

Recipients of the 2008 ASRI Awards

Blackwell Munksgaard Award

The Blackwell Munksgaard Award is awarded annually to a senior investigator who has made outstanding contributions in either the basic or clinical aspects of reproductive immunology. This award, which is the highest award of the American Society of Reproductive Immunology (ASRI), is made possible through the generous support of the publishing house of the same name. The 2008 recipient of the award is **Daniel Rukavina, MD, DSc**.



Prof. Daniel Rukavina is an outstanding scientist in the field of reproductive immunology and is well known both nationally and internationally. He received his MD and DSc degrees from the University of Zagreb, Croatia. His interest in immune tolerance and in the maternal–fetal immunological relationship led him to a 1-year Fulbright Scholarship in Dallas, Texas (1972) in the laboratory of Prof. Rupert Billingham, one of leading scientist in the field of transplantation immunology. As he says in the May issue of AJRI (2008), the atmosphere in Dallas was exciting, and he not only worked with Prof. Billingham but also shared the laboratory with Alan Beer, Judith Head and James Scott. Upon

returning to the University of Rijeka, Daniel Rukavina organized his own research group and established close collaborations with clinicians. He was elected as Professor and Chairman of the Department of Physiology and Immunology (1977), Dean of the Medical Faculty (1983) and finally Rector of the University of Rijeka (2000) in which position he contributed substantially to the development of research in the University, which led to widespread recognition of the University, and which served as a paradigm for similar developments in other universities.

At the University of Rijeka, Prof. Rukavina developed research in the field of clinical immunology and transplantation and in the period 1986–1990, he was the coordinator of the Croatian national program. He also established and led the first comprehensive 2-year scientific postgraduate program in Clinical Immunology and Transplantation with two modules: clinical immunology and experimental and clinical transplantation. Seven generations of students have been enrolled over a period of 15 years. His research group was supported by a number of national and international grants (USA, UK, EU) and it focused broadly on the fields of transplantation, neuroimmunology and autoimmune diseases. For Prof. Rukavina, however, the immunology of reproduction was, from the beginning, his central research interest. Through these programs he developed fruitful cooperation with a number of clinics at the University of Rijeka and outstanding research centers in USA, Europe and Japan. More than sixty young researchers achieved either master of science or doctoral degrees under his supervision, and approximately 30 former trainees are now professors at clinics or departments at the University of Rijeka or abroad.

Prof. Rukavina has organized many international meetings and congresses. In collaboration with Prof. T.J. Gill III, he was the founder and first President of the Alps Adria Society for Immunology of Reproduction and the organizer of five meetings on Mechanisms in Local Immunity in Opatija, Croatia from 1990–2001. He was the Organizer of the 8th and 10th Congress of the ISIR which were held in 2001 and in 2007 in

Opatija. Prof. Rukavina was the first President of the European Federation of Immunology and Reproduction (EFIR) and President of International Society for Immunology of Reproduction (2004–2007). His activities were broadly recognized, and he has received numerous awards – nationally and internationally. In 2000 Prof. Rukavina became a full member of the Croatian Academy of Sciences and Arts, and in 2003 he received an award from the Republic of Croatia for lifetime achievements. He has also received awards from the Japanese Society for Reproductive Immunology (2000), the American Society for Reproductive Immunology (2005), and the International Society for Immunology of Reproduction (2007) to which he was elected an Honorary President (2007). Prof. Rukavina was an invited speaker, organizer and chairman of symposia and workshops at a number of international and European immunology and reproductive immunology congresses. He was a visiting professor at 23 universities in the USA, Europe and Japan. Prof. Rukavina has published 316 scientific papers in the field of immunology and reproductive immunology, and he has been the editor of many books and guest editor of a number of special issues of scientific journals.

His initial research interest in reproductive immunology was centered on the maternal–fetal immunological relationship, on the role of the placenta – both haemochorial and syndesmochorial – and on the very interesting effect of maternal transplantation immunity on the specific reactivity of the offspring. More recently, his interests have focused on the investigation of bone marrow-derived immunocompetent cells infiltrating cyclic endometrium and decidua in both normal and pathological pregnancies and on the consequences of decidua–trophoblast interaction on the phenotype, spontaneous and induced proliferation and the immunoregulatory potential of these cells. His group was the first to show that decidual NK cells, the predominant population of decidua infiltrating lymphocytes, are CD3-CD56brightCD16- and full of perforin (Pbright). The cytolytic molecule perforin is expressed in the first trimester decidua in quantities higher than in any other pathological condition. An essential role for perforin-mediated functions in the activation of innate and adaptive immunity was found, and cooperation between NK and dendritic cells was important in the perforin mechanism. Finally, his research interest is now

focused on the mechanisms that control embryonic implantation particularly the phenotype, distribution and functional activity of decidua-infiltrating leucocytes, the expression of cytolytic molecules (perforin, granulysin, FasL, TRAIL), secreted molecules such as cytokines, gene expression and protein profiles.

J. Christian Herr Award

The J. Christian Herr Award is given to a member of the ASRI or ISIR, typically in the first 10–15 years beyond accepting a faculty position, who has made outstanding achievements in basic or applied research in reproductive immunology, particularly for investigators involved in technology transfer. This award was established to recognize J. Christian Herr, who worked for many years to promote small business through the SCORE program [Service Core of Retired Executives] of the Small Business Administration. The spirit of the award may be found in the words of Louis Pasteur: ‘There is no true distinction between fundamental and applied science, there is only science in the cause of humankind’. This year’s recipient is **Lucia Mincheva-Nilsson, MD, PhD**.



Lucia Mincheva-Nilsson is an associate professor at the Department of Clinical Immunology, Umeå University, Sweden. After her medical studies she obtained a medical specialization examination in infectious diseases. She received a PhD degree in Immunology from Umeå University 1993 for a thesis entitled ‘Immune cells in pregnant uterine mucosa – functional properties, cellular composition and tissue organization’. After her dissertation she was involved in organizing and opening a new

diagnostic laboratory for Clinical Immunology at the University Hospital of Umeå and holds a position as head of the laboratory with responsibility for the diagnostics in autoimmunity, allergy and immune deficiencies in the Swedish Northern Region. In parallel, Dr Mincheva-Nilsson has pursued an academic career in Reproductive Immunology in fruitful collaboration with Dr Vladimir Baranov, a specialist in electron microscopy and pathology from the Cancer Research Center at the Russian Academy of Medical Science. Since 2007 Dr Mincheva-Nilsson holds a tenure university lecturer position at the Medical Faculty, Umeå University.

Dr Mincheva-Nilsson's research interest is maternal tolerance towards the semi-allogeneic fetus that involves a number of mechanisms associated with modifications of the immune status of the mother. In her earlier work, Dr Mincheva-Nilsson studied the decidua-associated immune cells during early placentation. Her work provided insights into the ultrastructure of decidual lymphocytes, particularly $\gamma\delta$ T- and uterine NK cells. She was the first investigator to characterize $\gamma\delta$ T cells in pregnant uterine mucosa. Beginning in 1992, she has characterized their functional properties, demonstrated their extra-thymic origin, and studied their cytotoxic potency and cytokine profile that classifies them as adaptive Tr1 type of regulatory T cells (*J Immunol* 149:2203–2211; 152:2020–2032; 159:3266–3277, *Int Immunol* 12:585–596, *AJRI* 48:9–17).

Her recent studies are focused on modulation of the maternal cytotoxic response during pregnancy and placenta-released exosomes. The activating NK-cell receptor NKG2D and its ligands the MIC- and ULBP/RAET1 families comprise a powerful cytotoxic system for elimination of infected-, transformed- or foreign cells and thus a potential threat to the fetal allograft. Dr Mincheva-Nilsson and her group have studied this system in human pregnancy and discovered that the syncytiotrophoblast constitutively expresses the NKG2D receptor ligands MICA/B and ULBP and releases them by exosomes that interact with and inhibit the NKG2D dependent cytotoxic response (*J Immunol* 2006, 176:3585–3597). These findings suggest a novel physiological mechanism of silencing the maternal immune system that promotes fetal immune escape and supports the view of placenta as an immunoregulatory organ.

Dr Mincheva-Nilsson is a member of the International, the American and the European Societies of

Reproductive Immunology. She has served as a member of the Steering Committee of the Division of Clinical Immunology of the Swedish Medical Society (1997–2007) and of the International Society of Reproductive Immunology (2004–2007).

Distinguished Service Award

The Distinguished Service Award is awarded periodically, to a member of the ASRI who has provided distinguished service to advance the goals and mission of the society. This year's recipient is **Kenneth D Beaman, PhD, D(ABMLI)**.



Dr Beaman is a Professor in the Department of Microbiology and Immunology at Rosalind Franklin University of Medicine and Science. He has been a member of American Society of Reproductive Immunology (ASRI) for over 20 years. He has always been an enthusiastic advocate of the ASRI and active in the leadership of this society. He was a member of the council from 1995–1998 and an associate editor for the American Journal of Reproductive Immunology from 1997–2001. Since 2002 he has been Editor-in-Chief of the American Journal of Reproductive Immunology and has increased its visibility and importance in the field of reproductive immunology. During his tenure, in-depth academic and clinical articles as well as review articles have been published, as well as a special issue on NK cells this year. During his tenure, he established an electronic submission and review process, which placed AJRI on a competitive edge with other journals and he has been instrumental in making the American Journal of Reproductive Immunology the most prestigious journal in the field of reproductive immunology.

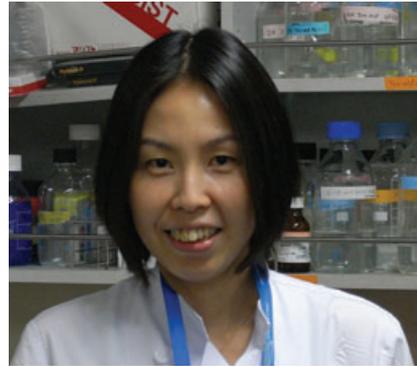
Dr Beaman's major research interests are the role of the $\alpha 2$ isoform of vacuolar ATPase in

inflammation and the nidation of early pregnancy. He has published extensively on these topics. He has been the mentor for over 15 graduate students and presented scientific papers at many of the annual meetings. He has also published papers in the area of clinical immunology and recurrent spontaneous abortions with his colleagues which have increased the awareness of immunology to the process of pregnancy. He has been involved in helping to shape the direction of the society through some difficult times.

Dr John Gusdon Memorial New Investigator Award

The Dr John Gusdon Memorial New Investigator Award is awarded to a new investigator with trainee status (graduate student, post-doctoral scientist or resident) who has made a significant contribution by presenting an outstanding research paper during the annual meeting of the ASRI. This award is given annually in memory of Dr John Gusdon, a founding member of the ASRI, and an advocate of student participation in ASRI meetings.

The recipient of the 2008 Dr John Gusdon Memorial New Investigator Award is **Dr Kaori Kogi** for her presentation entitled 'Activation of TLR-3 in the trophoblast is associated with preterm delivery'. A native of Tokyo, Japan, Kaori Koga received her MD from Chiba University and PhD from University of Tokyo, Japan. She completed her Ob/Gyn residency training and clinical fellowship in Tokyo. She undertook post-doctoral fellowships in the Uterine Biology Group at Prince Henry's Institute, Melbourne, Australia and the Reproductive Immunology Unit at the Department of Obstetrics, Gynecology and Reproductive Sciences in Yale University. She has benefitted from excellent mentorship at Yale University School of



Medicine in the laboratory of Dr Gil Mor. Kaori is currently an Ob/Gyn assistant professor (jokyo) at University of Tokyo, Japan. Her research interests include implantation, feto-maternal interaction, pre-eclampsia and her clinical interests include endometriosis, infertility and laparoscopic surgery.

The finalists for the Dr. John Gusdon Memorial New Investigator award were: (i) Anne Schumacher, "Human chorionic gonadotropin attracts regulatory T Cells into the feto-maternal interface", Department for Experimental Gynaecology and Obstetrics, Division of Reproductive Immunology, University of Magdeburg, Magdeburg, Sachsen-Anhalt, Germany, Institute for Medical Immunology, Reproductive Immunology, Charite, Berlin (ii) Jessica Thaxton, "IL-10 as a potent protector of TLR9-mediated fetal demise and preterm birth", Brown University School of Medicine, Women and Infants' Hospital, Providence, RI, USA, and (iii) Svetlana Dambaeva, "Effect of *in vivo* depletion of CD16+ or CD8+ cells on placental development and pregnancy success in the rhesus monkey", Depts. of Comparative Biosciences, Obstetrics and Gynaecology, and the Wisconsin National Primate Research Center, University of Wisconsin, Madison, WI, USA.