

- Overall, EOC research activities in 2023 confirmed the steady growth of productivity and outstanding quality of the scientific outputs achieved in previous years, with increase of scientific publications in high-rated journals and increase of funded research projects.
- **771 peer-reviewed scientific articles** were published in 2023, most of them as **original or review articles (676, 88%)**.
- **Both clinical and translational research** are performed in EOC. The majority of the scientific output of EOC research in 2023 was related to clinical research.
- Half of peer-reviewed original and review articles was published in **high-rated scientific journals (Q1 ranking)**, with a slightly increase compared to 2022, confirming the high quality of the EOC scientific production.
- Most of the peer-reviewed original and review articles (**91%**) was the result of **national or international collaborations**.
- The EOC researcher was the **first or last author in 42% (286)** of the original articles or reviews, which means that several research projects were conceived and conducted at EOC. Of them, nearly half were published in **high-rated Q1 journals**, slightly greater than the previous year
- **129 new research projects** involving persons – 78 non-clinical and 51 clinical trials – were activated and **370 research projects were ongoing** at the EOC hospitals and labs in 2023.
- About **CHF 11 Mio of external funding** for research activities were obtained by EOC researchers in 2023. The external funding increased by 21% compared to the previous year. ICCT, IOSI, INSI and LRT-EOC achieved the highest external funding for current ongoing research projects.



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The complete 2023 Scientific Report, including the list of publications, is available online: [www.eoc.ch/professionisti-e-ricerca/ricerca](http://www.eoc.ch/professionisti-e-ricerca/ricerca)



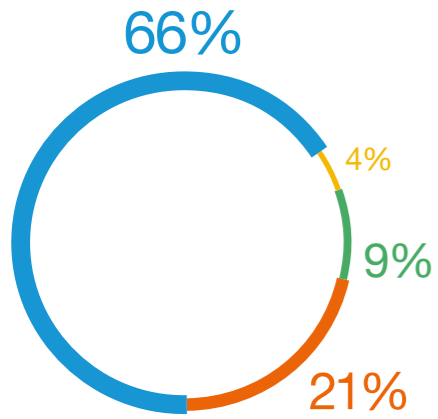
This annual scientific report summarizes the research activities at the Institutes and Departments of the Ente Ospedaliero Cantonale (EOC) and at the Università della Svizzera italiana (USI) in the field of medical research for the year 2023. This format reflects the increasing integration between research conducted at the two institutions following the creation of the USI Faculty of Biomedical Sciences and the signature of a research cooperation agreement in 2020.

Overall, the EOC scientific production in 2023 confirmed the upward trend recorded the previous years. In 2023 the EOC Institutes and Departments, including both the clinical research groups and the laboratories for translational research (LRT-EOC), produced high-quality research attaining broad recognition at national and international level.

Furthermore, several research projects are underway involving multidisciplinary teams and collaborations with research groups worldwide. Collaborative efforts will further fuel the EOC research activities in the upcoming years.

Together with patient care and education, research is an essential part of EOC activities. Bringing research close to practice facilitates the development of clinical studies and the monitoring of the effectiveness of clinical interventions and care processes, guarantees the quality and safety of services provided to patients and ensures that patients benefit from innovative diagnostic methods and therapies.

The growth in quantity and quality of research activities at EOC is paramount for the USI Faculty of Biomedical Sciences and it is in line with the 2022-2025 EOC strategic plan for a cantonal hospital with mandate for academic education and research that aspires to become a university hospital.



### Number and type of articles

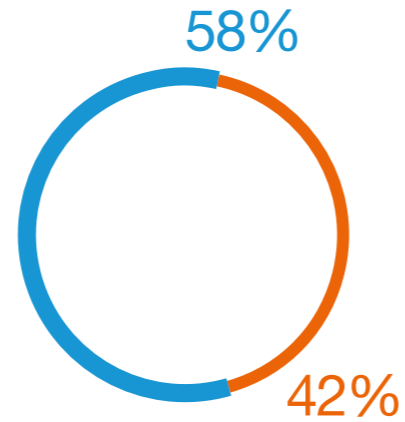
Number and type of the peer-reviewed articles published in 2023 (N = 771). Meta-analyses, surveys, research letters, consensus and delphi-based consensus paper are classified as original articles. Systematic reviews without meta-analyses and protocols are classified as reviews.

**512**  
Original articles

**164**  
Reviews

**65**  
Letters, editorials & comments

**30**  
Case reports

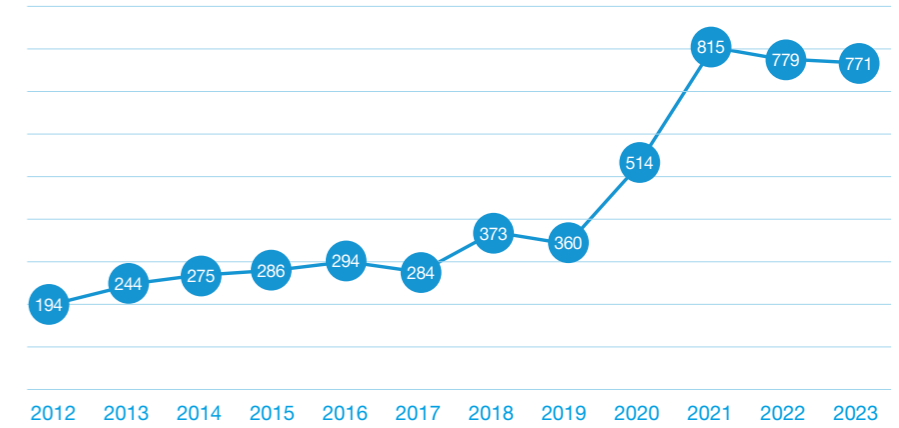


### First or last EOC author

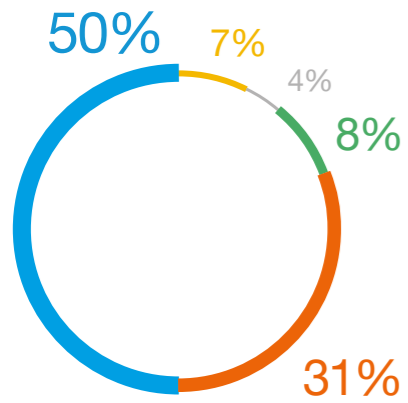
Peer-reviewed original and review articles published by EOC researchers as first or last author in 2023 (N = 676).

**390**  
No first or last EOC author

**286**  
First or last EOC author



### Number of EOC peer-reviewed articles since 2012 (Source: PubMed)



### Journal Quartile

Journal Quartile of the scientific journals in which peer-reviewed original and review articles were published in 2023 (N = 676). Journals can appear in multiple subject categories; in this case, the highest Journal Quartile was selected. Scientific journals without Journal Impact Factor are classified as NA.

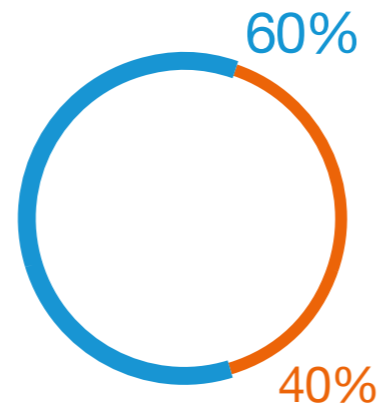
**338**  
Q1

**212**  
Q2

**55**  
Q3

**23**  
Q4

**48**  
NA

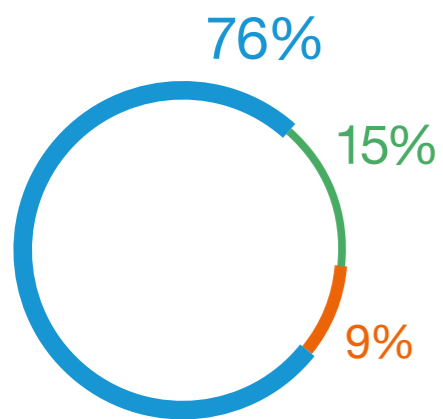


### EOC research projects involving persons

Number and type of newly activated EOC research projects involving persons in 2023 (N=129).

**78**  
Non-clinical trials

**51**  
Clinical trials



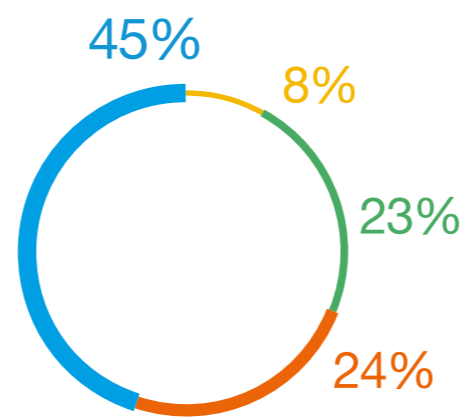
### Collaborations

Type of scientific collaboration (local, national or international) in peer-reviewed original and review articles published in 2023 (N = 676).

**512**  
International level

**102**  
National level

**62**  
Cantonal level



### External funding

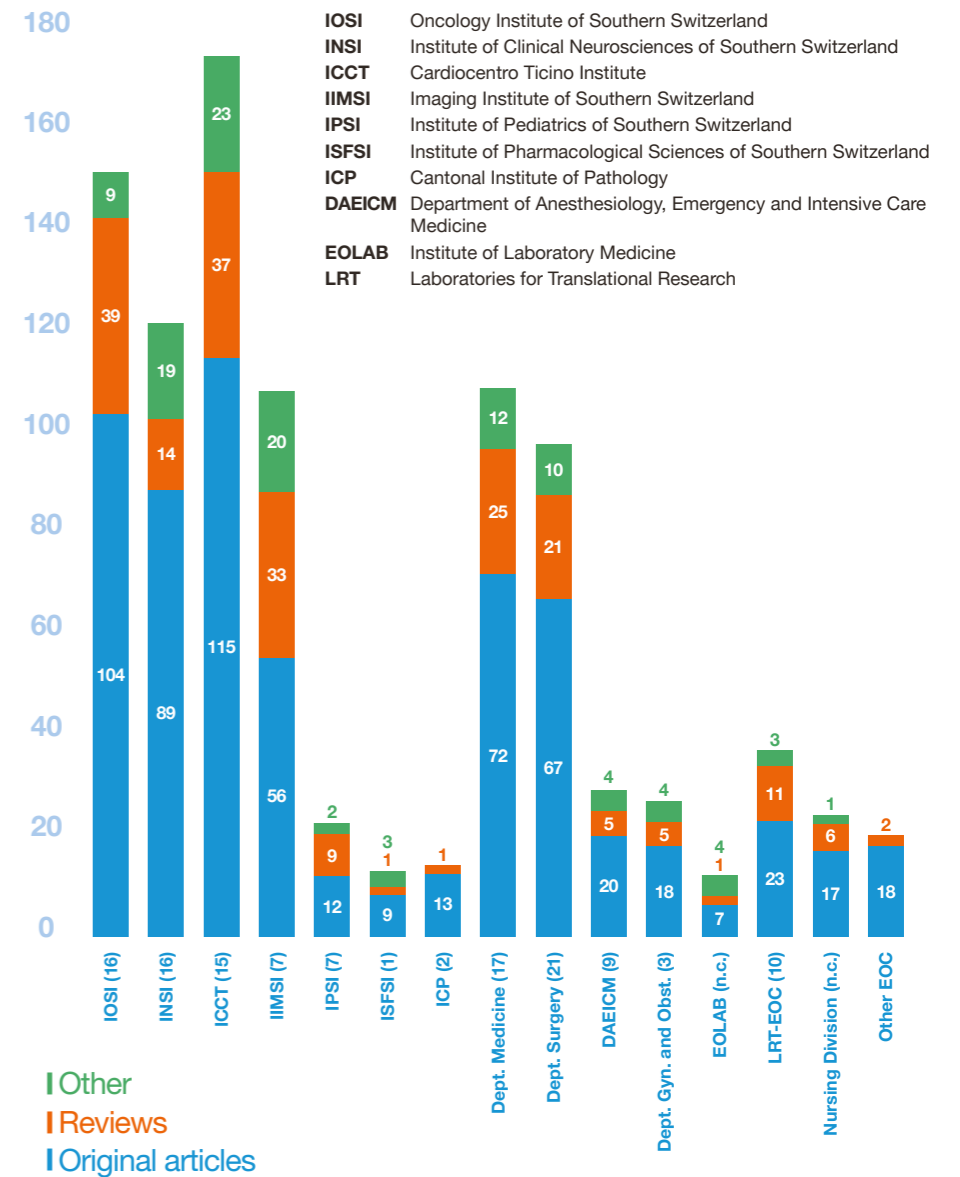
About 11 Mio CHF of external funding for research activities were obtained by EOC. The external funding was assigned to both **clinical research (71%)** and **translational research (29%)**.

**Industry**  
Main funder of clinical research

**Private Foundations**  
Main funders of translational research

**Swiss government agencies**  
Funders of both clinical and translational research

**European programs**  
Funders of both clinical and translational research



### EOC Institutes and Departments

Peer-reviewed articles published by each EOC Institute and Department in 2023 (N=771). Shared publications counted for each Institute/Department involved. Number of Professors and PDs are indicated in brackets. n.c. = not calculable.

- IOSI** Oncology Institute of Southern Switzerland
- INSI** Institute of Clinical Neurosciences of Southern Switzerland
- ICCT** Cardiocentro Ticino Institute
- IIMSI** Imaging Institute of Southern Switzerland
- IPSI** Institute of Pediatrics of Southern Switzerland
- ISFSI** Institute of Pharmacological Sciences of Southern Switzerland
- ICP** Cantonal Institute of Pathology
- DAEICM** Department of Anesthesiology, Emergency and Intensive Care Medicine
- EOLAB** Institute of Laboratory Medicine
- LRT** Laboratories for Translational Research