

Preface

The International Symposia on Retinal Degeneration have been held in conjunction with the biennial International Congress of Eye Research (ICER) since 1984. These RD Symposia have been highly successful and have become one of the most well attended meetings in the field. The RD Symposia are successful because they allow basic and clinician scientists from around the world to convene and present their new research findings in a format that allows sufficient time for discussions and one-on-one interactions in a relaxed atmosphere, where international friendships and collaborations can be fostered.

The XVth International Symposium on Retinal Degeneration (RD2012) was held in Bad Gögging, Bavaria, Germany July 16–21, 2012. The RD2012 meeting ties the RD2010 meeting in size, which was the largest ever. The meeting brought together 230 basic and clinician scientists, retinal specialists in ophthalmology, and trainees in the field from all parts of the world. In the course of the meeting, we had 6 plenary lectures, 43 platform presentations and 117 poster presentations. A majority of these are presented in this proceedings volume. New discoveries and state of the art findings from most research areas in the field of retinal degenerations were presented.

For the first time, the RD Symposium was organized around a theme, this time focused on the role of innate and acquired immunity in the initiation and progression of retinal degenerative diseases. The recent discovery that mutations in genes related to regulation of the immune system are responsible for 50% of the familial forms of age-related macular degeneration (AMD) demonstrates the important role the immune system plays in this disease. Based on these findings, it seemed appropriate to focus part of the RD2012 on the role of the immune system in degenerative retinal diseases. To accomplish this goal, six plenary speakers who work in the field of innate and acquired immunity were invited to participate in the RD2012 meeting. The speakers included: *V. Michael Holers*, Professor of Rheumatology, University of Colorado, School of Medicine, Denver, Colorado, USA; *Paul McMenamin*, Professor of Anatomy & Developmental Biology, School of Biomedical Sciences, Faculty of Medicine, Monash University, Melbourne, Australia; *Scott Cousins*, Professor of Ophthalmology, Duke University School of Medicine, Durham, North Carolina, USA; *Frederic Geissmann*, Professor and Chairman, Inflammation

Biology, King's College, London, United Kingdom; *Thomas Langmann*, Professor and group leader at the Institute of Human Genetics, Regensburg, Germany; and *Chi-Chao Chan*, Chief of Immunopathology Section, Laboratory of Immunology, National Eye Institute (NEI), National Institutes of Health (NIH), Bethesda, Maryland, USA. These speakers are world leaders in the fields of complement activation and signaling, the role of monocytes and microglia in retinal degeneration, and the role of cytokines in retinal degeneration. The remainder of the program included topics important to retinal degeneration including: gene therapy, neuroprotective therapy, mechanisms of cell death, mechanisms of neuroprotection, novel animal models of inherited retinal degenerations and AMD, macular degeneration, phenotype/genotype correlations, and transplantation and other cell-based approaches. The resulting program was one of the most comprehensive and up-to-date of any meeting dealing with retinal degeneration.

The meeting was organized by a nine-member committee that included the permanent members Joe G. Holyfield, Christian Grimm, Robert E. Anderson, Matthew LaVail, Catherine Bowes Rickman, and John D. Ash; and the local organizing committee members, Bernhard Webber, Ernst Tamm, and Olaf Strauss. The Symposium received international financial support from a number of organizations. We are particularly pleased to thank The Foundation Fighting Blindness, Columbia, Maryland, for its continuing support of this and all previous biennial Symposia, without which we could not have held these important meetings. In addition, for the sixth time, the NEI of the National Institutes of Health contributed in a major way to the meeting. In the past, funds from these two organizations allowed us to provide 25–35 Travel Awards to young investigators and trainees working in the field of retinal degenerations. In addition, we received generous funding from Pro Retina Germany and the Fritz Tobler Foundation Switzerland. In total, we were able to fund 57 Travel Awards, the largest number ever for these Symposia.

We thank the outstanding management and staff of the beautiful Monarch Hotel in Bad Gögging, which is located midway between Regensburg and Munich. The hotel was easily accessible, but relatively remote, which created the ideal atmosphere to encourage participation of attendees in all scientific sessions and informal meetings during meals. We would like to thank the hotel staff for all of their assistance in making this an exceptionally smooth-running conference and a truly memorable experience for all of the attendees. We would like to express our appreciation for the musical talent of Franz Badura. During our excursion to the Weltenburg monastery, Franz played several beautiful pieces in a Baroque church. Many attendees mentioned this as a highlight of the excursion. We thank Barbara Gareis and her staff in coordinating with the hotel and assisting with the poster boards and other meeting logistics. Barbara is an assistant to Ernst Tamm at the University of Regensburg. We also acknowledge the diligent and outstanding efforts of Ms. Holly Whiteside, who carried out most of the administrative aspects of the RD2012 Symposium. Holly is the Administrative Manager of Dr. Anderson's laboratory at the University of Oklahoma Health Sciences Center, and she has become the permanent Coordinator for the Retinal Degeneration Symposia. Her dedicated efforts with the Symposia since RD2000 have provided continuity not available previously, and we

are deeply indebted to her. Holly worked with Bo Dong and John D. Ash to develop the RD2012 website that for the first time included electronic submission of abstracts, registrations, and online payments.

Finally, we honor the memory of a most beloved regular attendee and supporter of the RD symposium by dedicating this book to Elizabeth Anderson. Elizabeth was a constant advocate for young scientists, as she often encouraged them to get involved in the meeting and to interact socially and informally with the senior scientists. Elizabeth was a major proponent of such interactions, and her encouragement is one of those intangible acts that influence our careers more than we could know.

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