

# Technology Transfer to Multiple Facilities: Pitfalls and Best Practices

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*a wholly owned subsidiary of Eli Lilly*

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- Safety and effectiveness of Amyvid (Florbetapir F 18) has not been established for:
  - Predicting development of dementia or other neurologic conditions;
  - Monitoring responses to therapies
- Flortaucipir, or  $^{18}\text{F}$ -AV-1451 (previously  $^{18}\text{F}$ -T807), is an investigational agent under development by Avid/Lilly and is not approved by Regulatory Agencies for any use.

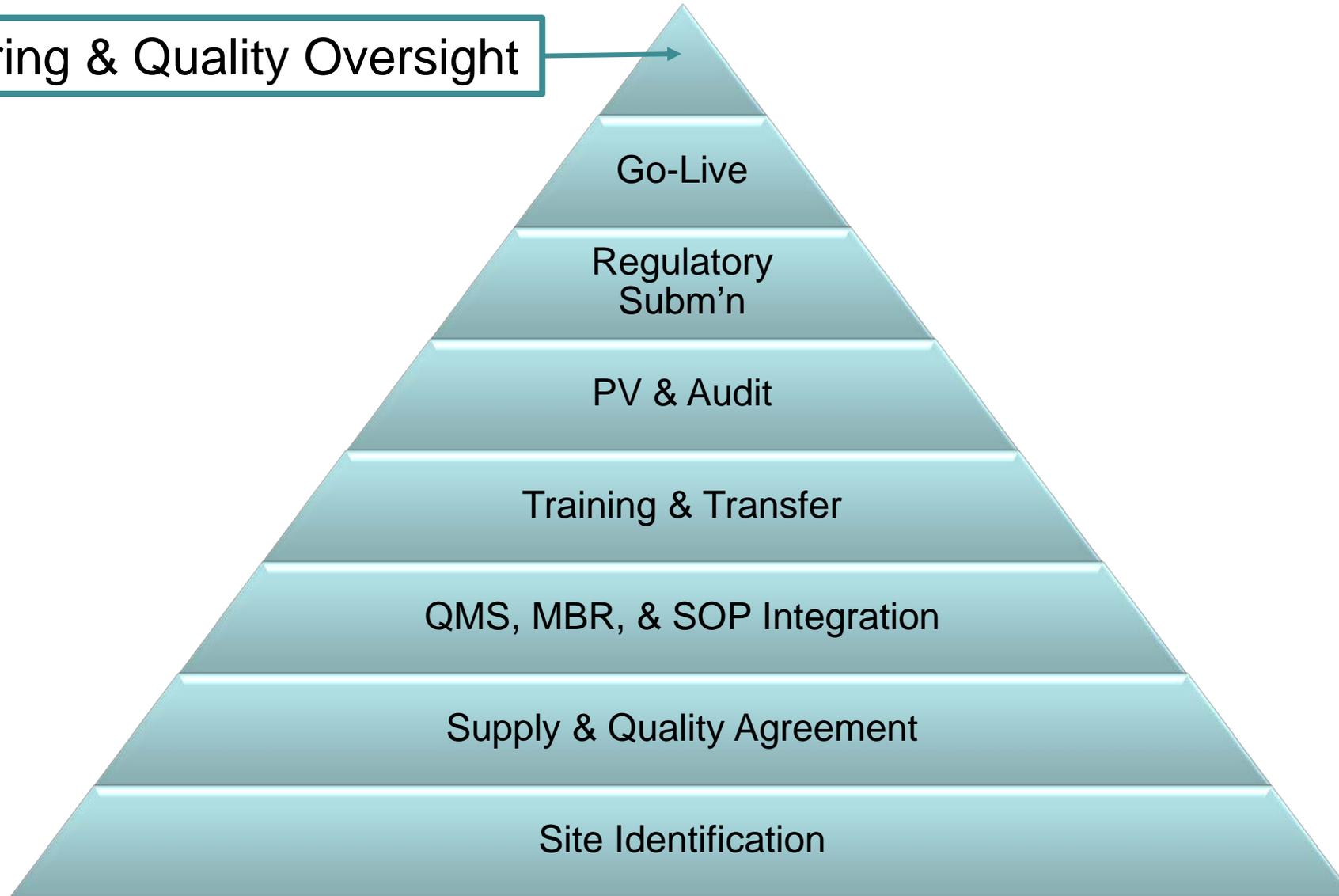
# Agenda

- Overview of Technology Transfer
- Identification of CMO and CT manufacturing site
- Supply agreement
- Integration
- Transfer and Process Verification
- Post PV and Ongoing Oversight



# Technology Transfer

Manufacturing & Quality Oversight

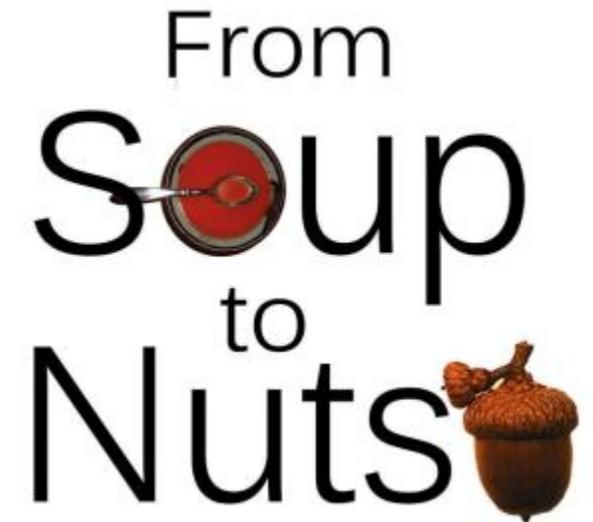


# Site Identification & Visit

- Pursue multiple CMOs in desired supply region
- Basic understanding of site:
  - Cyclotron output
  - Site layout
  - Capacity
  - Equipment: radiosynthesizers, dispensers
  - Sterility assurance controls
  - Local regulations
- Understanding competing manufacturing priorities
- Assessing capability and number of staff
- Balancing “wants” for must-have supply regions
- Challenge to get nitty-gritty review of facility

# Supply Agreement

- Confidentiality and intellectual property assignments
- Overview of staff required and hours
- Defined capacity and release times
- Redundancy
- Change control
- Compensation
- Raw data & Executed batch file review
- Continual technical quality oversight
- Maintenance and Holidays
- Regulatory responses



# Yours v. Mine

## • CMO PET Manufacturing Site:

- Standard operating procedures
- Standard flow of operations and practices
- Standard components and materials
- Manufacturing, quality control, and facility equipment
- Standard dispensing and media fills



## • Innovator-specific Req'ments:

- Equipment
- Test methods
- New formulations
- Container closures (media fills?)
- Components and materials
- Writing styles
- Common CMO-CMO innovator-specific processes

**CHALLENGE: Integration of Innovator QMS into CMO QMS**

# Transfer and Process Verification

- Site preparation to ensure *it* is all there
- Pre-transfer briefing (internal innovator PM, Mfg, and QC)
- Lifeline: call “*home*” frequently to debrief
- Execute technology transfer and validation protocols
- Fit training to the method (not all created equal)
- Require consistent training from site to site (CMO to CMO)
  
- Do expect:
  - failures, deviations, and OOSs
  - preoccupied staff
  - long (inefficient) days
  - onsite development

# Post PV & Mfg Oversight

- Maintenance (practice!) batches to maintain staff proficiency (and train new operators)
- 24/7/365 360° Service for:
  - Troubleshooting,
  - Equipment repairs/service
  - Components & materials supply chain
  - Manufacturing delays
  - Transportation delays
- Staffing and training (ongoing due to attrition)
- Project plan for substantive revisions to procedures (not just one CMO QMS)
  - And coordinated implementation of new procedures/mfg processes/formulations
  - Change for one, change for all

# Conclusions and Key Takeaways

- In-depth project management for site setup
- Support Process Verification (real-time and post (re)review)
- Maintain proficiency of staff
- Frequent visits of SMEs
- Do remember it's a collaboration:
  - Long days (operator/equipment issues) for release
  - Honest troubleshooting
  - Last minute batch requests



Questions?