A suggested clinical screening algorithm for Philadelphia chromosome-like acute lymphoblastic leukemia (Ph-like ALL) to be applied outside clinical trials

Screening of newly diagnosed B Cell other ALL

**OPTION A**
- Low density microarray (LDA)
  - **negative**
    - No further evaluation
  - **positive**
    - CRFL2 gene expression (with LDA)
      - high CRLF2
        - *FISH for CRFL2*
          - positive
            - Ph-Like ALL
          - negative
            - JAK mutation analysis
      - low CRLF2
        - *FISH for ABL1, ABL2, PDGFRB, CSF1R, JAK2, EPOR*
          - negative
            - Consider targeted therapy
          - positive
            - Ph-Like ALL

**OPTION B**
- CRFL2 expression (immunophenotyping)
  - low CRLF2
    - *FISH for CRFL2*
      - negative
        - No further evaluation
      - positive
        - Ph-Like ALL
  - high CRLF2
    - *FISH for CRFL2*
      - negative
        - Ph-Like ALL
      - positive
        - JAK mutation analysis

* FISH- Break-apart
** Targeted sequencing for mutations in JAK, IL7R, FLT3, SH2B3, RAS and PTPN11

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