

VAC2027 International Conference on Vascular Anomalies: From Mechanisms to Medicines

Barcelona | 9–12 March 2027

Venue: CosmoCaixa Barcelona (<https://cosmocaixa.org/es/>)

The VAC International Conference on Vascular Anomalies: From Mechanisms to Medicines builds on a well-established European scientific trajectory promoting excellence, multidisciplinary collaboration, inclusivity, patient-centered research, and responsible dissemination. The success of previous editions (Barcelona 2021, Brussels 2023, Berlin 2025) demonstrates the growing relevance of this forum and the need for continuity in a rapidly evolving field. Vascular anomalies comprise a heterogeneous group of rare, predominantly congenital disorders, including vascular malformations, vascular tumours, and complex genetic syndromes. Although individually rare, collectively they impose significant lifelong morbidity and require highly specialized, coordinated care. Advancing this field demands close interaction between basic science, translational research, and clinical expertise. VAC2027 (Barcelona, 9-12 March 2027) will convene 180-200 international participants at CosmoCaixa Barcelona, including basic researchers, clinicians from multiple specialties, industry representatives, and Patient Advocacy Organisations (PAOs). The programme integrates keynote lectures, thematic sessions, discussion panels, oral and poster presentations, and networking activities. A defining feature is the high and active participation of PAOs and the integration of patient testimonies, ensuring that scientific priorities remain aligned with unmet clinical needs. By bringing together the entire community across all aspects of these rare diseases, from molecular mechanisms to patient management and therapeutic development, VAC2027 aims to accelerate the development of innovative, effective treatments and improve outcomes for patients affected by vascular anomalies.

DAY 1 – TUESDAY 9 MARCH 2027

12:00-13:00 REGISTRATION

13:00-13:10 Welcome. Mariona Graupera, Chair of the Scientific Committee

13:10-13:20 Patient representatives' message (videos)

13:20-13:30 Patient testimonies

Keynote Lecture I

13:30-14:15 Precision Care for Vascular Anomalies: A Layered Framework for Diagnosis and Treatment. Beth Drolet (University of Wisconsin School of Medicine & Public Health/UW Health, USA)

Session 1 - Venous Malformations

14:15-14:40 TALK: Cellular and molecular mechanisms driving aberrant vascular development in a novel model of Venous Malformation. Elisa Boscolo (Experimental Hematology and Cancer Biology , Cincinnati Children's Hospital Medical Center, USA)

14:40-14:55 SHORT TALK 1

14:55-15:10 SHORT TALK 2

15:10- 15:40 Coffee break

15:40-16:05 TALK: Endothelial cell type and differentiation state dictate context-dependent responses to oncogenic PIK3CA. Ana Angulo-Urarte (Josep Carreras Research Institute (IJC), Spain)

16:05-16:20 SHORT TALK 3

16:20-16:35 SHORT TALK 4

16:35-17:00 TALK: Genomics informs precision medicine for individual affected by lymphatic anomalies. Sarah E. Sheppard (Eunice Kennedy Shriver Institute of Child Health and Human Development, USA)

17:00-17:15 SHORT TALK 5

17:15-17:30 SHORT TALK 6

17:30-18:10 Flash Talks 1: 6 short talks, 5 min each + 10min discussion

18:10-18:30 Museum visit

18:30-20:00 Welcome Drink: Networking & welcome drink

DAY 2 – WEDNESDAY 10 MARCH 2027

Keynote Lecture II

08:45-09:30 HHT and pulmonary AVMs: Defining new paradigms and therapeutic opportunities from the interplay between coding DNA variants and stress exposures. **Claire Shovlin** (National Heart & Lung Institute, Imperial College, UK)

Session 2 – Lymphatic Malformations & Lymphedema

09:30-09:40 **Patient Testimonies**

09:40-10:05 TALK: Multiscale mechanisms of PIK3CA-driven lymphatic malformations. **Taija Mäkinen** (Wihuri Research Institute, University of Helsinki, Finland)

10:05-10:20 SHORT TALK 7

10:20-10:35 SHORT TALK 8

10:35-11:00 TALK: Mechanisms underlying the pathogenesis of complex lymphatic anomalies. **Michael Dellinger** (Departments of Surgery and Molecular Biology, UT Southwestern Medical Center, USA)

11:00-11:30 **Coffee break**

11:30-11:55 TALK: Complex lymphatic anomalies- from pathogenesis to targeted therapy. **Shoshana Greenberger** (Edmond and Lily Safra Children's Hospital, Sheba Medical Center, Tel Aviv University, Israel)

11:55-12:10 SHORT TALK 9

12:10-12:25 SHORT TALK 10

12:25-13:25 **Lunch**

13:15-14:45 POSTER SESSION I

14:45-15:00 **Patient Testimonies**

15:00-15:25 TALK: From lymphoedema to Complex lymphatic anomalies. **Isabelle Quere** (Montpellier University Hospital, France)

15:25-15:40 SHORT TALK 11

15:40-15:55 SHORT TALK 12

15:55-16:35 **Flash Talks 2:** 6 short talks, 5 min each + 10min discussion

16:35-17:05 **Coffee break**

17:05-17:30 TALK: From Genes to Clinic: The Translational Genetics of Primary Lymphoedema. **Pia Ostergaard** (Cardiovascular & Genomics Research Institute, University of London, UK)

17:30-17:45 SHORT TALK 13

17:45-18:00 SHORT TALK 14

18:00-18:30 **ROUND TABLE:** Round table with patients, clinician and researcher

18:30-20:30 **Cultural activity:** Guided Walking Tour

DAY 3 – THURSDAY 11 MARCH 2027

08:00-08:45 **Meet the Speakers:** Breakfast with the speakers

Keynote Lecture III

08:45-09:30 **(TBC)** (College of Engineering, Boston University, USA)

Session 3 – Arteriovenous Malformations & HHT

09:30-09:55 **TALK: Pericyte contractility in health and disease.** **Claudio Franco** (Vascular Morphogenesis Lab, Católica Biomedical Research Center, Portugal)

09:55-10:10 **SHORT TALK 15**

10:10-10:35 **TALK: From BMP9/BMP10/ALK1 signaling to HHT therapeutic advances.** **Sabine Bailly** (University Grenoble Alpes, INSERM, France)

10:35-11:05 **Coffee break**

11:05-11:30 **TALK: Julien Coulie** (Saint-Luc UCLouvain, Belgium)

11:30-11:45 **SHORT TALK 16**

11:45-12:00 **SHORT TALK 17**

12:00-12:15 **Patient Testimonies**

12:15-13:15 **Lunch**

13:15-14:45 **POSTER SESSION II**

Session 4 – Clinical Trials

14:45-15:10 **TALK: Clinical Trials in Vascular Anomalies: From Bench to Bedside.** **Paloma Triana** (Hospital Infantil de la Paz, Spain)

15:10-15:25 **SHORT TALK 18**

15:25-15:40 **SHORT TALK 19**

15:40-16:10 **Coffee break**

16:10-16:35 **TALK: Novel therapeutic targets and emerging therapies in Hereditary Hemorrhagic Telangiectasia.** **Antoni Riera-Mestre** (Hospital Universitari de Bellvitge, Spain)

16:35-17:00 **TALK: Clinical trial and conventional management of vascular malformations.** **Laurence Boon** (Center for Vascular Anomalies, Cliniques universitaires Saint-Luc (UCLouvain), Belgium)

17:00-17:15 **SHORT TALK 20**

20:00 **VAC Dinner:** Dinner & Networking

DAY 4 – FRIDAY 12 MARCH 2027

Session 5 - Capillary malformations

09:00-9:25 **TALK: Redefining Capillary Malformations Through Genotype–Phenotype Correlations.** **Eulalia Baselga** (Hospital Sant Joan de Déu, Universitat de Barcelona and Institut de Recerca Sant Joan de Déu, Spain)

09:25-09:40 **SHORT TALK 21**

09:40-09:55 **SHORT TALK 22**

09:55-10:10 **SHORT TALK 23**

10:10-10:35 **TALK: Developmental course and BBB features of brain vasculature and the possible relation to vascular anomalies.** **Ayal Ben-Zvi** (Department of Developmental Biology and Cancer Research, The Institute for Medical Research-Israel-Canada, Israel)

10:35-10:50 **Patient Testimonies**

10:50-11:20 **Coffee break**

Session 6 - Cerebral Cavernous Malformations (CCM) & Brain Lesions

11:20-11:45 **TALK: Targeting the vasculature with small molecule degraders.** **Michael Potente** (Berlin Institute of Health at Charité (BIH) & Max Delbrück Center for Molecular Medicine (MDC), Germany)

11:45-12:10 **TALK: Dissecting the molecular pathways that lead to cavernous malformation.** **Mark Khan** (Center for Vascular Biology, Cardiovascular Institute, University of Pennsylvania Perelman School of Medicine, USA)

12:10-12:25 **SHORT TALK 24** Selected from Abstracts

12:25-12:40 **SHORT TALK 25** Selected from Abstracts

12:40-13:05 **TALK: Molecular specialization of mural cells defines vascular microdomains in the brain.** **Anne Joutel** (Institute of Psychiatry and Neuroscience of Paris, INSERM, France)

13:05-13:15 **AWARDS & CLOSING**