

## IAEA Scientific Forum 2017

### Nuclear Techniques in Human Health: Prevention, Diagnosis and Treatment

19–20 September 2017  
IAEA Headquarters, Vienna, Austria

### Tentative Programme

#### Tuesday, 19 September 2017

09:30–10:30 **Introduction**

10:30–12:30 **Session 1: Preventing disease through better nutrition**

The first session will highlight the vital role that nutrition plays in preventing non-communicable diseases (NCDs). In a world where undernutrition and obesity coexist, it is important to define targeted actions to combat all forms of malnutrition. Through the use of nuclear and isotopic techniques, health professionals are able to develop and evaluate actions to address undernutrition, obesity and the related risks of NCDs simultaneously. In addition, these techniques can help understand the impact of environmental factors on child growth and human health. The session will also highlight new trends in medical imaging to better assess nutritional status.

12:30–14:00 **Lunch Break**

14:00–15:30 **Session 2: Looking beyond the visible: New frontiers in diagnostic techniques**

The second session will present cutting-edge clinical applications and technologies, including the use of nuclear techniques to identify disease in its early stages, and to assess the location and spread of disease in the body as well as patients' response to medical therapy. The integral role of nuclear technology in the medical diagnosis of NCDs such as cancer and cardiovascular, infectious and neurological diseases, including dementia, will be discussed. Furthermore, the session will illustrate how technologies have evolved to allow for personalized health care through medical imaging.

15:30–16:00 **Coffee Break**

16:00–17:30 **Session 3: Addressing implementation challenges in countries**

The third session will emphasize the various challenges that countries face in ensuring the safe use of nuclear medicine for the early detection, diagnosis and treatment of diseases. The impact of new medical technologies on health expenditure budgets will also be considered, as will countries' different needs in this area. Additionally, the different levels of diagnostic services available to countries — from basic infrastructure to intermediate and advanced services — will be explored. This session will also highlight the use of data to support decision-making in cancer care.

17:30 **Reception**

**Wednesday, 20 September 2017**

09:30–11:00 **Session 4: (Part I) Radiotherapy – Saving and improving quality of life of cancer patients through new approaches**

The fourth session will explore the use of radiotherapy to treat cancer, highlighting the importance of a multidisciplinary approach for optimal patient management. It will also look at the future of radiotherapy, including personalized treatment and the latest technological innovations to improve patient care.

11:00–11:30 **Coffee Break**

11:30–13:00 **Session 4: (Part II) Radiotherapy – Saving and improving quality of life of cancer patients through new approaches**

13:00–14:30 **Lunch Break**

14:30–16:30 **Session 5: Ensuring quality and safety**

The fifth session will focus on quality and safety aspects in all disciplines of radiation medicine, in order to ensure that patients get the best possible outcome. Issues such as the need for peer reviews, clinical audits and quantification of performance will be explored. This session will also review the requirements for quality and safety in imaging and therapy, and the challenges that countries may face in implementing these, as well as examples of successful IAEA projects to assist in this respect.

16:30–17:00 **Forum close by the Director General (or a representative)**