

Proceedings of the Pulp Biology and Regeneration Group Symposium 2019: Bridging Basic and Translational Research in Pulp Biology - Developing Technologies for Regenerating Vital Dental Tissues

Significant advances in pulp stem cell biology and tissue engineering is bringing science from the bench to the clinic. Recent knowledge on the pulp's control of its own inflammation and a better understanding of its interaction with capping materials is questioning vital pulp treatment modalities; it is even bringing a paradigm shift in irreversible pulpitis treatment.

The Pulp Biology and Regeneration Group held a Satellite Meeting entitled "Bridging Basic and Translational Research in Pulp Biology - Developing Technologies for Regenerating Vital Dental Tissues" in Portland, Oregon, USA, June 23-25, 2019. The symposium hosted some of the most well-renowned dental pulp biology and regeneration experts. The symposium focused on recent advances in stem cell/tissue engineering and on developing new technologies to regenerate the dental pulp. Given the breakthroughs towards clinical trials, the operating procedures leading to clinical-grade cells for oral applications were presented and discussed. This symposium was also a unique opportunity to discuss the upcoming changes in irreversible pulpitis treatment. It was an excellent occasion to listen to and directly exchange with the main players in pulp biology and regeneration. In addition to oral presentations and poster sessions, this meeting provided stimulating direct exchanges with experts and allowed the sharing of precious knowledge in stem cells, signaling pathways, 3D printing and advances in the field of stem cell/tissue engineering. Additionally, the symposium included three novel aspects:

- Small group discussion sessions were organized and lead by emerging pulp biology experts on burning subjects including materials pulp tissue interaction, regeneration signals, scaffold-based and scaffold-free approaches for pulp regeneration and treatment of irreversible pulpitis
- In the era of translational regenerative medicine and patient care, the delegates benefited from the main players in this translation. Representatives from industry (Septodont), regulatory (FDA), and funding agencies (NICDR) were invited to explain the regulatory status, funding opportunities and how new technologies can be taken to final products to be used clinically.
- Speakers from non-dental fields were invited to provide additional interaction opportunities. This allowed us to set parallels with other tissues/functions/technology and enrich pulp biology interaction with other fields.

The PBRG is grateful to the Oregon Health & Science University who hosted the symposium, by providing an excellent facility for the meeting which took place in a very friendly atmosphere. In particular, the PBRG group acknowledges the great personal investment and efforts of the local committee (Luiz Bertassoni, Jack Ferracane, Christine Sedgley and Nadia Chugal) for their excellent organization. The PBRG is indebted to the American Association of Endodontic Foundation for the significant financial support of this symposium and appreciate their continuous support of the PBRG satellite symposia. We believe this long-term partnership is essential in dental pulp translational medicine.

The content of the presentations and the outcome of the group discussions are reported in this supplement, which reflects the experts' opinions and provides cutting-edge information in the field of pulp biology and regeneration. The PBRG board is proud to publish this supplement in the Journal of Endodontics and believes that it will represent an inspiring and a precious source of information for students, researchers and clinicians. This supplement is the

landmark of each PBRG Satellite symposium. Previous editions have demonstrated that this document is considered as a “reference” and as an “authority” in the field of pulp biology and regeneration. It is very highly appreciated, downloaded and consulted. The publication of this supplement would not have been possible without the continuous support of the Journal of Endodontics. In particular, the PBRG thanks Professor Kenneth Hargreaves, the editor of Journal of Endodontics for his continuous support. In addition, the meeting received the support of seven industrial partners, with Septodont as the major partner.

Of course, nothing would have been possible without peer-review and expertise. The PBRG is grateful to the reviewers of the manuscripts of this supplement for their efforts in the review process.

Finally, I wish to thank the PBRG officers for their solid support before, during and after the symposium.

Imad About

Guest Editor

President of the IADR Pulp Biology and Regeneration Group

Professor at Aix-Marseille University, Marseille, France

