Calendar of Events

Second Purdue Conference on Cardiac Assistance with Skeletal Muscle
Purdue University, West Lafayette, Indiana.
September 30 - October 1, 1991
Scope of the Conference: Reports of basic and applied research on cardiac assistance with skeletal muscle including such areas as muscle transformation, muscle energy transfer, bioengineering, and basic clinical studies are solicited.
Abstracts of 300 to 500 words. Send abstracts to:
W.A. Tacker and S.F. Badylak, Conference Co-chairmen
Wm. A. Hillenbrand Biomedical Engineering Center
1293 A.A. Potter Building
Purdue University
West Lafayette, Indiana 47907-1293
FAX: INT -317-494-0811

11th Congress International Microsuegical Society
Rhodes - Greece, June 23 -28, 1992
For Information write to:
IMS 11th Congress Secretariat
Scientific Program Committee
Tower Office No 604
2-4 Mesogion Av.
Gr 115 27 Athens - Greece

XI. World Congress of the International Federation of Physical Medicine and Rehabilitation (IFPMR)
Dresden, September 14 -18, 1992
For Information write to:
Prof. J. Kleditzsch
Clinic of Orthopedics
Dresden, Germany

4th Vienna Workshop on Functional Electro Stimulation
Vienna, Late September 1992
For Information write to:
Prof. H. Thoma
Biomed. Eng. Lab., 2. Surg. Univ. Clinic,
Sensengasse 8
A-1090 Vienna, Austria

3rd Abano Terme Meetings on Rehabilitation
Centro Congressi delle Venezie - Hotel Alexander
Abano Terme (Padova), Italy

International Symposium on
Basic and Applied Myology:
Perspectives for the 90's
May 30 - 31, 1991

and

Expert Meeting of the European Community
Concerted Action HEART
Muscle driven devices
June 1, 1991

THURSDAY, MAY 30, 1991
Basics & Experimentals

S 1 ***Factors and Mechanisms of Muscle plasticity***
Chairman: J. Gergely

9.00 A. Buller, (Oxford, UK): *Early experiments concerned with muscle plasticity.*
9.30 D. Pette, (Konstanz, FRG): *Early events in chronic-stimulation-induced fast to slow transitions.*
10.00 C. Mayne et al., (Liverpool, UK): *Dissociation between metabolite levels and force fatigue in the early stages of stimulation-induced t ransformation of mammalian skeletal muscle.*
10.20 A. d'Albis et al., (Paris, France): *A ventricular V1 isomyosin in rabbit masticatory skeletal muscle.*
10.40 T. Mokrusch et al., (Erlangen, FRG): *Different reactions of denervated fast and slow rabbit muscles to a new type of electrical stimulation: A histochemical and biochemical study.*

S 2 ***Improve Power Output of Muscle Engine***
Chairman: G. Marechal

11.15 J. Faulkner, (Ann Arbor, USA): *Power output of fiber segments from human Latissimus Dorsi muscles: implications for cardiac assist devices.*
11.45 G. Goldspink, (Cambridge, UK): *Gene expression switching in adaptation for increased power output and fatigue resistance in mammalian and fish muscle.*
12.15 J.C. Jarvis et al., (Liverpool, UK): *Comparison between the effects of continuous long-term stimulation of rabbit muscle at 2.5 Hz and 10 Hz.*

13.30 - 14.30 **Poster session**

S 3 ***Biological Constraints in Extracting Muscle Power***
Chairman: G. Goldspink

14.30 G. Marechal, (Brussels, Belgium): *The factors of mechanical power in slow-twitch muscle.*
15.00 A. Jakubiec-Puka, (Warsaw, Poland): *Adapting the sarcomere to functional and anatomical requirements of the muscle.*
15.15 I. Sohar et al. (Szeged, Hungary): *Muscle function and proteolysis.*
15.30 B. Agostini, (Heidelberg, FRG): *The modulation of the Calcium transport by sarcoplasmic reticulum during hibernation.*

S4 ***Injury and Repair Induced by Activity on Muscle and Nerve***
Chairmen: C. Angelini, N. Basaglia

15.45 T.A. Partridge, (London, UK): *Myoblast transfer therapy.*
16.15 R. Scelsi et al. (Pavia, Italy): *Skeletal muscle morphology and biochemistry in paraplegic patients after walking restoration with gait orthosis.*
16.30 B. Rossi and G. Siciliano, (Pisa, Italy): *Evaluation of different work load in dystrophic muscle.*
16.45 J.B. Rodenburg, et al. (Utrecht, The Netherlands): *Muscle damage: a combined MRI and MRS study.*
17.00 A. Martinuzzi et al. (Padova, Italy): *Muscle fatigue and VO_2 max in McArdle's patients.*
Myoblast transfer therapy: beyond the dystrophies?
17.30 R. Strohman, (Berkley, USA): *Muscle Growth Factors.*
18.00 G. Cossu, (Rome, Italy): *Gene transfer in skeletal muscle by genetic manipulation of human satellite cells.*
18.30 M. Isac, (Iasi, Romania): *Protein composition of dystrophic and normal muscle fibers.*
18.45 R. Bittner, (Vienna, Austria): *Denervation and reinnervation: effects on dystrophic MDX mouse muscle.*

Round Table and Discussion of selected posters:

RT 1 Room A: ***Contractile Proteins: From Genes to Myofibrils***
17.30 Organizer and Introductory Lecture: G. Matsuda, (Nagasaki, Japan): *Primary structure of the MHC by the protein chemical method.*
18.00 E. Bandman, (Davis, USA): *Differentiating skeletal muscle cells initially express a ventricular myosin heavy chain.*
18.30 J.J. Leger, (Montpellier, France):*Structure-fuction relationships between myosin subunits.*
18.45 L. Dalla Libera, (Padua, Italy): *Possible role of myosin light chain kinase phosphorylation on smooth muscle contraction.*

FRIDAY, MAY 31, 1991

Functional electrostimulation of muscles in current clinical practice.

Co-Chairman: S. Salmons

S 5a ***Electrophrenic pacing***
Co-Chairman: W. Glenn

9.00 W. Glenn, (Yale, USA): *Diaphragm pacing: An overview.*

9.30 G. Baer et al., (Tampere, Finland): *Multipole sequential motor nerve stimulation.*

9.45 W.Girsh et al., (Vienna, Austria): *Vienna phrenic pacemaker: Benefits and limitations.*

S 5b ***Dynamic cardiomyoplasty***
Co-Chairman: A. Carpentier

10.00 A. Carpentier, (Paris, France): *Six years of dynamic cardiomyoplasty*

10.30 J.R. Pepper et al. (London, UK): *A chronic experimental model of dynamic cardiomyoplasty in left ventricular failure.*

10.45 R. Lorusso, C. Lucas, F. van der Veen et al., (Maastricht, The Netherlands): *Early LD stimulation after cardiomyoplasty procedure: A preliminary study.*

S 5c ***Skeletal muscle-powered neosphincter***
Co-Chairman: N.S. Williams

11.15 N.S. Williams, (London, UK): *Skeletal muscle powered sphincter .*

11.45 C. Baeten et al., (Maastricht, The Netherlands): *Dynamic graciloplasty for fecal incontinence.*

12.00 E. Cavina et al., (Pisa, Italy): *Electrostimulated neosphincter after abdomino-perineal resection for rectal cancer: functional results in 41 cases:*

12.15 P.J. Guelinckx et al., (Leuven, Belgium): *Anal sphincter reconstruction by means of dynamic gluteoplasty.*

13.30 - 14.30 **Poster session**

S 6 ***Improve recovery of transplanted muscle: Biological and surgical constraints to revascularization, reinnervation and regeneration***
Chairmen: J. Faulkner, M. Fiori

14.30 Baldissera et al., (Milano, Italy): *Recovery of inspiration contraction of the paralyzed diaphragm after reinnervation by laryngeal motoneurones*

15.00 D. Awerbuck et al., (Toronto, Canada): *Contractile function in rat gastrocnemius muscles reinnervated via preserved autografts.*

15.15 P.D. Moens et al., (Brussels, Belgium): *Mechanical power and isomyosins in transplanted soleus muscle of mice.*

15.30 J.F. Brule et al., (Berck, France): *Anastomosis of brachial plexus nerve with the phrenic nerve for electrophrenic respiration.*

15.45 R. Gencosmanoglu et al., (San Francisco, USA): *Comparison of arterialized muscle flap and arterio-venous flow reversal flap in a rat model.*

S 7 ***Muscle transplantation: today and tomorrow***
Chairman: G. Freilinger

16.00 A. Oliva et al. (San Francisco, USA): *Clinical experience with 451 microvascular muscle transplantations.*
16.30 P. Guelinckx et al. (Leuven, Belgium): *Muscle transplantation for dynamic limb reconstruction after trauma or cancer surgery.*
16.45 K.K. Yim et al., (San Francisco, USA): *Muscles and myocutaneous flap in the rats: Studies of latissimus dorsi, serratus anterior, and gracilis muscles, latissimus rectus and gracilis myocutaneous flap.*
17.00 F. Mazzoleni et al. (Padua, Italy): *Long-term trophic state of denervated muscle in free flaps.*

17.30 **Round Table and Discussion of selected posters**

RT 3 Room A: ***Muscle Stimulation in Rehabilitation***
Organizers: W. Nix, R. Scelsi
17.30 T. Bajd et al. (Ljubliana, Jugoslavia): *Control of FES walking in incomplete SCI patients.*
18.00 P.H. Veltink et al. *Optimizing control of functional neuromuscular stimulation,*
18.15 I. Gedeon et al., (Ottawa, Canada): *High technology and medical applications, is there a rift?*
18.30 M. Zrunek, (Vienna, Austria): *Inspiration controlled direct electrical stimulation of the denervated larynx muscles in sheep.*
18.45 S. Fischer, et al., (Mainz, Germany): *Foot flexor fatigue in normal and diseased muscle. A clinical study.*

RT 4 Room B: ***Reliable methods for BAM***
Organizers: H. Gruber, C. Catani
17.30 A. Windisch et al., (Vienna, Austria): *Differentiation of motor and sensory nerve fibres in rat muscle nerves using a double staining procedure.*
18.00 H. Thoma, (Vienna, Austria): *Trends in functional electrostimulation*
18.15 C. Rizzi et al., (Padova, Italy): *Full recovery by KCl precipitation of SDS-MHC purified by ELFE.*
18.30 Y.S. Borovikov et al., (Leningrad, URSS): *Polarized micro fluorimetry investigation of the conformational changes of F-Actin in ghost fibers of fast and slow rat muscles induced by functional electrostimulation.*

SATURDAY, JUNE 1, 1991
Expert Meeting of the European Community
Concerted Action HEART
Muscle driven devices

S 8 Chairmen: L. Stephenson, A. Sargentini

9.00 E. Hennig, (Berlin, FRG): *Mechanical devices for support or replacement of cardiac function.*
9.40 S. Salmons, (Liverpool, UK): *Skeletal Muscle: The long-term "implantable" power source.*
10.20 L. Stephenson, (Detroit, USA): *Skeletal Muscle-Powered CAD.*

S 9 ***Electromyostimulators***
11.15 P. Grandjean (Maastricht, The Netherlands): *Implantable stimulation systems for systolic and diastolic biomechanical cardiac assistance.*
11.45 W. Happak et al., (Vienna, Austria): *Multi-channel indirect stimulation: Experimental results and advantages.*

12.00 **Patients selection:** Chachques, (Paris, France), Millner, (London, UK), L. Stephenson, (Detroit, USA)

13.30 - 14.30 **Poster session**

S 10 ***SM-P/CAD: Biomechanical or full biological options***
Chairmen: J. Van Alste', J.C. Chachques
14.30 J. C. Chachques, (Paris, France): *Dynamic aortomyoplasty:*
15.00 S. Shah, et al. (London, UK): *Assessment of the haemodynamic performance of extra-aortic skeletal muscle counterpulsation (EAMC).*
15.30 A. Pochettino et al., (Detroit, USA): *Skeletal muscle ventricles as biological replacements of cardiac function.*
15.45 R. Ruggiero et al., (Detroit, USA): *Skeletal Muscle for cardiac assistance: Report on 18-month survival in circulation.*
16.00 W. Tacker (Purdue, USA): *Lack of correlation between ATPase staining and the strength and fatigue resistance of conditioned skeletal muscle.*
16.15 G. Arpesella (Bologna, Italy): *A new proposal for a cardiac assist device taking advantage of available power output of conditioned skeletal muscle.*

Round Table and Discussion of selected posters:
RT 5 Room A: ***Cell biology of muscle conditioning***
Organizer: D. Pette
16.45 B. Focant et al. (Liege, Belgium): *Biochemical, bioenergetic and ultrastructural survey of the adaptations induced by chronical electrical stimulation and de-stimulation of skeletal muscle.*
17.00 A. Windish et al., (Vienna, Austria): *Plasticity in denervated rat EDL muscle after direct low frequency electro-stimulation.*
17.15 I. Mussini et al. (Padua, Italy): *Remodelling of NMJ ultrastructure following continuous nerve stimulation.*
17.30 M. Falempin et al. (Lille, France): *Effects of direct electrostimulation on the mechanical properties of atrophied soleus muscle.*
17.45 A. Megighian, (Padua, Italy): *Effects of ageing on the electrophysiological properties of fast and slow rat skeletal muscle.*

RT 6 Room B: ***Contractile proteins in clinical pathology***
Organizer: U. Carraro

16.45 Introductory Lecture: B. Swynghedauw (Paris, France): *Cardiac hypertrophy: a single example of biological adaptation to environmental changes.*

17.15 P. Vosberg (Heidelberg, FRG): *Mutated cardiac myosin heavy chain genes: The molecular basis of inherited cardiomyopathies*

17.30 M. Meznaric-Petrusa et al., (Ljubljana, Jugoslavia): *Fascicular analysis of the tibialis anterior muscle biopsy from patient with Becker muscular dystrophy.*

17.45 Y. Mounier et al. (Lille, France): *Contractile protein properties of slow and fast muscles: compared adaptation to disuse conditions.*

18.00 BAM Advisory Board Meeting
Introductory lecture: M. Tacker (West LaFayette, USA): *Resources available for journals editors.*

Posters

P 01 Critical ischemia time in microvascular transfer of rat *Serratus Anterior* and *Gracilis* muscle. K. Yim, R. Briones, W. Lineaweaver, H. Buncke. *Microsurgical Replantation Transplantation Department. Davies Medical Center, San Francisco, California, USA*

P 02 Changes in the actin filaments occurring during adaptation of the skeletal muscle to its different functions. J. Szczepanowska, A. Jakubiec-Puka. *Necki Institute of Experimental Biology, Warsaw, Poland.*

P 03 Fiber regenerating in MDX mouse limb muscle differ from original fibers and do not undergo persistent degeneration. R.C. Strohman, J. DiMario, A. Uzman. *Department of Molecular and Cell Biology, University of California, Berkeley, CA. USA 94720*

P 04 Skeletal muscle regeneration under treatment with Bupivacaine hydrochloride. D. Ravnik. *Institute of Anatomy, Faculty of Medicine, University of Ljubljana, Yugoslavia*

P 05 Distribution of muscle fibre types in fascicles of human *Vastus Lateralis* muscle in old age. I. Erzen (1) and F. Pernus (2). *Institute of Anatomy, Faculty of Medicine (1), Faculty of Electrotechnical Engineering and Computer Science (2), University of Ljubljana, Yugoslavia*

P 06 Phrenic nerve chronic electrical stimulation in quadriplegic patients: preliminary notes. I. Iob, G. Salar, M. Marcelli, L. Tosatto, R. Mottaran, L. Peserico. *Institute of Neurosurgery (Head Prof. L. Peserico), University of Padova, Italy*

P 07 Possible role of myosin light chain kinase phosphorylation on smooth muscle contraction. L. Dalla Libera, M. Fasolo, P. Cavallini (1). *CNR Unit for Muscle Biology and Physiopathology, Institute of General Pathology, University of Padova; GLAXO Research Laboratories, Verona (1), Italy*

P 08 Full recovery by KCl precipitation of SDS-MHC purified by ELFE. C. Rizzi (1), M. Sandri (2) and U. Carraro (2). *Istitute of Plastic and Reconstructive Surgery (1), CNR Unit for Muscle Biology and Physiopathology of the Institute of General Pathology (2), University of Padova, Italy.*

P 09 Fibre selective stimulation of M. Latissimus Dorsi for cardiomyoplasty. (VHS-Video 4 minutes). H. Thoma. *Bioengineering Laboratory of the II Surgical Clinic, University of Wien, Austria.*

P 10 Gene transfer in skeletal muscle by genetic manipulation of human satellite cells. G. Cossu, A. Mezzogiorno and A. Bouche'.*Department of Histology, University of Rome, Italy.*

P 11 Remodelling of NMJ ultrastructure following continuous electro-stimulation. I. Mussini, L. Marchioro, U. Carraro.*CNR Unit for Muscle Biology and Physiopathology of the Institute of General Pathology, University of Padova, Italy.*

P 12 Foot flexor fatigue in normal and diseased muscle. A clinical study. S. Fischer, W.A. Nix. *Neurology Clinic, University of Mainz, Germany.*

P 13 Biochemical, bioenergetic and ultrastructural survey of the adaptations induced by chronical electrical stimulation and de-stimulation of a skeletal muscle. B. Focant (1), F. Sluse (2), F. Huriaux (1), C. Duyckaerts (2), G. Goessens (1), and M. Radermecker (3).*Cellular and Tissular Biology Lab. (1); Bioenergetic Lab (2); Cardiovascular Surgery Lab. (3), University of Liege, Belgium*

P 14 Skeletal muscle changes in flaccid and spastic paraplegia: Morphology and biochemistry. R. Scelsi (1), L. Scelsi (1), M. Dossena (2), O. Pastoris (2) and S. Lotta (3). *Dept of Human Pathology (1); Institute of Pharmacology (2), University of Pavia; USL 3 "G. Verdi" Rehabilitation Center (3) Villanova d'Arda (Pc), Italy.*

P 15 Fascicular analysis of the*Tibialis Anterior* muscle biopsy from a patient with Becker muscular dystrophy. M. Meznaric-Petrusa (1, 2), I. Erzen (1) and J. Zidar (2). *Anatomical Institute (1), Institute of Clinical Neurophysiology, University Medical Center (2), Ljubljana, Yugoslavia.*

P 16 Contractile protein properties of slow and fast muscles: compared adaptation to disuse conditions. Y. Mounier and L. Stevens. *Lab. Physiol. Stuctures Contractiles, Univ. of Lille, France*

P 17 Effects of direct electrostimulation on the mechanical properties of atrophied *Soleus* muscle. M. Falempin and D. Leterme. *Lab. Physiol. Stuctures Contractiles, SN4, Univ. of Lille I, France*

P 18 High technology and medical applications, is there a rift? I. Gedeon (2), T. Kwasniewski (1), T.J. Rahrer (2), P. van der Puije (1).*Dept. of Electronics, Carleton University, Ottawa, Canada (1); Formerly Carleton Univ., now with Bell-Northern Research, Ottawa, Canada (2)*

P 19 Plasticity in denervated rat *Extensor Digitorum Longus* muscle after direct low frequency electro-stimulation. A. Windisch (1), T. Lømo (2), M.J. Szabolcs (1), H. Gruber (1). *Institute of Anatomy Dpt. III, University of Vienna, Austria (1), Institute of Neurophysiology, University of Oslo, Norway (2).*

P 20 A multielectrode for extraneural selective stimulation of nerve fibers. J. Rozman (1), B. Pihlar (2), A. Kralj (3). *E-1 Biocybernetics, Ljubljana, Rep. Slovenia*

P 21 Optimizing control of functional neuromuscular stimulation. P.H. Veltink, A.J. Mulder, J.A. van Alste'.*University of Twente, Enschede, The Netherlands*

P 22 Effects of ageing on the electrophysiological properties of fast and slow rat skeletal muscles. A. Megighian, D. Danieli-Betto. *Institute of Human Physiology, University of Padova, Italy*

P 23 Inspiration controlled direct electrical stimulation of the denervated larynx muscles in sheep. M. Zrunek, W. Mayr. *II. Universitaetsklinik fuer Hals-, Nasen- und Ohrenkrankenheiten, Wien, Austria*

P 24 Polarized microfluorimetry investigation of the conformational changes of F-Actin in ghost fibres of fast (EDL) and slow (Sol) rat muscles induced by functional electrostimulation. V.P. Kirillina (1), Yu.S. Borovikov (1), J. Szczepanowska (2), U. Carraro (3).*Institute of Cytology Academy of Sciences USSR, Leningrad, USSR (1); Nencki Institute of Experimental Biology, Warszaw, Poland (2); Institute of General Pathology, Padova, Italy (3)*

P 25 *In vitro* selective survival and growth of mammalian and bird myotubes under glass uncoated surface: Isomyosin expression. M. Cantini, S. Sivieri, C. Catani, U. Carraro. *Institute of General Pathology, University of Padova, Italy*

P 26 Denervation and reinnervation: effects on dystrophic *MDX* mouse muscle. R. Bittner (1), W. Czernicky (1), M. Neuwirth (1), S. Shorny (1), S. Urbanits (1), K. Wagner (1), J. Zacherl (1), S. Schiaffino. (2) *Inst. of Anatomy, University of Vienna (1); Inst. of General Pathology, University of Padova (2)*

P27 Is denervated muscle a stand-by engine? A proposal to engage the clutch: functional electrostimulation by intravascular electrodes.
U. Carraro. *C.N.R. Unit for Muscle Biology and Physiopathology, Insitute of General Pathology, University of Padova, Italy.*

P28 Ultrastructure and histochemistry of human gracilis muscle after functional transplantation. A. Cuzzocrea, G. Micali. *Cattedra di Chirurgia Plastica (Direttore Prof. G. Micali), Universita' di Catania, Italia*

P29 A new animal model of anal reconstruction by skeletal muscle transposition after sphinterectomy in rabbit.
F. Battocchio, R. Nistri, S. Reineri, E. Volpin, O. Terranova and U. Carraro (1). *Cattedra di Chirurgia Geriatrica and (1) Institute of general Pathology, University of Padova, Italy*

P30 Innervation and vascular bed of gluteus major and gracilis. O. Terranova, F. Battocchio, R. Nistri and L. Desantis. *Cattedra di Chirurgia Geriatrica and (1) Institute of general Pathology, University of Padova, Italy*

P31 Carleton University signal processing accelerator and potential medical application. T. Kwasniewski and G. Yaremchuk. *Dept. of Electronics, Carleton University, Ottawa, Canada*

INFORMATION FOR AUTHORS

GENERAL

BAM will mainly cover skeletal muscle basic research and its applications. Special attention will be paid to reports of experimental studies in large mammals to test hypotheses of muscle and non-muscle diseases' managements. Myocardium and smooth muscle studies will also be considered.

BASIC AND APPLIED MYOLOGY publishes basic and clinical research studies in the fields of anatomy, physiology, cell biology, biochemistry, molecular biology and gene mapping, comparative biology, development and differentiation, regeneration, pathology, epidemiology, bioengineering, testing, pharmacology, toxicology, surgery, medicine. Non-medical studies in fields such as veterinary, breeding and biotechnology will also be considered, if they concern muscle at molecular, cellular or organismic levels.

The journal publishes:

1. **Review Articles**, invited or submitted, on current topics;
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3. **Main Articles** present original clinical and laboratory research and related topics. They will be divided in: Abstract, Introduction, Materials and Methods (all details must be given so that results can be duplicated), Results, Discussion, Address for correspondence, Acknowledgments, References (full authorship and title);
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5. **Myology News**, a redactional covering major breakthrough in Myology, academic/didactic issues, book reviews and Calendar of Events (Conferences, Workshops and Courses).

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Manuscripts are accepted for consideration with the understanding that they have not appeared elsewhere in any but abstract form and are not concurrently under review elsewhere.

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University of Padova
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or to one of the Associate Editors.

Four high-quality copies of the manuscript (1 original and 3 copies) and 4 complete sets of figures should be submitted, accompanied by: i) a cover letter (including the name, address, and phone and FAX numbers of the

author to whom correspondence should be sent); ii) written permission of author(s) and publisher(s) to use any published material; iii) releases signed by patient(s) or guardian(s) for any recognizable patient photographs; iv) for experiments on animals, indicate whether the institution's or the National Research Council's guide for the care and use of laboratory animals was followed; v) names of potential referees and their addresses as well as any request that specific individuals not be invited to review.
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Abstracts. These should have no more than 200 words for a review or main article and 50 words for Communications. The abstract should state the purpose of the study, basic procedures, most important results, principal conclusions. All non-standard abbreviations should be spelled out the first time they are mentioned.
Key Words. The authors should provide 3-8 (usually 5) key words below the abstract page pertaining to all major points of their contribution.
References. Review and Main Articles: Type references in alphabetical order and number them accordingly. Identify references in the text, tables and legends by arabic numerals in (brackets). The following information should be included: i) all authors names (surnames followed by initials); ii) the title of the article; iii) the journal title abbreviated as it appears in the *Index Medicus* or spelled out if it is not listed there; iv) the date of publication; v) the volume number; vi) inclusive page numbers. For books be sure to include the chapter title, chapter author(s), editor(s) of the book, title of the book (including volume or edition number), publisher's name and location, date of publication and appropriate page numbers.
Examples of the correct format are as follows:
for **Review and Main Articles**

1. Buller AJ, Eccles JC, Eccles R: Interactions between motoneurons and muscles in respect of the characteristic speeds of their responses. *J Physiol (London)* 1960; 150: 417-439.
2. Grandjean PA, Herpers L, Smits K, Bourgeois I, Chachques JC, Carpentier A: Implantable electronics and leads for muscular cardiac

assistance, in Chiu RCJ (ed): *Biomechanical cardiac assist. Cardiomyoplasty and muscle-powered devices*. Mount Kisco, New York, Futura Publishing Company, Inc., 1986, pp 103-114.
3. Marechal G, Carraro U (eds): *Muscle and Motility (Vol 2)*. Andover, Hampshire, Intercept, 1990; pp 1-389.

for **Communications**
1. Buller AJ, Eccles JC, Eccles R: *J Physiol (London)* 1960; 150: 417-439.
2. Grandjean PA, Herpers L, Smits K et al: in Chiu RCJ (ed): *Biomechanical cardiac assist. Cardiomyoplasty and muscle-powered devices*. Mount Kisco, New York, Futura Publishing Company, Inc., 1986, pp 103-114.
3. Marechal G, Carraro U (eds): *Muscle and Motility (Vol. 2)*. Andover, Hampshire, Intercept, 1990; pp 1-389.

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Tables. Type each table double-spaced on a separate sheet; do not submit tables as photographs. If the table must exceed one typewritten page, duplicate all headings on the second sheet. Very wide tables are difficult and expensive to typeset and should be avoided by breaking up into smaller tables. Number tables in the order in which they are cited in the text. Every table should have a title, and every column in the table, including the left-hand (stub) column, should have a heading. Define all abbreviations and indicate the units of measurement for all values. Do not change the unit of measure within a column. Organize the tables so that like data are read vertically, not horizontally. Do not use internal horizontal or vertical lines to separate sections.

Figures. Figures should be professionally drawn and photographed and should be submitted as glossy, high-contrast (black&white) photographs. Letters, numbers, and symbols should be large enough to remain legible when reduced for publication. Use a label on the back of each figure to indicate the first author's name, the article running title and the top of the figure. Do not write directly on the back of the photographs. Arabic numerals should be used for figures and lower case italic letters for multiple parts of a single figure (e.g., Figs 1a and 2b). Printed illustrations must not exceed the journal page dimension (A4, cm 21x29.5). Illustrations composed of multiple pieces must be mounted on mounting board. Single-column figures must not exced cm 8.5x22. Double-column figures must not exceed cm 17.5x22. When submitting figures at reproduction size indicate this one the back of the figure; if not, indicate desired percent reduction. In general micrographs and figures should not exceed one-half page. Figures and legends should fit on the same page.

Figure Legends. Legends should be typed double-spaced and numbered with Arabic numerals corresponding to the illustrations.When symbols, arrows, numbers or letters are used to identify parts of illustrations, each

should be explained clearly in the legend. For photomicrographs, the internal scale markers should be given.

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