

The Québec IUCPQ-UL Biobank: A Multipurposes Resource For The Understanding, Diagnosis And Treatment Of Lung Cancer

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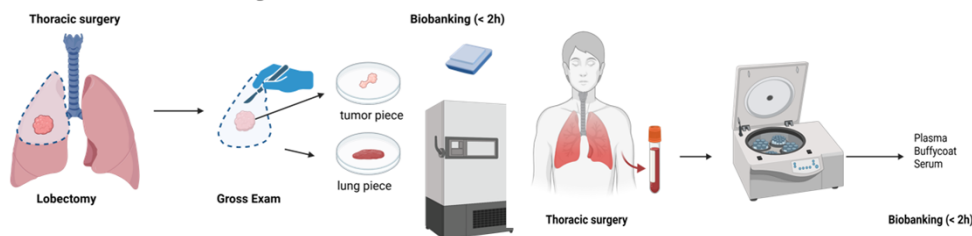
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INTRODUCTION

- ❖ **Biobank as critical infrastructure** to provide human samples essential for validating laboratory discoveries.
- ❖ **Progress in lung cancer research** and many emerging biomarkers require confirmation in human cohorts.
- ❖ **Clinical validation gap** — Biomarkers and diagnostic tests must be validated in well-characterized patient populations before entering clinical practice.
- ❖ **Need for annotated biospecimens** — Access to clinical and molecular data remains essential for translational research.

METHODS

Biobanking process



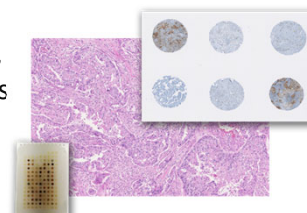
REFERENCES & ACKNOWLEDGEMENTS

DISCUSSION AND CONCLUSION

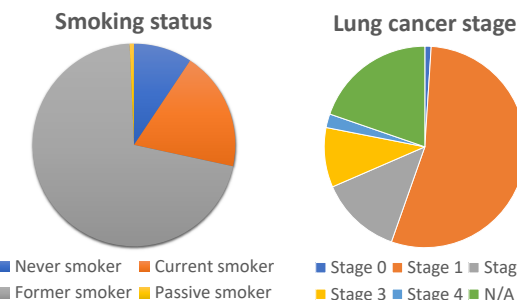
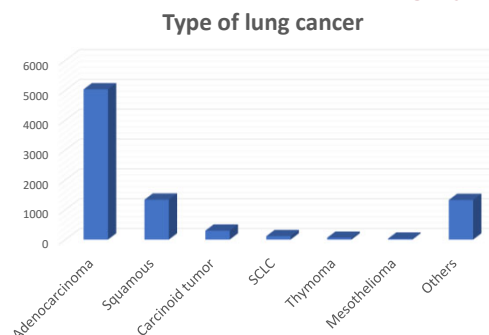
- ❖ **General informed consent form** Biobanking and future projects
- ❖ **Collaborative biobank** Clinical and academic expertise
- ❖ **25-years resource** Curated samples and longitudinal data
- ❖ **Genomic expansion** Growing molecular datasets
- ❖ **Lung cancer impact** Better biology, diagnostics, biomarkers, targets
- ❖ **Academic and industry collaborations**

RESULTS

- ❖ **7288** lung resection specimens
 - ❖ Tumor and non-tumor (snap-frozen, OCT and FFPE)
 - ❖ Blood (serum, plasma and buffycoat)
- ❖ **Liquid biopsies** (Steck tubes) from early and advanced stages
- ❖ **Available genomic data across different cohorts (sequencing, RNAseq)**
- ❖ **Multiple Tissue Microarrays (TMA)**
 - Adenocarcinoma
 - Synchronous tumors
 - Tumor from never smokers
 - Squamous
 - SCLC
 - Carcinoid,
 - Large cells
 - STAS
- ❖ **Quick turn-around time** for project evaluation
- ❖ **Approved management framework** including IRB approval for research



Clinical characteristics of the surgery cohort



List of Clinical Variables

Demographic characteristics

Smoking status

Lung cancer investigation

Comorbidities

Histopathologic diagnosis and tumor stage

Pulmonary function tests

Post-treatment follow-up and tumor recurrence