

**Low Dose  
Rapamycin for Long  
COVID: A rundown  
of our newest  
clinical trial**

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# Why Rapamycin?

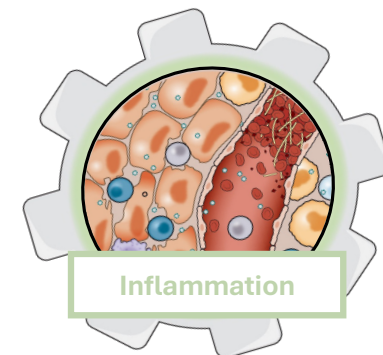
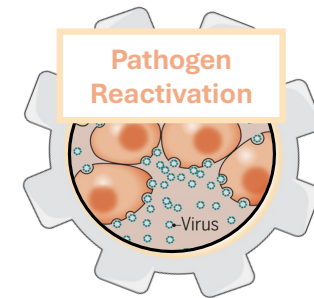
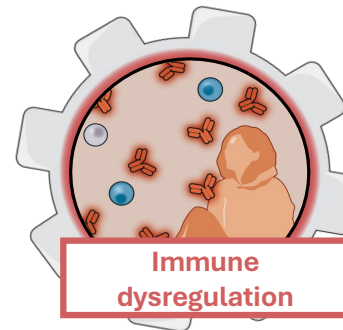


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# Why Rapamycin?

Over the past few years, we have seen that Long COVID can cause:

- Latent Viral Reactivation (incl. EBV, HHVs 1-6, CMV, etc)
- Immune Dysregulation (T Cell exhaustion and B Cell dysregulation)
- Chronic inflammation (altered interferon expression)

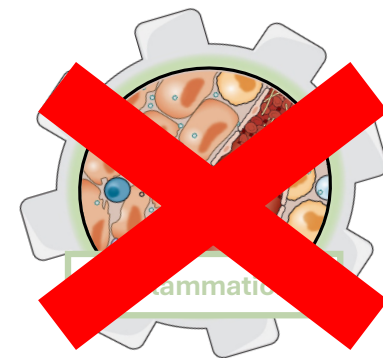
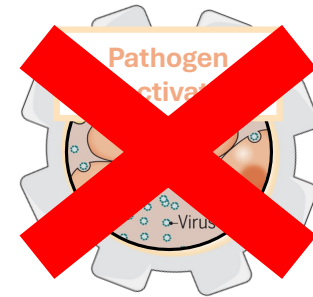
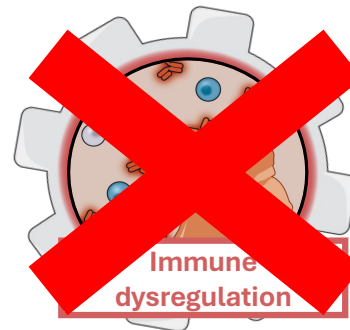


Klein et al. *Nature* (2023)

# Why Rapamycin may be able to help

In other populations, low-dose Rapamycin has:

- Significantly reduced the number of infections experienced by older adults for a year (Mannick et al., 2018)
- Reverses immunosenescence and enhances T Cell functioning (Mannick et al., 2014)
- Stabilizes inflammatory cytokine secretion (Santos-Barros et al., 2024)



**What will the trial look like?**

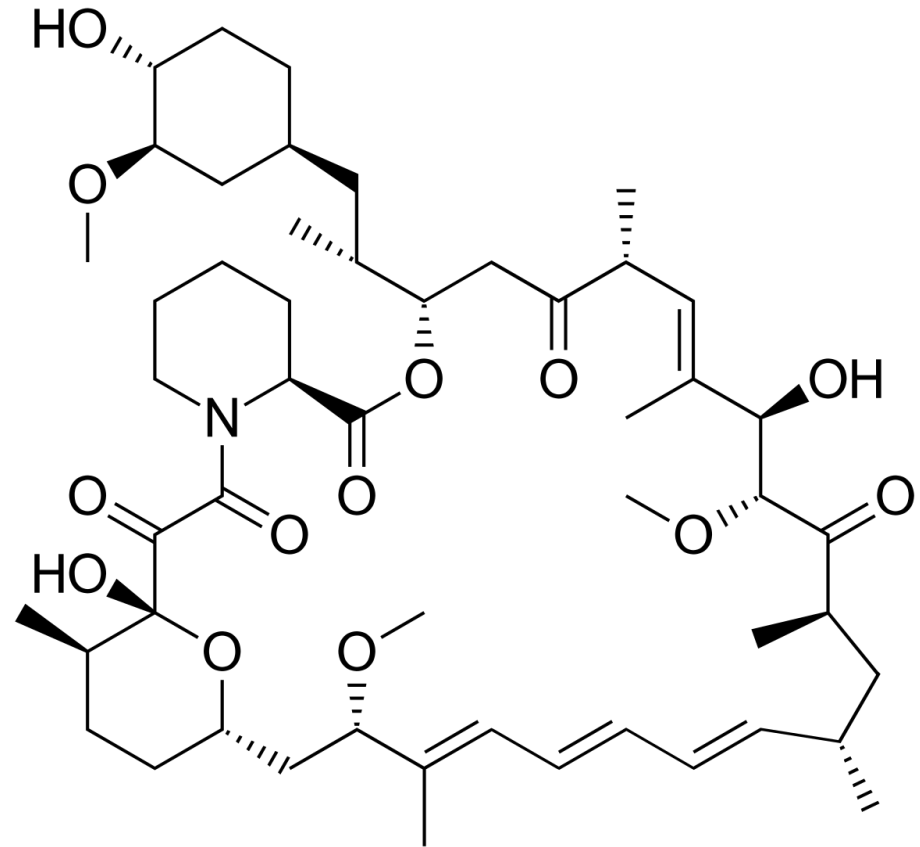


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## The Progress

- Recruitment has been open for 3 weeks
- 30 patients consented

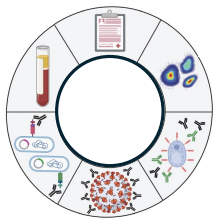


# Clinical Trial Strategy: Making the most of every participant

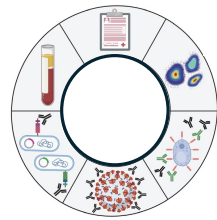


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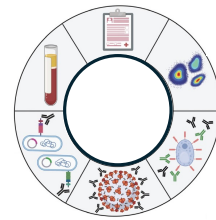
# Step 1: Rapid interventional trial utilizing deep phenotyping techniques



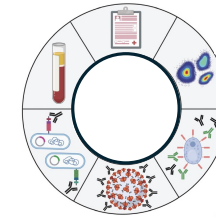
Baseline



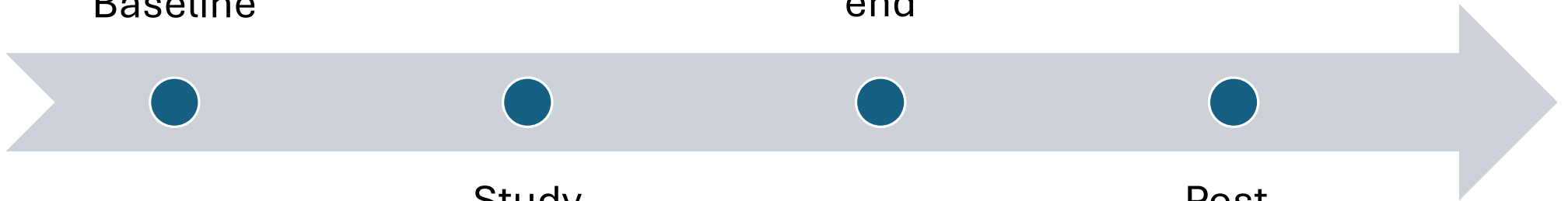
Study  
midpoint



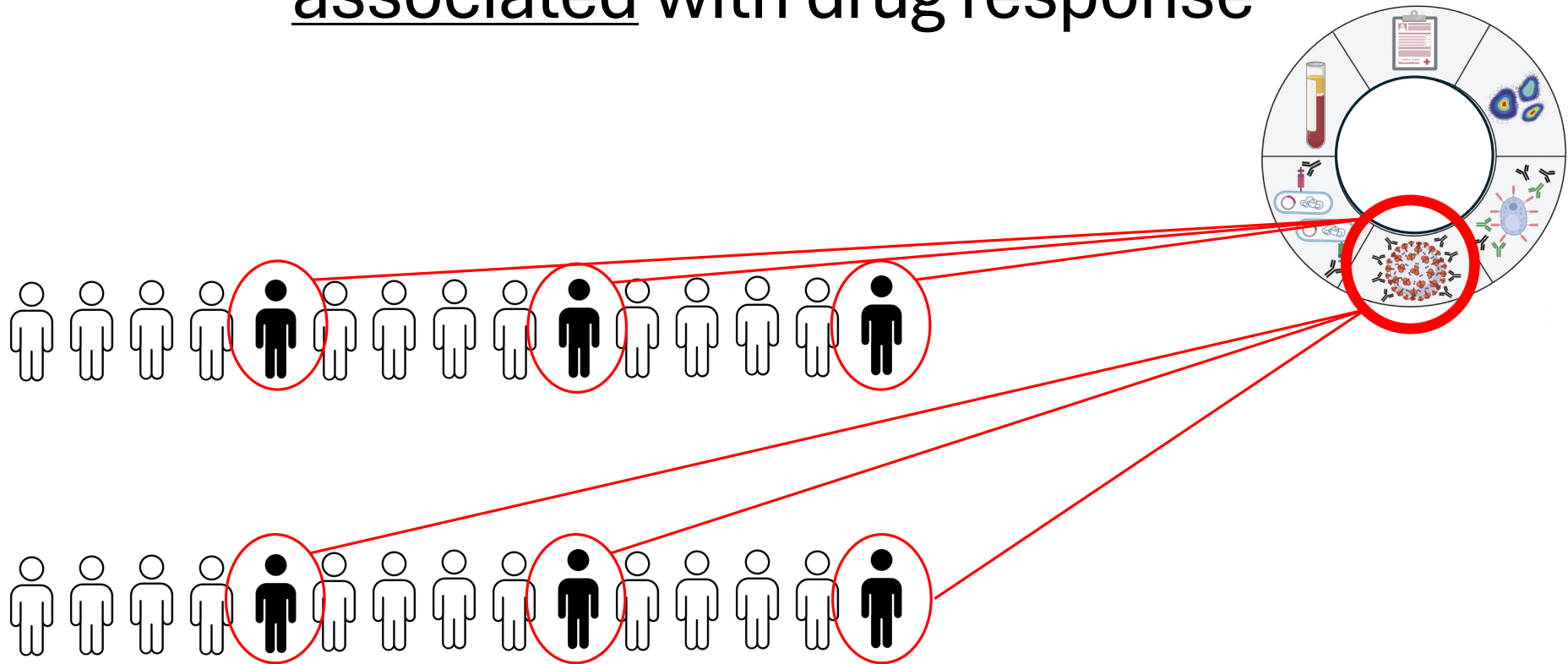
Intervention  
end



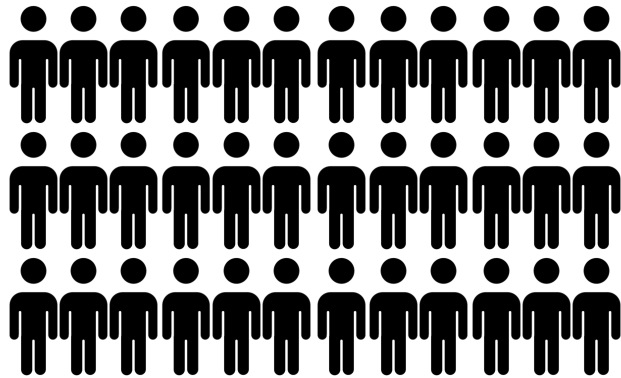
Post-  
interventional  
follow-up



## Step 2: Identify responders and biomarkers associated with drug response

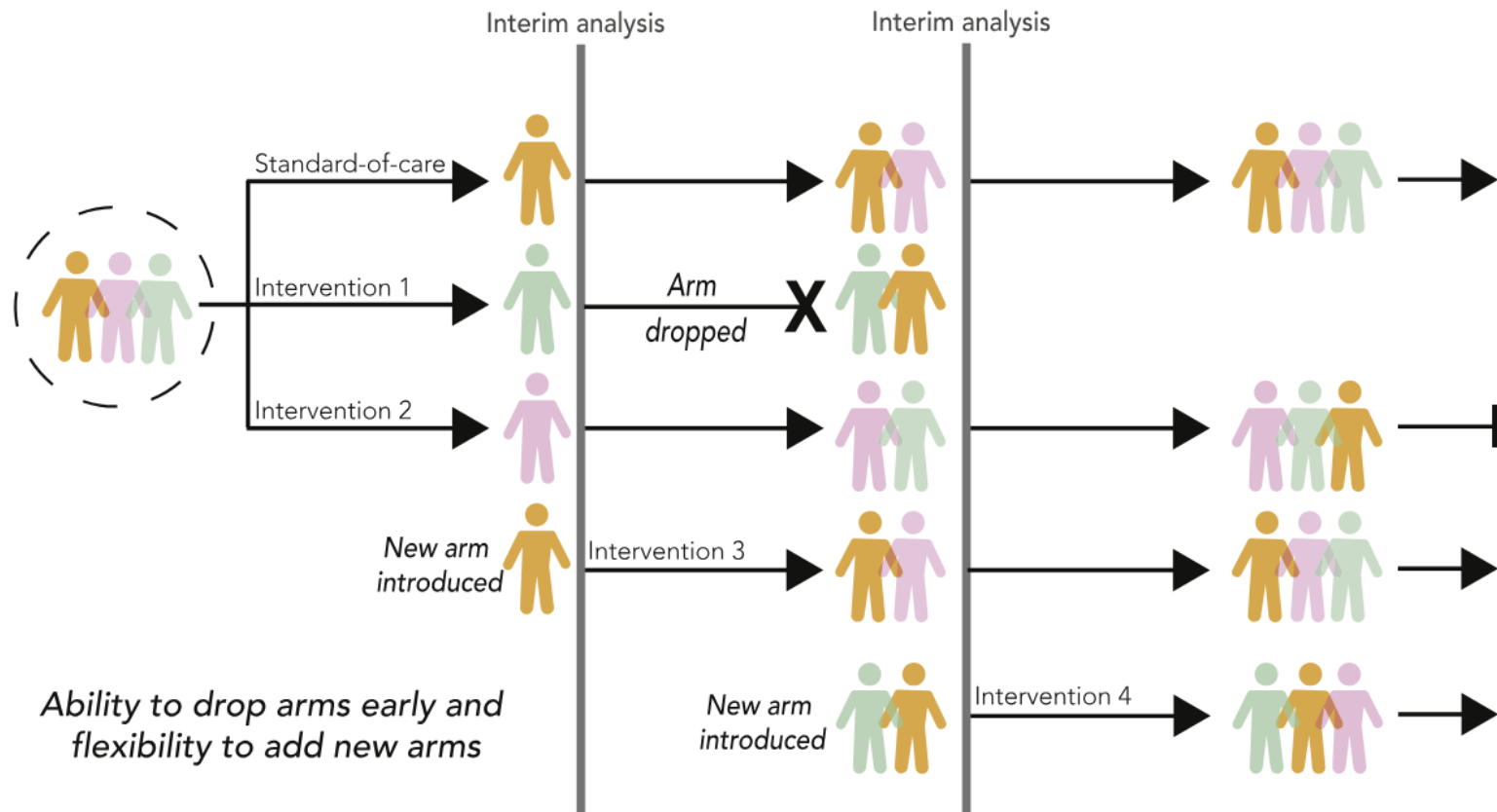


## Step 3: Complete a larger trial using identified biomarkers in Step 2 as inclusion criteria



- Larger-scale placebo-controlled RCTs of monotherapies
- Validation of biomarkers used for inclusion criteria
- Further evaluation of efficacy

# Step 4: Adaptive platform trials of combination interventions



# Acknowledgements

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STEVEN & ALEXANDRA  
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