up 1.4 billion to develop monoclonal antibodies to solve CSCs that ended in failure, because killing of CSCs was not an option. We like to offer CDA formulations as the best drugs for the solution of CSCs.

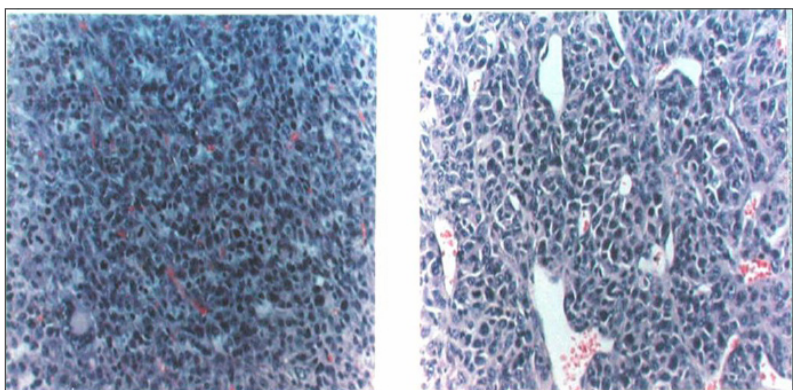
Myelodysplastic syndromes (MDSs) are diseases attributable entirely to the propagation of CSCs [65], which are ideal for the development of drugs against CSCs. MDSs often start with a display of immunological disorder [66], which prompts the production of inflammatory cytokines. Among cytokines produced, TNF is the critical factor related to the development of MDSs [67]. It causes excessive apoptosis of bone marrow stem cells, thus severely affecting the ability of the patient to produce hematopoietic cells such as erythrocytes, platelets or neutrophils. TNF is also responsible for the destruction of chemo-surveillance to result in wound unhealing to force the evolution of PSCs to become CSCs. MDSs are at the stage of establishing CSCs. Further progression of chromosomal abnormalities will lead to acute myeloid leukemia. Solution of MDSs requires the TD of PSCs and CSCs to produce functional erythrocytes, platelets or neutrophils. Therefore, inactivation of MT is the only option for the therapy of MDSs. Inactivation of MT to achieve induction of TD of PSCs and CSCs can be accomplished by CDA-2, which is a preparation of wound healing metabolites we produced [48], or by Vidaza and Decitabine to trap MT [68]. CDA-2 is a selective drug to target the oncogenic telomerase associated with abnormal MEs, whereas Vidaza and Decitabine are non-selective drugs which can also affect normal UPSCs. Professor Ma, the Director of Harbin Institute of Hematology and Oncology, was instrumental in conducting clinical trials of all three MDSs drugs for the approval by the Chinese FDA. Vidaza and Decitabine were also approved by the US FDA. According to Professor Ma's assessments based on two cycles of treatment protocols each 14 days, CDA-2 had a noticeable better cytological therapeutic efficacy, although slower to reach complete remission and a markedly better hematological improvement therapeutic efficacy, namely becoming independent on blood transfusion to stay healthy, as shown in Fig. 2, which is reproduced from the reference [49].



**Figure 2.** CDA-2 as the Best Drug for the Therapy of MDSs

Fig. 2 is a very impressive clinical datum accomplished by CDA-2, which is a preparation of wound healing metabolites we produced [48]. CDA-2 is the best drug to solve CSCs which is worth more than 1.4 billion, but the cancer establishments blocked it as an acceptable cancer drug because it cannot make the tumor to disappear. It can make cancer cells to undergo TD to

terminate malignant growth as shown in Fig. 3, which is reproduced from the reference [34]. Termination of malignant growth by induction of TD is a legitimate cancer therapy. It is an approved therapeutic modality of hematological cancers which can distinguish cancer cells and terminally differentiated cells.



**Figure 3.** Histological Changes of Solid Hepatoma Smmu 7721 Induced by CDA-2

Oncologist handling solid tumors cannot distinguish the difference of malignant tumor and terminally differentiated tumor which is harmless like normal organs and tissues. Oncologists of solid tumors use radiological images to judge the success of cancer therapy, that can only tell the size of tumor which is a grave mistake. They should be trained to distinguish the difference of malignant tumor and terminally differentiated tissue like hematological oncologists. They put up a crude tumor size as a guiding principle to judge the success of cancer therapy. That is very wrong! Cancer establishments rejected the only drugs that could solve the issue of CSCs. So, they also rejected the possibility to win the war on cancer. Cancer establishments are responsible for the failure to win the war on cancer. The alliance of Virchow and Liau et al. [6] can win the war on cancer, but we were punished by cancer establishments because we were not following their failed policies to pursue cancer therapy. The cancer establishments punished

scientists to challenge the mistaken policies they put up mercilessly like communist regimes to kill challengers. Scientists are powerless to correct the mistakes of health establishments. The survival of scientists is at the mercy of health establishments. President Trump must step in to correct the mistakes of health establishments to save advanced cancer and CVDs patients.

### 3. Conclusion

Cytotoxic cancer drugs and immunotherapeutic drugs are legal drugs put up by cancer authorities that consistently kill advanced cancer patients. Hypotensive drugs are legal drugs put up by cardiovascular authorities that consistently kill cardiovascular patients. The use of legal drugs to kill patients is worse than the trafficking of illegal drugs that occasionally kill abusers. There are no laws to convict the use of legal drugs to kill patients. President Trump is the only government authority who can correct health authorities to put up legal drugs to

kill advanced cancer and CVDs patients. CDA formulations are the correct drugs to cure diseases evolving due to wound unhealing that do not kill patients. These drugs were unfortunately rejected by health authorities.

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### Consent and Ethical Approval

It is not applicable.

### Competing Interests

Authors have declared that no competing interest exist.

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