WCCB 2026

Welcome to Rome

WCCB 2026 brings together researchers, clinicians and industry professionals working on carnosine, beta-alanine and related imidazole dipeptides.

The scientific programme spans molecular mechanisms, translational science, nutrition, exercise biology and clinical outcomes.

CONGRESS FORMAT

Invited lectures
Selected talks
Poster sessions
Round table and awards

SCIENTIFIC COMMITTEE

Giuseppe Caruso - Italy
Barbora de Courten - Australia
Wim Derave - Belgium
Shahid P. Baba - United States
Craig Sale - United Kingdom
Guilherme G. Artioli - Brazil

Program details are provisional and may change according to speaker availability.

PLAN YOUR VISIT

Venue & contacts

CONGRESS VENUE

UniCamillus
Saint Camillus International University of Health Sciences
Via di Sant'Alessandro 8
00131 Rome, Italy

GETTING THERE

From Fiumicino: Leonardo Express to Roma Termini, then taxi or public transport.

From Ciampino: Bus to Roma Termini, then taxi or public transport.

By train: Roma Termini is Rome's main high-speed rail hub.

CONTACTS

General information
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Abstracts
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Registration & accommodation
wccb2026@didactika.com

Awards & travel grants
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PROGRAM & UPDATES
wccb2026.com

WORLD CONGRESS ON

CARNOSINE

AND

BETA-ALANINE

2026

ROME - 22-24 SEPTEMBER 2026

SCIENTIFIC PROGRAM

TUESDAY - 22 SEPTEMBER

Day 1

OPENING

13:30-14:30 Registration

14:30-15:00 Rector introduction - Dean of the Faculty of Medicine - Organizer welcome

SESSION I - BIOCHEMICAL, MOLECULAR AND PHARMACOLOGICAL PROFILE

Chairs: **Jan Haavik; Giuseppe Caruso**

15:00-15:30 **Jan Haavik**
The role of the enzyme glutamic acid decarboxylase-like 1 (GADL1) in the synthesis of β-alanine and carnosine and protection against oxidative stress

15:30-16:00 **Giuseppe Caruso**
Unveiling the hidden therapeutic potential of carnosine, a molecule with a multimodal mechanism of action

16:00-16:20 **Benayahu Elbaz**
Oligodendrocyte-specific metabolic flux from NAA to carnosine protects the CNS from lipid peroxidation in Alzheimer disease

16:20-16:40 **Francesco Bellia**
Carnosine rewires mitochondrial metabolism and quality control in cellular models of Alzheimer's Disease

16:40-17:10 Coffee break

17:10-17:40 **Shahid P. Baba**
Impact of carnosine-mediated antigen silencing on inflammation in heart failure

17:40-18:10 **Giancarlo Aldini**
Carnosine beyond antioxidants: Nrf2 activation through redox-active electrophilic adducts

18:10-18:30 **Loredana Leggio**
Carnosine exerts anti-cancer activity on human SH-SY5Y neuroblastoma cells

18:30-18:40 **Vincenzo Carbone**
Carnosine Beyond Antioxidant Activity: Emerging RNA-Based Mechanisms of Intracellular Bacterial Persistence

18:40-18:50 **Lorenzo Flori**
Carnosine counteracts oxidative stress, inflammation, and energy metabolism impairment in an in vitro okadaic acid model of Alzheimer's disease

18:50-20:00 Welcome cocktail

WEDNESDAY - 23 SEPTEMBER

Day 2

SESSION II - HOMEOSTASIS AND METABOLISM

Chairs: **Shahid P. Baba; Verena Peters**

09:00-09:30 **Benito Yard**
Influence of carnosine and carnosinase-1 on diabetes-induced afferent arteriole vasodilation: implications for glomerular hemodynamics

09:30-10:00 **Verena Peters**
Carnosine and beyond: emerging dipeptide candidates

10:00-10:30 **Filippo Drago**
Rare Diseases and Emerging Pharmacological Treatments: What About Carnosinemia?

10:30-10:50 **Karolina Kucharova**
Carnosine effects on spinal cord injury-induced pathology

10:50-11:20 Coffee break

11:20-11:30 **Renata Mangione**
Targeting tumor-microenvironment crosstalk: Carnosine as a novel metabolic modulator in glioblastoma

11:30-11:40 **Imen Benchikh**
Carnosine and the Pancreas: Protector In Vivo, Provoker In Vitro?

11:40-11:50 **Alexandra Catrina Prisecaru**
Selective protein binding reveals a novel mechanism underlying dipeptide bioactivity

SESSION III - CONVENTIONAL AND ADVANCED ANALYTICAL METHODS

Chairs: **Giancarlo Aldini; Mark Turner**

12:00-12:20 **François Trottein**
The gut microbiota as a determinant of host susceptibility to respiratory infection in old individuals

12:20-12:40 **Angelo Nicosia**
A covalent carnosine-polymer conjugate for advanced therapies: new synthesis and perspectives

12:40-13:00 **Valeria Romanucci**
Enhancing carnosine stability through rational design: synthesis of new carnosinase-resistant mimics and assessment of their metal coordination properties

13:00-14:30 Lunch and Poster Session

SESSION IV - NUTRITIONAL AND EXERCISE BIOLOGY

Chairs: **Guilherme G. Artioli; Wim Derave**

14:30-15:00 **Guilherme G. Artioli**
Carnosine as a vasodilatory agent and its use as an acute supplement to improve exercise performance

15:00-15:30 **Wim Derave**
Profiling and physiological role of carnosine analogs in mammalian skeletal muscle and the potential of their exogenous supplementation in humans

15:30-15:40 **Jonas Vandecauter**
Human genetic variation in skeletal muscle carnosine metabolism: a genome-wide association study

15:40-16:00 **Aruni Bhatnagar**
The effects of carnosine on cognition and muscle strength: Lessons from the NEAT trial

16:00-16:30 Coffee break

16:30-16:40 **Alessio Ardizzone**
Efficacy of β-alanine and carnosine supplementation on neurological, metabolic, and exercise-related conditions: an umbrella review of meta-analyses of randomized controlled trials

16:40-17:00 **Chin Chin Yau**
Carnosine and dietary peptides exert complementary effects on neuronal network activity and neuroprotection

17:00-19:00 Round Table: Bridging Therapeutic Innovation and Performance Nutrition: Exploring Future Perspectives

Chairs: **Giuseppe Caruso; Wim Derave**

Maria Luisa Cravana; Filippo Caraci; Justyna Godos

20:00 Social dinner

THURSDAY - 24 SEPTEMBER

Day 3

SESSION V - ADVANCED PRECLINICAL MODELS AND CLINICAL IMPLICATIONS

Chairs: **Arshad Majid; Barbora de Courten**

09:00-09:30 **Arshad Majid**
Dose escalation safety and tolerability studies in healthy volunteers

09:30-10:00 **Mark Turner**
Carnosine analogues as potential therapeutic agents

10:00-10:20 **Milena De Felice**
Carnosine attenuates peripheral and central neuroimmune mechanisms underlying post-stroke pain

10:20-10:40 **Lucia Buccarello**
Characterization and neuroprotective potential of a novel carnosine-based nanogel formulation

10:40-10:50 **Konstantinos Partsinevelos**
Carnosine protects human microglia through coordinated regulation of redox balance, energy metabolism, and phagocytosis

10:50-11:20 Coffee break

11:20-11:30 **Tessa Patricia Schönborn**
Carnosinase 2 regulates dipeptide homeostasis and modulates autophagy

11:30-11:40 **Lucia Di Pietro**
A human-relevant 3D brain triculture platform reveals the neuroprotective activity of carnosine under amyloid-β-induced oxidative stress

11:40-11:50 **Chiara Lanzillotta**
Potential Role of Carnosine in Counteracting Oxidative Stress in Down Syndrome Neuropathology

11:50-12:20 **Barbora de Courten**
Effects of carnosine on cardiometabolic health in humans

12:30-13:30 Awards Ceremony and Closing Remarks