



From Playing in the Backyard to Designing One

Shiny transforms study designs, data analyses and statistical thinking of oncology in vivo group at Janssen

Volha Tryputsen


Quantitative Sciences

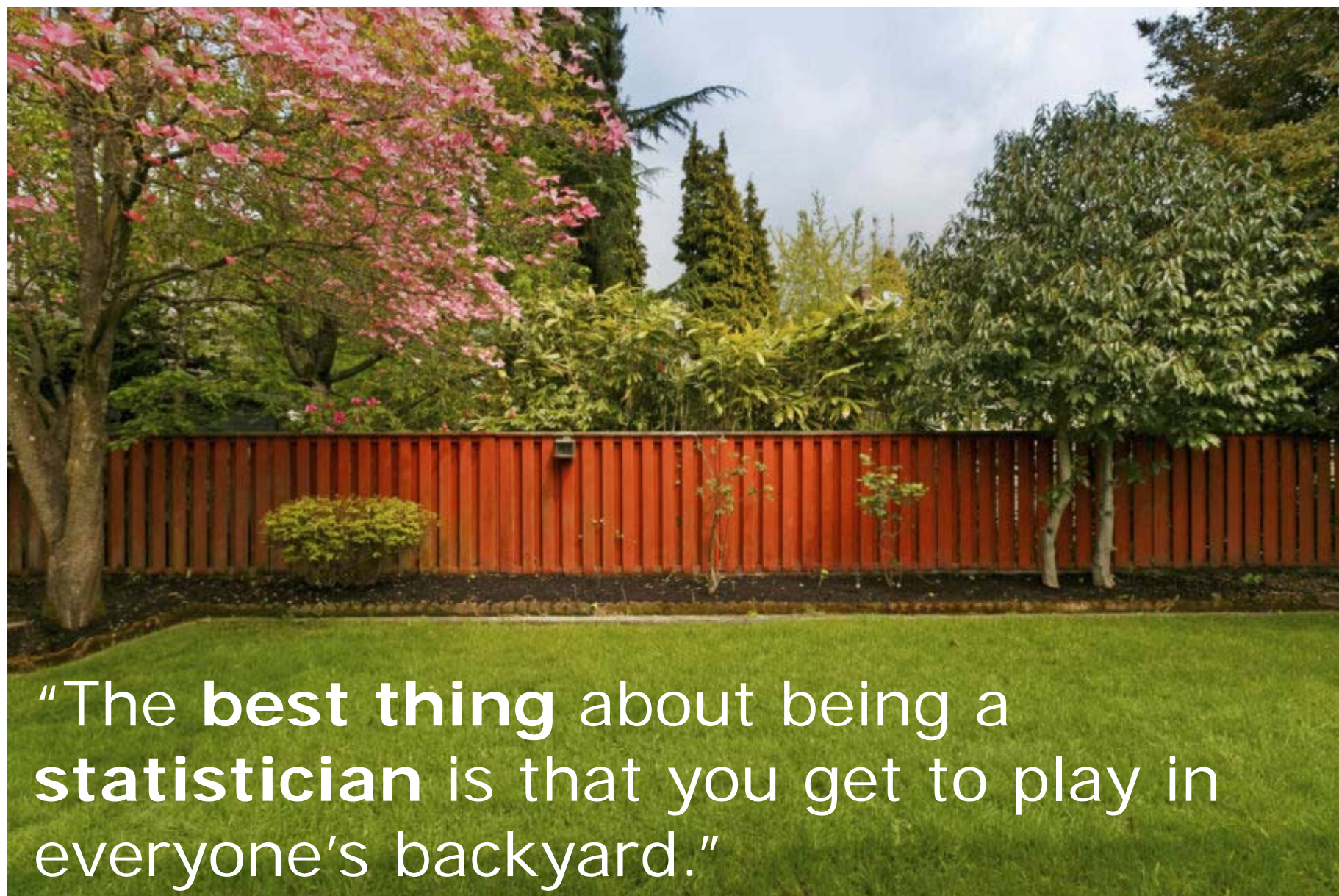
Janssen R&D, Pharmaceutical Companies of **Johnson & Johnson**

Dorethey Gorham, *Day of the Armada* Dorethey is a joyful, self-taught artist living with arthritis, general anxiety syndrome, and diabetes.

R/Pharma | Cambridge, MA | August 23, 2019



 @volha_tryputsen



"The **best thing** about being a **statistician** is that you get to play in everyone's backyard."



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“The **best thing** about being a
statistician is that you get to play in
everyone’s backyard”....
and sometimes get to design one

Playing in a backyard

Volha Tryputsen | R/Pharma | Cambridge, MA | August 23, 2019

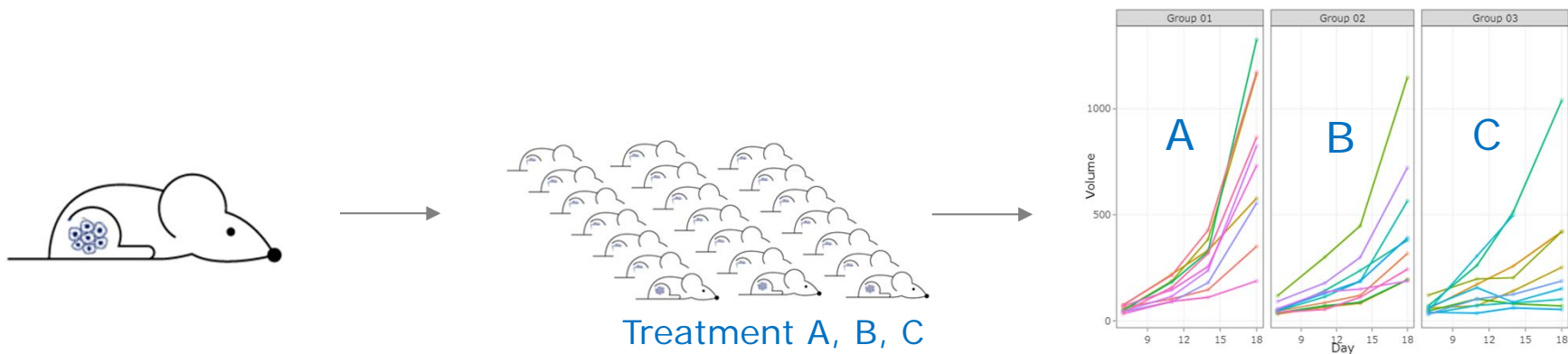




In vivo oncology team

Study objective:

Treatment effect on tumor volume













Designing a backyard

Possible pitfalls

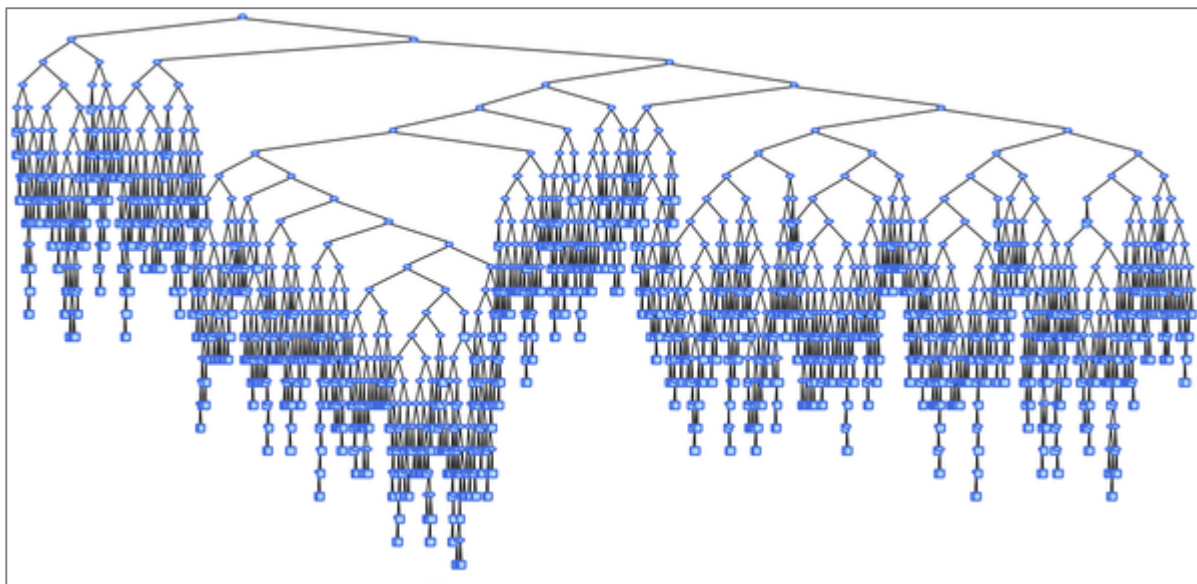
- Complexity of longitudinal data analysis
- Biologists making stat decisions
- Improper use
-

Preventing pitfalls

- Consider decision trees

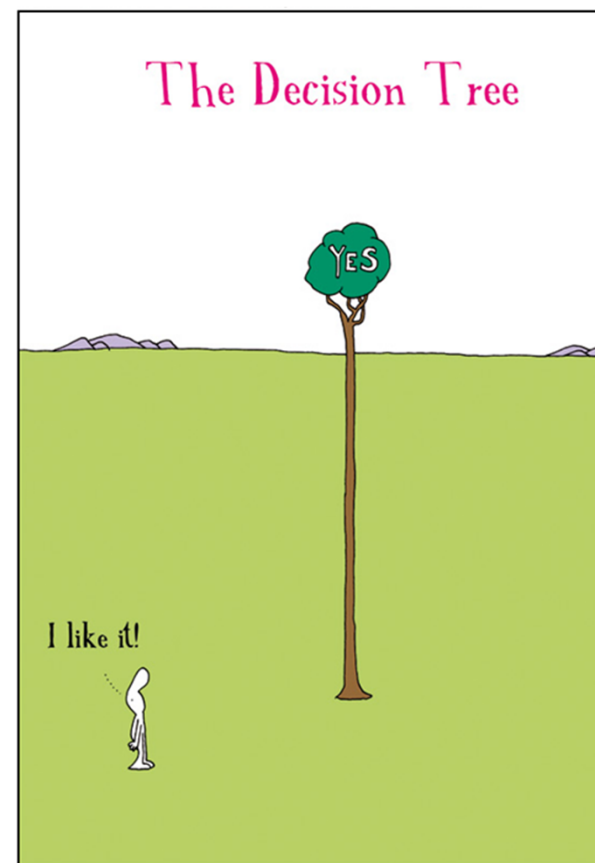
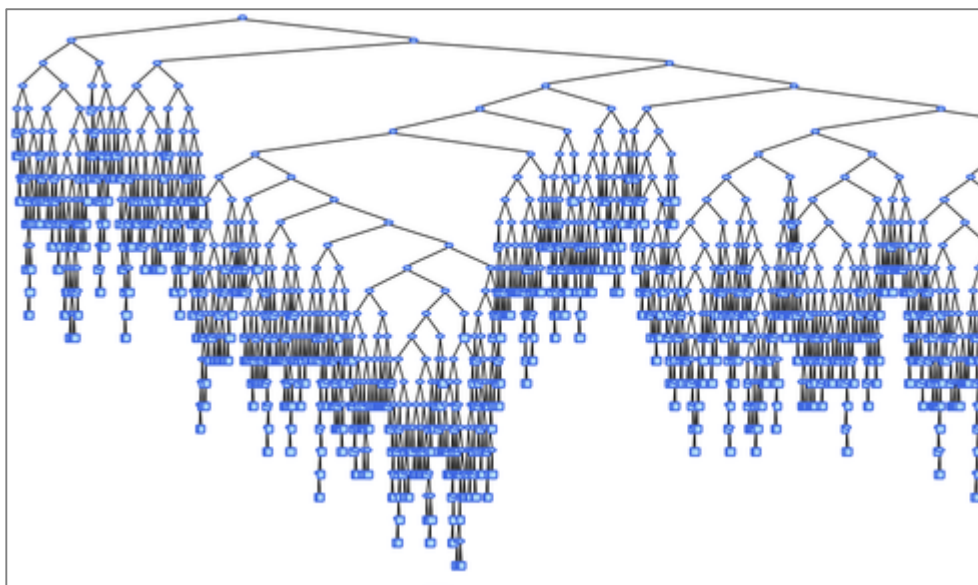
Preventing pitfalls

- Consider decision trees



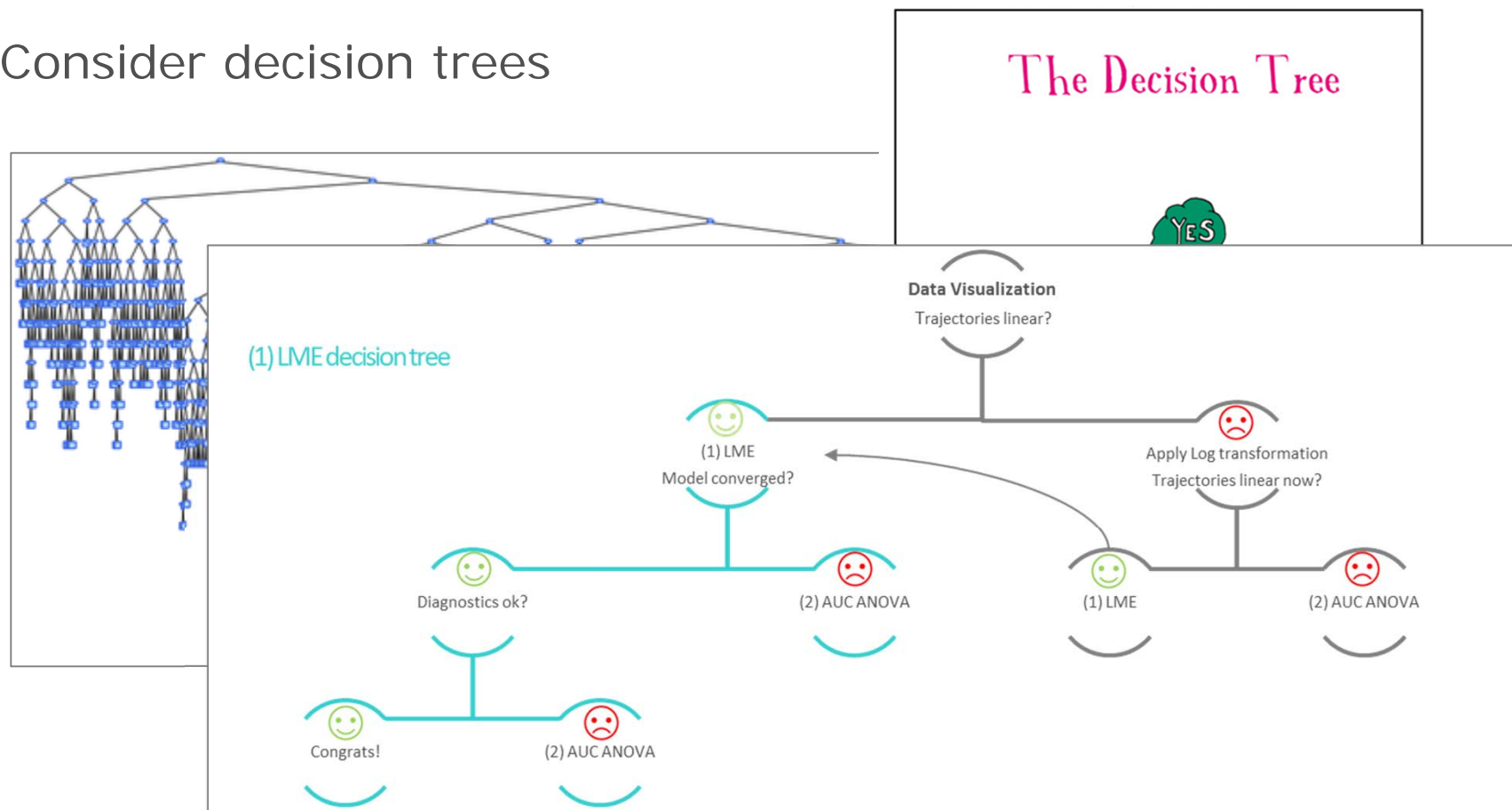
Preventing pitfalls

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Preventing pitfalls

- Consider decision trees

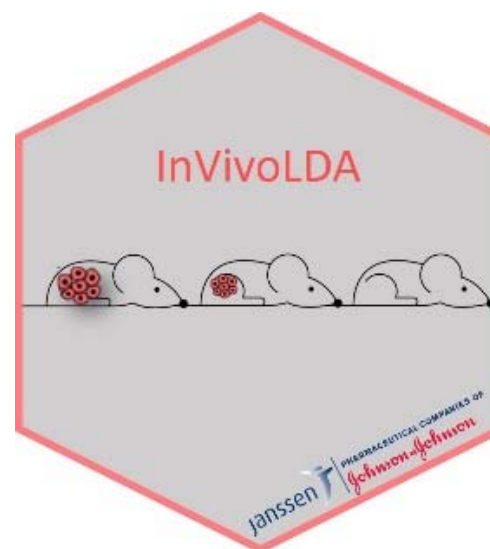


Preventing pitfalls

- Consider decision trees
- Provide training

Preventing pitfalls

- Consider decision trees
- Provide training
- Make a hex sticker



Benefits of redesigning a backyard?





Automation, efficiency, reproducibility



One team



Build trust

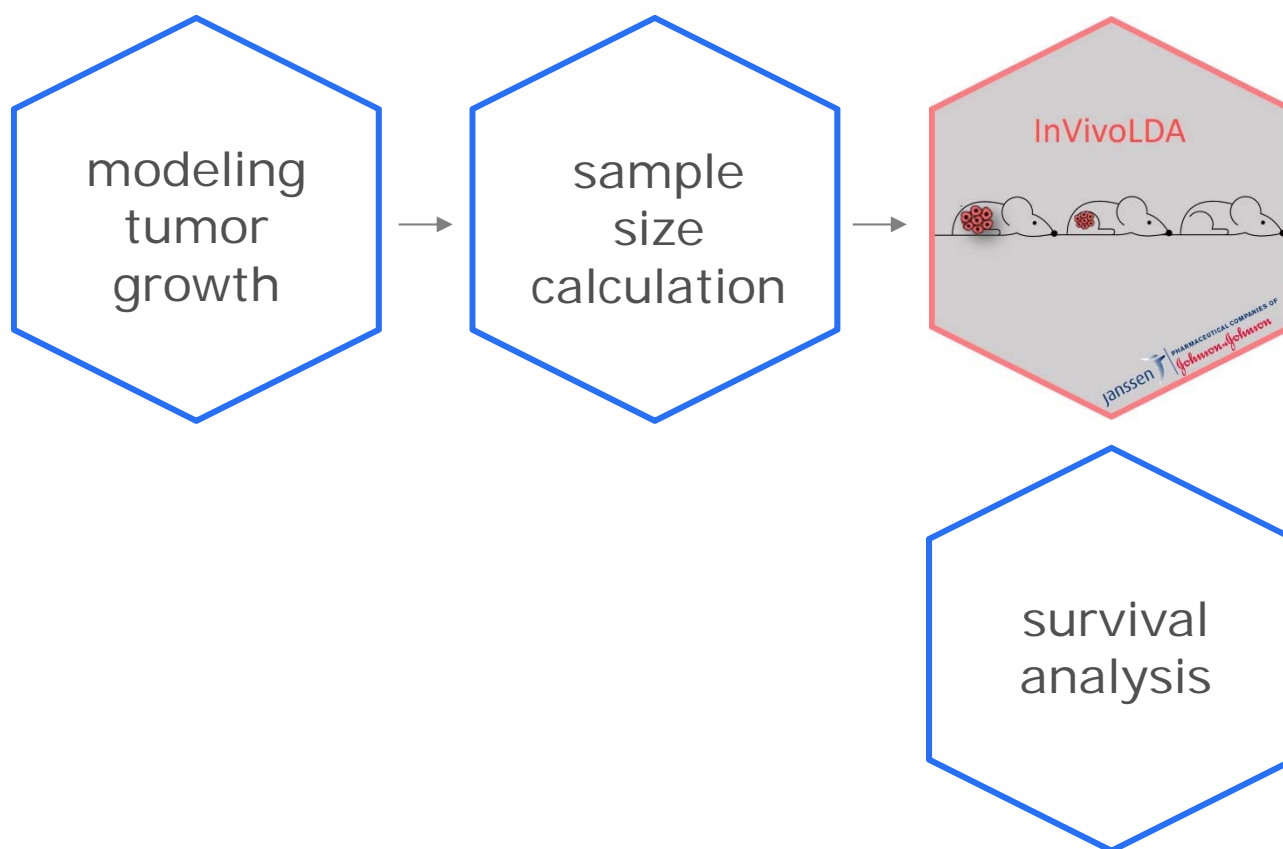


Statistical training



Peace of mind

Shiny apps framework to support oncology in vivo research at Janssen



THANK YOU!

- Kjell Johnson
- Stefan Avey
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- Paulo Bargo
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- Mariusz Lubomirski

