

PROGRAMM

ISOB Symposium GRAZ, 24 - 26 May 2012

Conference venue:

Weitzer Hotels BetriebsgesmbH
 Grieskai 12-16, 8020 Graz, Austria Grieskai 12-16,
 8020 Graz, Austria
 Tel.: 0043 (0)316 703-607

Thursday, May 24th 2012

17:30	<i>Registration Desk</i>
18:00	First Meeting of the ISOB Council (ISOB Boardmembers)
19:00	Welcome Cocktail at the Conference Venue Hotel WEITZER

Friday, May 25th 2012

08:30	<i>Registration Desk</i>
08:45	Conference Opening
	Session 1: Implantable Telemetry I: Chairpersons: R. Puers (NL), M. Neuman (USA)
09:00	Robert Puers , P. Jourand <i>KU Leuven, ESAT-MICAS, Belgium</i> A Miniature Inductive Power Receiver for Bladder Pressure Measurement
09:15	Hans De Clercq , R. Puers <i>KU Leuven, ESAT-MICAS, Belgium</i> An inductive powering system with online power optimization, using RF power feedback
09:30	Friedmar Graichen , A. Bender, J. Dymke, A. Rohlmann, P. Westerhoff, I. Kutzner, P. Damm, V. Schwachmeyer, G. Bergmann <i>Julius Wolff Institut, Charité - Universitätsmedizin Berlin, Germany</i> Instrumented orthopaedic implants measure three-dimensional forces and moments by telemetry in vivo
09:45	Mans Jansen , D. Hovden ¹ , M. Hentzen ² , G. van Essen ² ¹ <i>TeleMetronics Biomedial bv, Wageningen, The Netherlands</i> ² <i>MSD Animal Health, Boxmeer, The Netherlands</i> TemPlant® and PhysioLinq®, two innovative solutions for monitoring of animal physiological parameters - part one: technical details

10:00	Dag Hovden ¹ , M. Jansen, M. Hentzen ² , G. van Essen ² ¹ <i>TeleMetronics Biomedial bv, Wageningen, The Netherlands</i> ² <i>MSD Animal Health, Boxmeer, The Netherlands</i> TemPlant® and PhysioLinq®, two innovative solutions for monitoring of animal physiological parameters - part two: case study
10:15	Coffee break
Session 2: Animal implants & Wildlife Telemetry Chairpersons: M. Jansen (NL), M. Bijak (A)	
10:45	Lubos Molčan ¹ , M. Teplan ² , A. Veselá ¹ , M. Zeman ¹ ¹ <i>Department of Animal Physiology and Ethology, Faculty of Sciences, Comenius University, Bratislava, Slovak republic</i> ² <i>Institute of Measurement Science, Slovak Academy of Sciences, Bratislava, Slovak republic</i> Long-term effects of phase advanced shifts of lights on cardiovascular parameters measured by telemetry in rats
11:00	Chris Walzer , G. Fluch <i>Forschungsinstitut für Wildtierkunde und Ökologie Department für Integrative Biologie und Evolution Veterinärmedizinische Universität Wien</i> Small VHF-Implants for radio-tracking reintroduced, free-ranging orangutans (<i>Pongo pygmaeus</i>)
11:15	Patricia M. Graf ^{a,b} , R. P. Wilson ^c , K. Hackländer ^b and F. Rosell ^a <i>Department of Environmental and Health Studies, Telemark University College, Norway</i> ^b <i>Inst. of Wildlife Biology and Game Management, Univ. of Natural Resources and Life Sciences, Vienna, Austria</i> ^c <i>Biological Sciences, Institute of Environmental Sustainability, Swansea University, United Kingdom</i> Using tri-axial acceleration to identify animal behaviours; a case study with beavers
11:30	Rainer Prüller ¹ , M. Forstner ² , H. Ganster ³ , G. Jakob ³ , H. Mayer ³ ¹ <i>Graz University of Technology</i> ; ² <i>WWN-Technical bureau of forestry</i> ; ³ <i>Joanneum Research DIGITAL, Austria</i> Integrated Telemetry and GIS-System for Wildlife Management
Session 3: Guided Poster presentation:	
PO 01	Bluetooth Low Energy for implantable Telemetry <i>Kneisz L., Unger E., Haller M., Krenn M., Schermann M., Rafolt D., Mayr W.</i>
PO 02	A miniature battery powered 16-channel, data monitoring and storage system with wide input voltage range for m-wave signals <i>Haller M., Padrta F., Krenn M., Kneisz L., Rafolt D., Bijak M.</i>
PO 03	Applicability of Mobile Phones for Tele-Dermatology: a Pilot Study <i>Scheibböck C., Dreiseitl S., Rafolt D., Binder M.</i>
PO 04	Poultry welfare monitoring: radiotelemetric and behavioral method <i>Bilčík B., Košťál L.</i>
PO 05	25 Years Implants of the Biomedical Engineering Group - Medical University Vienna <i>Unger E., Lanmüller H., Rafolt D., Bijak M., Haller M., Mayr W.</i>

PO 06	FES-Implant for research on a new synthetic prosthesis for peripheral nerve injuries <i>Rafolt D., Unger E., Lanmüller H., Bijak M., Mayr W., Uranüs S., Bretthauer G., Nagele-Moser D., Saliba S., Tomasch G., Justich I., Waldert J., Berghold A.</i>
12:30	Lunch
	Session 4: Telemedicine & Monitoring I Chairpersons: T. Penzel (D), L. Torres-Pereira (P)
14:00	Michael Binder <i>Department of Dermatology, Medical University of Vienna, Austria</i> Potential Application of Teledermatology
14:15	Stefan Sauer mann, M. Frohner, P. Urbauer, F. Gerbovics, B. Pohn, M. Forjan, A. Mense <i>University of Applied Sciences Technikum Wien, Austria</i> Telemonitoring is feasible in large scale clinical application and research: Available devices and interoperability standards
14:30	M. Grigioni, C. Giacomozzi, M. Rogante, Velio Macellari <i>Technology and Health dep., Istituto Superiore di Sanità, Rome, Italy</i> HTA relevance on the design of biotelemetry medical devices
14:45	Thomas Penzel, M. Glos, C. Schöbel, I. Fietze <i>Interdisciplinary Sleep medicine Center, Charité University Hospital Berlin, Germany</i> Sleep medicine is using telemetry and telemedicine
15:00	Luis Torres-Pereira ¹ , J. A. Pavão ¹ , S. Carvalho ¹ , V. M. Costa ² ¹ <i>Universidade de Trás-os-Montes e Alto Douro, Dept. of Engineering</i> ² <i>Centro Hospitalar de Trás-os-Montes e Alto Douro, Vila Real, Portugal</i> Body sensor Networks integration on Hospitals Information Systems
15:15	Coffee break
	Session 5: Monitoring II - Wireless datatransmission Chairpersons: F. Crenner (F), K. Shimizu (J)
15:30	Matthias Wagner ¹ , B. Kuch ² , C. Cabrera ¹ , P. Enoksson ³ , A. Sieber ⁴ ¹ <i>FH Frankfurt am Main - University of Applied Sciences, Germany</i> ² <i>Scuola Superiore Sant'Anna - RETIS Lab, Pisa, Italy</i> ³ <i>Chalmers University of Technology, Gothenburg, Sweden</i> ⁴ <i>Institute of Micro and Nano Technology (IMEGO AB), Gothenburg, Sweden</i> Android Based Body Area Network for the Measurement of Physiological Parameters
15:45	Thordur Helgason ^{1,2} , B. Thorgilsson ² , E. Einarsson ^{2,3} , A. Eiríksson ³ ¹ <i>Landspítali – University Hospital.</i> ² <i>Reykjavik University.</i> ³ <i>Kine ehf, Island</i> Wireless link for biofeedback muscle training telemetry
16:00	Manfred Bijak, M. Haller, M. Krenn <i>Center for Medical Physics and Biomedical Engineering, Medical University of Vienna, Austria</i> Wireless data transmission from body worn devices to PC with XBEE modules is cost effective and flexible but requires tricky software

16:15	<p>Koichi Shimizu <i>Graduate School of Information Science and Technology, Hokkaido University, Sapporo, Japan</i></p> <p>Development of telemetry system for long term ambulatory real time monitoring of autonomic nerve activity</p>
16:30	<p>Francis Crenner^{1,2}, J. Courtecuisse^{1,2}, N. Chatelain^{1,2} and Y. Ropert-Coudert^{1,2}, ¹ <i>Université de Strasbourg, IPHC, 23 rue Becquerel 67087 Strasbourg, France</i> ² <i>CNRS, UMR7178, 67037 Strasbourg, France</i></p> <p>Combination of Biotelemetry and Bio-logging: the ideal scheme?</p>
16:45	<p>Short break - grab a coffee</p>
17:30	<p>Assembly of the ISOB Members including discussion on ISOBB (ISOB+Biologging), short introduction: Francis Crenner</p> <p>Board Meeting</p>
19:30	<p>Dinner at the "Schlossberg Restaurant"</p>
<p>Saturday, May 26th 2012</p>	
08:00	<p>Registration Desk</p>
<p>Session 6: Fish Telemetry Chairpersons: W. Sakamoto (J), T. Helgason (Is)</p>	
08:30	<p>Hikomichi Mitamura^{1*}, K. Ichikawa², Shinke³ and N. Arai¹ ¹ <i>Graduate School of Informatics, Kyoto University, Kyoto, 606-8501, Japan</i> ² <i>Research Institute for Humanity and Nature, Kyoto 603-8047, Japan</i> ³ <i>R & D Center, System Intech Co., Ltd., 424-8610 Shizuoka, Japan</i></p> <p>Development of a brand-new fine-scale positioning biotelemetry system: an approach to understand fish behaviour</p>
08:45	<p>Nao Yoshida^{1*}, H. Mitamura¹, M. Sasaki², H. Okamoto³, T. Yoshida³ and N. Arai¹ ¹ <i>Graduate School of Informatics, Kyoto University, Kyoto 606-8501, Japan</i> ² <i>Kansai International Airport Co., Ltd., Izumisano, Osaka, 549-8501, Japan</i> ³ <i>Chateau Marine Survey Co., Ltd., Miyakojima, Osaka 534-0025, Japan</i></p> <p>Estimating activity of red-spotted grouper using acoustic accelerometer transmitters</p>
09:00	<p>Wataru Sakamoto, T. Ohnishi, Y. Tuda <i>Fisheries Laboratory, Kinki University, Japan</i></p> <p>Effect of food and temperature on swimming behavior of juvenile bluefin tuna</p>
09:15	<p>Håkan Westerberg¹, K. Aarestrup², D. Righton³ ¹ <i>SLU, Institute for Freshwater Research, Drottningholm, Sweden</i> ² <i>DTU Aqua, National Institute of Aquatic Resources, Silkeborg, Denmark</i> ³ <i>Centre for Environment, Fisheries & Aquaculture Science Lowestoft, UK</i></p> <p>Fish telemetry in the ocean</p>
09:30	<p>Coffee break</p>

	Session 7: Implantable Telemetry II Chairpersons: F. Graichen (G), D. Rafolt (A)
10:00	Robert Puers , P. Jourand and R. Carta <i>KU Leuven, ESAT-MICAS, Belgium</i> A Class-E Driven Inductive Power Delivery System Covering the Complete Upper Body
10:15	Koichi Shimizu , J. Akiyama, T. Namita, Y Kato <i>Graduate School of Information Science and Technology, Hokkaido University, Sapporo, Japan</i> Fundamental study for optical communication through human body
10:30	E. Romero ^{1,2} , Michael R. Neuman ² , and R.O. Warrington ² ¹ <i>University of Turabo, Gurabo, Puerto Rico, USA</i> ² <i>Michigan Technological University, Houghton, Michigan, USA</i> Energy Harvesting from Human Body Motion
10:45	Christoph Sommer ¹ , T. Finocchiaro ² , U. Steinseifer ² , H. Schima ¹ , H. Lanmüller ¹ ¹ <i>Center for Medical Physics and Biomedical Engineering, Medical University Vienna</i> ² <i>Institute of Applied Medical Engineering, RWTH Aachen</i> A 45 Watt transcutaneous energy transmission system for an artificial heart
11:00	Short break - grab a coffee
	Session 8: Implantable Telemetry III Chairpersons: S. Salmons (UK), H. Lanmüller (A)
11:15	Jonathan Jarvis, S. Salmons, <i>Dept Musculoskeletal Sciences 2, Institute of Ageing and Chronic Disease, Sherrington Building, University of Liverpool, Liverpool, UK</i> Progressive miniaturization of implantable neuromuscular stimulators for use in small animals
11:30	Lueger Andreas ¹ , M. Schwarzl ² , S. Huber ³ , F. Heinzl ² , B. Pieske ² , H. Post ² ¹ <i>Medical University of Graz, Austria, Dept. of Internal Medicine</i> ² <i>Medical University of Graz, Austria, Dept. of Cardiology</i> ³ <i>Medical University of Graz, Austria, Dept. of Cardiac Surgery</i> A pig model of atrial fibrillation using a 2.4 ghz telemetry pacemaker
11:45	Sérgio Francisco Pichorim <i>CPGEI/UTFPR-Federal University of Technology, Paraná, Brazil</i> Design of Circular and Square Coils for Inductive Links
12:00	Closing remarks
12:30	Lunch
15:00	Excursion to the vineyards of Southern Styria
Sunday, May 27th 2012	
11:00	Excursion to Riegersburg (fakultativ)

Supported by:



Medical University of Vienna
Währinger Gürtel 18-20,
A-1090 Wien
www.meduniwien.ac.at



Center for Medical Physics and Biomedical Engineering
AKH Ebene 4L
Währinger Gürtel 18-20,
A-1090 Wien
www.meduniwien.ac.at/zbmtp/



c/o Institut f. Physiologie
Harrachgasse 21
A-8010 Graz
www.oegbmt.at



Biotrack Ltd
52 Furzebrook Road
Wareham
Dorset
BH20 5AX
United Kingdom
www.biotrack.co.uk