

- Announcements
- Lab Quiz
- Pre-lab Lecture
  - ❖ Writing a Figure/Caption
  - ❖ In Vitro Transcription
  - ❖ Today in Lab: M1D3

# Announcements

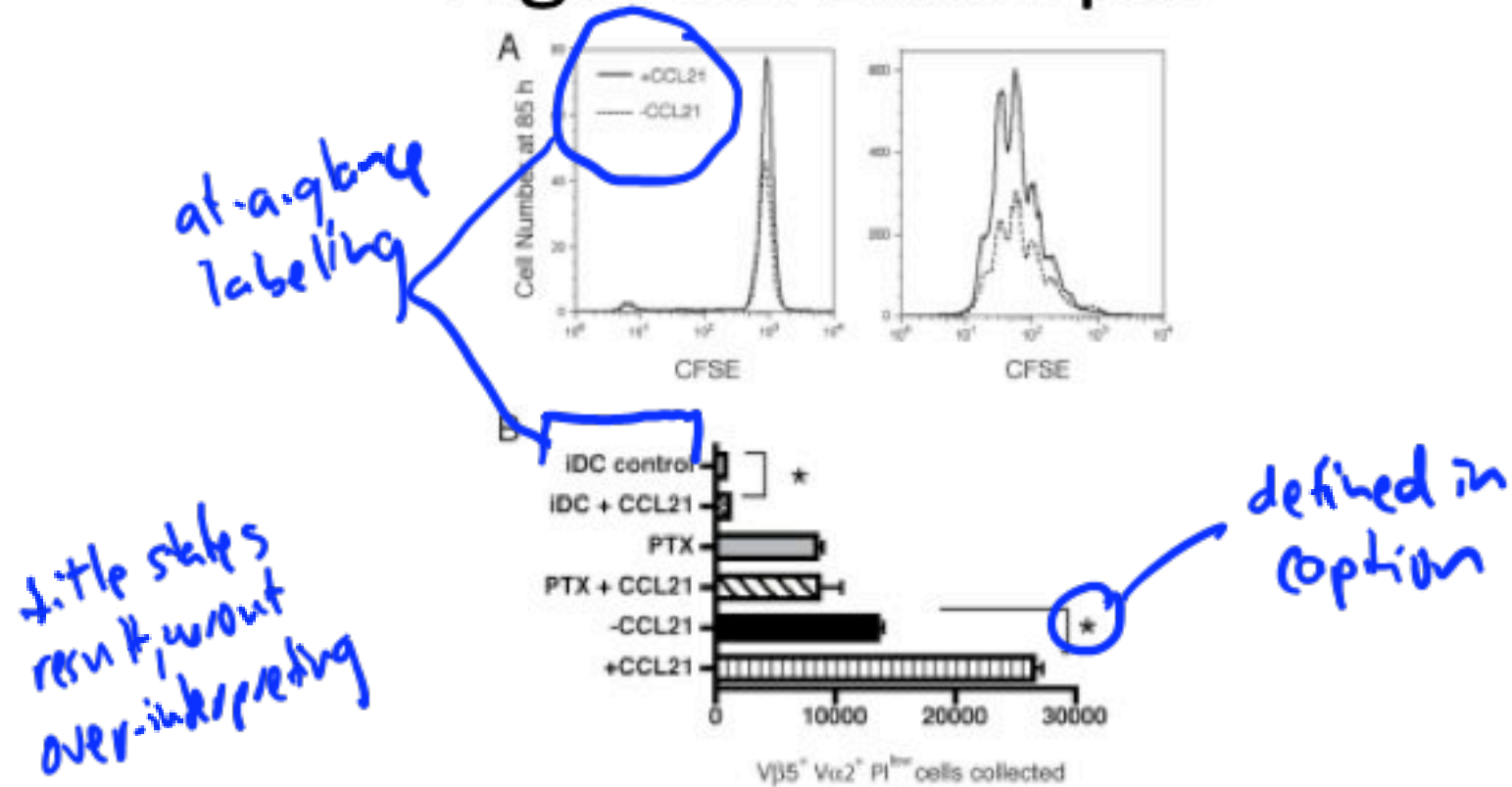
- No lab next Tuesday (Monday schedule) or Wednesday – see you in a week!
- Next time in lab is *packed*
  - Very short quiz + pre-lab lecture
- FNT: Lots! Reading and calculations for Day 4, practice figures, writing exercises.

+ Christina intros.

# Figures: Style and Scope

- Title: *concise, informative* → gives overall goal/result
- Caption: *gives context for result, from big to small*
  - Introduce *what are we looking at*
  - Include *just methods needed to understand the result*
  - Define *all elements (e.g., DNA ladder)*
  - Cover *primary facts, not interpretation*  
*e.g., observed/expected sizes*
- Aesthetics *simplicity, clarity* → *at-a-glance labeling*  
*e.g., some ladder band sizes*

# Figures: Example

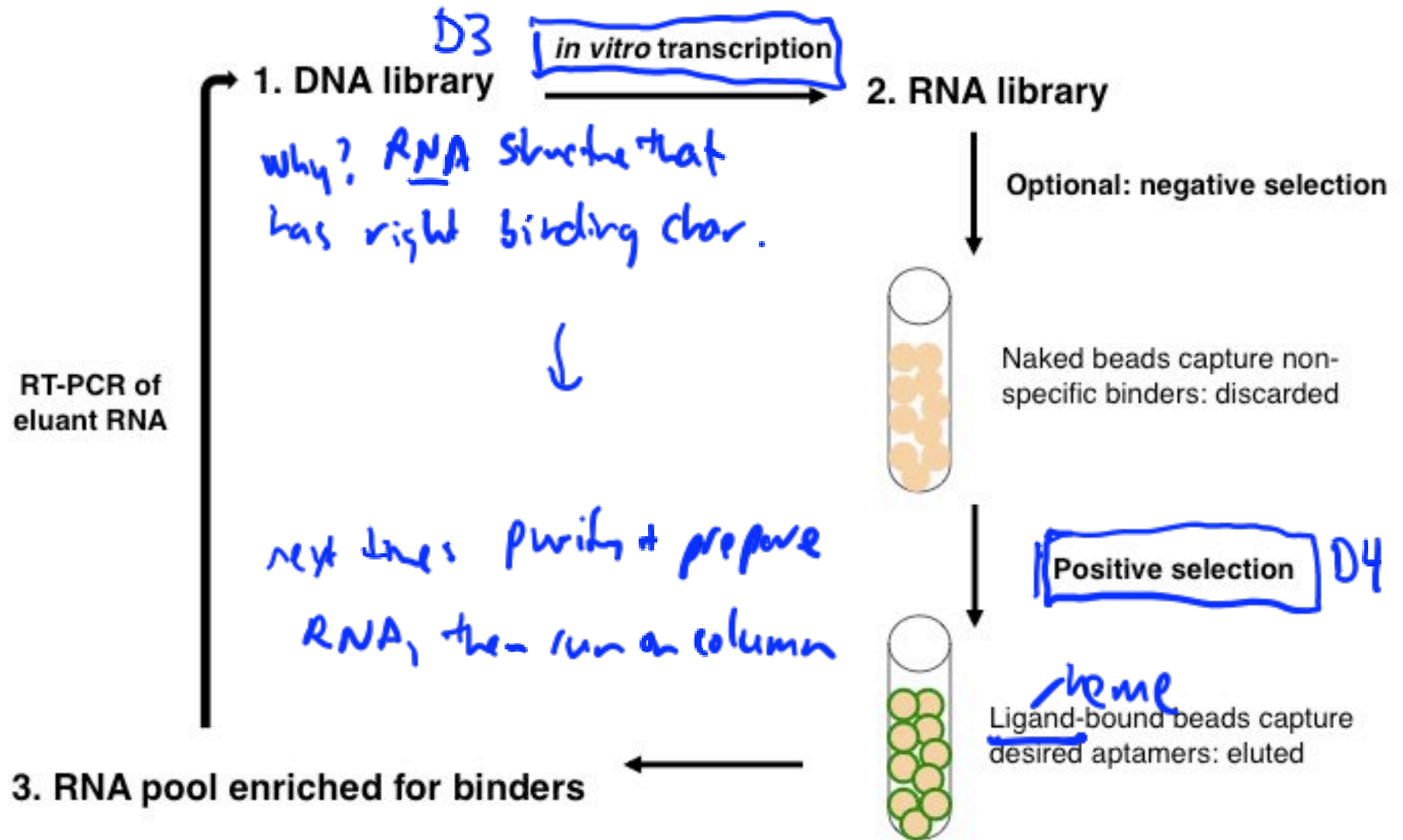


**Figure 3 CCL21 impacts naïve T cell proliferation under conditions of rare Ag-specific T-DC encounters.** Co-cultures comprising 9% OVA-specific OT-II CD4<sup>+</sup> T cells, 81% C57Bl/6 CD4<sup>+</sup> T cells, 5% OVA-mDC and 5% IDC with/without CCL21 were analyzed by flow cytometry at 85 h. (A) Sample CFSE histograms are shown for control (left, IDC only) and experimental (right, with OVA-mDC) conditions. (B) OTII cell recovery for all conditions is shown. Ave  $\pm$  std. dev. for 3 wells per condition. [\* indicates bracketed conditions statistically different ( $p \leq 0.05$ )] (A-B) are from 1 representative of 5 experiments.

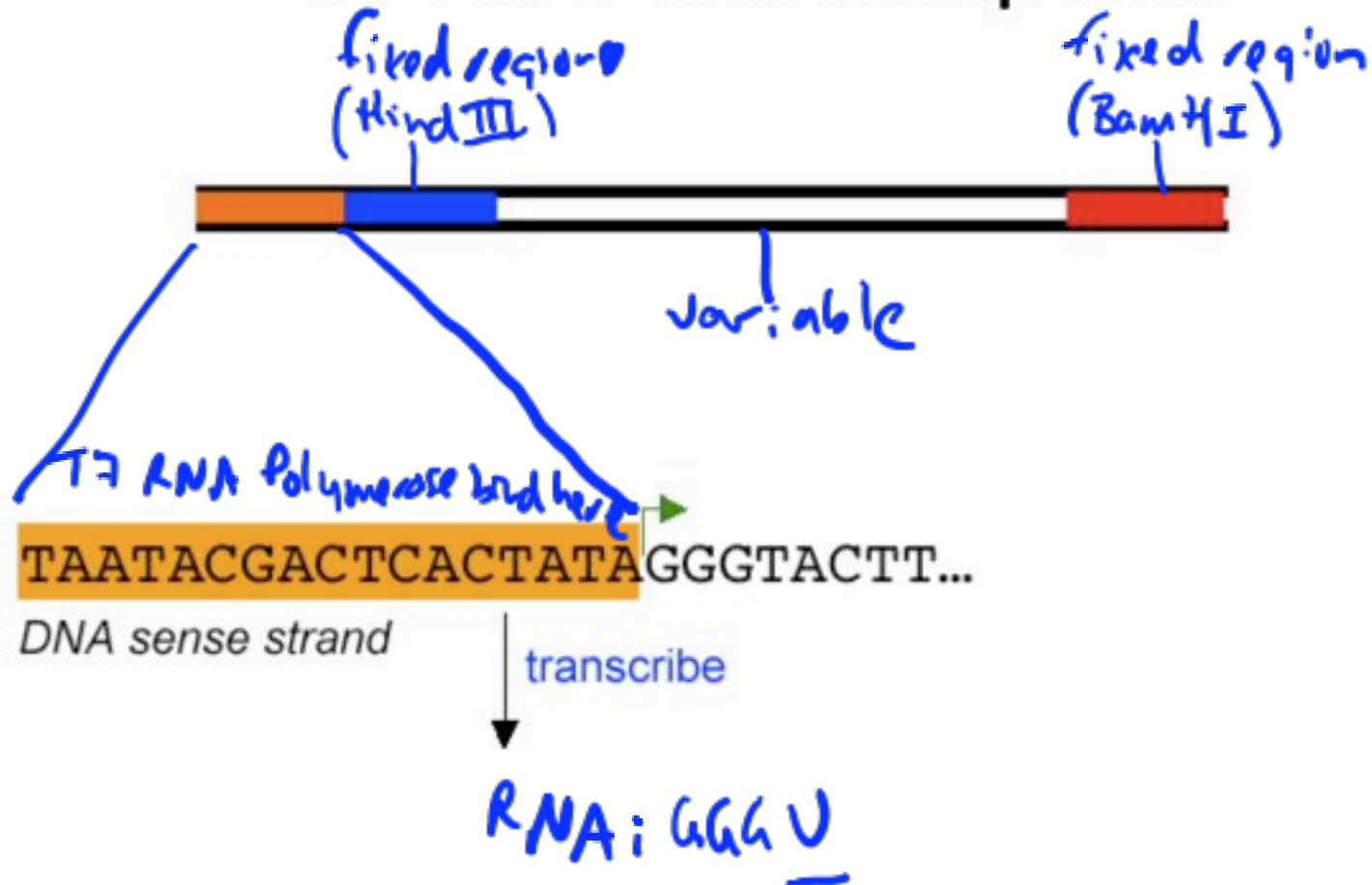
*overview of exp.*

*walk-through of figure*

# SELEX Overview



# In vitro transcription



Cartoons from Niles Lecture 2.



# PCR vs. IVT

<b>PCR</b>	<b>IVT</b>
DNA plasmid template	DNA fragment (linear)
Primers	not needed!
dNTPs	NTPs
Taq DNA polymerase	T7 RNA polymerase
Buffer, Mg ions	similar

# Today in Lab

- Working with RNA
  - Gloves on, keep clean
- Set up IVT rxns
  - Run for 4 hrs, **note your start time up front**
  - Stored frozen till next time
  - Return the rest of your DNA, too!
- Meanwhile, journal article discussion
- Also sign up for column conditions **Talk page 04**