Successful Models Developed to Date

Of 348 fresh tumor samples collected (through Nov 2021), 69 PDX models from 33 patients had been generated (range 1-6 per model).

Method Development for Generation of PDX models from rapid autopsy samples.

- **Post-mortem interval**: Models were defined by the length of the post-mortem interval (PMI) at harvest.
- **Location of death**: Pathological isolation, out-of-home hospice, etc.
- **Tumor type**: Solid organ tumors, lymphoma, melanoma, etc.
- **Patient gender**: Male, Female, Unknown
- **Age range**: Pediatric (0-18 yo, 18-29 yo, 30-49 yo, 50-69 yo, 70+yo, Unknown)
- **Race**: American Indian/Alaskan Native, Asian, Black/African, Hispanic, Native Hawaiian/Other Pacific Islander, White, Unknown
- **Ethnicity**: Hispanic, Non-Hispanic
- **Histology**: Colorectal adenocarcinoma, Lung adenocarcinoma, Lymphoma, Pancreatic adenocarcinoma, etc.
- **Number of cases**: Total (Number of cases) = 53, NCI (Number of cases) = 412, post-mortem (Number of cases) = 348

Post-mortem interval:

- **Models defined by the length of the post-mortem interval**: Models were defined by the length of the post-mortem interval (PMI) at harvest.
- **Location of death**: Pathological isolation, out-of-home hospice, etc.
- **Location of death**: Pathological isolation, out-of-home hospice, etc.
- **Patient gender**: Male, Female, Unknown
- **Age range**: Pediatric (0-18 yo, 18-29 yo, 30-49 yo, 50-69 yo, 70+yo, Unknown)
- **Race**: American Indian/Alaskan Native, Asian, Black/African, Hispanic, Native Hawaiian/Other Pacific Islander, White, Unknown
- **Ethnicity**: Hispanic, Non-Hispanic
- **Histology**: Colorectal adenocarcinoma, Lung adenocarcinoma, Lymphoma, Pancreatic adenocarcinoma, etc.
- **Number of cases**: Total (Number of cases) = 53, NCI (Number of cases) = 412, post-mortem (Number of cases) = 348

Post-mortem interval:

- **Models defined by the length of the post-mortem interval**: Models were defined by the length of the post-mortem interval (PMI) at harvest.
- **Location of death**: Pathological isolation, out-of-home hospice, etc.
- **Location of death**: Pathological isolation, out-of-home hospice, etc.
- **Patient gender**: Male, Female, Unknown
- **Age range**: Pediatric (0-18 yo, 18-29 yo, 30-49 yo, 50-69 yo, 70+yo, Unknown)
- **Race**: American Indian/Alaskan Native, Asian, Black/African, Hispanic, Native Hawaiian/Other Pacific Islander, White, Unknown
- **Ethnicity**: Hispanic, Non-Hispanic
- **Histology**: Colorectal adenocarcinoma, Lung adenocarcinoma, Lymphoma, Pancreatic adenocarcinoma, etc.
- **Number of cases**: Total (Number of cases) = 53, NCI (Number of cases) = 412, post-mortem (Number of cases) = 348

Method Development

- **Objective**: Development of methods for the efficient and effective generation of PDX models from rapid autopsy samples.
- **Approach**: Use of mobile cart with sterile drape as a work surface, Use of 'production line-like' process for H2O2 dip & rinsing of resected tissue, Cleaning the exterior of the body or at least the incision line area prior to first incision, Allowing time for families to be with the patient post-mortem.
- **Results**: Overall percent take-rate is similar to what is observed with fresh tissue collections across solid tumor histologies
- **Conclusion**: These methods have been successfully transferred to two other participating rapid autopsy programs.

Rapid Autopsy Samples for the NCI Patient-Derived Models Repository

- **Materials and Methods**: The primary materials from which PDX models are originally generated are tissue samples from patients with cancer, which are collected at the time of diagnosis or death. These samples are then analyzed and potentially used to generate PDX models.
- **Results**: Of the 69 models developed to date, 49 are publicly available from the NCI PDMR while the rest are undergoing quality control.

Methodology for PDX model set development:

- **Objective**: Develop methods for the efficient and effective generation of PDX models from rapid autopsy samples.
- **Approach**: Transfer these prototype methods to additional rapid autopsy programs.
- **Results**: These methods have been successfully transferred to two other participating rapid autopsy programs.
- **Conclusion**: These methods have the potential to expand the availability of PDX models for research purposes.

Patient Characteristics for Method Development

- **Materials and Methods**: The primary materials from which PDX models are originally generated are tissue samples from patients with cancer, which are collected at the time of diagnosis or death. These samples are then analyzed and potentially used to generate PDX models.
- **Results**: Of the 69 models developed to date, 49 are publicly available from the NCI PDMR while the rest are undergoing quality control.

Methodology for PDX model set development:

- **Objective**: Develop methods for the efficient and effective generation of PDX models from rapid autopsy samples.
- **Approach**: Transfer these prototype methods to additional rapid autopsy programs.
- **Results**: These methods have been successfully transferred to two other participating rapid autopsy programs.
- **Conclusion**: These methods have the potential to expand the availability of PDX models for research purposes.

Rapid Autopsy Samples for the NCI Patient-Derived Models Repository

- **Materials and Methods**: The primary materials from which PDX models are originally generated are tissue samples from patients with cancer, which are collected at the time of diagnosis or death. These samples are then analyzed and potentially used to generate PDX models.
- **Results**: Of the 69 models developed to date, 49 are publicly available from the NCI PDMR while the rest are undergoing quality control.

Methodology for PDX model set development:

- **Objective**: Develop methods for the efficient and effective generation of PDX models from rapid autopsy samples.
- **Approach**: Transfer these prototype methods to additional rapid autopsy programs.
- **Results**: These methods have been successfully transferred to two other participating rapid autopsy programs.
- **Conclusion**: These methods have the potential to expand the availability of PDX models for research purposes.

Rapid Autopsy Samples for the NCI Patient-Derived Models Repository

- **Materials and Methods**: The primary materials from which PDX models are originally generated are tissue samples from patients with cancer, which are collected at the time of diagnosis or death. These samples are then analyzed and potentially used to generate PDX models.
- **Results**: Of the 69 models developed to date, 49 are publicly available from the NCI PDMR while the rest are undergoing quality control.

Methodology for PDX model set development:

- **Objective**: Develop methods for the efficient and effective generation of PDX models from rapid autopsy samples.
- **Approach**: Transfer these prototype methods to additional rapid autopsy programs.
- **Results**: These methods have been successfully transferred to two other participating rapid autopsy programs.
- **Conclusion**: These methods have the potential to expand the availability of PDX models for research purposes.