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Highlights for HAPS-2000
HAPS-EDucator is the official publication of the Human Anatomy and Physiology Society (HAPS) and is published four times per year. Major goals of the Human Anatomy and Physiology Society are: to promote communication among teachers of human anatomy and physiology in colleges, universities, and related institutions; to present workshops and conferences, both regional and national, where members can obtain information about the latest developments in the health and science fields; and to encourage educational research and publication by HAPS members. HAPS was established in 1989.

Annual membership dues are $50. Annual membership renewals shall be due on January 1, April 1, July 1, or October 1. New members shall renew on whichever date most closely follows the date of their initial membership. HAPS Hotline: (800) 448-HAPS (4277). Information on membership, meetings, and more! Send correspondence to: HAPS, 222 S Meramec, Suite 303, St. Louis, MO 63105. Check out our new webpage at: http://www.hapsweb.org/

SUBMISSIONS TO HAPS-EDucator

Papers for publication, requests for information, positions available and wanted and letters to the editor are welcomed. Articles submitted on 3.5" double density disks are preferred - please include a hard copy as a backup. If references are included, please follow the methods suggested in Scientific Style and Format: The CBE Manual for Authors, Editors, and Publishers. 6th Edition, Style Manual Committee (Council of Biology Editors) Cambridge, Cambridge University Press. 1994.

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DEADLINES FOR SUBMITTING MATERIAL TO HAPS-EDucator: June 1 (August issue); September 1 (November issue); December 1 (February issue); March 1 (May issue).

CONTACT THE HAPS-EDucator Editor: Caryl Tickner, Science Department, Stark State College, 6200 Frank Ave. NW, Canton, OH 44720. 330-494-6170 ext 4915. ctickner@stark.cc.oh.us

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Greetings from your President

Christine Martin, HAPS President

Have I told you lately how I love this organization? Participation in the annual Board of Directors and Steering Committee meeting held in January reminded me once again how dedicated the volunteers in this organization are. Meeting Friday evening, all day Saturday and into Sunday allowed the Board to focus on many of the long range goals developed during past annual conferences. Much was accomplished and will continue to be so as the officers and committee chairs move toward a shared goal of meeting the mission of HAPS. While at the meeting, one of the attendees mentioned that most of his new ideas are generated through casual conversation with other members during breaks between meetings. I have to agree that the behind-the-scenes camaraderie and sharing of ideas regarding teaching techniques and growth remains one of the things I value most about HAPS.

During the January meeting, the Steering Committee (comprised of the committee chairs) recommended that the Board develop a mechanism for establishing collaboration between HAPS and professional research societies that do basic research on topics related to teaching anatomy and physiology (A&P). The committee believes that there are mutual benefits to be gained by such a partnership. Research societies could gain a partner for dissemination of their findings and an avenue for their outreach projects. The A&P teaching community is extremely large with an estimated 350,000 students taught annually. HAPS members are a natural conduit for new findings in the various fields. In addition, such collaborations could result in HAPS being able to procure update speakers for annual and regional conferences, obtain sponsorship/financial underwriting for HAPS activities (joint grant applications?), collaborate with experts in developing new curricular materials, identify opportunities for summer or sabbatical research opportunities in leading labs, including stipends for ourselves and students, enter joint publishing projects, and obtain additional sites for undergraduate curriculum testing.

To start the ball rolling on the suggestions made by the Steering Committee, I have been in contact with the executive director of the American Association of Anatomists (AAA) with the intent of fostering a relationship between our respective groups. AAA, approximately the size of HAPS, is the professional home for biomedical researchers in anatomy and anatomical science. Their meetings have a topical focus on imaging, cell and developmental biology, neuroscience, and education. Their education contingent is small and they hope to gain some expertise in this area from the members of HAPS. To that end, they would like to make a limited number of their monthly journals Developmental Dynamics and The Anatomical Record available to HAPS members free of charge. These journals, available in limited quantities, may be requested from HAPS Headquarters. Please see the information regarding this endeavor elsewhere in this issue. Also look for a special invitation to our western region members for the education component of the AAA conference in San Diego during the month of April. Our membership development chairman, Kevin Petti, will be representing HAPS at that meeting, as well as giving his ever popular presentation on the History of Anatomy. Feel free to check out AAA on-line at http://www.anatomy.org/anatomy/ and please drop by their display at the HAPS conference in Charlotte.

Our annual election process will be taking place prior to the annual meeting. Henry Ruschin, our president-elect and chair of the Nominating Committee, has been busy procuring potential candidates. Often when people are asked to run for an office their first question is “How much time will it take?” That is an honest question and quite apropos, especially if one is not aware of the everyday functioning of our organization. The function and timbre of any group has a lot to do with influencing the way things work, but nothing moves mountains like a group of people who work as a dedicated team with the incentive to do their jobs well. The momentum in HAPS is such that the Board and various committees communicate on a daily basis by phone, email and FAX. HAPS is moving forward and continuing to provide new services to members. I find it very gratifying to be a part of it and hope you do as well.

As usual, the committees have been focused on delving into activities which have been requested by members. Tom Lincraft’s Distance Learning Committee has had an active year authoring the HAPS Position Statement for issues regarding distance education. The committee has demonstrated great foresight in designing a document which would provide HAPS members with support guidelines for the design and implementation of on-line courses. These will be especially helpful when those folks from the “adminosphere” ask us to design an Internet course with nothing else in mind but the bottom line (did I say that?). Kevin Petti, chair of the Member-

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ship Development Committee has been working closely with a graphics design team and has developed an impressive membership kit which will be unveiled at the Charlotte meeting.

At the recent January meeting, the regional directors decided they wanted to play a more visible role in the organization and will now communicate with their constituencies via letter twice per year to better act as liaison between their constituency and the Board of Directors. In addition to serving on the Regional Conference Committee and assisting regional members with hosting or attending conferences in their areas, each director may host small local gatherings in order to promote camaraderie and interest in planning larger meetings.

If you attended the series of annual HAPS meetings during the last decade, it was impossible not to notice the advances as well as the pros and cons of technology intended for use in the classroom. I clearly recall the introduction of computers as teaching tools (no cracks about my age, please), struggling with video discs, and moving from flimsy, floppy discs to CD ROM format. Obviously, the focus of technology in the classroom has progressed considerably over the years; we now have moved from not just “considering” the use of technology in the classroom to the actual sharing of our varied and valuable experiences in using the myriad technologies that are available. (It can be mind-boggling to imagine what the future shall bring!) In light of the new technologies that are being produced, the Technology Committee has recently developed guidelines for software review with the intent of providing a continual stream of idea-sharing regarding the plethora of software products out there. Please contact Sandy Stewart at stewart@indian.vimu.edu if you are willing to provide a review of a product you have been using in your classroom.

I wish you well during the continuance of your winter/spring teaching term. I encourage you to attend the annual June meeting to be held in Charlotte, North Carolina and look forward to seeing you there. ♦

CONSTITUTIONAL CHANGES PROPOSED

Proposed changes to the Constitution of the Human Anatomy and Physiology Society must be delivered in writing to the secretary who will present the motion at the Annual General Meeting. Such an amendment will require the approval of two-thirds of the members present at the general meeting. Presented below is Article 5 - Nominations and Elections as it currently stands followed by the changes requested by the HAPS Board of Directors. Changes are represented in italics. These changes will be voted on at the general meeting in Charlotte.

Article 5 - Nominations and Elections

5.1 A Nominating Committee serves to prepare the ballot of nominees for elected positions within the Society each year. Its chairperson is the President-Elect; three other members are approved by the President and the Board of Directors.

5.2 The Nominating Committee shall request nominations for officers from the membership three months prior to the Annual General Meeting. A final slate of officers candidates shall be selected by the Nominating Committee, preferably a minimum of two per office.

5.3 The ballot shall be prepared by the chair and shall be accompanied by a biographical and position statement by each candidate. The ballot will contain spaces for write-in selections.

5.4 The ballot will be forwarded to HAPS Headquarters (copy ready) who will then mail ballots to the membership no later than one month prior to the Annual General Meeting. Valid ballots must be received by HAPS Headquarters by a pre-determined deadline and tabulated prior to the Annual General Meeting where election results will be announced.

5.5 No error or omission in the mailing of the ballot shall invalidate such election where such error or omission was made in good faith and for no improper purpose.

5.6 Vacancies occurring between elections shall be filled by appointment. Such appointments shall require unanimous support of the remaining members of the Board of Directors.

PROPOSED REVISIONS FOR CONSTITUTION:

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Using Concept Maps to Teach Histology

Linda S. Kollett, Ph.D.
Professor of Biology
Massasoit Community College
1 Massasoit Blvd.
Brockton MA 02032
(508)427-1250
kollet2@wheatonma.edu

I have often said, only half in jest, that many of my students need to spend a few hours playing the Sesame Street game “Three of these things belong together, one of these things is not the same.” Their lack of observational skills was particularly noticeable during histology sessions. I would hear students sharing strange methods to remember the tissues, reminding me of an unfortunate art history experience where the slides were shown so quickly that the best I could do for my notes was to describe the frames! Worse than that, students would show me dense connective tissue on a slide and tell me that it exactly matched the picture of simple columnar epithelium in the atlas. It was time to initiate a plan to develop, strengthen and reinforce observational skills. I initiated a multi-faceted approach that borrowed from strategies already in use in other courses, integrated nicely into the laboratory schedule and built on some activities already in place. This article describes one part of the effort: developing a usable concept map to identify tissue unknowns.

The purpose of asking students to construct this concept map was to help them clarify tissue differences and similarities. It gave them practice observing, thinking logically, and grouping skills which could also be applied to other material throughout the course. The map also made it much easier for them to correctly identify unknown tissues.

Each student was given a list of tissue types to include in the map. Pictures and clear descriptions of these tissues were in the lab manual. The concept map was built in stages: initially it included only epithelial and connective tissues. Muscle and nervous tissues were added later in the course.

The assignment was to construct a map by asking a series of questions that would separate the tissue types in some logical way. Each question had to be designed to have only yes or no as possible answers. The separation was complete when each tissue type was alone at the end of a branch. The map had to be based on things that could be observed using the microscope. For example, although epithelial tissue is characteristically mitotic, since mitosis cannot be observed easily on the slides, then that characteristic did not qualify.

The students were asked to read through the tissue exercise in the lab manual noting the general characteristics of epithelial and connective tissue before coming to lab.

When the students were ready to begin the exercise, I distributed envelopes containing colored pictures of four cell types (skeletal muscle cell, neuron, white blood cell and sperm). I then had them help me construct a simple concept map to sort the cells by visible characteristics. In a second envelope they found colored pictures of the assigned tissue types. They worked in groups and began sorting in lab. I also gave them black and white copies of the pictures to take home to continue sorting as they worked on their maps.

I did give them a starting hint by writing the first question, “Is there a free edge?” with two possible answers - yes or no. Then we talked a bit about choices for the second question. The rest was up to them, although I did provide one additional hint when it became time to add muscle tissue to the map.

The concept map served as an admission ticket to the next lab, which was the actual histology lab. Students who had incomplete or very inaccurate maps spent the lab period working

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This was an interesting exercise for me as the instructor as I had to give up control of introducing the tissues! I relinquished responsibility to the students. Gone was the lecture on tissue characteristics and the explanations and demonstrations of similarities and differences. Instead my role was to encourage students to look harder, read more, and think a little bit about what they were seeing.

How did the students respond? There was confusion, some grumbling, and a lot of frustration. Anxiety was high about the unknowns. Maps were done and redone. Small groups conferred and compared notes. Email arrived asking for advice. But when it came time to identify the unknowns, the reward was obvious. Most students came in, sat down at the microscope, focused on the slide and completed the assignment in a matter of minutes. It was terrific!

I am starting a second round of students this spring and the Anatomy and Physiology II students are proud to have been my “experimental group.” They are generous with supportive comments for the Anatomy and Physiology I students who are still in the grumbling, frustrated stage, and they whipped up maps to help themselves distinguish the blood cells in no time.

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**Preparing Citizens of the World:**

**Pedagogy That Encourages Inclusivity in The Classroom and Community**

*Richard Faircloth, Ph.D.*
*Mara Kent-Skruch, R.N., Ph.D.*
Anne Arundel Community College
101 College Parkway
Department of Biology
Arnold, MD 21012

“Anne Arundel Community College is a premier learning community whose students are among the best prepared citizens and workers of the world.” - Anne Arundel Community College Vision Statement

One of the goals of the community college educator is to encourage the development of fully capable citizens of society. In this era of an increasingly smaller world engendered by rapid changes in both technology and global means of production, that society has evolved into what has been called the global village.

While diversity is important and should be appreciated, an emphasis on what makes us different can prevent us from operating effectively in the pluralistic environment of a global village. Those students who enter college with little experience of groups different than their own in race, ethnicity, class, gender, sexual orientation, age, or other characteristics, may have particular difficulties in learning to relate to the other students in effective ways. This may be observed in classes in which students are allowed to create their own groups for class work. Because they are more comfortable with others like themselves, students of like characteristics tend to gather together so that some groups may be exclusively female or all black. This tendency to cling to others like oneself can thus impede students learning to appreciate the inclusivity necessary to function in a global village.

While some of these tendencies of students to cling to those like themselves may be modified by such administrative tasks as the instructor setting up work groups, there are some pedagogical methods which are even more effective in promoting inclusivity in the classroom and in carrying it out into the community. This paper discusses two of those pedagogical methods: the “Connecting on the First Day of Class and Beyond” exercise and “Service-Learning.”

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Connecting on the First Day of Class and Beyond

For students to be successful in many courses, active participation (not just note-taking and passive listening) is a necessity. To be an active participant, one must feel comfortable and included in the class. The environment must be supportive in order for participants to be given the permission to actively engage fellow students and the instructor in the dialog of learning the content of the course. The need to have ownership of the course, to be a part of the learning process and not just a bystander, can be addressed by a first class exercise on connecting with the instructor and classmates. Respect for all opinions and the willingness to listen as well as to speak and a feeling of inclusiveness can be accomplished by employing “Connecting on the First Day of Class and Beyond.” This exercise allows all present, students and the instructor, to become comfortable with one another in an energized, open learning environment.

For this exercise, upon entering the classroom, the instructor simply announces the course and section and instructs students to form groups of 5-6 people with those around them. The students are then given a handout, told to get to know each other, and to work together to make a list of items they want to know about the course. At the end of the allotted time (5-15 minutes), the groups present their questions for the instructor to answer. This exercise has several benefits. It begins communication between students so that they immediately begin to feel more comfortable in the class. This may be partially because they agree that this method is a different way for an instructor to start a class! This exercise is useful because the answers to their questions are usually in the syllabus which the instructor then hands out, showing students how to use this tool and find the answers to many of their questions. The most important benefit is raising the comfort level of the students in dealing with the “alien” environment of the classroom and strangers with whom they will be working. “Connecting on the First Day of Class” encourages both the feeling of inclusivity for oneself and actual inclusivity of all students in the class.

Service-Learning

Service-Learning is a pedagogy that combines service to the community with academic work. This pedagogy extends learning beyond the classroom. We have been using Service-Learning as a pedagogical tool under the auspices of the Campus Corps for two years.

The Campus Corps program at Anne Arundel Community College enters into a partnership with agencies that are willing to provide a worthwhile service task to our students and supervise and evaluate their work. We have found it to be a valuable learning tool, often because it propels students into social situations of which they have had no previous experiences and only stereotypical beliefs. Students maintain a reflective journal for each visit to their service placement.

The use of Service-Learning has the following objectives:

• To enhance student learning of course material by providing opportunities to synthesize the course concepts.
• To challenge students to think critically in analyzing social settings.
• To promote a sense of social responsibility.
• To strengthen the link between the college and the community at large.

Using a service-based pedagogy in sociology makes logical sense. However, employing Service-Learning in a non-allied health prerequisite anatomy and physiology class may at first seem very strange. Yet it has been found that placement of students with aging and/or wellness centers yields two major benefits. It gives the students the opportunity to apply the knowledge learned in an anatomy and physiology class to situations involving geriatric, developmentally disabled and physically disabled individuals. It also allows students to be exposed to sectors of our community’s culture that otherwise would be overlooked by these students in their normal curricular pursuits. By engaging students in real life situations in diverse settings, Service-Learning can provide students with skills for their lives in a global village.

Students have indicated unexpected benefits from the Service-Learning experience. Almost all students indicate that their experience has been very valuable to them academically and personally. Academically, writing the journals and other papers enhance their understanding of course content. Personally, students find this experience very rewarding and fulfilling because it promotes self-discovery, enhances self-esteem, and sharpens their sense of social responsibility. They have been exposed to, and expected to handle, both positive and negative experiences with individuals outside their own age, racial, ethnic, socio-economic and health status groups. The students indicate that even the negative situations provided growth and learning experiences that could never be duplicated in the classroom. Some students continue volunteering their time at the same agency beyond the semester. Others have used the experience as the basis for selection of a career path. Thus the Service-Learning experience promotes integration of the student into the community of need and promotes the students’ ability and willingness to work for inclusivity of all members of the pluralistic society.

These two pedagogical methods, “Connecting on the First Day of Class” exercise and Service-Learning, work well together to provide the student with progressive steps toward learning to value not only diversity but inclusivity of dissimilar groups in the pluralistic society. They provide a “safe,” if challenging, environment for students to grow and to explore differences and similarities among people and to be more comfortable with those differences. They are useful in helping students to become among the best prepared citizens and workers of the world.
Another Look at the Signal Transduction and its Applications - The Genetic Basis of Human Color Vision and Olfaction

Summary and Comments by
David L. Parker, Ph.D.
Northern Virginia Community College
Department of Biology
3001 N. Beauregard St.
Alexandria, VA 22311-5097


We all appreciate the palette of colors in our world such as the intrinsic beauty of blue skies and long anticipated spring flowers. Since vision is our dominant sense, we rely upon an ability to perceive a selected band of electromagnetic radiation and to discriminate among the different wavelength stimuli. The phototransduction in rods and cones is essentially the same. The cascade of events from the activation of a visual pigment to the changes in the cGMP concentration leads to a local membrane hyperpolarization signal. The numerous rods increase in density symmetrically radiating from the fovea centralis, the region concentrated with cones (red and green). The fovea lacks rods and blue cones, which are located in the pericentral retina.

The genetic chemistry of the genes for color vision is interesting. The red- and green-pigment genes, located on the long arm of the X chromosome (Xq28), are highly conserved (96% identical at the amino acid level). The blue pigment genes are located on the long arms of two autosomal chromosomes 7 (7q31-q32) and 3 (3q21-24) and appear not to be closely related evolutionarily to the red and green pigments; there is only a 40-44% amino acid identity. Because of the conservation between red- and green-pigment, there has been opportunity for exchanges between genes during meiosis, causing hybrid genes to arise. This may mean that individuals may carry from one to four red genes and five to nine green genes on a single X chromosome. This may also mean that only one of the genes is expressed at a time. It also seems that the red-pigment gene is always expressed in excess of the green-pigment.

The common X-linked forms of color-vision anomalies are called red-green color blindness. More precisely, the problem is not color-blindness, but a reduced ability to match or discriminate colors in the mid- to long-wavelength spectrum. The psychophysical test classification is (1) true dichromatic - protanope (“red blind”) or deuteranope (“green blind”) or (2) abnormal trichromatic - either protanomalous (“red weak”) or deuteranomalous (“green weak”). Deuteranomaly accounts for half of the 3-8% of the affected males, while the other three types of deficiencies contribute in nearly equal proportions to the remainder. An autosomal dominance (AD) “tritanopia” state in some individuals exists because of a weak or absent discrimination of short-wavelength blue-yellow stimuli. An X-linked recessive (XLR) form of blue cone monochromacy results from lack of both red and green cones. Complete colorblindness/discrimination (achromatopsia or rod monochromacy) is, as suspected, a severely visually handicapped or possibly legally blind condition.

What is most interesting is that the photoreceptor cGMP-gated cation channels involved in vision are also in olfactory sensory systems. Knock-out mice which lack these olfactory channels show anosmia, a complete lack of odor perception. These same type channels are involved in the chemotactic responses of sperm (influx of Ca^{2+}). Therefore, as I read this journal article, I wonder if we, as anatomy and physiology teachers, should not be teaching more about signal transduction when we teach the basic cell activities before we begin the study of the systems.

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A NEW THEMATIC UPDATE SESSIONS AND
WORKSHOP SERIES FOR CHARLOTTE 2000
FUNDED BY NSF

“Gradients and Conductances: What Flows Where and Why? Key Concepts for Teaching A&P” will be the theme of the first in a series of double-session, thematic updates and workshops at the next four HAPS annual meetings. The Core Curriculum and Assessment Committee (CCAC) in conjunction with the Teaching Section and Education Committee of the American Physiological Society has received a $75,000 grant from the National Science Foundation to support the first year of the series. The funding supports two update sessions and related workshops at the HAPS Annual meeting in Charlotte, June 2000. It also provides for the planning and publication (print and web) of the materials from the HAPS 2000 sessions, and it supports preparation for sessions at the HAPS 2001 Annual meeting. The idea for the project grew out of the desire of the CCAC to systematically cover core topic areas of A&P education over a series of Annual and Regional meetings of HAPS, and to promote improved pedagogy.

Planning a coordinated multi-year series of updates is very difficult because cost constraints make the local organizers dependent upon nearby speakers for updates. These speakers may or may not have the teaching-related expertise in the area planned for coverage in a given year. By obtaining funding for the update sessions and the workshops, it will be possible to bring in the best resource people regardless of where the meetings are held.

In Charlotte, the two update sessions on the “Gradients and Conductance” theme will be “The Cardiovascular System” and “The Pulmonary and Renal Systems,” which will be presented by Dr. Robert G. Carroll and Dr. Barbara E. Goodman, respectively. Six workshops will be tightly coordinated with the theme and update sessions, giving participants hands-on experience with materials that are ready for use in their class rooms. Planned workshops are: “Concept mapping,” by Steve Trautwein, “Active learning in lectures,” by Dee Silverthorn, “The Elvis Experiment - a discovery lab illustrating Poiseuille’s law,” by Mary Anne Rokitka and Roy Russ, “Using physical models to teach gradients and pressure-flow relationships,” by Dan Lemons, “Teaching membrane potentials and electrical conductance,” by Joe Griswold and “Incorporating problem solving into the classroom (case studies),” by Patricia Bowne.

The goal of the project is both to bring together helpful resource people in a systematic order, and to assemble discrete modules that HAPS members can take home and immediately use in their classes. Twenty-five HAPS members on a first-come basis will have the opportunity to use one or more of the modules from an update session or workshop in their class. For their participation they will have their registration at HAPS 2001 paid, partly with grant funding and partly in a fee reduction approved by the HAPS Board of Directors. By this mechanism the CCAC hopes to promote the rapid transfer to the classroom of new content and pedagogy derived from the update sessions and workshops. All of the materials related to the theme will be published each year, and at the end of the four-year project the material from all the themes will be published together in a book.

In order to prepare for the theme each year, a group of four HAPS members will attend the Experimental Biology Annual meeting (EB) in April where they will be part of the organizing team that also includes APS members. This group will plan the following year’s HAPS update sessions and workshops. Planning team members will also attend seminars and talks at EB that are related to the theme, gathering resource material to be used at HAPS sessions and in the publications. The Project themes will follow the Update themes of the APS Teaching Section at EB. Next year’s APS theme is Biotechnology and Molecular Biology, and the HAPS 2001 theme will be derived from it.

This project is significant because it helps the CCAC fulfill one of its major goals of systematically introducing new pedagogical approaches with content updates. It also brings together HAPS and APS in a way that links and benefits both societies. The linkage theme is represented by a logo designed for the project that will identify all its associated activities. The symbol seems appropriate because several significant linkages are part of the project, including the links between content and pedagogy, between update sessions and workshops, between HAPS meetings and classroom application and between HAPS and APS.

This pilot, “Proof-of-Concept,” project will hopefully be continued for three additional years with follow-up funding from NSF. With extended funding in 2001, the update and workshop presenters may be able to travel to regional HAPS meetings, thus extending the impact of the project. Don Kiesiel is the CCAC member responsible for coordination of the updates and workshops and communication with the annual meeting coordinating committee. CCAC Committee Co-Chairs Joe Griswold and Dan Lemons were Co-PI’s on the grant with PI, Dee Silverthorn. Dee is the official HAPS/APS liaison.

Submitted by the Core Curriculum and Assessment Committee (CCAC) and Dee Silverthorn, HAPS liaison to APS.
The Annual CHANGING-OF-THE-GUARD

The annual process of drawing up a slate of candidates for election of officers is well underway. As President-elect, it is my responsibility to chair a nominating committee consisting of HAPS members who assist me in the recruitment of candidates. You will be receiving (likely late March or early April) biographies of the candidates and ballots to indicate your choices. Please exercise your vote and return the ballot as soon as possible to HAPS Headquarters. This year marks the first time that (as a result of a Board decision) the ballots will be returned to the head office and counted there by one of the staff. The results of the voting will be announced during the business meeting at the HAPS 2000 conference in Charlotte.

What follows is a brief description of the positions available for election this year.

President-elect: The year-long training period of the President-elect provides a spot on the Board of Directors and ensures a smooth transition to the presidency the following year. The President-elect works closely with the President and is privy to all of the decision making and much of the correspondence in which the President engages. During the training year, the President-elect is responsible for chairing the Nominating Committee for the next election.

Treasurer: The Treasurer maintains all financial records of the organization, issues summary reports of transactions and expenditures, disburse funds for organizational expenses, and assists the President with the preparation of the annual budget. The term of office for this position is two years with the opportunity to be re-elected for one additional consecutive term.

Regional Directors: The Regional Directors are elected by the entire membership and exist to ensure that there will be individuals from across the continent serving on the Board of Directors. Each Regional Director is responsible for communicating with his/her constituents via small group meeting as well via written communications. They also serve as members of the Regional Conference Committee to promote local/regional conferences in their respective regions with the goal of having at least one such conference during his/her term of office. Regional Directors are also responsible for support and communication with various HAPS committees assigned to them. The term of office for this position is two years with the opportunity to be re-elected for one additional consecutive term. The regions having elections this year are the north-east region and the western region.

When you receive the election package, you will notice that it is possible to write in nominations for the existing offices. If that doesn’t appeal to you, consider running for office next year! The benefits we all derive from HAPS are due to members who have volunteered their limited time. We need you to get involved so we can continue the wonderful work that has been accomplished so far. If being an officer is not your cup of tea (I’m a devoted teadrinker), then please keep in mind that we need committee mem-

bers as well. Descriptions of the various committees have not been included since their tasks may differ from year to year. Please contact any of the committee chairs listed in this issue of the HAPS-Educator (inside back cover) should you be interested in learning more about each committee. So if you believe that HAPS has an important role to play in meeting the needs of anatomy and physiology instructors, seize the moment and get involved!

If you have questions, please contact me: Henry Ruschin President-Elect, HAPS Bioscience Department, School of Health Sciences, Humber College, 205 Humber College Blvd., Toronto, Ontario, Canada M9W 5L7 (416)675-6622 ext. 4641. ruschin@admin.humber.on.ca

Free Journals Offered by APS

The American Physiological Society (APS) is pleased to announce an innovation that allows the free dissemination of science while giving its journals increased exposure to researchers worldwide.

Any APS journal issue more than 12 months old is now free to all online. This online offering results in the release of approximately 5,500 articles to the public. Only subscribers to the print or online journals will be able to access the journal content online during the first 12 months after publication; however after 12 months have expired, that issue’s content will no longer be under access control and can be viewed and used by all.

Feel free to visit the HighWire site where the APS journals are located at http://highwire.stanford.edu/lists/freeart.dtl

If you would like further information about journal access or the American Physiological Society, please contact either of the following individuals:

Martin Frank, Ph.D.
Executive Director
American Physiological Society
9650 Rockville Pike, Bethesda, MD 20814-3991
Tel: 301-530-7118  Fax: 301-571-8305
Email: mfrank@aps.faseb.org
APS Home Page: http://www.faseb.org/aps/

Dee U. Silverthorn, Ph.D.
Neurobiology Section
Patterson Labs
University of Texas
Austin TX 78712
(512) 471-6560; fax 471-9651
silverth@utxvms.cc.utexas.edu
American Association of Anatomists Invites Your Participation
APRIL 15-18, 2000

Whoever said there’s no such thing as a free lunch obviously hasn’t heard about AAA’s (American Association of Anatomists) special Anatomy Teaching program at Experimental Biology (EB) 2000 in San Diego, California. Not only is lunch on the house (or, more accurately, courtesy of Lippincott Williams & Wilkins) but AAA is also launching a new breakfast networking event for anatomy instructors.

Recognizing the unique challenges faced by anatomy faculty, AAA’s Program and Educational Affairs committees have put together an extensive program designed especially for those who teach anatomy and related courses. In fact, this year there are so many education-related sessions at AAA’s Annual Meeting that they couldn’t be contained all in one day.

The Week’s Events

Start the week on Saturday with a morning workshop on imaging - the future of anatomy - and an afternoon refresher course on neuroendocrinology, aimed at bringing teaching faculty up to date on this important area. On Sunday, join colleagues for two noteworthy symposia: one on women’s issues in anatomy and the other on international approaches to biomedical graduate and postdoctoral training.

Monday opens with AAA’s new Education Breakfasts, an opportunity for instructors of gross anatomy, microscopic anatomy, embryology, and neuroanatomy to meet your counterparts from other institutions to discuss teaching approaches, methods of evaluation, and responses to changing curricula. This is an opportunity to talk about what’s working, what’s not working, and how to respond to new teaching demands.

The program winds up on Tuesday with a full day on anatomy and histology education, with box lunches provided to encourage noon hour discussions. The meeting also includes a joint education poster session with the American Physiological Society.

No Dinner, But...

Free breakfast, free lunch, valuable technical information, and invaluable networking opportunities. What more could you ask for? Well, AAA doesn’t provide dinner, but you are invited to continue your networking at the annual socializer on Monday night and the AAA Banquet on Tuesday night; both are occasions for catching up with old friends and making new ones.

And, the final piece of good news: If you’re only able to make it to EB for one day, there’s a reduced registration fee for Tuesday-only attendance. The cost is just $110 if you’re a member of one of the sponsoring societies (AAA, APS, ASIP, ASNS), $140 for nonmembers, $30 for students. Call AAA at 301-571-8314 for details.

For further information on registering for the meeting and making hotel reservations, refer to the following web site: http://www.anatomy.org/anatomy/neb.htm or contact Andrea Pendleton, Executive Director American Association of Anatomists 9650 Rockville Pike Bethesda, MD 20814 301-571-8314 301-571-0619 (fax) apendleton@anatomy.org www.anatomy.org/anatomy/

Case Studies in Science Workshop

Two five-day workshops on case studies are being offered May 22-26 and June 12-16, 2000 at State University of New York at Buffalo. These workshops are made available through a grant from The Pew Charitable Trusts and with additional support provided by the National Science Foundation and the National Science Teachers Association.

The five-day workshops focus on training undergraduate college science faculty to teach with case studies and to write their own cases. On the final two days of the workshop, all workshop participants will teach a case before a student audience using a case they have developed during the workshop or one from our case study collection. Participation in the workshop is by application only and is limited to 40 people per workshop session. Meals and materials are covered (travel expenses and lodging are not). In addition, workshop participants will receive a $200 stipend for producing a case study within six months of the workshop for our Science Case Study Collection. Workshop participants and five of their colleagues will also each receive a one-year gift subscription to the Journal of College Science Teaching, which will include an issue devoted to case studies, many of which will have been written by workshop participants.

The workshop facilitator is Clyde F. Herreid who is a Distinguished Teaching Professor in the Biological Sciences Department at the State University of New York at Buffalo. He has conducted numerous workshops around the country on case method teaching, team learning, and problem-based learning. He is the author of a column on case studies which is regularly featured in the Journal of College Science Teaching. He is also the Director of the recently established National Center and Clearinghouse for Case Study Teaching in Science.

Although the deadline was March 3, applications will still be accepted subject to availability. If all available spaces have been filled for this year, you will be placed on a waiting list for notification of next year’s workshops.

For further information and an application form, contact: Nancy Schiller (716-645-2947 ext. 225) schiller@acsu.buffalo.edu or Clyde Herreid (716-645-2892) herreid@acsu.buffalo.edu ✉
HAPS Presents Its New Software Review Policy

Last year, HAPS' Software Subcommittee of the Technology Committee developed a software list which has been made available to HAPS members. Publication of the software list generated discussion as to the pros and cons of reviewing software. The Board of Directors authorized the Software Review Subcommittee the task of developing a policy for software review. Below is the result of their hard work which was approved by the Board in November, 1999, and is now included in HAPS' Policy and Procedures Manual. We are looking forward to future software reviews in the HAPS-EDucator.

SOFTWARE REVIEW POLICY

The following are the guidelines and procedures for software reviews that will be published periodically in the HAPS-EDucator. The Software Review Subcommittee will play an advisory role to ensure that software reviews are solicited and published in a fair and consistent manner as set forth in the following guidelines and procedures.

I. Objectives and Benefits of Software Reviews

Given that most educational institutions have limited funds, it can be a daunting task for faculty to decide which of the many anatomy and physiology-related software materials to purchase. Therefore it is vital to provide members with the following information:

1. Ease of use of the software by either students and/or faculty
2. The benefits of the software to student learning

The committee will provide constructive opinion and experience regarding the software. These reviews will be presented in a standardized format which will enable the membership to make informed and comparative choices when considering the purchase of competing software products.

In the future, the Software Review Subcommittee will conduct surveys in order to gather information on member-specific needs concerning software and related issues.

Guidelines for Reviewers

Each reviewer should discuss the following issues where they are applicable:

1. What is good about the software and why?
2. How is it used in a lecture and/or laboratory situation?
3. For what course(s) is the software used? For what student is the software used? (2-year college, 4-year college or graduate school)?
4. How well does the software meet specific needs in teaching and learning A&P materials?
5. How do students respond to the software?

6. In what ways is the software similar to or different from comparable software products?
7. In the reviewer's opinion what should the software do that it does not do?
8. What type of learning instructions come with the software? What is the learning curve?
9. What is the cost/benefit factor in terms of purchasing, upgrading, maintenance, etc.? What is the price structure of the software (e.g. for single copy, multiple copies or site license)?
10. What are the stated minimum hardware requirements for the software to run well? What hardware did the reviewer use to run the software?
11. List other reviews published on the same product if possible (without value judgment).
12. What kind of technical support is available?

To ensure fairness and maximize the informative value of each review, the software products reviewed shall be limited to those that the reviewers have used and should specify the intended audience level as well as the classroom environments in which the product was actually tested.

II. Issues of Concern

A. Potential Conflict of Interest

To address the issue of potential conflict of interest (apparent or real), two reviewers will be used for each product, both of whom have utilized the software in the classroom setting. The reviewers should indicate in what manner the software was used and review the products as actual users, following established guidelines for review.

B. Software Review Protocol

A protocol for review contents will be established so that the intended audience and/or application context of the software will be specified in a review. Comparison of different software products should be reasonably limited to those with a similar intended audience range and/or application context.

C. Ensuring Fairness

The software review guidelines minimize the potential risk of unfairness particularly since the reviewers base their reviews on actual experience and use of the software in the intended teaching environment.

In the case of controversial reviews, the Software Subcommittee will attempt to solicit more than one review of a particular product.

Software Review - continued on page 12
D. Avoiding the Appearance of HAPS' Endorsement of Software Products

Software reviews will be published in a section entitled "Software User Forum." The policy of this section will:

1. Avoid the connotations of official endorsement of particular products and ensure that software reviews come from actual users of software products.

2. Emphasize the fact that the reviews are individual user contributions to a forum provided by HAPS, but do not imply HAPS' position on any particular product.

3. Provide justification for preventing software developers/authors from contributing general reviews of their own products (since they are developers and not users).

4. Justify the restrictions placed on developer/author responses (limited in space and restricted to addressing specific points in published reviews).

5. Establish a unique user-based perspective for HAPS software reviews which is set apart from other reviews appearing in other software magazines.

6. Contain in the HAPS-EDucator a disclaimer stating, in part, that HAPS does not endorse particular products.

E. Liabilities and Legal Concerns

Reviewers will follow the adopted guidelines for reviews and will follow existing practices and conventions used for copyright restrictions in quoting other sources. Software reviewers for the HAPS-EDucator "Software User Forum" can best avoid potential liability issues by following the conventions for academic reviews, by basing their reviews, comments and opinions on their actual experience and by following the review protocol as established by the Software Review Subcommittee.

III. Initiating the Process for Software Selection and Review

Initially, members of the Technology Committee will submit reviews on the products they have actually used, while the Technology Committee will continue to solicit future reviews from all other users (regardless of whether or not they serve on the Technology Committee). In this way, a pool of software reviewers will be gradually formed and the reviews can be published sequentially given the available space allocated for this section.

At least during the initial period, the selection of software products for review will depend on the availability of reviewers who volunteer to review particular products. If more reviews are received than can be published according to HAPS-EDucator deadlines, the Software Subcommittee will establish principles of priority. However, the actual editorial decisions on when and whether to publish specific reviews will be made solely by editors of the HAPS-EDucator.

BOOK PUBLISHER MOVES

Benjamin Cummings (west coast division of Addison Wesley Longman) recently announced that it relocated to San Francisco, California. The new address is 1301 Sansome Street, San Francisco, CA 94111; (415) 402-2500. Or check out the web site at www.awlonline.com.

REVIEWERS NEEDED

Do you want to keep up on the newest developments in your field? Do you want to provide a significant contribution to your profession? Would you like some input into what your society publishes? Then be a reviewer for The Proceedings of the Human Anatomy and Physiology Society. Send your name, qualifications, and interests to devans@pc.tedu (David Evans, Department of Natural Sciences, DIF #48, Penn College, PSU, Williamsport, PA 17701).
Christian Brothers University, Tennessee

The Biology Department at Christian Brothers University invites applications for a tenure track position at the Assistant Professor rank starting in the fall of 2000. A Ph.D. and an interest in quality undergraduate teaching are required. The successful applicant will be expected to teach entry-level biology courses for majors and non-majors, a lower level course in nutrition, as well as upper level courses in genetics, microbiology, and environmental biology. Salary range: $29,000 to $31,000. CBU was founded in 1871 by the Brothers of the Christian Schools, a Roman Catholic religious order dedicated to excellence in teaching in an ecumenical setting. CBU is an equal opportunity employer. A letter of intent, resume, three letters of reference, and a transcript of graduate credits should be sent to address below by February 28. The letter of intent and the resume may be sent via e-mail. Brother A. Edward Salgado, FSC, Ph.D., Department of Biology, Christian Brothers University, 650 East Parkway South, Memphis, TN 38104. Email: esalgado@cbu.edu. Tel: (901) 321-3450. Fax: (901) 321-4433. Web page: http://www.cbu.edu/sciences/bio.html

Manchester College, Indiana

The Department of Biology invites applications for a 10-month, tenure-track position at the assistant professor rank beginning fall 2000. Ph.D. preferred; master’s considered. As a field-oriented vertebrate biologist, the successful candidate will have a background in some combination of animal behavior, wildlife management, ecology, taxonomy or systematics, or environmental science. In addition, the candidate will be director of the College’s 100 acre environmental center with preference to applicants with successful administrative and grant writing experience. Review of applications will begin on February 1, 2000 and will continue until the position is filled. Send a letter of application, curriculum vitae, three recent letters of recommendation, evidence of effective teaching, and transcripts to: Dr. Dave Kreps, Chair, Department of Biology, Manchester College, Box 510, 604 E. College Ave., N. Manchester IN 46962-1276. AA/EOE.

Mount Hood Community College, Oregon

Instructor of Anatomy and Physiology - Science Division. (Job #1332). The instructor of anatomy and physiology will teach Essentials of Human Anatomy and Physiology; Human Anatomy and Physiology; and Survey of Body Systems. Qualifications are a Master’s degree in Anatomy and Physiology or closely related field or Master’s degree in any discipline and 24 quarter hours of graduate credit in the primary instructional assignment. Desired qualifications are a Ph.D. in anatomy and physiology or closely related with community college teaching experience.

Faculty positions are tenure track, 180 service day contracts beginning fall term, 2000. Salary range is $34,999-$58,796 (academic year 99-00 salary will be adjusted based on service days). Mt. Hood Community College does not have an academic rank system. To be considered for this position, applicant must submit: completed MHCC employment application (including responses to the supplemental questions); letter of formal application to the screening committee addressing how applicant meets qualifications for position; resume; college transcripts of graduate work. (Copies are acceptable, however, official transcripts may be requested at a later date.)

Application and additional information are available from the Mt. Hood Community College Human Resources Office, 2600 SE Stark St., Gresham, OR 97030. The Human Resources office is open between the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday. Applicants whose qualifications best fit the requirements of the position will be interviewed. All documents submitted by applicants will be considered property of the college and will not be copied for applicants. The college cannot guarantee timely delivery of the U.S. Postal Service, commercial delivery services, fax machine, and/or college mail delivery systems. Applications must be received in the Human Resources Office no later than 5:00 p.m. on the closing date. Mt. Hood Community College makes educational and employment opportunities available to all qualified persons without regard to race, religion, age, color, sex, national origin, disability, or any other status or characteristic protected by applicable state or federal law. The Immigration Reform and Control Act of 1986 requires the college to hire only American citizens or aliens who are authorized to work in the United States. (TDD) Telecommunication for the Deaf (503)491-7202 Fax (503)491-7257 EEO/AA Job Line (503) 491-7645 Official College Website: mhcc.cc.or.us

Naugatuck Valley Community College, Massachusetts

Instructor of Biology; 10 month, tenure track position. Master’s degree in Biology, doctorate preferred. The instructor will teach human anatomy and physiology and introductory biology. Experience in using computers in teaching and learning necessary; community college teaching experience is an advantage. Should be able to integrate computer technology into curriculum and prepare laboratory activities as needed. Approximate annual salary $36,305. Apply on-line at http://recruiter1-s2.webhire.com/naugatuck. Or send a resume by e-mail to: naugatuck@rpc.webhire.com. Mail: Naugatuck Valley Community College c/o Webhire, P.O. Box 708, Burlington, MA 01803. Please use the following source code to indicate you learned of this application via HAPS: HAP01. Review of applications will begin March 15 and continue until position is filled.

Positions Available - continued on page 14

HAPS-EDucator - February 2000 - page 13
Positions Available - continued from page 13

National Science Foundation

The Division of Undergraduate Education of the National Science Foundation seeks a qualified applicant in the life sciences to serve as temporary “Intergovernmental Personnel Act (IPA)” or Visiting Scientist appointments as Program Directors while on leave from universities, colleges, or other educational or nonprofit agencies. The position will be for one year beginning July 2000, with the possibility of renewal for a second year. We are looking for an experienced senior faculty member with a strong background in either biochemistry/molecular biology or ecology with a molecular biology interest. Interested people should contact Dr. Herbert Levitan (hlevitan@nsf.gov), Gordon Uno (geuno@nsf.gov) or Terry Woodin (twoodin@nsf.gov). NSF is an equal opportunity employer committed to employing highly qualified staff that reflects the diversity of our nation.

Stark State College, Ohio

Science Instructor. Responsibilities include: Full-time, 180-day contracted position primarily responsible for teaching Anatomy and Physiology, Principles of Human Structure and Function, Pathophysiology and Medical Terminology; advise students, review, revise and develop curriculum; serve on College committees, participate in department, division and College activities in support of the College mission.

Requirements: Master’s degree in Biology, excellent organizational, communication and interpersonal skills required. Teamwork highly emphasized. Previous experience in College level teaching, cadaver-based teaching and knowledge of facilitating a learning environment desirable. Review of candidates will begin the week of February 1, 2000. Resumes for each position will be accepted until the position is filled. Interested candidates should send cover letter stating position of interest and how you meet the requirements, resume, college transcripts, and three letters of professional reference to: Stark State College of Technology, Human Resources - WERR, 6200 Frank Ave. NW, Canton, OH 44720; e-mail to tsandrock@stark.cc.oh.us; web page: www.stark.cc.oh.us

Towson University, Maryland

Science Education: Applications are invited for an entry-level (Assistant Professor), tenure track appointment in the Department of Biological Sciences at Towson University. The Department has a history of producing high quality science educators. Teaching responsibilities will include courses in science education and supervision of middle and high school student teachers. The successful candidate will also assist in the coordination of secondary education within the biology program, serve on committees within the department, participate in community outreach, and pursue extramural funding. An active research program is expected. A doctorate degree with some experience at the K-12 level is required. Preference will be given to candidates with a biology background. A completed application includes a curriculum vita, transcripts from all institutions attended, a one-page statement of teaching philosophy; a statement of research interests, and three letters of recommendation. Review of applicants will begin in mid-January and will continue until the position is filled. The Department has 27 full time faculty, approximately 700 undergraduate majors, and a masters program. Salary is competitive. Additional information is available at the departmental website [www.towson.edu/biology]. Completed applications should be sent to Chair, Science Education Search Committee, Department of Biological Sciences, Towson University, 8000 York Road, Towson, MD 21252-7097. Towson University is an equal opportunity/affirmative action employer and has a strong commitment to diversity.

University of Evansville, Indiana

The University of Evansville is offering a 3-year appointment for Assistant Professor in human anatomy and physiology. Teaching responsibilities are in the area of human anatomy and physiology for students preparing for careers in physical therapy and nursing. Broad training in animal anatomy and physiology required, with an opportunity to develop an upper division course in comparative anatomy and physiology or in environmental science. Teaching and postdoctoral experience are preferred. Send letter of application, CV, 3 letters of recommendation, and copy of transcripts to: Dr. Michael J. Cullen, Department of Biology, University of Evansville, 1800 Lincoln Ave, Evansville, IN 47722 (812) 479-2026. You may also contact HAPS member Colwell Cook at (812) 479-2005. ✪

LIST SERVE STATUS REPORT

In the last 6 months of 1999 (6/1/99-12/1/99) the website wwwhapsweb.org had 50,200 hits (277 from 52 different users per day average). Over 3000 separate addresses and 39 foreign countries accessed our website.

The mailing list HAPP-L had 1504 messages posted from a subscriber base of 272 subscribers from 5 different countries (average of 8.2 per day).

As a mailing list of many different personalities, we have had very few problems. I hope that all of us have gained from the contributed knowledge of list members. I know I am humbled many times a week as I learn of different meanings, spellings, pronunciations, etc. I look forward every morning to reading the mail and knowing that there are others having similar problems with students and administration. The knowledge gained has been remarkable.

To join the list send an email to: HAPP-L-request@sci.math.imperial.cc.ca.us with the word SUBSCRIBE by itself in the body of the message. Please note that HAPP-L must be in uppercase.

Jim Penderley
HAPP-L list manager
Highlights for HAPS 2000 - Charlotte

The program for the 14th Annual HAPS Conference in Charlotte, North Carolina, has been mailed to those who have registered. Highlights of the conference include the following:

UPDATE SYMPOSIA (June 11 and June 12)

Historical Perspectives from Neuroscience Case Studies
Dr. Richard H. Ray, East Carolina University School of Medicine

Update on Ovarian Cancer
Dr. Anil Sood, University of Iowa Hospitals

Cardiovascular Pressure/Flow Relationships - What Should be Taught?
Dr. Robert G. Carroll, East Carolina University School of Medicine

Pulmonary and Renal Pressure/Flow Relationships - What Should be Taught?
Dr. Barbara Goodman, University of South Dakota School of Medicine

Physiology of Weight Control
Dr. Kathryn M. Kolasa, East Carolina University School of Medicine

The Creation of an Immunoprotective Environment Utilizing the Testis-Derived Sertoli Cells
Dr. Craig Halberstadt, Carolinas Medical Center

Update on Liver Physiology: Role of Cell Types in Controlling Liver Function
Dr. Mark Clemens, University of North Carolina, Charlotte

KEYNOTE PRESENTATION (June 12)

Designing the Perfect Baby: When is Good, Good Enough?
Dr. Rosemarie Tong

A myriad of excellent workshops are offered on June 13 and June 14 at UNC Charlotte. The workshops include demonstrations and hands-on exercises. HAPS workshops are among the most enriching experiences at the Conference since they provide excellent opportunity for sharing with other educators.

There are many opportunities to visit with the many vendors who so graciously support our conference.

In addition, there are tour options for June 15. You may choose to either tour the Biltmore Mansion or Chimney Rock.

On Friday, June 16, the Board of Directors and Steering Committee members meet for a long-range planning meeting. All HAPS members are invited to participate in these meetings.

SEE YOU IN CHARLOTTE!!!
# Membership Form and Interest Survey

**HUMAN ANATOMY & PHYSIOLOGY SOCIETY**

222 South Meramec, Suite 303  
St. Louis, MO 63105

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**Name**  
Last Name | First Name | Middle Name or Initial | Preferred Title (Dr., Mr., Ms., Mrs.)

**Institution Name**

**Department or Division**

**Mailing/Directory Address (home or office)**

**City** | **State/Prov.** | **Zip/Postal Code** | **Country**

**Phone** | **Fax** | **E-mail**

Your membership includes a subscription to HAPS-EDucator ($10), the official HAPS publication. Please check ( ) if you are interested in or have experience in any of these areas:

- Dissection/animal use
- Use of Cadavers
- Electronics in the lab
- Lecture testing methods
- Lab testing methods
- Management/administrative
- Implementing computers in the classroom
- Radioisotope/special chemicals in the lab
- Disabled/Learning or disabled learners
- Physical facilities design
- Museum displays

- Grants
- Leadership skills
- Computerized library searches
- Computerized data acquisitions
- Videoimage acquisitions
- Instructor/course evaluation
- Gradebook programs
- Team teaching
- Writing articles/textbooks/manuals
- Lab safety

Complete this form, enclose a check for $50 (US) made payable to HAPS and mail to:

**HAPS**  
222 South Meramec, Suite 303, St. Louis, MO 63105
HAPS COMMITtees AND BOARDS

Have you ever wondered where you could obtain a standardized anatomy and physiology test? Or maybe you are thinking about an educational project and are looking for funding? Do you feel strongly about a particular issue and would appreciate an opportunity to discuss it with other HAPS members? The following committee chairs invite input from HAPS members and willingly provide information on the activities of their committees.

ANIMAL USE COMMITTEE
Craig Clifford, Chair
Northeastern State University
611 N. Grand Avenue
Tahlequah, OK 74464
(918) 456-5511 x 3827
clifford@cherokee.nsuok.edu

A three-year plan includes widely distributing the HAPS policy statement, developing animal use internet links on the HAPS Home Page, monitoring relevant legislation, and creating a resource packet for HAPS members. Suggestions and questions from members are welcome.

COMPETENCY TESTING COMMITTEE
San Drogo, Chair
Mohawk Valley Community College
1101 Sherman Dr.
Utica, NY 13501
(315) 792-5409
sdrogo@mvcc.edu

This committee recently completed and tested an approved HAPS Standardized Test for Human Anatomy and Physiology. Any HAPS member may obtain a copy of the test by writing to the Chair.

CORE CURRICULUM AND ASSESSMENT COMMITTEE
Joe Griswold, Co-Chair
Dept. of Biology
City College of New York
Convent Ave. at 138th St., J526
New York, NY 10031
(212) 650-8530
jgris@sci.sunysc.cuny.edu

Dan Lemos, Co-Chair
Dept. of Biology
City College of New York
Convent Ave. at 138th St., J526
New York, NY 10031
(212) 650-8543
daniel@harold.sci.ccny.cuny.edu

This committee has developed a second, revised edition of the HAPS "Human Anatomy and Physiology Course Guidelines." The second edition includes new guidelines relating specifically to the laboratory component of the course.

HPAS-EDUCATOR EDITORIAL ADVISORY BOARD
David L. Parker, Co-Chair
Northern Virginia Community College
3001 North Beauregard Street
Alexandria, VA 22311-5097
(703) 845-6004
nparkd@nv.cc.va.us

Judith Osborn, Co-Chair
Community College at St. Mary's
49557 Bay Forest Rd.
Lexington Park, MD 20653
(301) 475-8799 x 6358
(301) 475-6700 (fax)
juditho@charles.cc.md.us

Members of the HAPS-EDucator Editorial Advisory Board provide advisory and support services to the HAPS EDucator editor such as writing articles and proofreading the final draft of the HAPS-EDucator before it goes to press.

GRANTS AND SCHOLARSHIPS COMMITTEE
Estry Ang, Chair
University of Pittsburgh at Greensburg
1150 Mt. Pleasant Road
Greensburg, PA 15601
(412) 836-9938
estry@vms.cis.pitt.edu

This committee is responsible for reviewing all grant and scholarship proposals, selecting proposals to receive funding, and submitting its recommendations to the Board of Directors for approval.

MEMBERSHIP COMMITTEE
Kevin Petti, Chair
Dept. of Science & Health
Miramar College
10440 Black Mountain Rd.
San Diego, CA 92126-2999
(619) 536-7231
kpetti@sdccd.cc.ca.us

Committee members assist the Chair with recruiting members and compiling membership information.

NOMINATING COMMITTEE
Henry Ruschin
Humber College, North Campus
205 Humber College Blvd.
Etobicoke, Ont., Canada M9W 5L7
(416) 675-6622 x 4641
ruchsin@admin.humber.on.ca

The committee chair is always the current President-Elect. The responsibility of the committee is to recruit nominees for the elected offices and appointed positions of the HAPS organization.

ANNUAL CONFERENCE COMMITTEE
David L. Parker, Chair
Northern Virginia Community College
3001 North Beauregard Street
Alexandria, VA 22311-5097
(703) 845-6004
nparkd@nv.cc.va.us

The primary responsibilities of this committee are development of a standardized fees structure for the annual conference, formulation of guidelines and assistance for the conference coordinator, and generation of a calendar of conference sites.

REGIONAL CONFERENCE COMMITTEE
Mary Brucken, Chair
Trinity Valley Community College
Biology Department, 1200 East Interstate 20
Terrell, TX 75160
(972) 563-9573
brucken@tvcc.cc.tx.us

The committee provides mentoring assistance to coordinators of regional conferences. Anyone interested in hosting a regional conference should contact the Chair.

TECHNOLOGY COMMITTEE
Sandy Stewart
Vincennes University, MSC
1002 N. First St.
Dept. of Life Science
Vincennes, IN 47591-5201
(812) 888-5775
SStewart@VUNET.VINU.EDU

Jim Pendley, Co-Chair
Imperial Valley College
P.O. Box 158
Imperial, CA 92251
(619) 352-8320 x 303
pendley@imperial.cc.ca.us

The committee monitors and reports on technological changes influencing anatomy and physiology teaching, such as advances in instructional software and data acquisition equipment.

DISTANCE LEARNING POLICY COMMITTEE
Tom Lancraft, Chair
St. Petersburg Junior College
Natural Science
P.O. Box 13489
6605 Fifth Ave. N.
St. Petersburg, FL 33733
(813) 341-4797
lancraft@email.spjc.cc.fl.us

This committee is responsible for developing and distributing a HAPS position paper on distance learning.

SAFETY COMMITTEE
Sandy Lewis, Convener
Dept. of Biology
Pierce College
1601 39th Ave. S.E.
Puyallup, WA 98374
(253) 840-8377
slewis@pierce.cte.edu

The Safety Committee is developing standards for safety in the laboratory.

CADAVER USE COMMITTEE
John Martin
Clark College
Dept. of Biology
1800 E. McCoughlin Blvd.
Vancouver, WA 98663
(360) 992-2282
jmartin@clark.edu

The goals of this committee are to develop guidelines for use of cadavers in anatomy and physiology instruction.
HAPS 14th Annual Conference
June 9-15, 2000

Host:
UNC Charlotte
Charlotte, NC 28223

Proposed Topics:
Advances in cardiovascular studies
Ovarian cancer update
Genetics
Immunology
Advances in liver physiology:
  Mechanism of injury and repair
Building assessment tools into
educational technology learning
environments

Watch for updates on the HAPS web page:
www.hapsweb.org

For more information contact:
Nishi Bryska
UNC Charlotte
E-mail: nsbryska@email.uncc.edu
Phone: (704) 547-3454
Fax: (704) 547-3128