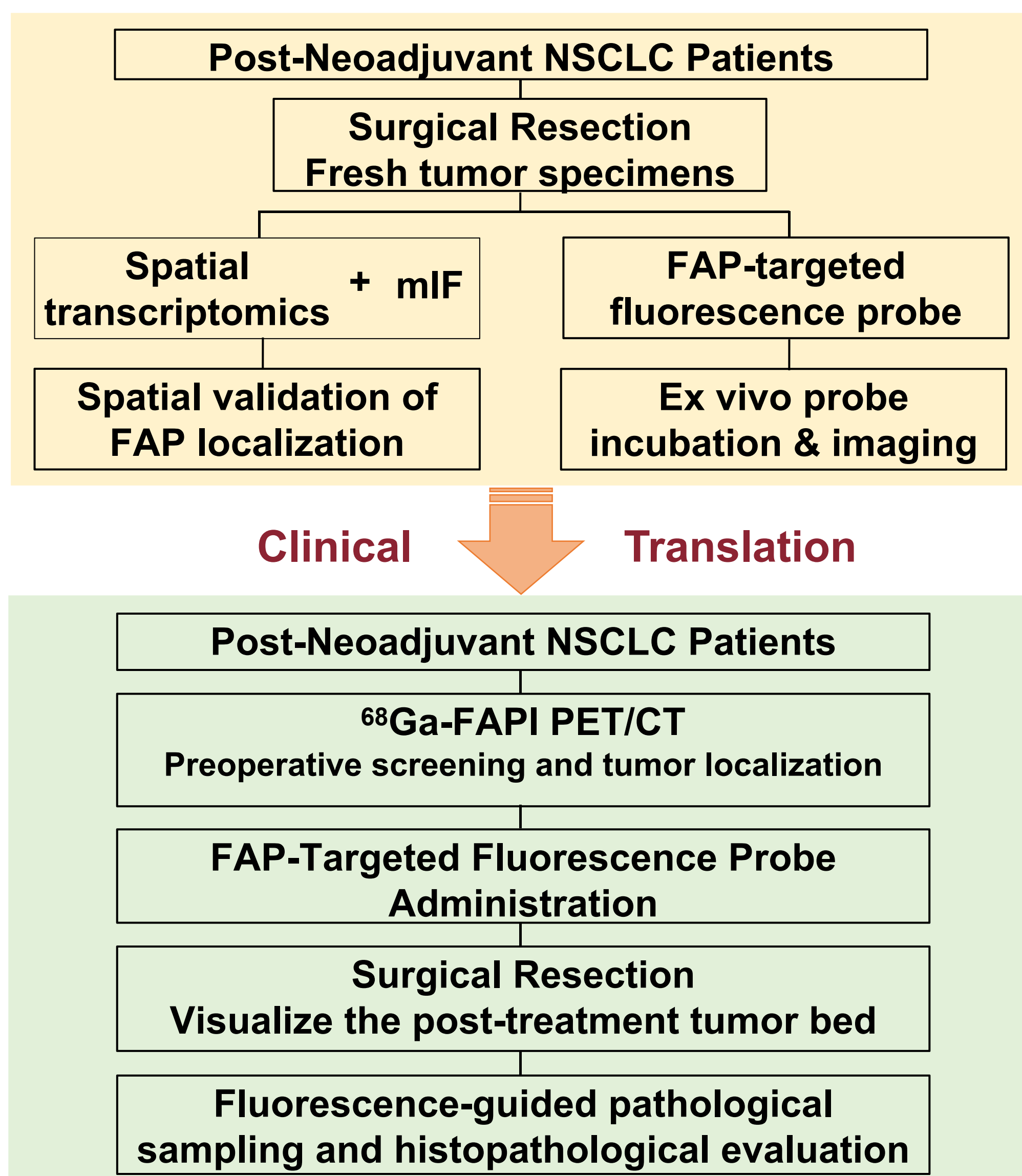


INTRODUCTION

- Neoadjuvant therapy can markedly reduce tumor burden, yet the post-treatment tumor bed remains difficult to define, and limited sampling may miss residual tumor cells.
- FAP-positive CAFs may persist after tumor regression and spatially delineate the treated tumor bed.
- We hypothesized that FAP-targeted fluorescence imaging could visualize the tumor bed and guide pathological sampling, and evaluated its potential for residual disease detection in NSCLC.

METHODS

Study Design and Workflow



Clinical Translation

Spatial mapping → Probe validation → Clinical translation

Enabling more accurate tumor-bed localization and residual disease detection

DISCUSSION AND CONCLUSION

Key Take-Home Messages

- FAP-positive stroma delineates the post-neoadjuvant tumor bed.
- FAP-targeted fluorescence enables tumor-bed visualization in resected NSCLC specimens.
- Fluorescence-guided sampling may improve detection of residual viable tumor cells.

Future Direction for Research

- Prospective validation in larger patient cohorts.
- Standardization and optimization of fluorescence-guided pathological sampling.
- Integration with spatial and molecular profiling to refine response assessment and postoperative treatment decisions.

REFERENCES & ACKNOWLEDGEMENTS

REFERENCES

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RESULTS

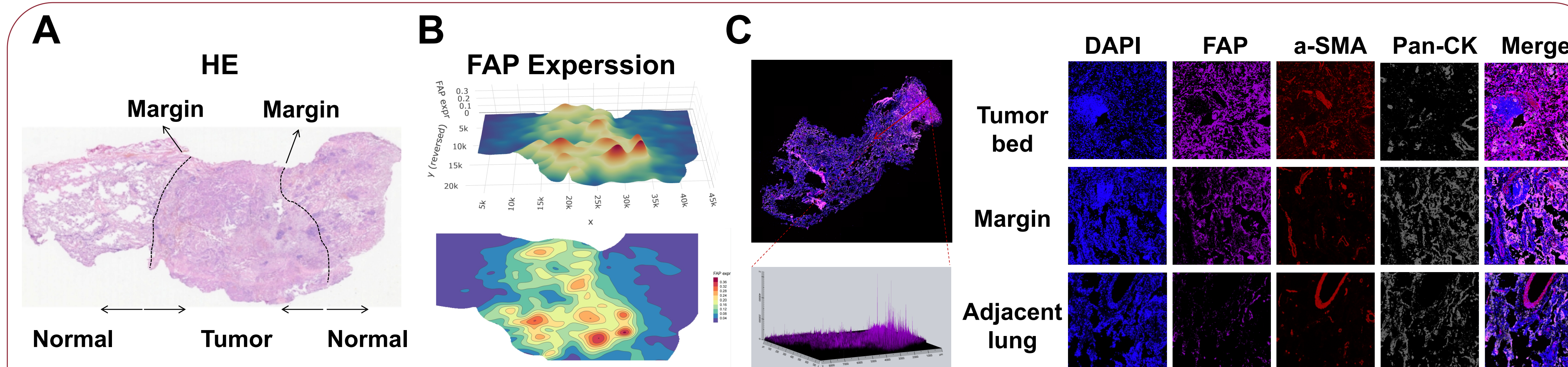


Figure 1: FAP spatially delineates the post-neoadjuvant tumor bed

1 Probe Validation

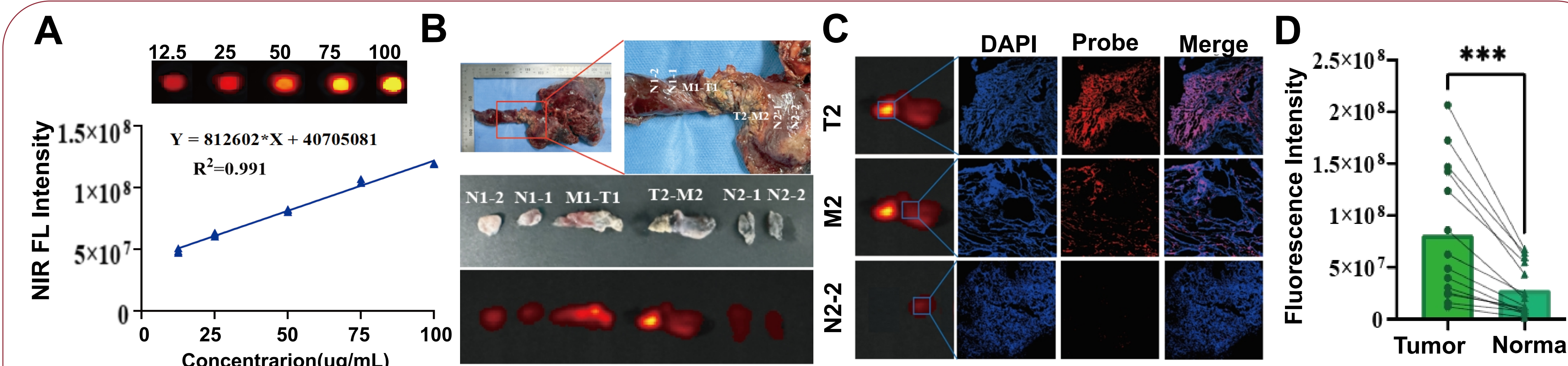


Figure 2: FAP-targeted fluorescence imaging identifies FAP-rich tumor bed regions

2 Clinical Translation

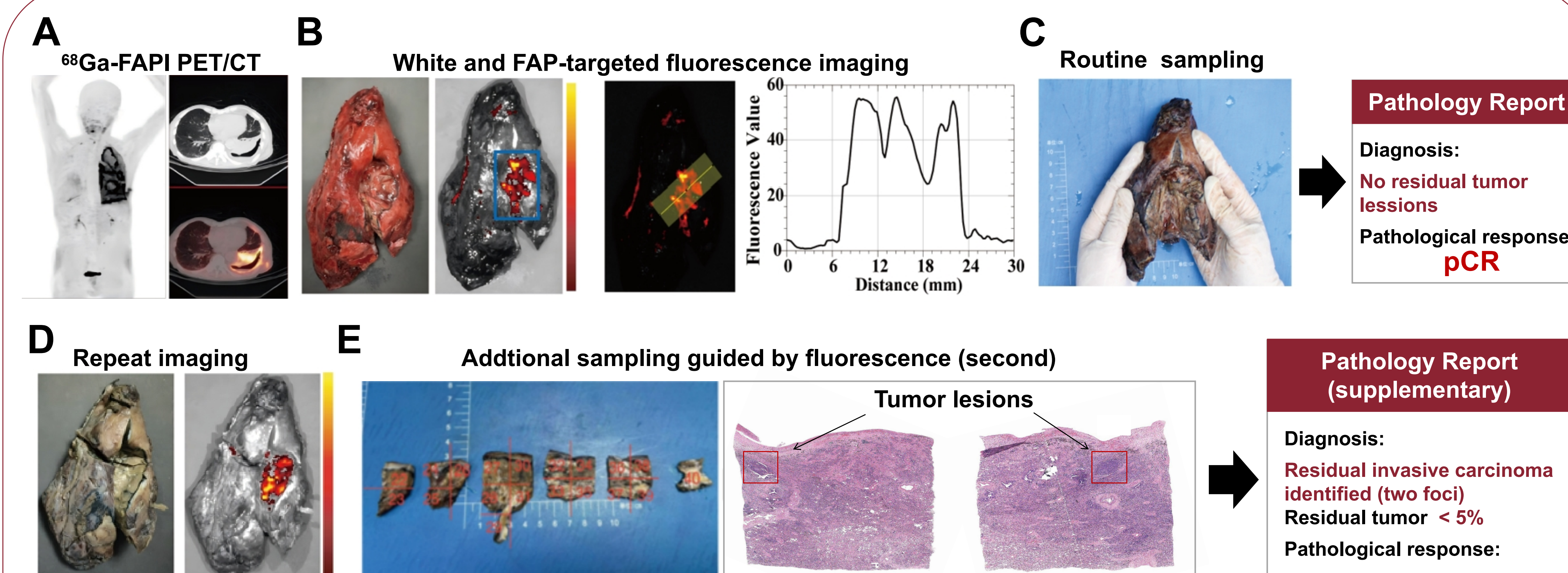


Figure 3: Clinical Translation: Tumor-Bed Visualization and Residual Disease Detection