

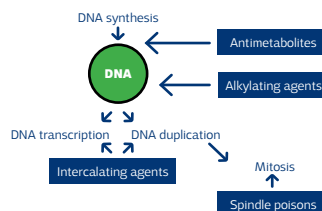


LIFE SCIENCE EQUIPMENT YOUR ONCOLOGY PRODUCTION PARTNER

ANTICANCER TREATMENTS



Monoclonal Antibodies



Cytotoxic Drugs

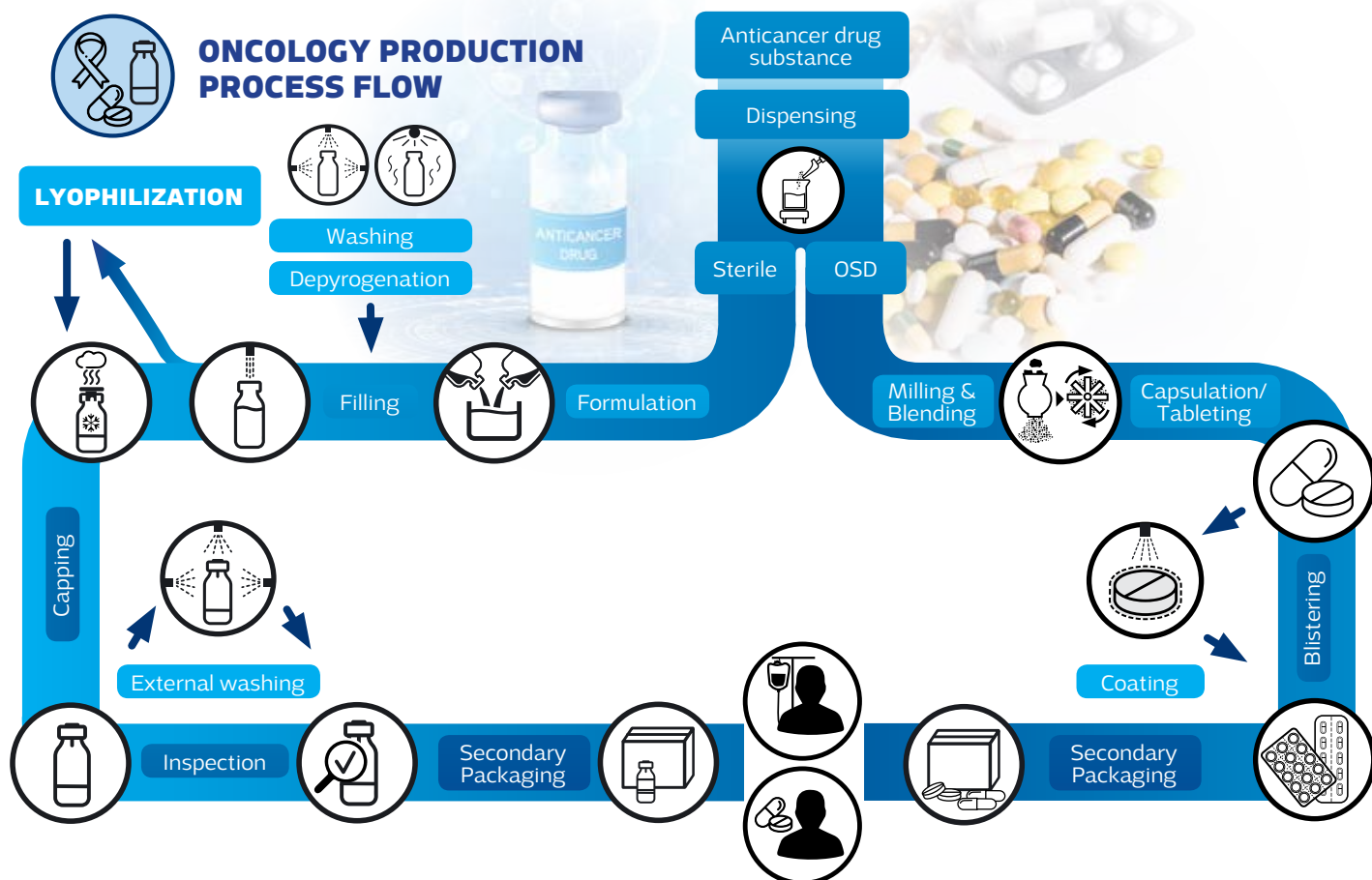
There are many different types of cancer. The treatments that can be applied are numerous and specialists select the most suitable one for a given type and stage of the disease based on efficiency and with a view to limiting side effects:

Surgery, Radiation Therapy, Chemotherapy, Immunotherapy, Targeted Therapy, Hormone Therapy, Stem Cell Transplant and Precision Medicine.

In all cases Azbil Telstar's Anticancer process expertise focuses on the manufacturing of **Cytotoxic Drugs (CDs)**, **Monoclonal Antibodies (mAb)**, **Small-Molecule Drugs**, **Vaccines**, **Hormonal Agents**



ONCOLOGY PRODUCTION PROCESS FLOW



ISOLATION TECHNOLOGY

- Isolators operating in positive and negative modes available for aseptic and containment applications respectively
- Aseptic applications handling potent materials available as a combination:
 - Normal mode +ve (product protection)
 - Breach mode -ve (operator protection)
 - Made possible due to leak tight chambers and fast response time following breach detection
- Sub OEB 5 levels achievable
- Grade A microbial free environments achievable in rapid time frames



ONCOLOGY PRODUCTION EQUIPMENT

Isolators / c-RABS



- Positive pressure unidirectional laminar airflow (ISO 5) for aseptic applications
- Negative pressure turbulent airflow for containment applications
- Physical barrier for product &/or operator protection
- Leak tight design to ISO 14644 / 10648
- Customized solutions to integrate with the complete line / process equipment
- Bio-decontamination systems available
- WIP cleaning systems available
- Wide range of applications: sampling, dispensing, milling, compounding-formulation, fill and finish, sterility test, etc.

Lyophilizers



- Automatic Loading/Unloading integrated solutions
- Neutralization, Cleaning, and Bio-decontamination (CIP/SIP) cycles
- Product, operator and environment protection
- Effluents suitable treatment

Downflow booths



- Grade A (ISO 5) Unidirectional laminar airflow and negative pressure for product, operator and environment protection
- Achieving Operator Exposure Levels (OEL) between 50 and 100µg/m³ TWA and lower containment levels (10µg/m³) by utilizing purpose designed workstations and containment screens
- Standardized models and also tailor-made solutions
- Bag-In Bag-Out filtration system option
- Several standard accessories (containment screens, work benches,...)

Pass-Boxes



- Safe pass-through for transferring materials between classified areas
- Standardized models and tailor-made solutions
- Bio-decontamination systems available

Sterilizers



- Dry heat sterilizers for depyrogenation
- Moist heat sterilizers for infeed sterilization, decontamination (dedicated effluent discharge/CIP) and terminal sterilization
- Automatic Loading/Unloading integrated solutions

+ OTHER TELSTAR SERVICES :

- **Complete line solutions**
- **Lyophilization and Sterilization process optimization/development services**
- **Consultancy, Engineering, Construction, Validation, Customer Service**
- **Calibration services**
- **Customer Service (including Equipment upgrade, retrofit & refurbishment)**



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