



Symposium at AAAS 2008

Organizer

Usha R. Balakrishnan, Founding President & CEO, CARTHA, Iowa City
Member, AAAS Committee on Scientific Freedom & Responsibility (CSFR)

Co-organizer

Mark S. Frankel, AAAS Staff Officer, CSFR, Washington DC

Humanity At The NexusSM

Academic Partnerships & Entrepreneurship in Global Health

Sunday, February 17, 2008, 1:45 to 4:45 pm
Rm 313, Third Level, Hynes Convention Center, Boston
AAAS 2008 Annual Meeting
Science and Technology From A Global Perspective

FLORA KATZ, NIH Fogarty International Center, Washington DC

MONTY JONES, World Food Prize winner & FARA, Accra, Ghana

SAI PRASAD, Business Development, Bharat Biotech, Hyderabad, India

HAN CHIU, Managing Partner, CMX Capital & Vavici, San Diego

LINDA HARRAR, Filmmaker, Writer, Documentary producer, Boston

Moderator

Jose Gomez-Marquez, Program Leader, IHH, MIT, Boston

Discussants

Chris Hillier, Physiology, Glasgow Caledonian University, UK

Paul Greenough, History/Global Health, University of Iowa, Iowa City

Recorder: Anu Swaminathan, CARTHA Fellow, Farmington, Connecticut

For more details, see agenda posted at www.cartha.org

CARTHA (“doer” in Sanskrit) is a 501(c)(3) nonprofit organization founded in 2006. We are dedicated to fashioning a new type of professional—a Collaborative Doer—who leverages academic-practitioner collaborations to enhance the positive impact of technological and social innovations. With our training programs, we inspire, connect, and help mobilize resources for such bridging professionals in Academic-Public-Private Technology Transfer Partnerships, Global Health and Corporate Social Responsibility.

To learn more about CARTHA or support our programs, please contact our founder
Usha Balakrishnan at 319.248.9625 or email her at cartha.global@gmail.com.

Flyer designed by CARTHA volunteer Reitu Agrawal

American Association for the Advancement of Science Annual Meeting 2008
AAAS Annual Meeting Theme: *Science and Technology from a Global Perspective*
Symposium #180-061: Humanity At The Nexus: Academic Partnerships And Entrepreneurship In Global Health
Sunday, February 17, 2008 from 1:45 pm to 4:45 pm at Room 313, Third Level, Hynes Convention Center, Boston

Significant media attention and research funding is flowing into global health. “Global health” (GH) itself is being redefined as we face emerging challenges in terms of so-called neglected diseases (AIDS, malaria, TB most prevalent in developing countries); pandemic threats (avian flu, SARS) and increasingly universal health issues (diabetes, cancer, heart disease, mental health disorders). In the developing countries, the lack of access to new health technologies for millions of the poor can be directly linked to poverty, hunger, conflicts, lack of public health infrastructure, health workers, and a whole host of other factors. In the context of academic research translation and new health product developments (vaccines, diagnostics, drugs), there is increased recognition of the role of academic managers involved in invention evaluation, technology transfer processes and alliance-building mechanisms. To achieve variant outcomes to advance GH causes, technology managers need to: collaborate with academic scientists to mutually understand their aspirations for advancing societal impact globally; formulate interdisciplinary, sustainable solutions through an enhanced understanding of the complexity of GH problems and their determinants; raise awareness for the need to share experiences and perspectives from novel collaborative structures and new managerial roles among the partnering stakeholders; and help bring attention to these topics among broader public audiences.

In the past few months, many campuses have announced that they have set up new GH research centers and training institutes. In a rapidly changing landscape of potential technology development partners, prospective licensees, and (revamped) institutional participation, there is a keen recognition of managerial challenges that need to be addressed with partners such as GH product development partnerships, corporations, and funders. As global linkages between academic-practitioner communities proliferate, the need grows commensurately to study GH technology transfer-related research, training, practice, and deal-making environments from a variety of perspectives, including mechanisms that bridge many disciplines on campus.

The panel brings a team of prominent scientists who will share their experiences from (a) partnering with public and private entities, academic managers, investors, and the media; and (b) working with younger scientists. In particular, the panelists will address the various gains – and risks – they faced in their careers as they began their attempts to seek development partners and funders. In pursuit of such initiatives, panelists will communicate the importance of being involved in GH fields. This panel is being organized to share cross-sector perspectives on a very challenging topic in an inter-generational, transnational way.

Organizer: **Usha R. Balakrishnan**, Founding President & CEO, CARTHA, Iowa City
Member, AAAS Committee on Scientific Freedom & Responsibility (CSFR)
Co-organizer: **Mark Frankel**, Staff Officer, CSFR, AAAS, Washington DC
Recorder: **Anu Swaminathan**, CARTHA Fellow & Graduate Student, Biomedical Science, University of Connecticut Health Center, Farmington, Connecticut
Moderator: **Jose Gomez-Marquez**, Program Leader, Innovations in Intl. Health, MIT, Boston
[Note: Original moderator Yvonne Owuor, Writer, Nairobi, Kenya is unable to attend]

Speakers:

Non-traditional Partnerships in Global Health

Flora Katz, Program Officer, Division of International Training & Research, Fogarty International Center, National Institutes of Health, Washington DC

The Nexus of Healthy Food, Healthy Environments and Healthy People

Monty Jones, Executive Secretary, Forum for Agricultural Research in Africa, Accra, Ghana

Entrepreneurship and Innovation for Neglected Diseases in Developing Countries

Sai Prasad, Head, Business Development, Bharat Biotech International Limited, Hyderabad, India

Venture Capital Investors and Global Health

Han S. Chiu, Managing Partner, CMX Capital & Chief Executive Officer, VAVICI, San Diego

Powerful Story-Telling In Science, Technology and Global Health

Linda Harrar, Filmmaker, Producer, Writer, Boston

Discussants: **Chris Hillier**, Professor of Physiology, Glasgow Caledonian University, Glasgow, UK
Paul Greenough, Professor of History, Global Health Studies, and Community & Behavioral Health, University of Iowa, Iowa City

SPEAKER PRESENTATION ABSTRACTS

Pre-Pairing Minds to Create Chance

Usha R. Balakrishnan, Founding President, CEO, and Chairman of the Board, CARTHA, Iowa City

To outline how and why the symposium was organized, the symposium organizer will share snippets of her journey of having been an academic administrator and the founder of a collegial network called Technology Managers for Global Health (www.tmgh.org), which led her to establish a new global nonprofit organization called CARTHA (www.cartha.org). CARTHA (doer in Sanskrit) is an organization dedicated to cultivating a new type of professional—a Collaborative Doer—who will build the needed bridges to enhance the positive impact of technological and social innovations. Working with numerous researchers, scientists, writers, filmmakers, and entrepreneurs, CARTHA's educational, training, and professional development programs focus on Academic-Public-Private Technology Transfer Partnerships, Global Health, and Corporate Social Responsibility. During her presentation, the speaker will (a) introduce the panelists and the collaborative intention or activity that first connected her to each of the panelists; and (b) highlight the non-traditional mechanisms that have enabled her to leverage resources across disciplines, sectors, and regions and engage with the younger generations to design new pilot initiatives.

Non-traditional Partnerships in Global Health

Flora Katz, Director, Division of International Training & Research, NIH Fogarty International Center, Washington DC

Addressing global health requires efforts in multiple areas, from the scientific and the technological to the economic and political to innovative business practices. The academic community has traditionally been organized into discrete, non-interacting disciplines and funding agencies have also been constrained within defined mission areas. Both of these approaches have produced powerful outcomes in the past. However, in the last decade there have been some transformative scientific advances that emerged specifically by reaching across these boundaries and partnering outside the academy. What are the advantages and risks of broadening the research agenda in Global Health to encompass more cross-disciplinary and cross-sector approaches? What are the training paradigms, what are the barriers, and what are the career paths? The speaker will address some of these issues through the lens of the Fogarty International Center's multidisciplinary and multi-sponsor global health programs.

Entrepreneurship and Innovation for Neglected Diseases in Developing Countries

Sai Prasad, Head, Business Development, Bharat Biotech, Hyderabad, India

Developing countries face a number of challenges that prevent them from providing and deploying health care solutions that are most required by their populations. Many diseases that could be otherwise prevented and / or cured are left unattended (for example, Rotavirus diarrhea, Malarial fever, Typhoid, SARS, Japanese Encephalitis, Pneumonia, etc.). Early deployment of health care solutions towards these diseases could result in saving billions of dollars in health care costs for the developing world. There are numerous reasons and challenges for the present state of affairs in the developing world. These challenges range from lack of novel technologies, local financing, awareness, interest from multinational corporations, R&D funding, market commitments etc. Some strategies will be outlined to promote novel health care solutions that are developed and designed for the developing world.

The Nexus of Healthy Food, Healthy Environments and Healthy People

Monty Jones, Executive Secretary, Forum for Agricultural Research in Africa, Accra, Ghana

Teams of scientists and extension workers first developed and disseminated the New Rice for Africa (NERICA). The objective in developing NERICA was to combine the environmental characteristics of African rice with the enhanced food producing characteristics of Asian rice to increase the amount of affordable food available to rural and urban poor. Achieving this goal required application of the most advanced plant science to break the infertility that had frustrated all previous attempts at crossing African and Asian rice. It also required the application of the latest social science techniques in participatory crop selection, seed multiplication and dissemination. The outcome is more and better food, reduced pressure on land and water resources and healthier families. This combination of benefits creates the basis for sustainable improvements in livelihoods of rural Africans who are amongst the poorest people on earth.

Venture Capital Investors and Global Health

Han S. Chiu, Managing Partner, CMX Capital & Chief Executive Officer, VAVICI, San Diego

Much of the focus on providing access to modern health care facilities and products to third world countries has relied on philanthropic foundations and charitable acts by major health care companies. Despite such efforts the notion of giving in this fashion remains the exception rather than the rule. Is there a way for capital markets to change this situation by creating a new generation of health care companies that build giving and working with third world countries into the very heart and soul of these companies? A real life example of one such company, Vavici, is discussed. Vavici is a stem cell distribution company that demonstrates that the bottleneck to curative therapies is not technological advance, but advances in distribution. This concept is well recognized by foundations struggling to deliver products to third world countries, but has never fully been explored with regard to curative therapies reaching the market. The speaker presents (a) the intrinsic dilemma created by curative therapies in a world where the financial incentives favor chronic therapies and potential solutions to these problems; and (b) the potential economic impact of such curative therapies on the economies of first and third world countries.

Powerful Story-Telling In Science, Technology and Global Health

Linda Harrar, Filmmaker/Writer, Linda Harrar Productions, Boston

Documentary series like the Emmy Award-winning 2005 PBS Series "Rx for Survival" can carry the story of global health to a wide audience, especially when linked to an accompanying outreach/impact campaign. Some stories of scientific discovery and its application capture both the human spirit and the imagination in a way that elicits creative, individual action to do something different or join up with others to get something different done. How can the stories of people in the developing world affected by new global health technologies be powerfully told? How can a broader public be inspired to become involved? Linda Harrar specializes in creating international documentary projects on the interactions of science and technology, nature and society. In two decades of filmmaking, she has filmed in 35 nations on all 7 continents.