

R O T R F

*Roche Organ Transplantation
Research Foundation*



***ANNUAL
REPORT 2012***



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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 over the first five years and renewal donations of 15, 10 and 17.5 million Swiss francs for the following eight and a half years (a total of 67.5 million Swiss francs over 13.5 years). The funds are distributed as grants of up to 100,000 Swiss francs distributed over one year. The foundation is legally independent from F. Hoffmann-La Roche Ltd and is guided solely by the Board of Trustees according to its charter.





1. Preface

This year marked the fourteenth year of activity for the Roche Organ Transplantation Research Foundation (ROTRF). Whilst in the early years the ROTRF funded mainly basic science, the last five years have seen our grant programme refocus, concentrating support entirely on clinical research in transplantation. The Trustees are very pleased with this shift in emphasis and believe that such change has helped in reshaping clinical research; raising awareness of the need to keep patients in mind when performing laboratory studies and to seek appropriate collaborations and support for a more complete approach to tackling the issues under investigation. Multidisciplinary approaches and the use of novel technologies, such as the high throughput platforms, have been successfully integrated into more traditional research approaches and are becoming an integral part of clinical research.

With this in mind, the Trustees selected nine remarkable projects to receive a grant award in Cycle XXVII. As in the past, the main criteria for the evaluation of the proposals were scientific merit and originality, with particular attention being paid to the relevance of the question addressed to organ transplantation, and the potential for clinical application of the results in the near term. The projects selected for a ROTRF grant award in Cycle XXVII focus on the identification of markers for spontaneous regeneration after acute liver failure, mechanisms of tolerance induction and acute rejection in kidney transplant patients, organ preservation to improve transplant outcome, non-invasive markers of rejection, assessment of donor-graft quality and outcome prediction, and factors affecting long-term graft survival.

In addition, the ROTRF awarded a grant to the newly established *Banff Foundation*. This foundation arises from the highly respected *Banff Allograft Pathology Classification and Consensus Process*. The aim of the *Banff Foundation* is to facilitate the establishment of an internationally accepted diagnostic consensus in organ and tissue allografts and to combine pathological analyses with biological assessments of biopsy specimens. Such a consensus would be used in clinical trials and hopefully improve graft outcome and patient care. The Trustees believe that the formalisation of the *Banff Consensus Process* may be beneficial to the transplantation research community and ultimately transplant patients.

Over the years, the projects supported by the ROTRF have generated interesting and important data in multiple research areas in organ transplantation. We look forward to updates on the progress of the projects funded in 2012.

In Spring 2013, the ROTRF will award grants for Cycle XXVIII, for which Letters of Intent were received until the deadline of 1 October 2012, and we are currently accepting applications for Cycle XXIX until the deadline on 1 October 2013. Once again, we welcome proposals for clinically oriented research projects, such as observational clinical studies or studies that use

human transplant samples for laboratory examinations to investigate the pathogenesis of human disease states in organ transplantation. We are also looking forward to receiving applications for collaborative partnerships, for developing and evaluating novel techniques, or addressing under-studied areas of clinical transplantation research.

We wish to thank F. Hoffmann-La Roche Ltd for their generous financial support, which allowed the ROTRF to support research into organ transplantation for over 14 years. The overall success of the ROTRF would not have been possible without the excellent work and commitment of the Scientific Advisory Committee, ad hoc reviewers and the grantees, to whom the Foundation is deeply indebted.

We wish the newly granted investigators of Cycles XXVII and the *Banff Foundation* every success in their endeavours!

A handwritten signature in black ink, appearing to read 'Philip F. Halloran', written in a cursive style.

On behalf of the Board of Trustees

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



2. Facts and Figures

Funding Cycle XXVII – Letters of Intent Submission in November 2011

In 2012, the Roche Organ Transplantation Research Foundation (ROTRF) awarded 1'658'700 Swiss francs in the form of eight clinical research grants and a grant to support the *Banff Foundation*. As in the previous five years, the projects funded by the ROTRF focus on important issues in transplantation and have potential for near-term clinical application.

In Cycle XXVII, Letters of Intent (LOI) for research projects were accepted up until the deadline of 1 November 2011. The ROTRF received 149 eligible LOIs. Most of the applications were received from North America (USA: 47%; Canada: 6.0%). European applications accounted for 41% of the LOI, with the major countries being the Netherlands (6.7%), UK, Italy (6% each), France, Germany (5.4% each), and Switzerland (3.3%). Of the remaining applications received, Australasia accounted for 4.0%, while less than 1% of applications were received from Asia, Africa and South America. Based on the Scientific Advisory Committee's review, the Board of Trustees invited 29 applicants to submit a Full Paper Applications (FPA) and nine grants were awarded.

Applicants awarded grants in Cycle XXVII will investigate mechanisms predictive of spontaneous liver regeneration following acute failure, means of improving organ preservation to achieve better graft outcome, ways to assess organ quality at donation, mechanisms of tolerance and long-term graft survival, differences in allograft and viral responses, and non-invasive markers of allograft rejection. The Trustees also awarded a grant to the newly established *Banff Foundation*. This foundation represents the formalisation of the highly respected *Banff Allograft Pathology Classification and Consensus Process*. Its aims are to establish an internationally accepted diagnostic consensus and to combine pathological analyses of allografts with biology-based assessment of biopsy specimens. The Trustees believe that the formalisation of the *Banff Consensus Process* may be beneficial to the transplantation research community, ultimately benefitting transplant patients.

Abstracts of all funded projects are available on the ROTRF homepage.



Statistics on Applications to the ROTRF

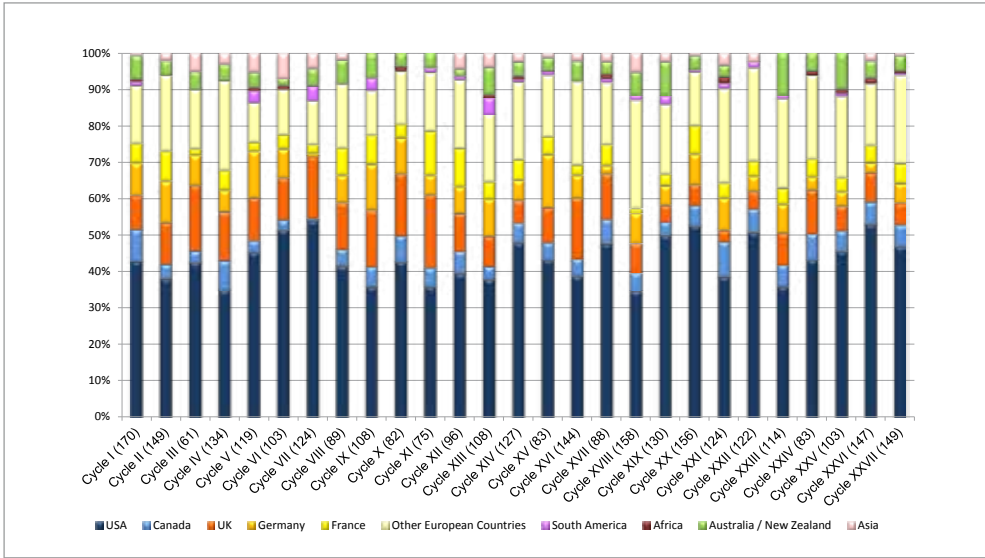


Figure 1. Geographical distribution of the applicants who submitted Letters of Intent (LOI) during the first twenty-seven ROTRF funding cycles. The total number of LOIs submitted per cycle is shown in brackets.

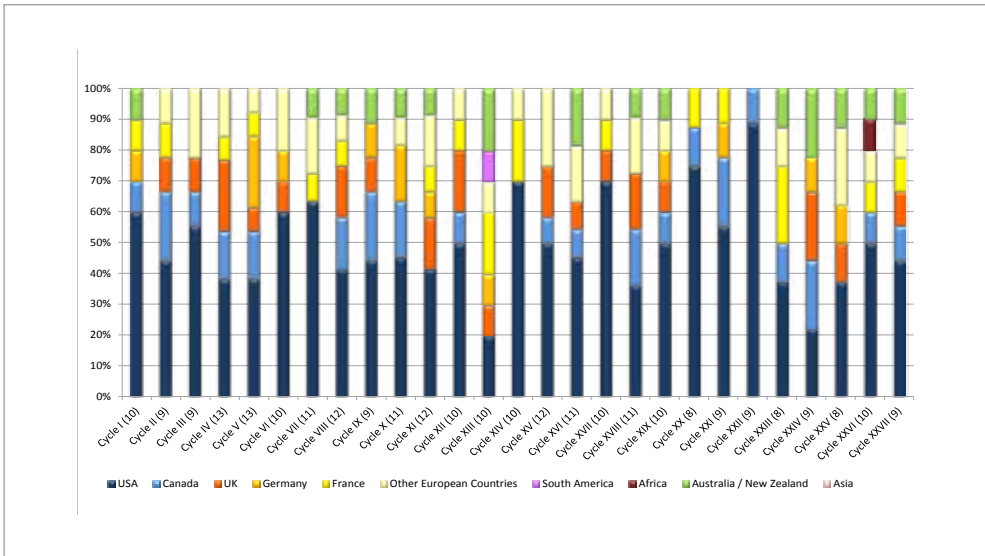
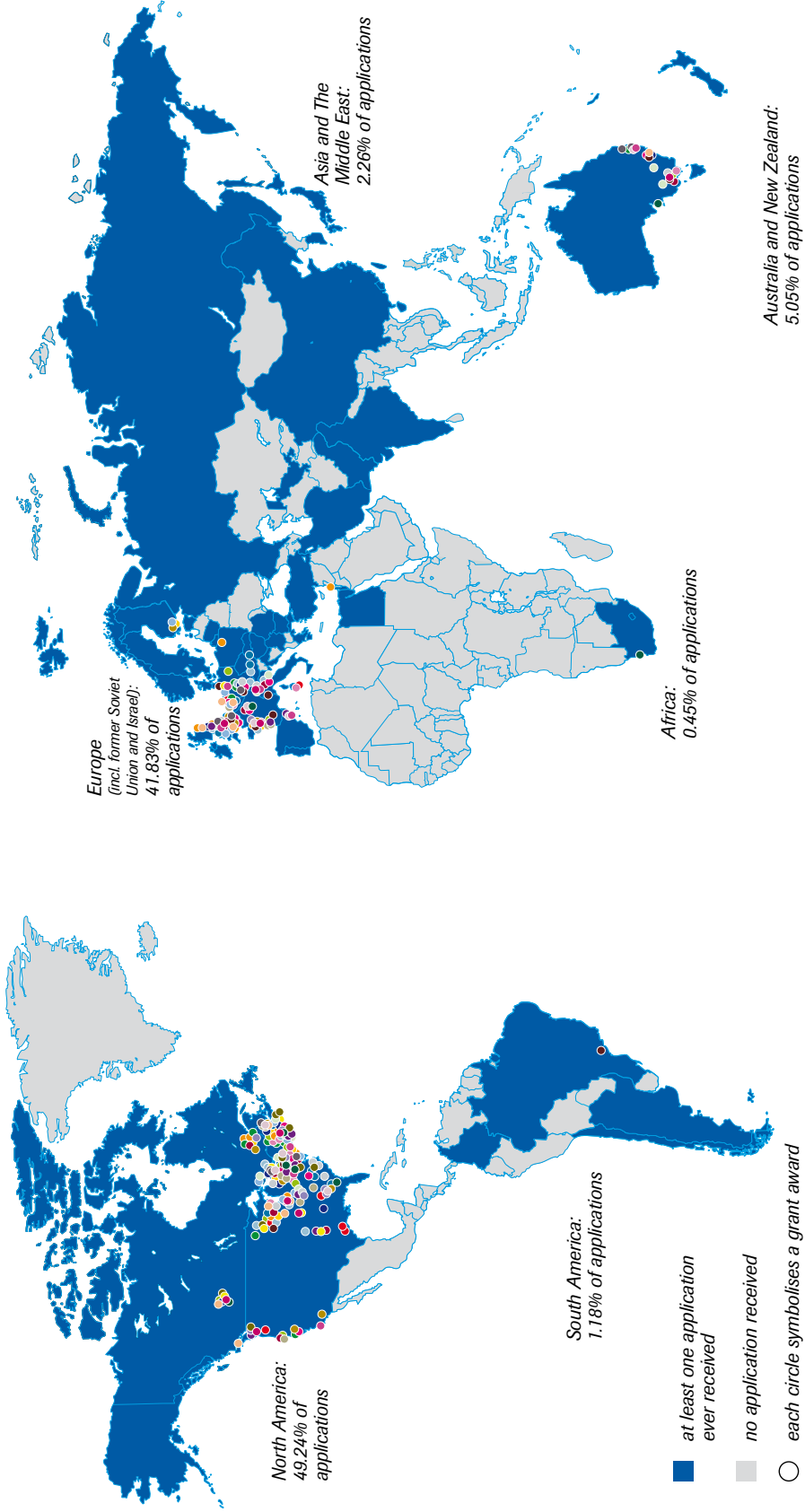


Figure 2. Geographical distribution of the applicants who were awarded ROTRF grants during the first twenty-seven ROTRF funding cycles. The total number of grants awarded per cycle is shown in brackets.

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





3. ROTRF Grant Awards in Cycle XXVII

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

Research Grant Awards – Cycle XXVII

Dr Varuna Aluvihare, King's College Hospital, London, UK

“Improving Our Understanding of Acute Liver Failure, Who to Transplant and How?”

Dr Sophie Brouard, ITUM, Nantes, France

“B Cells in Tolerance in Clinic”

Dr Anthony Chang, University of Chicago Medical Center, Chicago, USA

“Visualizing Inflammatory Cell Interactions in Human Transplant Kidneys”

Dr William Chapman, Washington University, St. Louis, USA

“Liver Preservation with Body Temperature Oxygenated Blood Circulation”

Dr Luis Hidalgo, University of Alberta, Edmonton, Canada

“Understanding the Immunologic Mechanisms behind the Leading Cause of Transplanted Organ Loss”

Dr Behzad Najafian, University of Washington, Seattle, USA

“Discovery of a Blood Test to Diagnose Kidney Transplant Rejection”

Dr Chirag Parikh, Yale University, New Haven, USA

“New Method to Assess Health of Kidney Graft”

Dr Howard Slater, Murdoch Childrens Research Institute, Parkville, Australia

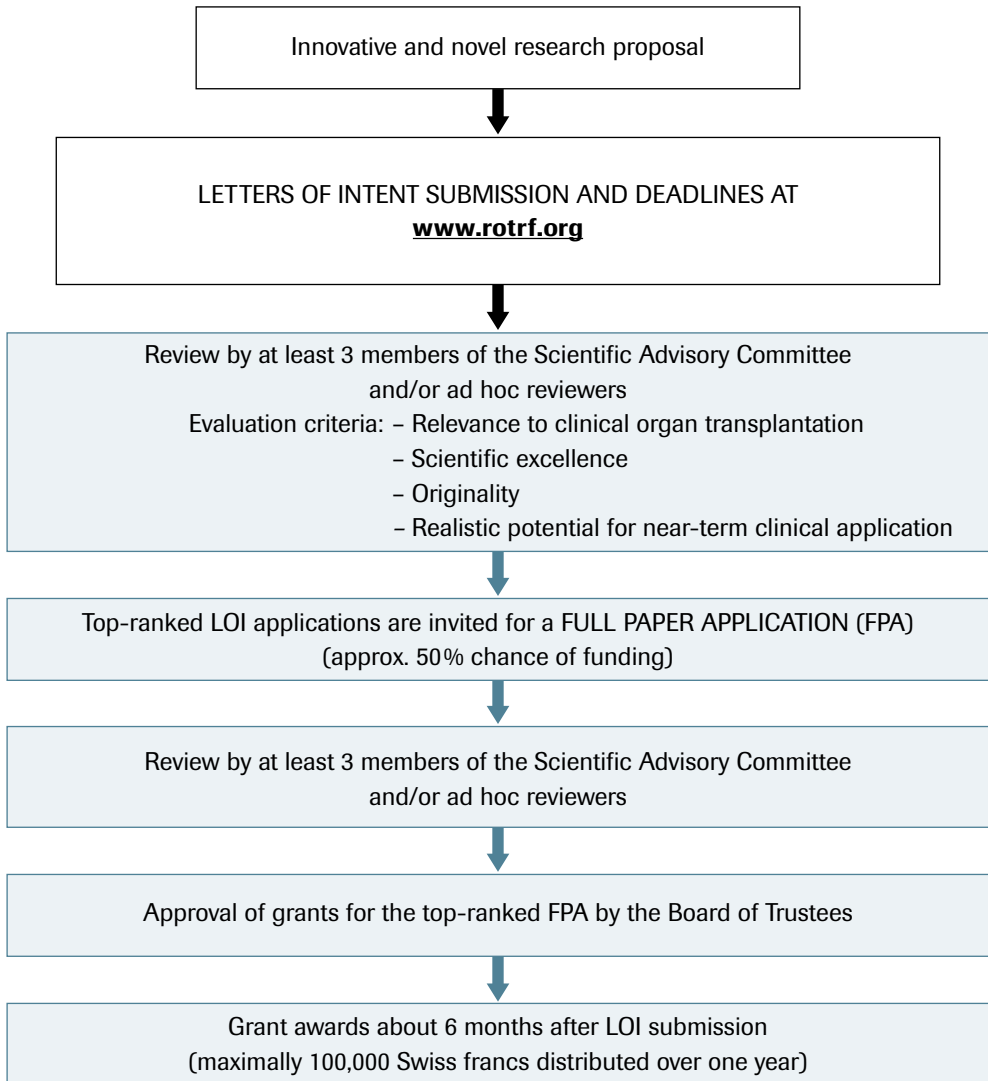
“Improving Organ Transplant Outcomes Using a New Non-Invasive Monitoring Test”

The Banff Foundation, Lucerne, Switzerland

“Creation of Swiss Foundation Legal Entity for Banff Allograft Pathology Classification and Consensus Process (BAPCP)”



4. How Do I Apply for a ROTRF Grant?



ROTRF Priority

Our priority is to support clinically oriented research projects, such as observational clinical studies or studies that use human transplant samples for laboratory examinations, and focusing on understanding the pathogenesis and prevention of human transplantation diseases, including organ injury and rejection, viral infection, and late graft deterioration. Furthermore, the ROTRF may consider funding research that addresses related clinical issues in non-transplant patients, including hepatitis C infection and other viral infections, and inflammatory processes relevant to human organ transplantation. These related clinical issues should demonstrate their relevance to disease phenotypes in organ transplant patients. The Trustees will also consider funding studies that investigate transplant populations, ethics, organ preservation and allocation, and healthcare delivery. Moreover, the ROTRF will welcome research in new emerging technologies that examine the pathogenesis of human disease states in organ transplantation.

Project Proposals

Project proposals submitted to the ROTRF should include work with clinical transplant material or with organ transplant patients, e.g. in human organ preservation, human transplant pathology, or other human transplant areas, and should be focused on issues relevant to clinical organ transplantation. If animal models are used to complement the clinical research, a higher priority will be given to those that simulate pathological states and mechanisms operating in human organ transplantation. To be considered for a grant award, applications should demonstrate practical applicability to human organ transplantation in the near term.

** Please note that the ROTRF cannot fund interventional clinical trials and projects involving interventions that would add risk to the patient or alter patient management. However, the Trustees may consider funding non-invasive scientific studies that complement an ongoing, approved clinical trial or projects proposing diagnostic clinical examinations posing minimal risk to the patients, e.g. laboratory investigations with a biopsy core obtained as an additional sample during biopsy procedures performed as standard of care. The Trustees will evaluate the clinical risk and take the final decision on the suitability of the project for ROTRF funding.*

Research Areas Funded by the ROTRF*

- Improvement of long-term graft survival and prevention of chronic organ dysfunction
- Relevant immune recognition, regulation and effector mechanisms
- Histocompatibility
- Inflammation and tissue injury in transplantation
- Development of new agents for use in transplantation
- Prospective and specific analysis of human organ transplant populations
- Induction of antigen-specific unresponsiveness
- New clinical trial methods and surrogate endpoints
- Tissue injury and organ preservation relevant to transplantation
- Cell or tissue transplantation relevant to organ transplantation
- While the ROTRF does not support operating costs for registries, it will consider providing limited support for unique initiatives such as international databases of general interest to transplant researchers.

*** OF NOTE:**

Research in human cloning is not considered for funding.

Applications for funding of research into transplantation of organs that are not yet transplanted in the clinic will not be considered.



5. Board of Trustees

Chairman:

Professor Philip Halloran

Director, Alberta Transplant Institute
Division of Nephrology & Immunology
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Edmonton, Canada

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Clinical Director of Transplantation Services
Professor of Surgery
Department of Surgery
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Professor, Institute of Liver Studies
King’s College London
King’s College Hospital London
London, UK



6. Scientific Advisory Committee

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Chicago, USA

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St. Vincent's Hospital
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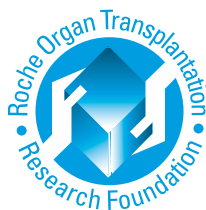
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Prof. Angus Thomson

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**To apply, please visit our website,
www.rotrf.org**

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