



DRAFT AGENDA (10/18/16):

CERN-hosted Workshop

Design Characteristics of a Novel Linear Accelerator for Challenging Environments:
“Improving global access to radiation therapy”

DATE: November 7-8, 2016
LOCATION: Geneva/CERN
CO-ORGANIZERS: C. Norman Coleman
Manjit Dosanjh
David A. Pistenmaa

Monday, November 7, 2016

COFFEE and Registration: 8:00 – 8:30 AM

Morning Session: 8:30 AM – 12:00 noon

- 8:30 I. Welcome to CERN: Frederick Bordry
- 8:35 II. Welcome and Goals of the Workshop: Norman Coleman, Manjit Dosanjh and David Pistenmaa
- 8:45 III. Unique Partnerships to Improve Radiation Oncology in Low- and Middle-Income Countries: Moderator: Nelly Enwerem-Bromson
- 8:50 A. Summary of Findings of the Global Task Force for Radiation Control of Cancer (GTFRCC): Mary Gospodarowicz
- 9:05 B. How do you deal with cost-effectiveness of a new linear accelerator and its implications for low-resource settings?: Danielle Rodin
- 9:20 C. Cobalt-60 and Cancer Treatment: the NNSA Radiological Security Mission: Katherine Holt
- 9:35 D. Treatment Not Terror: Improving Cancer Treatment while Reducing Security Risks: Miles Pomper
- 9:50 – 10:20 COFFEE BREAK
- 10:20 IV. Lessons from Past and Current Radiation Therapy Initiatives: What Works or Does not Work in Low- and Middle-Income Countries, and Why: Moderator: Yakov Pipman
- 10:25 A. Historical perspective: Massoud Samiei
- 10:40 B. IAEA’s perspective: Zubi Zubizarreta
- 10:55 V. Design Considerations for a Linear Accelerator for Challenging Environments: Moderator: Richard Lanza
- 11:00 A. Overview of Clinical Requirements for Diagnosis and Treatment; Do you need electrons, IMRT, IGRT, CT for treatment planning, etc.?: Surbhi Grover
- 11:15 B. Machine Parameters and Machine Operational Features to Satisfy Requirements; Beam energies, MLCs, etc.: Ahmed Meghzifene
- 11:30 C. “Dreamliner” Considerations for a Novel Linear Accelerator for Challenging Environments: David Pistenmaa
- 11:40 VI. NASA’s Experience in the Modular Design of Complex Systems: Ron Cobbs

12:00 – 1:00 PM LUNCH

Afternoon Session: 1: PM – 5:00 PM

1:00 VII. Options for Achieving a Novel Linear Accelerator for Challenging Environments; Exploiting advances in technology: Co-Moderators: Ugo Amaldi , Alberto Degiovanni and David Pistenmaa

A. Technical presentations: Co-moderators: Ugo Amaldi and Alberto Degiovanni

B. Open discussion: Co-moderators: Ugo Amaldi, Alberto Degiovanni and David Pistenmaa

7:00 PM GROUP DINNER: CERN VIP Restaurant

Dinner speakers: (10-15 minutes each)

-AFRICISIS: A model for scientific collaboration in Sub-Saharan Africa: Hubert Foy

-Prospects of Achieving Sustainable Development Goals from the Perspective of Gaborone, Botswana: Surbhi Grover

Tuesday, November 8, 2016

COFFEE and Registration: 8:00 – 8:30 AM

Morning Session: 8:30 AM – 12:00 noon

8:30 VIII. Summary of Design Characteristics for a Novel Linear Accelerator for Challenging Environments:
Moderator: David Jaffray

8:35 A. Recommendations emanating from Session VII: Ugo Amaldi and Alberto Degiovanni

9:00 B. Open discussion

9:50 – 10:20 COFFEE BREAK

10:20 IX. What Will it Take to Make it Happen?: Moderator: Bruce Curran

10:25 A. How to translate design characteristics into a working machine (From machine shop to the clinic):
Jacques Bernier

10:40 B. Challenges in introducing new technology in the developing world: Andras Fehervary

10:55 C. Entrepreneurial strategies to make it happen: Ajit Singh

11:10 D. Determining the cost of new technologies such as the linear accelerator under consideration:
Yolande Lievens

11:25 X. Essential and Sustainable Infrastructure Needs in Challenging Environments: Moderator: Norman Coleman

11:30 A. Physical Infrastructure Requirements and Opportunities in Challenging Environments: Moderator:
Norman Coleman

11:30 1. Clinical considerations: Niloy Datta

11:45 2. Equipment and facility needs: Ahmed Meghzifene

12:00 - 1:00 PM LUNCH

Afternoon Session: 1:00 – 4:00 PM

- 1:00 B. Technology to Connect the World: Moderator: Patti Hardenbergh
 1:05 1. Using modern technology to share medical knowledge worldwide: Zubi Zubizarreta
 1:20 2. What does the future hold for worldwide telecommunications?: Dan Wendling
- 1:35 C. Panel Discussion: Estimating the Needs and Planning for Sustainable Training of Professional and Ancillary Personnel in Developing Countries: Moderator: Yolande Lievens
 1. Overview by moderator
 2. Presentations by panel members:
 3. Open discussion
- 2:35 – 3:00 COFFEE BREAK
- 3:00 XI. Recommendations from the Workshop and Plans for the Future: Norman Coleman, Manjit Dosanjh and David Pistenmaa
 3:00 A. Summary of recommendations from the Workshop: Moderator: Norman Coleman
 3:00 1. Design characteristics for a novel linear accelerator for challenging environments: Alberto Degiovanni or designee
 3:15 2. Achieving and sustaining the necessary infrastructure in challenging environments: Can we get by with less? Vik Vikram
 3:30 3. Estimating the needs and planning for sustainable training of radiotherapy professionals and ancillary staff in developing countries: Onyinye Balogun
 3:45 B. Next steps: Norman Coleman, Manjit Dosanjh and David Pistenmaa
 1. Preparation of a Summary Report of the Workshop
 2. Dissemination of information from the Workshop
 3. Recommended additional actions
- 3:55 XII. Concluding Remarks by Workshop Co-organizers: Norman Coleman, Manjit Dosanjh and David Pistenmaa

ADJOURN - 4:00
COFFEE AVAILABLE