Nutrition Societies Presidents’ Forum: Future challenges and opportunities for nutrition societies in the 21st century¹–⁴

George L Blackburn, John A Milner, Barbara C Hansen, Steven B Heymsfield, April C Mason, and Gerald E Gaul

ABSTRACT The Chair introduced “Pastor’s Quadrant” as a potentially useful paradigm for modern science. Developed by Princeton’s Donald E Stokes, the quadrant is a two-by-two matrix that classifies knowledge as fundamental and/or applied. The Chair also noted the effect of competitive pressures, and the necessity for cooperation among nutrition societies. The Presidents of The American Society for Nutritional Sciences (ASNS), The American Society for Clinical Nutrition (ASCN), The American Society for Parenteral and Enteral Nutrition (ASPEN), and the Chair of the Institute of Food Technologist’s (IFT) Nutrition Division presented their views on how societies can prepare to meet their members’ upcoming needs. The Director of the Center for Food and Nutrition Policy discussed the future role of nutrition societies and how they might interact with various interest groups. The Forum, which included an opportunity for audience participation, took place soon after the February 1996 release of “Meeting the Challenge: A Research Agenda for America’s Health, Safety, and Food.” Published by the Executive Office of the President’s Office of Science and Technology Policy, the report highlights the importance of nutrition to our nation’s health. Am J Clin Nutr 1996;64:813–22.

KEY WORDS Nutrition research, science policy, nutrition societies, public policy, parenteral nutrition, enteral nutrition

INTRODUCTION

George L Blackburn, Forum Chair and President-elect of The American Society for Clinical Nutrition

I hope you all had the opportunity a few weeks ago to look into the heavens and watch Comet Hyakytake moving across the night sky. As rare and beautiful as the event was to us, just imagine the terror and wonder this spectacle would have caused in centuries past, when people used the stars as a sure and stable tool for navigating and for monitoring the change in seasons. We, of course, knew what to expect and could look up into the night with pleasurable anticipation.

So too can we look ahead to the next century with the same sense of promise and anticipation. Nutritional science has moved beyond the stage of identifying what is minimally needed to prevent deficiency and to sustain life into an exciting range of opportunities for realizing what is optimal to ensure a long, healthy, enjoyable life. How wonderful it is that we have so much good to accomplish in the coming years.

Indeed, in Pursuing Happiness, Wesleyan University economist Stanley Lebergoot writes that people want diversified, worthwhile experiences—experiences that provide beauty and amusement, that hold their attention, that deliver learning, pleasure, and spiritual fulfillment (1). He notes that consumer goods can be a means to that end by extending life or making it more pleasant or interesting. We need only look at advertisements to see the role of food in meeting this end.

No longer burdened by the need to tackle the negative aspects of nutritional science—deficiency, toxicity, and essentiality—we can focus on the “positive” challenges: the opportunities for using nutrition to prevent and treat disease, to extend and improve life quality, and to pursue happiness. Here, we can surely find common ground, despite our diverse methods for reaching it.

As illustrated by Stokes’ Pastor’s Quadrant (2), work in both applied and fundamental science will produce results that bring tremendous benefit to society, even without “useful knowledge” in the strictest sense.

The concept of science policy began under President Roosevelt, with Vannevar Bush charged to organize the scientific community. His theme was “Science, the endless frontier.” Now comes the Pastor’s Quadrant thesis (Figure 1) from Stokes, professor of politics and public affairs at Princeton’s Woodrow Wilson School.

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³ Presented at the 36th Annual Meeting of the American Society for Clinical Nutrition, April 14, 1996, in Washington, DC.
⁴ Reprints not available. Address correspondence to GL Blackburn, Beth Israel Deaconess Medical Center, One Deaconess Road, Boston, MA 02215.
He proposes a two-by-two matrix to classify knowledge; his bias is "useful" knowledge. One dimension is "fundamental or basic" science stratified by yes or no. The other axis is "applied or useful" science, again classified as either yes or no.

He provides examples of pure fundamental science, i.e., the origin of quantum physics versus pure applied physics, and the development of the light bulb. He identifies Louis Pasteur's work (in germ theory, immunology, vaccines, and processes to preserve milk, wine, and vinegar) as the quintessential representative of the "yes" fundamental and "yes" applied quadrant. For quintessential physics, he identifies Lord Kelvin for advances in the steam engine; for chemistry, he cites German organic chemists for the development of synthetic dyes and pharmaceuticals.

His other quadrants include Thomas Edison ("no" fundamental, "yes" applied); Niels Bohr, quantum physicist ("yes" fundamental, "yes" applied); and Niels Gershenfeld ("yes" fundamental, "no" applied), a physicist who is developing instrumentation for Yo-Yo Ma's cello. This last category is directed at highly particular studies, undertaken only for their intrinsic worth.

Still, for all our categories and quadrants, we will never realize our ideals if we do not work together. Modern science has made progress through investigation and dialogue. The free exchange of ideas should be viewed as constructive rather than destructive. The reality, however, is increased competition for dwindling resources, a condition that forces researchers to put career and institutional interests above those of scientific advancement. We all understand these pressures only too well, and must face them honestly if we are genuine in our efforts to set and accomplish goals for the 21st century.

For this forum to succeed, we must prepare a clear and authoritative statement about what is expected from the societies and their leadership. Each person in this room is a leader in the field of nutrition, yet today, and into the new century, we must act as siblings, equals, partners. The membership of each of our societies depends on this spirit of compromise and cooperation, and the future of nutritional science would be truly bleak without it.

Just as we could all look up at the comet with a feeling of exhilaration, I hope we can all leave here this evening looking to a shared brilliant point in the future toward which we can set our sights.

**FIGURE 1.** Pasteur's Quadrant (2), a two-by-two matrix of scientific knowledge. 1Niels Bohr's quantum physics was pure until the development of the atom bomb. 2Applied technology is at the border of science and industry; another example is Irving Langmujir at General Electric. Printed with permission from reference 2.

**WHAT SHOULD PROFESSIONAL NUTRITION SOCIETIES DO TO MEET THE NEEDS OF MEMBERS?**

**John A Milner, The American Society for Nutritional Sciences**

In the words of Shakespeare, "Ignorance is the curse of God; knowledge is the wing whereby we fly to heaven." While at first glance this appears to be a relatively simple message, it encompasses a series of obstacles and opportunities for those involved in advancing knowledge.

To educate the public while seizing occasions to advance can be daunting. Even as perception and budgetary restraints remain significant, unquestionable opportunities exist for those willing to address the needs of society. A proactive approach that enhances educational experiences, promotes probing and problem-solving research, and enlightens society is key to furthering the mission and goals of professional groups involved with the science of nutrition.

Over the past two years, The American Institute of Nutrition (AIN), (now known as The American Society for Nutritional Sciences, ASNS), made a major investment in the development of a strategic plan by which to guide itself into the 21st century. This plan, which identifies five major directions (Table 1), includes a series of tactics for implementation.

Three of the key directions—to foster awareness and support for nutrition research, to lead the effort to appropriately influence the development of public policy and programs, and to strengthen communications—are particularly germane to this presentation. Each influences the approach that professional societies should take as they strive to meet the needs of members, and promote the science of nutrition.

**Foster awareness and support for nutrition research**

Continued support for probing, high-quality investigations is vital to the future of our discipline. The ASNS is committed to active involvement in this effort, and will participate in extensive outreach, collaborations, and coalition-building to foster awareness and support for nutrition research.

Active involvement by our members—in the conduct of research, the identification of key research opportunities, and the marketing of those opportunities to Congress, government agencies, and industry—is, in the opinion of the ASNS, critical to the future of funding for nutrition research. Over the past year, ASNS representatives have spent considerable time visiting individuals within the National Institutes of Health (NIH), the US Department of Agriculture (USDA), and the Food and Drug Administration (FDA). During these meetings, they've explored possible methods to foster interaction and address timely concerns in nutrition. Unfortunately, some individuals believe that nutrition grant applications are held to a lower standard of quality.
than that required by other disciplines. The ASNS, with the assistance of the Federation of American Societies for Experimental Biology (FASEB) Office of Government Liaison, collected information that disproved this fallacy.

Although the success rate of grants submitted by nutritionists is no lower than that in other disciplines, this is hardly consolation to the many who remain unfunded or underfunded. Unfortunately, many important nutrition questions remain unanswered because of financial constraints.

As nutrition professionals, we must hone the estimates we submit to those who develop policy, making certain that the dollar amounts specified are truly needed to answer critical issues. We could also launch a series of think tanks, or other like forums, to identify research priorities and associated expenses. Recommendations, in turn, can then be shared with those who sponsor grants and other types of research support.

Providing opportunities for members to become involved in identifying fundable research must be a first step toward securing research monies. A process that solicits information from all segments of the professional society must be an ultimate goal. However, the size and diversity of interest within the membership can quickly become an overwhelming challenge to an organization such as the ASNS.

One approach available to the ASNS is to accumulate information through our Research Interest Sections (RISs) (Table 2). Individual RISs can serve as focal points for gathering insights into past accomplishments and future needs. The ASNS has begun a process that will empower each of the RIS groups to gather data on accomplishments and needs for their constituent members. Ultimately, this information will be used to formulate an overall series of recommendations that will advance the science of nutrition into the 21st century.

To have the maximum impact, societies with a commitment to nutrition research, such as the ASNS, need to explore new and creative funding opportunities. Although it can be both challenging and costly to aggressively pursue such funding sources, a diversified portfolio will offer more stability to unraveling the mysteries in nutrition.

Another approach—one in which we're encouraging the involvement of ASNS members—is to educate members of Congress about the benefits of nutrition research, education, and intervention programs. Scholars who are actively involved in these areas are well-equipped to showcase the significance of our discipline. When in the Washington, DC area, they can bring their knowledge, talents and skills to bear on key decision-makers, emphasizing what has been, and could be accomplished by continued and focused investigations in nutrition.

Though a coordinated program is needed to address issues in a timely manner, the efforts of member-advocates to inform decision-makers about the relevance of nutrition research has been and will remain of paramount importance. Nutrition societies must also take the lead in ensuring that key government agencies are aware of significant issues and engaged in appropriate activities. The ASNS believes that it should actively assist, whenever possible, in the development of priorities for government agencies.

To increase awareness of the importance of nutrition research, the ASNS seeks to build on long-term relations with agencies, including the NIH, the USDA, and the Department of Defense (DOD). This goal can be achieved in a number of ways, from making expert assistance available to initiating national nutrition conferences.

Clearly, an open dialogue will be critical for the success of such activities, as will participation in coalitions to build awareness and support for nutrition research. Collaboration with related professional societies and coalitions will help develop a critical mass of expertise, one that may have an even greater influence on key decision-makers.

A unified nutrition leadership will enhance our ability to deal with present challenges and future changes. But more importantly, it will allow our specialty to speak with one voice. Strong ties already exist between the ASNS and societies within FASEB, plus, our society has a long tradition of effective work with allied groups, including the Coalition on Funding Agricultural Research Missions (CoFARM).

Finally, the ASNS plans to capitalize on the recently developed Nutrition Presidents Consortium, a gathering that includes the sitting and incoming presidents of the ASNS, the ASCN, the IFT, and the American Dietetic Association (ADA). Although this group has had only one conference call to date, there appears to be great enthusiasm for exploring ways that our societies might join forces on public affairs issues.

### Table 1

<table>
<thead>
<tr>
<th>Direction</th>
<th>Description</th>
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<tbody>
<tr>
<td>A</td>
<td>Foster awareness and support for research in the science of nutrition.</td>
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<tr>
<td>B</td>
<td>Provide leadership to ensure that nutritional science knowledge appropriately influences the development of public policy and programs.</td>
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<tr>
<td>C</td>
<td>Enhance the recognition and stature of nutrition as a leading scientific discipline.</td>
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<td>D</td>
<td>Ensure that the AIN is responsive to the changing needs of its membership.</td>
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<tr>
<td>E</td>
<td>Enhance public awareness of the role of nutrition in improving the quality of life.</td>
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1 Formerly the American Institute of Nutrition (AIN).
2 Based on the situation assessment and the mission, the Planning Committee identified five strategic directions to guide the AIN over the next 3-5 y. Directions are used rather than goals, because goals imply an endpoint and directions suggest movement over time.

### Table 2

<table>
<thead>
<tr>
<th>Research interest sections, 1995</th>
<th>Chair</th>
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<tbody>
<tr>
<td>Experimental Animal Nutrition</td>
<td>BA Watkins</td>
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<tr>
<td>Diet and Disease</td>
<td>PE Bowen</td>
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<tr>
<td>Energy and Macronutrient Metabolism</td>
<td>D Schoeller</td>
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<tr>
<td>Growth and Development</td>
<td>AW Bell</td>
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<tr>
<td>Neuroscience</td>
<td>JD Fernstrom</td>
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<tr>
<td>Nutrient-Gene Interactions</td>
<td>SD Clarke</td>
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<tr>
<td>Nutritional and Food Toxicology</td>
<td>S Hendrich</td>
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<tr>
<td>Public Health Nutrition and Policy</td>
<td>JE Leklem</td>
</tr>
<tr>
<td>Vitamins and Minerals</td>
<td>A Clifford (Chair-elect, 1996)</td>
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</table>
Lead the effort to influence public policies and programs with appropriate nutritional science knowledge

This activity is closely related to that already addressed in the public affairs arena, but its focus is on public policies and programs. The ASNS recognizes that the scope of a public information campaign and the potential cost of an extensive undertaking in this area would be prohibitive. Rather, the ASNS sees itself as a resource as well as a collaborator. In line with those roles, it will identify and prioritize specific areas within the domain of public policy and information. Members must be actively involved in determining those areas, and the most appropriate times for implementation.

As shown by their joint Public Information Committee (PIC), the ASNS and the ASCN have a long history of interaction in the public information area. This committee, which performs extremely well, publicizes nutrition issues as well as contributions by scientists within our organizations.

The ASNS will continue to promote the use of the talents within PIC to develop and implement programs targeted to the public. As growing numbers of consumers become aware of the role of nutrition in growth, development, and disease resistance, it will become increasingly important to provide PIC with clear responsibilities and policies.

Another way to build broad awareness of nutrition’s significance is to nurture the excellent relationship that exists between members of the Food and Nutrition Science Alliance (FANSA), ie, the ASNS, the ASCN, the IFT, and the ADA. This alliance, which provides information to the general public, has the capability to enlighten many about the basis of our knowledge in nutrition, and its limitations.

We must foster the excellent rapport established as a participating member of FANSA. The ASNS believes that the best approach is to use FANSA as a springboard to more effective operations; operations that minimize duplication of efforts, and address appropriate public issues collectively and collaboratively. As with the public affairs arena, it is imperative that professional societies like the ASNS build and develop long-term links to the government and private sectors. These, in turn, will promote understanding of nutritional science.

The beauty of nutrition is its status as an applied science; a science that can dramatically change people’s lives. That being so, it would be disastrous for us to forget why we promote nutrition education, research, and intervention programs.

Strengthen communications

Invariably, barriers to collaboration give way to better communications. To foster dialogue among members, we need to identify and implement effective communications mechanisms. Within our own society, we must articulate the significant contributions made by our Divisions and RIs. This can be accomplished in a number of ways, including newsletters and web pages.

Web sites are here to stay, at least for a while. The ASNS’ web site (http://www.edoc.com/nutrition/) offers enormous potential to serve as a warehouse for present knowledge in nutrition. The ASNS is developing a series of short statements about the need for essential and nonessential nutrients. These will give readers basic information on safe and adequate intakes, physiologic and toxic effects, etc. We hope this will be the beginning of fingertip access to information for professional members as well as the general public. To leverage technology, our web site must be linked to other sources of nutrition knowledge. In fact, we’re exploring ways to link up with related academic/research units and others involved with nutrition on a day-to-day basis.

Clearly, the futures of nutrition education and research remain bright. Still, as we move toward the 21st century, we must give careful consideration to the ways in which we can maximize opportunities and minimize obstacles. Without strong membership involvement from societies committed to excellence in nutrition, there is little hope for progress. But the members of the ASNS are ready and willing to accept the challenge to turn obstacles into opportunities, and opportunities into success.

THE AD HOC GROUP FOR NUTRITION RESEARCH AND EDUCATION: A PROPOSAL FOR A VIRTUAL ORGANIZATION

Barbara C Hansen, The American Society for Clinical Nutrition

A central element of the ASCN’s strategic plan is to become involved in more alliances, affiliations, joint meetings, and educational efforts. I propose establishment of the “Ad Hoc Group for Nutrition Research and Education.” The purpose of this effort is to form a virtual coalition of presidents of professional societies interested in nutritional research and education. Examples of suggested potential members of the Ad Hoc Group are shown in Table 3.

The group would have no bylaws and no president; it would simply pass around responsibility for convening. It would be

<table>
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<th>Table 3: Ad Hoc Group potential participants</th>
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<tr>
<td>American Cancer Society (ACS)</td>
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<tr>
<td>American College of Nutrition (ACN)</td>
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<td>American Diabetes Association (ADA)</td>
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<tr>
<td>American Dietetic Association (ADA)</td>
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<td>American Health Foundation (AHF)</td>
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<tr>
<td>American Heart Association (AHA)</td>
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<tr>
<td>American Society for Nutritional Sciences (ASNS)</td>
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<tr>
<td>American Oil Chemists Society—Health and Nutrition Division</td>
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<tr>
<td>American Public Health Association (APHA)</td>
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<tr>
<td>American Society of Bariatric Physicians (ASBP)</td>
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<tr>
<td>American Society for Clinical Nutrition (ASCN)</td>
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<tr>
<td>American Society for Parenteral and Enteral Nutrition (ASPEN)</td>
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<tr>
<td>Gerontology Society of America (GSA)</td>
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<tr>
<td>Institute of Food Technologists (IFT)</td>
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<tr>
<td>North American Association for the Study of Obesity (NAASO)</td>
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<tr>
<td>Society for Nutrition Education (SNE)</td>
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<tr>
<td>Society for the Study of Ingestive Behavior (SSIB)</td>
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<tr>
<td>Other possible Ad Hoc Group members</td>
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<tr>
<td>Clinical, medical</td>
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<tr>
<td>Internal medicine</td>
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<tr>
<td>Family practice</td>
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<tr>
<td>Gastroenterology</td>
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<tr>
<td>Pediatrics</td>
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<tr>
<td>Endocrinology</td>
</tr>
<tr>
<td>Cardiology</td>
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<tr>
<td>Agriculture-related</td>
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1 Patterned after the Ad Hoc Group on Medical Research Funding.
similar to the Ad Hoc Group for Medical Research Funding, a coalition that has been encouraging investments in this area for more than 15 years.

Semiannual meetings of the Ad Hoc Nutrition Group would be anything but rigid or structured. To enhance interaction and address ever-changing and timely issues, they would be very informal. Discussion would focus on new ideas and concepts that might benefit from a unified nutrition voice. The goal would be overall enhancement of our impact on nutrition in America.

Using the concept of a virtual organization, the Ad Hoc Group for Nutrition Research and Education could stimulate intrasociety dialogue in any number of ways. Related professional groups would also benefit from involvement. Similarly, the many different agriculture organizations (not listed) could join with the Ad Hoc Group, for example, when USDA funding initiatives are a focus. With an open process and flexible participation, the group can grow in ways that are efficient, appropriate, and useful to the societies. (The Ad Hoc Group for Medical Research Funding has now grown to 180 member organizations.)

Responsibility for programs would rest with the leaders, primarily the presidents of the associated societies. Depending on the nature of each effort, the societies could share staff. For example, efforts might range from writing budget requests and drafting initiative proposals to developing suitable language for appropriation bills.

The ASCN and ASNS councils might suggest another important topic for the Ad Hoc Group, one related to continuing support for the all-important National Health and Nutrition Examination Surveys (NHANES) (3). These are viewed as critical tools for building the database needed to set priorities for the prevention and treatment of chronic diseases related to diet and nutrition.

Here are some other examples of potential Ad Hoc Group topics: nutrition education upgrades for physicians and other health professionals, and a review of ways to promote the need to attract nutrition teachers, clinical investigators, and scientists—the staff required to maintain a medical/nutrition talent base for the federal government, universities, professional societies, and food and pharmaceutical companies.

A key initiative could address the problem of clinical nutrition services reimbursements, a topic important to clinical dietitians and physicians who deal with coattending care. Food technology will eventually alter the cost-benefit balance of special dietary and medical foods, and the Ad Hoc Group can be part of the solution.

The timing seems right for its formation. “Meeting the Challenge: A Research Agenda for America’s Health, Safety, and Food,” recently published (February 1996) by the Executive Office, Office of Science and Technology Policy, highlights the importance of nutrition to our nation’s health. According to that document, “Nutrition plays a pivotal role in optimizing health, and productivity and in reducing the risk of diet-related disease. The National Science and Technology Council (NSTC) will strengthen its integrated, multidisciplinary nutrition research initiative that includes how diet causes such profound consequences for health. The next generation of scientists will use complex systems models to guide the development and evaluation of intervention programs. Priority for incentives should be provided to create innovative, multidisciplinary training opportunities.”

Finally, we cannot afford to ignore marketing. It is, in fact, essential to the maintenance of the scientific knowledge base required to meet the public’s demand for safe, economical, and healthy foods; foods that prevent chronic disease, morbidity, disability, and mortality from diet-related diseases. Efficient work with public relations and other advocacy groups can come from this new initiative.

Toward this end, we propose an initial meeting to discuss common goals, a meeting attended by the presidents of nutrition and nutrition-related groups, along with long-term representatives from each organization. Continuity of this strategic group will be essential for productivity. The start-up agenda and themes for the initial July 1996 meeting are shown in Table 4.

BEYOND METHODOLOGY: THE MANDATE FOR SPEED AND COST-EFFECTIVENESS

Steven B. Heymsfield, The American Society for Parenteral and Enteral Nutrition

In 1968, Dudrick et al (4) published their seminal paper on intravenous feeding, following which, according to eminent Harvard surgeon Francis Moore, “Word spread almost immediately, with few events in the field of nutrition changing worldwide practice as much as that by the University of Pennsylvania group” (5). ASPEN was founded just over 20 years ago, in 1975, and powerful scientific and economic forces drove it forward to its present position as a well-organized national office, with two widely respected journals, and more than 6000 nurse, diettitian, pharmacist, physician, and PhD members.

But those forces are unstable, and as we stand here today, at the threshold of a new millennium, our founding paradigm is not only evolving, but actually shifting. The scientific core of ASPEN, and that of other nutrition societies as well, is based on more than 200 years of research that started with the discovery that humans derive energy from food and proceeded to elucidation of essential nutrients and their requirements (6).

These seminal discoveries, combined with profound economic and other technical developments, have led to “nutrition globalization.” Nutrition globalization, at least in the developing nations, is the transition from an eons-old quest for life-sustaining food to an abundance phase in which nutrient promotion for optimum health and longevity are the key concerns.

ASPEN, in its brief history, has faced a transition brought about in part by these scientific developments and paradigm shifts. During its first 20 years, ASPEN’s members concerned themselves with developing and refining the methods of providing nutrients to seriously ill patients. However, the main question today is no longer, “Can we feed a patient with such previously fatal conditions as gastrointestinal failure?” because we can, but rather, “How can we optimize nutritional intake to maintain function without fostering adverse consequences?” More specifically, our mandate now and for the immediate future is to prove that we cannot only feed patients, but also make them healthier in faster, more cost-effective ways.

Not only are scientific issues conspiring to change ASPEN’s orientation, but powerful environmental factors as well—re-
TABLE 4
Agenda for improving nutrition and health in America

| Opportunities for social marketing | Follow-up of the July 9–10 conference to explore ideas for stimulating innovative public-private partnerships in the social marketing of healthful lifestyles. |
| Implications for nutrition of the 1994 Dietary Supplement Act | Discussion of how present health claims and related statutes affect public perceptions of good nutrition and the food industry's ability to deliver healthful foods. How might nutrition societies and the legitimate food industry collaborate to remedy the present unsatisfactory situation? |
| Scientific basis for dietary guidelines for infants and children: a modular approach | Discussion of a proposal for a 30-mo project to develop scientific reports to be used by others as a basis for dietary guidelines for children. This project would be conducted by the Center for Food and Nutrition Policy and the ASCN as well as other interested nutrition societies. |
| Food industry internships for nutritionists | Discussion about the possibility of the food industry providing internships for nutritionists. An internship program would help industry identify promising candidates for professional employment and provide these nutritionists with practical experience about the problems of developing new food products in an industrial setting. |
| Physician certification in clinical nutrition/nutritional medicine | Presentation of a proposal for certification of physicians who have achieved special competence in clinical nutrition/nutritional medicine. |

*This meeting took place the day after the joint ASCN-Ceres Forum at the Georgetown Center for Food and Nutrition Policy, July 11, 1996, Washington, DC.*

Over the past century, our society's members have collectively, with scientists in other fields, contributed to an ever-deepening understanding of one of humankind's oldest mysteries—what and why humans need to eat, and how to provide required nutrients under almost any condition or in any environment. Our challenge now and in the near future is to guarantee not only the survival but also the prosperity of our parent nutrition professional organizations so that we can more effectively serve our patients.

A DIVERSE MEMBERSHIP, A SINGLE VOICE

April C Mason, Nutrition Division of the Institute of Food Technologists

The challenges and opportunities for nutrition societies in the 21st century fall into five main categories (Table 6): communication, cooperation, education, influencing public policy, and the setting of research agendas. The Nutrition Societies Presidents' Forum is an opportunity to address the first and second categories.

This Forum grew out of communication and cooperation between our societies. The IFT strongly encourages dialogue, and supports cooperation in other ways as well. Two examples are FANSA and the ASNS/IFT joint symposia. Each of our societies encourages cooperation between members from industry, academia, and government. Indeed, it will take our
Combined efforts to address the issues of education, public policy, and research agenda-setting.

We need to meet the education needs of consumers as well as nutrition and health professionals. Consumers are bombarded with messages. But we need to have one message, and we need to help consumers hear and understand it (be it disease prevention through healthy diet or any other topic).

We must continue efforts to give consumers fine educational tools like the new food product label, the dietary guidelines (the 4th revision of the Dietary Guidelines for Americans; 9), and the food guide pyramid (10). As nutrition societies, we also need to address the education of nutrition and other health professionals.

Our students need basic science- and research-based nutrition education at both the undergraduate and graduate levels. Critical and analytical teaching skills are essential tools for our young professionals. Likewise, continuing education is vital for our more mature practitioners.

Our field changes by the minute, and as it does so, each society works to further educate its members with leading edge conferences, short courses, and seminars. At the same time though, societies must also address the issue of public policy. Each group must continue to track pertinent legislative activity and mobilize members to respond to issues with a loud, clear voice. At every opportunity, our societies must reach out to those who develop regulations and set funding allocations; at every opportunity, our scientists must give them input and advice.

Challenges and opportunities—there are many of these ahead in the 21st century, and if our societies hope to raise the probability of success, they must continue to strengthen themselves. This Presidents' Forum starts to address communication and cooperation between and within our societies. These go hand in hand. As allies, we need to foster the activities of joint forums, symposia, and published policy statements.

We share many common interests and issues. We also share diverse memberships. These reasons alone make it imperative to give all members an equal voice. They also mandate a single voice, one that allows our message to be effectively telegraphed to a wider variety of agencies and government officials.

Enhanced communication and cooperation will help our societies take on the third important challenge, education. They'll make it easier to capitalize on opportunities in this area. Our organizations deal with the education of consumers as well as of nutrition and health professionals. For consumers, we need to focus teaching efforts in the areas of nutrition, food safety, and biotechnology. We also need to make it easier for consumers to interpret media reports, evaluate information, and make informed decisions.

Nutrition education starts with a clear message—that a healthful diet can reduce the risk of certain kinds of diseases. Consumers will get information from somewhere. It is our responsibility to provide a science- and research-based message of balance, variety, and moderation; to use all educational tools at our disposal; and to translate scientific topics, including such complex subjects as tissue culture and biotechnology, into language that is easily understood and readily accepted by the general public.

Consumers respond to nutrition education. Consider, for example, Healthy People 2000: National Health Promotion and Disease Prevention Objectives (11). We've made progress toward some of its goals, as shown by the percentage of target reached. For instance, the reduction in the coronary artery disease death rate is 60% of the target reached, and the availability of reduced fat foods is 125% of target. Unfortunately, when it comes to obesity, the prevalence in both men and women indicates that we're sliding backward.

We need to drive home a message of safety in the handling, preparation, and serving of foods in our homes and service establishments. Education is a prerequisite for proper handling of food—handling that ensures both safety and quality. Foodborne illness continues to make the headlines today. Although it is an annoyance to some and an inconvenience to others, the problem can be life-threatening for the elderly, infants, young children, the immunocompromised, and pregnant and lactating women.

Education also extends beyond the consumer to nutrition and health professionals. It is our responsibility to educate undergraduate and graduate students, and to provide continuing education to professionals. Each society encourages student involvement, a critical practice for the proper development of young nutrition workers; a practice that exposes students to research presentations, along with mentoring and networking opportunities.

Ongoing education—in the forms of journals, symposia, conferences, seminars, newsletters, news releases, and special short courses—is equally vital for mature professionals. The quality of our annual meetings, journals, and conferences must...
be exemplary and make use of the expertise of our most notable researchers.

The fourth key area is that of public policy. The IFT and its Nutrition Division are actively involved in this arena, writing scientific status summaries, training qualified food science communicators, and responding to current issues in a timely manner. Over the past two years, examples of the IFT’s involvement include its responses to the Nutrition Labeling and Education Act and the Nutrient Supplement Act.

To affect public policy, we need to provide input on federal research funding decisions. Each of our societies advocates increased funding for nutrition education and basic research. As part of this effort, we need to be aware of when we need to protect our interests with well-placed letters and calls. Also, it behooves us to remember that nutrition is a global issue; one in which we can influence policy and research efforts to end world hunger and to separate nutrition from political issues.

The last area of challenge and opportunity is that of research agenda-setting. As nutrition professionals, we can foresee the areas of greatest need. The ones I consider critical include nutrition and gene expression, specific nutrient requirements, the effects of fortification of food, and the interactions of nutrition and physical activity.

Are we ready for the challenges and opportunities of the 21st century? I think so. Our societies are strong, our goals and objectives are clear (Table 7), and our memberships are diverse and responsible. I think this Forum should be the first of many opportunities for our groups to come together to share experiences, expertise, and insights. I appreciate the opportunity to participate. Thank you.

FOUR VITAL CONCERNS FOR NUTRITION SOCIETIES

Gerald E Gaull, The Center for Food and Nutrition Policy

The great 20th century philosopher, Yogi Berra, has been quoted as saying “The future ain’t what it used to be.” Yes indeed! As we approach 2001, we are being challenged to rethink the organization, the structure, and the very function of all society. Why not nutrition societies?

Our Center for Food and Nutrition Policy and The Ceres® Forum at Georgetown University analyze such policy in the context of the agendas of the various interest groups that affect the food system. What constitutes good nutrition and how we achieve this goal for the public may be viewed differently among these interest groups. Therefore, I’m pleased that the ASCN’s president-elect, George Blackburn, asked me to consider the challenges faced by nutrition societies when interacting with other sectors, i.e., government, industry, consumers, and the media.

I propose four vital concerns for academic nutrition societies:

1) They must foster a renaissance in basic nutritional science; without it we cannot understand the biological mechanisms underlying the nutritional problems identified clinically and epidemiologically.

2) Our nutrition societies must enter the public policy arena as eager participants in the formulation of nutrition and food policy.

3) They must be more involved in the process of communication. The public is often confused and vexed by the newest nutritional nostrum of the month.

4) Nutrition societies must work with the food industry and agribusiness.

Let me now expand on each of these vital concerns:

First, nutrition was the donor of biological sciences early in this century. But as the metabolic pathways of nutrients were studied in depth during the 1940s and 1950s, biochemistry eclipsed it.

To understand descriptive clinical and epidemiologic nutrition, we must return basic nutritional science to its primacy. With certain notable exceptions, there is too little such clarification being done. The type of science I refer to will be published in the symposium “Nutrition and Gene Expression” that was organized by the late Norman Kretchmer, and is now part of the ASCN’s memorial to him (G Gray, unpublished observations, 1996). Kretchmer’s basic work on developmental biochemistry and the mechanisms of carbohydrate malabsorption serve as a model for basic nutritional science.

The second vital concern for academic nutrition societies is to increase their participation, as societies, in the public policy arena. Until now, we’ve played a relatively minor role in public policy, usually as supplicants for more research funds, without much attempt to show how public support of previous efforts has helped improve public health.

Our organizations must get increasingly involved in the public policy process, translating “what we know” into “what we do.” For instance, the FDA has announced its intention to fortify grains with folic acid. Although some individual members served in advisory roles to the agency, might we not have provided advice as a society as well? Our organizations are a ready resource for expert committees that can assist policymaking and regulatory agencies.

TABLE 7

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<th>Goals</th>
<th>Objectives</th>
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<td>Expand inter- and intrasociety alliances, i.e., joint symposia and the Forum.</td>
<td>Enhance efficiency and effectiveness in all targeted/goal areas.</td>
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<td>Increase cooperation.</td>
<td>Stimulate productive dialogue among members in government, industry, and academia.</td>
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<td>Unify the message.</td>
<td>Enhance communications with all audiences.</td>
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<td>Promote science- and research-based college courses and continuing professional education.</td>
<td>Develop critical and analytical thinking skills among students, and keep professionals up to date on developments.</td>
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<tr>
<td>Play a greater role in the public policy arena.</td>
<td>Influence legislative outcomes and funding decisions.</td>
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The formulation of the Dietary Guidelines for Americans provides another opportunity for involvement (9). The committee appointed by the issuing agencies (Health and Human Services and the USDA) identified the lack of a scientific database to support guidelines for children. Its members also pointed out that children are not simply little adults, and urged that the oversight be rectified by the next revision.

Dietary guidelines are required by statute to be published every five years. Government agencies, in turn, should seek out and welcome the scientific underpinnings of the standards they generate. Meanwhile, the downsizing and restructuring of government will provide more opportunities for nutrition societies to offer policy and regulatory guidance, and we should accept, if not demand, that responsibility.

I believe that policymaking and regulatory agencies will eventually devolve to bureaucracies that manage expert committees. Under present statutes, regulators cannot cede final decision-making authority to such committees. However, the new economic stringency could force the agencies to turn over much of the deliberative process to these expert committees. It is even possible that statutes could be adjusted accordingly.

Third, let us turn to the questions of communication, perception, and the public’s schizoid reaction to nutrition and health. People are perplexed because the majority of so-called “magic bullets” are either blanks or wide of the mark. The “magic bullet” medical model arose during the early era of medical and nutritional science, when simple problems, such as vitamin deficiency diseases (12), were being solved.

Now we’re entering a phase of greater biological complexity in which multifactorial and polygenic chronic diseases are being studied. These areas are fraught with contention. What is the public to think, for example, when the demise of β-carotene as a “magic bullet” against cancer recently made the front page of a major newspaper?

Have our nutrition societies done all they could to put such complexities in context for the public? I think not. Typically, journalists call on scientists for their individual opinions. But in these times of stringent research funding, these opinions are too often colored by the fierce competition for research grants (and what better way to increase your own laboratory’s “relevance” in this never-ending quest). Indeed, a nutrition society task force is more likely to provide a balanced perspective.

Thus, the third vital concern for nutrition societies is their role as a guide to bemused consumers who have been pummeled by contradictory nutritional information—a byproduct of the immediacy of communication and the propensity of the media to report controversy rather than consensus. For example, do major medical journals help by providing the media with advance copies, or do they exacerbate an already unsatisfactory situation? A reporter from a wire service recently called me to ask for a comment on an article that was to appear the next day in a leading medical journal. I admonished him, pointing out that I could not have read the article. His reply was poignant: “Gee, I just work for a wire service... and it’s a story tomorrow, but not the following day.”

This reporter makes a living by selling copy to local papers. But societies and their journals have a higher responsibility. The journals of our sister nutrition societies, the ASNS and the ASCN, do not send advance copies, but they do get out press releases for articles of potential media interest. These provide an appropriate perspective, and should be issued more frequently.

Problems attendant to the immediacy of communication will be intensified with the increasingly widespread use of the Internet. The number of signals sent out to the public will increase, and the quality of information will decrease greatly; accordingly, the cacophony will be magnified.

Nutrition societies must become the source of reliable information in this rapidly expanding medium. The public must have such information to counter the garbage that promises to accumulate.

Fourth and finally, I’ll comment on the changing political landscape and its likely effect on the interface with government, industry, and science—especially between nutrition societies and the food industry. It is essential that industry learn more about the concerns of nutrition societies, and their appropriately conservative role. It is equally important for nutrition societies to learn more about the economic imperatives of the food industry, such as obligations to shareholders and the pressures of narrow profit margins.

There are terrific new opportunities to work creatively with industry in its quest for new products, a quest that is expanding and accelerating. But we must not work with them simply because they’re the source of our money, but rather because they’re the source of our food. Today, modern technologies can change food more drastically and rapidly than ever before. But the question of whether these changes are useful is the domain of our nutrition societies.

However, we can’t work together without establishing an atmosphere of trust. This must be nurtured from both sides. To begin with, we academics must shed our ingrained air of condescension and sanctimony with regard to those in business. Corporate support of a study cannot be taken as prima facie evidence of dubious scientific worth. Impede the data, if need be, but do not impugn the integrity of the investigator in a reflex reaction to industry funding. Product-related studies must be financed by manufacturers simply because there is nobody else to do them; and when they are well done, they sometimes lead to more general nutritional principles.

And then there is the shifting political climate, a reality that makes it vital for us to understand more about the implications of the reorganization and restructuring of government—a process that promises new opportunities to work with shrinking government agencies. For example, the school meals program is a huge government undertaking that might, in large part, be privatized. Indeed, this is being done in more and more school districts throughout the country. The requisite nutritional standards for children could be set and monitored by our nutrition societies, working with the food service industry.

My take-home message is based on my experience in academic nutrition, in the food industry, and now at our Center at Georgetown University, where we act as the interface between nutritionists, government policymakers, industry, and consumers. The message is that our societies must encourage hard science, be more active in the public policy arena, provide perspective for the “magic bullets” of the media, and work creatively with industry in its quest for new products. These are the challenges I see for nutrition societies in the future.
We thank Judy Miller of the ASCN, Joan Long and Barbara Ainsley of the Nutrition Support Service at the Deaconess Hospital/Harvard Medical School, and David Schnakenberg for their excellent technical assistance.

REFERENCES