



TRACK 9

BIOSAFETY IN ANALYTICAL AND BIOANALYTICAL TECHNIQUES

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SESSION CHAIR : **DR. RAMAKRISHNAN SITARAMAN**
Department of Natural Resources, TERI University, India

SESSION INTRODUCTION



TITLE:

DR. RAMAKRISHNAN SITARAMAN, Department of Natural Resources, TERI University, India



Enhancing Students' Employability in the Pharmaceutical Industry Through Targeted Instructional Inputs

Ramakrishnan Sitaraman

TERI University, Vasant Kunj, New Delhi, India

The pharmaceutical sector represents a significant career opportunity for students in the life sciences. However, given the interdisciplinary nature of the field, it is imperative that the following aspects relevant to the sector be incorporated in curricula to the extent possible.

- (a) General concepts – the scientific method and hypothesis testing.
- (b) Specific scientific topics from physics, chemistry and mathematics.
- (c) Laboratory skills – intensive hands-on training, exposure to international regulatory requirements.
- (d) Public engagement and outreach – communication skills, regulations, ethics and scientific integrity.

Using this framework, educators can identify how their own degree programs could potentially interface with the pharmaceutical sciences and orient the curriculum accordingly. Historical materials have much utility in illustrating general concepts and promoting discussions on topics related to development of a field of study. The reliance of modern biology on computers and instrumentation necessitates the incorporation of appropriate topics from physics, chemistry and mathematics. Laboratory work needs to be intensified, and formal exposure to international regimes such as GLP (good laboratory practices) would enhance the utility of a program, besides improving operations in academic labs. Finally, the inclusion of a formal component of public engagement and outreach will equip students to explore non-traditional careers away from bench science. These core principles will enable students from other life sciences streams, not just pharmacy proper, to fruitfully and creatively explore a career in the pharmaceutical industry.