

The Case for Personalized Medicine

Edward Abrahams, Ph.D.,¹ and Mike Silver, Ph.D.²

Abstract

Personalized medicine may be considered an extension of traditional approaches to understanding and treating disease, but with greater precision. Physicians may now use a patient's genetic variation or expression profile as well as protein and metabolic markers to guide the selection of certain drugs or treatments. In many cases, the information provided by molecular markers predicts susceptibility to conditions. The added precision introduces the possibility of a more preventive, effective approach to clinical care and reductions in the duration and cost of clinical trials. Here, we make the case, through real-world examples, that personalized medicine is delivering significant value to individuals, to industry, and to the health care system overall and that it will continue to grow in importance if we can lift the barriers that impede its adoption and build incentives to encourage its practice.

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Author Affiliations: ¹Personalized Medicine Coalition, Washington DC; and ²Synaptix Communications, Lexington, Massachusetts

Abbreviations: (ADR) adverse drug reaction, (HER2) human epidermal growth factor receptor 2

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Corresponding Author: Edward Abrahams, Ph.D., Personalized Medicine Coalition, 1225 New York Ave., NW, Ste. 450, Washington, DC 20005; email address eabrahams@personalizedmedicinecoalition.org