

Encontro Investigação Jovem da Universidade do Porto

**BOOK OF
ABSTRACTS**

**06 - 07 - 08
Maio 2026**

19.^a Edição



ORGANIZAÇÃO



APOIO



**Encontro
Investigação
Jovem da
Universidade
do Porto**

**YOUNG
RESEARCHERS
MEETING**

**06 - 07 - 08
Maio 2026**

19.^a Edição



ORGANIZAÇÃO



APOIO



TÍTULO | *TITLE*

Livro de Resumos do 19.º Encontro de Investigação Jovem da U.Porto / *Book of Abstracts
Young Researchers Meeting of U.Porto*

Universidade do Porto

Vice-Reitor para a Investigação e Inovação

Professor Doutor Pedro Rodrigues

ijup@reit.up.pt

ISBN

978-989-746-462-1

Design

Serviço de Comunicação e Imagem da U.Porto

COMISSÃO CIENTÍFICA | *SCIENTIFIC COMMITTEE*

Pedro Rodrigues

Alexandra Pinto

Ana Rita Gaio

Aurora Teixeira

Carlos Sequeira

Elisabete Ferreira

Elisa Keating

Filipe Castro

Gonçalo Furtado

Graciela Machado

Hugo Barreira

Inês Guedes

Jorge Teixeira

Laura Oliveira

Liliana Grenho

Manuel Simões

Maria Oliveira

Maria Paula Santos

Patrícia Antunes

Patrícia Valentão

Ricardo Fernandes

Rute Pedro

Sérgio Sousa

Encontro Investigação Jovem da Universidade do Porto



PROGRAM

**06 - 07 - 08
Maio 2026**

19.^a EDIÇÃO

May, 6th

May, 7th

May, 8th

8H	Opening of the secretariat for all participants		
8H30 > 10H30	PARALLEL ORAL SESSIONS I A1 – Criminology and Law I A2 – Health Sciences I A3 – Sport Sciences I A4 – Architecture I A5 – Engineering I A6 – Biological Sciences I	PARALLEL ORAL SESSIONS IV A1 – AgroFood I A2 – Health Sciences IV A3 – Sport Sciences III A4 – Astronomy A5 – Chemistry I A6 – Biological Sciences IV	PARALLEL ORAL SESSIONS VII A1 – Arts I A2 – Health Sciences VII A3 – HSS IV – History, Archeology, Cultural Studies and Communication Sciences A4 – Physics I A5 – Chemistry III A6 – Biological Sciences VII
10H30 > 11H	Coffee Break		
11H > 13H	PARALLEL ORAL SESSIONS II A1 – Criminology and Law II A2 – Health Sciences II A3 – Sport Sciences II A4 – Architecture II A5 – Engineering II A6 – Biological Sciences II	PARALLEL ORAL SESSIONS V A1 – AgroFood II A2 – Health Sciences V A3 – Sport Sciences IV A4 – Maths & Physics A5 – Engineering IV A6 – Biological Sciences V	PARALLEL ORAL SESSIONS VIII A1 – Environment II A2 – Health Sciences VIII A3 – Psychology & Education Sciences III A4 – Physics II A5 – Chemistry IV A6 – Economics & Management
13H > 14H30	Lunch Break		
14H30 > 16H	POSTER SESSION I Architecture Biological Sciences I Criminology and Law Engineering I Health Sciences I Sport Sciences I	POSTER SESSION II AgroFood Biological Sciences II Chemistry Engineering II Health Sciences II Sport Sciences II	POSTER SESSION III Arts Astronomy, Physics & Maths Economics & Management Environment & Geology Health Sciences III History & Sociology Psychology & Education Sciences
16H > 16H30	Coffee Break		
16H30 > 18H30	PARALLEL ORAL SESSIONS III A1 – HSS I – Political Sciences A2 – Health Sciences III A3 – Psychology & Education Sciences I A4 – HSS II – Political Sciences, Sociology and Geography A5 – Engineering III A6 – Biological Sciences III	PARALLEL ORAL SESSIONS VI A1 – Environment I A2 – Health Sciences VI A3 – Psychology & Education Sciences II A4 – HSS III – History of Art A5 – Chemistry II A6 – Biological Sciences VI	PARALLEL ORAL SESSIONS IX A1 – Arts II A2 – Health Sciences IX A3 – Psychology & Education Sciences IV A4 – HSS V – History A5 – HSS VI – Literature and Philosophy A6 – Health Sciences X

24428 | Therapeutic potencial of Urocortins in Heart Failure: A Systematic Review of Clinical and Preclinical Evidence

Mariana Carvalho-Magalhães^{1,2}; Lucas Gamito^{1,2}; Rui Adão^{2,3}; Dina Cosme²; Carmen Brás-Silva^{2,4}

¹Faculty of Science, University of Porto, Porto, Portugal; ²RISE-Health, Faculty of Medicine, University of Porto, Porto, Portugal; ³Complutense University of Madrid, Madrid, Spain; ⁴Faculty of Nutrition and Food Sciences, University of Porto, Porto

Background & Aim: Heart failure (HF) remains a leading and increasing cause of morbidity and mortality worldwide despite effective therapies (1). Its diverse etiology is driven by a cycle of maladaptive neurohormonal activation, impaired cardiac function, and structural remodeling (2). Consequently, urocortins (Ucn1, Ucn2, and Ucn3), members of the corticotropin-releasing factor family (CRF), have been proposed as potential therapeutic targets based on their cardiovascular effects primarily via CRF2 receptors (3). Experimental and clinical studies suggest that urocortins may induce vasodilation, improve cardiac performance, and modulate inflammatory pathways in healthy subjects and HF models (4, 5). However, evidence remains dispersed across heterogeneous studies and has not been systematically synthesized. Therefore, this systematic review aims to critically appraise and integrate clinical and preclinical evidence regarding the cardiovascular effects of urocortins in HF. **Methods:** PubMed, Scopus, Web of Science, and ClinicalTrials.gov were searched from inception to date, following PRISMA 2020 guidelines (6). Eligible studies included original clinical studies and mammalian *in vivo* models investigating the cardiovascular effects of urocortins in HF. Study screening and data extraction were performed independently by two reviewers. Risk of bias and reporting quality were assessed using RoB-2 (7), ROBINS-I (8), SYRCLE (9), and ARRIVE (10) tools. Due to study heterogeneity, findings were qualitatively synthesized. **Results:** Preliminary evidence suggests that the urocortin system, particularly urocortin 2, is associated with beneficial cardiovascular effects across clinical studies and animal models of cardiovascular disease relevant to HF. Substantial heterogeneity was observed across study design and outcome measures. **Conclusions:** Urocortins demonstrated therapeutic potential in HF, highlighting the need for further translational and clinical investigation.

Keywords: Heart failure; Urocortins; Cardiovascular effects; Systematic review

Acknowledgments:

Portuguese Foundation for Science and technology (FCT) and Balcão dos Fundos n. 16665, ref. COMPETE2030-FEDER-00784600

References:

- [1] Inukai K, Miyashita K, Kotani K, Morimoto R, Kondo T, Hiraiwa H, et al. Urocortin2 measurement for heart failure assessment. *Scientific Reports*. 2025;15(1).
- [2] Schwinger RHG. Pathophysiology of heart failure. *Cardiovasc Diagn Ther*. 2021;11(1):263–76.
- [3] Rademaker MT, Richards AM. Urocortins: Actions in health and heart failure. *Clin Chim Acta*. 2017;474:76–87.
- [4] Stirrat CG, Venkatasubramanian S, Pawade T, Mitchell AJ, Shah AS, Lang NN, et al. Cardiovascular effects of urocortin 2 and urocortin 3 in patients with chronic heart failure. *British Journal of Clinical Pharmacology*. 2016:974–82.
- [5] Venkatasubramanian S, Newby DE, Lang NN. Urocortins in heart failure. *Biochemical Pharmacology*. 2010;80(3):289–96.
- [6] Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*. 2021;372:n71.
- [7] Sterne JAC, Savović J, Page MJ, Elbers RG, Blencowe NS, Boutron I, et al. RoB 2: a revised tool for assessing risk of bias in randomised trials. *Bmj*. 2019;366:l4898.
- [8] Sterne JA, Hernán MA, Reeves BC, Savović J, Berkman ND, Viswanathan M, et al. ROBINS-I: a tool for assessing risk of bias in non-randomised studies of interventions. *Bmj*. 2016;355:i4919.
- [9] Hooijmans CR, Rovers MM, de Vries RB, Leenaars M, Ritskes-Hoitinga M, Langendam MW. SYRCLE's risk of bias tool for animal studies. *BMC Med Res Methodol*. 2014;14:43.
- [10] Percie du Sert N, Hurst V, Ahluwalia A, Alam S, Avey MT, Baker M, et al. The ARRIVE guidelines 2.0: Updated guidelines for reporting animal research. *PLoS Biol*. 2020;18(7):e3000410.