Education Program at
TERMIS EU 2008 Annual Meeting
2008 Conference and Exposition

The Tissue Engineering and Regenerative Medicine International Society (TERMIS) European Porto 2008 Conference is the preeminent international event for the tissue engineering and regenerative medicine field. Attendees You can expect a cutting-edge scientific programme in the field of Tissue Engineering and Regenerative Medicine, allied to a wonderful social programme that will be associated to the typical St. John (s. João), one of the major Porto festivities. This special educational outreach component provides secondary education teachers, undergraduate students and health care professionals, the invaluable opportunity to meet the researchers, entrepreneurs and cutting-edge innovators who are setting tomorrow's tissue engineering and regenerative medicine innovations today. Further, teacher participants will be exposed to inquiry-based activities and strategies related to tissue engineering and regenerative medicine for incorporation into their classrooms. The TERMIS European is proud to feature the University of Minho in leading the 2008 scientific program and the educational outreach component. Together, we invite you to continue our journey and interact with the experts.

The 3B's Research Group, University of Minho, Braga Portugal, Expertissues and the Pittsburgh Tissue Engineering Initiative (PTEI) are committed to the goal to improve basic and secondary educational opportunities and curriculum for students and educators so that requisites for achieving high standards in science, technology, engineering and mathematics are met among all student populations. This need is all the time more important within today's increasingly science-based, technological world. Through its participation in the European mobility programmes, the University of Minho and PTEI work towards achieving this end by providing educational opportunities for secondary science teachers so they may acquire new knowledge and pedagogical skills, thereby enabling them to introduce concepts at the frontiers of science and technology into their curricula. In the TERMIS EU 2008 one-day teacher program, interested participants will be able to take advantage of a unique learning environment at the industry, academic, and civic interface. Teachers will be recruited through a partnership developed with the University of Minho, Braga, Portugal.

Education Program Agenda, June 23rd
Venue: Porto Congress Centre - Alfândega (Old Customs House)

Teacher Participant Registration: 07:45 to 8:00

Welcome and Setting the Stage for Day of Teacher Education at TERMIS: 8:00 to 8:30
3B's Research Group, University of Minho/PTEI Introductions
Provided by Rui L. Reis, CEng. MSc., PhD., D.Sc, Director 3B´s Research Group, Dept. of Polymer Engineering, University of Minho and Joan Schanck, MPA, Director of Education, Pittsburgh Tissue Engineering Initiative
Location: MiraGaia Hall

TERMIS EU Plenary Presentation: 8:30 to 9:30
Keynote Speaker: David Kaplan, Tufts University, Boston, USA
Tissue Engineering Strategies for Vascularization
Location: Archive Hall

"Prelude to the Future": 9:30 to 10:15
A brief summary of the situation of TERM research in Portugal by 3Bs, University of Minho senior faculty Overview to include educational and industrial aspects of TERM in Portugal by Minho faculty member tba.
Location: MiraGaia Hall

Teacher Education Workshop Phase I: 10:15 to 13:00 (with 11:00 Coffee Break on West Ground Floor)
Title: **Tissue Engineering (TE): A Biomedical AND Basic Education Classroom Revolution**
Inquiry-based Teacher Workshops conducted by Nadine Suhan, MS, and Jade Leung, MS, PTEI master teachers with classroom integration discussion by Joan F. Schanck, MPA, Director of Education and Workforce Development, PTEI.
Description: TE is a field of biomedicine that applies the principles of engineering and the life sciences toward the development of biological substitutes that restore, maintain, or improve tissue function. A novel,

"Teacher Education Manual in Tissue Engineering" provides a forum to greatly enhance student interest in current biotechnology and to enhance science process skills by providing a unique opportunity to relate the science of life to the experience of living. Teachers learn how to employ TE to engage students and: a) enhance comprehension of the interdisciplinary nature of life science, b) increase awareness of biomedicine-society interactions, and to c) reinforce key concepts of cellular and molecular biology, biochemistry, and anatomy and physiology. This hands-on workshop provides suggestions for integration into current curricula, culminating with discussions, demonstrations, and hands-on experience with curricula activities. Supplementary handouts, teacher education manual CD's, and additional resource materials are provided.
Location: MiraGaia Hall

Lunch: 13:00 to 14:30 pm (West Ground Floor)

Stem Cells 101: 14:30 to 15:00
Provided by James J. Yoo , MD, PhD, Wake Forest Institute for Regenerative Medicine
This session will provide an overview of the types of stem cells, address common questions and misconceptions about this growing field, and help explain its implications and possibilities
Location: MiraGaia Hall

TE Scaffolds and Materials: 15:00 to 15:30
Provided by Mark Van Dyke, PhD, Wake Forest Institute for Regenerative Medicine
This session provides participants an introduction to the range of materials (living and non-living) used in tissue engineering and provides an overview of multi-disciplinary nature and importance of biomedical materials within TE.
Location: MiraGaia Hall

Teacher Education Workshop Phase II: 15:30 to 17:00
Title: **Tissue Engineering (TE): A Biomedical AND Basic Education Classroom Revolution**
Inquiry-based Teacher Workshops continue, conducted by Nadine Suhan, MS, and Jade Leung, MS, Pittsburgh Tissue Engineering Initiative master teachers
Location: MiraGaia Hall

Coffee Break: 17:00 to 17:30 (West Ground Floor)

Teacher Education Workshop Wrap-Up and Bioethics: 17:30 to 18:30
"Who decides? Is it right or wrong?": Wrap-up with discussion focusing on the ethical issues related to tissue engineering, presented by Nadine Suhan, MS, and Jade Leung, MS, Pittsburgh Tissue Engineering Initiative master teachers and Joan F. Schanck, MPA, Director of Education and Workforce Development, Pittsburgh Tissue Engineering Initiative.
Location: MiraGaia Hall

St. John's Party: 19:00
Location: Nobel Hall and River Side
Cost: 40 Euros

Cost to Eligible Participants:

Complimentary with capacity at 10-24 participants

Maximum Attendees: 24

Registration Fee: Covered through sponsorship of the 3Bs Research Group, University of Minho, Expertissues, and the Pittsburgh Tissue Engineering Initiative

Registration Deadline: Maximum number of attendees of 24 will be filled on a first come first served basis.

Contact and Registration Information: For additional information and to register, contact: Prof. Manuela E. Gomes, 3B's Research Group, megomes@dep.uminho.pt; Tel: +351-253-604781 (Ext. 5497) or Ariana Santos, Public Relations / Events Organiser, 3B's Research Group, ariana.santos@dep.uminho.pt; Tel: +351 253 604782/81