

## List of research projects granted by LSBR (1999 – 2022)

### Research projects granted 1999

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9901 – Dr. A.J. Verhoeven: Photodynamic sterilization of red cell concentrates.

Budget: euro 254,435; Project duration: 2,5 years.

9903 – Dr. W.K. Bleeker: Evaluation of the therapeutic potential of C1-inhibitor in stroke.

Budget: euro 287,878; Project duration: 4 years.

9908 – Dr. J. Hamann: CD97, a nonclassical seven-span transmembrane receptor - molecular biology, function and clinical relevance.

Budget: euro 140,581; Project duration: 3 years.

9910 – Dr. P.L. Hordijk: Modulation of endothelial cell-cell adhesion during leukocyte adhesion and transmigration.

Budget: euro 215,682; Project duration: 2 years.

9918 – Prof. Dr. K. Mertens: The role of High-Density Lipoprotein (HDL) in the activation of Coagulation Factors V and VIII.

Budget: euro 288,423; Project duration: 4 years.

9919 – Dr. M. de Haas: Ex vivo expansion of megakaryocytes to produce a transfusion product.

Budget: euro 124,790; Project duration: 2 years.

9920 – Dr. C.E. van der Schoot/Dr. P.A. Maaskant-van Wijk: Molecular analysis of the humoral allo- and autoimmune response to Rh-antigens.

Budget: euro 307,799; Project duration: 4 years.

9922 – Dr. J.A. van Mourik: Secretion of von Willebrand factor and von Willebrand factor precursor proteins after vascular perturbation.

Budget: euro 90,075; Project duration: 2 years.

### Research projects granted 2000

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0006 – Prof. Dr. C. Ince: Assessment of the quality of red cell concentrates in vivo.

Budget: euro 319,461; Project duration: 3 years.

0007 – Prof. Dr. F. Miedema/Dr. E.H. Manting: Cellular immunity against CMV in HIV infection.

Budget: euro 164,722; Project duration: 3 years.

0011 – Dr. F. van Engelenburg/Dr. A. Bossers: Intracellular processing and recycling of prion proteins in blood cells.

Budget: euro 132,504; Project duration: 2 years.

0015 – Prof. Dr. A.D.M.E. Osterhaus: Use of dendritic cell-derived exosomes in therapeutic immunization during chronic viral infections: technique development and requirements for immunogenicity.

Budget: euro 201,025; Project duration: 3 years.

0016 – Dr. J. Voorberg/Dr. J.A. van Mourik: Molecular cloning and characterization of the von Willebrand factor cleaving protease involved in thrombotic thrombocytopenic purpura (TTP).

Budget: euro 315,377; Project duration: 4 years.

0018 – Prof. Dr. C.E. Hack: Molecular basis for the potentiation mechanism of the serpin C1-inhibitor.

Budget: euro 330,806; Project duration: 3 years.

0023 – Prof. Dr. D. Roos: Activation of superoxide generation by human granulocytes.

Budget: euro 99,378; Project duration: 2 years.

0024 – Dr. H. Schuitemaker: Detailed analysis of the CD4+DR-viral reservoir in treated HIV infection.

Budget: euro 289,966; Project duration: 3 years.

0027 – Dr. M.J. Postma: Pharmaco-economic analysis of transfusion safety.

Budget: euro 157,462; Project duration: 4 years.

## Research projects granted 2001

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0102 – Dr. H. Schuitemaker: Cellular factors that support HIV reverse transcription and contribute to post-entry tropism differences.

Budget: euro 355,420; Project duration: 3 years.

0103 - Dr. J.J. Cornelissen/Dr. H. Spits: Improving T-cell recovery after allogeneic cell transplantation by IL-7 and restoration of thymic function.

Budget: euro 326,760; Project duration: 4 years.

0104 – Prof. Dr. K. Mertens/B.J.M. Van Vlijmen: The role of the Low Density Lipoprotein family in factor VIII catabolism *in vivo*.

Budget: euro 228,500; Project duration: 2 years.

0109 - Dr. J. Hamann: Characterization of the EGF-TM7 family in the post-genome project era.

Budget: euro 372,965; Project duration: 4 years.

0112 - Dr. P.L. Hordijk (fellowship): Novel endothelial signalling in leucocyte transmigration. Role for reactive oxygen species in the control of endothelial integrity.

Budget: euro 680,740; Project duration: 3+2 years.

0114 - Dr. R. Fijnheer: Treatment of thrombic thrombocytopenic purpura with vWF cleaving-protease.

Budget: euro 207,980; Project duration: 4 years.

0117 - Dr. J.J. Zwaginga: Ex vivo expansion of megakaryocytes; towards autologous transfusion products originated from stem cells.

Budget: euro 216,190; Project duration: 4 years.

## Research projects granted 2002

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0202 – Prof. Dr. D. Roos: Structure and activation of NADPH oxidases.

Budget: euro 334,500; Project duration: 3 years.

0203 – Dr. P.L. Hordijk: Inhibition of chemokine-induced leukocyte motility by cell-permeable peptides.

Budget: euro 235,000; Project duration: 3 years.

0204 – Dr. A.B. Meijer: Regulation of Factor X activation on vascular cell membranes; A novel role for the endocytic LDL-receptor family?

Budget: euro 226,780; Project duration: 4 years.

0207 – Dr. K.M. Dolman: Clinical significance of Mannose Binding Lectin (MBL).

Budget: euro 622,000; Project duration: 4 years.

0210 – Dr. N.A. Tesselaar: Mechanisms of CD4 T cell depletion: A study of T cell dynamics in CD70 and Nef transgenic (TG) mice.

Budget: euro 372,000; Project duration: 4 years.

0212 – Prof. Dr. C.E. Hack: Intracellular targeting of serpins to improve cytotoxicity.

Budget: euro 385,250; Project duration: 3 years.

0215 – Dr. A. Mulder/Prof. Dr. A. Brand/Dr. F.H.J. Claas: Humoral and cellular immune response towards RhD: Sensitization and downregulation.

Budget: euro 197,450; Project duration: 4 years.

0219 – Dr. J.W.M. Heemskerk/Dr. J. Curvers: Activation state and excitability of transfusion platelets: An integrated biochemical and physiological approach.

Budget: euro 278,000; Project duration: 4 years.

0221 – Dr. E. Braakman: Dendritic cell-based induction of donor alloantigen-specific tolerance in allogeneic stem cell transplantation.

Budget: euro 333,900; Project duration: 4 years.

## Research projects granted 2003

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0308 – Prof. Dr. H. Spits/Dr. J. Cornelissen/Dr. T. Schumacher: Adoptive transfer of T cells with anti-CMV T cell receptors in a human/mouse SCID chimera model developed for the study of human anti viral immune responses.

Budget: euro 434,400; Project duration: 3 years.

0310 – Dr. J. Hamann: CD-97 – a missing link in chemokine-mediated cell migration?

Budget: euro 210,000; Project duration: 3 years.

0317 – Dr. H. Schuitemaker/Prof. Dr. F. Miedema: Viral attenuation through adaptation of HIV to host CTL responses: a major mechanism of HLA-disease association?

Budget: euro 526,500; Project duration: 4 years.

0319 – Prof. Dr. F. Miedema/Prof. Dr. R. van Oers: Chronic lymphocytic leukemia: A proliferative or accumulative disorder?

Budget: euro 236,700; Project duration: 3 years.

0320 – Dr. J. Voorberg/Dr. A.J.G. Horrevoets: Proteomics of Weibel-Palade bodies: secretory vesicles in endothelial cells.

Budget: euro 389,900; Project duration: 3 years.

0329 – Prof. Dr. C. Ince/Dr. A.J. Verhoeven: Does storage lead to loss of hypoxia-induced release of vasodilators by human red blood cells?

Budget: euro 390,200; Project duration: 3 years.

0330 – Dr. ir. J. Charité/Prof. Dr. E. Dzierzak: Control of hematopoietic stem cell self-renewal by *Hox* gene products.

Budget: euro 401,900; Project duration: 3 years.

## Research projects granted 2004

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0407 – Dr. R. Delwel: CB2, a receptor uniquely expressed on AML blasts: A putative novel target for diagnosis and treatment.

Budget: euro 404,700; Project duration: 4 years.

0412 – Dr. C. Otto: Ultrasensitive hyperspectral fluorescence microscopy of NADPH oxidase in phagocytes.

Budget: euro 287,000; Project duration: 3 years.

0414 – Dr. B.E. Clausen (fellowship): Role of Wnt and E-cadherin signaling in Langerhans cell and dendritic cell function.

Budget: euro 700,000; Project duration: 3+2 years.

0420 – Prof. Dr. D. Roos: Toll-like receptor signaling via the small GTPase Rac in human neutrophils: a proteomics approach with cell permeable peptides.

Budget: euro 378,500; Project duration: 3 years.

0422 – Prof. Dr. L. Aarden: The role of Factor VII-activating protein in clearance of nucleosomes in SLE patients.

Budget: euro 235,500; Project duration: 3 years.

0426 – Dr. C.E. van der Schoot/Dr. M. de Haas: Elucidation of the working mechanism of Rh immunoprophylaxis.

Budget: euro 379,000; Project duration: 4 years.

0427 – Prof. Dr. W.E. Fibbe/Dr. M. van Pel: The role of serine protease in cytokine-induced hematopoietic stem cell mobilization.

Budget: euro 385,000; Project duration: 3 years.

0435 – Dr. N.A. Kootstra: Identification of host cell factors involved in HIV-1 infection.

Budget: euro 371000; Project duration: 3 years.

## **Research projects granted 2005**

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0509 – Prof. Dr. P.J. Coffers/Dr. L. Meyaard: Inhibitory immune receptors as regulators of hematopoiesis: a novel mechanism regulating blood cell production?

Budget: euro 339,000; Project duration: 4 years

0510 – Prof. Dr. J.W.N. Akkerman: Prevention of platelet destruction by macrophages.

Budget: euro 359,500; Project duration: 4 years

0515 – Dr. J. Van Bergen/Dr. F. Koning: NK cells in stem cell transplantation as tumour therapy: dissecting the role of KIR in an in vivo mouse model.

Budget: euro 227,000; Project duration: 3 years

0519 – Prof. Dr. T.W. Kuijpers: Shwachman Diamond syndrome and the missing link in granulocyte function.

Budget: euro 231,000; Project duration: 3 years

0522 – Dr. T.N.M. Schumacher: MHC multimer-based adoptive T cell therapy.

Budget: euro 316,500; Project duration: 3 years

0526 – Dr. A.B. van't Wout (fellowship): Host restriction factors of in vitro HIV-1 infection.

Budget: euro 700,000; Project duration: 3+2 years

0528 – Dr. J.J. Voorberg: Characterization of human antibodies against ADAMTS13 that develop in patients with acquired TTP.

Budget: euro 366,000; Project duration: 4 years.

0533 – Dr. S.M. van Ham/Prof. Dr. J.J. Neefjes: The B cell as phagocytic cell; implementations for antigen presentation by MHC class II molecules.

Budget: euro 417,000; Project duration: 3 years.

## **Research projects granted 2006**

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0607- Dr. M.A. Nolte: Bone marrow exposed: Immunological impact on hematopoietic regulation. Budget: euro 240,000; Project duration: 4 years.

0608 – Dr. B. Blom: Transcriptional Control of Human Langerhans Cell Development.

Budget: euro 352,500; Project duration: 3 years.

0611 – Dr. M.H.M. Heemskerk: Characterisation of the alloimmune response after HLA mismatched stem cell transplantation.

Budget: euro 353,500; Project duration: 4 years.

0614 – Prof. Dr. E. Dzierzak/Dr. R. Steegers-Theunissen: Human placenta as a rich source of hematopoietic stem cells for transplantation therapies.

Budget: euro 473,500; Project duration: 4 years.

0615 – Dr. J. Philipsen: An RNAi screen for reactivation of  $\gamma$ -globin expression.

Budget: euro 377,000; Project duration: 3 years.

0619 – Prof. Dr. T.W. Kuijpers: Leukocyte Adhesion Deficiency type1/variant syndrome: the clue to the molecular switch that regulates integrin activation in leukocytes and platelets.

Budget: euro 444,000; Project duration: 4 years.

0621 – Prof. Dr. C. Ince/Dr. A.J. Verhoeven: The efficacy of blood transfusions to improve microcirculatory oxygen delivery in anemic patients.

Budget: euro 340,500; Project duration: 4 years.

0630 – Dr. P.B. van Hennik: Molecular mechanisms of hematopoietic stem cell migration.

Budget: euro 363,000; Project duration: 4 years.

0634 – Prof. Dr. L.A. Aarden/Dr. S. Zeerleder: HMGB1 as an endogenous mediator of inflammation due to dead cells.

Budget: euro 191,500; Project duration: 3 years.

## **Research projects granted 2007**

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0702 – Dr. R. van Os/Prof. Dr. G. de Haan: Improvement of the long-term function of transplanted hematopoietic stem cells.

Budget: euro 229,500; Project duration: 3 years.

0706 – Prof. Dr. T. van der Poll: The role of RAGE and HMGB1 in transfusion-associated sepsis.

Budget: euro 260,600; Project duration: 4 years.

0713 – Dr. P.A.van Veelen/Prof. Dr. J.H.F. Falkenburg: Large scale identification of minor histo-compatibility antigens for treatment of hematological diseases.

Budget: euro 489,500; Project duration: 4 years.

0718 – Dr. D. Amsen (fellowship): Notch in T helper differentiation: the remarkable plasticity of a seemingly simple pathway with broad therapeutic potential.

Budget: euro 700,000; Project duration: 3+2 years.

0721 – Dr. G. Vidarsson: The role of FcRn for IgG-modulated antigen presentation on dendritic cells.

Budget: euro 399,700, Project duration: 4 years.

0730 – Dr. A.B. Meijer: Towards unravelling the plasma clearance pathway of coagulation factor VIII.

Budget: euro 377,500; Project duration: 4 years.

0731 – Dr. P.L. Hordijk: Control of lymphocyte polarity and chemotaxis.

Budget: euro 399,700; Project duration: 4 years

**Stem Cell and Cellular Research Sanquin Blood Supply** - Sanquin Research, Budget: euro 10,000,000; Duration: 5 years

## **Research projects granted 2008**

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0804 – Dr. T.N.M. Schumacher: Graft versus Host disease by TCR-engineered T cells: mechanisms and means for prevention.

Budget: euro 322,000; Project duration: 3 years.

0807 – Prof. Dr. J.W.N. Akkerman: A role for platelet glycoprotein Ib as a death receptor?

Budget: euro 257,500; Project duration: 4 years.

0812 – Dr. J.A.M. Borghans/Dr. K.Tesselaar: Leukocyte dynamics in healthy and stem-cell transplanted individuals.

Budget: euro 252,700; Project duration: 4 years.

0816 – Prof. Dr. M.L. Kapsenberg/Dr. S.M. van Ham/Dr. E.C. de Jong: Immunoglobulins: missing link in the development of human Th17 cells?

Budget: euro 377,900; Project duration: 3 years.

0817 – Dr. S. Zeerleder: Activation and inhibition of Factor VII-activating protease.

Budget: euro 390,300; Project duration: 4 years.

0819 – Dr. J. Voorberg: Modulation of release of Weibel-Palade bodies from endothelial cells by small GTP-binding proteins.

Budget: euro 390,300; Project duration: 4 years.

0820 – Prof. Dr. C.E. van der Schoot/Prof. Dr. W.H. Ouwehand /Prof. Dr. A. Brand: Genome Wide Association Study (GWAS) to identify genetic risk factors for blood group alloimmunisation.

Budget: euro 346,500; Project duration: 3 years.

0824 – Dr. M. de Haas/Dr. M. Bruin: Immunological dysbalance in childhood idiopathic thrombocytopenic purpura.

Budget: euro 390,300; Project duration: 4 years.

0831 – Dr. E. Eldering: Delineating apoptosis pathways in normal and pathological erythropoiesis.

Budget: euro 330,900; Project duration: 3 years.

## **Research projects granted 2009**

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0902 – Dr. J. Küball: The role of  $\gamma\delta$ T-cells in controlling relapse of hematopoietic malignancies and infections after allogeneic stem cell transplantation: Guiding to a new concept of T-cell based immunotherapies?  
Budget: euro 246,250; Project duration: 4 years.

0903 – Dr. P.L. Hordijk: A novel concept in leukocyte transendothelial migration: regulation of endothelial ICAM-1 function through inside-out signaling.  
Budget: euro 406,800; Project duration: 3 years.

0904 – Dr. J.J. Duvekot: Well Being of Obstetric Patients on Minimal Blood Transfusions (WOMB)  
Budget: euro 189,450; Project duration: 3 years.

0911 – Dr. H.M.M. Mikkers: iPS cell technology for treatment of blood diseases: RAG1-Severe Combined Immunodeficiency.  
Budget: euro 379,800; Project duration: 4 years.

0912 – Dr. S. Korporaal (fellowship): The impact of cholesterol metabolism on megakaryopoiesis and platelet production.  
Budget: euro 560,000; Project duration: 2+2 years.

0916 – Prof. Dr. T.W. Kuijpers: Variation in the FCGR2B and FCGR2C genes affect IgG-dependent platelet clearance during transfusion refractoriness.  
Budget: euro 372,350; Project duration: 4 years.

0929 – Prof. Dr. R.A. van Lier:: Improving the potency of cytotoxic lymphocytes for adoptive therapy.  
Budget: euro 145,350; Project duration: 3 years.

## **Research projects granted 2010**

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1006 – Prof. Dr. J.W.M. Heemskerk/Dr. J.M.E.M. Cosemans: Dynamic fibrin clot formation: a haemostatic process involving multiple blood components and a possible surrogate end point for transfusion.  
Budget: euro 256,000; Project duration: 4 years.

1014 – Dr. M.A. Nolte (fellowship): T cell modulation of hematopoiesis.  
Budget: euro 560,000; Project duration 2+2 years.

1019 – Prof. Dr. T.W. Kuijpers: Neutrophil killing: a reappraisal of granulocyte transfusions for patients with fungal infections.  
Budget: euro 380,500; Project duration: 4 years.

1025 – Dr.ir. N. Galjart/Dr. C. Robin: Role of the microtubule network in the generation and expansion of the first hematopoietic stem cells.  
Budget: euro 388,000; Project duration: 4 years.

1028 – Dr. J.D. van Buul (fellowship): The molecular basis of leukocyte transendothelial migration: from intracellular GEFs to intercellular gaps.  
Budget: euro 560,000; Project duration; 2+2 years.

1040 – Dr. T.D. van Dijk/Dr. S. Philipsen/Prof. Dr. F. Grosveld: Amelioration of sickle cell disease and  $\beta$ -thalassemia: reactivation of  $\gamma$ -globin gene expression.  
Budget: euro 408,500; Project duration: 4 years.

## Research projects granted 2011

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1101 – Dr. C. Voermans (fellowship): Mesenchymal stromal cells and hematopoietic stem cell transplantation; from bench to bedside.

Budget: euro 560,000; Project duration: 2+2 years.

1109 – Prof. Dr. E. Dzierzak: The effects of Hypoxia-inducible factor 1 $\alpha$  (Hif-1 $\alpha$ ) on the development of hemogenic endothelium, hematopoietic stem cells and the supportive microenvironment.

Budget: euro 463,000; Project duration: 4 years.

1121 – Prof. Dr. T.W. Kuijpers: Epigenetics in neutrophil biology: from transcriptome to granulocyte transfusions.

Budget: euro 363,000; Project duration: 3 years.

1128 – Prof. Dr. R.E. Mebius: Regulation of functional differences between cord blood versus adult peripheral blood innate cells.

Budget: euro 262,000; Project duration: 3 years.

1133 – Dr. P. van der Harst: Next generation sequencing in extremes to identify functional genetic variants affecting red blood cell volume.

Budget: euro 369,000; Project duration: 2 years.

1136 – Prof. Dr. R.A.W. van Lier: Blood and Beyond: Improving properties of human virus-specific CD8+ T cells for adoptive immunotherapy.

Budget: euro 363,000; Project duration: 3 years.

1140 – Dr. M. von Lindern: Selective mRNA translation controls erythropoiesis; regulation and function of the RNA-binding protein Csd1.

Budget: euro 220,000; Project duration: 4 years.

## Research projects granted 2012

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1207 – Dr. E.M.E. Verdegaal/Prof. Dr. S.H. van der Burg/Prof. Dr. J.B.A.G. Haanen: Dissection of immunomodulatory mechanisms affecting adoptive transfer of peripheral blood derived-tumor reactive T cells in combination with low-dose IFN-alpha as treatment for advanced melanoma.

Budget: euro 368,000; Project duration: 3 years.

1223 – Dr. T.K. van den Berg: Neutrophil cytotoxic granules in microbial infection and cancer.

Budget: euro 382,500; Project duration: 4 years.

1229 – Dr. G. Vidarsson/Dr. M. Wuhrer: Understanding clinically significant allo- and auto-immunity towards blood cells.

Budget: euro 398,350; Project duration: 4 years.

1238 – Dr. E. van den Akker (fellowship): From *in vitro* erythropoiesis to transfusion.

Budget: euro 560,000; Project duration: 2+2 years.

1239 – Dr. M. von Lindern: Control of erythropoiesis by iron dependent expression of protein isoforms.

Budget: euro 398,500; Project duration: 4 years.

1244 – Dr. R. Bierings/Dr. J. Voorberg: Gatekeepers of the vasculature; regulation of exocytosis by syntaxin binding proteins.

Budget: euro 210,650; Project duration: 2 years + 3 months

## **Research projects granted 2013**

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1309 – Prof. Dr. T. van der Poll: Role of platelet Toll-like receptor signaling in hemostasis and inflammation.  
Budget: euro 293,300; Project duration: 4 years

1311 – Prof. Dr. P.L. Hordijk: Ubiquitylation and acetylation in leukocyte-vessel wall interactions and inflammation.

Budget: euro 383,000; Project duration: 3 years

1331 – Dr. M.H.M. Heemskerk/Dr. P.A. Veelen: Large scale discovery of minor histocompatibility antigens valuable for immunotherapy of hematological tumors.

Budget: euro 225,500; Project duration: 3 years

1351 – Prof. Dr. C.E. van der Schoot/Dr. E. van den Akker/Prof. Dr. W.H. Ouwehand: SMIM1, the VEL-antigen, a novel regulator of erythropoiesis.

Budget: euro 445,500; Project duration: 4 years

1355 – Prof. Dr. J. Borst/Dr. Y. Xiao: Tracing human dendritic cell development from a common precursor of dendritic cells and osteoclasts.

Budget: euro 392,000; Project duration: 3 years

1373 – Dr. M. Wolkers (fellowship): What keeps tumor infiltrating T cells from being effector cells?

Budget: euro 560,000; Project duration: 2+2 years

**Molecular and Cellular Haematology Research Program Sanquin Blood Supply** - Sanquin Research,  
Budget: euro 5,000,000; Duration: 5 years

## **Research projects granted 2014**

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1412 – Dr. R. van Bruggen: Role of RBC adhesion molecules in immune adherence clearance.

Budget: euro 432,500; Project duration: 4 years

1417 – Dr. A.B. Meijer/Prof. Dr. K. Mertens: Redesigning coagulation factor VIII; Repairing an evolutionary mistake.

Budget: euro 274,500; Project duration: 3 years

1430 – Dr. D. Amsen: Transgenerational T cells: a cellular form of maternal care after birth with therapeutic potential in allogeneic stem cell therapy.

Budget: euro 398.500 ; Project duration: 4 years

1438 – Dr. M.D. Hazenberg (fellowship): The protective role of innate lymphoid cells (ILC) after hematopoietic stem cell transplantation.

Budget: euro 560.000; Project duration: 4 years

1440 – Prof. Dr. D. Oepkes/Prof. Dr. C.E. van der Schoot/Dr. C. de Haas: Towards routine HPA-screening in pregnancy to prevent FNAIT: Assessing disease burden, optimising risk group selection and Safety of IVIg Treatment.

Budget: euro 430.500; Project duration: 4 years

1451 – Dr. M.H.A. Bos: Assembling the molecular machinery of coagulation: learning from the adaptive evolution of snake venom proteins.

Budget: euro 277.000; Project duration: 4 years



## **Research projects granted 2015**

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1503 – Dr. B.J.M. van Vlijmen/Dr. B. Bayat: Interaction between Choline Transporter-like Protein 2 and Von Willebrand Factor: Importance to Transfusion-related Acute Lung Injury and Beyond.

Budget: euro 226,400; Project duration: 3 years

1504 – Prof. Dr. H.C.J. Eikenboom: Development of RNA-targeted therapies for bleeding disorders, especially von Willebrand disease.

Budget: euro 230,000; Project duration: 4 years

1517 – Dr. M. van den Biggelaar (fellowship): Interactions of hemostatic proteins with the vasculature: go with the flow?

Budget: euro 560,000; Project duration: 2+2 years

1520 – Dr. C. Maas: Plasmin to the rescue in thrombotic thrombocytopenic purpura.

Budget: euro 295,500; Project duration: 4 years

1527 – Dr. G. Vidarsson: Functional dissection of C-reactive protein's role in exacerbating cellular clearance.

Budget: euro 335,200; Project duration: 4 years

1531 – Dr. B. van der Reijden/Dr. M. von Lindern: Genetics and epigenetics in megakaryopoiesis: the role of GF11B.

Budget: euro 402,000; Project duration: 4 years

1546 – Dr. M. De Haas: Towards a more effective and efficient use of intravenous immunoglobulin in children with immune thrombocytopenia.

Budget: euro 318,800; Project duration: 4 years

## **Research projects granted 2016**

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1609 – Prof. Dr. S.M. van Ham: How to prevent unwanted antibodies; regulation of plasma cell fate by the dynamic interplay between specific B cells and follicular T-helper cells.

Budget: euro 303,900; Project duration: 4 years

1626 – Dr. T. Rispen: IgG Fab glycosylation: a novel mediator of humoral tolerance.

Budget: euro 397,500; Project duration: 4 years

1627 – Prof. Dr. J.N.J. Philipsen: Repurposing CRISPR/Cas9 for targeted demethylation of the gamma-globin promoters.

Budget: euro 383,400; Project duration: 4 years

1629 – Dr. K. van Gisbergen (fellowship): Universal and tissue-tailored gene programs of resident memory lymphocytes.

Budget: euro 560,000; Project duration: 2+2 years

1638 – Dr. R.R. Koenen: Intercellular communication and immunomodulatory activities of platelet microvesicles in vascular inflammation.

Budget: euro 260,500; Project duration: 4 years

1649 – Dr. J. van Buul: Border control at the vessel wall: The endothelium as customs official for leukocyte crossing.

Budget: euro 395,200; Project duration: 4 years

## **Research projects granted 2017**

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1702 – Prof. Dr. J.C.M. Meijers: Modifying factor XI to promote hemostasis: a novel therapeutic approach to control bleeding?

Budget: euro 419,822; Project duration: 4 years

1703 – Prof. Dr. G. de Haan: Dissecting the role of Neogenin; a novel receptor required for hematopoietic stem cell proliferation and engraftment.

Budget: euro 438,254; Project duration: 4 years

1707 – Dr. R. Bierings (fellowship): Von Willebrand factor release from Weibel-Palade bodies: pulling the strings in vascular disease.

Budget: euro 560,000; Project duration: 3+2 years

1711 – Prof. Dr. J.W.M. Heemskerk: Platelet subsets and priming: functional determinants in haemostasis and vascular protection.

Budget: euro 360,115; Project duration: 4 years

1719 – Dr. C. Voermans/Prof. Dr. S.S. Zeerleder: The role of heme oxygenase-1 in the development of graft versus host disease.

Budget: euro 424,748; Project duration: 4 years

1721 – Dr. G. Vidarsson: The Ig-glycan code: a third level of memory controlling effector function of immunoglobulins in health and disease.

Budget: euro 424,748; Project duration: 4 years

## **Research projects granted 2018**

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1818 – Dr. D. Amsen: Regulatory T cells carry an iron harness to protect their identity.

Budget: euro 401,000; Project duration: 3 years

1820 – Dr. J.D. van Buul: Maintaining vascular integrity during intravasation events: the endothelium in control.

Budget: euro 432,000; Project duration: 4 years

1826 – Prof. Dr. R.A.W. van Lier: A matter of regulatory T cell stability: challenge and opportunity.

Budget: euro 432,000; Project duration: 4 years

1842 – Dr. R. Spaapen (fellowship): How tumor glycosphingolipids shield surface receptors from the immune system.

Budget: euro 560,000; Project duration: 3+2 years

1852 – Prof. Dr. H.J.C. Eikenboom: Disease in a dish: Modelling Von Willebrand disease with patient-specific induced pluripotent stem cells.

Budget: euro 339,000; Project duration: 3 years

**INTEGRATOMICS of BLOOD Systems** - Sanquin Research, Budget: euro 7,500,000; Duration: 5 years

## **Research projects granted 2019**

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1901 – Prof. Dr. T. van der Poll: Role of platelet glucose metabolism in hemostasis and inflammation.  
Budget: euro 383,320; Project duration: 4 years

1908 – Dr. G. Vidarsson: Mechanistic dissection of clinically relevant allo-antibodies.  
Budget: euro 434,615; Project duration: 4 years

1922 – Dr. M.D. Hazenberg/Dr. C. Voermans/Dr. B. Blom/Dr. H. Dolstra: Innate lymphoid cells to the barriers in allogeneic hematopoietic cell transplantation patients.  
Budget: euro 404,033; Project duration: 3 years

1923 – Dr. M. van den Biggelaar/Dr. A.J. Hoogendijk: Cytokine network architecture at the endothelial interface: The whole is greater than the sum of its parts.  
Budget: euro 394,434; Project duration: 4 years

1931 – Dr. A.P.J. Vlaar (fellowship): Transfusion-associated circulatory overload (TACO) - a breathtaking syndrome.  
Budget: 560,000; Project duration: 3+2 years

## **Research projects granted 2020**

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2005 – Dr. R. Bierings: New determinant of Weibel-Palade body shape and Von Willebrand factor trafficking within ER-Golgi SNARE networks.  
Budget: euro 400,000; Project duration: 3 years

2007 – Dr. M. Nethe (fellowship): E-cadherin controls erythropoiesis; a novel avenue to treat anemia.  
Budget: euro 511,742; Project duration: 3+2 years

2019 – Prof. Dr. A. Griffioen/Dr. C. Margadant: Effect of anti-HPA-1a antibodies on sprouting angiogenesis and bleeding in fetal and neonatal alloimmune thrombocytopenia.  
Budget: euro 433,653; Project duration: 4 years

2022 – Dr. S.Q. Nagelkerke: Targeted ultralong-read sequencing to solve the genetic structure of complex genetic regions in blood group and immune genetics.  
Budget: euro 513,400; Project duration: 4 years

2026 – Prof. Dr. J. Voorberg: Conformational regulation of ADAMTS13 in immune thrombotic thrombocytopenic purpura.  
Budget: euro 440,873; Project duration: 4 years

**Sanquin Research towards 2025** - Sanquin Research, Conditional Budget: euro 10,000,000; Duration: 5 years

## **Research projects granted 2021**

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2103 – Dr. M. Wolkers/Dr. Branka Popović: Dissecting the interplay between RNA binding proteins and transcription factors in shaping T cell differentiation.  
Budget: euro 463,783; Project duration: 3 years

2107 – Dr. J. Garaycoechea: Mapping sources of genome instability during hematopoiesis.  
Budget: euro 418,390; Project duration: 4 years

2112 – Dr. M. Themeli/Dr. M. Hansen/Dr. C. Voermans: Induced pluripotent stem cells as a source of efficient and durable "off-the-shelf" CAR T cells for the treatment of cancer.  
Budget: euro 492,882; Project duration: 3 years

2114 – Dr. G. Vidarsson/Dr. R. Kapur/Dr. M.D. Hazenberg: IgG-glycosylation and hexamerization as sweet spots in alloimmune responses against blood cells.  
Budget: euro 480,603; Project duration: 4 years

2125 – Dr. D. Amsen: How inflammation turns regulatory T cell function on and off.  
Budget: euro 452,228; Project duration: 3 years

## ***Research projects granted 2022***

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2202 – Dr. M. Wolkers: How translation regulation defines T-cell function in health and disease.

Budget: euro 489,400; Project duration: 3 years

2208 – Dr. R. van Boxtel/Dr. I van der Werf: Characterizing early life hematopoiesis: Why does bone marrow sometimes fail?

Budget: euro 444,000; Project duration: 3 years

2215 –Dr. A.E. Marneth (fellowship): The role of C-mannosylation in MPL function and megakaryopoiesis.

Budget: euro 574,000; Project duration: 3+2 years

2217 – Dr. B. Weijts (fellowship): Characterization of an endothelial derived intravascular macrophage population.

Budget: euro 406,100; Project duration: 4 years

2220 –Dr. S. Fustolo-Gunnink/Dr. M. van den Biggelaar: Translational epidemiology to optimize neonatal platelet transfusions.

Budget: euro 386,500; Project duration: 3 years

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