



American Society of Biomechanics Newsletter

Vol. 1

May, 1988

No. 1

American Society of Biomechanics Executive Board 1987-88

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Meeting Chairperson
Univ. of Illinois, Urbana
(217) 333-0406

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Nominating Committee Chair
Pennsylvania State University
(814) 865-1972

Gerald Pijanowski
Education Committee Chair
University of Illinois, Urbana
(217) 333-7574

Roger M. Enoka
Membership Committee Chair
University of Arizona
(602) 621-470

Mid-Year ASB Executive Board Meeting

Education Committee - Traveling Fellow Award

Don Yeadon from the University of Calgary has been chosen to receive the Traveling Fellow award for 1988. He will receive funds to travel to the University of Loughbrough, Britain to do collaborative work on gymnastics high bar dismounts. This award, which will be given again next year, is open to all ASB members, including students, and allows for travel and lodging costs to conduct research, with a budget of up to \$1000.

The education committee is planning on developing a file of information on funding sources for biomechanics graduate students. If you have suggestions, forward them to Gerald Pijanowski. The board also discussed CME credit for attending the annual meetings, and it was decided that this would be left up to individual meeting chairpersons on a case-by-case basis.

1990 World Congress on Biomechanics

A World Congress on Biomechanics will be held in August of 1990 in La Jolla, CA, organized by Dr. Bert Fung of UC San Diego. ASB is planning on contributing to the organization of this congress and the desirability of having the ASB 1990 annual meeting in conjunction with this congress is being discussed.

Continued on page 3

American Society of Biomechanics Newsletter

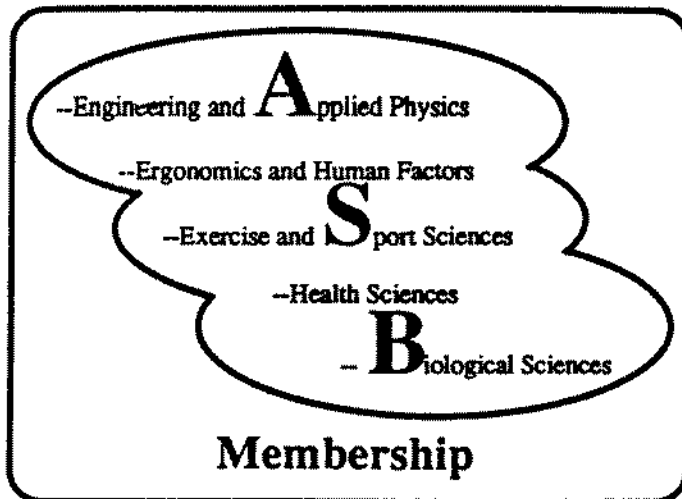
The Inaugural Issue

It has taken ten years, but the American Society of Biomechanics has continued to grow to the stage where it is both desirable and necessary to have a newsletter. While the size, format and content will evolve over the first few issues, the newsletter is intended to be a means of communicating directly and more frequently with the members about issues important to the Society and to biomechanics in general. It also has the potential to be a forum for the discussion of ideas, philosophies, and issues relevant to the membership. The newsletter will be able to meet its expectations only if the members contribute. Here are a sampling of items that might be included in future newsletters.

- announcements of professional meetings of the ASB and other related organizations.
- listing of academic positions available which are relevant to the membership.
- letters to the editor about topics relevant to the membership.
- guest editorials on topics of interest.
- interactions between ASB and other similar professional organizations.
- features on institutions with diverse biomechanical programs.
- features on individuals who have made major contributions to the Society.
- notes on notable activities and achievements of members.
- book reviews of interest to the membership.

Members are encouraged to contribute to the newsletter. A note, a letter to the editor, a lead to an interesting story, an opinion, or a feature article - anything that might be of interest to others in the Society. The editorial guidelines for the newsletter are still being formulated, so any suggestions are welcome. Policies for advertising, editorial content, etc. will be detailed in future newsletters. Ideally there would be a contributing associate editor from each of the subdivisions within ASB. *Anyone interested in making contributions on a one-time or regular basis should send suggestions to:*

Keith R. Williams
Newsletter Editor, ASB
Physical Education Department
University of California, Davis
Davis, CA 95616
(916) 752-3337



New Categories of Membership

Until recently there were three categories of membership in the American Society of Biomechanics: Member, Charter Member, and Student Member. Due to recent action by the Executive committee, three additional membership categories have been added: Honorary Member, Emeritus Member, and Sustaining Member. The criteria and procedures for Honorary and Emeritus Membership are still being worked out, but the guidelines for Sustaining Members are as follows:

- a. Individuals and organizations that have an interest in the advancement of biomechanics may be invited, on an annual basis, by the President and with approval of the Executive Board, to become Sustaining Members.
- b. Sustaining Members shall not vote or become officers of the Society.
- c. The annual fee for a Sustaining Member is \$500.
- d. Individuals and organizations that become Sustaining Members shall be acknowledged in the program of the annual meeting of the Society.
- e. Sustaining Members shall not use the Society's name in any form of advertising.

Sustaining members will be acknowledged in every issue of the Society's newsletter, and they are invited to send one representative to the Annual Meeting of the Society. The registration fee for the Meeting will be waived for their representative. Attendance at the Meeting by the representative will provide an opportunity for them to stay abreast of developments in the field of biomechanics and ensure that they are seen as an integral part of this development.

You Can Help!

Current members can help in efforts to increase the Society's membership in two ways:

- 1) Encourage your colleagues throughout your University with appropriate interests to join the Society. To maintain diversity within the Society we especially need to boost membership in the area of Biological Sciences. Send prospective members a copy of the newsletter.

- 2) All members are encouraged to submit names and addresses of prospective Sustaining Members to Roger Enoka, Chairman of the Membership Committee. He will contact them and inform them of the Sustaining Member opportunity. Send any suggestions to:

Roger M. Enoka, Ph.D.
 Chairman, Membership Committee
 Department of Exercise and Sport Sciences
 McKale Center, Room 228-V
 University of Arizona
 Tucson, Arizona 85721
 (602) 621-4702

New Members

—Regular members—

Susan M. Stover, D.V.M., Ph.D.	HS
Mark G. Strauss, Ph.D.	EAP
Klaus Scheider, Dr.rer.nat.	EAP
Andrew B. Schloss, M.S.	ESS
Harry A. Hogan, Ph.D.	EAP
Cheng-Jen Chuong, Ph.D.	EAP
Stephen R. Kuciamba, B.Sc.	EHF
Thomas G. McPoil, Ph.D.	HS
David A. Schieb, Ed.D.	ESS
Sorin Siegler, Ph.D.	EAP
Gary S. Beaupre, Ph.D.	EAP
Ashraf M. Genaidy, Ph.D.	EHF
Earl F. Hoerner, M.D.	EAP
Patrick Patterson, Ph.D.	EHF
Harry B. Skinner, M.D., Ph.D.	HS

—Student Members—

Eileen Greenan Fowler, B.S.	HS
Allison M. Kaigle, B.S.M.E.	EAP
Sharon M. Swartz, M.S.	BS
Andrew F. Chang, M.S.E.E.	BS
John E.A. Bertram, M.S.	BS
Davina Jerassy, M.Sc.	EAP
Jeff Weiss, B.S.	EAP
Tracy E. Orr, M.E.	EAP
Steven T. McCaw, M.A.	ESS
Donald D. Anderson, M.S.	EAP
Gregory S. Rash, M.S.	ESS
Chi-Yuang Yu, M.S.	EHF
Joyce Keyak	EAP
Selami Dogan, M.S.	ESS
Mian-Ju Gu B.S.E.	EAP
Steven A. Kautz, M.A.	ESS
Lisa M. Schutte, B.S.	EAP

EAP - Engineering and Applied Physics
 ESS - Exercise and Sport Sciences
 HS - Health Sciences
 EHF - Ergonomics and Human Factors
 BS - Biological Sciences

Need a Job?

This location will be used to advertise any positions that might be of interest to ASB members. Forward a copy of the position announcement and a brief description will be included in the next issue of the newsletter.

National Science Foundation

The Division of Emerging Engineering Technologies (EET) in the Directorate for Engineering is seeking qualified applicants for the position of Program Director for Bioengineering and Research to Aid the Handicapped (BRAH). This program provides funding for fundamental and applied bioengineering research directed toward the characterization, restoration, or substitution of the structure, function, or control of living systems. The program director is responsible for review, recommendation, and processing of proposals assigned to the BRAH program, as well as for providing leadership to the program and its research community as they evolve over time. Applicants should have a Ph.D. in one or more fields related to biomedical engineering and six or more years of successful independent scientific or engineering research experience. Research administration and/or managerial experience is also desirable. The position will be filled on a permanent basis or on a one- or two-year rotational or temporary basis, beginning in mid-July 1988. For further information contact Frank L. Huband, Division Director, Emerging Engineering Technologies, National Science Foundation, Washington, D.C. 20550, (202) 357-7962.

ASB Representatives to the Journal of Biomechanics

Effective January 1, 1988 there were some changes in the American Society of Biomechanics representatives to the Journal of Biomechanics. Richard Brand continues to share the task of Editor-in-chief with Rik Huiskes, but some changes have occurred in the editorial board and in consultants. The representation now consists of:

Editorial Board (4 year terms and official ASB representatives)

Malcolm H. Pope

Albert B. Schultz

Consultants (2 year terms)

James G. Andrews
Thomas D. Brown
Davis L. Butler
Dennis R. Carter
Donald B. Chaffin
Dwight T. Davy
Edward S. Grood

J. Lawrence Katz
Doris Miller
Van C. Mow
Manohar Panjabi
George T. Rab
Ian A.F. Stokes
Savio L.-Y. Woo

ASB Executive Board Meeting (Continued from page 1)

1989 Annual Meeting

Preliminary plans are being made for the 1989 annual meeting to be held August 23-25 at the University of New Hampshire in Burlington, Vermont. The August date is to avoid the "leaf" season and keep off-campus room rates reasonable. A banquet is tentatively planned for a ferry at the lake shore or in a museum. The executive board voted to have a symposium on the ethics of animal experiments as a part of this meeting.

Quick Notes:

—The executive board agreed to pursue the possibility of having another ASB-Canadian Society of Biomechanics meeting, voting out a bylaw which makes such meetings illegal (even though there has already been one). A North American Congress On Biomechanics (NACOB) meeting in 1992 has been discussed, possibly to be held in Chicago.

—The Veterinary School of the University of Illinois is planning a meeting in the area of biomechanics for the Saturday after the 1988 ASB meeting.

—Don Chaffin has been invited to join the Council of Scientific Society Presidents.

Coming Events

May 29-June 3, 1988

The International Conference of Exercise, Fitness and Health. Toronto, Ontario, Canada (c/o The International Conference on Exercise, Fitness and Health, c/o Ontario Group Fitness Office, 1220 Sheppard Avenue East, Toronto, Ontario, Canada M2K 2H1)

June 6-10, 1988

7th School on Biomechanics and Summer School on Biomechanics. Biomechanical Tests on Static and Dynamic Human Movement Potential. Wroclax, Poland. (c/o Dr. L.B. Dworak, Academy of Physical Education, Park Kasprzaka, 60-776 Poznan, Poland. Tel.: 208-081 208-113 Cable: 041-32-30 Poland).

June 20-23, 1988

7th Congress of the International Society of Electrophysiological Kinesiology. Twente University Enschede The Netherlands. (Info: Ikek 88, Congress secretariat, P.O. Box 3210, 7500 AH Enschede, The Netherlands. Tel. (0)53-33.80.25. Telex 44200. Telefax (0)53-89.33.60.)



Coming Events

(cont. from previous page)

Aug. 1-5, 1988

10th Congress of the International Ergonomics Society. Sydney, Australia. (c/o Secretariat IEA88, P.O. Box 380, Spit Junction NSW 2088, Australia Tel. (02) 9691400).

Aug. 8-12, 1988

3rd International Conference on Environmental Ergonomics Finnish Fair Centre, Helsinki, Finland. (Institute of Occupational Health, Finland SINTEF, Norway).

Aug. 16-19, 1988

The 5th Biennial Conference of the Canadian Society for Biomechanics. (Secretariat: CSB Conference/Symposium on human locomotion - Department of Kinanthropology - University of Ottawa 35 McDougal Lane - Ottawa (Ontario) Canada K1N 6N5).

Sept. 5-7, 1988

1988 Symposium of the International Council for Physical Fitness Research. Current Topics in the Physical Fitness Research on the Aged, the Disabled and the Industrial Worker. Osaka, Japan. (c/o Secretariat of ICPFR Symposium '88 Osaka, Osaka College of Physical Education, Gakuen-cho 1-1 Ibaraki-shi, Osaka 567, Japan, Tel.: 0726-34-3141 - Fax: 0726-34-8374).

Sept. 9-15, 1988.

Seoul Olympic Scientific congress. New Horizons of Human Movement: Issues and Implications for Development, Performance and Health. (c/o 1988 Seoul Olympic Scientific Congress Organizing Committee, RM 203, Dankook Bldg, n*97, Nonhyun-dongm Kangnamku, Seoul 135 Korea. Tel.: (02) 542-8886, 546-8837/8, Telex: DK Univ K 227741, Bumju K 22962. Fax: (02) 546-0356.

Sept. 11-14, 1988

European Society of Mechanics Meeting, Bristol. (Secretariat: Dr. A.E. Goodship School of Veterinary Science Park Row - Bristol - BS1 5LS UK).

June 26-30, 1989

XII International Congress of Biomechanics. Los Angeles. (c/o XII Intern. Congress of biomechanics, UCLA Dept. of Kinesiology, 2854 Slichter Hall, Los Angeles, CA 90024-1368, USA. Tel.: (213)825-3910 or 825-5376.

Long Distance Roller Skating

Those of you looking for a relatively untapped area of research, read on. A group of marathon roller skaters are seeking advice and help from biomechanists concerning roller skating. Races go anywhere from 25 miles to 100 km, and they are considering a team effort for a 500 mile race in two days. They have learned a little about biomechanics and are interested in establishing some contacts who might help them with factors such as rolling resistance, forward lean, optimal angles for the lower extremity, and the design of skates. Anyone interested should contact: Tom Sehlhorst, 611 Palm Bluff, Clearwater, FL 34615. (813) 461-9736 (work) or (813) 584-6862.

American society of Biomechanics 12th Annual Meeting

University of Illinois
at Urbana-Champaign
Illini Union
September 28-30, 1988

Keynote Speakers

John Currey - University of York

"Stiffness versus Toughness: The Fundamental Optimization Problem for Bone"

Thomas McMahon - Harvard University

"Mechanics of Locomotion"

Steven Vogel - Duke University

"Flow and the Unstiffness of Nature"

Wednesday, September 28

--Registration 12:00-5:00

--Tours 2:00-5:00

1. Supercomputer Center

2. Bioacoustics Lab

Veterinary Medicine Gait Lab

Rehabilitation Engineering Center

3. Biomechanics Lab

--Reception 6:00-8:00

Thursday, September 29

--Registration 6:30-5:00

--Welcome and introduction 7:50-8:00

--Keynote Addresses and 8:00-5:00

Sessions 1-6

--Banquet 6:00-10:00

Friday, September 30

--Keynote Address and 8:00-3:30

Sessions 7-12

For More information contact:

Manssour H. MoeInzadeh

Meeting Chairperson, ASB

Dept. of General Engineering, UIUC

117 Transportation Bldg.

104 S. Matthews

Urbana, IL 61801

(217)333-0406

Exercise/Sport Interorganizational Liaison Meeting To Be Held in September

The American Alliance for Health, Physical Education, Recreation and Dance and the National Association for Physical Education in Higher Education are providing support for a meeting to be held September 16-17 in Washington D.C. to continue to explore ways that exercise/sport organizations can work more closely together. This meeting is a follow-up to the first meeting held last September in Ft. Worth and attended by representatives from sixteen different organizations.

One of the ideas to be discussed at the meeting is that exercise/sport groups together might develop a statement and rationale of major research directions that need attention in the next decade, and then take this around to various agencies to seek major funding. The interorganizational liaison group would play the major role in securing the overall fund, and it might play a continuing role in establishing and implementing a mechanism for evaluation of grant proposals. One intention of such a cooperative effort would be to demonstrate the multidisciplinary thrusts of overall exercise/sport research efforts in hopes that this might provide a more solid base for obtaining a major, sustained source of funding.

The September meeting is being organized by Janet C. Harris of the University of North Carolina at Greensboro and B. Don Franks of Louisiana State University. Attendees to the first meeting included representatives from the American Academy of Physical Education, the American Alliance for Health, Physical Education, Recreation, and Dance, the National Association for Physical Education in Higher Education, the National Association for Sport and Physical Education, the International Society of Biomechanics, the International Society of Biomechanics in Sports, the American College of Sports Medicine, the Association for the Advancement of Applied Sport Psychology, the North American Society for Psychology of Sport and Physical Activity, the North American Society for the Sociology of Sport, The Association for the Study of Play, the Sport Literature Association, the Philosophic Society for the Study of Sport, the North American Society for Sport Management, and the Research Consortium, AAHPERD.

Swimming Flume At USOTC

Swimmers finally get their chance to experience the futility of "treadmill" exercise with the completion of a swimming flume at the United States Olympic Training Center in Colorado Springs. This is the first aquatic flume in the United States, and was funded by a grant to the U.S. Swimming Federation from the Olympic Foundation. The flume will enable scientists to study physiological and biomechanical aspects of swimming performance, and according to John Troup, Ph.D., Director of Sports Medicine and Science for U.S. Swimming, it will be the most technologically advanced flume in the world. Along with superior viewing capabilities, biomechanical capabilities, and water flow characteristics, the flume includes a pobaric chamber which will allow sports scientists to simulate altitudes of up to 13,500 feet to study effect of high altitude on athletic performance. The flume will also house state-of-the-art aquatic, physiological, and blood chemistry laboratories.

ASB Elections

Every member should have received a ballot for the election for President (for 1989-1990) and program chairperson for the annual meeting next fall. Ballots must be in to Bruce Martin, ASB Secretary, by September 15, so if you haven't taken the opportunity to vote, do so soon. Following is a summary of the candidates and their backgrounds:

Program Chairperson

Edmund Y.-S. Chao (Health Sciences)

Dr. Chao was educated at the National Taiwan University (B.S. in engineering), and at the University of Iowa (Ph.D. in applied mechanics, 1971). He is currently Professor of Bioengineering and Director of the Orthopaedic Biomechanics Laboratory at the Mayo Clinic. His principal field of interest is the biomechanics of orthopaedic prostheses and fixation devices. He is an Associate Editor of the Journal of Bone and Joint Surgery, and on the Advisory Editorial Board of the Journal of Clinical Materials.

Murall P. Kadaba (Engineering and Applied Physics)

Dr. Kadaba was educated at Bangalore University in India (B.S. in mechanical engineering), at the University of Cincinnati (M.S. in aerospace engineering), and at the University of Kentucky (Ph.D. in biomedical engineering, 1978). He is currently an Associate Research Scientist in Orthopaedic Surgery at Columbia University and Chief of the Patient Evaluation Unit at the Helen Hayes Hospital Orthopaedic Engineering and Research Center in New York. He is also Adjunct Associate Professor of Biomedical Engineering at Rensselaer Polytechnic Institute. His principal research interests are biomechanics, kinesiology, and gait analysis.

President

Roger M. Enoka (Exercise and Sport Science)

Dr. Enoka was educated at the University of Otago in New Zealand (Physical Education) and at the University of Washington (Biomechanics of Human Movement and Kinesiology), where he received his doctorate in 1981. He is presently an Associate Professor in the Department of Exercise and Sport Sciences at the University of Arizona. His principal fields of interest are the biomechanics of human movement, kinesiology, and motor control. He has served as Meeting Chairperson for the 1984 ASB Meeting and as the ASB Membership Chairperson from 1985-1988. He is an Associate Editor of Medicine and Science in Sports and Exercise, an Associate of Behavioral and Brain Sciences, and is on the Editorial Board of Experimental Neurology.

George T. Rab (Health Sciences)

Dr. Rab was educated at Northwestern University, where he received his B.S. (medicine) in 1968 and his M.D. in 1970. He completed a residency in orthopaedic surgery (Mayo Clinic, 1975) with special training in pediatric orthopaedics, and served in the U.S. Army Medical Corps. He is presently an Associate Professor in the Department of Orthopaedic Surgery, and a member of the Biomedical Engineering Graduate Group at the University of California at Davis. His principal fields of interest are joint biomechanics and gait analysis. He is an Editorial Consultant for the Journal of Biomechanics, a member of the Committee on Computer Applications for the Pediatric Orthopaedic Society of North America, and

Coming Events

Sept. 9-15, 1988.

Seoul Olympic Scientific congress. New Horizons of Human Movement: Issues and Implications for Development, Performance and Health. (c/o 1988 Seoul Olympic Scientific Congress Organizing Committee, RM 203, Dankook Bldg, n°97, Nonhyun-dongm Kangnamku, Seoul 135 Korea. Tel.: (02) 542-8886, 546-8837/8, Telex: DK Univ K 227741, Bumju K 22962. Fax: (02) 546-0356.

Sept. 11-14, 1988

Bristol. European Society of Mechanics Meeting. (c/o Secrétariat: Dr. A.E. Goodship School of Veterinary Science Park Row - Bristol - BS1 5 LS UK).

Sept. 20-22, 1988

"Progress in Bioengineering. Artificial organs, delivery of rehabilitation, orthopaedic biomechanics, prosthetics and orthotics, technological advances". Glasgow, Scotland
(c/o Bioengineering Unit, Wolfson Centre, University of Strathclyde, Glasgow, Scotland. Tel. 041-552-4400 ext. 3029. Telex: 77472 (UNSLIB G). Fax: PICCHI-CERT-B.P. 4025 31055 Toulouse Cedex)

Oct. 18-19, 1988

"Biomat 88". Hybrid artificial organs. Concepts and development, Bordeaux, France. (c/o Mrs. Rouais, Biomat88 - INSERM U 306 - Université de Bordeaux II, 146, rue Léo-Saignat, 33076 Bordeaux Cedex. Tel. 56 93 12 72. Telex 550 491 F.

November 1-2, 1988

IEEE Workshop on Intelligent Robots and Systems, Tokyo (c/o Prof. Toshio Fukuda (Robotic Society of Japan). The Science University of Tokyo, Dept. of Mechanical Engineering, 1-3 Kagura-zaka, Shinjuku, Tokyo 162, JAPAN. Telephone (03) 260-4271 ext. 352.

June 26-30, 1989

XII International Congress of Biomechanics. Los Angeles. (c/o XII Intern. Congress of Biomechanics, UCLA Dept. of Kinesiology, 2854 Slichter Hall, Los Angeles, CA 90024-1568, USA. Tel.: (213)825-3910 or 825-5376.

June 29-July 3, 1989

Maccabiah-Wingate International Congress on Sport Sciences and Coaching. Israel. (c/o International Congress Secretariat, Wingate Institute for Physical Education & Sport, Wingate Post 42902, Israel.

July 3-7, 1989

"Stride into the 1990's - With Sport Technology and Technique" VII International Society of Biomechanics in Sports, Melbourne Australia. (c/o VII I.S.B.S. - Symposium, Footscray Institute of Technology, Dept. of Physical Education and Recreation, P.O. Box 64, Ballarat Road, Footscray, Victoria, Australia, 3011.

August 28-September 1, 1989

Paavo Nurmi Congress, Advanced European Course in Sports Medicine, Turku, Finland (c/o Congresspoint LTD, Tähtitornink. 5 G SF-20700 Turku, Finland.

September 11-15, 1989

VIIIth FINA World Medical Congress on Aquatic Sports, London Hospital, London, England. (c/o Conference Services Limited, Aldine House, 9-15 Aldine Street, London W12 8AW, England. Telephone 44-1-740-8121; Telex 916024 CONFER G).

October 29-November 2, 1989

First IOC World Congress on Sport Sciences. Broadmoor Hotel, Colorado Springs, CO. (c/o USOC Department of Library and Education Services, 1750 East Boulder Street, Colorado Springs, CO 80909. (719) 578-4575)