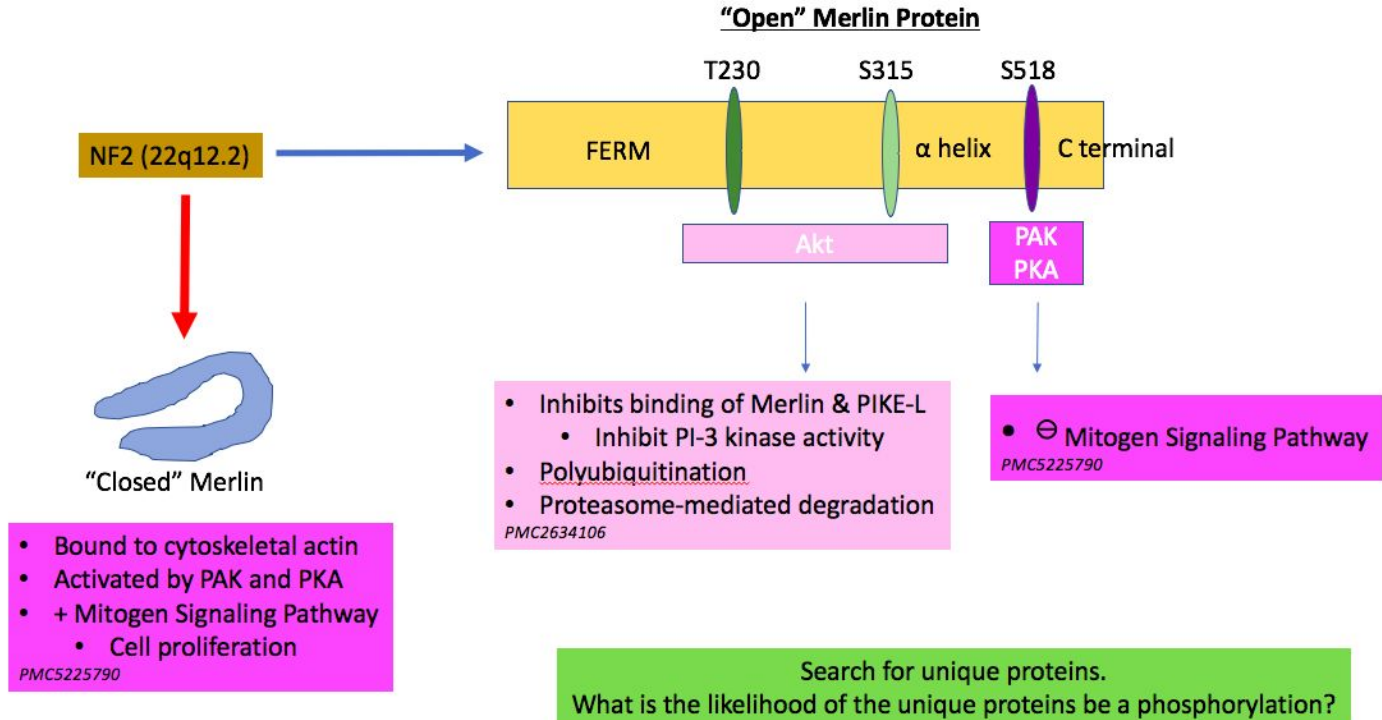


Protein

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SVAI Hackathon

Background



Objectives

Identify unique proteins that can be used as a drug target

Which genes are absent/present between Onno's blood/tumor/brother sample

Identify differences in the number of putative phosphorylated proteins

NF2_xy_s
(Brother's blood)

vs

OF_112015SJ1A_2
(Onno's blood)

OF_112015SJ1a_2
(Onno's blood)

vs

OF_010116NF2_a
(Onno's tumor)

Methods (Overview)

Genes from VCFs

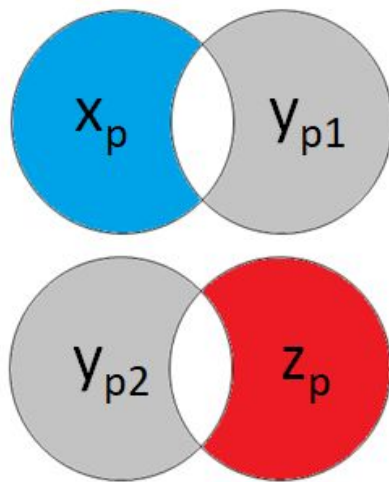
$B_b \rightarrow x$

$O_b \rightarrow y$

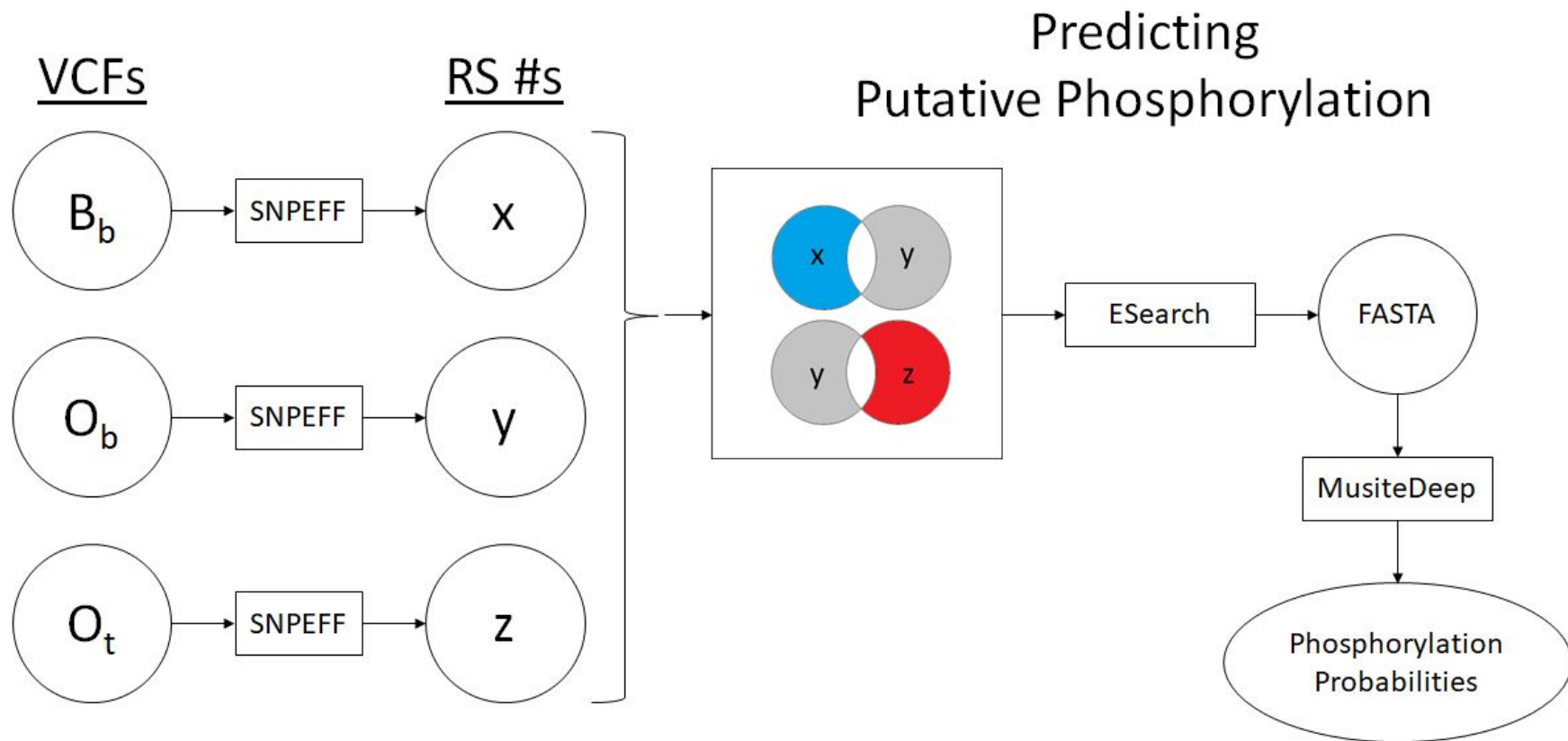
$O_t \rightarrow z$

Comparative
Analysis

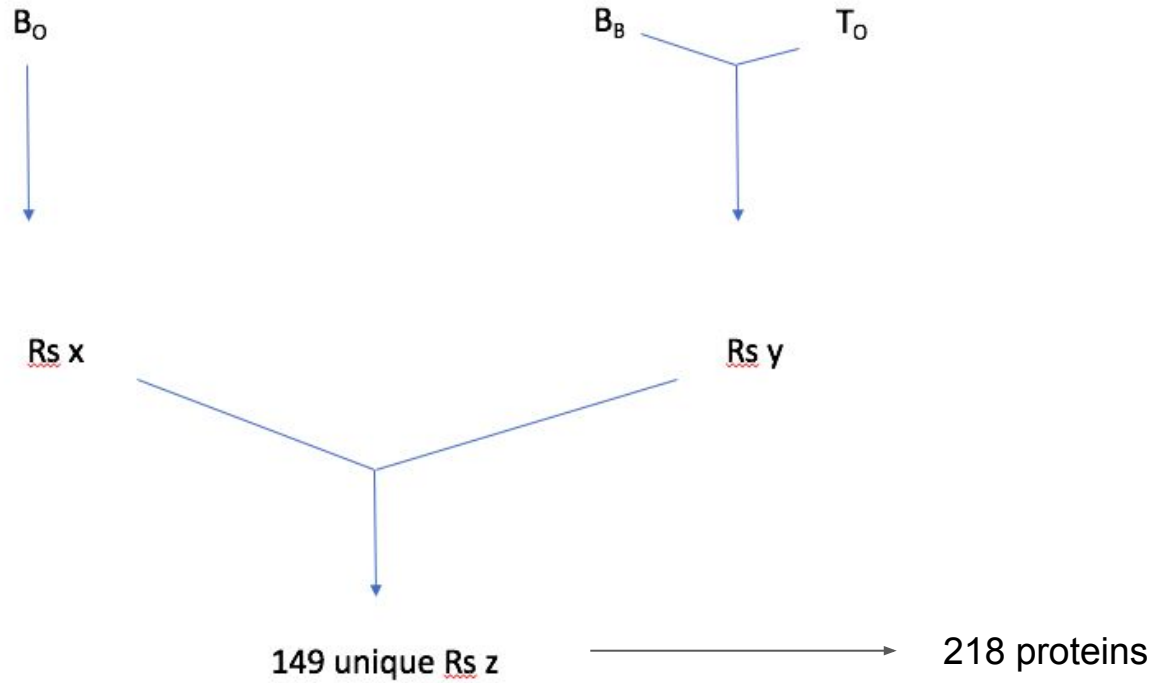
Identified
Unique
Proteins



Methods (Genomic Tools) Ideal



Methods (Actual)



Results

- Found 149 unique Rs
 - 44 no result
 - 105 result
 - 218 proteins

Conclusion

- Obtained candidate unique proteins that have the high likelihood of phosphorylation site.
- Challenges: 2 samples in 1 file
- Implications/ Further studies
 - Can feed through a new drug pipeline?
 - Can be used as marker for disease progression?

Acknowledgements

Ben Busby from NCBI

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