# Curriculum Vitae Europass

PERSONAL DATAS

Name

**PAOLO SIMIONI** 

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Contacts

+39.049.821 2667

Date and place of birth

paolo.simioni@unipd.it Padova, 27 maggio 1959

PRESENT POSITION From 1992 he has a fixed position as a physician at the Dept. of Medical and Surgical Sciences, University of Padua - Medical Pathology II, then at the Dept. of Cardiologic, Thoracic and Vascular Sciences, Second Chair of Internal Medicine. From October 1st, 2014 he affiliated at the Dept. of Medicine (DIMED) – Fifth Chair of Internal Medicine first and later at the Thrombotic and Hemorrhagic Diseases Unit, as Director, from December, 18th 2015 to date. From 1998 he has a role of Assistant Professor, from 2005 of Associate Professor of Internal Medicine and from August 1st, 2018 as Full Professor of Internal Medicine, School of Medicine at the University of Padua. He heads up the General Medicine Unit, the Thrombotic and Hemorrhagic Diseases and Coagulation Disorders Units and Hemophilia Center for the diagnosis and treatment of thrombotic and hemorrhagic disorders at Padua University Hospital and also the Coagulation Diseases Unit.

Person in charge of the Veneto Regional Centre for the prevention, diagnosis and treatment of complex hemophiliac, thrombophilia and coagulation disorders. About 5000 patients with inherited thrombotic and hemorrhagic disorders are followed by the Unit and by the Centre which includes also a routine and research

laboratory and a 2nd and 3rd level diagnostic laboratory for coagulation diseases.

He is the Director of the School of Specialization in Community Medicine and Primary Care from October 2016 to

## PATIENT CARE ACTIVITY

- Direct management of patients with diseases of internal medicine and hematology hospitalized at the Clinica Medica II (formerly Patologia Medica II), with tasks of Department Doctor, guard duty day and night and on-call from 1992 to 2008 and from 2008 as University Assistant Senior at the Clinica Medica II (latter Director: Prof. Antonio Pagnan).

- Ambulatory activity for patients with problems of internal medicine from 1992 to date. Ambulatory activity for patients with thrombotic and hemorrhagic coagulation disorders, through the establishment of ambulatories dedicated to the diagnosis, prevention and treatment of venous thromboembolism in patients with inherited thrombophilia (approximately 5000 patients with hereditary hemorrhagic or thrombotic problems are followed by the Center for Thrombosis and Hemostasis of Padua from 1992 to date).

- Diagnostics and laboratory consulting activity for patients with thrombotic and hemorrhagic disorders at the Laboratory of Coagulation of the Clinica Medica II, later at Clinica Medica V and currently at the Thrombotic and Hemorrhagic Diseases Unit, University of Padova, where he is chief in charge from 2002 to date. The activity involves approximately 30.000 second and third level diagnostic, laboratory and care performances per year.

- Specialist consulting activity for university and hospital departments of the University Hospital of Padua for issues of Internal Medicine, hematologic and coagulation problems from 1992 to date.

- Specialist consulting activity for problems of severe perioperative and post-traumatic emergencies bleeding since 2008 to date.

- Awarded by the "High specialization in diseases related to thrombophilia" from 2004 to 2010.

Chief of Simple Operating Unit of the "Thrombotic and hemorrhagic diseases" from 2011 to date.
 Deputy Director of the Clinica Medica II (latter Director Prof. Antonio Pagnan) from 2006 up to June 2014 for the problems referring to coordination and university teaching and referring to training and care activities of students

and trainee doctors.

- University Assistant Senior at the Clinica Medica II (substitute Director: Prof. Paolo Prandoni) up to June 2014 with position of chief of the training organization and chief of laboratory diagnosis and treatment of thrombotic and

hemorrhagic coagulation disorders.

- Activity at the Clinica Medica V from 16.06.2014 to December 17th 2015 with the responsibility of patients care at the same clinic.

- Director of the Thrombotic and Hemorrhagic Diseases Unit from December 18th 2015 to date.

- Director of the Coagulation Diseases Unit from March 8th 2018 to June, 30th 2020.

- Director of the Generale Medicine Unit from September 1st 2019 to date.

Head and coordinator of a research group at the UOSD Thrombotic and Hemorrhagic diseases / UOC General Medicine of the Hospital - University of Padua consisting of: 10 hospital medical physicians, 3 university medical physicians (1PA, 1RU, 1 RTDA), 1 RTDA biologist, 2 permanent university biologists, 1 permanent biologist, 1 permanent hospital biologist manager, 1 university laboratory technician and 1 hospital laboratory technician.

## SCIENTIFIC **ACTIVITY**

Main research fields:

- Observational epidemiological studies on the risk of venous thromboembolism in carriers of inherited thrombophilia
- Observational epidemiological studies on the risk of bleeding in patients with hereditary and acquired hemophilias.
- Identification and molecular and biochemical study of congenital defects of coagulation in patients from families with thrombotic and hemorrhagic diathesis (correlation genotype-phenotype clinical and laboratory).
- Development of laboratory tests for the screening of patients with thrombophilia and hemophilias: tests of thrombin-generation, the study of micro-particles and nucleosomes.
- Genetic diagnosis of disorders of thrombotic and hemorrhagic bleeding.
- Identification of prophylaxis and treatment strategies of carriers of genetic alterations responsible for such thrombotic and hemorrhagic disease.
- Gene therapy for the treatment of hemorrhagic and thrombotic coagulopathy.
- Management of severe perioperative and post-traumatic bleeding with new thromboelastometry techniques and aggregometry point-of-care.
- Thromboembolic disease in children and the Italian Registry of Childhood Thrombosis (RITI).
- 10. The hemorrhagic and thrombotic disease in women.
- 11. Coagulation in the Xenotransplantation: strategies for preventing organ rejection (European Project Xenome).

#### **TEACHING ACTIVITY**

- Theoretical and practical activities relating to the training (lectures and tutorials) of students of the Degree in Medicine and Surgery, tutor of graduate students in Internal Medicine and Hematology, during guard duty care and daily medical activities in ward at the Patologia Medica II, then Clinica Medica II, later at Clinica Medica V and nowadays at the Thrombotic and Hemorrhagic Diseases Unit of the University of Padua from 1992 to date.
- Lecturer on coagulation during the Course of Biochemistry for the students of the Degree Course in Medicine and Surgery, University of Padua, in the academic year 1991-1992. - Evaluator-tutor for the state examination of Authorization to practice as a Physician and Surgeon from 2004 to date.
- Professor of the Integrated Course of Internal Medicine (Coordinator: Prof. Antonio Pagnan) for the students of the Degree Course in Medicine and Surgery, University of Padua, from 2005 to 2011. Professor of the same course in the academic year 2010/11
- Professor of the Course of Clinical Methodology for the students of the Degree Course in Medicine and Surgery, University of Padova, in the academic year 2011/12.
- Professor of the Course of Medical Semeiotics for the students in the 4th year of the Degree Course in Medicine and Surgery, University of Padua, in the academic year 2012/13.
- Professor of the Course of General Medicine for the students of the Degree Course in Physiotherapy and Occupational Medicine, University of Padua, in the academic year 2013/14, held at the headquarters of Conegliano.
- Professor of the Course of Clinical Methodology and Medical Semeiotics for the students in the 4th year of the Degree Course in Medicine and Surgery, University of Padua, in the academic year 2013/14 and 2014/15.
- Professor of the Course of Internal Medicine 1 for the students in the 5th year of the Degree Course in Medicine
- and Surgery, University of Padua, in the academic year 2015/16 and 2017/18.

   Professor of Internal Medicine for the Course of Anatomy, Pathology and Medicine for the students of the Degree Course in Audiology Technician, University of Padua, in the academic years 2015/16, 2016/17, 2017/18 and
- Professor of the Course of Internal Medicine 2 for the students in the 6th year of the Degree Course in Medicine and Surgery, University of Padua, in the academic year 2016/17 and 2018/19.
- Supervisor and co-supervisor of many Thesis referring to the Degree Course in Medicine and Surgery of the University of Padua and to the Specialization Course of the University of Padua in Hematology, Internal Medicine, Pediatrics and Clinical Biochemistry linked to hemostasis and thrombosis problems. Examiner of many Thesis referring to the Degree Course in Medicine and Surgery, University of Padua.
- Adjunct Professor of the School of Specialization in Hematology of the University of Padua from 1995 to 1998, where he taught "Clinical and therapy of disorders of coagulation inhibitors" in the main Course of "Clinical and Treatment of Hemostasis Disorders.
- Lecturer at the School of Specialization in Hematology as Assistant Professor from 1998 to 2005 and since 2005 as Associate Professor of Internal Medicine. Professor of the Course "Medical Physiopathology: Hemorheological principles and methods" of the 3rd year of the Degree Course until 2007. Professor of the Course "Hematology: Principles and methods for the study of Hemostasis" of the 3rd year of the Degree Course since 2007.
- Professor of the Course of Cardiovascular Diseases at the School of Specialization of Angiology of the University of Padua and Professor of the Course of Physiology of Coagulation and Thrombophilia at the School of Specialization in Cardiology (2nd School) of the University of Padua from 2004 to 2007.
- Professor at the School of Angiology of the University of Padua (latter Director: Prof. Antonio Pagnan) from 2005 to 2009.
- Professor of the Course "The critical patient" at the School of Specialization in Internal Medicine for the academic years 2012/13, 2013/14 and 2014/15. Professor of Internal Medicine at the School of Specialization in Community Medicine and Primary Care for the academic year 2014/15. Professor of Geriatric Hematologic Diseases at the School of Specialization in Geriatrics for the academic year 2014/15.
- Participant as a Lecturer in Training and Updating Courses for Doctors on the issues of the laboratory, diagnosis and treatment of thrombotic disease from 1992 to date. He carries out theoretical and practical training to doctors, biologists and lab technicians about problems related to coagulation at the Laboratory of Coagulation of the Thrombotic and Hemorrhagic Diseases Unit (former Department of Cardiologic, Thoracic and Vascular and Department of Medical and Surgical Sciences) from 1992 to date.
- From 2006 (XXII cycle) to date: Participation in the Board of Professors of the Doctorate in Hematological and
- Geriatric Sciences currently of "Clinical and Experimental Medical Sciences of the University of Padua.

  From 2009 to today: Lecturer in the course of "Coagulation and thrombophilic syndromes" in the Master of Vascular Medicine at the University of Padua.
- a.a. 2017/2018: Director of the II level University Master in Vascular Medicine of the University of Padua. From the academic year 2019/20 to date: Director of the II level University Master in Vascular Medicine and Thrombotic and Hemorrhagic Diseases of the University of Padua.

#### DEGREES

GRADUATION - Medicine and Surgery - in 1984 - University of Padua Medical School, Padua, Italy SPECIALIZATION - Cardiology - in 1990 - University of Padua Medical School, First School of Cardiology, Padua,

SPECIALIZATION - Internal Medicine - in 1995 - University of Padua Medical School, First School of Internal Medicine, Padua, Italy

PhD - Internal Medicine - in 1997 - University of Amsterdam Academic Medical Centre - AMC, Amsterdam, NL

## PRE-GRADUATION TRAINING

- Attender to the Laboratory of Coagulation of Patologia Medica II (Prof. Antonio Girolami) of the University of Padova from 1982 to 1984.
- Attender to the Center Hemophilia of the Syndromes simil-hemophiliac of the Veneto Region at Patologia Medica II (Prof. Antonio Girolami) from 1982 to 1984.
- Attender to the Institute of Pathological Anatomy of the University of Padova (Prof. Natale Pennelli) from 1981 to 1982

## POST-**GRADUATION TRAINING**

Post-graduate training, professional assignments and care activities:

- State examination in the second session of 1984.

- Registration to the Order of Physicians of the Province of Padua on 19.12.1984, registration no. 5391 (registered up to date), he held the position of Council Member in the Steering Committee of the same Order from 01.01.2012 to 31.12.2014. He was elected President of the Order of Physicians and Dentists of the Province of Padua for the period 2015-2017 and then for the period 2018-20.
- Doctor Attender at the Patologia Medica II from 1985 to August, 23rd 1992 (from 1987 as trainee doctor).
- Appointed first as substitute and then through the Convention of the Service of Emergency Medical Care of the ULS 23 of the Veneto Region from 1985 until July 1992; some substitutions of General Practitioners of the ULS 23 from January 1985 to July 1988; in the same ULS 23 he had a Convention as a General Practitioner from September, 25th 1988 to August, 23rd 1992.
- Doctor on Duty from December 1986 to October 1990, and then as Holder of lump-sum grant from 1990 to 1992 at the Patologia Medica II of the University of Padua where he performed medical guard duty during the night, during holiday and days before holiday.
- Deputy Assistant Physician at the Division of Patologia Medica II (former Director: Prof. Antonio Girolami) of the University Hospital of Padua from July to September 1989.
- Internal Medical Assistant and then Medical Director of I level at the Patologia Medica II, then Clinica Medica II (former Director: Prof. Antonio Girolami), at the University Hospital of Padua from August, 24th 1992 until September, 9th 1998.
- Successful candidate for the Competition as Assistant Professor in 1998, he was Assistant Professor in the Field Med/09 Internal Medicine from September, 10th 1998 until December, 31st 2004 at the Clinica Medica II, University of Padua (former Director: Prof. Antonio Girolami until December 2002, latter Prof. Antonio Pagnan).
- Associate Professor of Internal Medicine (MED/09) at the Clinica Medica II of the Department of Cardiologic, Thoracic and Vascular Sciences (latter Director: Prof. Antonio Pagnan), on call of the Faculty of Medicine as "excellent candidate" from January, 1st 2005 to date, later at the Clinica Medica V - Dept. of Medicine DIMED from October, 1st 2014 and at the Thrombotic and Hemorrhagic Diseases Unit - Dept. of Medicine from December, 18th 2015 up today.
- Successful candidate for the National Scientific Qualification to function as full Professor in the scientific Field Med/09 - Internal Medicine in 2012, with effect from December, 23rd 2013...
- Full Professor of Internal Medicine from August 1st 2018. Director of the General Internal Medicine Unit (from September 2019) and the Thrombotic and Haemorrhagic Disorders Unit at Padua University Hospital, Padua, Italy from year 2015 to present.

## CONGRESS **PARTICIPATION** AND ACTIVITY

- Scientific Director and organizer of the "Italian Congress of Thrombosis and Hemostasis in Women and Children", so far in three editions, held in Padua respectively in 2005, 2008, 2011. This National Congress is the reference to the issues of Thrombosis and Hemostasis in Women and Child.
- Scientific Director and organizer of the "First International Padua Meeting on severe bleeding management" held in Padua in November 2013 and of the "Second International Padua Meeting on severe bleeding management" held in Padova in November 2016.
- Scientific Director and Organizer of Seminars and International Meetings in Padua on the management of severe perioperative and post-traumatic bleeding in 2010-2016.
- Component of the Advisory Board of the WHITH (Women Health Issues in Thrombosis and Hemostasis), which organizes international meetings on issues of Thrombosis and Hemostasis in Women.
- Component of the Advisory Board of the Congress of the Mediterranean League, held in Valencia in May 2014.
- Scientific Director and Organizer of the following events:
- \* Gestione Point of Care del sanguinamento massivo in cardiochirurgia held in Padova on 4.11.2014;
- \* Gestione Point of Care del sanguinamento massivo in cardiochirurgia held in Padova on 25.03.2015;
- \* Gestione Point of Care dell'emorragia nel politrauma held in Padova on 28.04.2015;
- \* Monitoraggio point-of-care della coagulazione nel paziente epatopatico e nel trapianto di fegato held in Padova on 10.06.2015:
- Gestione Point of Care dell'emorragia post partum held in Padova on 5.11.2015;
- Gestione Point of Care dell'emorragia nel politrauma held in Padova on 20.05.2016.
- \* Gestione point of care dell'emorragia nel politrauma held in Padova on 08.02.2017;
- \* Gestione point of care del sanquinamento massivo in cardiochirurgia held in Padova on 21.03.2017.

- Scientific Director and organizer of the "5th International Congress on Coagulopathy in Liver Disease" held in Padova on September 27-28th 2013. Component of the Advisory Board of the Congress for organizing aspects every two years - up to date.
- Scientific Director and organizer of di meetings on various scientific, ethical and professional subjects in the areas of Medicine and Surgery as President of the Order of Physicians and Dentists of the Province of Padua.

Participations at more over 315 meetings, seminars and national or international congresses about Thrombosis and Hemostasis, as invited speaker or chairman.

### **EDITORIAL ACTIVITY**

- Current and/or past Reviewer for the following scientific journals in the medical sector: Lancet, Circulation, Blood, Thrombosis and Hemostasis, Journal of Thrombosis and Hemostasis, Arteriosclerosis Thrombosis and Vascular Biology, Thrombosis Research, Clinical Chemistry and Laboratory Medicine, Clinical and Applied Thrombosis and Hemostasis, Xenotransplantation, American Journal of Transplantation.
- Member of the Advisory Board of the scientific journal "Coagulum" from 2010 to date.

   Member of the Advisory Board of the international scientific journal "Journal of Thrombosis and Hemostasis" (Official Journal of ISTH, the International Society of Thrombosis and Hemostasis) from January, 1st 2004 to December, 31st 2004.
- Member of the Editorial Board of the on-line journal "Thrombosis" from 2010 to 2013.
- Member of the Advisory Board of Anticoagulazione.it: the portal of anticoagulants and antithrombotic treatments.
   Member of the International Editorial Board of the scientific journal "Blood transfusion" from 2015.
- Director of the magazine "Bollettino dell'Ordine dei Medici Chirurghi e degli Odontoiatri della Provincia di Padova" from 2015 to 2020. The magazine The magazine is focus on professional, ethical and deontological topics in the Medical, Surgical and Dental fields.

## SCIENTIFIC **PUBLICATIONS**

SCIENTIFIC PUBLICATIONS of which he is author or co-author PRESENT IN SCOPUS: n. 379 with

H-index = 50 and citations equal to 12,130 (Scopus, March 2021), in particular:

Number of papers in the last 10 years (2010-2020) = 185

Abstracts of Scientific Congresses published in national or international journals: over 500 Book chapters 9.

## SCIENTIFIC **AFFILIATION**

Member of the following Scientific Societies:

- from 1995: Member of the International Society of Thrombosis and Haemostasis, ISTH.
- from 1997: Member of the Italian Society of Thrombosis and Haemostasis, SISET, also member of the National Steering Committee for two years.
- from 2010: Member of the Italian Society of Internal Medicine, SIMI.
- from 2010: Member of the Board of University Professors of Internal Medicine, COL/MED 09.
- from 2010: Member of the Italian Society of Angiology and Vascular Pathology, SIAPAV.
- from 2015: Member of the Italian Association of Hemophilia Centers, AICE.

President of the Order of Physicians and Dentists of the Province of Padua from January 2015 to date. for the period 2015-2017 and then for the period 2018-20.

## **SCIENTIFIC PANELS OR COMMITTESS OF AFFILIATION**

- Co-Chairman of the SSC's Scientific Subcommittee on Perinatal / Pediatric Hemostasis of the International Society of Thrombosis and Haemostasis (ISTH) from September 2009 to date, a position which has been renewed
- Chairman of GIRTI, Italian Group of Childhood Thrombosis Registry, and founder of the Italian Registry of Childhood Thrombosis (RITI). RITI collects different cases of systemic, cerebral, neonatal and pediatric thrombosis occurring in Italy through a network with the local nursing facilities. The website of RITI is www.trombosinfantili.it
- Member of the Advisory Board relating to the Grant of the National Institute of Health (U19) about "Effect of genetic modifications on pig heart and kidney graft survival in baboons" whose P.I. is Professor DKC Cooper of the University of Pittsburgh, USA.

### RESEARCH FUNDS

- Research funds from MURST projects (Ministry of University and Scientific and Technological Research), ex 60% from 2003 up to dateevery year.
- Research funds from active participation in international clinical trials approved by the Ministry of Health regarding the testing of antithrombotic drugs in the prevention and treatment of venous thromboembolism (Principal Investigator: Prof Prandoni).
- Research grants from the University of Padua about some projects presented in 2006 and 2007 (1.code: CPDR064414/06 title: "Evaluation of biological phenomena related to the coagulation cascade in non-human primates submitted to xenotransplantation" translation from the Italian name "Valutazione dei fenomeni biologici inerenti la cascata coagulativa in primati non umani sottoposti a xenotrapianto"; 2.code: CPDR077082/07 title: "A new model of study of coagulation factor V in platelets: clinical implications for the treatment of para-hemophilia" translation from the Italian name "Un nuovo modello di studio del fattore V della coagulazione all'interno delle piastrine: implicazioni cliniche per il trattamento della paraemofilia".
- PRIN (Research Programs of Relevant National Interest) in 2002 (2002065745\_007 2002065745\_007 Area 06 for 24 months) and in 2007 (2007CTWLFY\_001 2007CTWLFY\_001 Area 06 for 24 months) as a research participant (and not as P.I.).
   European Project called "XENOME" (European Coordinator: Dr. Emanuele Cozzi, Hospital of Padua and CORIT
- European Project called "XENOME" (European Coordinator: Dr. Emanuele Cozzi, Hospital of Padua and CORIT Consortium for Research in Organ Transplantation) on organ xenotransplantation and engineerization of organs for xenotransplantation, as Chief of the Unit (University of Padua). The project, which included 24 European centers (Units), has been approved and funded by a Grant of approximately 10 million Euros. The coagulation laboratory of the Clinica Medica II of the University of Padua, with the scientific coordination of Prof. Simioni as Chief of the Unit, was one of the units involved in the project and it represented the European Centre of reference for all coagulation problems associated with the project. Project lifetime: from November, 1st 2006 to April, 30th 2012; total amount financed to the Principal Investigator: approximately 345.000 Euros.
- Research Project entitled "Study for the development, characterization and efficacy of a new recombinant hyperfunctional Factor IX for the treatment of hemophilia B translation from the Italian name "Studio per lo sviluppo, la caratterizzazione e l'efficacia di un nuovo Fattore IX ricombinante ad alta attività per il trattamento dell'emofilia B" presented to the MIUR (Ministry of Education, University and Research) by the company Kedrion SpA of Lucca on the invitation to tender of January, 18th 2010, issued under the National Operational Program "Research and Competitiveness" 2007-2013 and/or the Incentive Fund for Research (FAR) pursuant to article no.12 of the Ministerial Decree no. 593/2000, MIUR Code of the Project PON01\_01426. The Department of Cardiologic, Thoracic and Vascular Sciences, thanks to Prof. Simioni, is "external partner" of such project with a budget of 240.000 Euros for 2012-2014.
- University Research Project call 2013 (CPDA code 137450) entitled "Exon skipping and transcription activator-like effector (TALENs) nucleases gene therapy in human induced pluripotent stem cells-Megakaryocytes parahemophilia in patients" with a grant of 52,580 Euros.
- Research Project entitled "Study for the development, characterization and efficacy of a new concentrate of factor V for the treatment of para-hemophilia" translation from the Italian name "Studio per lo sviluppo, la caratterizzazione e l'efficacia di un nuovo concentrato di fattore V per il trattamento della paraemofilia"- funded by the company Kedrion SpA for a total amount of 110.000 Euros.
- Investigator of the EINSTEIN JUNIOR studies for the treatment of thrombosis in pediatric and neonatal age with the new oral anticoagulant drugs (Rivaroxaban-Xarelto, sponsored by the BAYER company, held at the Padua Hospital PI of commercial contracts for Centro Ricerche Cliniche di Verona / Ditta Dilafor for the execution of thrombin generation tests on plasmas of patients treated with new drug therapies in order to define their impact on coagulation. Years 2014-2015. Funds to DCTV / DIMED about € 52,000.00
- Research contract with the company Dino Paladin for the realization of the project entitled "Diagnostic laboratory characterization of inherited defects of protein S". Years 2012-2013. Funds to DCTV Euro 30,000.00 aimed at activating a research grant position
- Contribution by Consorzio Ethics aimed at activating a research grant position for the realization of the project entitled "Atmospheric pollutants and prothrombotic coagulation alterations". Years 2012-2013. Financing of € 22,946.00.
- Principal Investigator of the study entitled "Comparison of the ThromboTek AT assay with the Stano ATIII Chromogenic kit" funded by R2 DIAGNOSTICS INC. Years 2015-2016. Funds € 6,000.00
   BIRD 2016 Integrated Budget for Departmental Research BIRD 2016 2016 Call Prot. BIRD165148 Project
- BIRD 2016 Integrated Budget for Departmental Research BIRD 2016 2016 Call Prot. BIRD165148 Project for Research Grant. Title of the Research Program: "In vitro study of a new plasma-derived factor V concentrate: dose-response evaluation in plasma from patients with congenital FV deficiency (parahemophilia)". Funded by DIMED for € 18,000.00
- PI of the Research Project entitled "Assessment of thrombin with ST Genesystem using STG Thromboscreen and ST-Genesia", funded by the company Thrombinoscope BV (and with the participation of Diagnostica STAGO sas) for a total of € 35,000.00 year 2016.
- Principal Investigator of the spontaneous clinical study entitled "Hypercoagulability and endothelial dysfunction in patient with cancer"
- PI of the "API-Veneth APIxaban use for the treatment of VENous thromboembolism in HEreditary Thrombophilia" funded by BMS / Pfizer within the European Thrombosis Investigator Initiated Research Program with a grant of € 100,000.00 and for the duration of two years year 2017.

# **PATENTS**

Prof. Paolo Simioni is the discoverer of the "Fattore IX Padova". This factor was identified for the first time in 2007 in a 23-year-old patient who had presented a seemingly spontaneous inferior venous thrombotic event. The specific activity of factor IX in the plasma of this patient was at least 8 times higher than normal, ie there was a hyperfunctioning factor IX. The gene sequencing led to the identification of a mutation in the gene of the Factor IX that determined the substitution of a single amino acid, ie the Arginine in position 338 was replaced by a Leucine (FIX R338L or Fattore IX Padova). The discovery of this mutation had at least three important implications:

1. A new cause of inherited thrombophilia has been identified, the first one described with transmission bound to the X chromosome being the factor IX gene located in this chromosome.

- 2. Potential use of Factor IX Padova has been identified in the gene therapy of Hemophilia B (factor IX deficiency). The limit of gene therapy of hemophilia B is that of the effective yield, ie the level of factor IX obtainable with this therapy that did not allow to maintain long levels above 5%, thus not guaranteeing significant results in terms of reduction of administration of hemoderivatives to hemophilia patients. Factor IX Padova, having an activity 8 times higher than normal if used in gene therapy allows the achievement of factor IX levels equal to at least 40% at the same yield, eliminating the need for administration of blood products. The confirmation of the efficacy and safety of FIX Padova occurred first on the canine model of hemophilia B and then on patients with haemophilia B more
- 3. A hyper-functional factor IX has been identified with the possibility of producing a recombinant high-activity protein to be used for the therapy of bleeding disorders including hemophilia. This recombinant recombinant factor IX (recombinant factor IX) could be used in its zymogenic form or in its activated form as a by-pass agent. This aspect has also been the object of the study and of the Pon (MIUR Code of Project PON01\_01426) mentioned above.

With regard to the discovery of factor IX Padua and the above, a series of patent applications have been presented by Prof Simioni as inventor. The table below summarizes these applications and the progress / granting of the patents.

Assigned Patent Rights

Country Application Number Application Date Status Patent Number **Grant Date** Title 2012 102009901729237 May 06, 2009 Granted 0001395980 November 09. POLIPEPTIDE FATTORE IX MODIFICATO, SUE UTILIZZAZIONI E METODO PER LA SUA **PRODUZIONE** 

01. Granted 0001394177 2012 102008901659212 September 15, 2008 June - Italy POLIPEPTIDE FATTORE IX MODIFICATO, SUE UTILIZZAZIONI E METODO PER LA SUA **PRODUZIONE** 

- WIPO PCT/EP2009/061935 September 15, 2009 phase entered national has FACTOR IX POLYPEPTIDE MUTANT, ITS USES AND A METHOD FOR WO2010/029178 NA

ITS PRODUCTION - US 14/981,981 December 29, 2015

FACTOR IX POLYPEPTIDE MUTANT, ITS USES AND METHOD FOR ITS Pending-**PRODUCTION** 

- European Patent Office September 15, 2009 Pending -09748260.8

FACTOR IX POLYPEPTIDE MUTANT, ITS USES AND A METHOD FOR ITS PRODUCTION CA 2737094 September 15, 2009 Pending

English Title: FACTOR IX POLYPEPTIDE MUTANT, ITS USES AND A METHOD FOR ITS PRODUCTION

French Title: MUTANT POLYPEPTIDIQUE DU FACTEUR IX, SES UTILISATIONS ET METHODE POUR SA PRODUCTION

IX 13/063,898 Granted 9,249,405February 02, 2016 FACTOR May 31, 2011 - US POLYPEPTIDE MUTANT, ITS USES AND A METHOD FOR ITS PRODUCTION

NB .: As you can see, the Italian patents and the patent granted in the USA - B2 are granted. Following the definitive granting of the US Patent -B2 (FĂCTOR IX POLYPEPTIDE MUTANT, ITS USES AND A METHOD FOR ITS PRODUCTION) the Company UNIQURE has requested the purchase of the above-mentioned family of patents.

The contract with the Uniqure Company was finalized in 2017.As per regulation of the University of Padua, 40% of the proceeds deriving from the use of this contract will go to the University of Padua, as already happened for a first tranche obtained at the signing of the same. The contract also provides for the development of products for the gene therapy of Hemophilia B using vectors containing Factor IX Padova.

#### PERSONAL SKILLS

# Mother tongue

#### Italian

### Other language(s)

## English, Spanish

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	No. of the second secon
C1	C2	C1	C1	C2
B1	B2	B1	B1	B1

**English** Spanish

> Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user Common European Framework of Reference for Languages

## **Driving licence**

Driving licence B

The undersigned declares under his responsibility that all the above mentioned data correspond to the truth and declares also to be aware about the penal liability that may be incurred in the event of falsification of documents and false statements therein.

The undersigned authorizes the use of his personal data according to the Italian Legislative Decree n. 196/2003. According to articles 46 and 47 of the Italian Presidential Decree n. 445/2000, the undersigned declares, under his responsibility and awareness of the penalties provided by art. 76 of Italian Presidential Decree 445/200, the truth of the information referred and self-certified.

Date and signature 2-1 APR 2021