

## 2021 RESEARCH HIGHLIGHTS

- A significant number of peer-reviewed scientific articles was published by EOC researchers in 2021 (815), most of them as original or review articles (709 - 87%). Overall, the number of publications increased by 301 (+37%) compared to publications in 2020. EOC research was mainly clinical with less than 10% of EOC scientific publications related to LRT-EOC.
- Peer-reviewed original and review articles were published in scientific journals showing very heterogeneous Journal Impact Factors (IFs) with a median value of 4.467. Notably, a total of 98 original articles and reviews (14%) were published on high impact factor journals (Journal IF  $\geq 10$ ).
- Just over half of peer-reviewed original and review articles was published in scientific journals ranked in the Journal IF quartile Q1, demonstrating the high quality of the EOC scientific production in 2021.
- Most of peer-reviewed original and review articles (90%) published in 2021 was the result of national or international collaborations.
- The EOC researcher was the first or last author in about half of the peer-reviewed original and review articles; this finding demonstrates that many of the research projects have been conceived and conducted at EOC.
- 129 new research projects involving persons – 70 non-clinical and 59 clinical trials - activated in 2021 and 345 ongoing research projects at the EOC hospitals and labs.
- More than CHF 8 mio of external funding in 2021 with ICCT, INSI, IOSI, and LRT-EOC achieving the highest funding for current ongoing research projects.
- Overall, EOC research activities saw a significant increase in productivity and quality outputs in 2021 compared to the previous year.

The complete 2021 scientific report, including the list of publications, is available via QR Code or online:

[www.eoc.ch/RS21](http://www.eoc.ch/RS21)



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# Scientific Report 2021

Partnership with:



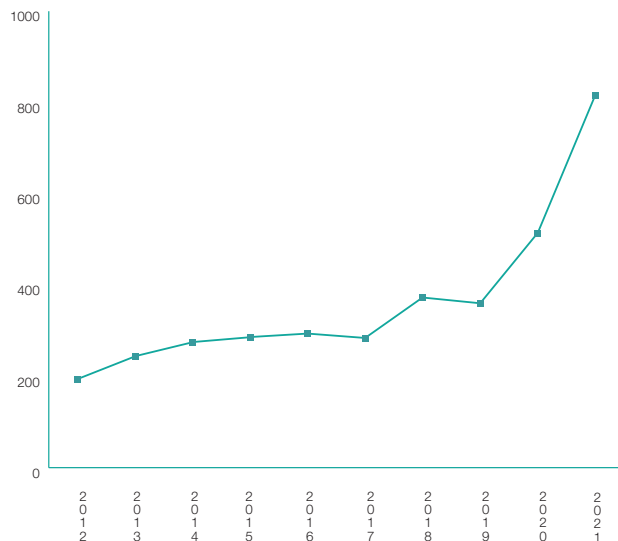
## INTRO

The 2021 scientific report highlights the patient-driven and quality of the research activities developed at EOC. In close partnership with the USI Faculty of Biomedical Sciences, EOC researchers have conducted basic, translational and clinical projects across a wide spectrum of common and rare diseases.

In 2021 the EOC scientific production increased mainly because of three important factors: the strong collaboration with the USI Faculty of Biomedical Sciences, the integration of ICCT in EOC; and the introduction of new topics to the research agendas of EOC Institutes, Departments and Laboratories. The most enduring and established EOC research areas, guided by academic researchers, have produced high-quality research attaining broad recognition at national and international level. The *Key data* and *Research Highlights* presented in the next sections show the significant increase of EOC scientific production.

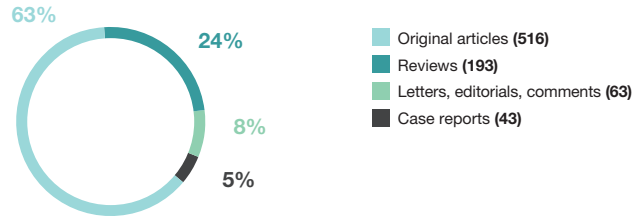
The 2021 research output aligns with the mission of EOC to promote research, innovation and academic education. Producing high-impact research at EOC contributes to the academic programs of the USI Faculty of Biomedical Sciences and is an important starting point for a cantonal hospital that aims to become a university hospital.

### Number of EOC peer-reviewed articles in the last 10 years (source: PubMed)

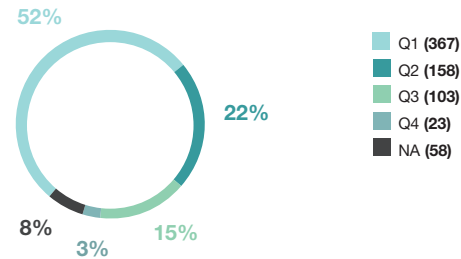


## KEY DATA

### Number and type of EOC peer-reviewed articles in 2021 (N = 815)

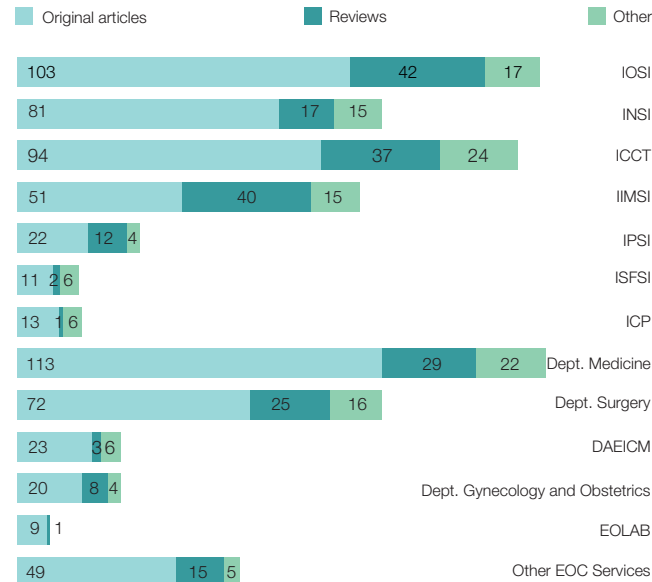


### Journal IF Quartile of the scientific journals in which EOC original articles and reviews were published in 2021 (N = 709)

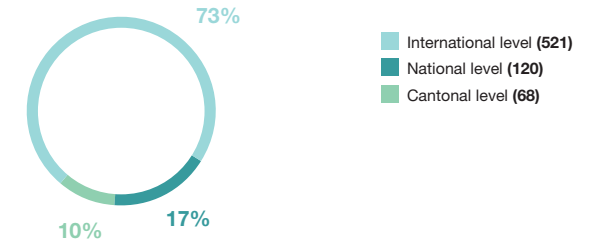


### Number of peer-reviewed articles published by each EOC Institute and Department in 2021 (N = 815)

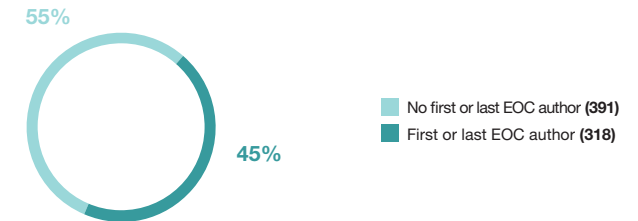
Shared publications counted for each Institute/Department involved. LRT-EOC publications are included in the EOC Institute/Department with which the concerned lab is affiliated.



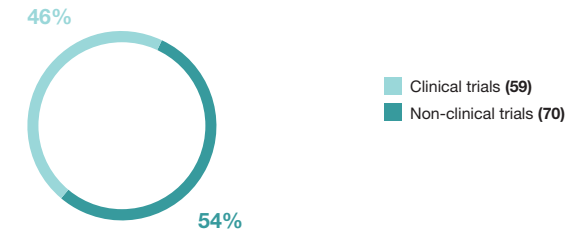
### Type of scientific collaboration in EOC peer-reviewed original articles and reviews published in 2021 (N = 709)



### First or last EOC author in peer-reviewed original articles and reviews published in 2021 (N = 709)



### Number of EOC research projects involving persons activated in 2021 (N = 129)



EOC = Ente Ospedaliero Cantonale  
 USI = Università della Svizzera italiana  
 DAEICM = Department of Anesthesiology, Emergency and Intensive Care Medicine  
 EOLAB = Institute of Laboratory Medicine  
 ICCT = Cardiocentro Ticino Institute  
 ICP = Cantonal Institute of Pathology  
 IIMSI = Imaging Institute of Southern Switzerland  
 INSI = Institute of Clinical Neurosciences of Southern Switzerland  
 IOSI = Oncology Institute of Southern Switzerland  
 IPSI = Institute of Pediatrics of Southern Switzerland  
 ISFSI = Institute of Pharmaceutical Sciences of Southern Switzerland  
 LRT-EOC = Laboratories for Translational Research EOC