GVIRF 2014: General Conclusion	
Rapporteurs: Joachim Hombach (WHO), Angela Hwang (BMGF)	
Session Outline	**Discussants:** Lee Hall, Chris Wilson, Jean-Marie Okwo-Bele
Objectives of the session	General conclusions and specific highlights from the first GVIRF
Main outcome	
Summary	Discussants reminded participants that this first GVIRF was held in the context of the GVAP and its mission. To achieve GVAP goals, innovation is needed in every domain, as documented by the GVIRF agenda, that was at the crossroads of science, technology and delivery sciences. The first day did highlight the challenges in vaccine development, as for many target vaccines, non-natural immune responses will need to be elicited, as natural immune responses are inadequate for protection. Traditional vaccine technologies have failed, and recent advances in in technology, such as agnostic antigen discovery, immunogen design, reverse vaccinology combined with enhanced immune monitoring provide unprecedented potential to overcome current limitations. Preferred product characteristics were highlighted as an important strategy on how the public health community could "de-risk" complex innovation paths. Nevertheless, new vaccines may be eliciting only modest vaccine efficacy which requires new thinking in vaccine regulation and public health use of such products. Similarly, there is significant innovation space for second-generation vaccines, and the need to better describe this space and to systematically assess the added value of such candidates in clinical trials. The second day focussed on implementation science and the driving role immunization can take in the global public health agenda, in particular in relation to universal health coverage. Despite successes, research needs to help immunization programmes to get even better, to make a stronger economic case, and to measure programme performance more rigorously. Strong cases were made for the further development and implementation of nominal electronic registries, and the potential to link them to vital registration systems. More local data for policy and performance improvement should follow there. The need for local and contextual research capacity was highlighted. Progress in disease burden reduction has been unequal, and maternal and neonatal health improvement is lagging. Forum participants issued a call to further explore the potential from maternal immunization and remove obstacles to implementation. The third day addressed aspects of innovation and regulation. Difficult targets in vaccine development discussed on day 1 may increasingly become achievable through highly expanded set of discovery technologies, that now need to be combined with advanced immune monitoring capabilities in human subjects. Critical will be the understanding of biological concepts that can be applied more widely. Iterative approaches in doing human studies require careful consideration, and will require expanded clinical trial capabilities. There is also a need to manufacture immunogens that meet rigorous standards more quickly. A strong case was issued for increased investments into regulatory science capability also in less resourced countries, combined with the creation of centres of excellence. While regulatory decision are national and contextual from a risk-benefit perspective, there is a need for information sharing among authorities. Finally, partnerships need to be forged among stakeholders the Forum embodies to translate innovation to practice. Inefficiencies in the current innovation landscape was documented using the patent landscape. Comprehensive partnerships with academicians grounded in what is needed from industry and regulatory are needed; with public health sciences to tell what would be useful, practical, affordable, and scalable. If users and countries can't afford to buy our innovations, there will be no real benefit. Funders and countries alike need to be strong partners. The Forum did provide a clear message that together we can achieve the vision of the Decade of Vaccines, of a world in which all individuals and communities enjoy lives free from vaccine-preventable diseases.
Key references or quotes	