



International Society of Biomechanics Newsletter

**ISSUE Number 95
MARCH 2005**

ISB Officers

PRESIDENT

Dr. Mary Rodgers
Dept. of Physical Therapy &
Rehabilitation Science
University of Maryland School of Medicine
100 Penn Street
Baltimore, MD 21201 USA
Tel: (410) 706-5658
Fax: (410) 706-4903
E-mail: mrogers@umaryland.edu

PRESIDENT-ELECT

Dr. Brian L. Davis
Department of Biomedical Engineering
The Lerner Research Institute (ND 20)
The Cleveland Clinic Foundation
9500 Euclid Avenue
OH 44195, USA
Tel: 216 444 - 1055
Fax: 216 444 - 9198
E-mail: davis @bme.ri.ccf.org

PAST-PRESIDENT

Dr Sandra Olney
School of Rehabilitation Therapy
Queen's University
Kingston, Ontario K7L 3NS
CANADA
Tel: 613-533-6102
Fax: 613-533-6776
E-mail: olneys@post.queensu.ca

SECRETARY-GENERAL

Dr. Julie R Steele
Department of Biomedical Science
University of Wollongong
Wollongong NSW 2522
AUSTRALIA
Tel: 61-(0)2-42213881
Fax: 61-(0)2-42214096
E-mail: julie_steele@uow.edu.au

TREASURER

Dr. Graeme A. Wood
PO Box 3156
Broadway
Nedlands, WA 6009
AUSTRALIA
Fax: 61-8-9386 8589
E-mail: gwood@cygnus.uwa.edu.au

NEWSLETTER EDITOR

Karen Sogaard
National Institute of Occupational Health,
Lersø Parkallé 105
DK-2100 Copenhagen
DENMARK
Phone: +45 39 16 53 46
Fax: +45 39 16 52 01
Email: ks@ami.dk

TABLE OF CONTENTS

Note from the President Mary Rodgers	2
ISB Student Grant Recipient 2005 Alex Stacoff	3
Update on ISB Cleveland 2005 Brian L Davis	4
The Brazilian Society of Biomechanics Hans Joachim Menzel	5
Obituary Peter Foy Brian L. Davis	7
Obituary Samuel Alderson Brian L. Davis	8
Biomechanics and Music Anthony Brown	9
Biomechanics and Oscars?	10
The Anatomical Society Summer Meeting Jonathan Bennett	11
Upcoming Meetings, Workshops	12
Editors note and request Karen Sogaard	13
New Members to ISB Graeme Wood	14

AFFILIATE SOCIETIES OF ISB:

American Society of Biomechanics; Australian and New Zealand Society of Biomechanics; British Association of Sport and Exercise Sciences; Bulgarian Society of Biomechanics; Canadian Society of Biomechanics/Société canadienne de biomécanique; Chinese Society of Sports Biomechanics; Comisia de Biomecanica Inginerie si Informatica (Romania); Czech Society of Biomechanics; Taiwanese Society of Biomechanics; Japanese Society of Biomechanics; Korean Society of Sport Biomechanics; Polish Society of Biomechanics; Russian Society of Biomechanics; Société de biomécanique (France).

Note from the President

A major activity of the International Society of Biomechanics (ISB) is the organization and conduct of its biennial international congress on biomechanics. This provides a unique opportunity for participants to gain an understanding of the current status of the field and make valuable personal and professional contacts. The organizers have been hard at work preparing a great conference for the ISB 2005 Congress, which will be held in Cleveland, Ohio, USA this August.

Be sure to check out all the news on the conference in this issue. Something noteworthy is the ISB 2005 Update. As the Graph showing rate of abstract submissions indicates, the turnout is outstanding!

In other news, the ISB will continue to promote excellence in biomechanics research by presenting a number of awards at the 2005 Congress, including the Muybridge Award. This is the Society's highest honor for outstanding contributions to biomechanics.

I am delighted to announce that the 2005 recipient of this award is Dr. Rik Willem Jan Huiskes, professor of biomedical engineering, Eindhoven University of Technology, Eindhoven, Netherlands.

Dr. Huiskes didn't stray far from his academic roots, having earned his MS in 1974 and his PhD in 1979, both in Mechanical Engineering, from the Eindhoven University of Technology. Since 2001, he has been a full-time professor of Biomedical Engineering at the university, where he teaches "Bone and Orthopedic Biomechanics." In addition, he is a part-time professor at the Dept. of Orthopedics of the Medical Faculty, University of Maastricht.

Dr. Huiskes was a visiting scientist at the Mayo Clinic, Department of Orthopedics in 1980-81 as well as a visiting professor at the University of Michigan Orthopedics Dept. in 1992-93.

Throughout his career, Dr. Huiskes has authored or co-authored over 200 articles in peer-reviewed journals and published 75 chapters in books. In addition, he has received 12 international awards for his research work, including the Borelli Award from the American Society of Biomechanics and the Gisela Sturm

Award for Innovations in Total Joint Replacement from the European Federation of Orthopedics and Traumatology. He is also Editor-in-Chief of the *Journal of Biomechanics*.

In February 2005, Dr. Huiskes was elected Foreign Associate in the National Academy of Engineering in recognition for advancing the understanding of how bone prostheses affect the functioning of the living human skeleton. Dr. Huiskes will be presenting a preconference workshop as well as the Muybridge address at the 2005 ISB conference.

Besides awards, ISB also promotes scholarship through its Educational Programs at Congresses, its Promising Scientist Travel Grants program (whereby a student of biomechanics can travel to another continent to further a research project), and a range of Student Grants-in-Aid of Research and for Congress attendance.

As I have mentioned in past letters, one of the most important functions of the ISB is the mentoring of student biomechanists, and the student grants are a primary mechanism for fostering this development. This is a great time of year for us because the ISB student grants recipients are announced. They are in this newsletter.

One other aspect of ISB that I'm excited about is that we are transitioning to electronic communications, and this facilitates the conduct of ISB's global mission. This election was the first one in the history of ISB to be conducted electronically. Candidate biographies were accessible on the ISB Web site, and ballots were emailed to members. Because voting didn't close until March 31, the election results will be included in the next newsletter and posted on the new ISB Web site. I think you will really like the new electronic format.

If, however, you would prefer to receive print issues of the newsletter rather than electronic, please contact our Treasurer, Dr Graeme Wood.

Also inside this issue is a description of the Brazilian society of biomechanics. I enjoyed learning about the many activities going on with the BSB, and I know you will too!

Until next time

Mary Rodgers

ISB Student Grant Recipients 2005

The 2005 ISB student grants have been awarded to a total of 27 ISB student members. Grant categories and recipients are listed below. The ISB student grants review committee would like to congratulate the awardees and wishes them good luck for their future research work.

ISB Congress Travel Grant to the XXth ISB Congress in Cleveland, USA (500 US\$ for recipients from North America*, 1000 US\$ for recipients from elsewhere)

Recipient	Institution
Anne Katrine Blangsted	National Institute of Occupational Health, Denmark
Mirko Brandes	University Hospital of Muenster, Germany
Andrew Briggs	University of Melbourne, Australia
Andrew Chapman	The University of Queensland, Australia
Mark Creaby	University of Exeter, UK
*Cheryl E. Dunham	University of Western Ontario, Canada
*Hyun Gu Kang	The University of Texas at Austin, USA
Sami Kuitunen	University of Jyväskylä, Finland
Kirsten Legerlotz	German Sport University Cologne, Germany
*Scott Lucas	University of Virginia Center, USA
Karen Julie Mickle	University of Wollongong, Australia
*Tonya Parker	University of Oregon, USA
Juergen Rummel	Friedrich-Schiller University, Jena, Germany
Natalie Ann Saunders	University of Ballarat, Victoria, Australia
*Jill Schmidt	University of Wisconsin, USA
*Costin Untaroio	University of Virginia, USA

ISB Dissertation Grant 2005 (2000US\$)

Michelle Heller	The Pennsylvania State University, USA
Justin Kavanagh	Griffith University, Queensland, Australia
Sven Knecht	ETH Zurich, Switzerland
Budhabhatti Sachin	Cleveland State University / Cleveland Clinic Foundation, USA
Robert Schleip	University of Ulm, Germany
Wafa Tawackoli	Rice University, Houston, USA
David Wallace	Oregon State University, USA
Peter Wolf	ETH Zurich, Switzerland

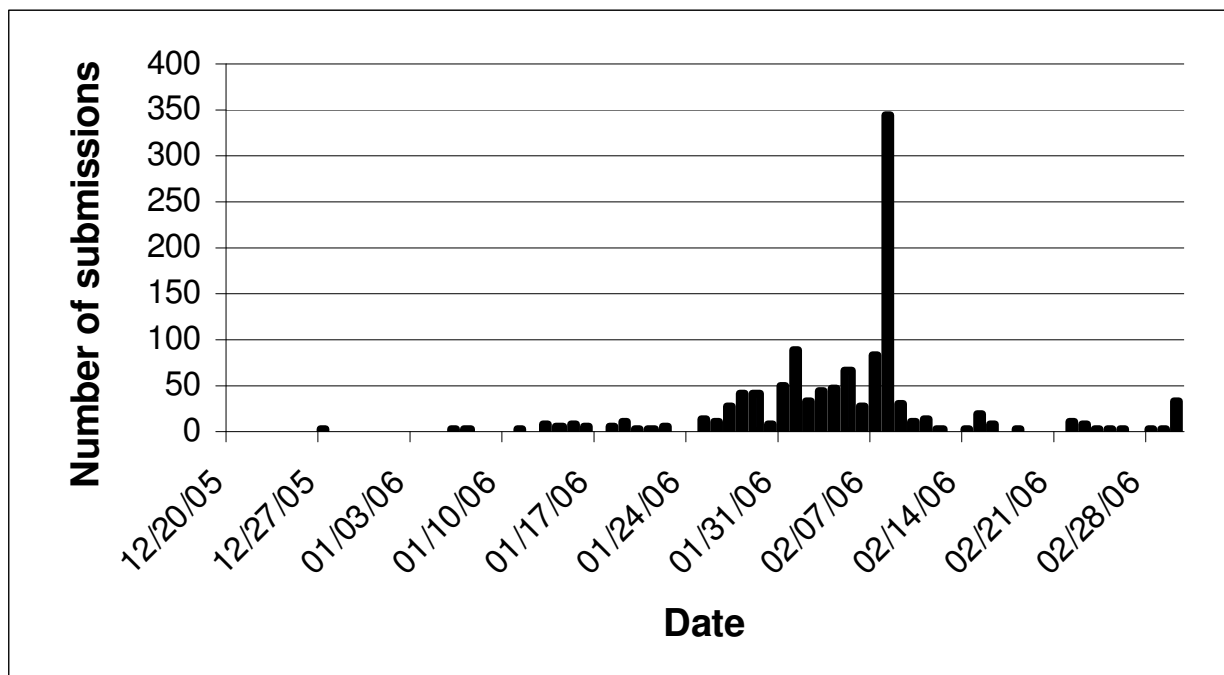
ISB Travel Grant 2005 (2000US\$)

Jill Maureen Brimacombe	University of British Columbia, Vancouver, Canada
Anna-Maria Liphardt	German Aerospace Centre, Cologne, Germany
Heather Scoffone	Rensselaer Polytechnic Institute, Cumberland, USA

The recipient's reports will be published in the upcoming ISB Newsletters

Alex Stacoff

Update on ISB Cleveland 2005



Number and timing of abstracts submitted to ISB 2005.

In total, 1166 abstracts were submitted through the online process---with Dr. James Cubillo from the University of Wolverhampton being the first person to submit an abstract! The original deadline (Jan 31st) was extended to February 7th due to technical issues with the web-based system. The greatest number of abstracts submitted in one day (345) occurred on February 8th---one day AFTER the deadline! All abstracts are currently being reviewed by a group of 72 reviewers (every abstract gets two separate reviews)----please thank them when you see their names listed in the Congress program!

We can also report:

- we are incredibly busy planning this meeting
- that the exhibitor space is sold out and we are adding extra spaces for latecomers.
- Our guests from outside the U.S. should be especially pleased that Dutch coffee (Douwe Egberts) will be served during the breaks.
- all those abstracts that arrived on Feb 8th were probably on time because they were > submitted on Feb 7th from somewhere else in the world
- The social program has been finalized:

- Sunday:** opening ceremony and welcome reception at Cleveland State University
- Tuesday:** evening reception at the Cleveland Museum of Natural History
- Wednesday:** various excursions and lab tours
- Thursday:** Indians-Yankees game, tickets included with congress registration (We are trying to get them to agree to allow someone to throw the opening pitch!)
- Friday:** banquet at Rock and Roll Hall of Fame

Ton van den Bogert and Brian L. Davis

The Brazilian Society of Biomechanics

Dear members of the ISB

I would like to introduce the Brazilian Society of Biomechanics (BSB), which became an affiliated member of ISB in 2005. Some of you already might have noticed the BSB from participating as invited speakers at BSB conferences or as part of international scientific exchange programs with Brazil.

The history of Biomechanics in Brazil is highly influenced by the evolution of Sport Biomechanics. Between 1960 and 1970, based on a cultural agreement between Brazil and Germany, Sport Biomechanics was introduced in the curricula of undergraduate and postgraduate courses. With assistance of Prof. Dr. Hartmut Riehle and Prof. Dr. Wolfgang Baumann (German Sports University of Cologne), who held biomechanics lectures and seminars, the first Biomechanics Laboratories were established at the University of São Paulo (USP) and the Federal University of Santa Maria (UFSM). These universities also were the first in Brazil conferring a PhD in Biomechanics of Sports.

The formal organization of Biomechanics in Brazil initiated with the 1st National Meeting of Lecturers of Kinesiology and Biomechanics in 1988 at the Federal University of Rio Grande do Sul (UFRGS) in Porto Alegre. Except for 1991, the meetings have been held annually and received the designation "Brazilian Congress of Biomechanics" in 1990. In 1992 during the IV Brazilian Congress of Biomechanics at the University of São Paulo, the Brazilian Society of Biomechanics (BSB) was founded. At present the BSB has 315 members who are researchers in Sport Biomechanics, Occupational Biomechanics and Ergonomics, Musculoskeletal Biomechanics, Clinical Biomechanics, Biomechanics of tissues and biomaterials and Animal Biomechanics.

- The major goals of the Brazilian Society of Biomechanics are:
- Promotion and support of scientific development of professionals in all fields of biomechanics,
- Maintenance of contacts with other national and international biomechanics organizations,

- Organization of the Brazilian Congresses of Biomechanics
- Publication of the Brazilian Journal of Biomechanics

Since 1993 the Brazilian Congress of Biomechanics is held every two years. In order to promote international contacts, the Brazilian Society of Biomechanics always invites international, outstanding scientists for keynote lectures at the congress. Invited speakers of the last conference, the Xth Brazilian Congress of Biomechanics, organized by the Federal University of Minas Gerais (UFMG in Belo Horizonte) in 2003, were Sandra Olney (Kingston, Canada), Kenneth Holt (Boston, USA), Hartmut Riehle (Konstanz, Germany) and Dietmar Schmidtbleicher (Frankfurt, Germany). The number of participants at this congress increased to 487 participants.

The upcoming conference in 2005 will be hosted at the Federal University of Paraíba in João Pessoa between 6/20/2005 and 6/22/2005. It is the first time that the conference will be preceded by a satellite event of different courses about biomechanical topics for undergraduate and postgraduate students. The invited speakers of the XI Brazilian Congress of Biomechanics are Prof. Dr. Peter Brüggemann (Cologne, Germany) and Prof. Dr. João Abrantes (Lisbon, Portugal). More information about the conference may be obtained in Portuguese at <http://www.xicbb2005.jpa.com.br/index.html>.

Since the official language of the Brazilian Congress of Biomechanics is Portuguese, and presentations in Spanish are also accepted, this conference is the most important one in Biomechanics regularly held in Latin America. Depending on the development of Biomechanics in other Latin American countries, this conference might become a Latin American Congress of Biomechanics in future.

Until 2000 there was no specific scientific periodical in Latin America dedicated to Biomechanics, which complicated the publication of Latin American research and the development of Biomechanics in this part of the continent. Therefore, the Brazilian Society of Biomechanics started in 2000 to publish the Brazilian Journal of Biomechanics focusing on Sport Biome-

chanics, Clinical Biomechanics, Biomechanics of Biomaterials, Ergonomics, Orthopedics, Neuromuscular Control and Animal Biomechanics. The Journal has an international council board and publishes in Portuguese, Spanish and English. It is the only periodical in Latin America exclusively dedicated to Biomechanics. The Brazilian Society of Biomechanics invites international authors to publish in English or Spanish. The Journal is indexed on LILACS – BIREME/OPAS/OMS (LILACS – BIREME/PAHO/WHO) and SPORT Discus – IASI/ICSSPE/SIRC.

The major Brazilian Biomechanics Laboratories are located at the University of São Paulo (USP), State University of Campinas (UNICAMP), State University and Federal University of Santa Catarina (UDESC) in Florianópolis, University of Brasília (UnB), Federal University of Rio Grande do Sul (UFRGS) in Porto Alegre and Federal University of Minas Gerais (UFMG) in Belo Horizonte. The research fields of these laboratories are Sport Biomechanics, Human Gait and Posture, Research Methods, Mechanical Properties of Shoe Ware and Animal Biomechanics.

Due to the fact that many of the Brazilian researchers in Biomechanics obtained their PhD at foreign universities, especially in Germany, Canada and the USA, the above mentioned laboratories stay in touch with international research centers, e.g. University of Calgary, German Sports University of Cologne, University of Essen/Germany and others. As the Brazilian government provides grants for international scientific exchange programs to enable research projects (post doc) and postgraduate lectures, these circumstances should facilitate more international research projects in the future.

Although there are not yet a great number of Biomechanics Laboratories and Research Centers in Brazil compared to Europe or North America, the number of research projects is increasing which results in an increase of international publications and presentations at international conferences. Therefore the affiliation of the Brazilian Society of Biomechanics to the ISB means one more step for international integration and development of Biomechanics in Latin America.

For further information about Biomechanics in Brazil, ongoing research projects and research groups please contact the homepage of the Brazilian Society of Biomechanics (<http://www.usp.br/eef/sbb/>) or one of the above mentioned universities.

Hans Joachim Menzel

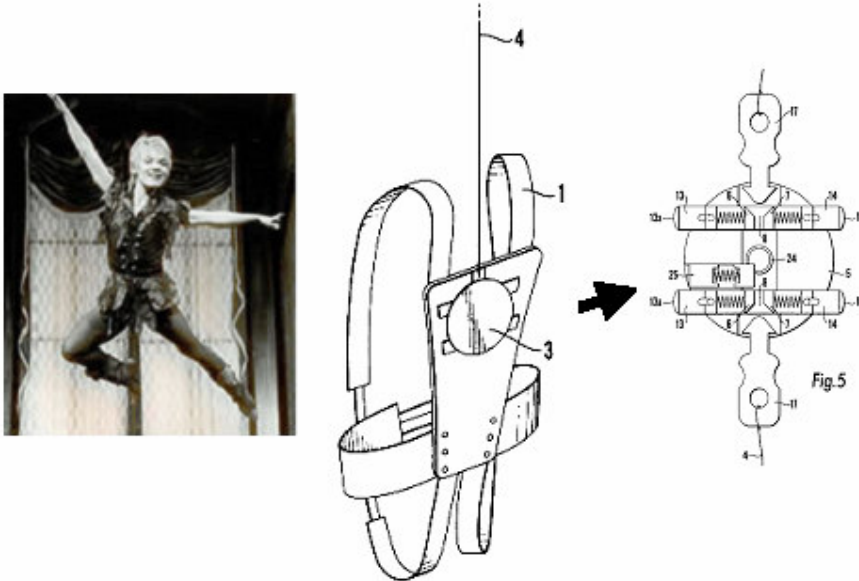


XI CONGRESSO BRASILEIRO DE BIOMECÂNICA

The artistic vision and mechanical ingenuity of Peter Foy: June 11th, 1925 - February 17th, 2005

Peter Foy, who developed an “Inter-related Pendulum System” for the original Broadway production of the musical Peter Pan in 1954, died February 17th in Las Vegas, Nevada, USA of natural causes. He was 79. Throughout his lifetime, Peter Foy applied his artistic vision and mechanical ingenuity to the challenge of safely flying performers in a variety of different and often difficult circumstances.

U.S. Patent Feb. 5, 2003 US 6,343,824 B1
Apparatus for suspending a load.



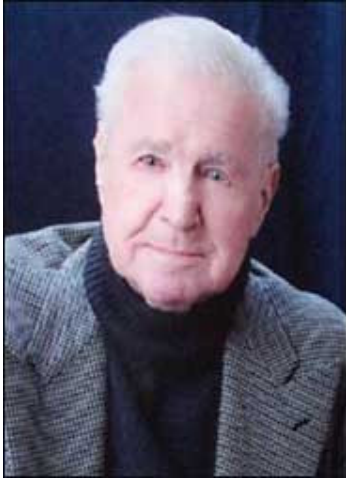
One of Peter Foy’s many inventions----including a harness for safely suspending an actor.

The creation of the Inter-Related Pendulum ushered in an era of spectacular, highly controlled, free flight, but required operators with a high degree of skill and a minimum 40 feet of ceiling height. Foy solved the problem of flying actors in low height situations with the invention of the Floating Pulley in 1958. While it was highly effective, the device was often visible to the audience. To overcome this limitation, he introduced the patented Track on Track[®] system in 1962, which allowed two operators to independently control lift and travel. Foy further improved upon the concept by inventing the Inter-Reacting Compensator[®] system, developed for touring productions of the Ice Capades.

His creation of the Multi-Point Balance Harness for the 1965 movie Fantastic Voyage set a standard still used today for flying actors on film; he pioneered the use of self-contained truss systems for touring shows, and also introduced the first self-contained radio-controlled flying system at the “Flower Expo” in Osaka, Japan in 1990. Foy flew Nadia Comaneci from the NASDAQ Building 170’ over Times Square for the 2004 Olympic Torch Relay Event in New York and created flying effects for the opening ceremonies at the Olympic Games in Athens (including suspending “cube man” as he walked around a rotating cube. The list of people he has suspended include Paula Abdul (Spellbound Tour), Julie Andrews (The Dinah Shore Show), Jean Arthur (in Peter Pan), David Bowie (The Glass Spider Tour), Sir Richard Branson, David Cassidy, Sean Connery (in the David Letterman Show), Whoopi Goldberg (74th annual Academy Awards) and many others (see http://www.flybyfoy.com/pages/Foy_Years.htm).

Samuel Alderson, Crash-Test Dummy Inventor

Oct. 21st, 1914 – Feb. 11th, 2005



Samuel W. Alderson produced the first automotive crash-test dummy, the V.I.P., in 1968, and this led to more sophisticated models such as those shown in the right.



Samuel W. Alderson, a physicist and engineer who was a pioneer in developing automotive crash-test dummies (also known as anthropomorphic test devices), died February 11th at his home in Los Angeles as a result of complications of myelofibrosis and pneumonia. The dummy that is the current industry standard for frontal crash testing in the United States is a descendant of one he began manufacturing for the aerospace industry in the early 1950's.

Samuel W. Alderson was born in Cleveland on Oct. 21, 1914, and raised in California. After the Second World War, he worked for I.B.M. in an early effort to develop a prosthetic arm powered by a small motor. Though the arm was not practical at the time, it started him thinking about replicating body parts. In 1952, he started his own company, Alderson Research Laboratories, and soon was awarded a contract to develop an anthropomorphic dummy for testing jet ejection seats. Mr. Alderson's early dummies and those of his competitors were fairly primitive, with no pelvic structure and little spinal articulation.

At the time, automakers were seeking a dummy for their own use. In the 1930's, with traffic fatalities becoming a growing public health concern, manufacturers began to explore the design of safer cars. But the new science of crash testing raised a seemingly intractable problem: to study the effect of a crash on the human body, researchers would have to equip the test car with realistic humans. As a result, the first crash-test dummies were cadavers. While useful in collecting basic data, they lacked the durability required for repeated trials.

In 1968, Mr. Alderson produced the first dummy, called the V.I.P., built specifically for automotive testing. With the dimensions of an average adult man, the dummy had a steel rib cage, articulated joints and a flexible neck and lumbar spine. Cavities held instruments for collecting data.

Mr. Alderson's other work included manufacturing humanlike figures (medical phantoms) that are used to measure exposure to radiation, synthetic wounds that ooze mock blood and are used for surgical training purposes, and breast replicas for improving the field of mammography.

Biomechanics and Music Continued (from previous newsletter)

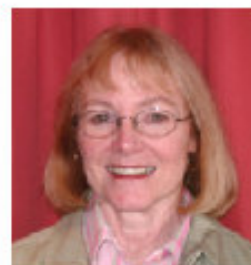
The Closing Banquet for the 2005 combined ISB/ASB Congress will be held at Cleveland's popular "Rock 'n Roll Hall of Fame". For those of you who are wondering if there will be any live performances at this event---stay "tuned"---following rave reviews of the male "stars" in the previous newsletter, we thought it only fair to showcase females who may (or may not!) be performing in the Rock 'n Roll Hall of fame on August 5th! Note: Due to an overwhelming number of abstracts that has kept Brian Davis busy, this "task" was assigned to a Anthony Brown in Brian's lab---and he seemed to thoroughly enjoy this assignment!

Julie Steele (ISB)

Irene Davis (ASB)

Karen Sogaard (ISB)

Sandra Olney (ISB)



Norah Jones

Stevie Nicks

Reba McEntyre

Madonna

Biomechanics and Oscars??

Fact or fiction? Read below what the local Cleveland magazine; Crain's Cleveland Business wrote in the January 31, 2005 issue):



"The image of a Dutch biomedical engineer from Cleveland might not come to mind when people hear the words "And the Oscar goes to ..."

Nonetheless, Cleveland Clinic researcher Antonie "Ton" van den BOGERT is one of 32 winners of the 2004 Academy of Motion Picture Arts and Sciences' Scientific and Technical Awards. Dr. van den BOGERT was recognized at the technical achievement award ceremony Feb. 12 for his work developing motion capture technology, which allows human motion to be converted into animation.

"I was extremely surprised. It never entered my mind that I would get one of those," said Dr. van den BOGERT, who is a biomedical engineering assistant staff member at the Clinic's Lerner Research Institute.

The method he helped to perfect was used to animate characters in "I, Robot," "King Kong," "The Lord of the Rings: The Return of the King," "The Matrix Reloaded," "The Matrix Revolutions" and "Sky Captain and the World of Tomorrow."

It also has been used in popular video games such as "Tony Hawk Pro Skater," "NCAA Basketball" and "Grand Theft Auto III."

Dr. van den BOGERT started developing motion capture technology for the entertainment industry in 1996, when the digital animation business was taking off with films such as "Toy Story," which came out in 1995. While at the University of Calgary, he was hired as a consultant by Motion Analysis Corp. of Santa Rosa, Calif., to de-

sign a software program to process human movements.

John O.B. Greaves, founder of Motion Analysis, said when an animator wants to capture motion, "you want the motion to look nice."

"The methodology prior to Ton's work had problems," said Mr. Greaves, who was also honored at the Academy Awards alongside Dr. van den BOGERT and two other colleagues, Ned Phipps and William Hayes. "Ton figured out a way where it was much better with smoother motions."

Dr. van den BOGERT developed a software program that takes data captured by special cameras and sensors on a human and electronically converts the information into an image on a computer. From there, animators can create a character.

"It's been only very recently that they can make people look real in animated movies," Dr. van den BOGERT said. "Once you have motion of the skeleton, you can give it to a company that produces animation of movement and can put skin on it and can make it look very realistic."

Dr. van den BOGERT still works as a consultant for Motion Analysis and said he is in the middle of several confidential projects for the company.

At the Clinic, Dr. van den BOGERT uses the motion capture technology for his research on human motion. He recently hooked up 20 Cleveland State University basketball players to his sensors to study the team's motions."

**Announcement of The Anatomical Society Summer Meeting,
University of Cardiff, 5th-7th July 2005**

Symposium - The Anatomy of Exercise.

This symposium is being organised by Professor Mike Benjamin, and will deal with the adaptation of musculoskeletal tissues to exercise and other mechanical stimuli. It will include the importance of nutrition, strategies for improving locomotion and performance, and the nature of exercise related injuries.

There will also be the possibility of submitting abstracts, either related to the symposium or on other branches of the anatomical sciences, for communication as either posters or 10 minute talks.

Speakers confirmed so far include:

Dr Andy Pitsillides (Royal Veterinary College, London, UK) Early effects of embryonic movement: a shot out of the dark'

Professor Dr Michael Kjaer (Bispebjerg Hospital, Copenhagen, Denmark) Extracellular matrix adaptation of tendons and ligaments to exercise'

Professor Thomas Best (University of Wisconsin, USA) The myotendinous junction: acute changes and adaptation to stretch injury.

Professor Elwyn Firth (Massey University, New Zealand) The response of bone, cartilage and tendon to exercise in the horse.

Prof. Dr. med. Felix Eckstein (Paracelsus Private Medical University Salzburg, Austria) The effects of exercise on human articular cartilage

Professor Michael J Rennie (University of Nottingham, UK) How nutrition and exercise maintain the human musculoskeletal mass.

Professor Alberto Minetti (Manchester Metropolitan University, UK) Making muscle work more economically/efficiently: internal and external strategies to overcome physiological and anatomical limitations of human actuators

Professor Christer Rolf (Sheffield University, UK) Clinical aspects of tendon injuries and disorders among athletes

Professor Michael Benjamin (Cardiff University, UK) Where tendons and ligaments meet bone - an anatomical and pathological perspective of attachment sites ("entheses") in relation to exercise and sport.

Further information

Details of the meeting, including registration forms and the how to submit abstracts, will be available on this web site in late March and circulated to members of the Anatomical Society.

In the meantime enquiries may be directed to the Programme Secretary, Professor Jonathan Bennett (jonathan.bennett@hyms.ac.uk) or to the local organiser, Dr Rob Santer (santer@cardiff.ac.uk).

Upcoming Meetings, Workshops

2005



The 13th International Congress on Physical Education & Sport

Dates: May 20-22, 2005

Venue: Komotini, Greece

Information: See website:

<http://www.phyed.duth.gr/icpes2005/>

ISPGR XVII International Society for Postural and Gait Research

Dates: May 29 – June 2

Venue: Marseille, France.

Information:

E-mail: christine.assisante@dpm.cnrs-mrs.fr

See website: <http://www.ispgr.org>



Symposium: Medicine meets Engineering



Dates: June 1st to 3rd

Venue: The Mechanical Engineering Department of the University of Applied Sciences, Regensburg.

Payment of Registration Fee: April 27, 2005

Information see conference website:

www.biomech-regensburg.de

Email: info@biomech-regensburg.de



European Society for Biomaterials combined session with European Society of Biomechanics At the

19th European Conference on Biomaterials

11-15 September 2005

Sorrento Italy

Professor Elizabeth Tanner, Department of Materials

Queen Mary University of London

Mile End Road, London, E1 4NS, UK

Dr Damien Lacroix, CREB

University Polytechnica de Catalunya

Ave Diagonal, Barcelona, Spain

NASPSPA

North American Society for the Psychology of Sport and Physical Activity

NASPSPA 2005 Conference

Dates: June 9-11, 2005

Venue: St. Pete's Beach in Florida

Information:

E-mail: naspspa@hotmail.com

Conference Program Chair: fischmg@auburn.edu

See website: www.naspspa.org

The 9th World Multi- Conference on Systemics, Cybernetics and Informatics

Dates: July 10-13, 2005

Venue: Orlando, Florida, USA

Information: See web-site:

www.iiisci.org/sci2005



ISB XX

International Society of Biomechanics Congress

Dates: August 1-5, 2005

Venue: Cleveland, Ohio, USA

Information:

E-mail: info@isb2005.org

See website:

<http://www.ISB2005.org>



ISSP 11th World Congress of Sport Psychology

Dates: August 15 – 19, 2005

Venue: Sydney, Australia

Information:

See website: www.issp2005.com

ISSP 11th World Congress of
SPORT PSYCHOLOGY



15 - 19 August 2005
SYDNEY - AUSTRALIA

APCST 2005

Asia-Pacific Congress on Sports Technology -

Dates: September 12-14, 2005

Venue: Tokyo Institute of Technology, Japan

Information:

E-mail

Aleksandar.Subic@rmit.edu.au

ujihashi@mei.titech.ac.jp

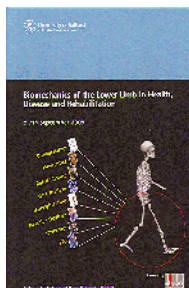
See website: www.astaonline.com.au

3rd International Conference on "**Biomechanics of the lower limb in health, disease and rehabilitation**"

Dates: September 5-7th 2005
Venue: Centre for Rehabilitation and Human Performance Research, University of Salford, England.

Information:

<http://www.healthcare.salford.ac.uk/crhpr/> email: c.j.nester@salford.ac.uk



FIRST INTERNATIONAL CONFERENCE ON MECHANICS OF BIOMATERIALS & TISSUES

DECEMBER 11-14, 2005
WAIKOLOA, HAWAII, USA

First International Conference on Mechanics of Biomaterials & Tissues

Dates: December 11-14, 2005
Venue: Waikoloa, Hawai'i, USA

Information: See web-site:

www.icmobt.elsevier.com

2006

NASPSPA

North American Society for the Psychology of Sport and Physical Activity

NASPSPA 2006 Conference

For this conference, we will join with the American College of Sports Medicine.

Dates: June 1-3, 2006

Venue: Denver, Colorado.

5th World Congress of Biomechanics

Dates: 29 July 4 August, 2006.

Venue: Munich, Germany

Information:

Email: Prof. Dr.-Ing. habil.

Dieter Liepsch, info@WCB2006.org

See website: <http://www.wcb2006.org>

Canadian Society of Biomechanics Meeting August 16-19th, 2006

Venue: University of Waterloo,
Waterloo, Ontario, Canada.

Detailed information

Je-mail: callagha@healthy.uwaterloo.ca

e-mail: sprentic@healthy.uwaterloo.ca

<http://www.csb2006.uwaterloo.ca/>



Editors notes

This should be the first ISB Newsletter to appear in an electronic version and I cross my fingers that this will actually take place.

General deadline for the next Newsletter is the 16th of May 2005.

Please, send your contribution in electronic in electronic form in any form of English to ks@ami.ks

Next Newsletter will bring you the results of the electronic election of the Council members that is taking place while this Newsletter is produced. Further, the busy people in Cleveland will keep us updated with the last minute news of the conference.





VICON, the leading developer in motion capture, introduces another breakthrough in accuracy and accelerated workflow for motion capture with VICON MX, the company's next-generation suite of real-time optical motion capture systems. Ushering in ultra-high-resolution, virtually artifact-free capture with MX40 the world's first four-million-pixel motion capture camera, VICON MX revolutionizes the quality, flexibility and ease with which motion capture data can be applied to real-time and off line applications ranging from film, television and games creation to virtual prototyping, scientific visualization and biomechanical analysis. Vicon offers a wide range of solutions available to meet your application and budget needs.

For more information, please visit www.vicon.com or e-mail sales@vicon.com.

For the UK and International:

Vicon Motion Systems Ltd.

14 Minns Business Park
West Way
Oxford, OX2 0JB, UK
Tel: +44 (0)1865 261800
Fax: +44 (0)1865 240527

For North & South America:

Vicon Motion Systems Inc.

9 Spectrum Pointe
Lake Forest
CA 92630 USA
Tel: +1 949 472 9140
Fax: +1 949 472 9136

New Members to ISB

Mr. Amit Aurora
Biomedical Engineering
Cleveland State and Cleveland Clinic
Foundation
Department of Biomedical Engg ND20
Lerner Research Institute 9500 Euclid Ave.
Ohio 44195
United States of America

Dr. Anastasios Georgoulis
Orthopaedic Sports Medicine Center
Ioannina
PO Box 1330
45110, Greece

Dr. Weng-Pin Chen
Biomedical Engineering
Chung Yuan Christian University
200 Chung-Pei Road
32023 Taiwan

Mr. Steve Fischer
Kinesiology,
University of New Brunswick
741 Fenety Street
New Brunswick E3B4H4
Canada

Mr. Grant C. Goulet
Mechanical Engineering
University of Calgary
KNB 3330A Human Performance
Laboratory
Faculty of Kinesiology
2500 University Drive NW
AB T2N 1N4
Canada

Dr. Jose-de-Jesus Salazar-Torres
Orthopaedics
Musgrave Park Hospital/Green Park
Healthcare Trust
Stockman's Lane
BT9 7JB
United Kingdom
Prof. Julie Robichaud
Physical Therapy
Indiana University
423 West Vermont #253
IN 46202
United States of America

Mr. Michael Carroll
Kinesiology
University of Calgary
Faculty of Kinesiology
2500 University Drive NW
Alberta T2N 1N4
Canada

Prof. Hans-Joachim Wilke
Institute of Orthopaedic Research and
Biomechanics
University of Ulm
Helmholtzstraße 14
89081
Germany

Dr. Karen Nolan
Physical Medicine and Rehabilitation
KMRREC and UMDNJ
1199 Pleasant Valley Way
New Jersey 7052
United States of America

Mr. Suneel Battula
Biomedical Engineering
The University of Akron
451 Brown St, Apt # 4
Ohio 44311
United States of America

Mr. Naveen Chandrashekar
Mechanical Engineering
Texas Tech University
MS 1021, Mechanical Engineering
department
Texas tech University
Texas 79409
United States of America

Dr. Karen Troy
Movement Sciences
University of Illinois at Chicago
808 South Wood St. 690
College of Medicine, East M/C 994
IL 60612
United States of America
Mr. Matthew Ferguson
Health and Kinesiology
Purdue University
330 W. Oak St.
IN 47906
United States of America

Mrs. Beth Crane
Movement Science
University of Michigan
3040 CCRB 401 Washtenaw Ave.
MI 48109
United States of America

Mr. Bryan M. Bond
Health, Science, Exercise & Sport
The University of Kansas
18985 West 159th Terrace
Kansas 66062
United States of America

Joseph Seay
Exercise Science
University of Massachusetts
Department of Exercise Science
110 Totman Building
30 Eastman Lane
MA 1003
United States of America

Mr. Jeremy Noble
Department of Kinesiology
University of Waterloo
200 University Ave W
ON N2L 3G1
Canada

Dr. Terry K.K. Koo
Jockey Club Rehabilitation Engineering
The Hong Kong Polytechnic University
Flat G, 8/F, Block 1, Grand Horizon,
Tsing Yi, N.T.
Hong Kong

Miss Kiersten Anas
Biomechanical Engineering
The University of Western Ontario
#3 - 115 Dundas St
ON N5X1H2, Canada

Mr. Sang-Kuy Han
Mechanical and Manufacturing Engineering
The University of Calgary
2500 University Drive N.W.
Alberta T2N 1N4
Canada

Mr. Kevin Rider
Industrial and Operations Engineering
University of Michigan
41830 Ravenwood St
MI 48187
United States of America

Mrs. Kristen Lemly
Physical therapy, UCSF
331 Winterwind Circle
CA 94583
United States of America

Mr. bjoern braunstein
Institute for Biomechanics
German Sport University Cologne
Carl Diem Weg 6
nrw 50933
Germany

Dr. Andrew Rentschler
CED Accident Analysis Inc
6900 Southpoint Dr, N Suite 230
FL 32216
United States of America

Ms. Ruxandra Marinescu
Pediatric Rehabilitation
Memorial Health
1011 Hammocks View
GA 31410
United States of America

Dr. Nadja Schilling
Institute of Systematic Zoology and
Evolutionary Biology
Friedrich-Schiller-University Jena
Erbertstr. 1
7743
Germany

Ms. Sujatha Srinivasan
Mechanical Engineering
Ohio State University
3794 Clay Bank Dr
OH 43026
United States of America

Ms. Veronica Santos
Mechanical & Aerospace Engineering
Cornell University
17 Leifs Way
NY 14850
United States of America

Mr. Matthew Kuklis
Concept Development
Hill-Rom Co., Inc.
1069 State Route 46 E Mail Location R50
IN 47006
United States of America

Mr. Manoj Srinivasan
Theoretical and Applied Mechanics
Cornell University
306 Kimball Hall,
Theoretical and Applied Mechanics,
Cornell University,
NY 14853
United States of America

Mrs. Tine Alkjaer
Institute of Medical Anatomy,
The Panum Institute
University of Copenhagen
Blegdamsvej 3
2200
Denmark

Mr. Nebojsa Kovacevic
NK Biotechnical Corporation
10850 Old County Road 15
Minnesota 55441
United States of America

Dr. Adrienne Hunt
School of Physiotherapy
The University of Sydney
PO Box 431
NSW 1825
Australia

Miss Janessa Drake
Kinesiology
University of Waterloo
Department of Kinesiology
University of Waterloo
200 University Ave. W.
Ontario N2L 3G1
Canada

Mr. Ben Meyer
Kinesiology
Indiana University
703 West Gourley Pike #134
IN 47404
United States of America

Mr. Michael Anthony Hunt
University of Western Ontario
616-251 Platt's Lane
Ontario N6H 4P4
Canada

Ms. Heidi Knuesel
ETH Zurich, Switzerland
Laboratory for Biomechanics,
ETH Hönggerberg, HCI E451
8093
Switzerland

Dr. Kei Masani
Department of Life Science
University of Tokyo
3-8-1 Komaba, Meguro-ku
153-8902
Japan

Dr. BEEOH LIM
KINESIOLOGY
TEXAS WOMAN'S UNIVERSITY
Biomechanics Laboratory, Pioneer Hall 123
TX PO Box 425647/ 76204-5647
United States of America

Ms. Naoko Matsumoto
Research & Development Department
ASICS Corporation
6-2-1, Takatsukadai, Nishi-ku
651-2271
Japan

Mr. David Wagner
Industrial and Operations Engineering
University of Michigan - Ann Arbor
1205 Beal Ave
MI 48109
United States of America

Miss Jennifer Megesi
Kinesiology
University of Western Ontario
1-60 Essex St
ON N6G 1B2
Canada

Miss Shih-Chiao Tseng
Physical Therapy and Rehabilitation
Science
University of Maryland, Baltimore
Room 115, 100 Penn Street
Physical Therapy and Rehabilitation
Science
Maryland 21201
United States of America

Lorilynn Bloomer
Nike Sports Research Lab
Nike, Inc.
One Bowerman Dr. NSRL MH-1
OR 97005
United States of America

Mrs. Melissa Scott-Pandorf
HPER-Biomechanics
University of Nebraska at Omaha
7517 Grover Street
NE 68124
United States of America

Dr. Bill (Guglielmo) Vicenzino
Physiotherapy
University of Queensland
Therapies Building,
St Lucia Campus of University of
Queensland,
Queensland 4072
Australia

Ms. Anna-Maria Liphardt
Deutsches Zentrum für Luft- und
Raumfahrt e.V. (DLR)
Institut für Luft- und Raumfahrtmedizin
Linder Höhe
D-51147
Germany

Ms. Vega Lee
2-725 Richmond St.
Ontario N6A3H2
Canada

Mr. James Norris
Biomedical Engineering
Wake Forest - Virginia Tech
One Medical Center Blvd. Mail Code: 1022
NC 27157-1022
United States of America

Mr. Andrew Chapman
Department of Physical Therapies
Australian Institute of Sport
Department of Physical Therapies
Australian Institute of Sport
Leverier Cr
ACT 2617
Australia

Ms. Susanne Lipfert
Locomotion Laboratory
Friedrich Schiller University of Jena,
Germany
Dornburgerstr. 23
7743
Germany

Mr. Chris Planchak
Mechanical Engineering
University of Virginia
1011 Linden Ave
VA 22902
United States of America

Dr. Cynthia Dunning
Mechanical & Materials Engineering
University of Western Ontario
1151 Richmond Street
Ontario N6A 5B9
Canada

Ms. Cheryl Dunham
Biomedical Engineering
University of Western Ontario
7 Kensington Ave, Apt. B
Ontario N6H1C1
Canada

Dr. Cynthia Bir
Biomedical Engineering
Wayne State University
818 W. Hancock
MI 48201
United States of America

Dr. Sara Wilson
Mechanical Engineering
University of Kansas
3138 Learned Hall 1530 W 15th St
Kansas 66045
United States of America

Prof. Michael Liebschner
Department of Bioengineering
Rice University
Mailstop 142 6100 Main Street
Texas 77005
United States of America

Dr. John Molgaard
Faculty of Engineering
Memorial University of Newfoundland
8-91 Allandale Place
Newfoundland and Labrador A1B 2W7
Canada

Mr. Juergen Rummel
Institute for Sport Science
Friedrich-Schiller University Jena
Dornburger Str. 23
7743
Germany

Ms. Saori Hanaki
School of KNR
Illinois State University
1420 Montgomery St.
Illinois 61761
United States of America

Ms. Angela Tate
Mechanical Engineering
Memorial University of Newfoundland
Box 29 Faculty of Engineering and Applied
Science
NL A1B 3X5
Canada

Christopher Wybo
1245 Homestead Drive
48381
United States of America

Mrs. Bente Rona Jensen
Department of Human Physiology,
Institute of Exercise and Sport Sciences
University of Copenhagen
Panum Institute/MAI/IFI Blegdamsvej 3
2200
Denmark

Mr. Rob Bisseling
Institute of Human Movement Sciences
University of Groningen
A. Deusinglaan 1
9713 AV
Netherlands

Miss Catherine Stevermer
Health & Human Performance
Iowa State University
2607 Tyler Avenue
IA 50010
United States of America

Mr. Andrew Greenhalgh
Sport and Exercise Science
Staffordshire University
1 Sabden Brook Court, Sabden
Lancashire BB7 9FY
United Kingdom

Mrs. Kirsten Legerlotz
Institute of Biomechanics and Orthopedics
German Sport University
Carl-Diem Weg 6
50933, Germany

Mr. Bijay Giri
Laboratory of Biomechanical Design,
Division of Mechanical Science
Hokkaido University
Kita 13 Nishi 8, Kita ku
Hokkaido 060-8628
Japan

Mr. Sven Knecht
Mechanical and Process Engineering
Federal Institute of Technology Zurich
Wolfgang-Pauli-Strasse 10
8093
Switzerland

Mr. Peter Wolf
Mechanical and Process Engineering
Federal Institute of Technology Zurich
Wolfgang-Pauli-Strasse 10
8093
Switzerland

Mrs. Michelle Heller
Mechanical Engineering
Pennsylvania State University
130 Northbrook Lane #209
PA 16803
United States of America

Mr. Ezio Preatoni
Dipartimento di Bioingegneria
Politecnico di Milano, ITALIA
P.za Leonardo da Vinci, 32
20133
Italy

Mr. Andrew Briggs
Centre for Health, Exercise and Sports
Medicine.
School of Physiotherapy
University of Melbourne
Centre for Health, Exercise and Sports
Medicine.
Victoria 3010
Australia

Miss Jasmine Menant
Falls and Balance research Group
Prince of Wales medical research institute
Barker Street
NSW 2031
Australia

Mr. Robert Zmitrewicz
Mechanical Engineering
University of Texas at Austin
7131 Wood Hollow Drive Apartment 106
Texas 78731
United States of America

Mr. Hyun Gu Kang
Kinesiology and Health Education
University of Texas at Austin
1 University Station Stop D3700 BEL
222 Kinesiology and Health Education
TX 78712
United States of America

Mrs. Mariana Kersh
University of Wisconsin - Madison
806 Pinewood Court #7
WI 53714
United States of America

Mr. Nick Byrne
Biomedical Engineering
University of Wisconsin - Madison
507 W. Dayton St.
WI 53703
United States of America

Miss Elizabeth Hassan
Dept of Mechanical and Materials
Engineering
University of Western Ontario
307 Central Av. Apt 2
Ontario N6B 2C9
Canada

Miss Vivi Thorup
Institute of Exercise and Sports Sciences
University of Copenhagen
Høvejen 13, Svinding
8900
Denmark

Miss Jill Brimacombe
Mechanical Engineering
The University of British Columbia
#202, 1250 Nicola St.
BC V6G 2E6
Canada

Mr. Costin Untaroiu
Center for Applied Biomechanics
University of Virginia
126 University Gardens Apt#1
Virginia 22903
United States of America

Mr. Robert Schleip
Applied Physiology
University of Ulm, Germany
Georgenstr. 22
80799
Germany

Miss Alison Sheets
Mechanical Engineering
University of California, Davis
808 F St #102
CA 95616
United States of America

Mr. Mark Creaby
Department of Exercise and Sport Sciences
University of Exeter
Richards Building, St. Lukes Campus,
Heavitree Road,
Devon EX1 2LU
United Kingdom

Mr. Matthew Seeley
Kinesiology and Health Promotions
University of Kentucky
1459 Elizabeth Street
KY 40503
United States of America

Dr. Azita Tajaddini
Biomedical Engineering
The Cleveland Clinic Foundation
9500 Euclid Ave
OH 44195
United States of America

Mrs. Tonya Parker
Human Physiology
University of Oregon
1630 Oak Patch Rd.
OR 97402
United States of America

Mr. ASIMAKIS KANELLOPOULOS
BIOENGINEERING
UNIVERSITY OF
STRATHCLYDE, GLASGOW
FLAT 3/1 34 LONDON ROAD
G1 5NB
United Kingdom

Dr. Abraham Rasul
Metropolitan Rehabilitation Medicine, PC
12286 N. Sterling Ave
Arizona 85737
United States of America

Miss Samantha Winter
Department of Kinesiology
The Pennsylvania State University
160 West Hamilton Avenue
PA 16801
United States of America

Dr. Rod Harter
Exercise and Sport Science
Oregon State University
Dept of Exercise & Sport Science
107-D Women's Building
Oregon State University
OR 97331
United States of America

Mr. Rex Wang
1F-9, No.66, Jianguo Rd.
Miaoli County 351
Taiwan

Prof. AZZA MAHMOUD
ACADEMIC AFFAIRS, COMPUTER SC.
EFFAT COLLEGE
PO BOX 34689
21478
Saudi Arabia

Dr. Thomas Pressel
Orthopaedic Surgery
Medizinische Hochschule Hannover
Anna-von-Borries-Str. 1-7
30625
Germany

Miss Paulien Roos
Sport & exercise science
University of Bath
Department of Sport & Exercise Science
Building 6 West, Claverton Down
University of Bath, BA2 7AY
United Kingdom

Miss Heather Scoffone
Biomedical Engineering
Rensselaer Polytechnic Institute
5 Blacksmith Road
RI 2864
United States of America

Mr. Mirko Brandes
Motion Analysis Lab
University Hospital
Domagkstr. 3
48129
Germany

Miss Marjolein VanderKrogt
Rehabilitation Medicine
VU University Medical Center
Postbus 7057
1007 MB
Netherlands

Mr. Robert Butler
Physical Therapy
University of Delaware
326 McKinly Lab
Delaware 19711
United States of America

Mr. Matthew Walker
Motion Analysis Laboratory
Shriners Hospitals for Children - Erie
1645 West 8th Street
PA 16505
United States of America

Mr. Simon Pearson
Division of Sport & Recreation
Auckland University of Technology
Division of Sport & Recreation,
Auckland University of Technology,
Private Bag 92006
1020
New Zealand

Dr. Zhengyi Yang
Department of Rehabilitation Sciences
The Hong Kong Polytechnic University
Department of Rehabilitation Sciences,
The Hong Kong Polytechnic University,
Hung Hom, Kowloon
10000
China

Miss Anne Katrine Blangsted
Department of Physiology
National Institute of Occupational Health
Lersoe Parkallé 105
DK-2100
Denmark

The International Society of Biomechanics
Gratefully Acknowledges the Support
of these Companies



3617 Westwind Blvd. Santa Rosa, CA, 95403 Tel: 707-579-6500 FAX: 707-526-0629



Tel: 303-799-8686 Fax: 303-799-8690 www.peakperform.com

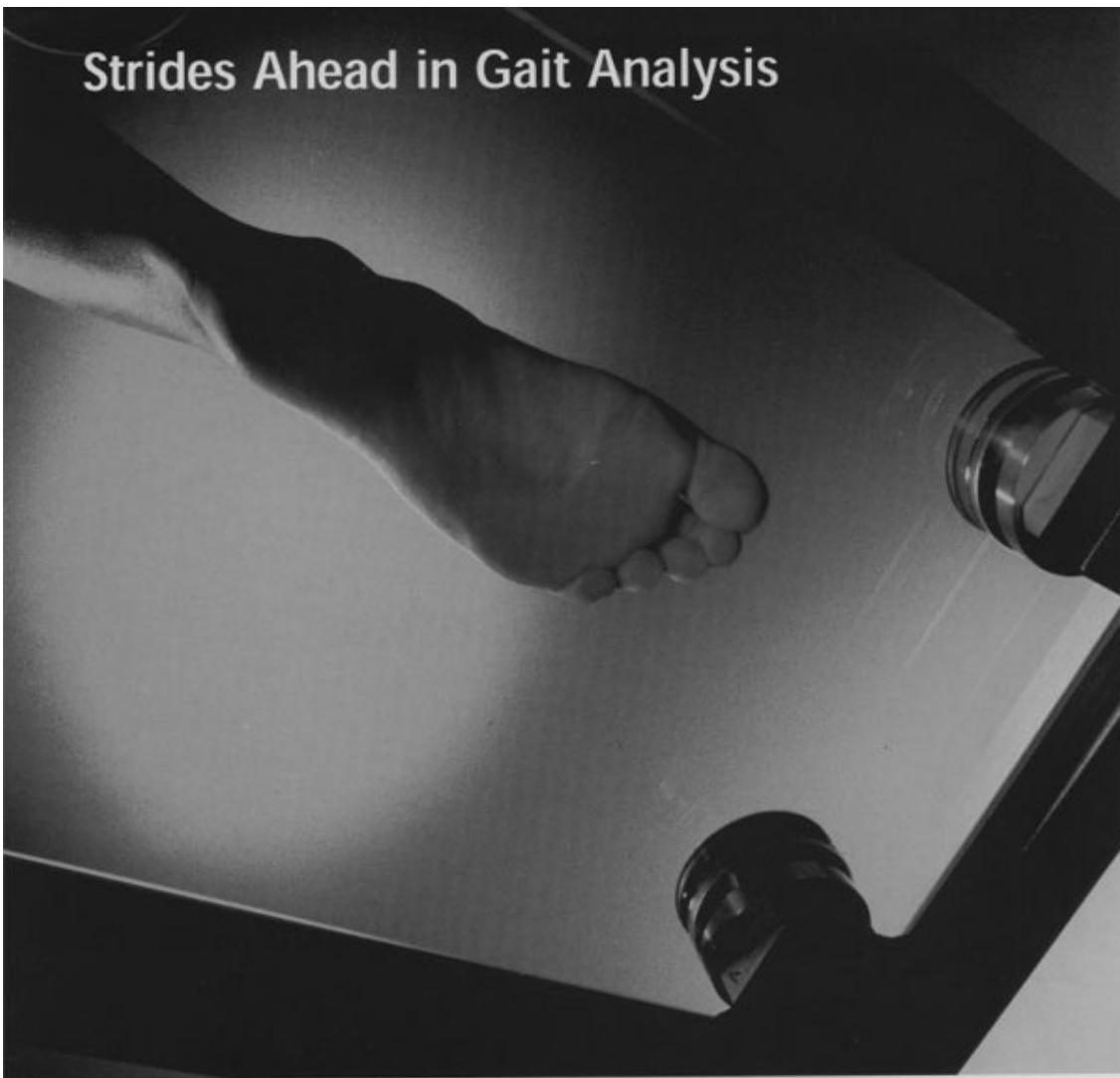


Kistler Bio-mechanics Ltd.
Mill Lane, Alton, Hampshire GU34 2QJ, GB
Tel (0 14 20) 54 44 77
Fax (0 14 20) 54 44 74

KISTLER

Kistler Instrumente AG Winterthur
PO Box 304, CH-8408 Winterthur, Switzerland
Tel + 41 - 52-224 11 11, Fax 224 14 14
www.kistler.com/biomech

Strides Ahead in Gait Analysis



Innovative design together with the highest quality of manufacturing results in the outstanding performance of Kistler Force Platforms.

Kistler Force Platforms meet the needs of virtually any application from dynamic sporting activity through to the quiet-rhythm of standing balance.

Contact us for more information.

Kistler Instruments Ltd., Alesford House, Mill Lane, Alton, Hampshire GU34 2QJ, UK
Tel. +44 1420 54 44 77, Fax +44 1420 54 44 74, sales.uk@kistler.com

Kistler Instrumente AG, PO Box, CH-8408 Winterthur
Tel. +41 52-224 11 11, Fax +41 52-224 14 14, info@kistler.com

KISTLER
measure. analyze. innovate.