

## From a modern to a transformative medicine

A Tribute to William Osler  
(1849–1919): medical  
educator and humanist

SAPIENZA INFORMATION-BASED  
TECHNOLOGY INNOVATION  
CENTER FOR HEALTH - STITCH



**SAPIENZA**  
UNIVERSITÀ DI ROMA

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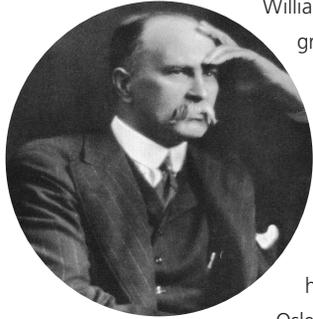
Aula Multimediale,  
Palazzo del Rettorato  
piazzale Aldo Moro 5, Rome

EXECUTIVE COMMITTEE:

**Sapienza Information-Based  
Technology Innovation Center  
for Health - Stitch**

[centro.stitch@uniroma1.it](mailto:centro.stitch@uniroma1.it)

This year marks the 100th anniversary of the death of William Osler, who is regarded as one of the greatest and most admired physicians in the history of medicine. He changed our approach to medicine by broadening our understanding of the natural history of disease. He has become a “model” of the ideal physician who combines an excellent knowledge of medicine with a humanistic approach.



Osler as a scientist was linked to observation data. Indeed, Osler first and foremost applied the principle of clinicopathological (e.g. clinical signs and symptoms) correlation to pathogenesis, and believed that in order to be accepted as final, every diagnosis should be confirmed by biopsy and autopsy.

This Oslerian approach to disease classification became pervasive, and it served worldwide as a structural basis for medical textbooks, as well for hospital and healthcare organization. This “reductionism” approach made remarkable achievements in modern medicine possible. However, while it is still a valid medical approach, it has begun to show its limitations.

The impact of the new technologies available today, such as big data, digital and information technology, and portable medical devices, on improving health is unprecedented, and may represent an extraordinary opportunity to overcome the “reductionism paradigm” in this era of precision medicine. Therefore, rather than dissecting a complex problem into its parts, we now have the possibility to study every healthcare issue through an

integrative approach with the use of algorithm tools. Network medicine provides an extraordinary example of how to redesign all human disease in a holistic way, as well as a rational approach to therapeutic development and intervention. Therefore, network medicine better represents contemporary, rather than future, medicine.



However, even in this era of digital medicine, the doctor–patient relationship remains the cornerstone of healthcare, just as in the era of William Osler who famously imparted this lasting lesson: “*the good physician treats the disease; the great physician treats the patient who has the disease*”.

## Programme

CHAIRS: **Sebastiano Filetti e Stefano Leonardi**

14.30 - 14.40 *Introduction*

**Eugenio Gaudio**, Rector of Sapienza University of Rome

14.40 - 15.00 *William Osler, a hundred years later: the relevance of a great humanist doctor today*

**Luca Borghi**, University Campus Bio-Medico, Rome

15.00 - 15.30 *Towards a transformation of medicine: a network approach*

**Joseph Loscalzo**, Brigham and Women’s Hospital, Harvard Medical School, USA

15.30 - 15.50 *Evolving epidemiology: from John Snow to the Internet of Everything*

**Alberto Tozzi**, Bambino Gesù Children’s Hospital

15.50 - 16.10 *Complex Networks: from theory to applications to medicine*

**Guido Caldarelli**, IMT School for Advanced Studies, Lucca

16.10 - 16.30 *The SWIM methodology - a network medicine approach to the identification of key genes: applications in oncology*

**Lorenzo Farina - Paola Paci**, Sapienza University of Rome- ISACS National Research Council, Rome

16.30-16.50 *Closing remarks*

**Domenico Alvaro e Stefano Leonardi**