Update: NIH Sterile and Non-Sterile Processing Facilities

3rd Meeting of the NIH Clinical Center Research Hospital Board

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Intravenous Admixture Unit (IVAU)

- **Role:** Supply sterile pharmaceuticals by prescription
- **Updated Status:**
  - **IVAU:**
    - Operating under a moderate level of control and under heightened facility inspections
  - **Interim–IVAU (I-IVAU):**
    - Several issues delayed the completion of I-IVAU, now in Activation phase
    - I-IVAU is under a high level of control
    - Once I-IVAU is operational, current IVAU will be closed for renovation
    - After renovations, IVAU operations will be returned to renovated facility and I-IVAU space will be used for additional cell processing (2019)

Department of Transfusion Medicine (DTM)

- **Role:** Supply infusible materials for cell-based therapies including engineered immune cells and gene therapies
- **Updated Status:**
  - **3T (current facility):**
    - Operating under minimum physical control with robust administrative controls
    - HVAC ductwork remediation and architectural finish repairs scheduled for late Jan 2017
  - **2J (new facility):**
    - An epoxy coating issue was discovered prior to occupancy, requiring remediation
    - When 2J goes online, 3T activities will relocate there while that facility is renovated

Positron Emission Tomography (PET) Facilities

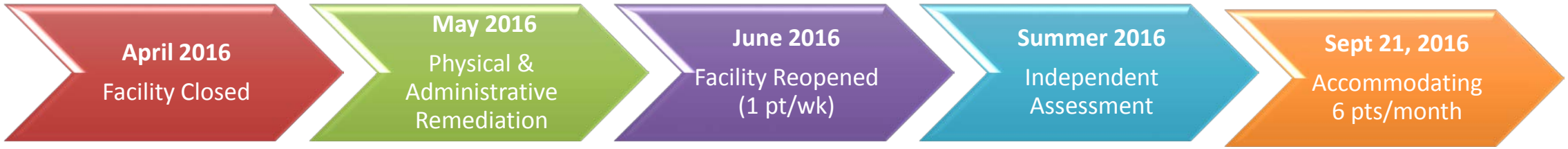
- **Role:** Produces sterile PET radiopharmaceuticals for human scanning studies
- **Updated Status:**
  - **CC B3 Hot Cell Facility:**
    - Monitoring continues and most physical concerns have been resolved
    - Second outside evaluation found no critical problems
  - **CC First Floor PET Radiopharmacy Facility:**
    - All physical concerns have been resolved
  - **NIMH Facility (Co-Located):**
    - Consolidating manufacturing activities with the CC PET Department is nearly complete

Nuclear Medicine Department Radiopharmacy

- **Role:** Provides only commercially available nuclear medicine radiopharmaceutical products purchased from local sources. Has not manufactured product directly
- **Updated Status:**
  - Two independent audits and recommendations are being incorporated
  - Construction to enable sterile manufacturing is nearing completion

NCI Surgery Branch Cell Processing Laboratory (Located in CRC 3 West)

- **Role:** Investigational cell and gene therapy products
- **Updated Status:**
  - Construction/renovations to remediate the space, as well as administrative efforts (e.g., SOPs, equipment) completed
  - Reopened with restricted manufacturing with moderate facility control
    - Continual monitoring and reports are being provided



NCI Surgery Branch Cell Processing Laboratory (Expansion Space in Building 53)

- **Role:** Same role as CRC 3 West; this project improves capacity
- **Updated Status:**
  - Building 53, an unused facility on the Bethesda campus, will house a cGMP facility constructed with prefabricated modular components
  - Project will significantly increase the volume of cell processing
  - Working Buildings will develop Basis of Design, attend Type-C Meeting, provide design and construction surveillance, and provide facility qualification support

NCI Surgery Branch Vector Production Laboratory and Thoracic Epigenetics Laboratory

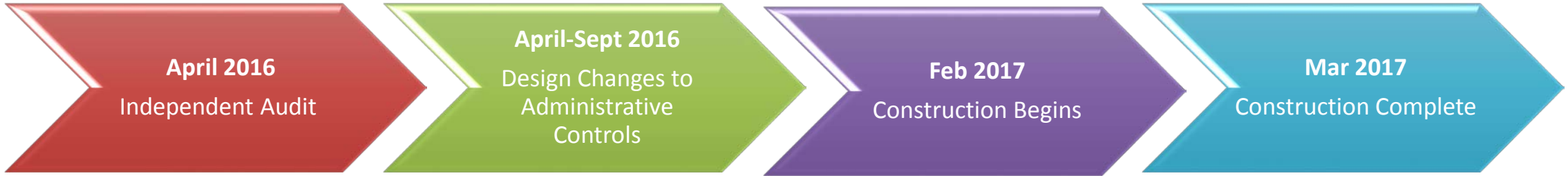
- **Role:**
  - **Surgery Branch Vector Production (SBVP) Lab:** Produced vectors for use in manufacture of engineered cells
  - **Thoracic Epigenetics (TE) Lab:** Produced experimental cancer vaccines
- **Updated Status:**
  - **SBVP Lab:** Trailer 1 scheduled to arrive Jan 16, 2016
  - **TE Lab:** Trailer 2 scheduled to arrive in March. It is designed to enable work to continue, plus the work of 2 other researchers
  - Two additional trailers may be purchased as extra/back-up processing space

NCI Biopharmaceutical Development Program (BDP) and Leidos Radiopharmacy

- **Role:**
  - **BDP:** Produces monoclonal antibodies, recombinant proteins, immunotoxins, oncolytic viruses, and vaccines
  - **Leidos Radiopharmacy:** Prepares radiopharmaceuticals (short-lived PET agents)
- **Updated Status:**
  - **BDP:** Remediation ongoing and production continuing
  - **Leidos Radiopharmacy:** Operating at a high level of control; minimal remediation

NIAID Vaccine Stock Manufacturing

- **Role:**
  - Manufactures viral seed stock drug substance that is then sent to Charles River Labs for additional processing, purification, and release
- **Status:**
  - Administrative controls changed to allow for continued operation until renovations could be completed
  - Design is complete and under review.



NIAID Vaccine Research Center (VRC) Vaccine Pilot Plant and Malaria Vaccine Laboratory

- **Role:**
  - **VRC Vaccine Pilot Plant:** Produces vaccines, monoclonal antibodies, and placebo products
  - **Malaria Vaccine Laboratory:** Being considered to produce malaria vaccine
- **Updated Status:**
  - **VRC Vaccine Pilot Plant:** Operating at an exceptionally high level of control
    - No updates
  - **Malaria Vaccine Laboratory:**
    - Planning to perform this work at off campus location
    - No updates

Recent PDS-Related Contamination

- PDS was closed in June 2015
  - All injectables prepared in the PDS were quarantined/destroyed
- Oral sucrose tastant solution found with particulates
  - Intended as a non-sterile solution, but was prepared sterilely in the PDS
  - 8 additional bottles (out of 449 remaining) contained potential particulates
  - Total of 3 were contaminated with environmental molds
  - **Not** administered to any patients
- Sweep conducted
  - All remaining non-sterile products (solutions and solids) prepared in the PDS are now quarantined
  - Investigators on impacted protocols have been notified

Recent PDS-Related Contamination

- Remediation
  - Identifying sources from which to purchase products
  - Making products on an ad-hoc basis
  - Instituted an exemption process
    - Relevant for cases where patient health/safety is a concern
    - Submission/request reviewed by a small committee of senior NIH leadership on the Sterile Products for Human Administration Committee
    - Consultation with FDA

Comments/Questions?

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