



**Simposio Internacional: Biología y Comunicaciones**  
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**Convergence of Communications, Computer Science and Biology, to transform Healthcare**

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Wireless technologies and remote sensing when combined with social networks and geographical information systems are having a prominent role in the coordination, communication, planning, response and management to some of the most devastating disaster scenarios we have witnessed in the last few decades. On the other hand many issues we routinely experience with respect to solving health care or public health problems, such as medical errors, occur and are perpetuated because of our silos or stovepipes of information. The scientific community recognizes intimately that preparing for the provision of health care, and erecting our public health system of tomorrow, is not just a matter of converging heterogeneous technologies and science but of people and processes as well. As society prepares to shift the current systems into some where wellness and disease prevention will be the focus, society will face some major challenges. Many changes can affect positively medical and cost effective outcomes as well as the reduction and or elimination of medical errors and patient safety for example and yet privacy and security of personal medical information continue to be a major hurdle. Information Technology acting as a catalyst for change when combined with discovery and advances in research and development of new devices, and new drugs offers a multitude of avenues that were hard to imagine just a few decades ago. The convergence of science and technology open some doors of opportunity that may help diminish the polarization among the developed and underdeveloped nations. Society needs a systems approach and having a holistic view of the problem; to be able to see the whole and not just discrete pieces; and help determine, for example unintended consequences which are absent. Integration of multidisciplinary and interdisciplinary orientations and activities when trying to understand the problem and moving toward generating potential solutions are needed; yet present approaches are grossly insufficient in this respect. A new Global Health strategy where the public and private sectors work together will be presented as well as a wide range of opportunities that can start at the cellular, molecular and genetics levels and go as far as population health. A Global Economy that will be pushed to integrate surveillance and epidemiology for better protection against environmental threats and food borne diseases through the use of remote sensing data and a worldwide food enterprise architecture will also be discussed.

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