

Artificial Intelligence and Experimental Medical Research

Adriana Elena BULBOACĂ^{a,*} and Sorana D. BOLBOACĂ^b

^a Department of Pathophysiology, Iuliu Hațieganu University of Medicine and Pharmacy, Victor Babeș Str., No. 8, 400000 Cluj-Napoca, Romania

^b Department of Medical Informatics and Biostatistics, Iuliu Hațieganu University of Medicine and Pharmacy, Louis Pasteur Str., No. 6, 400349 Cluj-Napoca, Romania
E-mails: adriana_bulboaca@yahoo.com; sbolboaca@umfcluj.ro

* Author to whom correspondence should be addressed

Abstract

Experimental medical research is under development and transformation due to convergence with various and extensive data resources. Meaningful research focused on one subject is a challenging task and is a time-consuming activity. Extensive new data resources can bring the researchers facing the possibility of missing important research in their field. Papers describing digital algorithms can cover one topic better than basic medical research, bringing the subject more precise and more efficient for building a new research concept. Analysis and learning from available data can be more efficient if they are focusing on paper with an already established exploration or diagnosis algorithm. New biotechnologies can be more rapidly translated to clinical research, and new pharmacological products can be tested and used in clinical trials for patient's benefit. Data resource analysis strategies and the focus of the main papers on the targeting topic can bring new perspectives in experimental medical research. The strategies for finding and focusing on appropriate available data to start new experimental medical research will be described and presented.

Keywords: Experimental medicine; Animal experimental models; Human experimental models; Translational medicine