Standard deviation for KD estimation was computed by Octet analysis software 9.0. Student's t-tests were performed in R.

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Acknowledged.

Generate HTML slides with this structure: Title, Motivation, Background, Methods, Results (including all figures here), Conclusion. Prioritize concise key points on each slide. Ensure space is reserved for figure inclusion.

< 4/4 >

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```
42 <div class="slide">
43
     <h2>Methods</h2>
                                               44 🗸
     Assembled dataset of >5,000 HA antibodies from publications.
45
46
       Identified recurring sequence features (germline usage, clonotypes).
47
       Developed a lightweight language model (mBLM).
       Trained & validated mBLM for specificity prediction.
48
49
       Saliency analysis for key sequence determinants.
50
51
     <div class="figure-placeholder">Placeholder for workflow diagram of data coll
52
    </div>
53
54 <div class="slide">
     <h2>Results: Germline Gene Usage</h2>
55
56 🗸
     57
       Distinct germline gene preferences for HA head & stem.
       IGHV1-69 & IGHD3-9 common in HA stem.
58
       Identified novel public clonotypes.
59
60
     61
     <div class="figure-placeholder">Placeholder for Figure 1: Germline gene usage
62
    </div>
63
64  <div class="slide">
     <h2>Results: Hydrophobicity of CDR H3</h2>
65
66 🗸
     HA stem antibodies exhibit higher CDR H3 hydrophobicity.
67
       Correlation with binding to hydrophobic groove.
68
69
70
     <div class="figure-placeholder">Placeholder for Figure 2: Hydrophobicity and
    </div>
71
72
73 <div class="slide">
74
     <h2>Results: mBLM Performance</h2>
75 🗸
     76
       mBLM achieved decent performance on test set (F1 score = 0.79).
77
       Outperformed k-NN classifier.
78
       ESM2-Ab showed comparable performance.
79
80
     <div class="figure-placeholder">Placeholder for F1 score graph and confusion
81
    </div>
82
83  <div class="slide">
     <h2>Results: Saliency Map Analysis</h2>
84
85 🗸
     MBLM learned key sequence motifs of HA stem antibodies.
86
87
       Identified crucial residues for binding.
       Confirmation of known sequence features.
88
89
     <div class="figure-placeholder">Placeholder for Saliency map heatmap (Figure
90
    </div>
91
92
93 
y <div class="slide">
     <h2>Results: HA Stem Antibody Discovery</h2>
94
95 🗸
     Successful identification of HA stem antibodies.
96
       Validation rate correlated with model confidence score.
97
       Discovery of novel antibodies with high affinity.
98
```

00

```
103, <div class="slide">
104
     <h2>Conclusion</h2>
                                             105
       Large-scale analysis provides valuable resource.
106
       mBLM enables antibody specificity prediction.
107
       Identified key sequence determinants of HA stem antibodies.
108
109
       Potential for streamlining antibody discovery.
       Future work: expand the dataset, refine the model, and explore polyreac
110
111
     112
   </div>
113
114
   </body>
115
   </html>
```

Explanation and Key Features:

- HTML Structure: Uses basic HTML tags for structure. I've avoided complex styling for maximum compatibility.
- CSS Styling: Minimal inline CSS for basic readability. You can easily expand this to customize the appearance.
- Slides: Each div with class "slide" represents a separate slide.
- Key Points: Uses (unordered list) for concise key takeaways.
- Figure Placeholders: div with class "figure-placeholder" provides space and a reminder to insert figures. The text-align: center and line-height properties are used to center the placeholder text.
- * Conciseness: Key points are kept short and to the point.
- Figure References: I've included a comment referencing the figures mentioned in the original text (Figures 1-3, etc.). Replace the placeholder text with actual image tags (e.g.,).
- * Comments: I've added comments to help you understand the purpose of each section.
- Easy Customization: You can easily modify the text, styling, and layout to suit your needs.
- Clear Organization: The slides follow the structure you requested (Title, Motivation, etc.).

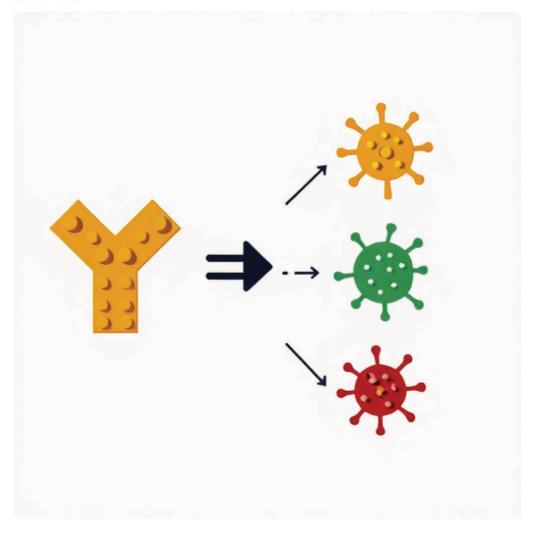
How to Use:

- 1. Save the Code: Save the code as an HTML file (e.g., presentation.html).
- 2. Open in a Browser: Open the file in a web browser.
- 4. Customize: Modify the text, styling, and layout to your liking.

This provides a solid foundation for your presentation. You can further enhance it with animations, transitions, and other interactive elements using JavaScript and CSS.

can you write one simple prompt for motivation section so i can generate image for it.

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Generate an SVG illustrating: a Y-shape lego on the left, another three different color viruses on the right vertically, an arrow in the middle.

can you write one simple prompt for background section so i can generate image for it. only reply prompt.

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