

American Physiological Society

Strategic Plan

2006 – 2010

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APS Strategic Plan Overview

Mission of the American Physiological Society (APS)

APS promotes discovery, disseminates knowledge, and advances education in physiology.

Definition of Physiology

Physiology is the study of the function of organisms as integrated systems of molecules, cells, tissues, and organs in health and disease.

Overarching Goal of the Strategic Plan

The overarching goal of the strategic plan is to position physiology as a central and critical biomedical discipline and strengthen its relationships with the other life sciences.

Strategic Directions

- Direction 1** **APS will be the leader in advancing the life sciences that investigate biological function.**
- Direction 2** **APS will enhance the future of the field, ensuring that next generation physiologists are supported through all stages of their careers.**
- Direction 3** **APS will drive understanding of and appreciation for physiology and strengthen public and private support.**
- Direction 4** **APS will be dynamic and relevant to an increasingly diverse and global membership.**
- Direction 5** **APS will be a mission-directed, adaptable, and fiscally sound organization.**

Introduction

The American Physiological Society (APS), the premier professional organization representing physiologists, is devoted to fostering education, scientific research, and dissemination of information in the physiological sciences. It does this through a diverse array of high quality scientific journals and other publications; its annual meeting, Experimental Biology, conducted jointly with other FASEB members; specialty conferences and meetings; awards and other incentive programs; and ongoing education programs.

Founded in 1887 with twenty-seven members, APS today has more than 10,500 members. The Society is governed by an elected Council consisting of the President, President-elect, and Past President, plus nine Councilors. APS also offers members affiliation with a variety of sections and interest groups, created to bring members together around areas of common interest. An active committee structure addresses specific topics of importance to members. Headquartered in Bethesda, Maryland, on the campus of the Federation of American Societies for Experimental Biology (FASEB), APS employs approximately seventy staff.

Strategic planning is crucial for APS in today's complex and changing environment. Among the many factors influencing APS today are decreased overall financial support for research and the changing definition of physiology. In addition, there is a diminished emphasis on science education, and concern that the "pipeline" of future scientists—and in particular women and minorities—is not as robust as desired. Open access and the evolving information environment are having major impacts on scientific publishing, one of the Society's major strengths. And a changing political environment, including a perceived "anti-science" trend, is influencing funding and support for research.

As it addresses this challenging and changing environment, APS has the opportunity to build on its assets, particularly its publications, meetings, and educational programs. Its financial and organizational resources, history, and respect position it to move forward with strength. At the same time, APS recognizes the need to address its dependence on publications revenue and the changing publishing models. It also is committed to addressing the diversity of science within physiology and to ensuring that its organization and governance reflect the interdisciplinary nature of the science and are attractive to those entering the field.

Mission of the American Physiological Society (APS)

APS promotes discovery, disseminates knowledge, and advances education in physiology.

In addition, APS will continue to use the tag line:

“Integrating the life sciences from molecule to organism”

Definition of Physiology

A working definition of physiology was proposed to help communicate the discipline and provide a common basis for understanding:

Physiology is the study of the function of organisms as integrated systems of molecules, cells, tissues, and organs, in health and disease.

Overarching Goal of the Strategic Plan

The overarching goal of the strategic plan is to position physiology as a central and critical biomedical discipline and strengthen its relationships with the other life sciences.

Achieving this goal will require strategic focus in advancing physiological science, supporting new scientists, increasing understanding and support of physiology, ensuring relevance to a diverse membership, and having adequate and appropriate organizational resources.

Achieving this goal is of critical importance to the future of physiology and the future of APS. The strategic directions that follow are all aimed at this repositioning of physiology at the center of biomedicine. Some of the outcomes that would indicate success in achieving this goal include:

- Maintaining physiology as a separate discipline and/or department in medical schools
- Increased participation of APS members on NIH study sections
- Increased recognition by other organizations:
 - Increased representation of physiologists on National Board test committees
 - Increased nominations for National Academies of Science
 - Increased interaction with Liaison Committee for Medical Education and Association of Chairs of Departments of Physiology on issues relevant to physiology.

Strategic Directions, Strategies, and Potential Actions

Direction 1 APS will be the leader in advancing the life sciences that investigate biological function.

Rationale: As the life sciences evolve and the field expands to include systems biology and other new and emerging disciplines, there is a need to ensure that physiology is appropriately positioned and its central role understood. Biological function—of molecules, cells, and organisms—is at the heart of physiology and this knowledge is critical to the broader life sciences.

As the premier society representing physiology and physiologists, APS is well positioned to provide leadership to the evolving life sciences. Building on the strengths of its programs and its long history, APS can embrace new and emerging disciplines and be a leader in redefining and advancing the field, partnering with related societies when appropriate.

APS journals and meetings are the principal ways in which the Society provides leadership in advancing the life sciences that investigate biological function. This direction has at its core the desire to make the journals and meetings the first choice for the dissemination of knowledge in physiology.

Success in advancing the field is also dependent on APS's continued ability to attract and retain members who represent the breadth and depth of the field, including emerging areas that are important for the future. Society offerings must be flexible and diverse enough to meet the needs of all who are involved in the life sciences that investigate biological function, from trainees to senior professionals.

Direction 1 Strategy 1 Build on the strength of APS journals and leverage them to have the greatest impact in the scientific community.

- Make APS journals the first choice journals by increasing the selectivity of content.
- Broaden the scope of APS journals by increasing the proportion of interdisciplinary articles.
- Engage the editorial boards to be advocates for the journals.
- Promote the idea that APS journals are the best journals for members, striving to increase the journals' impact factors and citations for our authors.

**Direction 1
Strategy 2**

Redesign APS meetings and conferences to enhance quality, participation, and recognition.

- Broaden programs to include related disciplines such as systems biology and integrative and quantitative sciences.
- Increase cross-sectional, cross-societal, and cross-disciplinary programming at EB.
- Add a true plenary opening session for APS at the EB meeting with a high profile speaker and recognition of accomplishments and volunteers.
- Develop a strategy to increase international participation and presentation at EB and other APS meetings.
- Increase utilization of the word “physiology” in promoting EB and other APS conferences.
- Establish a new committee to assess and strengthen APS conferences and small meetings to better serve diverse audiences and to increase recognition of physiology.

**Direction 1
Strategy 3**

Develop a strategic approach to partnerships to benefit the Society and its goals and help broaden APS’s reach and audiences.

- Define criteria for the creation of partnerships with other societies and a means to evaluate their success.
- Increase APS’s visibility with other specialty societies, including developing bi-directional or joint meetings with other groups related to physiology.

**Direction 1
Strategy 4**

Create a worldwide technological resource for physiology knowledge and collaboration.

- Invest in the web site to create a dynamic resource that will draw people from around the world into the Society.
- Create an interactive knowledge environment/community that will support collaboration across physiology.

Direction 2 APS will enhance the future of the field, ensuring that next generation physiologists are supported through all stages of their careers.

Rationale: The field of physiology will thrive only if it can continue to attract and retain top quality trainees and young professionals. APS is well positioned to be a leader in promoting and supporting careers in physiology. To do this, it will need to help attract more high quality, diverse researchers to the field; influence education and training at all levels; and provide encouragement and support for trainees and early career professionals.

APS sees its education role broadly, from ongoing professional education to K-12 programs. Building awareness of the field among potential scientists and sustaining interest in physiology are two major challenges that APS must address as it moves forward.

Efforts to build the pipeline may be enhanced by local outreach and involvement. Expanding the number and role of APS chapters might enhance the Society's ability to connect with students at all levels, from K-12 through graduate school.

Over time, the goal is to see increased numbers of students in graduate programs, as well as increases in undergraduate physiology education, evidenced by more courses and curricula. In addition, success in moving in this direction should bring increases in APS membership and participation by students and early career physiologists, as well as a rising proportion of student members who convert to regular members.

Direction 2 Strategy 1

Support trainees and early career physiologists in career development and transitions to help them become successful and competitive physiologists.

- Enhance award programs to ensure that they provide opportunities for physiologists at all levels.
- Develop awards based on authorship.
- Advocate for increased graduate student and postdoctoral stipends and benefits.
- Strengthen professional skills programs online, including on the web, through podcasts and webinars, making information available 24/7.
- Identify and promote traditional and non-traditional career tracks to appeal to a broad range of scientists and educators.

- Enhance mentoring programs for trainees and early career physiologists.
- Involve faculty in physiology departments with APS programs, committees, chapters, and other leadership groups and work with them to support and engage trainees.
- Encourage participation of trainees in APS committees, sections, chapters, and other leadership positions, and consider representation of the Trainee Advisory Committee on Council.

Direction 2

Strategy 2 Increase the visibility and presence of physiology in undergraduate education.

- Encourage and support the creation of undergraduate physiology courses and ways to build physiology into undergraduate curriculum so that students understand the field and its potential.
- Take advantage of newly developed health career programs; find ways to partner with these programs to incorporate physiology into their content.
- Develop ways to engage students in physiology research early in their education, including strengthening undergraduate summer research programs.
- Target undergraduate faculty as partners in developing the physiology pipeline.
- Build awareness of career opportunities in physiology.
- Provide incentives for undergraduates to attend EB.

Direction 2

Strategy 3 Continue to develop and expand K-12 outreach by strengthening member involvement in K-12 education and supporting high school teachers.

- Continue support of existing programs.
- Consider increasing chapter support and activities to develop local resources to participate in K-12 programs.
- Develop web-based programs and other technological tools (animation, computer games, etc.) to facilitate understanding of physiology and to reach young audiences.

Direction 3 APS will drive understanding of and appreciation for physiology and strengthen public and private support.

Rationale: Closely related to Direction 1, Direction 3 focuses on the need to ensure a broad understanding of and appreciation for physiology and the work of physiologists. Public and private support includes both financial support and policy support around such issues as the use of animals in research. APS's advocacy efforts, both on its own and in partnership with FASEB and others, are key to success in this area and must be continued and strengthened.

A principal desired outcome for this direction is that physiology be recognized for its key role in biomedical research. In recent years physiology has gone from being at the center of biomedical research to being on the periphery; a recent major NIH RFA on translational medicine did not acknowledge the role of physiology in clinical medicine, and there is no longer a physiology study section. In the post-genomic era, physiology, as the study of function, is more important than ever, but, possibly because of the increased importance, some aspects of physiology are being co-opted, contributing to an erosion of funds and support for the discipline. This direction is aimed at building recognition of the important role of physiology in biomedicine by enhancing advocacy and outreach efforts.

Other specific desired outcomes include a reduction in legislation that impedes the use of animals in research and educational settings, and increased media coverage of new physiological research from EB and other APS meetings and journals.

Concurrent with its advocacy efforts, APS will focus on building public awareness of the importance of physiology research, since awareness is so closely linked to government support. These efforts include school-based programs as well as new web-based approaches and collaborations. Ties with industry provide another means of building awareness and support and should be further developed. Finally, as noted in Direction 1, APS has the opportunity—and the obligation—to promote the value of physiology among other scientific disciplines and ensure its continued strength in the broad life sciences.

Direction 3 Strategy 1

Improve the effectiveness of APS advocacy for public policy and funding in support of physiological research.

- Increase APS advocacy efforts, with an emphasis on more active involvement of Council and members on Capitol Hill.

- Develop and promote position papers on important issues such as the role of physiology in biomedical research or the importance of physiology in medical school curriculum.
- Continue to work with FASEB to leverage APS’s own advocacy capacity:
 - Strengthen APS’s representation in FASEB to ensure that the Society is best able to leverage this resource; assess the best way to provide for APS representation on the FASEB Board.
 - Consider working with FASEB to develop a PAC in support of research policy.
- Pursue other appropriate partners, using the “DC Principles” model, to help advance APS’s advocacy agenda:
 - Partner with clinical societies and patient groups to emphasize the impact of funding cuts in research and eventually on health care.
 - Partner with groups such as the American Heart Association, the American Thoracic Society, and other disease-specific groups to lobby with them on common issues.
- Develop chapter programs in support of public affairs issues in local regions.
- Make the Chair of the APS Public Affairs Committee an ex-officio member of Council.

Direction 3

Strategy 2

Increase participation and representation of APS members at all levels of decision making at NIH and other funding agencies.

- Develop a focused program for NIH advocacy.
- Identify groups that are drafting RFAs and ensure that there is appropriate input of physiologists into the process.

Direction 3

Strategy 3

Strengthen and expand existing programs, and create new approaches to enhance public awareness of the physiological sciences.

- Implement “Physiology Understanding Week.”
- Increase and enhance the Society’s web presence, with an emphasis on user-friendly information about physiology.
- Continue to support and expand K-12 education programs (see Direction 2).

- Devise novel outreach materials such as games or contests for downloadable presentations by physiologists about their research, labs, etc.
- Align APS with groups such as the National Network of Health Libraries and provide them with quality materials on physiology.

Direction 3

Strategy 4

Build alliances with government, industry, and clinical sciences to promote research and education and develop policy in the physiological sciences.

- Promote the value of physiology to other scientific disciplines by improving the quality of science at EB and sponsoring sessions at meetings of other disciplines.
- Work with other scientific and clinical societies to advocate for supportive research policies and increased funding for biomedical research.
- Consider establishing a Task Force with industry representation to develop ways to promote research and education.

Direction 4 APS will be dynamic and relevant to an increasingly diverse and global membership.

Rationale: As science becomes truly international and barriers between and among nations are reduced, APS is becoming a more global society. At the same time, its traditional US membership is becoming more diverse, in both its research interests and its demographics. APS's continued strength depends on its ability to meet the evolving needs of its members and potential members, which will require that its membership programs and policies actively encourage a broad range of constituencies. Constituencies include those based on science, geography, career track (research, education, industry), career stage, demographics, etc.

Research to determine member needs, followed by programs that provide value to targeted constituencies, will be important moving forward. New technology offers possibilities for reaching out to new audiences and enhancing the benefits APS can provide. This direction should lead to an increase in new products and services aimed at a more diverse APS membership, as well as growing diversity in membership and enhanced participation in APS meetings and conferences.

Success in accomplishing this direction will result in a more engaged and expanded membership, both in the US and globally. Over time, there

should be measurable changes in membership demographics such as racial diversity, average age, gender, and career stage. It is also expected that efforts to increase minority participation in the Society—and evaluation of the success of these efforts—will lead to increased diversity in APS leadership.

Direction 4

Strategy 1

Strengthen programs to recruit, retain, and fully engage underrepresented minorities and women in physiology and in APS.

- Instruct all programs to address diversity proactively.
- Develop programs to attract minority students to the field of physiology and to support their career development.
- Develop programs to promote career development for women in physiology.
- Evaluate the success of programs, committees, sections, and other APS entities in addressing the Society's diversity goals.

Direction 4

Strategy 2

Develop the capacity to regularly assess the needs of APS's diverse members and potential members.

- Establish ongoing surveys and other tools to stay in touch with members and determine their changing needs.
- Regularly conduct focus groups with potential members to explain what physiology is and what the Society can offer them.
- Carry out spot surveys of potential members in related disciplines to determine what might attract them to APS.

Direction 4

Strategy 3

Utilize new technologies to enhance the appeal of, and access to, scientific meetings, publications, and programs for diverse members.

- Develop web-based courses available 24/7 for people who cannot attend face-to-face meetings or who prefer this form of education.
- Continue to enhance the APS web site to meet the diverse needs of members, potential members, and scientific colleagues.

Direction 4

Strategy 4

Broaden APS membership to embrace a wider variety of constituencies in the life sciences, creating new membership categories if needed.

- Create a new membership category for undergraduate students, focusing on providing them with information through web access, electronic communications, Podcasts, and webinars.
- Create new membership categories for allied health professionals such as nurses, physical therapists, nutritionists, and others.
- Consider a form of membership for high school students and teachers.
- Promote chapters within the US as vehicles for membership development.

Direction 4

Strategy 5 Develop a global discourse on physiology and support international members.

- Partner with other national societies to promote the physiological sciences.
- Increase emphasis on the web for international communications, including such offerings as teaching symposia at EB.
- Create country-specific APS member listservs to facilitate communication among physiologists.
- Develop a plan to increase international membership and enhance the participation of international members on significant committees and in APS leadership.

Direction 5 APS will be a mission-directed, adaptable, and fiscally sound organization.

Rationale: As publications models change, APS will need to continue to adapt its business model and determine the best ways in which to diversify its income streams to ensure a smooth transition. Ensuring appropriate diversification of income, as well as continued wise use of resources, will be essential as APS moves forward.

Organizational adaptability will also be important. APS's organization and governance have served it well, providing strong and experienced leadership for the Society and contributing to its success. However, the combination of a new and ambitious strategic plan, the growing diversity of members, and changes in the publications business model, make it an opportune time to look at APS's organization and governance and determine if new approaches might be more effective moving forward.

Some of the topics to consider include the role of the Council, the structure and roles of the sections, and the number, role, and composition of committees.

Direction 5

Strategy 1

Explore ways to diversify APS revenue sources, including adapting the publications model to respond to changes in the publishing and research environments.

- Consider hiring a development officer to raise funds for the Society's various award programs and activities.
- Identify ways to utilize the Society's web presence and offerings to develop a revenue stream for the Society.
- Develop a plan to transition from a subscription based publishing model to an author pays model as required by the marketplace.

Direction 5

Strategy 2

Assess the APS governance model and approaches to ensure that the APS continues to be responsive to external trends, is able to adapt to changing needs, and does support the strategic plan.

- Review the composition and role of Council and revise as necessary to meet current requirements.
- Review the roles and structure of Sections to ensure that they support the evolution of the field and the diverse interests of members and prospective members.
- Review the roles and composition of committees and determine whether any new or changed committees are needed to implement the strategic plan.
 - Develop a plan to increase the diversity and breadth of committee membership, including ways to involve trainees and next generation professionals.
 - Consider broadening the charge to the Public Affairs Committee by making the Committee the focal point for discussions of all public policy issues of concern to the Society.
- Strengthen participation and engagement in APS through a focused leadership development program.