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Courses » Interactomics Announcements **Course** Ask a Question Progress Mentor FAQ

Unit 7 - Week 6

Course outline

How to access the portal ?

Week 1

Week 2

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Week 6

Lecture 27 - Cell-free synthesis based protein microarrays: PISA and NAPPA

Lecture 28 - Cell-free synthesis based protein microarrays: MIST, DAPA and Halotag Arrays

Lecture 29 - Digging deeper into NAPPA: Basic Workflow

Lecture 30 - Digging deeper into NAPPA: Surface

Week 6 Assignment 6

The due date for submitting this assignment has passed.

As per our records you have not submitted this assignment. **Due on 2018-10-10, 23:59 IST.**

1) Condition 1. Aakash wants to screen autoantibody against 20 pure target proteins to study **1 point** the variations in clinical samples from Chikangunya patients, which he is unable to purify due to various limitations. However, his collaborators have access to cDNA library. Based on this context answer the following questions 1 to 5.

Which approach should Aakash take to accomplish the objective where he could circumvent the protein purification procedure?

- DAPA
- NAPPA
- Both of the above can be used
- None of the above can be used

No, the answer is incorrect.

Score: 0

Accepted Answers:

Both of the above can be used

2) Aakash used a NAPPA slide. He wanted to make sure that cDNA are translated & **1 point** transcribed on the spotted NAPPA slide. What could be done to make sure that proteins is expressed on the slide?

- He can use Anti-GST antibody for GST tags
- He can use Patient serum
- He can use Anti-human antibody
- None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

He can use Anti-GST antibody for GST tags

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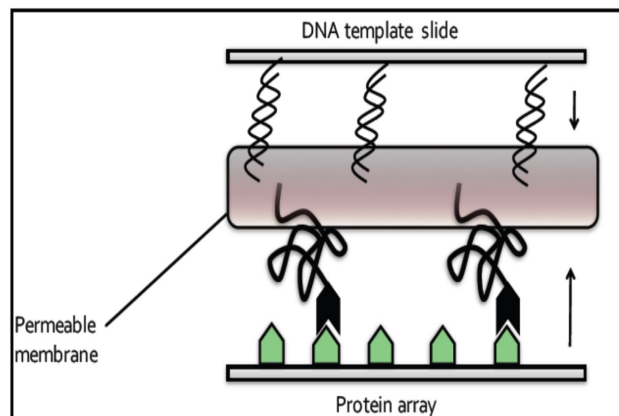
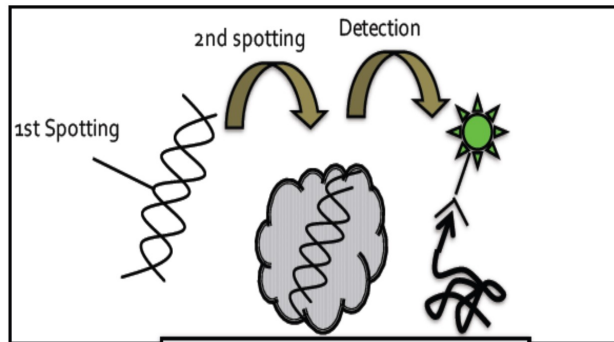
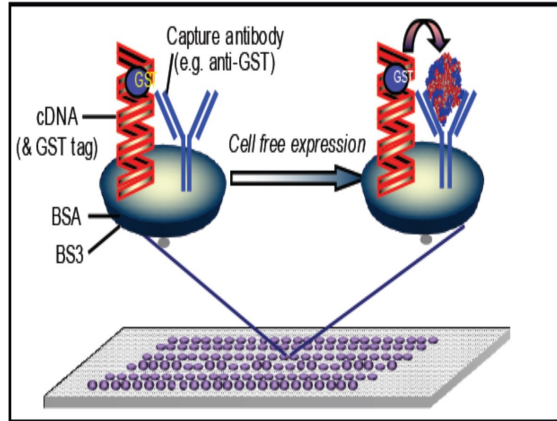
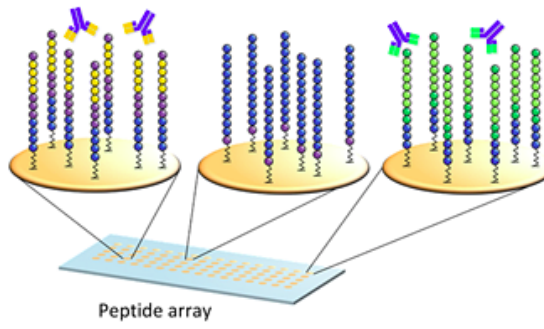
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protein microarrays in biomarker discovery

- Weekly Feedback Form
- Download Videos
- Quiz : Week 6 Assignment 6
- Week 6 Assignment 6 solutions

Week 7

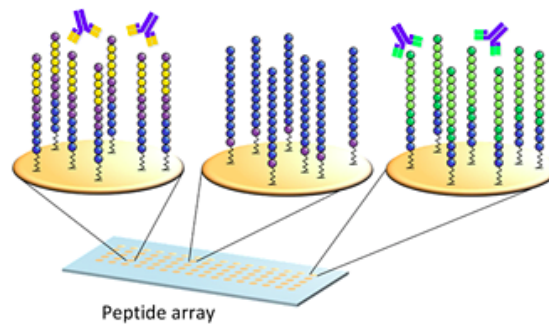
Week 8



No, the answer is incorrect.

Score: 0

Accepted Answers:



4) In cell-free expression based microarrays (NAPPA), Aakash added cDNA, BSA, BS3 Linker, Anti-horse antibody and IVTT (In vitro Transcription and Translation) cocktail were spotted on the chip and was allowed to Transcribe and Translate. The chip was processed using Anti-GST to detect proteins containing GST tags but no protein was observed. What could be the possible reason for this result? **1 point**

- Proteins were not transcribed
- Proteins were not translated
- Transcribed and Translated proteins were not captured on slide by Anti-horse antibody
- All of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

Transcribed and Translated proteins were not captured on slide by Anti-horse antibody

5) Aakash performed microarray but got high background after treating the slide with Chikangunya patient serum. What could be the possible reason for the high background noise? **1 point**

- Insufficient or improper washing of the slide
- Low dilution of the serum
- Both of the above
- None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

Both of the above

6) DAPA is one of the advanced microarray system having peculiar features because of which of the following? **1 point**

- It includes semi-permeable membrane which filters out unwanted proteins
- It includes Ni-NTA coating on the receiving slide
- It includes reusable cDNA template slide
- Both b) and c)

No, the answer is incorrect.

Score: 0

Accepted Answers:

Both b) and c)

7) Microarray for disease in Leopard is being studied. Which of the following lysates would be the best fit as IVTT for NAPPA-microarray based experiment? **1 point**

- E. coli extract
- Rabbit reticulocyte lysate
- Wheat Germ extract
- Any of these can be used irrespective of the organism

No, the answer is incorrect.

Score: 0

Accepted Answers:

Rabbit reticulocyte lysate

8) Prerna want to synthesis a bacterial epitope to check the action of ScFv (Single chain variable-fragment) for her studies. Can she use E. coli extract as IVTT? **1 point**

- True
- False

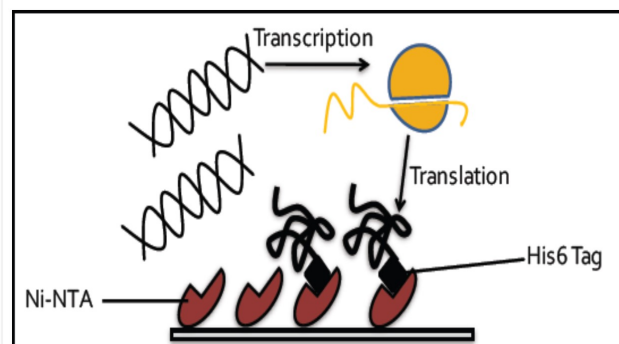
No, the answer is incorrect.

Score: 0

Accepted Answers:

True

9) Asha performed microarray using one of the cell free synthesis system with the workflow shown below. Which of the following represents the microarray system correctly? **1 point**



- Nucleic Acid Programmable Protein Array (NAPPA)
- DNA Array to Protein Array (DAPA)
- Protein In Situ Arrays (PISA)
- Multiple In situ Spotting Technique (MIST)

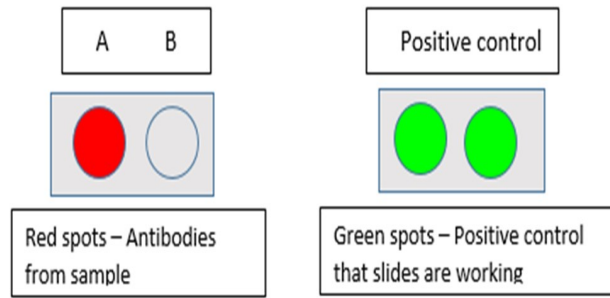
No, the answer is incorrect.

Score: 0

Accepted Answers:

Protein In Situ Arrays (PISA)

10) Suma performed Microarray and found following results, but she don't know how to interpret the data. Guide the student suggesting most suitable answer. **1 point**



- Antibodies against A protein are present in serum
- Antibodies against B protein, are present in serum
- Antibodies for B and A are same in serum
- All of these are correct

No, the answer is incorrect.

Score: 0

Accepted Answers:

Antibodies against A protein are present in serum

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