BELS Secretary **Mary Ann Schmidt** says that the archive being preserved for us at the Hunt Institute for Botanical Documentation is coming along. She’d like more photos, though, preferably dated and with the people identified. If you have BELS ephemera, please send to Mary Ann. Lucky for BELS, Mary Ann has been elected to a 3rd term as Secretary.

Treasurer **Donna Curtis** reported BELS income for the fiscal year April 2002 through March 2003 to be $15,160.00. Income includes dues, exam fees, dinner fees and website advertising. Expenses for the same period were $14,072.67. Expenses included administrative expenses, annual meeting expenses, the audit, bank fees, printing and mailing of various publications, exam expenses, and website expenses. The difference between income and expenses, $1087.33, added to the opening balance equity puts us $16,145.02 to the good. In view of yet another round of Greenspan interest reduction, Donna says the committee is still looking for a good place to invest.

We had several developments on the registrar front. Certification registrar **Leslie Neistadt** announced 38 new members were welcomed during the year. Leslie and her committee have been carrying nearly all the PR load for the exams in addition to administering the exams.

During the year of this report we had a follow-up vote on bylaws changes relative to the diplomate program. The major point of these changes was to allow the diplomate registrar to sit on the Executive Council. The ballots were sent out with dues notices after the bylaws changes were approved by the EC. Results were: 244 in favor, 0 against, 11 didn’t vote. Clearly, attaching a ballot to the dues notice is the way to bring in the votes. *(The experiment of putting a dinner reservation blank*  

*Continued on page 2*
in the *BELS Letter* was far less successful and should probably *not* be repeated.) Be advised that Kim Berman is now the diplomate registrar. See directory for her contact information.

The website, shutdown of which caused a major uproar just before the 2002 meeting, has been treated to a server upgrade. The server upgrade also affects the listserv-type member mail system that was plagued by the circulation of viruses to BELS members. The source of the infections remains mysterious but the upgrade does seem to have helped, and the expanded features of the website may be beneficial. Dawn McCarra Bass is now doing the techie work on the website as well as managing the member mail system. Flory Nye-Clement remains website manager.

At the 2003 Member Dinner in Pittsburgh, certificates of commendation were given to Mary Ann Schmidt for her wizardry as BELS Secretary, to Leslie E. Neistadt for the brilliance of her organization in the office of Certification Registrar, and to John L. Darling for his volunteered generosity in designing many BELS publications.

Thanks to you all for your generous support during my presidency of BELS. I appreciate you all.

**Highlights from the Annual BELS Dinner in Pittsburgh**

Norman Grossblatt announced the appointment of Edith Schwager as an Honored Editor in the Life Sciences. Earlier recipients of the award include Maeve O’Connor in 1992 and Ed Huth in 1996.

Shirley passed the president’s gavel to Walter Pagel, whose first executive decision was to turn the floor over to Leslie and Grace.

Leslie Neistadt eulogized Shirley Peterson in appreciation of her work as President of BELS. She and Grace Darling presented Shirley with a plaque and a crystal vase.

Walter gave a short presidential address noting that BELS has evolved over the years. He also expressed gratitude to Susan Aiello for taking over as Chair of the Certification Examination Development Committee.
Repetitive Stress Injuries in Computer Users: Prevention

IV. Alterations in Equipment

Kendall Wills Sterling, ELS

Alternative Keyboards

Several alternative keyboards are available that attempt to change the user’s posture to a more ergonomic, natural one. Types of alternate keyboards include split keyboards, tented keyboards, keyboards with a negative slope, and keyboards with altered key positions.\(^1\)

Split keyboards attempt to straighten the wrist by increasing the distance between the right and left sides of the keyboard or by rotating each half of the keyboard so that each half is aligned with the forearm; some keyboards combine these two methods. Among the most well known split keyboards are the Microsoft Elite and Microsoft Natural keyboards, which are widely available and relatively inexpensive (<$100). True split keyboards include such models as the Flat Comfort keyboard ($165), Pace Adjustable keyboard ($279), and Goldtouch Adjustable keyboard ($160). Some users desiring a split keyboard may find a cordless model helpful, as it allows greater freedom in keyboard positioning. The Logitech Cordless Freedom Pro ($95) is a split keyboard with a 6-foot range; its digital radio technology eliminates the need for a clear line of sight between the keyboard and the receiver.

On tented keyboards, the two halves of the keyboard are tilted upward like a tent to reduce rotation in the forearm. The disadvantage of these keyboards is that the keyboard must be placed on a surface lower that that required for a conventional keyboard for the user to achieve proper working posture. An example is the Kinesis Maxim keyboard ($150). One interesting twist on the idea is the ErgoLogic keyboard, which can be adjusted by the user to the position that feels most natural. The conventional keyboard splits and rises when a knob is turned, and built-in hand rests slide under the palms to complete the change from an ordinary keyboard. (However, questions remain about the usefulness of wrist or palm rests. It is unclear whether such rests increase pressure on the wrists, relieve loads on the shoulder and upper back muscles, or interfere with typing.)

Keyboards with a negative slope allow the user to raise the front edge of the keyboard or slope the keyboard backward, thereby straightening the wrist; negative-slope keyboard platforms can also be used for the same effect.

Other keyboards have attempted to fit the keyboard to the differing lengths of the fingers by curving the rows of keys or placing the keys in concave wells, allowing the fingers to work in a more relaxed position. Examples of these include the Kinesis Ergonomic Keyboard ($200–$300) and the Maltron Dual Keyboard ($395).

Despite proof that alternative keyboards do improve posture, there has been little conclusive evidence that such keyboards reduce the risk of discomfort or injury. However, a 6-month randomized, placebo-controlled trial evaluated the effect of four computer keyboards on clinical findings, pain severity, functional hand status, and comfort in 80 computer users with musculoskeletal disorders.\(^2\) The keyboards tested included a standard computer keyboard (the placebo) and three “alternative geometry” keyboards: the Apple Adjustable keyboard, the Comfort Keyboard System, and the Microsoft Natural Keyboard. Compared with placebo, the Microsoft keyboard and, to a lesser extent, the Apple keyboard resulted in improved pain severity and hand function after 6 months of use; no corresponding improvement occurred in clinical findings.

Users considering an alternative keyboard should:

- Assess how the keyboard will fit with their workstation. Some keyboards are extra wide, long, or high and may not fit standard keyboard trays, or may prevent the tray from retracting under the work surface.
- Evaluate how the keyboard will affect performance. Some keyboard designs make

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it difficult for the user to see the keys, which may be important for “hunt-and-peck” typists.

• Evaluate whether the job requires use of the numeric keypad or specialized keys. Some alternative keyboards eliminate or reconfigure these keys.

Users should expect some frustration as they become accustomed to their new keyboard. If the keyboard is adjustable, gradual adjustments from a conventional (flat) configuration to a more natural position may be helpful.

**Mouse Variants**

Several alternative mouse variations exist. 3M’s Renaissance™ mouse uses an upright design to eliminate pressure on the median nerve. The Logitech cordless mouse, widely available from many retailers, is for users who prefer a conventional mouse but want greater flexibility in positioning. The No-Hands mouse allows total control of the cursor with the feet.

Trackballs and touchpads induce less strain than a mouse because less wrist motion is involved in their use. Numerous trackball models are available, including a cordless trackball made by Logitech. However, trackballs are generally considered less controllable than a mouse.

No finger pressure is required to manipulate the touchpad; the cursor moves as the finger glides over the surface. Light taps on the surface duplicate mouse clicks, or the two mechanical buttons at the bottom of the touchpad can be used in the same way as mouse buttons.

Touchpads vary widely in their sensitivity and features. The most sensitive and advanced touchpads use GlidePoint Control technology, developed by Cirque, the pioneer of touchpad technology. Various models have programmable features and “hot buttons” to customize the touchpad; prices range from $40 to $70. Some individuals, particularly those who use graphics software, complain that touchpads, like trackballs, are less controllable than the mouse. However, for applications such as word processing and spreadsheet programs, control is similar once users have adjusted to the different movements required.

Keyboards that incorporate a touchpad or trackball eliminate the need for a mouse and can greatly reduce forearm tightness and the neck, shoulder, and upper back strain caused by leaning to manipulate the mouse. Once more, the touchpads used in these keyboards vary widely. Keyboard models that incorporate Cirque touchpad technology include the Fellowes split-contour keyboard with built-in gel-filled wrist rest and the Cirque Wave and Smoothcat keyboards.

**Articulating Keyboard/Mouse Shelves**

Several manufacturers make articulating keyboard shelves or drawers; most include an area for a mouse. One such shelf is the Soft Touch Articulating Keyboard Shelf, which is retractable and has a 360-degree swivel and a 15-degree tilt. Other brands include the WorkRite articulating keyboard platforms (several models available) and the Banana Board. Most fall in the $70 to $200 range.

Some manufacturers also make articulating mouse platforms. These may attach to the desk or to an articulating keyboard platform and serve to bring the mouse closer to the keyboard, thereby preventing shoulder and forearm strain. Examples include the Mouse Palette and ErgoFlex; cost is less than $100.

**Conclusions**

Undue reliance on ergonomics to treat musculoskeletal disorders, to the exclusion of proper diagnosis and attention to medical and health risk factors, can have adverse consequences for the patient. Although ergonomic interventions can increase comfort in the work environment, and proponents assert that the elimination of certain risk factors related to force, repetition, and posture can prevent or even cure work-related musculoskeletal disorders of the upper extremity, such interventions should not take the place of proper diagnosis of an RSI, identification of medical risk factors, and treatment.
REFERENCES


A list of manufacturers offering ergonomic equipment is available on the BELS website: www.bels.org.

Capsules

Cathy Davison is leaving her current position as Medical Director at Harte-Hanks in Lake Katrine, New York, and will be starting her new position as Associate Professor of Science, Mathematics, and Technology at the State University of New York - Empire State College in Albany on September 2, 2003.

Mary Carr recently spent time in the eastern Himalayan kingdom of Bhutan, where she helped write and edit From Strangers to Guests: A Feasibility Study on Community Tourism in Bhutan. As she said, “Tough assignment, but somebody had to do it.”

Ann Conti Morcos was interviewed on a New Orleans morning television program about her children’s book “The Tale of Nada Nutria.” She did a book signing and performed on the Children’s Stage with a reading during the Earth Day Festival in Baton Rouge in April. She also will participate in the Louisiana Book Festival and the New Orleans Book Fair later in the year. The book (edited by Norman Grossblatt) is available in hard cover and paperback at www.1stbooks.com (1-888-280-7715) or can be ordered from any bookstore or online booksellers. For an autographed copy contact Ann (www.morcosmedia.com, 1-504-780-0083).

Paula Robbins, was in Boston June 24 to July 4, where she was part of a panel on the women in the life of Ralph Waldo Emerson at the Unitarian Universalist General Assembly. She also did a signing of her new book, The Royal Family of Concord: Samuel, Elizabeth and Rockwood Hoar and their Friendship with Ralph Waldo Emerson, at the Concord Bookshop.

Brenda Gregoline and Roxanne K. Young are coauthors (with eight others) of the AMA Manual of Style, 10th edition, currently in revision. They welcome input from BELS members regarding items they’d like to see included or amended and invite interested members to review all or specific parts of the final draft prior to its publication. Please contact Cheryl Iverson, Chair, AMA Manual of Style Revision Committee, at cheryl-iverson@ama-assn.org.

Joanne M. Bicknese has received her Master of Science in Biomedical Writing from the University of the Sciences in Philadelphia.

Thomas Gegeny, MS, ELS, of Houston, Texas, has been appointed Executive Director and Senior Editor at The Center for AIDS: Hope & Remembrance Project, a community-based, nonprofit organization that specializes in HIV treatment/research information and advocacy.
BELS Serves  Summarized Q&A From the BELS Mailing List Server  
Barbara Schwedel, ELS

This edition of our newsletter finds the BELS mailing list as lively as ever, as well as technically much improved after its placement on a new service. Specifically, (1) by blocking messages carrying attachments, the service has the capability to halt virus traffic, and (2) the service provides an easily accessible digest option. To receive the “digest,” send an e-mail to members-digest-subscribe@bels.org (no content is required). Current subscribers who want to switch from “conventional” to digest form should send this same e-mail, followed by a second e-mail to members-unsubscribe@bels.org (this cancels the “conventional” form of the list). For anyone considering joining or rejoining the mailing list, its utility goes beyond a simple Q&A forum. A case in point is the “Elsevier Science ‘ELS’” discussion regarding Elsevier Science’s practice of attaching the designation “ELS” to employees’ names on their outgoing e-mail, eg, “Smith, John (ELS),” as well as our recognition of the need to protect “ELS” as the abbreviation for “Editor in the Life Sciences.” This discussion originated in the BELS Letter and grew into a highly spirited exchange on the mailing list. Although the issue might not have been brought to light without mention in the BELS Letter, its coverage there was brief. In contrast, the BELS mailing list provided the prominence this topic deserves. Now, let’s go to our Q&As—many thanks to all participants!

Blotting Methods

Claire Levine wrote, “...I learned that...’Southern blotting’ should be capitalized because it is named for Dr. Southern, who first used the technique; however...’western blotting’ and ’northern blotting’ should not...because they are just made up terms, plays on Dr. Southern’s name...However, in every published journal article I see that all three terms are capitalized. What is the accepted form?”

Claire also noted, “I could not find a reference to capitalization of these terms in the 6th edition of the CBE Manual..., and that is one reason I decided to ask BELS.” The responses? Claire observed, “While a couple of people agreed with the logic of capitalizing only Southern, it was essentially unanimous that we should capitalize Western and Northern as well.” (AMA, Stedman’s, and Dorland’s capitalize all three terms.) Maureen Goode advised that she and her colleagues previously used “...‘Southern,’ ‘western,’ ‘northern,’ and ‘southwestern’,...,” but, since “...all those terms are capitalized in the most recent edition of Dorland’s...,” they now follow this example. Claire’s conclusion? She advised, “...The overwhelming response in favor of capitalizing all of the terms has convinced me to change my ways and begin capitalizing as well.”

Style Questions

Denise Hodges asked whether current usage calls for 1 space or 2 between sentences in clinical documents. There was a strong divergence of opinion—of 11 respondents who had a clear preference, 7 favored one space between sentences and 4 favored 2 spaces. Matthew Stevens was resolute: “One. One. One. Only one.” However, David Nadziejka wrote, “I think the ‘heretical’ view should be heard too...If you go back to typewritten reports from the 1940s through the 1960s...Two spaces were used simply to provide visual ease in picking up the start of the next sentence...When word processors and desktop publishing programs were in their infancy (about 1990), there was clearly a problem with the programs’ handling of two spaces. They would often leave a gap of 3/8 inch or more if you chose to put two spaces together...those early versions...forced everyone (even me) into using one space...  However, within a few years, that programming problem had largely disappeared...” David concluded, “I’ve been again publishing with two spaces between sentences ever since. I’ve had no complaints at all...(except from editors who believe the dogma)...[and]...some dozen questions per year from readers who want to know why they like the text in the books or reports I’ve edited but can’t put their finger on the reason...”

Mark Goodwin disagreed: “...The double space is a typist’s convention that should not be part of a modern typesetter’s specification. The period
and the (usually) associated upcoming capital letter are all that is needed to lead a reader into the next sentence…” Kathleen Lyle agreed with Mark, offering this practical thought: “…trained typists find it hard to break themselves of the habit of inserting the extra space, but fortunately it’s easy to delete them globally…” However, another member wrote, “…Thank you, David…My job is to make documents easier to read, and every visual cue helps. Why else would we bother to capitalize the first letter of a sentence?…” She went on, “…there are those rare occasions when it’s hard to tell if an abbreviation is in the middle of a sentence or at the end… If the word after the abbreviation is always capitalized, then the amount of space between them might be your only clue.” Miriam Bloom provided the conclusion to this discussion, “…I find that my eyes (which are…even older than my teeth) do not behave as they used to…, and more and more I seem to miss that dot-space-cap triad that’s supposed to signal a new sentence…Larger periods would probably be better, but there’s only so far a heretic can go before they start lighting the fire.” (However, for the record, Denise went with 1 space.)

Activities for a Work Experience Student

Rhana Pike wrote, “Next week I’m having a work experience student in my office…I coordinate and edit medical articles and run a publications office [for a research institution]…I wonder what I could teach her and get her to do in a couple of hours…” Rhana received many suggestions, including having the student check references or tables. One respondent had been the student herself and “…liked it when I was given something to do that actually needed to be done…” What did Rhana actually do? “First, my student made some entries in a manuscript tracking database, and, in doing this, she learned a little about the…time and effort that goes into writing a medical paper. Then I had her do a search for our recent published papers. She downloaded and filed PDFs of the papers and created links to them from an index. This will eventually give me an electronic archive of all our articles.” Rhana continued, “I checked often to make sure all was going well…,” per one of several respondents who spoke from the experience of taking their children to work. Also, “So that she would be aware that I don’t just sit by myself in an office all day, we invited her to sit in on a telephone meeting with some of our researchers.” Rhana concluded, “I don’t think she learned much about publishing, but that takes a lifetime, doesn’t it?”

Obtaining Figure Permissions

Nathalie Bacon asked about the need for permission to create a new figure from existing published data. Of 11 respondents, 3 said permission is required, and 8 said it is not, with some adding the qualification that the source should be acknowledged. Paul Klemt advised, “…I would say the answer is no. It is the author’s original creation. If the author based his/her figure on another author’s data, it might be appropriate to include a citation at the end of the legend such as ‘Data from so-and-so (1)’ and reference the article.” Devora Mitrany disagreed: “I would obtain permission and then explain in the caption that the figure was ‘drawn by [author name], based upon Figure X in [citation].’” A third respondent suggested the website, http://pubs.acs.org/copyright/learning_module/module.html. Nathalie concluded, “Based on the majority of responses, I do not believe that permission is necessary…” Nathalie added, however, “…I intend to use the elegant wording, ‘Data from,’ to at least give credit for the information…”

Last Licks

Tamia Karpeles asked regarding Centers for Disease Control and Prevention, “…do I use a singular verb or a plural verb?” She received numerous responses with complete consensus: The Centers for Disease Control and Prevention, although it may sound like a plural, is a single organizational entity and takes a single verb. And Frances Porcher offered this bonus: “When you refer to that agency by its initials, call it simply CDC, not the CDC.”

Fine Print

(1) The opinions in this column belong to the people cited and not necessarily to BELS or any employer. (2) Comments or questions? Write to BSchwedel@aol.com.
**Congratulations to the new BELS members who passed the exam in San Francisco!**

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