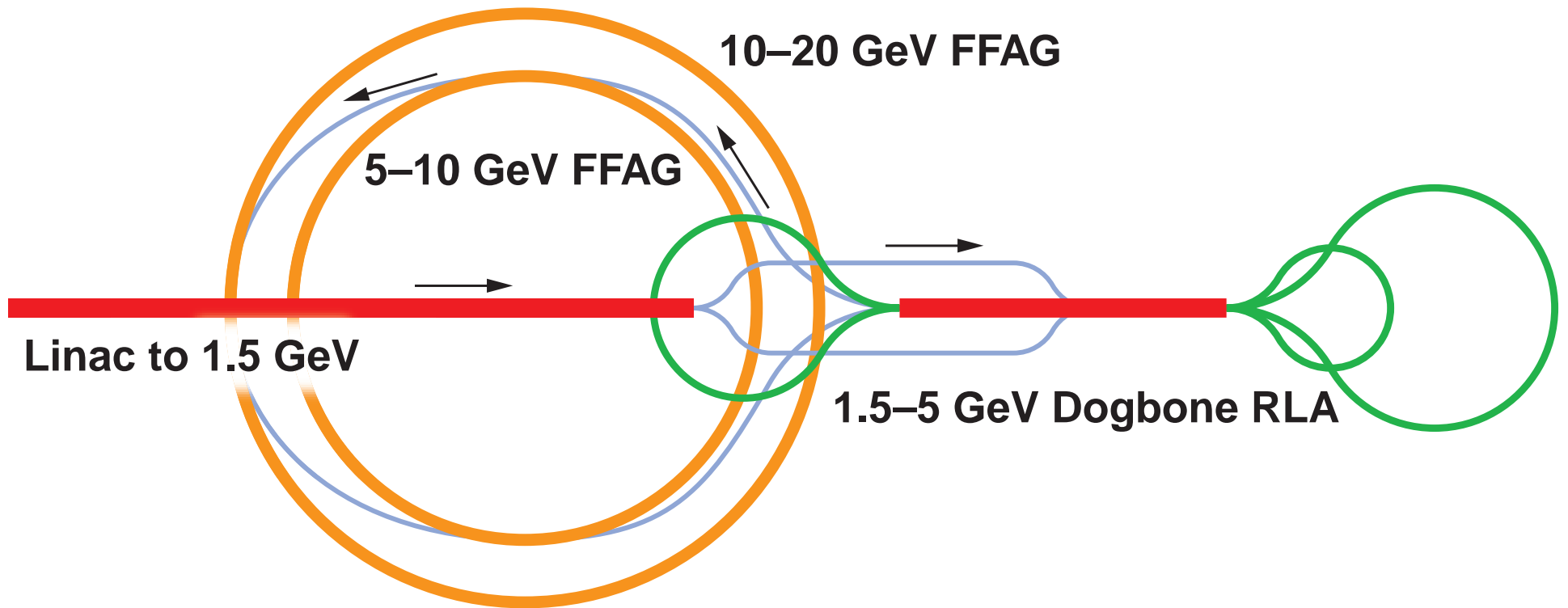


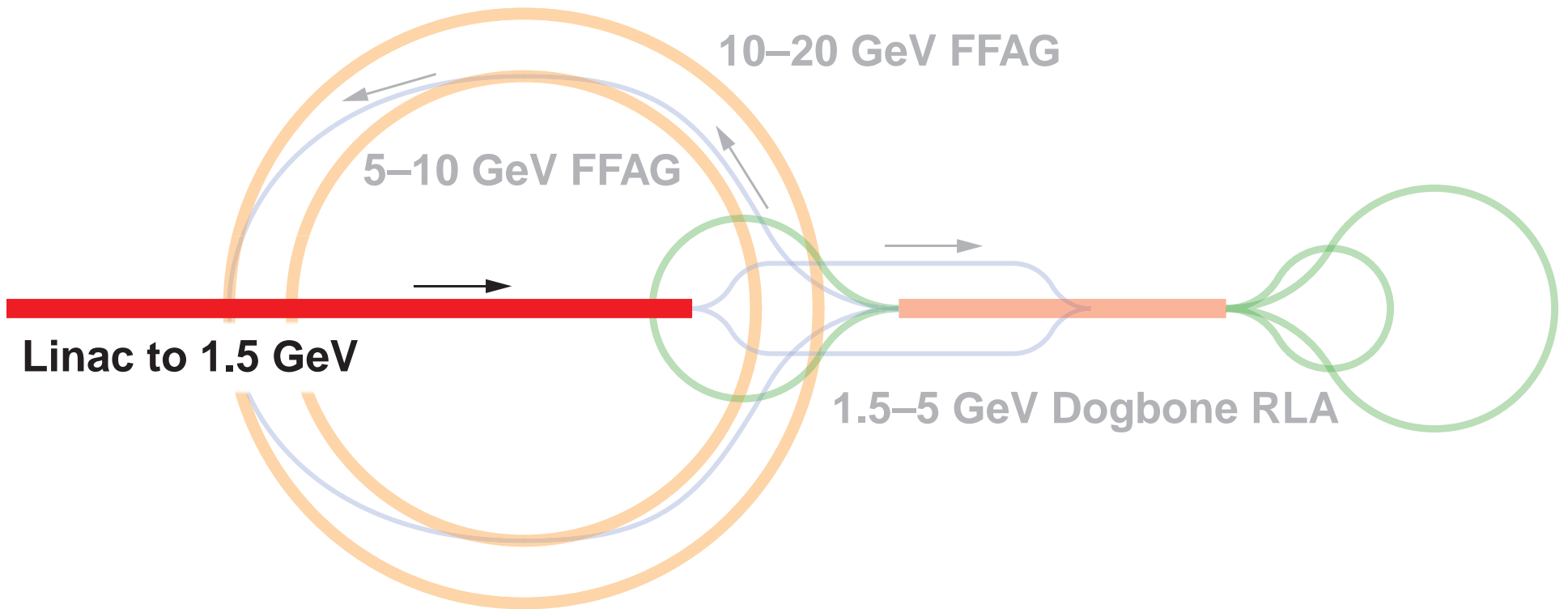
Acceleration Layout

J. Scott Berg
Muon Collaboration Meeting
15 February 2005

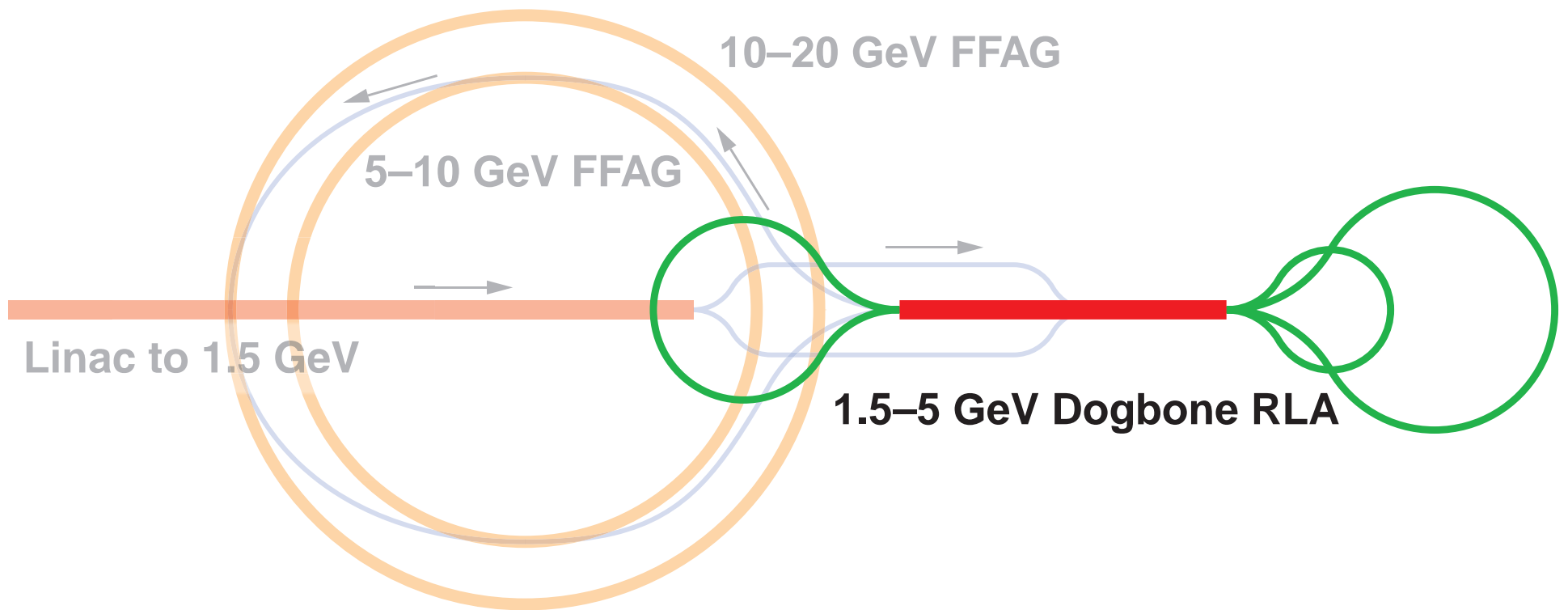
Acceleration System Goals

- Accelerate muons from cooling (momentum 200 MeV/ c) to storage ring (total energy 20 GeV)
- Accelerate rapidly to minimize decay
- Minimize dynamic particle loss
- Minimize emittance growth (longitudinal and transverse)
- Keep costs down





- Low energy requires short, inefficient cells for transverse acceptance
 - ◆ Don't use for most acceleration: can't do in RLA
- In RLA, each pass through linac must have nearly the same velocity; otherwise RF gets out of sync
 - ◆ Stay in first linac until reach sufficient energy



- FFAGs inefficient at low energies; use RLA
- Use dogbone over racetrack due to
 - ◆ Better energy separation at switchyard
 - ◆ More cost effective (?)
- Switch to FFAGs when they become more cost effective

