



Workshop on the update of the BMD guidance  
Brussels 15 - 16 February 2023

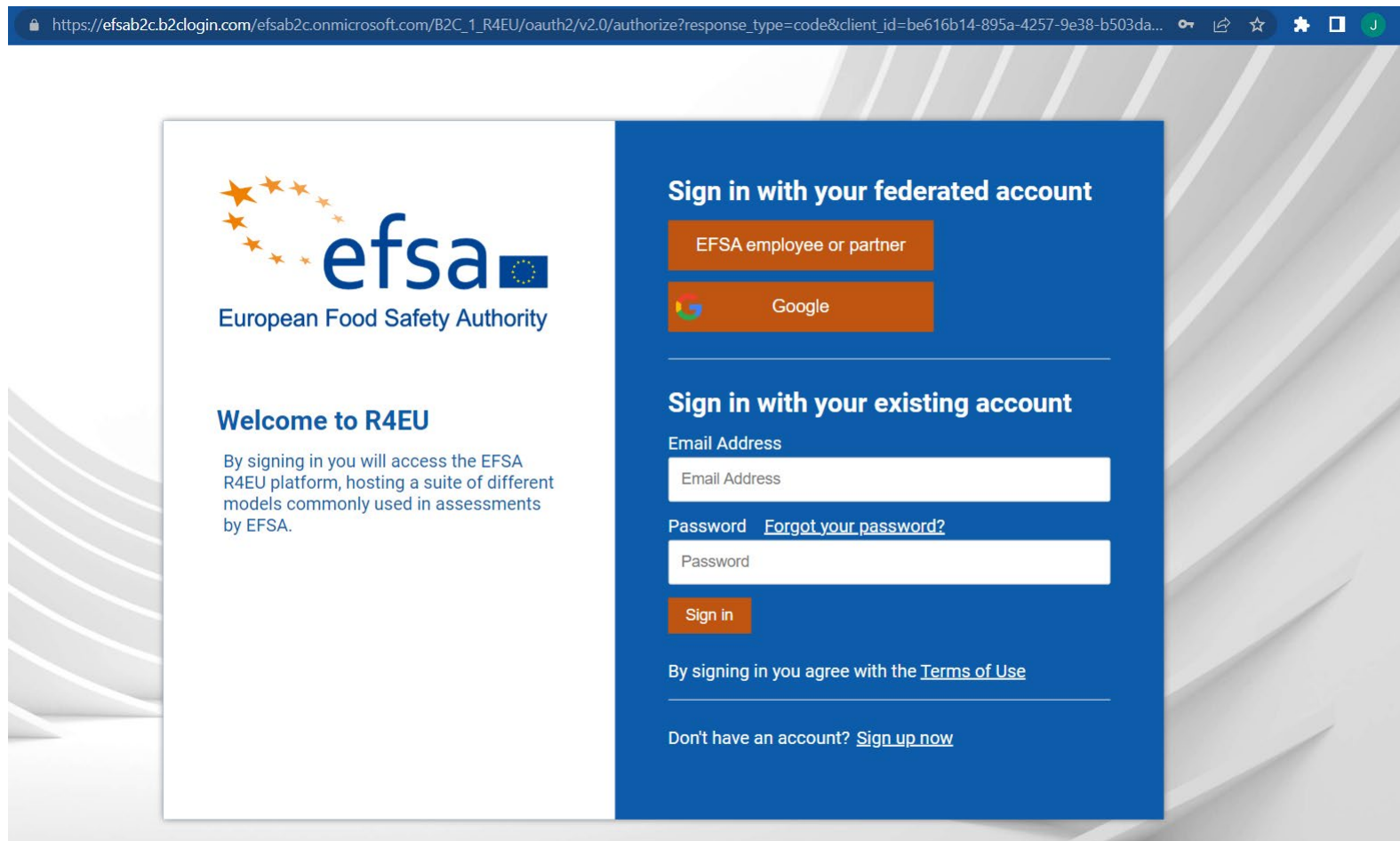


# EFSA'S BMD WEB APPLICATION

José Cortinas Abrahantes

# R4EU REPOSITORY OF EFSA'S WEB APPLICATION

- R4EU site: <https://r4eu.efsa.europa.eu/>



The screenshot shows a web browser window displaying the R4EU login page. The browser's address bar shows the URL: [https://efsab2c.b2clogin.com/efsab2c.onmicrosoft.com/B2C\\_1\\_R4EU/oauth2/v2.0/authorize?response\\_type=code&client\\_id=be616b14-895a-4257-9e38-b503da...](https://efsab2c.b2clogin.com/efsab2c.onmicrosoft.com/B2C_1_R4EU/oauth2/v2.0/authorize?response_type=code&client_id=be616b14-895a-4257-9e38-b503da...)


The page content is divided into two main sections:

- Left Section (White background):**
  - EFSA logo (European Food Safety Authority) with the text "Welcome to R4EU".
  - A paragraph: "By signing in you will access the EFSA R4EU platform, hosting a suite of different models commonly used in assessments by EFSA."
- Right Section (Blue background):**
  - Sign in with your federated account**
    - Buttons for "EFSA employee or partner" and "Google".
  - Sign in with your existing account**
    - Form fields for "Email Address" and "Password".
    - A "Forgot your password?" link.
    - A "Sign in" button.
    - A note: "By signing in you agree with the [Terms of Use](#)".
    - A link: "Don't have an account? [Sign up now](#)".



# REGISTRATION IN R4EU

https://efsab2c.b2clogin.com/efsab2c.onmicrosoft.com/B2C\_1\_R4EU/api/CombinedSignInAndSignup/unified?local=signup&csrf\_token=TW41WUVTV0twelZEdG...



European Food Safety Authority

### Welcome to R4EU

By signing in you will access the EFSA R4EU platform, hosting a suite of different models commonly used in assessments by EFSA.

Please provide the following details.

Email Address

New Password

Confirm New Password

Given Name

Surname

Country/Region

[Terms of use](#)  
 I agree to the terms and conditions



# R4EU REPOSITORY SITE

The screenshot displays the R4EU Repository Site interface. The browser address bar shows the URL <https://r4eu.efsa.europa.eu>. The page title is "EFSA statistical models" and the user is logged in as "Jose.CORTINASABRAHANTES@efsa.europa.eu" with a "Sign Out" button.

The main content area features six tool cards arranged in a 2x3 grid:

- bmd**: benchmark dose modeling. Icon: A circular gauge with a needle pointing to 320, divided into LOW, HIGH, and MDR regions.
- Bayesian BMD**: Bayesian benchmark dose modeling. Icon: A circular gauge with a needle pointing to 320, divided into LOW, HIGH, and MDR regions.
- MDR**: multi-drug resistance analysis. Icon: A bar chart with an upward-trending arrow.
- spatial**: exploratory analysis for spatio-temporal epidemiology. Icon: A square grid pattern.
- mss-to-excel**: transform MSS files into Excel files. Icon: A document icon with XML and XLS labels.
- Expert Knowledge Elicitation**: Icon: The EFSA logo (European Food Safety Authority).



# R4EU: BAYESIAN BMD WEB APP

Download report

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UHASSELT

Bayesian

v 0.0.0.9056 - [Manual](#) - [Report new issue](#)

DOI [10.5281/zenodo.7334435](https://doi.org/10.5281/zenodo.7334435)

Benchmark Dose Modelling

Data Fit Models Advanced Plotting

**i** Control data loading

Browse... No file selected

Subset of Data According to

Which response(s) do you want to consider?

Type of Response

continuous summary

No data loaded

<https://r4eu.efsa.europa.eu/app/bmdbayesian>



# R4EU BAYESIAN BMD: ILLUSTRATIVE EXAMPLE

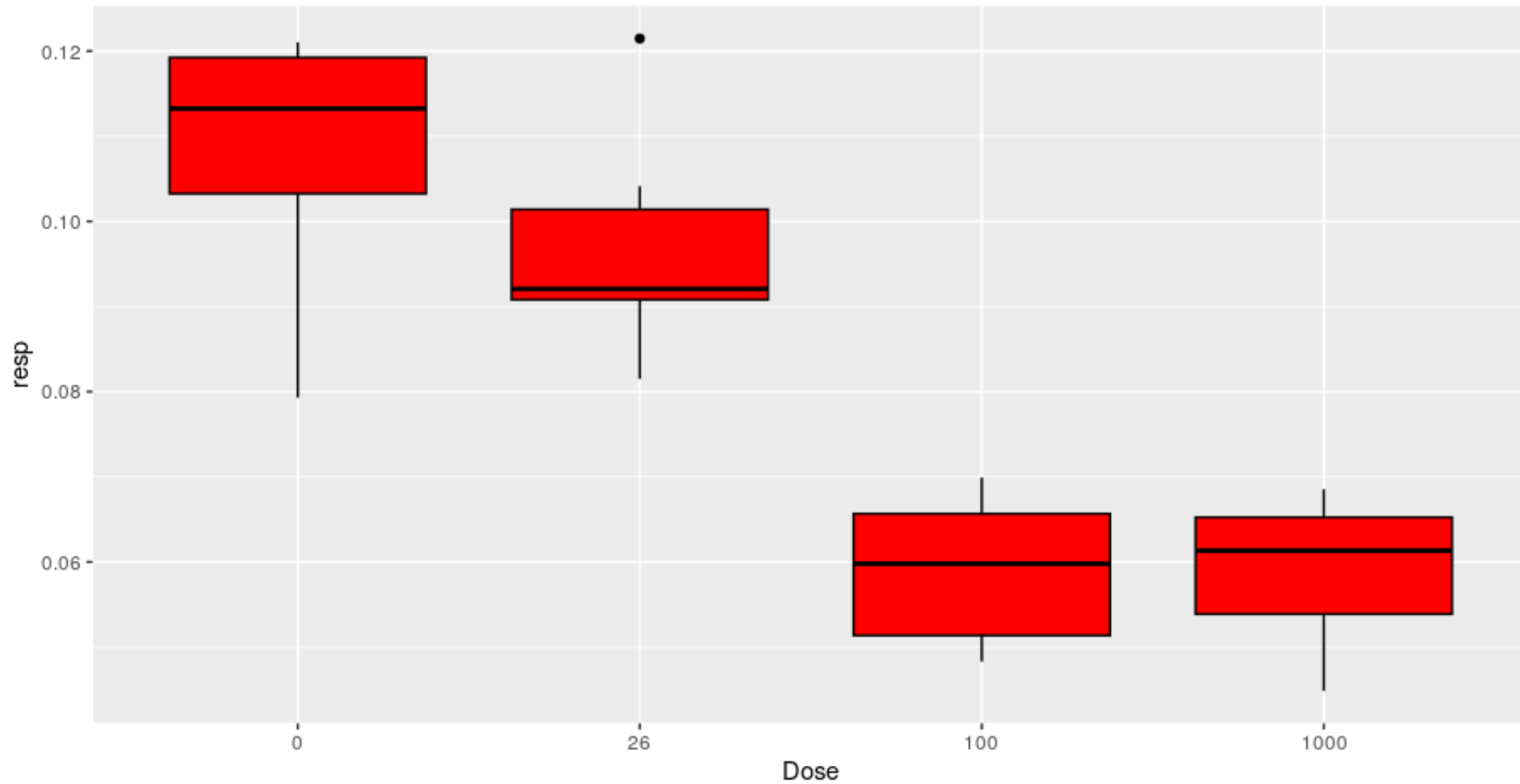
## 28-day oral toxicity study in Han Wistar rats

- **Dosing scheme:** 0, 26, 100 and 1000 mg/kg body weight per day
- **Number of animals** per dose: 6
- **Endpoint** used: **female ovary weight**

Dose	Female ovary weight		
	Mean	Standard deviation	N
0	0.108	0.016	6
26	0.097	0.014	6
100	0.059	0.009	6
1000	0.059	0.009	6



# R4EU BAYESIAN BMD: ILLUSTRATIVE EXAMPLE







# R4EU BAYESIAN BMD: ILLUSTRATIVE EXAMPLE

<https://r4eu.efsa.europa.eu/app/bmdbayesian>

EFSA statistical models Jose.CORTINASABRAHANTES@efsa.europa.eu [Restart app](#) [Stop app](#) [Sign Out](#)

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DOI [10.5281/zenodo.7334435](https://doi.org/10.5281/zenodo.7334435)

Benchmark Dose Modelling

Data | Fit Models | Advanced Plotting

**Control data loading**

Browse... RatStudy.csv [Upload complete](#)

Subset of Data According to

Which response(s) do you want to consider?

Type of Response: continuous summary

Show 15 entries Search:

Dose	N	MeanAbsOvaryWeight	SdAbsOvaryWeight
0	6	0.108	0.016
26	6	0.097	0.014
100	6	0.059	0.009
1000	6	0.059	0.009

Showing 1 to 4 of 4 entries Previous **1** Next

*You can select rows in the table that should be excluded from the analysis (outliers).*



**THANK YOU**

