



R O T R F

*Roche Organ Transplantation  
Research Foundation*



***ANNUAL  
REPORT 2014***



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# *The Roche Organ Transplantation Research Foundation*

The mission of the Roche Organ Transplantation Research Foundation (ROTRF) is to advance the science of organ transplantation in order to improve the care of the thousands of patients undergoing transplantation every year. The results of the funded research projects will contribute to an understanding of many aspects of the clinical and scientific transplantation, such as the mechanisms of long-term organ deterioration and the consequences of tissue injury, and will provide the opportunities to intervene in these processes.

The Foundation is an independent medical research charity that provides operating funds to established academic staff at universities, transplant centres and research institutes. The Foundation supports research in organ transplantation, particularly where there is an unmet medical need.

The funding of the Foundation consists of donations from F. Hoffmann-La Roche Ltd, with an initial sum of 25 million Swiss francs (CHF) over the first five years and renewal donations of 15, 10 and 17.5 million CHF for the following eight and a half years (a total of 67.5 million CHF over 13.5 years). The funds are distributed as grants of up to 300,000 CHF distributed over two years. The foundation is legally independent from F. Hoffmann-La Roche Ltd and is guided solely by the Board of Trustees according to its charter.

The ROTRF is a charity registered in Switzerland, no. CH-270.7022.678-7.





## 1. Preface

The ROTRF was established in 1998 as a legally independent, medical research charity with the mandate to award operating grants for research projects in organ transplantation to established members of academic staff at universities, transplant centres and research institutes.

The trustees are proud to announce that in 2014 the ROTRF completed its mission and that no further funding cycles are planned. In May 2014, seven projects were selected to receive funding totaling 1.7 million CHF. Since its establishment in 1998, the Foundation has therefore funded 289 innovative clinical research projects with over 50 million CHF (US\$ 48.5 million), contributing to a better understanding of many clinical and scientific aspects of organ transplantation.

As always, the grant applications were reviewed by a team of experts on the Scientific Advisory Committee and by ad hoc reviewers and these reviews formed the basis of the decisions made by the Board of Trustees. The main criteria for the evaluation of the proposals remained unchanged: scientific merit, originality, the relevance to organ transplantation and the potential for clinical application of the results in the near term. The projects selected for funding in this review cycle included investigations of the relationship between metabolic, immune and microcirculation marker profiles of donor organs and transplantation outcomes, the influence of HCV immunity on alloreactive T cell responses, examination of novel protocols for organ preservation and the role of regulatory and inflammatory B cells in renal allograft rejection. The Trustees wish the newly awarded grantees of Cycle XXIX every success in their investigations.

In addition, the Trustees awarded one-year extensions of 200,000 CHF to one project and 100,000 CHF each to six projects that were coming to the end of their funding, based on a thorough review of the Final Reports and a brief grant extension application. Extension grants were awarded to projects on specificity and function of graft infiltrating B cells, examining the molecular basis of PTLD, the role of circulating fibrocyte and epithelial progenitors in bronchiolitis obliterans syndrome, the role of post-transplantation immunosuppression on viral infection, the role of graft-derived cell-free DNA in biopsy-proven antibody-mediated rejection, strategies to improve cardiovascular risk management and investigations into the dynamics of the adaptive response of microbial communities during allograft colonisation.

The Board of Trustees would like to express its gratitude to F. Hoffmann-La Roche Ltd for the generous donation to support the Foundation. We would like to thank the members of the Scientific Advisory Committee, the ad hoc reviewers and the former Trustees for their commitment and crucial role in assessing the applicants, as well as the Applicants for their innovative proposals and outstanding research efforts. Together, the ROTRF has contributed to advancing the science of organ transplantation and improving the care of the thousands of patients who receive a transplant each year.

A handwritten signature in black ink, appearing to read "Philip F. Halloran". The signature is fluid and cursive, with the first name "Philip" being the most prominent.

On behalf of the Board of Trustees

Philip F. Halloran, MD, PhD, OC  
Chairman, ROTRF Board of Trustees



## 2. Facts and Figures

### **Funding Cycle XXIX – Letters of Intent Submission in October 2013**

The ROTRF is pleased to announce that 1.7 million CHF were awarded to seven clinical research projects in 2014.

In Cycle XXIX, 98 eligible Letters of Intent (LOI) for research projects were received up until the deadline of 1 October 2013. The majority was received from North America (47%; USA: 46%; Canada: 1%) and from Europe (45%), with the major European countries being the UK, Germany (7% each), Italy, the Netherlands (6% each), Spain and France (5% each). The remaining 8% of the LOIs were received from Australasia. Based on the reviews by the Scientific Advisory Committee, the Board of Trustees invited 26 applicants to submit a Full Paper Application (FPA), and grants were awarded to seven of the applicants.

The projects funded by the ROTRF focus on important issues in transplantation and have potential for near-term clinical application. Abstracts of all funded projects are available on [www.rotrf.org](http://www.rotrf.org).

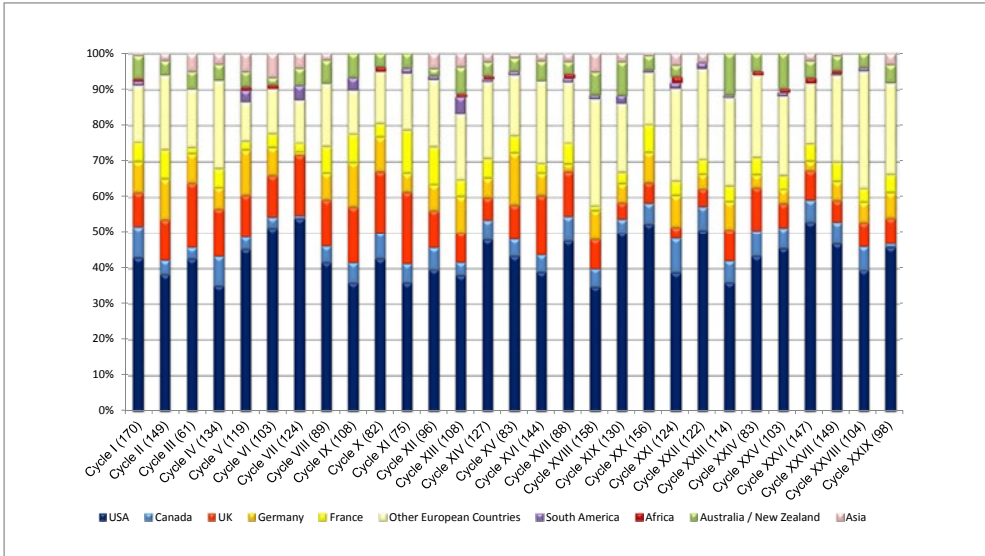
### **Grant Extensions – Submission of extension request in 2014**

As of 2014, the ROTRF accepts the submission of grant award applications for extensions to projects that are about to close. During 2014, fourteen applications were received, seven from the USA, and one application each from Australia, Canada, France, Spain, Germany, Switzerland and the UK. Funding was awarded to seven of the applicants, six of which received 100,000 CHF funding each for one-year extensions to their grants and one received 200,000 CHF funding for a one-year extension to his grant.

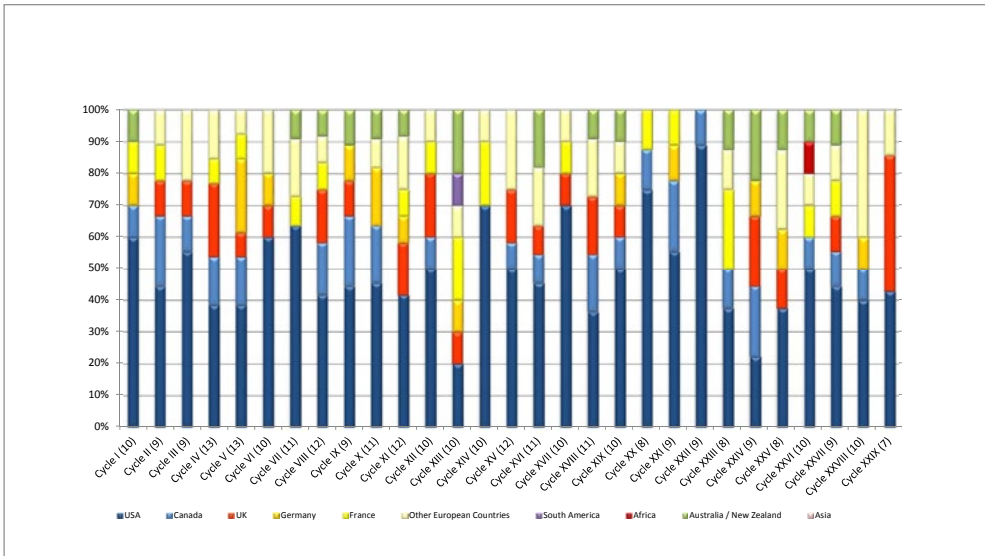
The recipients were Prof. Joren Madsen, Prof. Olivia Martinez, Dr Bernhard Schmidt, Prof. Christian van Delden (who had each been awarded an ROTRF grant in Cycle XXV), Dr He Xu (Cycle XXVI) and Dr Howard Slater (Cycle XXVII).



# Statistics on Applications to the ROTRF

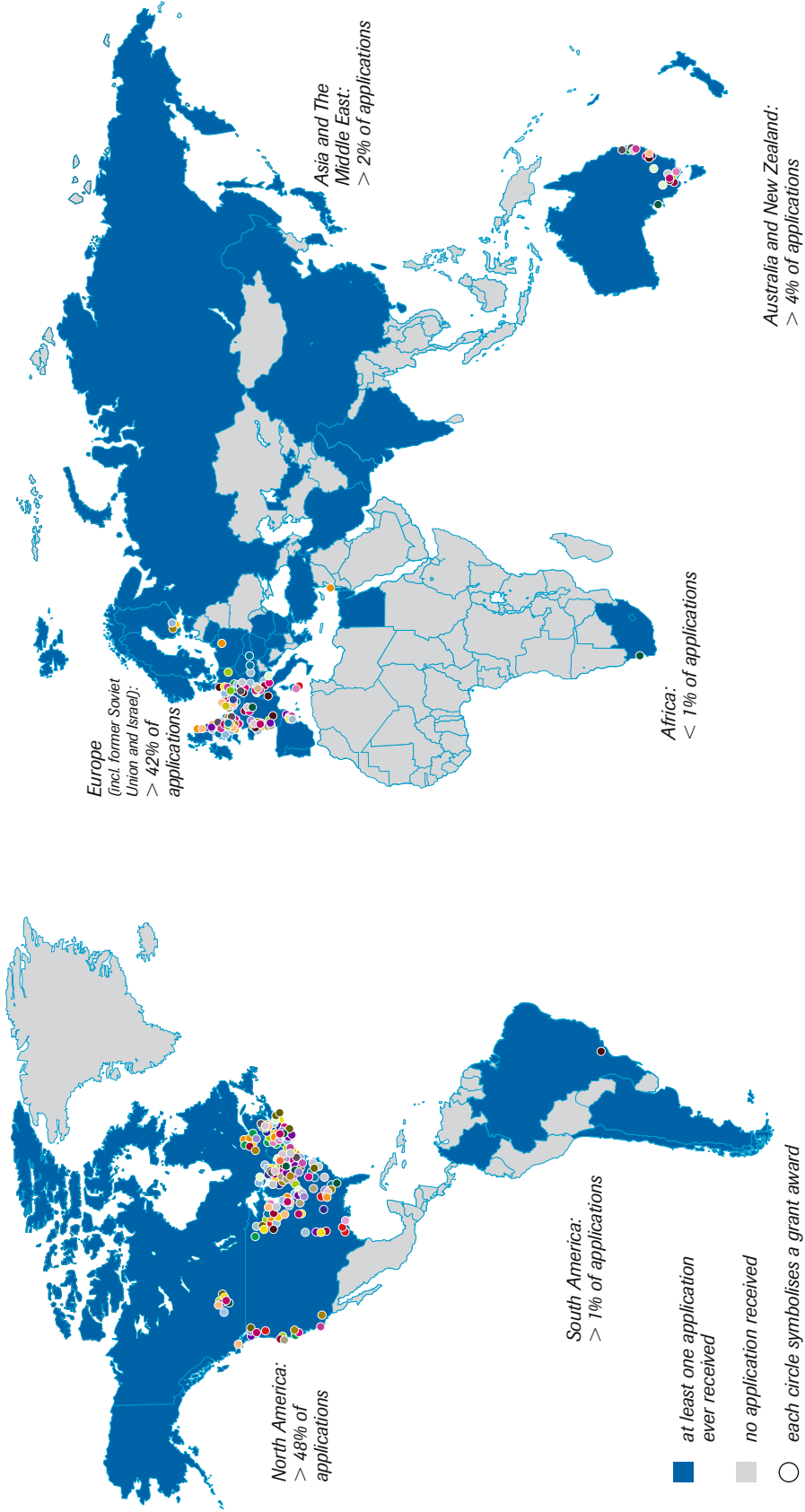


**Figure 1.** Geographical distribution of the applicants who submitted Letters of Intent (LOI) during the first 29 ROTRF funding cycles. The total number of LOIs submitted per cycle is shown in brackets.



**Figure 2.** Geographical distribution of the applicants who were awarded ROTRF grants during the first 29 ROTRF funding cycles. The total number of grants awarded per cycle is shown in brackets.

## The Global View: Distribution of the ROTRF Applications and Grant Awards Worldwide







### 3. ROTRF Grant Awards in Cycle XXIX

*The abstracts of these projects are available on the ROTRF homepage.*

#### **Research Grant Awards – Cycle XXIX**

Dr Agustin Lahoz, IIS-Hospital La Fe, Valencia, Spain

*“Fast Metabolomic Assessment of Donor Liver Quality prior to Transplant”*

Dr Marc Martinez-Llordella, King’s College, London, UK

*“Influence of HCV heterologous immunity on alloreactive T cell responses in liver transplantation”*

Prof. Vassilios Papalois, Imperial College London, London, UK

*“Targeting Post Transplant Kidney Injury through Machine Organ Preconditioning”*

Dr James Reynolds, Case Western Reserve University, Cleveland, USA

*“S-nitrosylation, Oxygenation, and Donor Support”*

Prof. David Rothstein, University of Pittsburgh, Pittsburgh, USA

*“The Role of Regulatory and Inflammatory B Cells in Renal Allograft Rejection”*

Dr Candice Roufosse, Imperial College, London, UK

*“Microcirculation injury in the renal allograft - transcripts, ultrastructure and immunophenotype”*

Prof. Megan Sykes, Columbia University, New York, USA

*“A blood biomarker of kidney transplant outcomes: tracking and donor-reactive T cells”*



## 4. Board of Trustees

**Chairman:**

**Professor Philip Halloran**

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*Director, Alberta Transplant Applied Genomics Centre  
Division of Nephrology & Immunology  
University of Alberta  
Edmonton, Canada*

**Dr Dominique Borie**

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*Senior Medical Director  
Product Development Immunology  
Genentech  
San Francisco, USA*

**Professor Andrew Bradley**

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*Clinical Director of Transplantation Services  
Professor of Surgery  
Department of Surgery  
University of Cambridge  
Cambridge, UK*

**Professor Robert Colvin**

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*Director, Immunopathology Research Laboratory  
Department of Pathology  
Harvard Medical School  
Massachusetts General Hospital  
Boston, USA*

**Professor Allan Kirk**

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*Chairman of Surgery,  
Department of Surgery,  
Duke University  
Durham, USA*

**Professor Gerhard Opelz**

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*Director, Department of Transplantation Immunology  
University of Heidelberg  
Heidelberg, Germany*

**Professor Giuseppe Remuzzi**

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*Director, Department of Immunology and Clinical Transplantation  
Ospedali Riuniti di Bergamo and Istituto di Ricerche Farmacologiche “Mario Negri”  
Bergamo, Italy*

**Professor Alberto Sanchez-Fueyo**

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*Professor, Institute of Liver Studies  
King’s College London  
King’s College Hospital London  
London, UK*



## 5. Scientific Advisory Committee

### **Prof. Maria-Luisa Alegre**

Dept of Medicine  
The University of Chicago  
Chicago, USA

### **Prof. Anthony d'Apice**

Dept of Clinical Immunology  
St. Vincent's Hospital  
Melbourne, Australia

### **Prof. Jeremy Chapman**

University of Sydney  
Westmead Hospital  
Westmead, Australia

### **Prof. Sandy Feng**

UCSF Medical Center  
Transplant Surgery  
University of California  
San Francisco, USA

### **Prof. Jay Fishman**

Infectious Disease &  
Compromised Host Program  
Massachusetts General Hospital and  
Harvard Medical School Transplant  
Boston, USA

### **Prof. Xavier Forns**

Liver Unit  
Hospital Clinic  
Barcelona, Spain

### **Prof. Gregg Hadley**

Division of Transplant Surgery  
The Ohio State University  
Columbus, USA

### **Prof. Bruce Kaplan**

Dept of Medicine  
Arizona Health Science Center  
Tucson, USA

### **Prof. Philip O'Connell**

Transplantation  
Westmead Hospital  
Westmead, Australia

### **Prof. Jeffrey Platt**

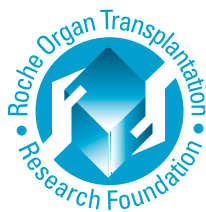
Surgery and Microbiology and Immunology  
University of Michigan  
Ann Arbor, USA

### **Prof. Heinz Regele**

Dept of Pathology  
Medical University of Innsbruck  
Innsbruck, Austria

### **Prof. Angus Thomson**

Thomas E. Starzl Transplantation Institute  
University of Pittsburgh  
Pittsburgh, USA



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