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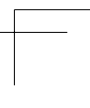
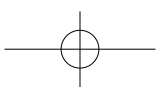
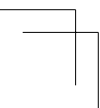
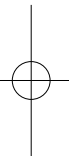
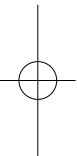
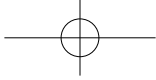
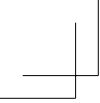
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# Unit 1



## PREVIEW

The reason why we chose medicine is that we intend to reach out for world health. This is our highest aspiration. True, the sacred mission is accompanied by such issues as the primary objective of medicine, health investment, social responsibilities, value-laden morals, conflicts of interest and others worth contemplation and perception. Such issues will go along with this advanced theme course so as to sharpen our ideological perception, and in the meanwhile consolidate our language acquisition.

## I. ASSIGNMENTS BEFORE CLASS

### 1. Quest for Definition

**Directions:** *Explore online the definition of the following terms, and prepare a one-minute oral presentation on one of them. Base your presentation on the online information and the corresponding context in Text A, and deliver it in a unique way. (This is going to be integrated into the communicative interaction in the classroom, requiring the student task to be performed when the term appears in Text A. Each of the terms is to be assigned to a student in advance in the form of a single slip available in Appendix of the textbook.)*

Your Tasks	Page
1) the dark ages	3
2) killed and live attenuated vaccines	3
3) interdisciplinary	4
4) health sciences	4
5) the laboratory and the field	4

### 2. Text-based Exploration

**Directions:** *Read carefully the part of Text A that corresponds to your task, and then prepare a one-minute oral presentation. Focus your presentation on the task and deliver it in a unique way. (This is going to be integrated into the communicative interaction in the classroom, requiring the student task to be performed when the task appears in the relevant context in Text A. Each of the tasks is to be assigned to a student in advance in the form of a single slip available in Appendix of the textbook.)*

Your Tasks	Page
1) Have a brief review of the achievements in public health gained in the past century.	3
2) Why is there little reason for complacency?	3
3) How can current and future challenges be met?	4
4) Research on the ground.	5
5) Healthy people help build healthy economies.	5



## II. A COMMUNICATIVE APPROACH TO TEXT A

### 1. Productive Reading

**Directions:** Read the essay carefully before you are engaged in the communicative activities in the classroom. (This involves interactive communication between the teacher and students, which is supposed to be enforced by spontaneous questions and answers, with students' prepared presentations interwoven with the unfolding of the text.)

#### Text A

### Reaching out for<sup>1</sup> World Health

Gro Harlem Brundtland<sup>2</sup>

In the past century, there have been more gains in public health than in the entire previous history of humankind. Many of the major achievements are due principally to science and scientists—John Snow<sup>3</sup>, Louis Pasteur<sup>4</sup>, Robert Koch<sup>5</sup>, and many others rescued civilization from the dark ages<sup>6</sup> of fear of the unknown<sup>7</sup> and the dread shadow of diseases<sup>8</sup> such as cholera and plague. More recently, the conscience and concern of scientists<sup>9</sup> have often been driving forces<sup>10</sup> in advancing health, enhancing the development of new tools, and stimulating international research and control of major global health problems. Consider an example that spanned most of the 20th century: poliomyelitis. Its discovery as an infectious disease, the amplification of the virus in tissue culture, the development of killed and live attenuated vaccines<sup>11</sup>, the strategy for their use through an expanded program of vaccination, the introduction of national immunization days<sup>12</sup>, and recent research into improved safety and monitoring methods<sup>13</sup> have all led to an approaching milestone in global public health—the worldwide eradication of polio.

However, there is little reason<sup>14</sup> for complacency. Victories are often temporary. Our microbial enemies are incredibly adept at<sup>15</sup> developing new defenses and weaponry and at jumping to<sup>16</sup> new species to create new emerging infections. The

rescue /'reskjuz/ vt. 挽救

civilization /,sɪvəlaɪ'zeɪʃən/ n.

文明

cholera /'kɒlərə/ n. 霍乱

plague /pleɪg/ n. 鼠疫

conscience /'kɒnʃəns/ n. 觉悟

poliomyelitis /,pəʊliəʊmaɪə'laitɪs/

n. 脊髓灰质炎

amplification /,æmplɪfɪ'keɪʃən/

n. 扩增

attenuate /ə'tenjuet/ vt. 减弱

(微生物或病毒的) 毒性

milestone /'maɪlstəʊn/ n. 里程碑

eradication /ɪ,rædɪ'keɪʃən/ n. 消灭

polio /'pəʊliəʊ/ n. 脊髓灰质炎

complacency /kəm'pleɪsənsi/ n. 自满

temporary /'tempərəri/ a. 暂时的

microbial /maɪ'krəʊbiəl/ a. 微生物的

adept /'ædept/ a. 擅长于

weaponry /'wepənri/ n. 武器

very progress<sup>17</sup> of our civilization can threaten our health; for example, transportation technology moves millions of people around the world every day, facilitating the spread of epidemics. And political and economic mismanagement can increase the deprivation of populations; today, less than 10% of the global research and development budget is used to address the largest disease burden<sup>18</sup>, which is found among the poorer populations of the world, and we have no effective vaccines against major scourges such as malaria and AIDS.

How can current and future challenges be met? Research is crucial. It is also essential that scientists from different specialties approach problems in an interdisciplinary way. This is a call for<sup>19</sup> talented young scientists from many branches of knowledge to reach out to improve world health and for science policy-makers in governments, agencies, foundations, and industry to underwrite their mission. The stunning pace of change in the health sciences and their engagement with other disciplines such as informatics, chemistry, physics, and social science provide a new opportunity for health in the 21st century. This call is not only for scientists and policymakers in the industrialized world but also, and perhaps more important<sup>20</sup>, for those in the developing world. The potential, passion, and perception of scientists close to the major problems of world health need to be tapped. This is especially true as<sup>21</sup> the distance between the laboratory and the field continues to shrink rapidly, providing the best-ever scientific opportunity to address global health needs<sup>22</sup>. We should make deliberate use of it<sup>23</sup>, bearing in mind that<sup>24</sup> investment in health is investment in development.

Research networks that span national borders will provide essential support for intensified public health efforts. In this context<sup>25</sup>, I welcome the Multilateral Initiative for Malaria (MIM) research. The efforts by MIM to accelerate capacity building in Africa will be a cornerstone for the “Roll Back<sup>26</sup> Malaria” program on that continent<sup>27</sup>. Indeed, research will be an integral part of

facilitate /fə'sɪlɪteɪt/ *vt.* 使便利

epidemic /epɪ'demɪk/ *n.* 流行病

deprivation /,deprɪ'veɪʃən/ *n.* 贫困

budget /'bʌdʒɪt/ *n.* 预算

scourge /skɜːdʒ/ *n.* 苦难

malaria /mə'leəriə/ *n.* 疟疾

crucial /'kruːʃəl/ *a.* 决定性的

interdisciplinary /,ɪntə'dɪsɪplɪnəri/  
*a.* 跨学科的

talented /'tæləntɪd/ *a.* 有才华的

agency /'eɪdʒənsi/ *n.* 机构

foundation /faʊn'deɪʃən/ *n.* 基金会

underwrite /,ʌndə'raɪt/ *vt.* 支持

mission /'mɪʃən/ *n.* 使命

stunning /'stʌnɪŋ/ *a.* 惊人的

discipline /'dɪsɪplɪn/ *n.* 学科

informatics /,ɪnfə'mæɪtɪks/ *n.* 信息学

passion /'pæʃən/ *n.* 激情, 热情

perception /pə'sepʃən/ *n.* 洞察力

tap /tæp/ *vt.* 开发

shrink /ʃrɪŋk/ *vi.* 缩短

deliberate /dɪ'lɪbəreɪt/ *a.* 慎重的

multilateral /,mʌltrɪ'lætərəl/ *a.*

多边的, 多国的

initiative /ɪ'nɪʃətɪv/ *n.* 行动, 倡议

cornerstone /'kɔːnəstəʊn/ *n.* 基石

integral /'ɪntɪgrəl/ *a.* 组成的



all World Health Organization (WHO) programs, strategically placed to make a difference<sup>28</sup> where it matters most: on the ground.<sup>29</sup>

I will put great emphasis on the scientific underpinning of policy in a renewed WHO<sup>30</sup>. I intend to establish a separate function, devoted to health information and the development of evidence-based policy<sup>31</sup>. WHO will be a leading advocate for health. In addition to the scientific evidence required for policy setting<sup>32</sup>, WHO will gather information on the needs of researchers and on advances made in research. These will be reported to decision-makers around the world. Health ministers need little convincing<sup>33</sup>, but WHO will remind presidents, prime ministers<sup>34</sup>, finance ministers, and science ministers that they are health ministers themselves, key to<sup>35</sup> bringing the science of health to bear on<sup>36</sup> the well-being of their people. Our message will be that healthy people help build healthy economies.

underpinning /ˌʌndəˈpɪnɪŋ/ *n.*  
基础

advocate /ˈædvəkeɪt/ *n.* 提倡者

minister /ˈmɪnɪstə/ *n.* 部长, 大臣

well-being /welˈbi:ɪŋ/ *n.* 健康

◆ Source: *Science*, vol. 280 (26 June 1998).

## 2. Questions for Conclusive Discussion

Directions: Have a critical discussion on the following questions.

- 1) What is the statement that impresses you most while reading the essay?
- 2) What do you agree or disagree with in the essay?
- 3) What is your opinion of the message of the essay?

## Notes

1. reach out for sth 短语动词, 意为“为……而奋斗; 追求”, e.g. We are *reaching out for* world peace.
2. Gro Harlem Brundtland 格罗·哈莱姆·布伦特兰, 挪威政治家、外交家、医生, 挪威历史上第一位女首相, 曾任世界卫生组织总干事。2004年英国《金融时报》将布伦特兰夫人列为近25年来第4名“最有影响的欧洲人”。(Gro Harlem Brundtland, born Gro Harlem, 20 April 1939, is a Norwegian physician and an international leader in sustainable development and public health. She served for 10 years as Prime Minister of Norway, and served as the Director General of the World Health Organization. In her acceptance speech for the WHO position, Dr Brundtland said, “What is our Key mission? I see WHO’s role as being the moral voice and the

technical leader in improving health of the people of the world, ready and able to give advice on the key issues that can unleash development and alleviate suffering.”)

3. John Snow 约翰·斯诺，流行病学鼻祖，发现 19 世纪 30 年代至 40 年代英国伦敦霍乱流行的祸根 (1813-1858, a British physician and a leader in the adoption of anaesthesia and medical hygiene, who is considered to be one of the fathers of epidemiology, because of his work in tracing the source of a cholera outbreak in Soho, England [1854])
4. Louis Pasteur 路易·巴斯德，法国化学家，微生物学家，证明微生物引起发酵及传染病，首创用疫苗接种预防狂犬病、炭疽和鸡霍乱，发明巴氏消毒法 (1822-1895, a French chemist and microbiologist who is remembered for his remarkable breakthroughs in the causes and preventions of disease. His discoveries reduced mortality from puerperal fever, his experiments supported the germ theory of disease, and he created the first vaccine for rabies. He was best known to the general public for inventing a method to stop milk and wine from causing sickness, a process that came to be called pasteurization. He is regarded as one of the three main founders of microbiology, together with Ferdinand Cohn and Robert Koch.)
5. Robert Koch 罗伯特·科赫，德国细菌学家，发明细菌纯培养法和染色法 (1843-1910, a German physician, who became famous for isolating *Bacillus anthracis* [1877], the Tuberculosis bacillus [1882] and the *Vibrio cholera* [1883] and for his development of Koch's postulates. He was awarded the Nobel Prize in Physiology or Medicine for his tuberculosis findings in 1905. He is considered one of the founders of microbiology.)
6. the dark ages (欧洲 5 世纪至 11 世纪) 愚昧黑暗时代 (Originally, the term characterized the bulk of the Middle Ages, from about the 5th to the 11th century, as a period of intellectual darkness between the extinguishing of the light of Rome and the Renaissance or rebirth from the 14th century onwards.)
7. fear of the unknown 对未知事物的恐惧
8. the dread shadow of diseases (隐喻) 疾病的恐怖阴影
9. the conscience and concern of scientists 科学家的觉悟和关切
10. driving forces 动力
11. killed and live attenuated vaccines 灭活减毒疫苗
12. national immunization days 全国性的免疫接种日
13. monitoring methods 检测手段
14. there is little reason 单词 *reason* 还可被 *no* 或 *every* 等词修饰，在意义上，前者接近于 *little*，意为“没有理由”，后者意为“有充分理由或足够理由”，*reason* 后可接介词 *for* 短语或动词不定式，e.g. We have *every reason* to be alarmed by the overuse of antibiotics. / There is *every reason* for the use of antibiotics to a minimum.
15. be adept at sth = be good at sth, be skillful at sth, 形容词短语，意为“擅长……”，e.g. She is *adept at* hiding her feelings.
16. jump to ... 动词短语，意为“突然发展成……；突变成……”，还可表示“匆匆作出（结

- 论)”, e.g. She *jumped to* a conclusion.
17. the very progress 单词 very 为形容词, 需同定冠词 the 一起修饰名词, 意为“正是”(具有突出、强调的作用), e.g. The *very* thought of working with her makes me happy.
  18. to address the largest disease burden 动词 address 的真实含义取决于其宾语 the largest disease burden, 整个短语意为“减轻疾病所带来的巨大经济负担”
  19. This is a call for sb to do sth 代词 this 使上下文连贯, 该表达意为“此使命召唤某人做某事”, e.g. It is imperative that antibiotics be used sparingly. *This is a call for* the medical community to avoid any careless use of valuable antibiotics.
  20. ... and perhaps more important, ... 插入语, 起递进作用, 意为“尤为重要的是……”
  21. This is especially true as (when) ... 句型, 用于举例论证上述某一观点, 意为“这一点当……尤为正确”, e.g. Research is crucial. *This is especially true when* we meet current and future challenges.
  22. to address global health needs 参照本页注释第 18 项
  23. make use of sb / sth 短语动词, 意为“使用, 利用”, e.g. Medicine is *making* increasing use of robots.
  24. bear in mind that ... 句型, 意为“牢记”, e.g. *Bear in mind that* victories are often temporary.
  25. in this context 介词短语, 意为“在这一点; 在这一方面”, e.g. Both are possible *in this context*.
  26. roll sth back 短语动词, 意为“迫使……后退; 遏制”, e.g. CDC (Centers for Disease Control and Prevention) workers took effective measure to *roll back* the epidemic.
  27. on that continent 根据上下文, 意为“在非洲大陆上”
  28. make a difference 动词短语, 意为“有起色, 有影响, 起作用”, e.g. You really *made a difference* to my life. / Money *makes no difference* to her.
  29. Indeed, research will be an integral part of all World Health Organization (WHO) programs, strategically placed to make a difference where it matters most: on the ground. 显然, 科研将是世界卫生组织(世卫组织)项目中的一个组成部分, 从战略上来说, 应在最需要, 并能起作用的地方进行, 即在现场进行。
  30. a renewed WHO 一个崭新的世卫组织
  31. evidence-based policy 循证政策
  32. policy setting 决策制定
  33. need little convincing 无需说服
  34. prime minister 首相(或称“总理”, 又作 premier)
  35. ..., key to ... 形容词短语, 在语法上相当于 ..., which is key to ..., 意为“这(种行为)对……非常关键”, e.g. The potential, passion, and perception of scientists close to the major problems of world health need to be tapped, *key to* reaching out for world health.
  36. bear on sth 动词短语, 意为“对……有影响”, e.g. In reality, anything can *bear* unfavorably on one's health and well-being.

### III. FURTHER READING

Directions: Read Texts B and C before you are engaged in the follow-up activities.

#### Text B

### My Hope for Medicine

Roger C. Bone<sup>1</sup>

As a physician and as a terminally ill patient<sup>2</sup> with metastatic renal cancer, I often find myself now reflecting back on<sup>3</sup> what has happened in medicine during my lifetime. While there have been several remarkable advances made in recent history, still I worry about what will happen if the leaders of our beloved profession do not safeguard its future and let it fall to<sup>4</sup> other medicine's course.

We chose medicine because we wanted to help people. I would like to think that our zeal for medical science will never fade as we continue to explore opportunities to assist patients with bedside care<sup>5</sup>, instruct the physicians of tomorrow, and conduct groundbreaking research. This is indeed a noble calling.

Although I continue to pursue my professional goals and come into my office every day, I now view medicine through the eyes of<sup>6</sup> a patient. Since I take an oral formulation of morphine to control intense pain from bone metastasis and radicular pain from spinal root metastasis, I do not subject patients to my decisions<sup>7</sup>. However, I can still write, counsel the terminally ill patient (who is also commonly on<sup>8</sup> morphine), and reflect upon my profession.

There is much that is right with medicine today.<sup>9</sup> I would like to start by commenting on the quality of patient care I have received from my doctors and nurses. I have never seen a more caring, compassionate group of people in my life.<sup>10</sup> I frequently visit the oncology ward to receive treatment with as

metastatic /,metə'stætɪk/ *a.*

(医)转移的

renal /'ri:nl/ *a.* 肾脏的

safeguard /'seɪf,ɡɑ:d/ *vt.* 捍卫

zeal /zi:l/ *n.* 热情

fade /feɪd/ *vi.* 消失, 枯萎

groundbreaking /'ɡraʊnd,breɪkɪŋ/ *a.* 突破的

calling /'kɔ:lɪŋ/ *n.* 职业

formulation /,fɔ:mju'leɪʃən/ *n.* 制剂

morphine /'mɔ:fi:n/ *n.* 吗啡

metastasis /mə'tæstə'sɪs/ *n.* (医) 转移

spinal /'spainl/ *a.* 脊骨的, 脊髓的

radicular /ræ'dɪkjʊlə(r)/ *a.* (神经、血管) 根的

counsel /'kaʊnsəl/ *vt.* 会诊

compassionate /kəm'pæʃənɪt/ *a.*

有同情心的

oncology /ɒŋ'kɒlədʒi/ *n.* 肿瘤学



many as 15 patients who also get outpatient infusion of their chemotherapeutic agents.

The nurses there are the closest thing to<sup>11</sup> angels on this earth. Over the last several months, I have watched them shower<sup>12</sup> their patients with genuine love and compassion. I have never seen anything but<sup>13</sup> smiles, empathy, and optimistic attitudes<sup>14</sup> from the nursing staff. They have behaved this way even when a patient has been quite difficult<sup>15</sup>. If they tire, I cannot see it.

Despite the advances of medicine, most of us on the oncology ward will die of our disease. Do we tell these nurses often enough the true importance of the emotional and physical support they give to me and the other patients who receive such treatment? The spirit of Florence Nightingale<sup>16</sup> still lives. I hope nurses continue to understand that love and compassion are the best medicines<sup>17</sup> they can administer to us. They can help us live out<sup>18</sup> what time we have with dignity and compassion.

I have also observed that the teamwork of physicians and nurses works, and it works well. I find that physicians often care in a different, but equally meaningful, manner. They are responsible for explaining the disease and, if there is progression, for developing a therapeutic plan for the patient. The physician/nurse combination is powerful. With this, I have hope for our profession. We are able to attend to<sup>19</sup> the physical needs of the sick and provide medical care as well as give love, compassion, and empathy to patients like me and those on my oncology ward.

However, I worry about my profession as I prepare to leave it. We have allowed the bureaucrats and administrators to change the goals of medicine dangerously with the ruse that medicine is too expensive. The time and resources it takes to administer the type of loving care I described above are sometimes cited as one of the causes for the inflated price tag<sup>20</sup>. Nothing could be further from the truth.<sup>21</sup> The reason for the increase in the cost of medicine is due to medical success, not

outpatient /'aʊt,peɪʃənt/ *n.* 门诊  
(病人)

infusion /ɪn'fju:ʒən/ *n.* 输液  
chemotherapeutic  
/,ki:məʊ,θerə'pjʊ:tɪk/ *a.* 化疗的  
agent /'eɪdʒənt/ *n.* (药)剂

genuine /'dʒenjuːn/ *a.* 真正的  
empathy /'empəθi/ *n.* 移情, 同感

administer /əd'mɪnɪstə/ *vt.* 用(药)  
dignity /'dɪgnəti/ *n.* 尊严

teamwork /'ti:mwɜ:k/ *n.* 协力

bureaucrat /'bjʊərəkræt/ *n.* 官僚  
administrator /əd'mɪnɪstretə/ *n.*

行政官员  
ruse /ru:z/ *n.* 诡计

cite /saɪt/ *vt.* 引证

inflated /ɪn'fleɪtɪd/ *a.* (通货)膨  
胀的

failure. Before World War II (at about the time of the discovery of antibiotics) medicine probably killed more patients than it saved. Since World War II, our progress has been astounding because of dedicated scientists who have applied their research and ingenuity to medicine.

As a result of these advances, we have been able to keep patients alive<sup>22</sup> who at one time might have died from their diseases<sup>23</sup>. Diabetes, stroke disorders<sup>24</sup>, and previously terminal heart, brain, and lung diseases are a few examples. It is estimated that there are thousands of persons who are alive only<sup>25</sup> they are hooked to a respirator. This is a major reason for the increase in the cost of medicine. It is not because of “fat in the system”. Medicine in developing countries is inexpensive because there can be no heroic efforts<sup>26</sup> made to keep chronically ill patients alive. I would guess that<sup>27</sup> the individuals with severe diabetes and hypertension roaming the streets of these countries are precious few.

Medicine should be proud of its heritage since World War II. Its leaders should promote that and let people know why costs are high. I repeat, it is because of the success not the failure of medicine. Once people realize this, better ethical decisions can be made concerning<sup>28</sup> these issues. Speaking as a pulmonary and critical care physician, I feel we have kept patients with no chance of recovery alive on machines because of the threat of litigation and because of habit and tradition<sup>29</sup>. These are patients who have a greater chance of suffering from complications than of recovering.

We also need to acknowledge that death occurs before one can prove brain death. We need to teach the public this fact. We then need to develop an ethical, legal, and economic consensus. In addition, the population as a whole<sup>30</sup> must be educated about how suffering can be stopped, how money can be saved, and how resources can be put back into research so that medicinal advances can continue.

antibiotic /,æntɪbaɪ'ɒtɪk/ *n.* 抗生素

astounding /ə'staʊndɪŋ/ *a.* 令人惊骇的

ingenuity /,ɪndʒə'nju:ʒti/ *n.* 独创性

diabetes /,daɪə'bi:tɪz/ *n.* 糖尿病

stroke /straʊk/ *n.* 中风

previously /'pri:vɪəslɪ/ *ad.* 以前

respirator /'respə'reɪtə/ *n.* 呼吸器

fat /fæt/ *n.* 多余的东西

chronically /'krɒnɪkli/ *ad.* (疾病) 慢性地

hypertension /,haɪpə'tenʃən/ *n.* 高血压

roam /rəʊm/ *vi.* 漫步

precious /'preʃəs/ *ad.* 非常

heritage /'herɪtɪdʒ/ *n.* 传统

ethical /'eθɪkəl/ *a.* 伦理道德的

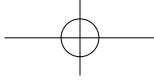
pulmonary /'pʊlmənəri/ *a.* 肺的

litigation /,lɪtɪʒ'eɪʃən/ *n.* 诉讼

complication /,kɒmplɪ'keɪʃən/ *n.* 并发症

acknowledge /ə'knɒlɪdʒ/ *vt.* 承认

consensus /kən'sensəs/ *n.* 意见一致



Our greatest challenge in the future will be how to allocate these resources as the population ages<sup>31</sup>. This decision must be made by the physician and the patient, and not by the government or the entrepreneur. To have resources allocated by the federal government<sup>32</sup> or the business community<sup>33</sup> is not merely pure lunacy, it is immoral<sup>34</sup>. We have seen how government programs<sup>35</sup> work and why plans to “reinvent government” are espoused even by those who created it. Now they want to take on<sup>36</sup> medicine. And since government officials have failed in their attempts to pass health care legislation, the entrepreneurs have stepped in<sup>37</sup>. They have made billions in profits from medicine by insuring healthy individuals and avoiding the poor-risk patient<sup>38</sup>. Now insurance companies want to save money by tracking a physician’s “efficiency rate<sup>39</sup>”. The result is this astounding bureaucracy with which we now must contend<sup>40</sup>. They are treating medicine as a business with assembly-line mentality<sup>41</sup>.

I find it abhorrent to apply business principles<sup>42</sup> to<sup>43</sup> medicine. To ask physicians to be anything other than<sup>44</sup> good physicians and to use the assembly-line mentality is a troublesome concept. I’m sure it is for all patients.<sup>45</sup> It certainly is for me. To save medical dollars by bureaucratic means is unethical in the extreme<sup>46</sup>.

The aging of America will stress the system even further. I hope we will not let our noble profession continue down the dangerous and foolhardy road it is on now. We can be proud of our noble profession and its outstanding history of compassion and the application of scientific inquiry<sup>47</sup> to patient care. My hope for medicine as a doctor and as a patient is that we will fight those who try to change our basic mission<sup>48</sup>: “to care for the patient”. This mission includes letting critically ill patients being kept alive on a ventilator die naturally and humanely. We should also care for those patients who have a chance for recovery regardless of how long it takes or how profitable it might be to do it another way<sup>49</sup>. A patient is not a client or a customer but

allocate /'æləkert/ *vt.* 分配

entrepreneur /,ɒntɹəprə'nɜː/ *n.*  
企业家

lunacy /'luːnəsi/ *n.* 荒谬

immoral /ɪ'mɒrəl/ *a.* 不道德的

reinvent /,riːm'vent/ *vt.* 彻底改造

espouse /ɪ'spaʊz/ *vt.* 支持

legislation /,ledʒɪ'sleɪʃən/ *n.* 立法

bureaucracy /bjʊə'rɒkrəsi/ *n.* 官僚作风

contend /kən'tend/ *vi.* 斗争

mentality /men'tælɪti/ *n.* 理念

abhorrent /əb'hɒrənt/ *a.* 可憎的

troublesome /'trʌbəlɪsəm/ *a.* 令人忧虑的；讨厌的

bureaucratic /,bjʊərə'krætɪk/ *a.*  
官僚作风的

foolhardy /'fuːlhɑːdi/ *a.* 愚勇的

ventilator /'ventɪleɪtə/ *n.* 呼吸器

humanely /hjuː'meɪnli/ *ad.* 人道地

profitable /'prɒfɪtəbəl/ *a.* 有利可图的

a human being who deserves the best that modern medicine can provide.

◆ Source: *The American Journal of Medicine*, vol. 102 (March 1997).

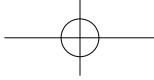
## Notes

1. Roger C. Bone 罗杰·C. 博恩, 美国肺脏学和危重病专家 (Dr Bone was an American lung specialist and former president of the Medical College of Ohio. He wrote articles for medical journals and appeared on network television, asking his peers to show greater consideration for patients dying under their care. He spent his final year reminding his fellow physicians about their obligations toward the terminally ill, like himself, who died on June 8, 1997 at the age of 56 years.)
2. a terminally ill patient 临终病人
3. reflect back on sth 短语动词, 意为“思考(反省)过去的……”, e.g. An old person tends to *reflect back on* the changes he or she has experienced.
4. fall to (doing) sth 短语动词, 意为“开始(做某事)”, e.g. The old friends met and *fell to* talking about their school days.
5. bedside care 临床护理
6. through the eyes of sb 短语介词, 意为“透过某人的眼睛; 从某人的角度”, e.g. Let's look at the earth *through the eyes of* astronauts. / Stealing is a crime *through the eyes of* the law.
7. I do not subject patients to my decisions 意为“我已不再行医”。动词短语 subject sb to sth 意为“使某人经历(接受, 遭受)某事”, 常用于被动语态, e.g. Patients on that ward *were subjected to* infection.
8. on 介词, 意为“处于……的状态或过程”, e.g. The house is *on* fire. / He is *on* drug again. / I am *on* diet.
9. There is much that is right with medicine today. 总的来说, 当今医疗状况还不错。
10. I have never seen a more caring, compassionate group of people in my life. 句型, 由“否定形式(never) + 比较级(more)”构成, 表示肯定, e.g. I *couldn't* agree with you *more*. / It *could not be better*.
11. the closest thing to sth 习语, 意为“简直是……”, e.g. This is *the closest thing to* crazy.
12. shower sb with sth 动词短语, 意为“使(某人)沐浴着……”, e.g. After a rain, the forest *is showered with* sunshine.
13. but 介词, 常用于否定结构, 意为“除了……”, e.g. Nobody heard it *but* me.
14. optimistic attitudes 乐观态度
15. even when a patient has been quite difficult 即使病人总是很难相处
16. Florence Nightingale 弗洛伦斯·南丁格尔, 英国护士, 近代护理学和护士教育的创始人 (Nightingale [1820-1910] was raised mostly in Derbyshire, England, and received a thorough classical education from her father. In 1849 she went abroad to study the European hospital system, and in 1850 she began training in nursing at the Institute of Saint Vincent de Paul in



Alexandria, Egypt. In 1853 she became superintendent of the Hospital for Invalid Gentlewomen in London. Florence Nightingale's contributions to the evolution of nursing as a profession were invaluable. She received many honors from foreign governments and in 1907 became the first woman to receive the British Order of Merit. She died in London on August 13, 1910. In 1915 the Crimean Monument in Waterloo Place, London, was erected in her honor.)

17. the best medicine(s) 习语, 意为“最佳良药”, e.g. *Laughter is the best medicine.*
18. live out (one's life) 短语动词, 意为“度过(生命最后的时光)”, e.g. After retiring, John and his wife *lived out* their lives in Florida.
19. attend to sth 短语动词, 其真实含义取决于宾语, 意为“满足; 照料; 对付; 处理等”, e.g. Nobody can *attend to* his wants. / I will *attend to* that.
20. the inflated price tag 隐喻, 意为“昂贵的医疗费用”
21. Nothing could be further from the truth. 参照第 12 页注释第 10 项, 句中 further 是 far 的比较级, 全句意为: It is absolutely wrong. / It is completely untrue.
22. keep sb alive 动词短语, 意为“维持某人生命”
23. who at one time might have died from their diseases 谓语“might / may have + 过去分词”用于对过去可能发生的事情作猜测或判断, e.g. I conducted what *may have been* some rather sophisticated experiments for a 12-year-old.
24. stroke disorders 中风疾病
25. only 连词, 意为“可是, 不过”, e.g. You may go, *only* come back early.
26. heroic efforts 极大的努力
27. I would guess that ... 句型, 表示个人推测, e.g. *I would guess that* it will be applied to the clinic in five years.
28. concerning = about, regarding, 介词
29. habit and tradition 惯例和传统
30. the population as a whole 大众
31. as the population ages 随着人口的老龄化
32. the federal government (美国) 联邦政府 (The central government entity established by the United States Constitution, which shares sovereignty over the United States with the governments of the individual US states. The federal government has three branches: the legislative, executive, and judicial. Through a system of separation of powers and the system of “checks and balances”, each of these branches has some authority to act on its own, some authority to regulate the other two branches, and has some of its own authority, in turn, regulated by the other branches. The policies of the federal government have a broad impact on both the domestic and foreign affairs of the United States. In addition, the powers of the federal government as a whole are limited by the Constitution, which, per the Tenth Amendment, states that all powers not expressly assigned to the federal government are reserved to the states or to the people.)
33. the business community 商界



34. not merely pure lunacy, it is immoral 连词 not merely ... but (also)... 结构中, but (also) 可用逗号取代
35. government programs 政府项目
36. take sth on 短语动词, 意为“(开始)着手”, e.g. After retirement, he *took on* bioethics.
37. step in sth 短语动词, 意为“介入, 插足, 插手”, e.g. When they began to fight, I *stepped in* to stop it before they were hurt.
38. the poor-risk patient 高风险病人
39. efficiency rate (较少成本的) 效益率
40. contend with sth 短语动词, 意为“与……作斗争”, e.g. We will continue to *contend with* corruption.
41. assembly-line mentality (旨在降低成本的) 装配流程理念
42. business principles 商业原则 / 法则
43. apply ... to ... 动词短语, 意为“将……应用到……”, e.g. Medical discoveries *are* often *applied to* clinical approaches.
44. other than ... 短语连词, 意为“除了……”, e.g. There's nobody here *other than* me.
45. I'm sure it is for all patients. 根据上下文, 此句为省略句, 完整句为: I'm sure it is a troublesome concept for all patients.
46. in the extreme 介词短语, 意为“极端, 极度, 非常”, 常位于形容词之后, 修饰该形容词, e.g. The doctors found the case difficult *in the extreme*.
47. scientific inquiry 科学探索
48. our basic mission 是指医生的根本使命, 即 to care for the patient
49. another way = otherwise, 意为“以另一种方式”

## Text C

### Scientist Citizens

Christopher Reddy<sup>1</sup>

President Obama's<sup>2</sup> inauguration speech delighted scientists when he stated, “We will restore science to its rightful place.” But he went on, “What is required of us<sup>3</sup> now is a new era of responsibility... This is the price and the promise of citizenship.<sup>4</sup>” For scientists, one often-overlooked responsibility is explaining their work to people. This is not an unreasonable price for receiving public funds to do research. And it promises to combat ignorance, guide sound policymaking, and garner more support for science, while simultaneously inspiring and

inauguration /ɪˌnɔːgɪjʊˈreɪʃən/ n.  
就职典礼

era /'ɪərə/ n. 时代

ignorance /'ɪgnərəns/ n. 无知

garner /'gɑːnə/ vt. 获得

simultaneously /,sɪməl'teɪniəsli/  
ad. 同时地



recruiting new young scientists. Now more than ever, issues such as climate change<sup>5</sup>, obesity, stem cell<sup>6</sup> research, green technology<sup>7</sup>, and evolution are migrating from scientific journals to the non-science community<sup>8</sup>, from school halls to the halls of Congress<sup>9</sup>. It's critical that scientists venture beyond<sup>10</sup> their laboratories to put these issues into the correct contexts and help the public understand what is known, unknown, and under debate.

But the walls of the ivory tower<sup>11</sup> remain formidable. Just last month, for example, an editorial in *Analytical Chemistry*<sup>12</sup> commented that federal funding agency requirements for outreach detract from<sup>13</sup> young scientists' ability to conduct research and think deeply. Lack of time is an obstacle for young scientists, but scientists are no more overtaxed than<sup>14</sup> many professionals are. A more entrenched obstacle is that the academic tenure process claims to evaluate research, teaching, and service, but in practice, service is rarely expected or rewarded.<sup>15</sup> In fact, reviewers are well versed in recognizing good research but have little ability or data to evaluate outreach.

Universities must begin to give more than lip service<sup>16</sup> to the service component in tenure evaluations. Land-grant universities<sup>17</sup>, for example, specifically make cooperative extension work<sup>18</sup> part of some faculty members' jobs. At the least, universities and professional organizations should devise detailed guidelines for evaluating the amount, quality, and effectiveness of outreach, so that peers can recognize it when they see it. Universities should also integrate communications into young scientists' basic training. Like lawyers in courts, physicians in hospitals, or baseball players on the field, scientists speak an insular language that is unknowable and intimidating to the uninitiated<sup>19</sup>. As the former editor-in-chief of this magazine, Donald Kennedy, wrote: "Science and technology are increasingly relevant to public policy, and unless those who speak for<sup>20</sup> science can be understood, the policy decisions are likely to be wrong."

recruit /rɪ'kruːt/ vt. 招募  
 evolution /,i:və'lʊ:ʃən/ n. 进化, 演化  
 migrate /maɪ'greɪt/ vi. 迁移  
 Congress /'kɒŋɡres/ n. 美国国会

formidable /'fɔ:mɪdəbəl/ a. 坚不可摧的  
 editorial /,edɪ'tɔ:riəl/ n. 社论  
 analytical /,ænə'lɪtɪkəl/ a. 分析的  
 outreach /'aʊtrɪtʃ/ n. 拓广  
 federal /'fedərəl/ a. 联邦的  
 detract /dɪ'trækt/ vi. 减损  
 overtax /,əʊvə'tæks/ vt. 使过度劳累  
 entrenched /ɪn'trentʃt/ a. 根深蒂固的  
 tenure /'tenjə/ n. 终身职位  
 versed /vɜ:st/ a. 精通的

component /kəm'pəʊnənt/ n. 部分  
 faculty /'fækəlti/ n. (大学) 教员  
 devise /dɪ'vaɪz/ vt. 设计, 想出  
 peer /pɪə/ n. 同仁  
 integrate /'ɪntɪɡreɪt/ vt. 结合

insular /'ɪnsjʊlə/ a. 偏狭的  
 intimidating /ɪn'tɪmɪdeɪtɪŋ/ a. 令人生畏的  
 uninitiated /,ʌnɪ'nɪʃieɪtɪd/ a. 无知的, 无经验的  
 relevant /'reləvənt/ a. 紧密相关的

At Stockholm University<sup>21</sup>, all new PhD students in environmental and climate sciences are now offered training in speaking with the media<sup>22</sup>. Stanford University's School of Earth Sciences<sup>23</sup> has launched an innovative program to train graduate students in similar skills. The Woods Hole Oceanographic Institution<sup>24</sup> offered a graduate student course co-taught by scientists and journalists called "How Not to Write for Peer-Reviewed Journals<sup>25</sup>: Talking to Everybody Else". For more established scientists, professional programs exist: The Aldo Leopold Leadership Program<sup>26</sup>, for example, has provided media training to a growing nucleus of more than 100 mid-career environmental scientists.

Such programs would provide incentive (or at least diminish the disincentive) for scientists to participate in outreach. Rather than viewing funding agency outreach requirements as annoying and vague, scientists can view them as opportunities to find ways to inspire young minds (and themselves), encourage underrepresented groups to enter science, establish collaborations between academia and industry, or otherwise enter the messy fray of democracy. The means by which the public and policymakers get scientific information have changed dramatically. The once linear transmission of research findings from the scientific community<sup>27</sup> to the media, public, or policymakers has been transformed into a chaotic realm in which information (and disinformation) and opinions are voiced through traditional and electronic sources (real-time blogs<sup>28</sup>, chat rooms<sup>29</sup>, and wikis<sup>30</sup>) and not necessarily by the scientific community. Thomas Jefferson<sup>31</sup> wrote, "An enlightened citizenry is indispensable for the proper functioning of a republic."<sup>32</sup> If we believe that science has a rightful role in our society, then it is the scientific community's responsibility to enlighten the public as to why and how<sup>33</sup>. That doesn't mean scientists need to be celebrities, politicians, or lobbyists—just citizens.

innovative /'ɪnəvətɪv/ *a.* 创新的

nucleus /'nju:kliəs/ *n.* 核心

incentive /ɪn'sentɪv/ *n.* 刺激

diminish /dɪ'mɪnɪʃ/ *vt.* 减少

disincentive /,dɪsɪn'sentɪv/ *n.* 遏制因素

vague /veɪg/ *a.* 模糊的

underrepresented

/,ʌndə'reprɪ'zentɪd/ *a.* 未被充分代表的

academia /,ækə'di:mɪə/ *n.* 学术界

fray /freɪ/ *n.* 冲突, 争论

linear /'lɪniə/ *a.* 直线的

chaotic /keɪ'ɒtɪk/ *a.* 无秩序的

realm /reɪlm/ *n.* 领域

blog /blɒg/ *n.* 博客

enlighten /ɪn'laɪtn/ *vt.* 教导, 启迪

citizenry /'sɪtɪzənri/ *n.* 公民

indispensable /,ɪndɪ'spensəbəl/ *a.* 不可缺少的

celebrity /sə'lebrɪti/ *n.* 名人

lobbyist /'lɒbɪst/ *n.* 说客

◆ Source: *Science*, vol. 323 (13 March 2009).

## Notes

1. Christopher Reddy 克里斯托弗·雷迪, 美国科学家 (an American scientist, director of the Coastal Ocean Institute, Woods Hole Oceanographic Institute, MA)
2. President Obama (美国第 44 届) 总统奥巴马
3. What is required of us 动词短语 require sth of sb 意为“要求某人做某事”, e.g. The arduous task *requires of us* still greater efforts. 此例句中 of us 在结构上前置
4. What is required of us now is a new era of responsibility ... This is the price and the promise of citizenship. 目前, 要求我们做的是打造一个负责任的新时代, …… 这是公民权的代价和承诺。
5. climate change 气候变化 (A change in the statistical distribution of weather over periods of time that range from decades to millions of years. It can be a change in the average weather or a change in the distribution of weather events around an average. Climate change may be limited to a specific region, or may occur across the whole Earth. In recent usage, especially in the context of environmental policy, climate change usually refers to changes in modern climate. It may be qualified as anthropogenic climate change, more generally known as global warming.)
6. stem cell 干细胞 (Found in most, if not all, multi-cellular organisms. They are characterized by the ability to renew themselves through mitotic cell division and differentiating into a diverse range of specialized cell types. Research in the stem cell field grew out of findings by Canadian scientists Ernest A. McCulloch and James E. Till in the 1960s. The two broad types of mammalian stem cells are: embryonic stem cells that are isolated from the inner cell mass of blastocysts, and adult stem cells that are found in adult tissues. In a developing embryo, stem cells can differentiate into all of the specialized embryonic tissues. In adult organisms, stem cells and progenitor cells act as a repair system for the body, replenishing specialized cells, but also maintain the normal turnover of regenerative organs, such as blood, skin, or intestinal tissues.)
7. green technology 绿色环保技术
8. the non-science community = the public
9. Congress 美国国会 (The United States Congress is the bicameral legislature of the federal government of the United States of America, consisting of the Senate and the House of Representatives. Both senators and representatives are chosen through direct election.)
10. venture beyond sth = go beyond sth
11. the ivory tower 象牙塔, 隐喻脱离现实的小天地, e.g. He got out of his *ivory tower*. 在美国英语中, 常用于隐喻学院、大学 (The term *Ivory Tower* originates in the Biblical Song of Solomon, and was later used as an epithet for Mary. From the 19th century it has been used to designate a world or atmosphere where intellectuals engage in pursuits that are disconnected from the practical concerns of everyday life. As such, it usually carries pejorative connotations of a willful disconnect from the everyday world; esoteric, over-specialized, or even useless research; and academic elitism, if not outright condescension. In American English usage it is shorthand for academia or the university, particularly departments of the humanities.)

12. *Analytical Chemistry* 《分析化学》杂志 (A peer-reviewed research journal that explores the latest concepts in analytical measurements and the best new ways to increase accuracy, selectivity, sensitivity, and reproducibility. Coverage includes the latest peer-reviewed research and significant applications in bioanalysis, electrochemistry, mass spectrometry, microscale systems, environmental analysis, separations, and spectroscopy.)
13. detract from sth 短语动词, 意为“减损”, e.g. Her words did not *detract from* his merit.
14. no more ... than ... 连词, 意为“不比……更……”, e.g. Economic development is *no more* important *than* environmental protection.
15. A more entrenched obstacle is that the academic tenure process claims to evaluate research, teaching, and service, but in practice, service is rarely expected or rewarded. 一个更坚不可摧的障碍是, 学术聘任过程要求衡量一个人的科研、教学和奉献, 但事实上, 奉献是很难要求的, 也很难得到回报。
16. lip service 口惠, 空口的应酬话
17. land-grant universities (美国) 接受政府赠地而开办的大学 (Also called land-grant colleges or land-grant institutions, institutions of higher education in the United States designated by each state to receive the benefits of the Morrill Acts of 1862 and 1890. The Morrill Acts funded educational institutions by granting federally controlled land to the states for the states to develop or sell to raise funds to establish and endow “land-grant” colleges. The mission of these institutions as set forth in the 1862 Act is to focus on the teaching of agriculture, science and engineering as a response to the industrial revolution and changing social class rather than higher education’s historic core of classical studies.)
18. extension work 亦即上文的 outreach
19. the uninitiated = those who are uninitiated, 当冠词 the 修饰形容词时, 可表示这一类别
20. speak for sb / sth 短语动词, 意为“代表……讲话; 为……辩护”, e.g. At the meeting, not everybody *spoke for* the medical reform.
21. Stockholm University (瑞典) 斯德哥尔摩大学 (Located in Sweden’s capital city, it is the region’s centre for higher education and research in humanities, law, the natural and social sciences, and a focus for the work of leading international researchers.)
22. the media 媒体
23. Stanford University’s School of Earth Sciences (美国) 斯坦福大学地球科学学院 (One of three schools at Stanford awarding both graduate and undergraduate degrees. It is composed of four departments and three interdisciplinary programs. Research and teaching within the School spans a wide range of disciplines.)
24. the Woods Hole Oceanographic Institution 伍兹霍尔海洋生物研究所 (A private, nonprofit research and higher education facility dedicated to the study of all aspects of marine science and engineering and to the education of marine researchers. Established in 1930, it is the largest independent oceanographic research institution in the US, with staff and students numbering



about 1,000. The Institution is organized into five departments, four interdisciplinary institutes—ocean life, coastal ocean, ocean and climate change, deep ocean exploration—the Cooperative Institute for Climate and Ocean Research, and a marine policy center.)

25. peer-reviewed journals 需经同行审阅方可发表的杂志
26. the Aldo Leopold Leadership Program 奥尔多利奥波德领导才能计划 (As society confronts increasingly complex environmental issues, decision makers need relevant, credible scientific information to make critical choices about the future of our planet. Academic environmental researchers are a primary source of credible information on the state of the planet, and their knowledge is urgently needed to inform wise environmental decision making. However, traditional scientific education does not adequately prepare them to communicate about their work with stakeholders outside academe. To address this challenge, the Leopold Leadership Program at Stanford University's Woods Institute for the Environment provides academic researchers with the skills and connections they need to be effective leaders and communicators.)
27. the scientific community 科技界
28. real-time blogs (网上实时进行的) 博客
29. chat rooms (网上) 聊天室
30. wiki 维基网, 此词来源于夏威夷语 wee kee wee kee, 本意为“快点”。wiki 是一种多人协作的写作工具。wiki 站点可以有多人(甚至任何访问者)维护, 每个人都可以发表自己的意见或者对同一主题进行扩展和探讨 (A piece of server software that allows users to freely create and edit Web page content using any Web browser. Wiki supports hyperlinks and has a simple text syntax for creating new pages and crosslinks between internal pages on the fly. Wiki is unusual among group communication mechanisms in that it allows the organization of contributions to be edited in addition to the content itself. Like many simple concepts, “open editing” has some profound and subtle effects on Wiki usage. Allowing everyday users to create and edit any page in a Web site is exciting in that it encourages democratic use of the Web and promotes content composition by nontechnical users.)
31. Thomas Jefferson 托马斯·杰斐逊, 美国第三任总统 (1801-1809), 《独立宣言》的主要起草人, 美国共和制的创建人 (1743-1826, the third President of the United States [1801-1809], the principal author of the Declaration of Independence [1776], and one of the most influential Founding Fathers for his promotion of the ideals of republicanism in the United States. Major events during his presidency include the Louisiana Purchase [1803] and the Lewis and Clark Expedition [1804-1806]. To date, Jefferson is the only president to serve two full terms in office without vetoing a single bill of Congress. Jefferson has been consistently ranked by scholars as one of the greatest of US presidents.)
32. An enlightened citizenry is indispensable for the proper functioning of a republic. 开明的公众对一个共和国的正常运作是必不可缺的。
33. as to why and how as to 为短语介词, 意为“至于, 关于”; 此处 why 和 how 均为名词。整个短语意为: “关于那些‘为什么’和‘怎么会’的问题”

## IV. FOLLOW-UP ACTIVITIES

### 1. Vocabulary Enlargement & Reinforcement

**Directions:** Complete the following phrases respectively according to its corresponding meaning or Chinese equivalent within the brackets.

- 1) the entire previous history of \_\_\_\_\_ (人类)
- 2) due \_\_\_\_\_ (chiefly) to
- 3) to \_\_\_\_\_ (save) civilization from
- 4) the \_\_\_\_\_ (fearful) shadow of diseases
- 5) the \_\_\_\_\_ (觉悟) and concern of scientists
- 6) \_\_\_\_\_ forces (动力)
- 7) to \_\_\_\_\_ (promote) health
- 8) the \_\_\_\_\_ (增大) of the virus
- 9) tissue \_\_\_\_\_ (培养)
- 10) killed and live \_\_\_\_\_ (减弱) vaccines
- 11) national \_\_\_\_\_ (免疫) days
- 12) \_\_\_\_\_ (监测) methods
- 13) worldwide \_\_\_\_\_ (elimination) of polio
- 14) little reason for \_\_\_\_\_ (自满)
- 15) \_\_\_\_\_ (微生物) enemies
- 16) \_\_\_\_\_ (暂时)victories
- 17) \_\_\_\_\_ (skillful) at developing new defenses
- 18) to \_\_\_\_\_ (使便利) the spread of epidemics
- 19) political and economic \_\_\_\_\_ (管理不善)
- 20) the \_\_\_\_\_ (poverty) of populations
- 21) to \_\_\_\_\_ (deal with) the largest disease burden
- 22) major \_\_\_\_\_ (灾祸) such as malaria and AIDS
- 23) in an \_\_\_\_\_ (跨学科的) way
- 24) \_\_\_\_\_ (有才能的) young scientists
- 25) to \_\_\_\_\_ (support) their mission
- 26) stunning \_\_\_\_\_ (speed, rate) of change
- 27) potential, passion, and \_\_\_\_\_ (洞察力) of scientists
- 28) need to be \_\_\_\_\_ (explored)
- 29) to \_\_\_\_\_ (attend to) global health needs
- 30) to make \_\_\_\_\_ (慎重的) use of it
- 31) to \_\_\_\_\_ (keep) in mind that
- 32) \_\_\_\_\_ (战略上) placed on
- 33) the scientific \_\_\_\_\_ (基础) of policy
- 34) \_\_\_\_\_ (循证) policy
- 35) policy \_\_\_\_\_ (establishment)
- 36) to \_\_\_\_\_ (影响) the well-being of people
- 37) a(n) \_\_\_\_\_ ill patient (临终病人)
- 38) \_\_\_\_\_ (转移) renal cancer
- 39) our \_\_\_\_\_ (热爱的) profession
- 40) our \_\_\_\_\_ (enthusiasm) for medical science
- 41) \_\_\_\_\_ (clinical) care
- 42) to conduct \_\_\_\_\_ (突破的) research
- 43) a(n) \_\_\_\_\_ (崇高的) calling
- 44) a(n) \_\_\_\_\_ (口服制剂) of morphine
- 45) bone \_\_\_\_\_ (转移)



- 46) \_\_\_\_\_ (根的) pain  
 47) \_\_\_\_\_ (脊柱) root  
 48) to \_\_\_\_\_ (忠告) the terminally ill patient  
 49) to \_\_\_\_\_ (反省) my profession  
 50) caring and \_\_\_\_\_ (有同情心的)  
 51) \_\_\_\_\_ (化疗的) agents  
 52) to shower their patients with \_\_\_\_\_  
 (true) love and compassion  
 53) emotional and \_\_\_\_\_ (身体的) support  
 54) \_\_\_\_\_ (尊严) and compassion  
 55) \_\_\_\_\_ (cooperation)  
 of physicians and nurses  
 56) to \_\_\_\_\_ (address, meet, satisfy)  
 the physical needs of the sick  
 57) the \_\_\_\_\_ (官僚) and administrators  
 58) the \_\_\_\_\_ price tag (物价上涨)  
 59) \_\_\_\_\_ (very, extremely) few  
 60) the threat of \_\_\_\_\_ (诉讼)  
 61) an ethical, legal, and economic \_\_\_\_\_  
 (agreement)  
 62) to \_\_\_\_\_ (分配) these resources  
 63) to pass health care \_\_\_\_\_ (立法)  
 64) assembly-line \_\_\_\_\_ (理念)  
 65) unethical \_\_\_\_\_ (极度, 非常)  
 66) the application of scientific \_\_\_\_\_  
 (investigation)  
 67) to die naturally and \_\_\_\_\_ (人道地)  
 68) \_\_\_\_\_ (就职) speech  
 69) to \_\_\_\_\_ (acquire, obtain) more support  
 70) to \_\_\_\_\_ (go) beyond  
 71) the walls of the \_\_\_\_\_ (象牙塔)  
 72) a more \_\_\_\_\_ (deeply rooted)  
 obstacle  
 73) \_\_\_\_\_ service (口惠)  
 74) a(n) \_\_\_\_\_ (革新的) program  
 75) a growing \_\_\_\_\_ (核心) of  
 76) between \_\_\_\_\_ (学术界) and industry  
 77) the messy \_\_\_\_\_ (争论) of democracy  
 78) the scientific \_\_\_\_\_ (科技界)  
 79) a(n) \_\_\_\_\_ (混乱的) realm  
 80) a(n) \_\_\_\_\_ (文明的) citizenry  
 81) politicians and \_\_\_\_\_ (说客)

## 2. Grammar and Structure Acquisition

**Directions:** Notice the boldfaced structure in each of the following statements from the previous texts and master its usage by imitating the particular way of writing as indicated by the example given.

- 1) The conscience and concern of scientists have often been **driving forces in** advancing health, enhancing the development of new tools, and stimulating international research and control of major global health problems.

**IMITATION:** The sense of curiosity can be a driving force in exploring the unknown.



2) **This is a call for** talented young scientists from many branches of knowledge to reach out to improve world health.

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3) **This is especially true as/when** the distance between the laboratory and the field continues to shrink rapidly, providing the best-ever scientific opportunity to address global health needs.

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4) **We should** make deliberate use of it, **bearing in mind that** investment in health is investment in development.

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5) **Our message will be that** healthy people help build healthy economies.

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6) I now view medicine **through the eyes of a patient.**

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7) **I have never seen a more caring, compassionate group of people in my life.**

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8) **I have never seen anything but** smiles, empathy, and optimistic attitudes from the nursing staff.

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9) It is estimated that there are thousands of persons who are alive **only** they are hooked to a respirator.

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10) To save medical dollars by bureaucratic means is unethical in the extreme.

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11) In fact, reviewers are well versed in recognizing good research but have little ability or data to evaluate outreach.

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12) An enlightened citizenry is indispensable for the proper functioning of a republic.

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### 3. Observation and Imitation

In each of the following illustrations taken from the previous texts, the pronoun *this* is used to extend the flow of thought in the context, i.e., to introduce a consequent and logic expression to form an additional part of the thought trajectory. This language phenomenon is worth imitating on the part of the English learner.

**Directions:** Read each of the following illustrations and assimilate the practical way of using the pronoun **this**. After that, write a short passage of your own using one of the examples as your model.

1)

How can current and future challenges be met? Research is crucial. It is also essential that scientists from different specialties approach problems in an interdisciplinary way. **This** is a call for talented young scientists from many branches of knowledge to reach out to improve world health and for science policymakers in governments, agencies, foundations, and industry to underwrite their mission.

2)

The potential, passion, and perception of scientists close to the major problems of world health need to be tapped. **This** is especially true as the distance between the laboratory and the field continues to shrink rapidly, providing the best-ever scientific opportunity to address global health needs.



3)

We chose medicine because we wanted to help people. I would like to think that our zeal for medical science will never fade as we continue to explore opportunities to assist patients with bedside care, instruct the physicians of tomorrow, and conduct groundbreaking research. **This** is indeed a noble calling.

4)

It is estimated that there are thousands of persons who are alive only they are hooked to a respirator. **This** is a major reason for the increase in the cost of medicine.

5)

What is required of us now is a new era of responsibility... **This** is the price and the promise of citizenship.

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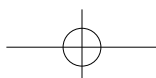
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#### 4. Integration

**Directions:** Read the following paragraph carefully and complete each task according to its corresponding directions on the right side. In some case(s), try to use your own words.

The aging of America will stress the system even further. <sup>1)</sup>*I hope we will not let our noble profession continue down the dangerous and foolhardy road it is now.* <sup>2)</sup>We can be proud of our \_\_\_\_\_ profession and its \_\_\_\_\_ history of compassion and the application of scientific inquiry to patient care. My hope <sup>3)</sup> \_\_\_\_\_ medicine as a doctor and as a patient is that we will fight <sup>4)</sup> \_\_\_\_\_ who try to change our basic mission: “to care for the patient”. <sup>5)</sup>*This mission includes to let critical ill patients be kept alive on a ventilator die naturally and humanely.* We should also care for those patients who have a chance for recovery <sup>6)</sup> \_\_\_\_\_ how long it takes or

- 1) Put the adjective on back in its place within the italicized sentence.
- 2) Fill in the blanks with a proper adjective, respectively.
- 3) Fill in the blank with a proper preposition.
- 4) Fill in the blank with a proper pronoun.
- 5) There are three errors within the italicized sentence. Correct them.
- 6) Fill in the blank with a proper phrasal preposition.



how profitable it might be to do it <sup>7)</sup> \_\_\_\_\_. <sup>8)</sup> A patient is \_\_\_\_\_ a client or a customer \_\_\_\_\_ a human being who deserves the best that modern medicine can provide.

7) Fill in the blank with a phrase meaning *otherwise*.

8) Complete the sentence with proper linking words according to the context.

### 5. Reading Comprehension

**Directions:** Read the following paragraph and answer the questions that follow. There are four suggested answers to each of the questions. Choose the best one according to the paragraph you have read.

How can current and future challenges be met? Research is crucial. It is also essential that scientists from different specialties approach problems in an interdisciplinary way. This is a call for talented young scientists from many branches of knowledge to reach out to improve world health and for science policymakers in governments, agencies, foundations, and industry to underwrite their mission. The stunning pace of change in the health sciences and their engagement with other disciplines such as informatics, chemistry, physics, and social science provide a new opportunity for health in the 21st century. This call is not only for scientists and policymakers in the industrialized world but also, and perhaps more important, for those in the developing world. The potential, passion, and perception of scientists close to the major problems of world health need to be tapped. This is especially true as the distance between the laboratory and the field continues to shrink rapidly, providing the best-ever scientific opportunity to address global health needs. We should make deliberate use of it, bearing in mind that investment in health is investment in development.

- 1) To carry out the interdisciplinary research, as the author implies, \_\_\_\_\_.
  - A. teamwork is crucial
  - B. the future is full of uncertainties
  - C. current challenges should be related to future ones
  - D. today's problems have to be approached before future ones
- 2) It can be inferred from the author that without the policymakers' substantial support, \_\_\_\_\_.
  - A. scientists would find it hard to survive in their community
  - B. it would be hard for scientists to conduct health research
  - C. scientists would work alone rather than in combination
  - D. nobody would reach out to promote world health
- 3) The mission \_\_\_\_\_.
  - A. holds much more hope for the policymakers

- B. is more demanding on those concerned in the developing world  
 C. expects more of talented scientists than of science policymakers  
 D. attaches more importance to world health than to scientific development
- 4) To address global health needs on the ground is a call for scientists \_\_\_\_\_.
- A. to keep an eye on the major health problems in the world  
 B. to have their potential, passion, and perception explored  
 C. to carry out their investigations in the developing world  
 D. to get ready for challenges and opportunities
- 5) The pronoun *it* in the last sentence refers to \_\_\_\_\_.
- A. investment in health  
 B. investment in development  
 C. the best-ever scientific opportunity  
 D. the distance between the laboratory and field

**Note:** The keys can be found in the first sentence of the paragraph: 1=the 2<sup>nd</sup> letter of the 2<sup>nd</sup> word; 2=the 1<sup>st</sup> letter of the 7<sup>th</sup> word; 3= the 1<sup>st</sup> letter of the 7<sup>th</sup> word; 4= the 1<sup>st</sup> letter of the 7<sup>th</sup> word; 5= the 1<sup>st</sup> letter of the 2<sup>nd</sup> word.

## 6. Guided Paragraph Writing

**Directions:** *The following paragraph is taken from Text B. Read it carefully and familiarize yourself with the boldfaced structure indicating a particular flow of thought. After that, write a paragraph of your own as indicated by the example given.*

I **find it** abhorrent **to** apply business principles to medicine. **To** ask physicians to be anything other than good physicians and to use the assembly-line mentality **is** a troublesome **concept**. **I'm sure it is for** all patients. **It certainly is for me**. **To** save medical dollars by bureaucratic means **is unethical in the extreme**.

- Be aware of the relation between the prepositive *it* and the infinitive.
- Notice how the infinitive is used as the subject of the two sentences in the paragraph.

e.g.

**I find it** useful **to** imitate the way the native speaker writes. **To** use the well-written information as a model for practice **is** a practical **concept**. **I'm sure it is for** English learners. **It certainly is for me** as an advanced learner who still has much to be desired in writing. **To** learn how to write well in a guided way **is** practical **in the extreme**.