# Lorraine Racusen and Kim Solez Awarded the Gold Medal of the Catalan Transplant Society

D. Serón[a,*] and A. Roman[b]

[a]Nephrology Department, Hospital Universitari Vall d'Hebron, Autonomous University of Barcelona, Barcelona, Spain; and the
[b]Pneumology Department, Hospital Universitari Vall d'Hebron, Autonomous University of Barcelona, Barcelona, Spain

## ABSTRACT

In March 2017, a joint meeting between The Catalan Society of Transplantation and the Banff Foundation was held at the University of Barcelona. This was an opportunity for the Catalan Society of Transplantation to recognize the crucial contributions to transplant pathology made by Lorraine Racusen and Kim Solez, who created and actively contributed to the development of the International Banff Classification System. The ceremony of the Gold Medal took place on March 31 at the University of Barcelona; it consisted of a presentation of the contributions of Lorraine Racusen and Kim Solez to the development of transplant pathology. In this article, the presentation of these awardees with the Gold Medal of the Catalan Society of Transplantation is summarized.

SINCE 1996, The Catalan Society of Transplantation has honored with its Gold Medal award physicians, surgeons, or basic scientists who have made outstanding contributions to the field of transplantation (Table 1). During the joint meeting between The Catalan Society of Transplantation and The Banff Foundation, Lorraine Racusen and Kim Solez were honored with the Gold Medal of The Catalan Society of Transplantation for their outstanding contributions to the field of allograft pathology.

## Lorraine Racusen and Kim Solez Created an International Classification System for Renal Allograft Pathology

Kim Solez obtained his MD degree at the University of Rochester School of Medicine, trained in pathology at Johns Hopkins, where he was mentored in renal pathology by Robert H. Heptinstall, and became Chairman of the Department of Pathology at the University of Alberta in Edmonton, Canada, in 1987. Lorraine Racusen obtained her MD degree at the University of Vermont, did a postdoctoral research fellowship at Yale University, and trained as a pathologist, including a renal pathology fellowship, at Johns Hopkins, mentored by Kim Solez. How they decided to explore the possibility to create an international classification for renal allograft pathology can be read in an article published by Kim Solez in 2010. "In December 1990 I received a letter from Paul Keown telling me that the International Society of Heart and Lung Transplantation (ISHLT) had just published a consensus classification of heart and lung transplant biopsy interpretation and suggesting that we do the same for the kidney. I was enthusiastic from the beginning and so was Lorraine Racusen, who said it was the most interesting project I had ever suggested to her, and we decided to undertake it together" [1].

The first meeting was held in 1991 at the town of Banff in Canada. At this meeting, there were only 12 attendees. Two years later, they published the conclusions of this first meeting [2]. The article was entitled "International Standardization of criteria for the histologic diagnosis of renal allograft rejection: the Banff working classification of kidney transplant pathology." This article was followed by other documents that improved histologic criteria for the diagnoses of renal allograft pathology and extended the Banff classification system to the pancreas, liver, heart, lung, and composite tissue transplantation. In this large adventure that has lasted more than 27 years, Solez and Racusen have been actively involved in the improvement of the Banff classification, organizing the Banff meetings, and promoting the use of the classification at the international level. Solez and Racusen have co-authored 43 articles on the classification of transplant pathology. Meanwhile, the use of the

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*Address correspondence to Daniel Serón, Nephrology Department, Hospital Universitari Vall d'Hebron, Passeig de la Vall d'Hebron, 119-129, 08035 Barcelona. E-mail: dseron@vhebron.net

**Table 1. Catalan Society of Transplantation Gold Medal Awardees**

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|---|---|
| 1996 | Roy Calne |
| | Thomas Starzl |
| 1999 | Antoni Caralps |
| | Josep Maria Gil-Vernet |
| 2001 | Felix Rapaport |
| 2003 | Barry Kaham |
| | David Sutherland |
| 2005 | John Naharian |
| | Claudio Ponticelli |
| 2007 | Carles Margarit |
| 2009 | Gerhard Opelz |
| 2011 | Kathryn Wood |
| 2013 | Francis Delmonico |
| 2015 | Juan Izpisúa |
| 2017 | Lorraine Racusen |
| | Kim Solez |

classification has extended to the majority of pathology laboratories all over the world. The extended use of the classification is defined in *Wikipedia*, as follows: "the Banff classification is a schema for nomenclature and classification of renal allograft pathology, established in 1991 by Kim Solez and Lorraine C. Racusen" [3].

Success of the Banff Classification

The success of the Banff classification has been based on its flexibility and openness to reach consensus in an inclusive way. The philosophy has been gently pursued by Solez and Racusen from the beginning. The modification of the first proposal for acute rejection classification is a good example of this. In 1991, it was proposed to classify acute rejection as mild, moderate, and severe. In a counterintuitive way, moderate rejection was defined as the presence of severe tubulo-interstitial rejection or as the presence of mild vascular rejection. This proposal was soon challenged by the Cooperative Clinical Trials in Transplantation (CCTT), which proposed a simpler schema: grade I for tubulo-interstitial, grade II for vascular with endothelialitis, and grade III for vascular with fibrinoid necrosis or transmural inflammation [4]. The predictive value on outcome was superior for the CCTT classification. This new proposal was presented at the 1997 Banff meeting, and a synthesis of the first Banff and the CCTT proposals was reached by consensus in an exercise that strictly followed Hegel's dialectics: thesis, antithesis, and synthesis [5]. Another example of flexibility and adaptability to changing ideas was the decision to abandon the original idea accepted in the first Banff meeting that the classification should rely only on light microcopy, so that it could be used by any pathology laboratory. However, proof in favor of the humoral theory raised the question of whether more sophisticated techniques should be used to better classify histology. It was remarkable for a pathologic classification to include a serologic test (donor-specific antibodies) as a criterion to define humoral rejection [6]. In the discussion on the incorporation of a serologic test into a histologic classification, the definition of pathology was in some way challenged. However, it was argued

that patient safety is from the hierarchic point of view, the main basis on which to make medical decisions.

Reflections on the Dynamics of the Banff Group

The success of the classification—its great capacity to rapidly adapt and integrate new concepts—led to some reflections that contributed to a better understanding of the dynamics of the group. In this regard, Mengel et al [7] explained that consensus does not necessarily mean correctness, but it is necessary to speed up knowledge because a clear statement reached by consensus will stimulate the scientific community to test its validity. In an analysis of strengths, weaknesses, opportunities, and threats of the Banff group, it was concluded that the major strength of the Banff group is consensus. The lack of an external standard was considered its major weakness. However, this aspect, which is inherent to many classification systems, has led to interesting methodologic considerations [8]. The rapid development of new technologies represents a major opportunity, and the major threat for the group would be the lack of support of the community, which, at present, is not experienced. Pena [9] proposed that the Banff group constitute an example of the "thought community" proposed by Ludwick Fleck. The Banff group is based on collective thought: it has its own way of thinking, with the basic idea being that pathology is crucial to understand and improve the results of transplantation. New knowledge is constantly reviewed by discussion, leading to proposals to modify the classification by consensus and stimulating the validation of the modifications.

The increasing complexity of managing the Banff group has led to the creation of the Banff Foundation, chaired by Solez, in which Racusen is a member of the board of directors. The aim of the foundation is to lead development and dissemination of the International Banff Classification of Allograft Pathology and to facilitate multidisciplinary, collaborative research to enhance its scientific basis and clinical utility to improve the care of transplant patients. When reviewing their last publications, Racusen has continued to be closely involved in basic pathology [10,11] and Solez has become interested in foresight of future changes and challenges that will take place in the pathology and transplant fields [12,13].

The joint meeting between the Catalan Society of Transplantation and the Banff Foundation was an opportunity to honor Lorraine Racusen and Kim Solez with its Gold Medal as the recognition of their outstanding contributions to allograft pathology [14].

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