

OMB # 0925-XXXX

Expiration Date: XX/XXXX

*“SABV and Experimental Design” knowledge check*

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A Checklist to Enhance SABV in Study Design: page 23 of 48

Answer each question from the decision tree to determine how well you've done in considering SABV in your design. Decision Tree

**Study 1**

**Overview**  
The intent of this research is to study genome wide effects, with a focus on identifying the underlying genetic mechanisms by which muscle growth factor  $\delta$  (MGF $\delta$ ) contributes to cultured muscle cell proliferation. Myoblasts will be treated with MGF $\delta$  or vehicle control and subjected to mRNA microarray analysis.

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**Study 1** Study 1 of 4  
Read through the entire scenario (pages 1-3) before answering question.

**Question 1 of 1: Does the policy apply to this study?**

Yes

No

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Answer each question from the decision tree to determine how well you've done in considering SABV in your design. Decision Tree

**Study 2**

**Overview**  
Females show disproportionate alcohol-induced overall neural damage compared with males, according to prior research. Pilot tests suggested that EFG123, a novel compound that acts as an antagonist at the FG<sub>3</sub> receptor, attenuates the pharmacological and behavioral effects of alcohol. This study will examine alcohol-induced neural damage and decline in cellular growth in the dentate gyrus area of the hippocampus and impairment in spatial navigation.

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**Study 2** Study 2 of 4

Read through the entire scenario (pages 1-3) before answering question.

**Question 1 of 3: Does the study involve vertebrate animals or humans?**

Yes

No

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Answer each question from the decision tree to determine how well you've done in considering SABV in your design. Decision Tree

**Study 2**

**Overview**  
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**Study 2** Study 2 of 4

Read through the entire scenario (pages 1-3) before answering question.

**Question 2 of 3: Is this study intended to test for sex differences?**

Yes

No

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Answer each question from the decision tree to determine how well you've done in considering SABV in your design. Decision Tree

**Study 2**

**Overview**  
Females show disproportionate alcohol-induced overall neural damage compared with males, according to prior research. Pilot tests suggested that EFG123, a novel compound that acts as an antagonist at the FG<sub>2</sub> receptor, attenuates the pharmacological and behavioral effects of alcohol. This study will examine alcohol-induced neural damage and decline in cellular growth in the dentate gyrus area of the hippocampus and impairment in spatial navigation.

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**Study 2** Study 2 of 4

Read through the entire scenario (pages 1-3) before answering question.

**Question 3 of 3: Is the design adequately rigorous to test for sex differences?**

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Answer each question from the decision tree to determine how well you've done in considering SABV in your design. Decision Tree

**Study 3**

**Overview**  
The study's aim is to determine whether an immune cell with a particular type of marker (Ac-Z cells), which previous research found to increase with aging (older than age 60) and to have proinflammatory characteristics, is more prevalent among patients with muscular degenerative disease X (MDX).

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**Study 3** Study 3 of 4

Read through the entire scenario (pages 1-3) before answering question.

**Question 1 of 4: Does the study involve vertebrate animals or humans?**

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Answer each question from the decision tree to determine how well you've done in considering SABV in your design. [Decision Tree](#)

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**Study 3** Study 3 of 4

Read through the entire scenario (pages 1-3) before answering question.

Question 2 of 4: Is this study intended to test for sex differences?

Yes

No

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Answer each question from the decision tree to determine how well you've done in considering SABV in your design. [Decision Tree](#)

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**Study 3** Study 3 of 4

Read through the entire scenario (pages 1-3) before answering question.

Question 3 of 4: Are both sexes included in the study?


Yes

No


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Answer each question from the decision tree to determine how well you've done in considering SABV in your design. [Decision Tree](#) 

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The study's aim is to determine whether an immune cell with a particular type of marker (Ac- Z cells), which previous research found to increase with aging (older than age 60) and to have proinflammatory characteristics, is more prevalent among patients with muscular degenerative disease X (MDX).

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**Study 3** Study 3 of 4

Read through the entire scenario (pages 1-3) before answering question.

Question 4 of 4: Does the proposal demonstrate plans to report data disaggregated by sex?


Yes

No


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Answer each question from the decision tree to determine how well you've done in considering SABV in your design. [Decision Tree](#) 

**Study 4**

**Overview**  
The study will test four doses of new compound, QRS321, for its ability to induce analgesia by stimulating XY<sub>2</sub> receptors in the spinal cord and pain perception areas of the male mice brain. Tolerance to QRS321 will also be examined.

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**Study 4** Study 4 of 4

Read through the entire scenario (pages 1-3) before answering question.

Question 1 of 4: Does the study involve vertebrate animals or humans?

Yes

No

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Answer each question from the decision tree to determine how well you've done in considering SABV in your design. [Decision Tree](#)

**Study 4**

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**Study 4** Study 4 of 4

Read through the entire scenario (pages 1-3) before answering question.

Question 2 of 4: Is this study intended to test for sex differences?

Yes

No

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Answer each question from the decision tree to determine how well you've done in considering SABV in your design. [Decision Tree](#)

**Study 4**

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The study will test four doses of new compound, QRS321, for its ability to induce analgesia by stimulating XY<sub>2</sub> receptors in the spinal cord and pain perception areas of the male mice brain. Tolerance to QRS321 will also be examined.

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**Study 4** Study 4 of 4

Read through the entire scenario (pages 1-3) before answering question.

Question 3 of 4: Are both sexes included in the study?

Yes

No

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Answer each question from the decision tree to determine how well you've done in considering SABV in your design.

Decision Tree

### Study 4

#### Overview

The study will test four doses of new compound, QRS321, for its ability to induce analgesia by stimulating  $XY_2$  receptors in the spinal cord and pain perception areas of the male mice brain. Tolerance to QRS321 will also be examined.



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### Study 4

Study 4 of 4

Read through the entire scenario (pages 1-3) before answering question.

Question 4 of 4: Is strong justification provided for a single-sex study?

Yes

No



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What is the truth? For each of the statements presented, indicate whether you think it is true or false.



### What's the truth?

Question 1 of 3

Use of both sexes reduces statistical power and slows progress in rodent research studies.

True

False



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Indicate whether you think each statement is true or false.



What's the truth?

Question 2 of 3

The estrous cycle renders female rodents intrinsically more variable than male rodents.

True

False



Indicate whether you think each statement is true or false.



What's the truth?

Question 3 of 3

The NIH SABV Policy requires all applicants in biomedical research to study sex differences in their research designs.

True

False







You've completed the module. Now it's time to test your knowledge.  
Select the correct answer, then select Submit.

Is it appropriate to use males exclusively in your study to replicate prior peer-reviewed research in which only male animals were used?

- Yes
- No


Submit ▶




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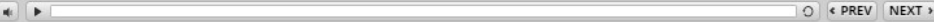
Select the correct answer, then select Submit.

To which does the SABV policy apply?


- Immortalized cell lines
- Drosophila
- Caenorhabditis elegans
- All of the above
- None of the above


Submit 

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SABV Module 2 Review - Question 3 of 6: page 47 of 48 


Select the correct answer, then select Submit.

Which response is best when considering SABV in experimental design?

- Incorporate both males and females in the design.
- Review available literature for the influence of sex.
- Consider the influence of sex when formulating research questions.
- Account for the influence of sex in study design.
- All of the above

Submit 

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Select the correct answer, then select Submit.

In what case(s) should you collect data in a way that will allow for later tabulation and stratification by sex?

- If the study is intended to test for sex differences.
- If the study is not intended to test for sex differences but includes both sexes.
- Both of the above.

Submit 