

Potential R&D topics for NML facility:

■ Plasma wakefield acceleration

- High Gradient beam driven plasma wakefield acceleration
 - *requires high charge and short bunch.*
 - *NML can generate high charge and, with pulse compression, generate a short beam which may be capable of achieving in high gradient.*
- Witness beam operation
 - *NML may be able to generate a witness positron beam to study wakefield acceleration. (FACET cannot do this.)*

■ Positron Development for the ILC

- Material testing: radiation damage for positron target materials.
- Current testing is done with FLASH at DESY which is overly subscribed.
- NML beam parameters are comparable