Abstract

Invited Session: Philosophy of Medicine

Molecular medicine: the clinical method enters the lab

What primary tumor culture teaches us

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Over the last five-six decades an enormous leap forward in biomedical knowledge has been done, thanks to both the discoveries in the field of molecular biology and the amazing biotechnological innovations. On the other hand, it is almost a shared platitude to assert that we are facing a new era in medicine. Nevertheless it seems not so shared the idea that we need to pause and reflect on what is happening in order to grasp whether we are spectators of a really new manner of practicing medicine, that is, whether molecular medicine truly involves novelties. It could be said that "Molecular Medicine strives to understand normal body functioning and disease pathogenesis at the molecular level, which may allow researchers and physician-scientists to use that knowledge in the design of specific molecular tools for disease diagnosis, treatment, prognosis, and prevention (http://molmed.org/home)". This is certainly true, but it does not help us in understanding whether it implies an innovative way of considering and practicing medicine.

Differently I propose that the novelty in molecular medicine consists in its method, which, as I will show, can be considered as a fusion between that one adopted at the patient’s bedside and that one adopted in a molecular lab. I will justify this claim by discussing the differences between usual cancer cell lines and primary tumor cultures.