

We love to hear positive feedback about stories in past issues (who doesn't like a pat on the head now and then?), but we love it just as much (well, almost as much) when readers have constructive or critical comments. Especially when, as one correspondent admits below, someone is impelled to read an article three times! And we figure that we must be doing something right if we amaze, annoy, impress, or even outrage 14 readers into sharing their thoughts and reactions.

Good for Goodman

The profile of Dr. David Goodman in your Winter 2006 issue ("Counting all doctors"—dartmed.dartmouth.edu/winter06/html/faculty_focus.php) was very interesting. I passed it on to the governor of Virginia, who recently announced the establishment of a new medical school in the Roanoke Valley. It's a bad decision, made for political reasons and with no consideration for the solid data noted by Dr. Goodman. We have six medical schools in Virginia and the D.C. area; in addition, the University of Maryland, Hopkins, and Duke are all close by.

I would certainly concur that a new medical school in a rural or semi-rural region will not solve the doctor shortages alleged in those areas. Health-care costs will just be driven up, particularly since the payment system is procedure-based.

WILLIAM J. FRABLE, M.D.
DARTMOUTH COLLEGE '56
Richmond, Va.

Frable is a professor of pathology at Virginia Commonwealth University.

We're always glad to hear from readers—whether it's someone weighing in about an article in a past issue or someone asking to be on our mailing list for future issues. We are happy to send DARTMOUTH MEDICINE—on a complimentary basis, to addresses in the U.S.—to anyone interested in the subjects we cover. Both subscription requests and letters to the editor may be sent to: Editor, DARTMOUTH MEDICINE, 1 Medical Center Drive (HB 7070), Lebanon, NH 03756 or DartMed@Dartmouth.edu. Letters for publication may be edited for clarity, length, or the appropriateness of the subject matter.



System of sickness care

Dr. David Goodman is correct. It is not the number of physicians that determines health-care costs—it is the number of patients.

In fact, there is no *health* care in this country—there is only *sickness* care. The costs of sickness care are open-ended and grow exponentially as a population ages. The only way to control the cost of sickness care is with some form of rationing. True *health* care would teach one how to get and stay healthy and provide a meaningful reward for doing so. Without the development of a *health*-care system, rationing will persist and expand, disguised as a “non-covered procedure” or “experimental medicine” or “insufficient qualifying information.”

The current political climate seems poised to again launch an effort to nationalize health care in this country. It will likely happen at some time, because the politicians who appropriate the money answer to the voters, who want such a system and do not realize the adverse effects it will have on care.

I hope Dartmouth can once again think outside the box and be a leader in true *health*-care in-

novation. I propose that Dartmouth and Dr. Goodman collaborate with one of the nation's large, powerful unions to implement a study of the effects on “health-care” (read “sickness care”) costs in a defined group of persons in partnership with the union. This study would take a sufficiently large and statistically diverse group of its members and launch real health care—a system that teaches these individuals how to get and stay healthy and then rewards them in some fashion that is meaningful to them for doing so. Then compare the costs of doing this with the sickness-care costs of a matched group over the designated time period and see if there is a lessening of patient load on the sickness-care system by such an effort. If that happened, and I believe it would, then Dartmouth would be the leader in developing implementation of these concepts and would likely attract a lot of grant money once it becomes obvious that this approach greatly saves on sickness care. Projected into the future, the savings would be ever greater as the population that is trained and rewarded to be healthy ages.

This true health-care ap-

proach would attack the root causes of the increasing costs of “sickness care.”

MICHAEL J. McKEOWN, M.D.
DC '58, DMS '59
Portland, Ore.

Illogical premise?

I read the cover article in the Winter 2006 issue (“Compound interest”—dartmed.dartmouth.edu/winter06/html/compound_interest.php) three times because I was sure I had missed the main point—why Dr. Sporn chose triterpenoids in his search for agents that prevent cancer and prolong life. I did not miss it. The reason given is so illogical as to be frankly absurd. The article quoted Dr. Gordon Gribble as saying that sequoias live a long time, almost all green plants and trees contain triterpenoids, and therefore Dr. Sporn started searching among triterpenoids. If this is really the reason he chose triterpenoids, it would go a long way toward explaining why he has trouble finding research funds.

Logic requires that only relevant factors be included in a premise, to maintain scientific exclusivity. While many green plants and trees live a long time, most green plants are short-lived (i.e., corn only lives one season), and most trees don't live more than 50 to 60 years. Sequoias are the one truly outstanding example of longevity. Logic would therefore require Dr. Sporn to search among sequoias for agents that prevent cancer and prolong life, such as extracts of sequoia bark or leaves. But to go after something so ubiquitous in the plant kingdom as triterpenoids is

like studying chlorophyll for these properties; in fact, there was an amusing chlorophyll craze back in the 1950s.

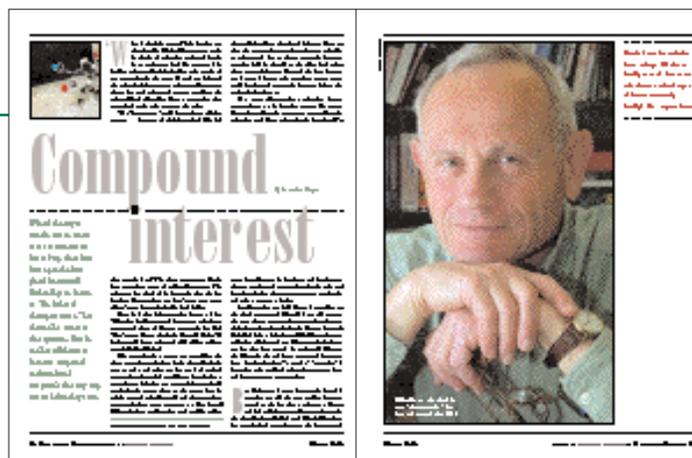
If triterpenoids were found only among sequoias, I would say Dr. Sporn was on to something. But since they are found in just about every plant known, the short-lived as well as the long-lived, I can't for the life of me see why triterpenoids exerted such a pull on him. Most likely, writer Jennifer Durgin got it wrong.

Other than that, it was an interesting article, and I look forward to forthcoming publications by Sporn and his team.

JOHN BARCHILON, M.D.
DARTMOUTH COLLEGE '60
Thousand Oaks, Calif.

We invited Dr. Sporn to respond to this letter, and he replied as follows: "Dr. Barchilon is indeed correct in his critique, though his statement that 'writer Jennifer Durgin got it wrong' has no basis in fact. She did a superb job on the article. I am sure she quoted my esteemed colleague Gordon Gribble accurately, though I have no recollection of ever talking with him about sequoias.

"This was a well-thought-out project from the start, not just serendipity. Natural triterpenoids have long been known to be useful medicinal substances. What got us started in 1995 was a gift of some oleanolic acid from a scientific friend at Rutgers. I started reading about triterpenoids and found that there are dozens of medicinal plants in use in Asia that have triterpenoids as their active ingredients. The new twist we added was to take a weak, natural medicinal agent (oleanolic acid) and modify it



The subject of this Winter 2006 feature—Dr. Michael Sporn, pictured above—responds below to a reader's question about the origin of his research interest.

with the skills of excellent organic chemists like Gordon Gribble and Tadashi Honda to make much more potent agents. This is a classic approach in pharmacology. Maybe, indeed, I did say something 12 years ago about sequoia trees, but we had a much better rationale than that—we knew before we began that natural triterpenoids are significant medicinal agents.

"I appreciate the opportunity to explain this point."

Not even six degrees

I greatly enjoyed the Editor's Note ("The butterfly effect"—dartmed.dartmouth.edu/winter06/html/editors_note.php) in the Winter 2006 issue. The description of Dean Strickler's many contributions to international medicine, and of the influence on him of the Great Issues course instituted by President John Sloan Dickey, was very interesting.

I would like to point out that the "Dartmouth effect" is even more profound than indicated in the essay. Edward Norton Lorenz [who first applied the butterfly effect to the scientific realm] graduated with a degree in mathematics from Dartmouth College in 1938. He attempted to predict

the weather for the D-Day invasion in June 1944 and developed the field of chaos theory.

JOHN D. BULLOCK, M.D., M.P.H.
DC '65, DMS '66
Kettering, Ohio

Make that the "Ed" Note

I enjoyed the reference to Edward Lorenz in the Winter Editor's Note. Long ago, I climbed Tripyramid in Waterville Valley with him. This was before his work on chaos theory—and before I had angina, for which I had a quadruple bypass about 18 years ago. I think the bypass may be the greatest find of the 20th century. One medical question still unsolved is the cause of cancer. I think researchers should look more closely at resonant energy exchange as a possibility.

ROWLAND B. FRENCH, M.D.
DC '41, DMS '42
Eastport, Maine

Round the girdled earth

Your Winter 2006 issue was outstanding. I especially enjoyed the Editor's Note on Jim Strickler—a brilliant, concerned physician. I had the good fortune to work with him at the community clinic at Alice Peck Day Hospital in

Lebanon, N.H. His work in global health is particularly inspiring. Thank you for highlighting this unusual and caring physician.

JOHN RADEBAUGH, M.D.
Falmouth, Maine

Radebaugh is an associate professor emeritus of community and family medicine at DMS.

More snaps for Strickler

I thought the article on the history of DARTMOUTH MEDICINE in the Winter 2006 issue was superb. And having it in the same issue with the Editor's Note about Jim Strickler's impact on DMS made it even more powerful, at least for me. I'm one of Jim's greatest admirers, not only because of what he did for DMS but also because of his work in the international health arena since leaving the deanship.

It was during his time as dean of the Medical School, in the mid-1970s, that we launched an independent (of the College) alumni program, annual fund, and alumni magazine—all at the same time. The M.D. program had just been reinstated and there'd been some criticism of it from alumni loyal to the two-year program that had been in place for the preceding 60 years, and even from some faculty. But most of them just weren't aware of changes in medical education that had made the two-year program essentially obsolete, and a magazine would give us a chance to make our case.

But in the climate of those times, the decision to support and fund a magazine was an act of courage on Jim's part. Money



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was exceedingly tight back in those days, and spending some of the School's scarce funds on a magazine would, in essence, be giving critics a forum where they could air their disapproval. Fortunately, however, the critics were few and the love and loyalty that alumni had for their experiences at DMS simply astonished me.

It may sound like hyperbole today to call the establishment of the magazine a courageous act, but it truly was. Every reader who enjoys this magazine owes a debt of gratitude to Jim Strickler for getting it off the ground.

BARBARA BLOUGH
Hanover, N.H.

Blough doesn't come out and say so, but it was she who, as DMS's first director of alumni affairs in the mid-1970s, managed the simultaneous establishment of alumni relations and annual fund programs and of a magazine.

Another voice from DM's past

I spent some serious time last night with the Winter 2006 issue of DARTMOUTH MEDICINE. While I enjoy each issue, this one was of particular interest to me for two reasons:

1) The article about the magazine turning 30 brought back a lot of memories from my own involvement with it many moons ago. I have a great memory for details, and all those old covers reminded me of people and events during my time at DMS. Of all the covers I've put on publications over the past 30 years, I still like the red and green ivy cover the best [that was the Fall

1983 issue of DM—see dartmed.dartmouth.edu/winter06/html/thirty_06.php for it and other past covers].

2) After I left DMS, I earned an M.S.J. from Ohio University. For my thesis, I examined the coverage in the U.S. of the flu pandemic of 1918 and offered some ideas as to why an event of such magnitude didn't have a proportional impact on recorded history. So the article on that event was also very interesting to me. When I was writing about it in the late 1980s, there was still no clue as to the makeup of the virus involved.

I've enjoyed keeping up with the magazine for the last 20 years—it's an impressive periodical.

STEVE ADAMS
Durham, N.H.

Adams, editor of the magazine from 1977 to 1986, is now the communications coordinator of the New Hampshire Sea Grant Program.

The whole picture

Dean Spielberg's essay on pharmacogenetics in the Fall 2006 issue ("On the cusp of change"—dartmed.dartmouth.edu/fall06/html/for_the_record.php) opened a window into understanding and predicting individual differences in response

to medications. Unfortunately, he allowed many other influences on the effects of drugs to take flight out the window—socio-behavioral factors that have been empirically validated for explaining individual variation in drug response but that lack the attraction of high-tech, bench science. The fact that these social and behavioral factors are less scientifically glamorous than pharmacogenetics does not make them any less important to practitioners and patients struggling to make the medicine fit the person.

Medication is never taken in a socio-environmental vacuum. Stress, as well as protective factors, influence the ways medications are ingested and metabolized and find their way to target organs, cells, and receptors. These include expectancies; adherence; nutrition; activity and exercise; concomitant use of alcohol, cigarettes, and illicit drugs; family relationships; the emotional climate in work and home settings; and the doctor-patient relationship. As stated by Dr. Antonia Novello in the same issue of DARTMOUTH MEDICINE, "Health-care professionals certainly have an obligation to ad-

vance the technology and science of medicine . . . but it is just as important to preserve the human element of medicine."

ROBERT P. LIBERMAN, M.D.
DC '59; DMS '60
Lake Sherwood, Calif.

Liberman is a Distinguished Professor of Psychiatry at the University of California-Los Angeles. We invited Dean Spielberg to respond to his observations, and he replied as follows: "I would like to thank Dr. Liberman for his thoughtful letter; it allows for the continued dialogue that no short, targeted article can achieve. He is truly correct that socio-behavioral factors have a huge impact on pharmacotherapy. The single largest reason for failure in effectiveness of a medicine is failure to take that medicine properly; many side effects result from the failure to take a medicine correctly (whether it be a matter of dose, with or without food, drug-drug interactions, etc.). The most important determinant of successful therapeutics is the therapeutic relationship between doctor and patient, the mutual teaching and learning that occur over time, and, indeed, the time spent working together to achieve optimum health and treatment of illness.

"The future of medicine depends on an integrative approach to the science and art of medicine—and it always has—but due to advances in scientific understanding, the nature of 'temporary facts' replaced by new insights is moving at an ever-greater pace. The old, and useless, arguments about 'nature versus nurture' need to be replaced by an integrated view of human biology and life. We think and feel us-

ing chemicals in our brains; our experiences modify that chemistry (not to speak of neuroanatomy and physiology) and future responses, and medicines also modify chemistry as well as behavior. Yet the impact of both life experiences and of medicines is modified by genetic background. The likelihood of developing depression has been related both to genetic differences (for example, in serotonin reuptake mechanisms) and to 'traumatic events' in life; the interaction of genes and environment is particularly striking in this case.

"What perhaps has not been as well explored in an integrated manner from these data is the implication that both medicines and 'environmental modification' (behavioral and other) also will likely impact outcomes. The impact of both medicines and behavioral modification is, in turn, likely to be modified by genetic background. If doctors are to truly benefit patients, we need to be able to integrate the 'heart and head' of medicine. I hope that Dartmouth Medical School is preparing our students for just such a lifelong journey. May the dialogue continue."

Tuskegee redux

An article in your Fall 2006 issue ("Genetic testing may reveal a quagmire of complex questions"—dartmed.dartmouth.edu/fall06/html/vs_genetic_testing.php) referred to "research scandals such as the federally funded Tuskegee study, in which poor black males were denied effective treatment in order to study the natural history of syphilis."

Let me try to set the record straight. In the 1920s, Brusgaard

published a classic study on the fate, after many years, of patients who contracted syphilis but were never treated. He found that a third were seronegative, a third were seropositive but otherwise well, and a third had active tertiary syphilis—usually with central nervous system (CNS) or skin involvement.

The Tuskegee study was instituted because it was not known what the outcome of the disease would be in seropositive black men, who have a high incidence of cardiovascular complications from tertiary syphilis. Remember, at the time syphilis was endemic in the rural South.

When penicillin was introduced widely in 1946-47, it was soon learned that the rapid killing of the syphilis spirochete, especially in patients with tertiary disease, frequently resulted in a severe Herxheimer reaction and possible death.

During 1946-47, I was a corpsman in the U.S. Navy and observed this reaction frequently. Most of the patients I saw were white men with CNS involvement. These patients failed to respond to penicillin so were treated with fever therapy. We took blood from a patient with active malaria and injected it intravenously into patients with CNS syphilis. After a certain number of hours of fever, the patient was given atabrine, a synthetic quinine substitute. The Austrian physician who developed fever therapy for CNS syphilis, Dr. Julius Wagner-Jauregg, was awarded the Nobel Prize in 1927 for this discovery.

To get back to Tuskegee, after

penicillin was introduced, it was quickly learned that patients with syphilitic aortitis who were treated with penicillin frequently experienced rupture of the ascending aorta—with fatal results. It was not learned until several years later that pretreatment with oral potassium iodide prevented this fatal reaction. At that time, the Tuskegee researchers had to assume that treatment with penicillin was worse than the disease. So withholding treatment from the participants in the study was not evil but was probably indicated at that time. I hope this sets the record straight.

RICHARD L. DOBSON, M.D.
HOUSESTAFF '54-57
Mt. Pleasant, S.C.

We appreciate this information but stand by our assessment of the Tuskegee study, which was based on the U.S. Centers for Disease Control and Prevention website (www.cdc.gov/nchstp/od/tuskegee/time.htm); it calls the Tuskegee study, which ran from 1932 to 1972, "an example of medical research gone wrong. The United States Public Health Service, in trying to learn more about syphilis and justify treatment programs for blacks, withheld adequate treatment from a group of poor black men who had the disease."

Effects of influenza

I enjoyed the article in your Winter 2006 issue on the 1918 flu epidemic and its effects at Dartmouth ("Cold Comfort"—dartmed.dartmouth.edu/winter06/html/cold_comfort.php).

A few months after seeing a PBS feature on the Spanish in-

fluenza, I was poking around the antique cemetery in West Norwich, Vt., scavenging for the lore that occasionally turns up under the lichen on old stones. Revolutionary and Civil War remembrances are always of interest, but a flag on a more modern headstone also got my attention. It was the grave of Curtis M. Parkhurst, age 28, who died at Camp Devens in Ayer, Mass., on February 20, 1918, undoubtedly of the flu. The event was then far more immediate to me than it had been on television.

Parkhurst is a familiar name at Dartmouth, the main administration building having been given by Trustee Lewis Parkhurst in 1911 in memory of a son who died while an undergraduate. Could they have been tragic brothers, I wonder?

Perhaps, although the name was not uncommon in the Upper Valley. Phineas Parkhurst of Royalton, Vt., was shot by an Indian in a British-led attack on Royalton in 1780. He survived, however, after riding 20 miles to Lebanon for treatment.

DICK MACKAY
Hanover, N.H.

Remembering Harold Rugg

I was intrigued by Laura Carter's article on the influenza epidemic of 1918—as it was chronicled at Dartmouth by, among others, Harold Rugg, a librarian at the College's Baker Library. Having done some historical research myself, I can appreciate the digging she must have done in researching the subject.

It was a special delight for me
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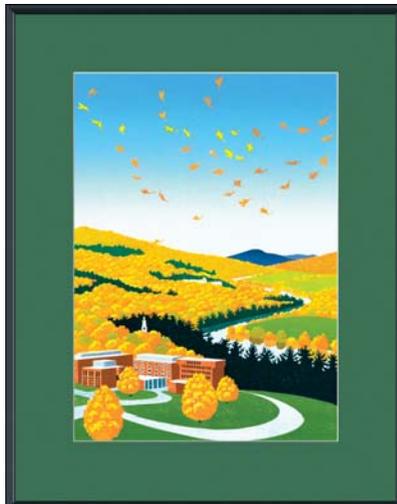
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Letters

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to see Harold Rugg's familiar face, looking more cheerful than I could recall. Nearly 25 years after the epidemic, I worked for him while I was an undergraduate—doing gardening and helping him sort his extensive collection of papers on matters concerning Vermont, his special area of interest.

The piece brought back lots of old and cherished memories. Thanks for doing such a good job. (The whole issue was a winner!)

TIMOTHY TAKARO, M.D.,
DC '41, DMS '42
Asheville, N.C.

Happy campers

I just read the article in your Summer 2006 issue about Camp Dartmouth-Hitchcock, for children with chronic rheumatologic conditions ("A summer camp that offers more than s'mores"—dartmed.dartmouth.edu/summer06/html/vs_camp_dh.php). My son attended the camp last year, and it was the best experience he ever had. He is really looking forward to going again this year. His teacher has a daughter with juvenile rheumatoid arthritis, and she is looking forward to going as well.

We usually can't let our son go away due to his medications and pain, so letting him go to this camp, where he can experience what other kids his age do, without worrying about his care, has been such a tremendous relief. Thanks so much to DHMC and all the volunteers for this truly wonderful camp.

DEADRA DUNBAR
Champlain, N.Y.

Grateful patient

I just came across the article in your Fall 2004 issue on Brian Highhouse ("DHMC oncology nurse hits the high road"—see dartmed.dartmouth.edu/fall04/html/vs_oncology.shtml). He was one of my husband's and my heroes at DHMC last year. My husband participated in several research protocols that gave him hope, a chance to help scientific research so others have a better opportunity to live in the future, and an opportunity to meet people like Brian Highhouse. He is a gem in your midst. All the people we encountered gave us more than we could ever imagine. DHMC should be so proud.

LUCILLE McCLURE
Essex Junction, Vt. ■