Effective Poster Presentations

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Posters

• Goals of a poster
  • To make a visual presentation of your work
  • To attract viewers and stimulate discussion
    • You have to quickly grab the attention of a potential poster viewer, otherwise they will keep on walking!
  • To be concise and focused
  • To explain your research using schematics, graphs, photographs, and other visual tools, with a *minimum* of supporting text
Poster – Organization

• Important!! Before you start, determine allowed poster size and adhere to the instructions
• Determine your “take home message” before you start working on the content of your poster
• The rest of the poster should be set up to build up to and support your “take home message”
• Know your audience and design a poster that is appropriate for your audience
Poster – Organization

• Title: state your overall conclusion
  • This should be your “take home” message

• Introduction: minimum amount of background information
  • Set up the question being addressed
  • Provide just enough information to explain data
  • A poster is not a manuscript, so the introduction should not read like one
  • Models can help explain the question being addressed
  • If using text – list in point form

• Methods: use flow charts/diagrams
  • Explain unusual techniques only
Poster – Organization

• Results: largest section
  • Use meaningful titles of figures
  • Logically arranged – one section should flow to the next
  • More is not always better. You need just enough to convince the reviewer to believe your take home message

• Conclusions and/or model
  • Link results to your original question
  • A model is always best for conveying message
  • No more than three conclusions

• Acknowledgements and references
  • Acknowledge funders and others who helped with the work
  • References
    • Only if they are required
    • Number of references should be limited (remember this is NOT a manuscript)
Poster – Appearance

• Legible
  • Text needs to be readable from 1.5 to 2 meters
  • Limit the amount of text

• Readable
  • Use a common font throughout using bold or color for emphasis
  • Use a simple color palette

• Organized
  • Should flow logically

• Succinct
  • Effective use of figures
  • Clear take home message
Costimulation Regulates FasL Expression in Cytotoxic T Lymphocytes

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INTRODUCTION

Naïve CD8 T cells require and receive three signals during their activation: T cell receptor (TCR) recognition of MHC-peptide complex, a costimulatory signal and a cytokine signal.

Activated CD8 T cells utilize Fas ligand (FasL) and granzyme/perforin degranulation to induce target cell apoptosis.

Although FasL was thought to be stored in secretory lysosomes together with granzyme and perforin, our lab’s observations suggest otherwise. These observations further suggest differential cellular signaling requirements for FasL and GrB expression. Furthermore, given the importance and diversity of costimulatory molecules present during naïve CD8 T cell activation, we believe that costimulatory molecules augment FasL expression in CD8 T cells in a GrB-independent manner.

METHODS

24 well plates were coated with sub-optimal levels of anti-CD3 antibody for sub-optimal TCR stimulation plus low, medium or high levels of recombinant B7 or recombinant ICAM.

RESULTS

Early FasL Expression is Augmented by ICAM.

ICAM costimulation augments and maintains GrB expression. Early FasL expression is augmented by ICAM. FasL expression, however, is not maintained long term under mid and high ICAM costimulation conditions.

Early FasL Expression is Augmented by B7.

B7 costimulation augments and maintains GrB expression. Early FasL expression is induced by B7 in a dose dependent manner. However, late FasL expression is not maintained by mid and high B7 costimulation.

Mid level B7 & ICAM costimulation induces a time-dependent expression of early FasL only expressing T cells.

FasL only expressing cells are visible early after activation. By day 5 & 7 after ICAM and B7 costimulation, respectively, a substantial population of FasL/Gr double expressing cells are present. On day 9 and 11, the expression of FasL is reduced resulting in a high percentage of GrB only expressing T cells.

ACKNOWLEDGEMENTS

Costimulation induces early FasL only expressing T cells followed by late GrB only expression T cells.

B7 and ICAM costimulation induces FasL only expressing T cells early after activation (Day 3 & 5). After Day 5, FasL expression diminishes whereas granzyme B expression noticeably increases and is maintained until Day 11.

- B7 and ICAM-1 augment FasL and Granzyme B expression in activated naïve CD8 T cells.
- FasL is expressed early after stimulation and then reduced
- Granzyme B is expressed after FasL expression and is maintained

Ostergaard Lab Members
& Kane Lab Members

OBJECTIVES

The aim of this study is to determine the role of the costimulatory molecules B7 and ICAM on FasL and GrB expression patterns under sub-optimal TCR stimulation using plate bound anti-CD3 antibody and plate bound recombinant B7 and recombinant ICAM.

HYPOTHESIS

Costimulatory signals provided during naïve CD8 T cells activation augments FasL expression and FasL expression is independent of GrB.
ICAM-1 and B7 potentially plays a role in FasL expression when signals are week but **not** strong leading to different kinetics of expression

Clueless Student and Evenworse Supervisor

Department of Medical Microbiology and Immunology, University of Alberta

**RESULTS**

**Figure 1.** B7 co-stimulation augments and maintains GrB expression. Early FasL expression is induced by B7 in a dose dependent manner. However, late FasL expression is not maintained by mid and high B7 concentration.

**Figure 2.** B7 and ICAM co-stimulation induces FasL only expressing T cells early after activation (Day 3 & 5). After Day 5, FasL expression diminishes whereas granzyme B expression noticeably increases and is maintained until Day 11.

**Figure 3.** B7 co-stimulation augments and maintains GrB expression. Early FasL expression is induced by B7 in a dose dependent manner. However, late FasL expression is not maintained by mid and high B7 concentration.

**Figure 4.** ICAM co-stimulation augments and maintains FasL expression. Early FasL expression is induced by ICAM co-stimulation condition.

**Figure 5.** ICAM co-stimulation augments and maintains FasL expression. Early FasL expression is induced by ICAM co-stimulation condition.

**Figure 6.** B7 and ICAM co-stimulation induces FasL only expressing T cells early after activation (Day 3 & 5). After Day 5, FasL expression diminishes whereas granzyme B expression noticeably increases and is maintained until Day 11.

**Figure 7.** Mean level B7 & ICAM co-stimulation induces a time-dependent expression of early FasL, only expressing, intermediate FasL/GrB double expressing and late GrB only expressing T cell.

**CONCLUSIONS**

- Low concentrations of B7 has not effect on FasL expression when TCR concentration is low
- High B7 concentration can enhance FasL and Granzyme B concentration when anti-TCR is low
- ICAM-1 always enhances FasL expression at any concentration
- ICAM-1 enhances Granzyme B expression at any concentration
- I had difficulty in measuring surface de novo Fas expression
- B7 and ICAM-1 augment FasL and Granzyme B expression in activated naive CD8 T cells
- FasL is expressed early after stimulation and then reduced
- Granzyme B is expressed after FasL expression and is maintained

**ACKNOWLEDGEMENTS**

Ostergaard Lab Members & Kane Lab Members
Presentation of the Poster

- Think about what you want to say ahead of time
  - Don’t be overly rehearsed since that makes it appear as though you don’t really understand your material and you are just memorizing it
- Clearly identify the single important question being addressed
- Provide a strong rationale for the question
  - Why should the reviewer care?
- Have no more than three conclusions – but make your single take home message obvious to the reviewer
Presentation of the Poster

• Need to be responsive to your reviewer when presenting your poster
  • Posters are meant to facilitate discussion

• Be knowledgeable on ALL material presented on the poster
  • If you included it on your poster, you need to be able to discuss it, even if you didn’t do the work

• Be enthusiastic!
Presentation of the Poster

• Be clear, focused and concise
• Don’t assume that your audience is an expert in your area
• Honor time or space limits
• Make it interesting
• Have fun!
Conclusion

• Have a single take home message for your poster