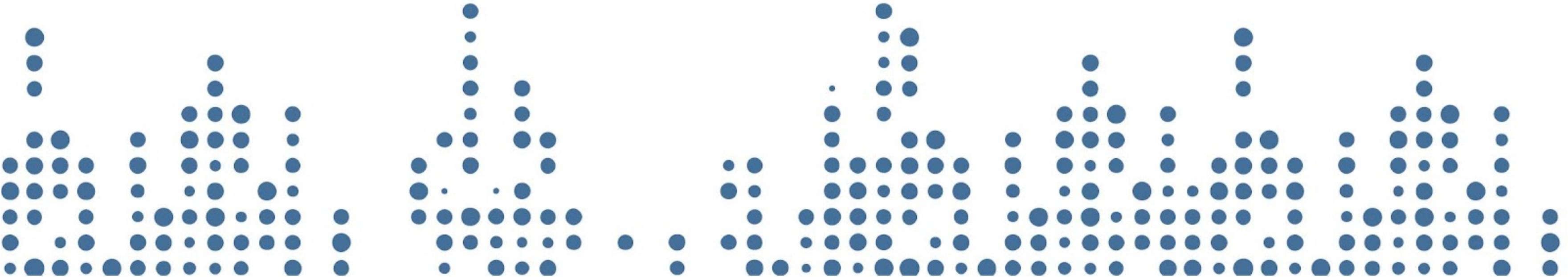




# Becoming an Integrated Part of the Open-Source Pharma Community

Phil Bowsher | 2023 Nov 02



# Hello!



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 youtube.com/rinpharma

 opensourceinpharma.com

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## How does my pharma get involved in Open Source Drug Development?

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# ⭐ Pan-Pharma Cross-Collaboration ⚡

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 “We compete on the molecules, not the software” - Thomas Neitmann 

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# Why join?

Learning what other pharmas are doing

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# Return on Investment (ROI)

- Partnerships and collaborations with external partners
- Streamlined Workflows
- Talent out of university more likely to know open-source programming languages
- Latest developments more rapidly
- Switch between languages and contexts more easily
- Time savings in creating standard TLGs
- Time savings in creating customized TLGs
- Access to free solutions to support creating a clinical submission

# OS in Pharma & R in Pharma!



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# R Validation Hub!



 @pharmaR

 @doug-kelkhoff@linkedin.com

 @juliane-manitz@linkedin.com

 Implementing a Risk-Based Approach to R

 pharmar.org

# Regulatory R Package Repository!



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 Updates from the R Validation Hub: Towards a Pharma Repository

 [pharmaR.github.io/regulatory-r-repo-wg/](https://pharmaR.github.io/regulatory-r-repo-wg/)

# Openstatsware!



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 GOOD SOFTWARE ENGINEERING PRACTICE FOR R PACKAGES

 [community.amstat.org/biop/workinggroups/swe-wg](https://community.amstat.org/biop/workinggroups/swe-wg)

 [asa-biop-swe-wg](#)

# Pharmaverse!



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 pharmaverse.org

# Bioconductor!



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# Phuse Working Groups!



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 Working Groups

# R Submissions Working Group!



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Ning Leng & Hye Soo Cho. R pilot submissions to FDA

@submissions-wg

# R Tables for Regulatory Submissions Working Group

RConsortium/rtrs-wg

#9 **Rounding differences between R4.0+ and earlier...**

1 comment

rich-iannone opened on June 3, 2021



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 @alexandra-lauer@linkedin.com

 R Tables for Regulatory Submission Working Group s eBook

 R Tables Book

# CAMIS (Comparing Analysis Method Implementations in Software)



 @CAMIS

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 Comparing Analysis Method Implementations in Software (CAMIS)

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# Other Ideas for Joining the Open-Source Pharma Community!

- Designate an Open Source Champion(s) at your Pharma
- Give Employees **Time & Space** to Contribute to Open-Source Efforts
- Start a **Open Source Drug Development Competency Center**
- Host an Internal/External Open Source Drug Development Conference
- Start a Internal Slack/Teams Group for Open Source Drug Development
- Train & Help Employees Become Open-Source Literate

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Creating Code!

Sharing Code!

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# Thought About Sharing Code? 🤔

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# 🤝 End-to-End Open-source Collaboration Guidance 🤔

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# Creating & Sharing Code

- 📘 Dedicate Internal and/or Contractor FTE(s) Working on Fully Open-Sourced Code
- 💻 Create and Support a Public Github Organization with Packages & Code
- 🎉 Create, Support and Share Public Package(s)
- 🌐 Create, Support a Repository/Website of Examples/Articles/Case Studies
- 🎨 Teach a Public Workshop / Give a Talk or Write a Paper on Open-Source

# Thank you!



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